

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

Summary:

All Cables

Total: 105
Pass: 103
Fail: 2

Twisted Pair

Total: 105
Pass: 103
Fail: 2
Tot. Length: 3292.10m

Coax/Twinax

Total: 0
Pass: 0
Fail: 0
Tot. Length: 0.00m

Fiber

Total: 0
Pass: 0
Fail: 0
Tot. Length: 0.00m

Custom

Total: 0
Pass: 0
Fail: 0
Tot. Length: 0.00m

PASS

Cable ID 1: 1/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:09:17
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap

	1	2	3	4	5	6	7	8	S
DH									
RH									
	1	2	3	4	5	6	7	8	S

PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	23.1m	23.3m	23.5m	23.6m	< 90.0m	Pass
Prop. Delay	127.7ns	128.7ns	130.1ns	128.7ns	< 498.0ns	Pass
Delay Skew	2.4ns (Pairs 5,4 vs. 7,8)				< 44.0 ns	Pass
Headroom	12.0 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	42.0 dB @ 56.25MHz	40.2 dB	> 36.4 dB	5.6 dB
7,8-5,4	DH	Pass	62.8 dB @ 12.85MHz	52.8 dB	> 46.8 dB	16.0 dB
7,8-1,2	DH	Pass	44.6 dB @ 87.50MHz	44.6 dB	> 33.3 dB	11.3 dB
3,6-5,4	DH	Pass	54.9 dB @ 4.45MHz	38.7 dB	> 54.1 dB	0.8 dB
3,6-1,2	DH	Pass	46.4 dB @ 55.75MHz	44.6 dB	> 36.5 dB	9.9 dB
5,4-1,2	DH	Pass	53.5 dB @ 20.65MHz	45.5 dB	> 43.4 dB	10.1 dB
7,8-3,6	RH	Pass	38.0 dB @ 89.25MHz	37.9 dB	> 33.1 dB	4.9 dB
7,8-5,4	RH	Pass	52.1 dB @ 47.00MHz	48.0 dB	> 37.7 dB	14.4 dB
7,8-1,2	RH	Pass	45.1 dB @ 87.75MHz	45.1 dB	> 33.2 dB	11.9 dB
3,6-5,4	RH	Pass	57.1 dB @ 4.45MHz	40.0 dB	> 54.1 dB	3.0 dB
3,6-1,2	RH	Pass	48.0 dB @ 50.50MHz	45.3 dB	> 37.2 dB	10.8 dB
5,4-1,2	RH	Pass	53.3 dB @ 20.95MHz	45.8 dB	> 43.3 dB	10.0 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	17.5 dB @ 1.60MHz	17.5 dB	> 19.0 dB	-1.5 dB
3,6	DH	Pass	18.4 dB @ 1.60MHz	18.4 dB	> 19.0 dB	-0.6 dB
5,4	DH	Pass	18.8 dB @ 1.60MHz	18.8 dB	> 19.0 dB	-0.2 dB
1,2	DH	Pass	18.0 dB @ 1.60MHz	18.0 dB	> 19.0 dB	-1.0 dB
7,8	RH	Pass	17.4 dB @ 1.60MHz	17.4 dB	> 19.0 dB	-1.6 dB
3,6	RH	Pass	18.0 dB @ 1.60MHz	18.0 dB	> 19.0 dB	-1.0 dB
5,4	RH	Pass	20.1 dB @ 1.45MHz	19.0 dB	> 19.0 dB	1.1 dB
1,2	RH	Pass	18.1 dB @ 1.60MHz	17.7 dB	> 19.0 dB	-0.9 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.0 dB @ 2.50MHz	5.9 dB	< 3.1 dB	2.1 dB
3,6	Pass	1.0 dB @ 2.50MHz	5.7 dB	< 3.1 dB	2.1 dB
5,4	Pass	1.0 dB @ 2.50MHz	6.1 dB	< 3.1 dB	2.1 dB
1,2	Pass	1.0 dB @ 2.50MHz	5.7 dB	< 3.1 dB	2.1 dB

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Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:09:17
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	34.3 dB @ 98.50MHz	N/A	>= 11.6 dB	22.7 dB
3,6	DH	Pass	34.1 dB @ 69.50MHz	N/A	>= 17.7 dB	16.4 dB
5,4	DH	Pass	33.7 dB @ 69.50MHz	N/A	>= 17.7 dB	16.0 dB
1,2	DH	Pass	39.2 dB @ 87.50MHz	N/A	>= 13.8 dB	25.4 dB
7,8	RH	Pass	32.0 dB @ 98.50MHz	N/A	>= 11.6 dB	20.4 dB
3,6	RH	Pass	32.3 dB @ 98.50MHz	N/A	>= 11.6 dB	20.7 dB
5,4	RH	Pass	34.1 dB @ 92.75MHz	N/A	>= 12.7 dB	21.4 dB
1,2	RH	Pass	39.7 dB @ 87.75MHz	N/A	>= 13.7 dB	26.0 dB

ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	42.7 dB @ 92.00MHz	42.7 dB	> 19.3 dB	23.4 dB
7,8-5,4	DH	Pass	54.5 dB @ 12.25MHz	39.5 dB	> 36.9 dB	17.6 dB
7,8-1,2	DH	Pass	64.9 dB @ 12.40MHz	50.7 dB	> 36.7 dB	28.2 dB
3,6-7,8	DH	Pass	47.5 dB @ 98.50MHz	47.5 dB	> 18.7 dB	28.8 dB
3,6-5,4	DH	Pass	40.4 dB @ 69.25MHz	39.0 dB	> 21.8 dB	18.6 dB
3,6-1,2	DH	Pass	48.3 dB @ 70.50MHz	46.9 dB	> 21.7 dB	26.6 dB
5,4-7,8	DH	Pass	53.0 dB @ 13.45MHz	38.8 dB	> 36.0 dB	17.0 dB
5,4-3,6	DH	Pass	54.9 dB @ 8.05MHz	35.7 dB	> 40.5 dB	14.4 dB
5,4-1,2	DH	Pass	55.7 dB @ 8.20MHz	35.7 dB	> 40.3 dB	15.4 dB
1,2-7,8	DH	Pass	64.6 dB @ 13.00MHz	49.3 dB	> 36.3 dB	28.3 dB
1,2-3,6	DH	Pass	43.7 dB @ 97.00MHz	43.7 dB	> 18.9 dB	24.8 dB
1,2-5,4	DH	Pass	56.2 dB @ 8.20MHz	35.6 dB	> 40.3 dB	15.9 dB
7,8-3,6	RH	Pass	42.5 dB @ 92.00MHz	42.5 dB	> 19.3 dB	23.2 dB
7,8-5,4	RH	Pass	62.2 dB @ 5.05MHz	39.7 dB	> 44.5 dB	17.7 dB
7,8-1,2	RH	Pass	65.0 dB @ 12.40MHz	50.7 dB	> 36.7 dB	28.3 dB
3,6-7,8	RH	Pass	47.8 dB @ 98.50MHz	47.8 dB	> 18.7 dB	29.1 dB
3,6-5,4	RH	Pass	63.5 dB @ 4.75MHz	39.4 dB	> 45.1 dB	18.4 dB
3,6-1,2	RH	Pass	48.4 dB @ 70.50MHz	46.8 dB	> 21.7 dB	26.7 dB
5,4-7,8	RH	Pass	52.9 dB @ 13.45MHz	38.5 dB	> 36.0 dB	16.9 dB
5,4-3,6	RH	Pass	54.7 dB @ 8.05MHz	35.3 dB	> 40.5 dB	14.2 dB
5,4-1,2	RH	Pass	55.6 dB @ 8.20MHz	35.3 dB	> 40.3 dB	15.3 dB
1,2-7,8	RH	Pass	65.0 dB @ 12.40MHz	49.6 dB	> 36.7 dB	28.3 dB
1,2-3,6	RH	Pass	43.7 dB @ 97.00MHz	43.7 dB	> 18.9 dB	24.8 dB
1,2-5,4	RH	Pass	58.7 dB @ 6.10MHz	36.0 dB	> 42.9 dB	15.8 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	41.2 dB @ 56.25MHz	39.3 dB	> 33.4 dB	7.8 dB
3,6	DH	Pass	54.2 dB @ 4.45MHz	36.5 dB	> 51.1 dB	3.1 dB
5,4	DH	Pass	54.5 dB @ 4.45MHz	38.4 dB	> 51.1 dB	3.4 dB
1,2	DH	Pass	44.7 dB @ 55.75MHz	41.6 dB	> 33.5 dB	11.2 dB
7,8	RH	Pass	37.2 dB @ 89.25MHz	37.2 dB	> 30.1 dB	7.1 dB
3,6	RH	Pass	39.9 dB @ 42.00MHz	36.0 dB	> 35.5 dB	4.4 dB
5,4	RH	Pass	56.4 dB @ 4.45MHz	39.1 dB	> 51.1 dB	5.3 dB
1,2	RH	Pass	64.3 dB @ 3.85MHz	43.4 dB	> 52.1 dB	12.2 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	33.4 dB @ 98.50MHz	N/A	>= 8.6 dB	24.8 dB
3,6	DH	Pass	31.6 dB @ 69.50MHz	N/A	>= 14.7 dB	16.9 dB
5,4	DH	Pass	33.3 dB @ 78.75MHz	N/A	>= 12.6 dB	20.7 dB
1,2	DH	Pass	36.3 dB @ 87.00MHz	N/A	>= 10.9 dB	25.4 dB
7,8	RH	Pass	31.4 dB @ 98.50MHz	N/A	>= 8.6 dB	22.8 dB
3,6	RH	Pass	30.4 dB @ 98.50MHz	N/A	>= 8.6 dB	21.8 dB
5,4	RH	Pass	33.2 dB @ 93.25MHz	N/A	>= 9.6 dB	23.6 dB
1,2	RH	Pass	38.0 dB @ 98.25MHz	N/A	>= 8.6 dB	29.4 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	46.5 dB @ 30.70MHz	38.1 dB	>= 25.9 dB	20.6 dB
3,6	DH	Pass	50.5 dB @ 13.30MHz	34.7 dB	>= 33.1 dB	17.4 dB
5,4	DH	Pass	52.9 dB @ 8.20MHz	32.8 dB	>= 37.3 dB	15.6 dB
1,2	DH	Pass	48.8 dB @ 18.25MHz	35.4 dB	>= 30.4 dB	18.4 dB
7,8	RH	Pass	49.6 dB @ 20.50MHz	38.0 dB	>= 29.4 dB	20.2 dB
3,6	RH	Pass	40.0 dB @ 69.75MHz	38.4 dB	>= 18.7 dB	21.3 dB
5,4	RH	Pass	51.5 dB @ 7.90MHz	31.4 dB	>= 37.7 dB	13.8 dB

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S/W Version: 3.274

PASS

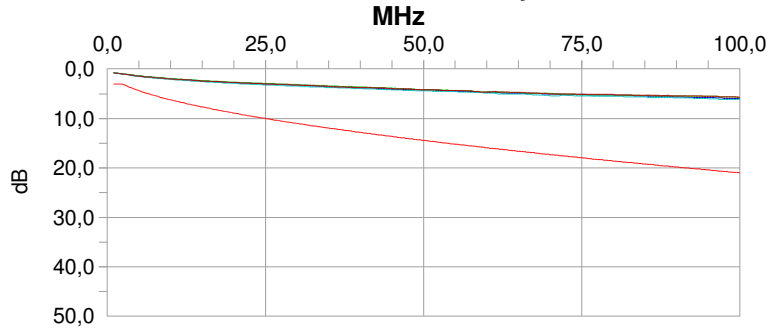
Cable ID 1: 1/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:09:17
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

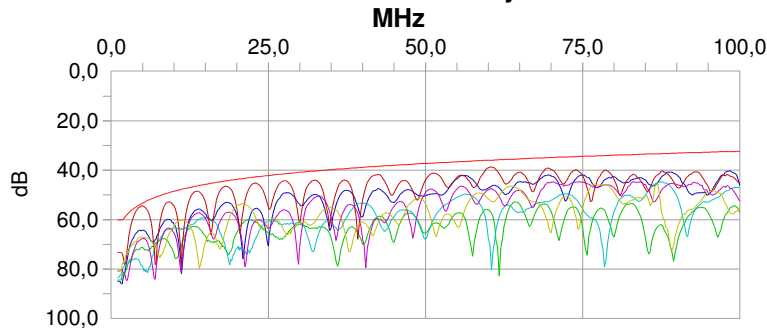
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

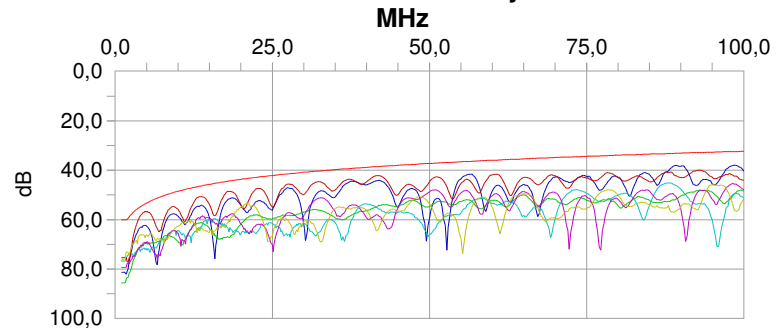
Attenuation Summary



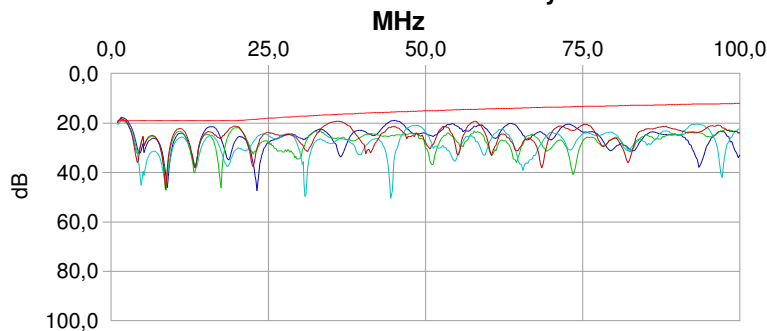
NEXT DH Summary



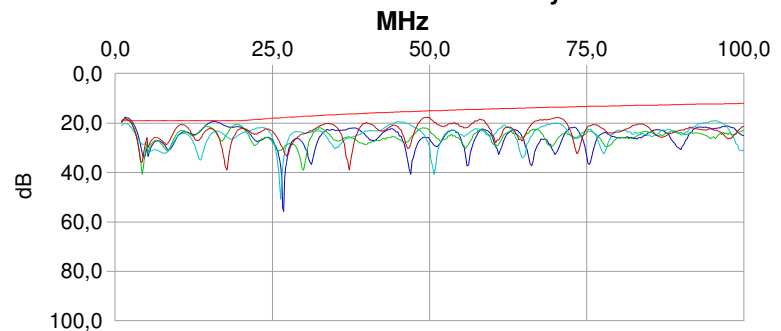
NEXT RH Summary



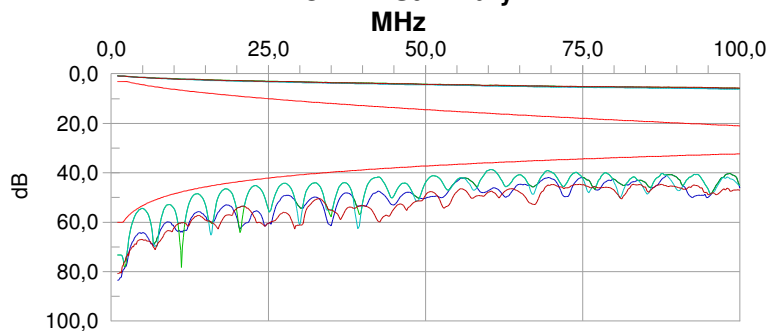
Return Loss DH Summary



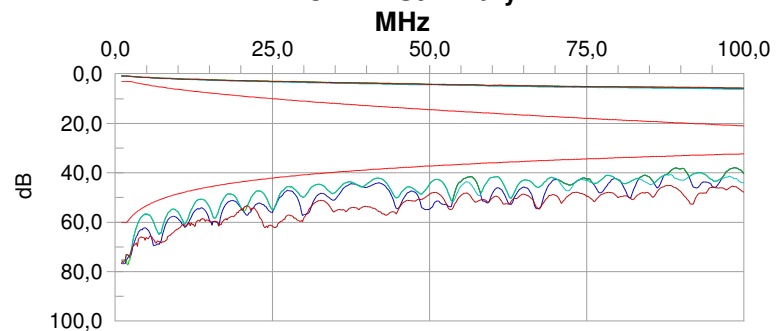
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



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S/W Version: 3.274

PASS

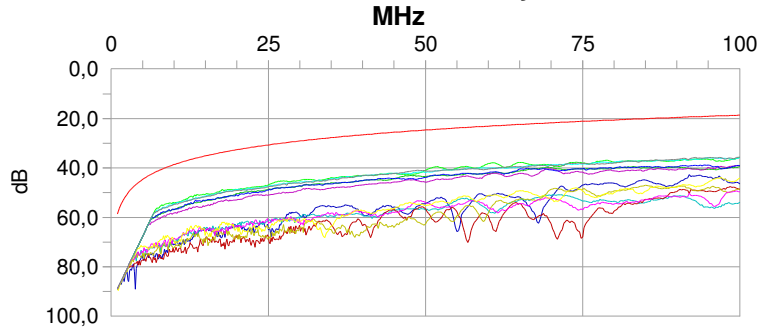
Cable ID 1: 1/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:09:17
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

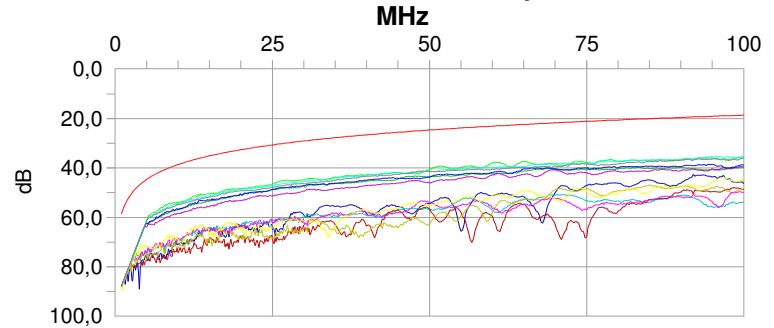
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

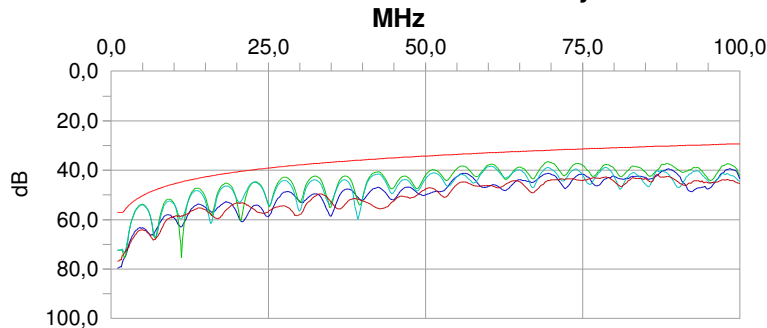
ELFEXT DH Summary



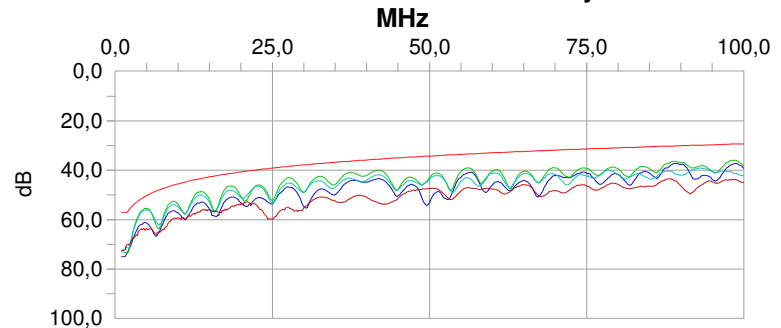
ELFEXT RH Summary



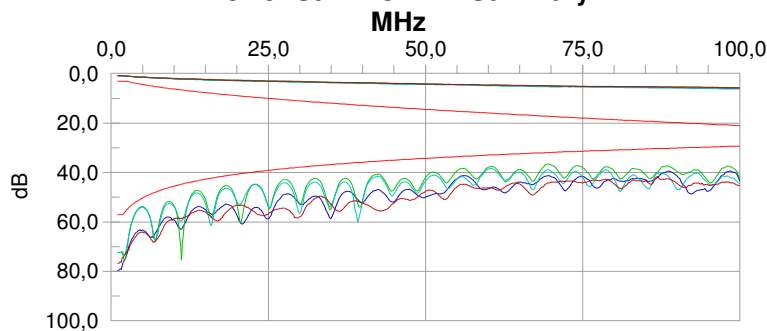
Power Sum NEXT DH Summary



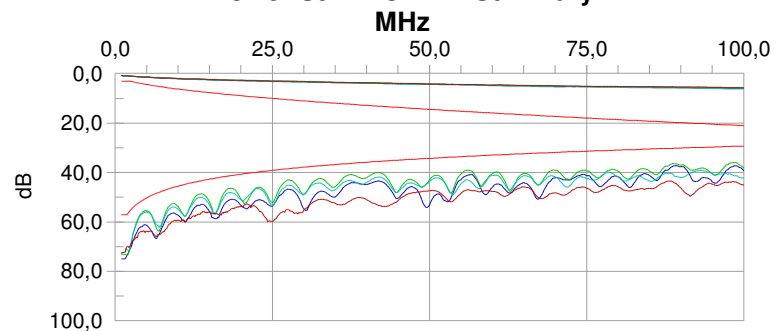
Power Sum NEXT RH Summary



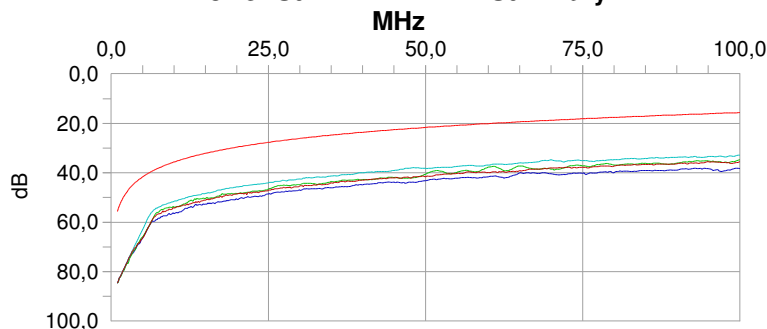
Power Sum ACR DH Summary



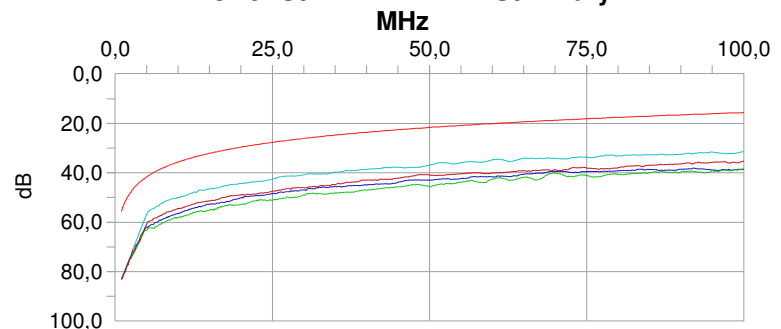
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



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PASS

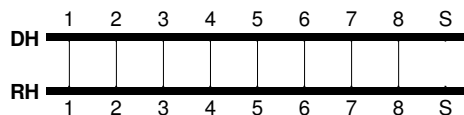
Cable ID 1: 1/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 17:37:41
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	20.9m	21.2m	21.4m	21.1m	< 90.0m	Pass
Prop. Delay	117.2ns	118.7ns	120.1ns	116.8ns	< 498.0ns	Pass
Delay Skew	3.3ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	17.8 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	60.3 dB @ 5.20MHz	42.3 dB	> 53.0 dB	7.3 dB
7,8-5,4	DH	Pass	49.2 dB @ 70.25MHz	49.2 dB	> 34.8 dB	14.4 dB
7,8-1,2	DH	Pass	48.5 dB @ 57.25MHz	46.1 dB	> 36.3 dB	12.2 dB
3,6-5,4	DH	Pass	58.3 dB @ 3.10MHz	40.1 dB	> 56.5 dB	1.8 dB
3,6-1,2	DH	Pass	46.0 dB @ 61.00MHz	44.5 dB	> 35.8 dB	10.2 dB
5,4-1,2	DH	Pass	51.6 dB @ 17.35MHz	43.7 dB	> 44.7 dB	6.9 dB
7,8-3,6	RH	Pass	58.6 dB @ 5.05MHz	42.8 dB	> 53.2 dB	5.4 dB
7,8-5,4	RH	Pass	62.3 dB @ 9.55MHz	46.1 dB	> 48.8 dB	13.5 dB
7,8-1,2	RH	Pass	49.3 dB @ 68.75MHz	48.6 dB	> 35.0 dB	14.3 dB
3,6-5,4	RH	Pass	60.5 dB @ 2.95MHz	41.2 dB	> 56.9 dB	3.6 dB
3,6-1,2	RH	Pass	45.2 dB @ 97.25MHz	45.2 dB	> 32.5 dB	12.7 dB
5,4-1,2	RH	Pass	51.0 dB @ 17.35MHz	40.4 dB	> 44.7 dB	6.3 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	20.7 dB @ 1.60MHz	18.5 dB	> 19.0 dB	1.7 dB
3,6	DH	Pass	20.0 dB @ 1.60MHz	20.0 dB	> 19.0 dB	1.0 dB
5,4	DH	Pass	20.4 dB @ 1.60MHz	19.9 dB	> 19.0 dB	1.4 dB
1,2	DH	Pass	19.6 dB @ 1.60MHz	18.6 dB	> 19.0 dB	0.6 dB
7,8	RH	Pass	20.4 dB @ 1.60MHz	16.1 dB	> 19.0 dB	1.4 dB
3,6	RH	Pass	19.5 dB @ 1.60MHz	19.5 dB	> 19.0 dB	0.5 dB
5,4	RH	Pass	20.7 dB @ 1.90MHz	18.4 dB	> 19.0 dB	1.7 dB
1,2	RH	Pass	19.5 dB @ 1.60MHz	17.6 dB	> 19.0 dB	0.5 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.50MHz	4.5 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.50MHz	4.3 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.7 dB @ 2.50MHz	4.3 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.50MHz	4.2 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	38.1 dB @ 82.75MHz	N/A	>= 14.8 dB	23.3 dB
3,6	DH	Pass	35.9 dB @ 98.25MHz	N/A	>= 11.6 dB	24.3 dB
5,4	DH	Pass	35.9 dB @ 98.25MHz	N/A	>= 11.6 dB	24.3 dB
1,2	DH	Pass	39.7 dB @ 84.25MHz	N/A	>= 14.4 dB	25.3 dB
7,8	RH	Pass	38.4 dB @ 92.25MHz	N/A	>= 12.8 dB	25.6 dB
3,6	RH	Pass	37.2 dB @ 87.75MHz	N/A	>= 13.7 dB	23.5 dB
5,4	RH	Pass	36.1 dB @ 99.25MHz	N/A	>= 11.5 dB	24.6 dB
1,2	RH	Pass	36.2 dB @ 99.25MHz	N/A	>= 11.5 dB	24.7 dB

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NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	40.0 dB @ 98.25MHz	40.0 dB	> 18.8 dB	21.2 dB
7,8-5,4	DH	Pass	49.3 dB @ 19.15MHz	39.1 dB	> 33.0 dB	16.3 dB
7,8-1,2	DH	Pass	48.1 dB @ 84.00MHz	48.1 dB	> 20.1 dB	28.0 dB
3,6-7,8	DH	Pass	43.9 dB @ 95.25MHz	43.9 dB	> 19.0 dB	24.9 dB
3,6-5,4	DH	Pass	56.2 dB @ 7.15MHz	35.8 dB	> 41.5 dB	14.7 dB
3,6-1,2	DH	Pass	57.8 dB @ 8.80MHz	39.7 dB	> 39.7 dB	18.1 dB
5,4-7,8	DH	Pass	52.1 dB @ 13.45MHz	38.1 dB	> 36.0 dB	16.1 dB
5,4-3,6	DH	Pass	50.4 dB @ 8.35MHz	30.9 dB	> 40.2 dB	10.2 dB
5,4-1,2	DH	Pass	59.7 dB @ 6.55MHz	40.6 dB	> 42.3 dB	17.4 dB
1,2-7,8	DH	Pass	49.0 dB @ 82.50MHz	47.5 dB	> 20.3 dB	28.7 dB
1,2-3,6	DH	Pass	55.1 dB @ 7.60MHz	34.6 dB	> 41.0 dB	14.1 dB
1,2-5,4	DH	Pass	50.2 dB @ 19.30MHz	38.8 dB	> 32.9 dB	17.3 dB
7,8-3,6	RH	Pass	39.8 dB @ 98.25MHz	39.8 dB	> 18.8 dB	21.0 dB
7,8-5,4	RH	Pass	60.6 dB @ 5.20MHz	39.1 dB	> 44.3 dB	16.3 dB
7,8-1,2	RH	Pass	47.9 dB @ 84.00MHz	47.9 dB	> 20.1 dB	27.8 dB
3,6-7,8	RH	Pass	44.4 dB @ 95.25MHz	44.4 dB	> 19.0 dB	25.4 dB
3,6-5,4	RH	Pass	58.4 dB @ 5.50MHz	35.9 dB	> 43.8 dB	14.6 dB
3,6-1,2	RH	Pass	62.1 dB @ 5.35MHz	39.7 dB	> 44.0 dB	18.1 dB
5,4-7,8	RH	Pass	52.1 dB @ 13.45MHz	38.3 dB	> 36.0 dB	16.1 dB
5,4-3,6	RH	Pass	50.4 dB @ 8.20MHz	30.8 dB	> 40.3 dB	10.1 dB
5,4-1,2	RH	Pass	59.7 dB @ 6.55MHz	40.4 dB	> 42.3 dB	17.4 dB
1,2-7,8	RH	Pass	49.1 dB @ 83.25MHz	47.6 dB	> 20.2 dB	28.9 dB
1,2-3,6	RH	Pass	55.7 dB @ 7.00MHz	34.6 dB	> 41.7 dB	14.0 dB
1,2-5,4	RH	Pass	50.3 dB @ 19.30MHz	39.0 dB	> 32.9 dB	17.4 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	60.0 dB @ 4.90MHz	41.1 dB	> 50.4 dB	9.6 dB
3,6	DH	Pass	57.1 dB @ 3.55MHz	38.4 dB	> 52.6 dB	4.5 dB
5,4	DH	Pass	57.7 dB @ 3.10MHz	39.2 dB	> 53.5 dB	4.2 dB
1,2	DH	Pass	51.5 dB @ 17.35MHz	40.5 dB	> 41.7 dB	9.8 dB
7,8	RH	Pass	57.9 dB @ 5.05MHz	41.4 dB	> 50.2 dB	7.7 dB
3,6	RH	Pass	60.2 dB @ 2.95MHz	39.3 dB	> 53.9 dB	6.3 dB
5,4	RH	Pass	59.6 dB @ 2.95MHz	37.8 dB	> 53.9 dB	5.7 dB
1,2	RH	Pass	39.5 dB @ 84.50MHz	39.3 dB	> 30.5 dB	9.0 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	36.9 dB @ 82.75MHz	N/A	>= 11.8 dB	25.1 dB
3,6	DH	Pass	34.2 dB @ 98.25MHz	N/A	>= 8.6 dB	25.6 dB
5,4	DH	Pass	35.1 dB @ 98.25MHz	N/A	>= 8.6 dB	26.5 dB
1,2	DH	Pass	36.5 dB @ 84.50MHz	N/A	>= 11.4 dB	25.1 dB
7,8	RH	Pass	37.0 dB @ 92.25MHz	N/A	>= 9.8 dB	27.2 dB
3,6	RH	Pass	35.2 dB @ 97.25MHz	N/A	>= 8.8 dB	26.4 dB
5,4	RH	Pass	33.5 dB @ 99.00MHz	N/A	>= 8.5 dB	25.0 dB
1,2	RH	Pass	35.1 dB @ 98.75MHz	N/A	>= 8.6 dB	26.5 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	44.8 dB @ 34.50MHz	36.9 dB	>= 24.9 dB	19.9 dB
3,6	DH	Pass	44.9 dB @ 13.45MHz	29.1 dB	>= 33.0 dB	11.9 dB
5,4	DH	Pass	52.9 dB @ 7.15MHz	33.2 dB	>= 38.5 dB	14.4 dB
1,2	DH	Pass	51.2 dB @ 13.30MHz	37.0 dB	>= 33.1 dB	18.1 dB
7,8	RH	Pass	48.7 dB @ 19.75MHz	36.8 dB	>= 29.7 dB	19.0 dB
3,6	RH	Pass	38.4 dB @ 51.00MHz	34.0 dB	>= 21.5 dB	16.9 dB
5,4	RH	Pass	50.9 dB @ 6.55MHz	29.8 dB	>= 39.3 dB	11.6 dB
1,2	RH	Pass	49.4 dB @ 12.10MHz	33.1 dB	>= 34.0 dB	15.4 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

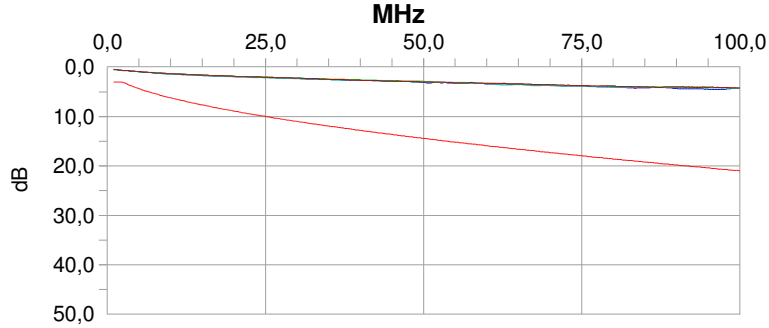
Cable ID 1: 1/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 17:37:41
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

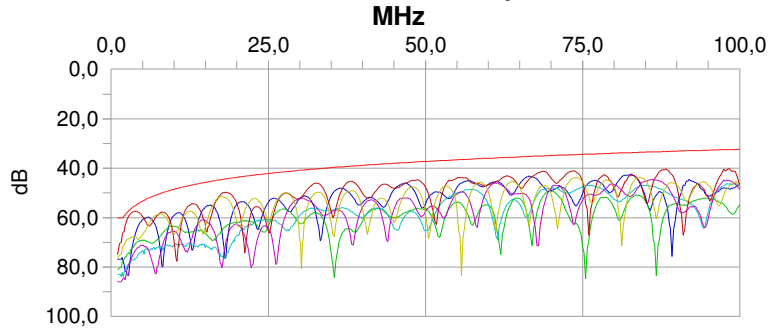
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

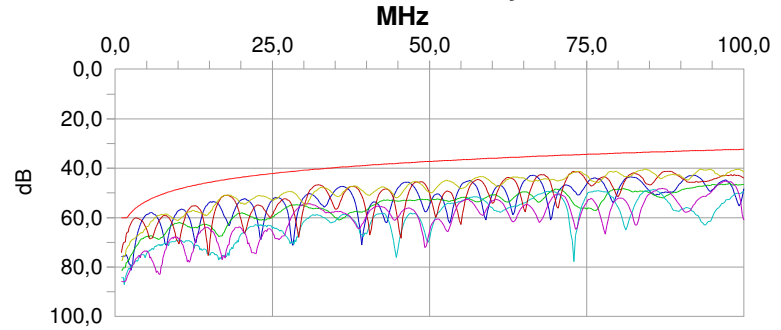
Attenuation Summary



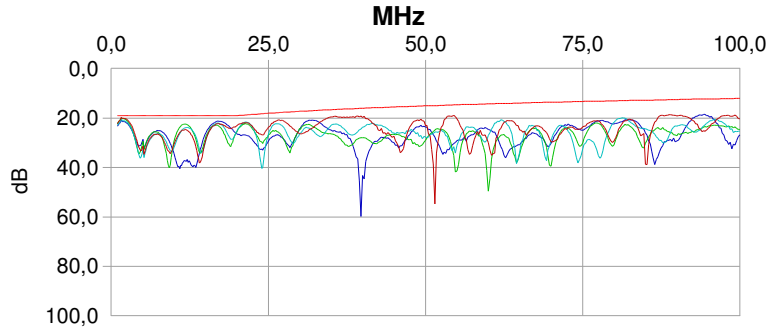
NEXT DH Summary



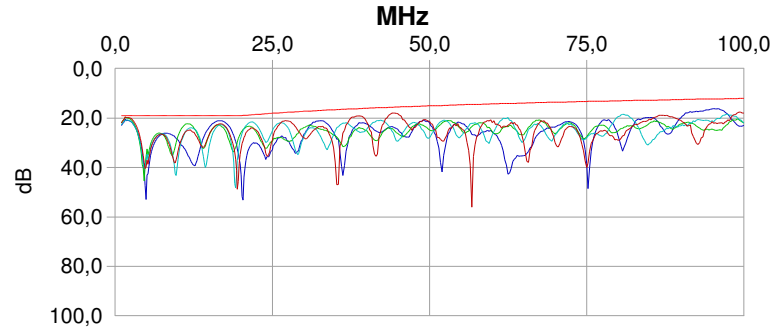
NEXT RH Summary



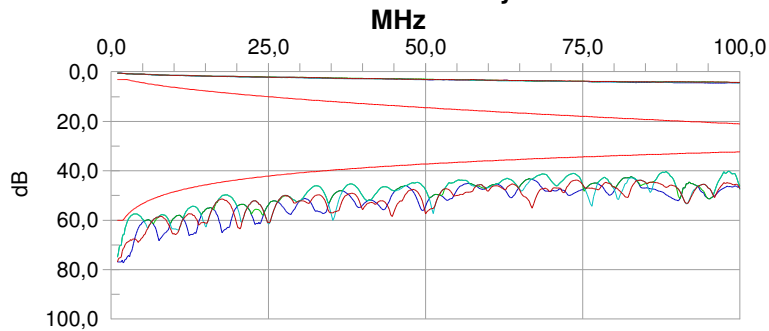
Return Loss DH Summary



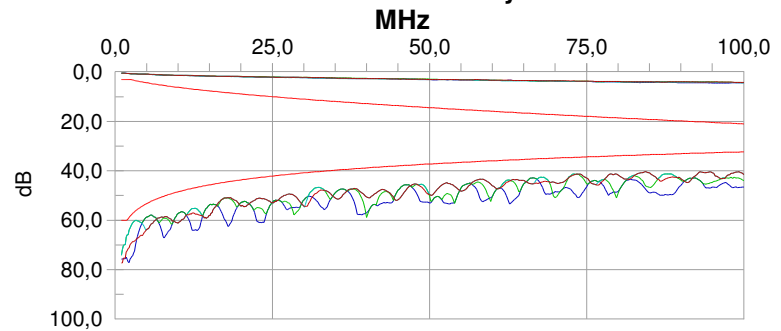
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

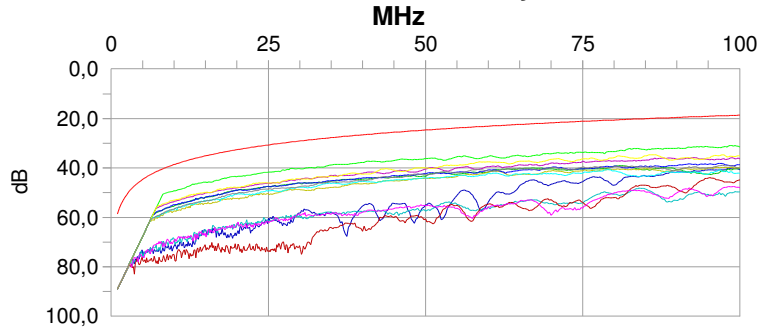
Cable ID 1: 1/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 17:37:41
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

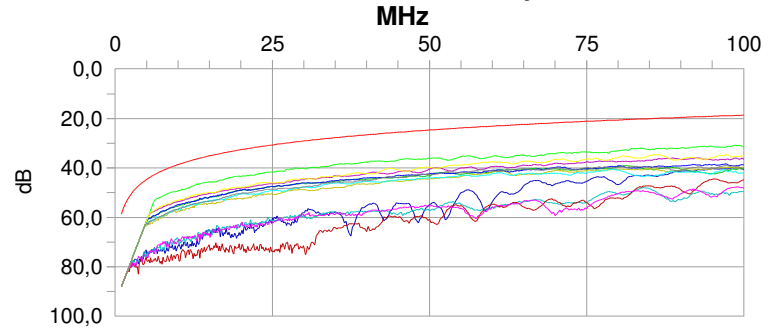
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

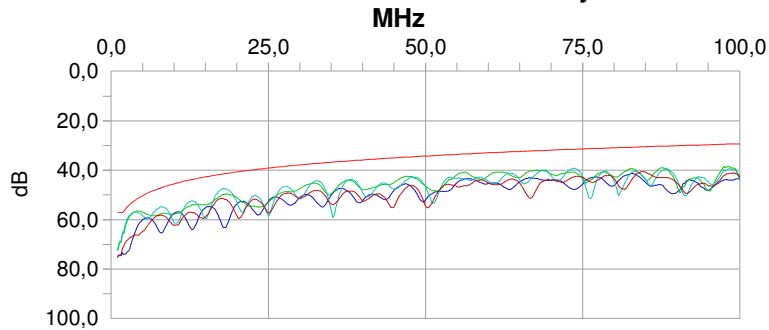
ELFEXT DH Summary



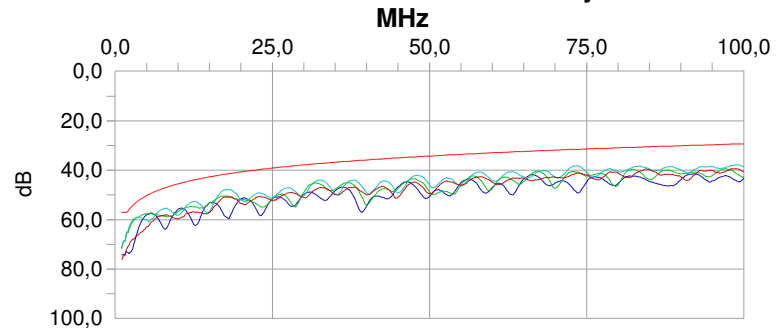
ELFEXT RH Summary



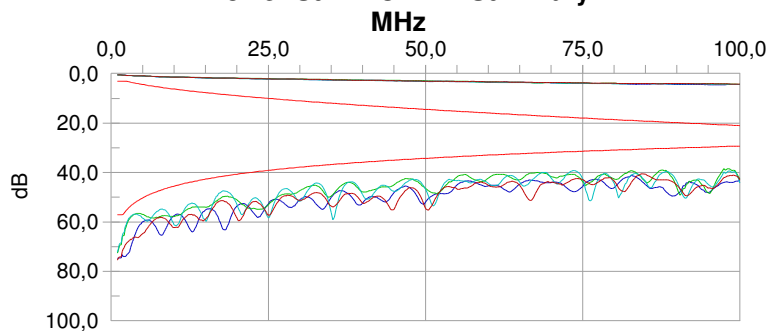
Power Sum NEXT DH Summary



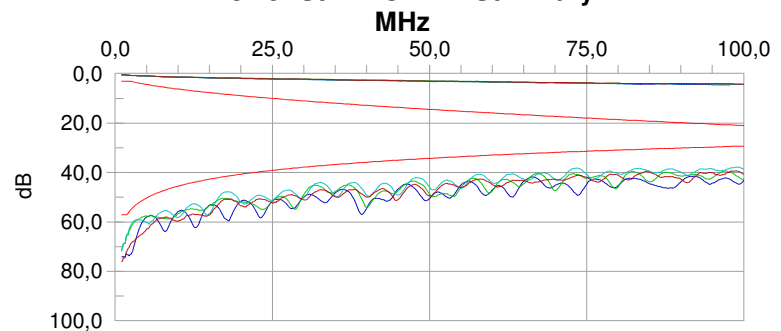
Power Sum NEXT RH Summary



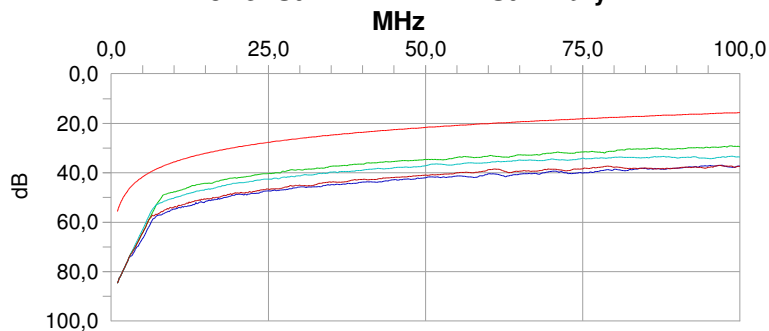
Power Sum ACR DH Summary



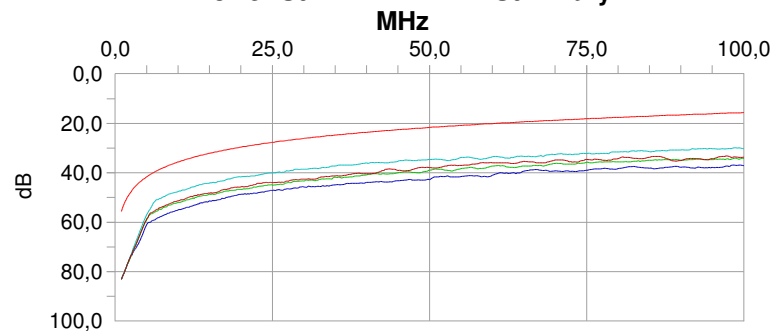
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

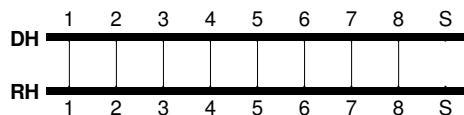
Cable ID 1: 1/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:14:46
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	26.3m	25.9m	25.6m	26.6m	< 90.0m	Pass
Prop. Delay	142.5ns	140.9ns	139.9ns	142.5ns	< 498.0ns	Pass
Delay Skew	2.6ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
Headroom	16.3 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	43.6 dB @ 51.50MHz	39.4 dB	> 37.0 dB	6.6 dB
7,8-5,4	DH	Pass	52.4 dB @ 34.00MHz	48.1 dB	> 40.0 dB	12.4 dB
7,8-1,2	DH	Pass	50.0 dB @ 59.50MHz	49.5 dB	> 36.0 dB	14.0 dB
3,6-5,4	DH	Pass	52.4 dB @ 5.95MHz	37.8 dB	> 52.1 dB	0.3 dB
3,6-1,2	DH	Pass	45.5 dB @ 65.25MHz	45.5 dB	> 35.3 dB	10.2 dB
5,4-1,2	DH	Pass	49.0 dB @ 30.55MHz	43.9 dB	> 40.7 dB	8.3 dB
7,8-3,6	RH	Pass	44.8 dB @ 52.75MHz	43.1 dB	> 36.9 dB	7.9 dB
7,8-5,4	RH	Pass	53.2 dB @ 34.00MHz	51.2 dB	> 40.0 dB	13.2 dB
7,8-1,2	RH	Pass	54.8 dB @ 53.25MHz	53.6 dB	> 36.8 dB	18.0 dB
3,6-5,4	RH	Pass	54.6 dB @ 5.95MHz	37.2 dB	> 52.1 dB	2.5 dB
3,6-1,2	RH	Pass	51.4 dB @ 65.25MHz	50.4 dB	> 35.3 dB	16.1 dB
5,4-1,2	RH	Pass	47.4 dB @ 30.55MHz	41.7 dB	> 40.7 dB	6.7 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.7 dB @ 1.60MHz	22.7 dB	> 19.0 dB	3.7 dB
3,6	DH	Pass	22.1 dB @ 1.60MHz	22.1 dB	> 19.0 dB	3.1 dB
5,4	DH	Pass	20.7 dB @ 17.80MHz	20.5 dB	> 19.0 dB	1.7 dB
1,2	DH	Pass	23.3 dB @ 1.60MHz	22.8 dB	> 19.0 dB	4.3 dB
7,8	RH	Pass	22.4 dB @ 1.60MHz	22.4 dB	> 19.0 dB	3.4 dB
3,6	RH	Pass	21.3 dB @ 1.60MHz	21.3 dB	> 19.0 dB	2.3 dB
5,4	RH	Pass	20.5 dB @ 18.10MHz	19.3 dB	> 19.0 dB	1.5 dB
1,2	RH	Pass	22.9 dB @ 1.45MHz	20.3 dB	> 19.0 dB	3.9 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.8 dB @ 2.50MHz	5.3 dB	< 3.1 dB	2.3 dB
3,6	Pass	0.7 dB @ 2.50MHz	5.1 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.8 dB @ 2.50MHz	5.1 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.8 dB @ 2.50MHz	5.3 dB	< 3.1 dB	2.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	34.1 dB @ 99.50MHz	N/A	>= 11.4 dB	22.7 dB
3,6	DH	Pass	33.2 dB @ 77.00MHz	N/A	>= 16.0 dB	17.2 dB
5,4	DH	Pass	33.2 dB @ 77.00MHz	N/A	>= 16.0 dB	17.2 dB
1,2	DH	Pass	39.2 dB @ 76.75MHz	N/A	>= 16.0 dB	23.2 dB
7,8	RH	Pass	38.4 dB @ 78.25MHz	N/A	>= 15.8 dB	22.6 dB
3,6	RH	Pass	32.2 dB @ 94.75MHz	N/A	>= 12.3 dB	19.9 dB
5,4	RH	Pass	32.2 dB @ 94.75MHz	N/A	>= 12.3 dB	19.9 dB
1,2	RH	Pass	36.6 dB @ 93.25MHz	N/A	>= 12.6 dB	24.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:14:46
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	58.0 dB @ 7.90MHz	36.8 dB	> 40.7 dB	17.3 dB
7,8-5,4	DH	Pass	53.2 dB @ 10.45MHz	37.1 dB	> 38.2 dB	15.0 dB
7,8-1,2	DH	Pass	67.2 dB @ 6.70MHz	46.6 dB	> 42.1 dB	25.1 dB
3,6-7,8	DH	Pass	63.6 dB @ 7.00MHz	41.3 dB	> 41.7 dB	21.9 dB
3,6-5,4	DH	Pass	52.0 dB @ 69.50MHz	49.2 dB	> 21.8 dB	30.2 dB
3,6-1,2	DH	Pass	45.0 dB @ 66.50MHz	43.5 dB	> 22.2 dB	22.8 dB
5,4-7,8	DH	Pass	56.4 dB @ 7.15MHz	36.6 dB	> 41.5 dB	14.9 dB
5,4-3,6	DH	Pass	46.1 dB @ 51.75MHz	42.2 dB	> 24.3 dB	21.8 dB
5,4-1,2	DH	Pass	57.5 dB @ 7.90MHz	41.2 dB	> 40.7 dB	16.8 dB
1,2-7,8	DH	Pass	67.1 dB @ 7.15MHz	46.3 dB	> 41.5 dB	25.6 dB
1,2-3,6	DH	Pass	60.6 dB @ 6.85MHz	38.7 dB	> 41.9 dB	18.7 dB
1,2-5,4	DH	Pass	58.7 dB @ 6.70MHz	40.4 dB	> 42.1 dB	16.6 dB
7,8-3,6	RH	Pass	38.8 dB @ 70.00MHz	36.7 dB	> 21.7 dB	17.1 dB
7,8-5,4	RH	Pass	53.2 dB @ 10.45MHz	36.9 dB	> 38.2 dB	15.0 dB
7,8-1,2	RH	Pass	67.2 dB @ 6.70MHz	46.7 dB	> 42.1 dB	25.1 dB
3,6-7,8	RH	Pass	68.6 dB @ 4.00MHz	41.5 dB	> 46.6 dB	22.0 dB
3,6-5,4	RH	Pass	50.0 dB @ 86.50MHz	49.2 dB	> 19.9 dB	30.1 dB
3,6-1,2	RH	Pass	68.5 dB @ 4.00MHz	43.6 dB	> 46.6 dB	21.9 dB
5,4-7,8	RH	Pass	56.4 dB @ 7.15MHz	36.7 dB	> 41.5 dB	14.9 dB
5,4-3,6	RH	Pass	46.1 dB @ 51.75MHz	42.2 dB	> 24.3 dB	21.8 dB
5,4-1,2	RH	Pass	57.6 dB @ 7.90MHz	41.4 dB	> 40.7 dB	16.9 dB
1,2-7,8	RH	Pass	67.1 dB @ 7.15MHz	46.2 dB	> 41.5 dB	25.6 dB
1,2-3,6	RH	Pass	60.4 dB @ 6.85MHz	38.6 dB	> 41.9 dB	18.5 dB
1,2-5,4	RH	Pass	58.5 dB @ 6.70MHz	40.2 dB	> 42.1 dB	16.4 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	43.2 dB @ 51.50MHz	39.1 dB	> 34.0 dB	9.2 dB
3,6	DH	Pass	51.9 dB @ 5.95MHz	36.5 dB	> 49.1 dB	2.8 dB
5,4	DH	Pass	52.1 dB @ 5.95MHz	36.8 dB	> 49.1 dB	3.0 dB
1,2	DH	Pass	43.7 dB @ 60.50MHz	42.0 dB	> 32.9 dB	10.8 dB
7,8	RH	Pass	44.0 dB @ 52.75MHz	42.9 dB	> 33.9 dB	10.1 dB
3,6	RH	Pass	53.8 dB @ 5.95MHz	36.7 dB	> 49.1 dB	4.7 dB
5,4	RH	Pass	47.7 dB @ 14.20MHz	35.8 dB	> 43.1 dB	4.6 dB
1,2	RH	Pass	47.1 dB @ 30.55MHz	41.2 dB	> 37.7 dB	9.4 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	33.8 dB @ 99.50MHz	N/A	>= 8.4 dB	25.4 dB
3,6	DH	Pass	31.4 dB @ 98.50MHz	N/A	>= 8.6 dB	22.8 dB
5,4	DH	Pass	32.2 dB @ 77.00MHz	N/A	>= 13.0 dB	19.2 dB
1,2	DH	Pass	37.2 dB @ 77.00MHz	N/A	>= 13.0 dB	24.2 dB
7,8	RH	Pass	38.1 dB @ 98.75MHz	N/A	>= 8.6 dB	29.5 dB
3,6	RH	Pass	31.8 dB @ 94.50MHz	N/A	>= 9.4 dB	22.4 dB
5,4	RH	Pass	30.8 dB @ 94.75MHz	N/A	>= 9.3 dB	21.5 dB
1,2	RH	Pass	36.0 dB @ 95.00MHz	N/A	>= 9.3 dB	26.7 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	55.4 dB @ 7.15MHz	35.0 dB	>= 38.5 dB	16.9 dB
3,6	DH	Pass	39.0 dB @ 52.25MHz	34.1 dB	>= 21.3 dB	17.7 dB
5,4	DH	Pass	47.6 dB @ 16.15MHz	35.4 dB	>= 31.5 dB	16.1 dB
1,2	DH	Pass	56.4 dB @ 7.90MHz	39.2 dB	>= 37.7 dB	18.7 dB
7,8	RH	Pass	53.7 dB @ 7.90MHz	33.7 dB	>= 37.7 dB	16.0 dB
3,6	RH	Pass	41.2 dB @ 70.25MHz	39.1 dB	>= 18.7 dB	22.5 dB
5,4	RH	Pass	49.9 dB @ 11.95MHz	35.2 dB	>= 34.1 dB	15.8 dB
1,2	RH	Pass	52.6 dB @ 10.60MHz	36.1 dB	>= 35.1 dB	17.5 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

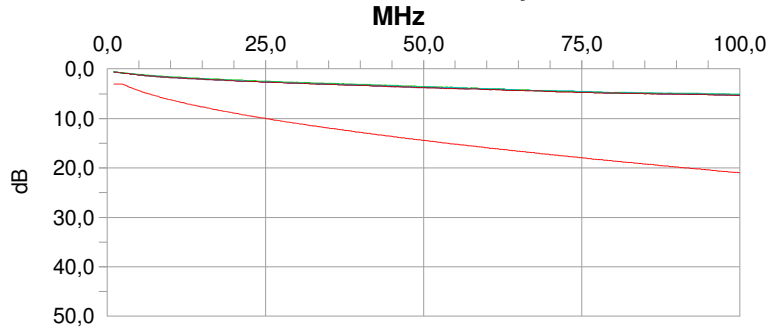
Cable ID 1: 1/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:14:46
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

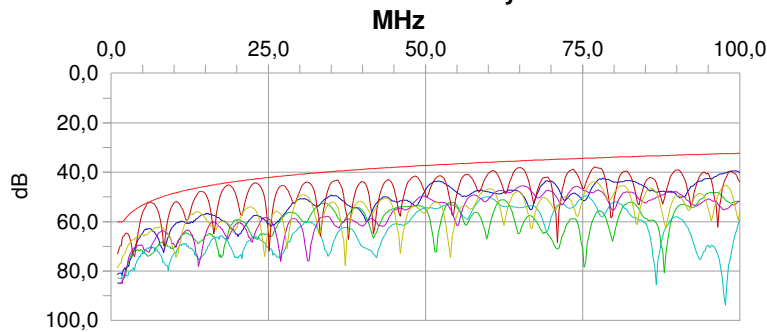
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

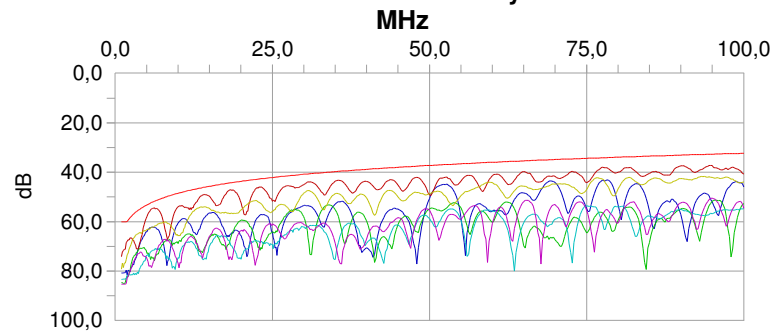
Attenuation Summary



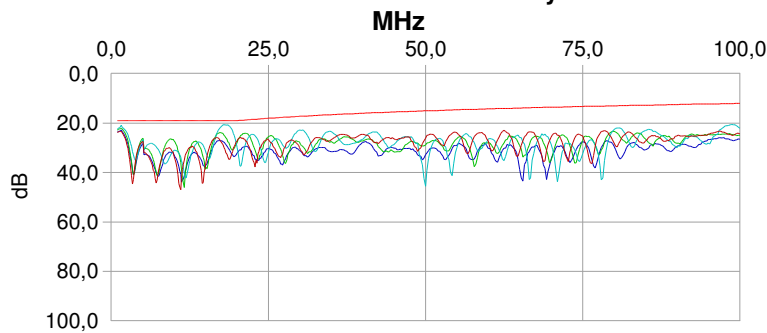
NEXT DH Summary



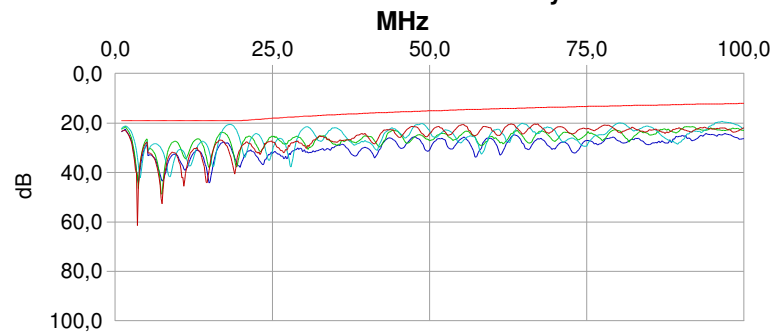
NEXT RH Summary



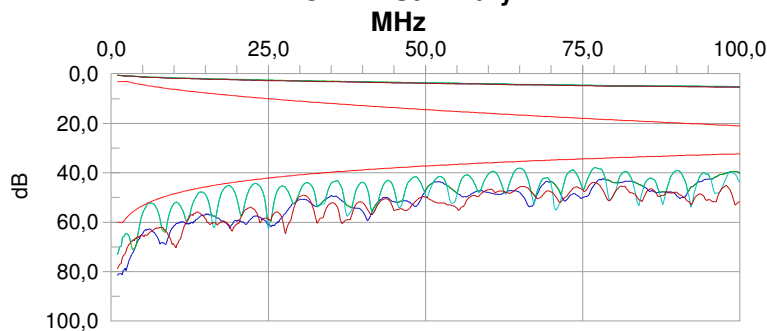
Return Loss DH Summary



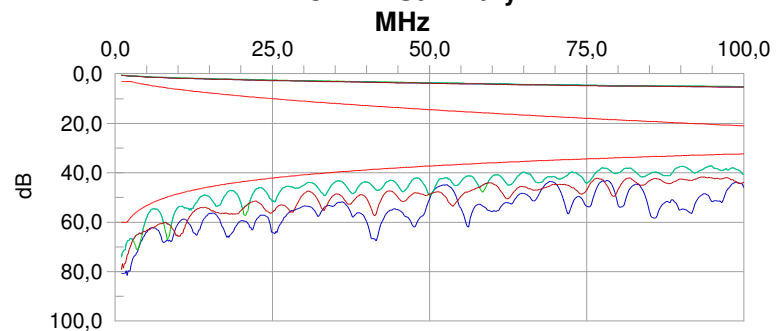
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

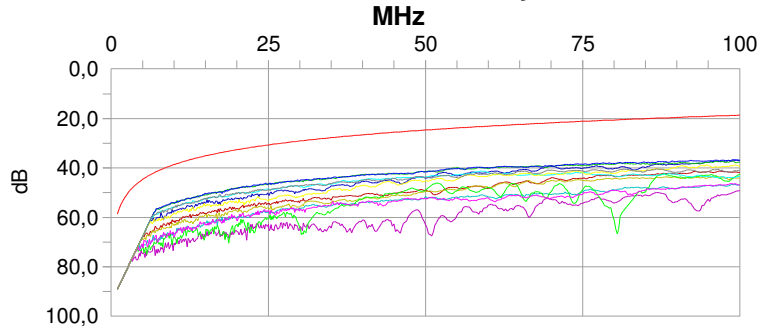
Cable ID 1: 1/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:14:46
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

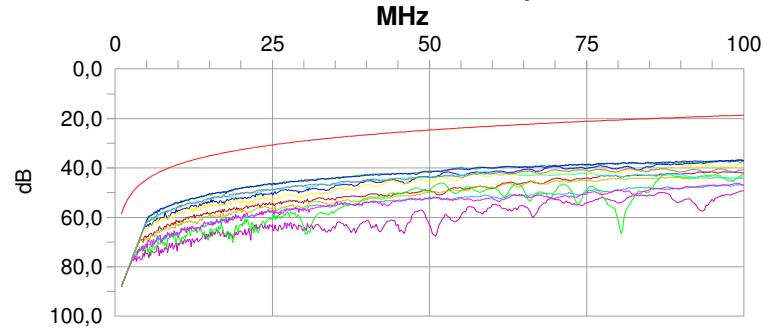
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

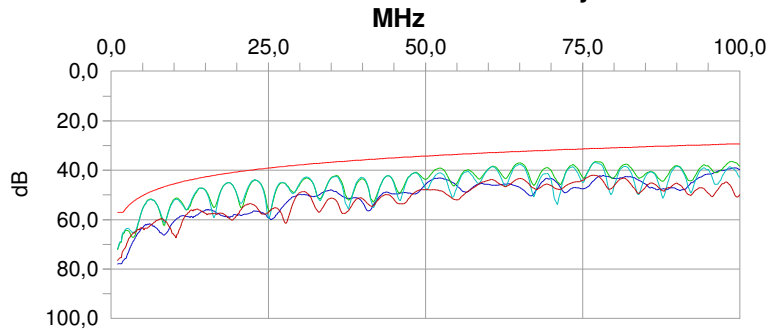
ELFEXT DH Summary



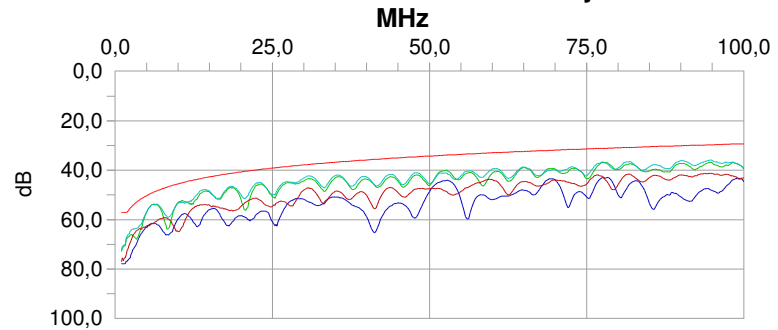
ELFEXT RH Summary



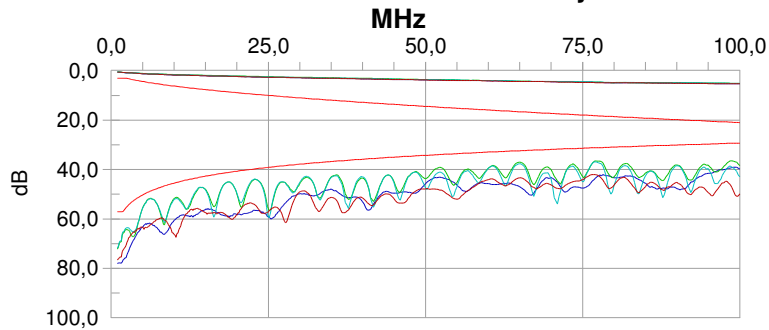
Power Sum NEXT DH Summary



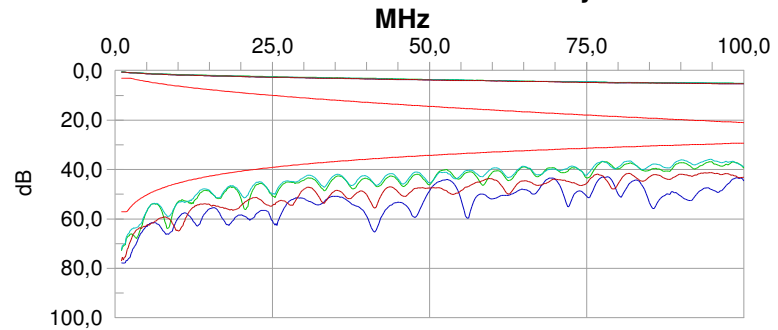
Power Sum NEXT RH Summary



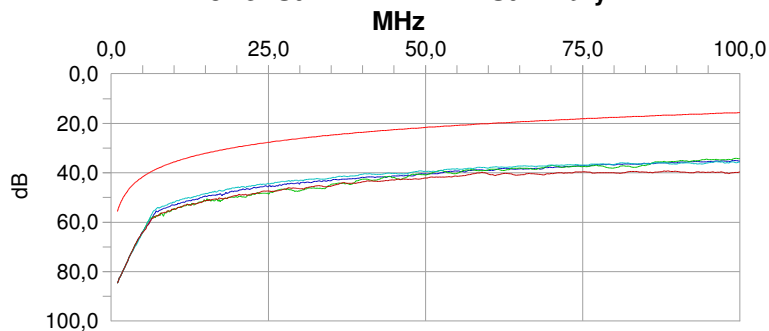
Power Sum ACR DH Summary



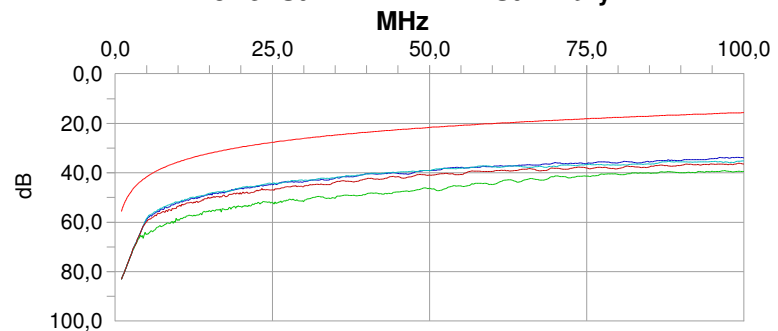
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

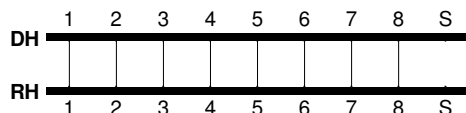
Cable ID 1: 1/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:22:09
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	7.0m	6.9m	6.8m	7.2m	< 90.0m	Pass
Prop. Delay	51.0ns	50.8ns	50.8ns	50.8ns	< 498.0ns	Pass
Delay Skew		0.2ns (Pairs 7,8 vs. 1,2)			< 44.0 ns	Pass
Headroom		17.7 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	40.5 dB @ 91.00MHz	40.5 dB	> 33.0 dB	7.5 dB
7,8-5,4	DH	Pass	50.3 dB @ 60.50MHz	49.3 dB	> 35.9 dB	14.4 dB
7,8-1,2	DH	Pass	51.4 dB @ 80.50MHz	51.3 dB	> 33.9 dB	17.5 dB
3,6-5,4	DH	Pass	39.7 dB @ 55.00MHz	37.8 dB	> 36.6 dB	3.1 dB
3,6-1,2	DH	Pass	47.8 dB @ 72.50MHz	47.2 dB	> 34.6 dB	13.2 dB
5,4-1,2	DH	Pass	49.7 dB @ 30.70MHz	45.9 dB	> 40.7 dB	9.0 dB
7,8-3,6	RH	Pass	38.7 dB @ 91.25MHz	38.7 dB	> 33.0 dB	5.7 dB
7,8-5,4	RH	Pass	50.1 dB @ 60.50MHz	49.9 dB	> 35.9 dB	14.2 dB
7,8-1,2	RH	Pass	52.2 dB @ 77.00MHz	52.0 dB	> 34.2 dB	18.0 dB
3,6-5,4	RH	Pass	41.8 dB @ 55.75MHz	40.2 dB	> 36.5 dB	5.3 dB
3,6-1,2	RH	Pass	51.7 dB @ 72.25MHz	51.7 dB	> 34.6 dB	17.1 dB
5,4-1,2	RH	Pass	49.3 dB @ 31.00MHz	45.9 dB	> 40.6 dB	8.7 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	25.4 dB @ 4.60MHz	24.2 dB	> 19.0 dB	6.4 dB
3,6	DH	Pass	22.6 dB @ 18.70MHz	21.7 dB	> 19.0 dB	3.6 dB
5,4	DH	Pass	20.9 dB @ 21.40MHz	20.9 dB	> 18.7 dB	2.2 dB
1,2	DH	Pass	20.4 dB @ 53.50MHz	20.4 dB	> 14.7 dB	5.7 dB
7,8	RH	Pass	25.3 dB @ 4.60MHz	24.0 dB	> 19.0 dB	6.3 dB
3,6	RH	Pass	22.5 dB @ 18.70MHz	21.9 dB	> 19.0 dB	3.5 dB
5,4	RH	Pass	21.1 dB @ 20.95MHz	20.5 dB	> 18.8 dB	2.3 dB
1,2	RH	Pass	25.6 dB @ 4.90MHz	21.4 dB	> 19.0 dB	6.6 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.3 dB @ 2.50MHz	1.5 dB	< 3.1 dB	2.8 dB
3,6	Pass	0.3 dB @ 2.50MHz	1.4 dB	< 3.1 dB	2.8 dB
5,4	Pass	0.3 dB @ 2.50MHz	1.5 dB	< 3.1 dB	2.8 dB
1,2	Pass	0.3 dB @ 2.50MHz	1.5 dB	< 3.1 dB	2.8 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	39.1 dB @ 91.00MHz	N/A	>= 13.1 dB	26.0 dB
3,6	DH	Pass	36.5 dB @ 73.00MHz	N/A	>= 16.8 dB	19.7 dB
5,4	DH	Pass	36.4 dB @ 73.00MHz	N/A	>= 16.8 dB	19.6 dB
1,2	DH	Pass	44.4 dB @ 92.75MHz	N/A	>= 12.7 dB	31.7 dB
7,8	RH	Pass	37.2 dB @ 92.50MHz	N/A	>= 12.8 dB	24.4 dB
3,6	RH	Pass	37.4 dB @ 91.25MHz	N/A	>= 13.0 dB	24.4 dB
5,4	RH	Pass	38.8 dB @ 85.75MHz	N/A	>= 14.1 dB	24.7 dB
1,2	RH	Pass	44.5 dB @ 80.75MHz	N/A	>= 15.1 dB	29.4 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:22:09
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	47.2 dB @ 43.50MHz	41.2 dB	> 25.8 dB	21.4 dB
7,8-5,4	DH	Pass	39.4 dB @ 61.00MHz	36.0 dB	> 22.9 dB	16.5 dB
7,8-1,2	DH	Pass	61.4 dB @ 99.50MHz	61.4 dB	> 18.7 dB	42.7 dB
3,6-7,8	DH	Pass	53.5 dB @ 34.75MHz	45.6 dB	> 27.8 dB	25.7 dB
3,6-5,4	DH	Pass	55.3 dB @ 14.80MHz	40.3 dB	> 35.2 dB	20.1 dB
3,6-1,2	DH	Pass	46.7 dB @ 73.50MHz	46.6 dB	> 21.3 dB	25.4 dB
5,4-7,8	DH	Pass	51.4 dB @ 15.40MHz	36.0 dB	> 34.9 dB	16.5 dB
5,4-3,6	DH	Pass	54.9 dB @ 8.95MHz	36.9 dB	> 39.6 dB	15.3 dB
5,4-1,2	DH	Pass	45.1 dB @ 41.00MHz	38.8 dB	> 26.4 dB	18.7 dB
1,2-7,8	DH	Pass	66.3 dB @ 58.50MHz	64.2 dB	> 23.3 dB	43.0 dB
1,2-3,6	DH	Pass	66.0 dB @ 5.35MHz	42.3 dB	> 44.0 dB	22.0 dB
1,2-5,4	DH	Pass	45.1 dB @ 41.00MHz	38.4 dB	> 26.4 dB	18.7 dB
7,8-3,6	RH	Pass	47.1 dB @ 43.50MHz	41.0 dB	> 25.8 dB	21.3 dB
7,8-5,4	RH	Pass	39.4 dB @ 61.00MHz	35.9 dB	> 22.9 dB	16.5 dB
7,8-1,2	RH	Pass	61.4 dB @ 99.50MHz	61.4 dB	> 18.7 dB	42.7 dB
3,6-7,8	RH	Pass	53.6 dB @ 34.75MHz	45.8 dB	> 27.8 dB	25.8 dB
3,6-5,4	RH	Pass	55.3 dB @ 14.80MHz	40.4 dB	> 35.2 dB	20.1 dB
3,6-1,2	RH	Pass	46.8 dB @ 73.50MHz	46.7 dB	> 21.3 dB	25.5 dB
5,4-7,8	RH	Pass	51.4 dB @ 15.40MHz	36.0 dB	> 34.9 dB	16.5 dB
5,4-3,6	RH	Pass	56.0 dB @ 7.90MHz	36.8 dB	> 40.7 dB	15.3 dB
5,4-1,2	RH	Pass	45.1 dB @ 41.00MHz	38.9 dB	> 26.4 dB	18.7 dB
1,2-7,8	RH	Pass	66.3 dB @ 58.50MHz	64.2 dB	> 23.3 dB	43.0 dB
1,2-3,6	RH	Pass	65.3 dB @ 5.20MHz	42.1 dB	> 44.3 dB	21.0 dB
1,2-5,4	RH	Pass	45.1 dB @ 41.00MHz	38.3 dB	> 26.4 dB	18.7 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	42.5 dB @ 60.75MHz	40.0 dB	> 32.9 dB	9.6 dB
3,6	DH	Pass	36.6 dB @ 72.75MHz	36.5 dB	> 31.6 dB	5.0 dB
5,4	DH	Pass	39.4 dB @ 55.75MHz	37.4 dB	> 33.5 dB	5.9 dB
1,2	DH	Pass	49.3 dB @ 30.70MHz	43.3 dB	> 37.7 dB	11.6 dB
7,8	RH	Pass	38.3 dB @ 91.25MHz	38.3 dB	> 30.0 dB	8.3 dB
3,6	RH	Pass	40.4 dB @ 57.00MHz	37.7 dB	> 33.3 dB	7.1 dB
5,4	RH	Pass	41.4 dB @ 55.75MHz	39.6 dB	> 33.5 dB	7.9 dB
1,2	RH	Pass	49.1 dB @ 31.00MHz	44.8 dB	> 37.6 dB	11.5 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	38.6 dB @ 91.00MHz	N/A	>= 10.1 dB	28.5 dB
3,6	DH	Pass	35.2 dB @ 73.00MHz	N/A	>= 13.8 dB	21.4 dB
5,4	DH	Pass	36.0 dB @ 73.00MHz	N/A	>= 13.8 dB	22.2 dB
1,2	DH	Pass	41.8 dB @ 92.50MHz	N/A	>= 9.8 dB	32.0 dB
7,8	RH	Pass	36.8 dB @ 92.50MHz	N/A	>= 9.8 dB	27.0 dB
3,6	RH	Pass	36.4 dB @ 90.00MHz	N/A	>= 10.3 dB	26.1 dB
5,4	RH	Pass	38.1 dB @ 85.75MHz	N/A	>= 11.1 dB	27.0 dB
1,2	RH	Pass	43.4 dB @ 81.00MHz	N/A	>= 12.1 dB	31.3 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	39.0 dB @ 62.00MHz	35.6 dB	>= 19.8 dB	19.2 dB
3,6	DH	Pass	53.6 dB @ 8.95MHz	35.0 dB	>= 36.6 dB	17.0 dB
5,4	DH	Pass	51.7 dB @ 10.60MHz	33.3 dB	>= 35.1 dB	16.6 dB
1,2	DH	Pass	39.2 dB @ 82.75MHz	38.2 dB	>= 17.3 dB	21.9 dB
7,8	RH	Pass	34.9 dB @ 93.25MHz	34.7 dB	>= 16.2 dB	18.7 dB
3,6	RH	Pass	58.8 dB @ 8.50MHz	39.0 dB	>= 37.0 dB	21.8 dB
5,4	RH	Pass	50.1 dB @ 10.45MHz	32.5 dB	>= 35.2 dB	14.9 dB
1,2	RH	Pass	41.9 dB @ 54.75MHz	36.8 dB	>= 20.8 dB	21.1 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

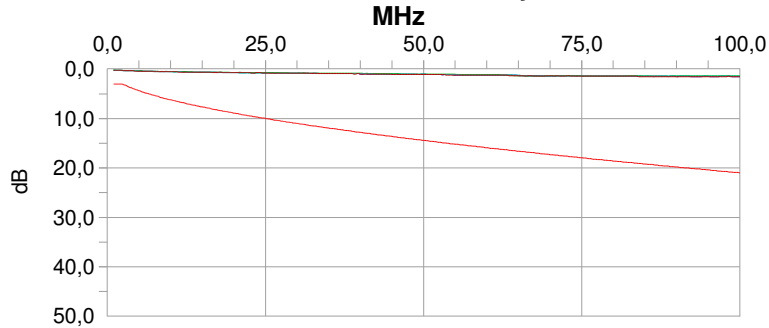
Cable ID 1: 1/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:22:09
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

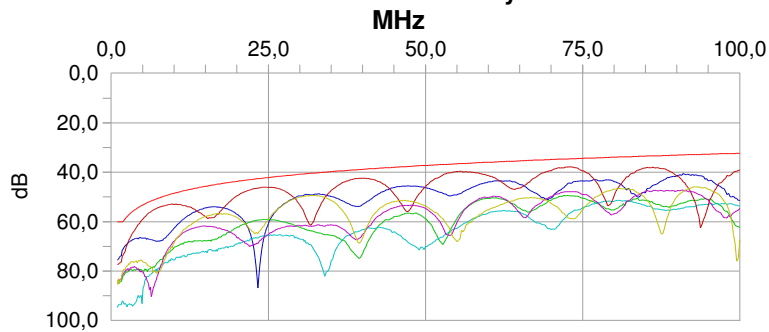
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

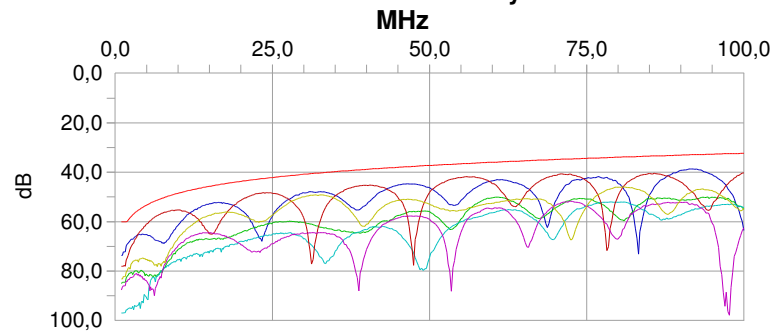
Attenuation Summary



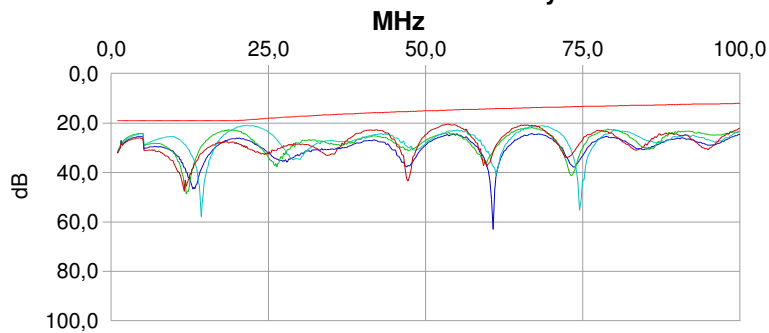
NEXT DH Summary



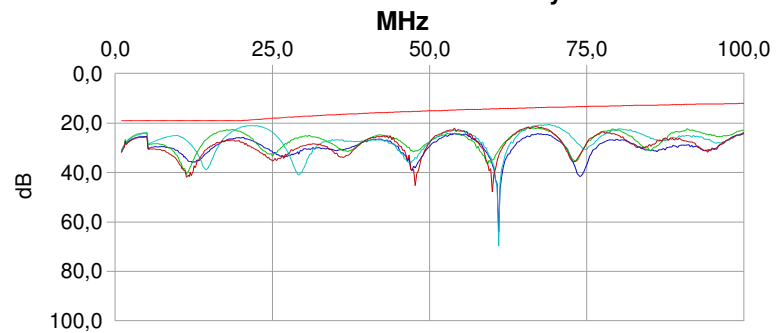
NEXT RH Summary



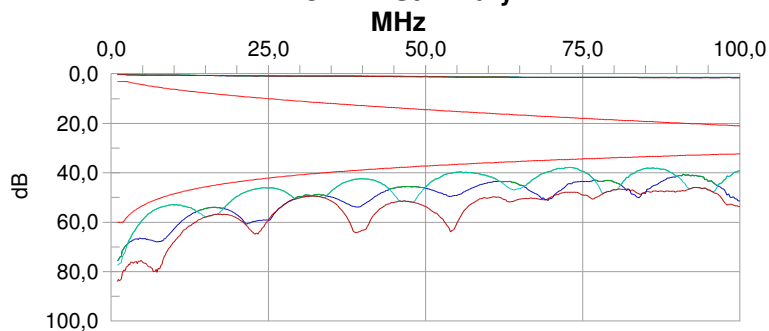
Return Loss DH Summary



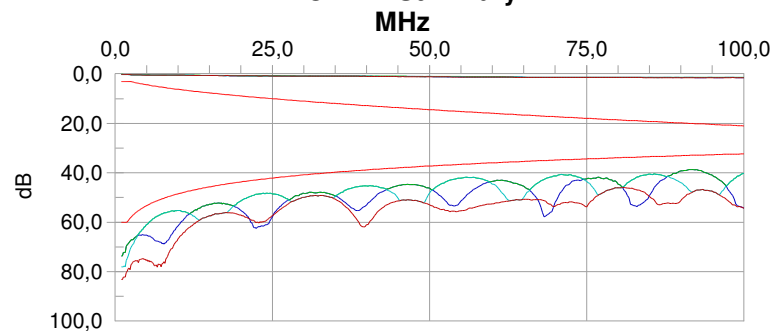
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

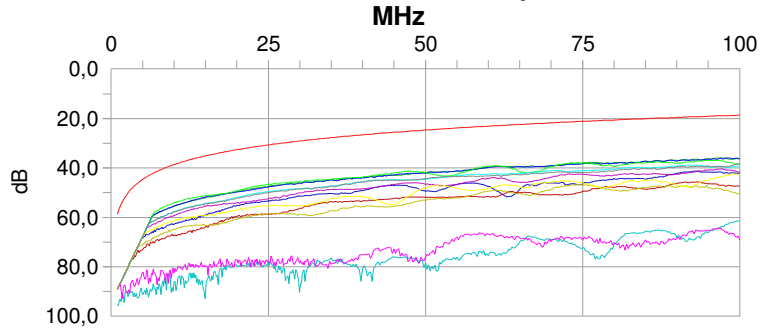
Cable ID 1: 1/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:22:09
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

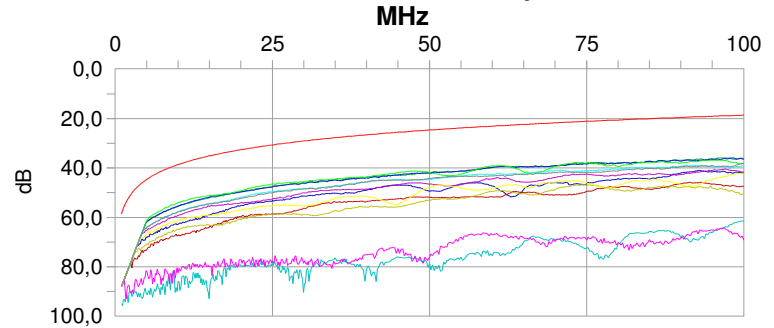
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

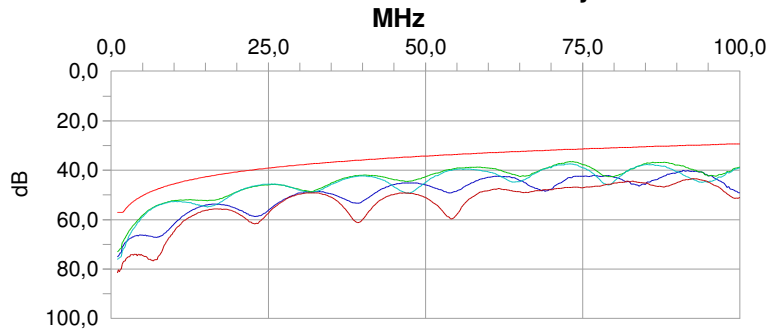
ELFEXT DH Summary



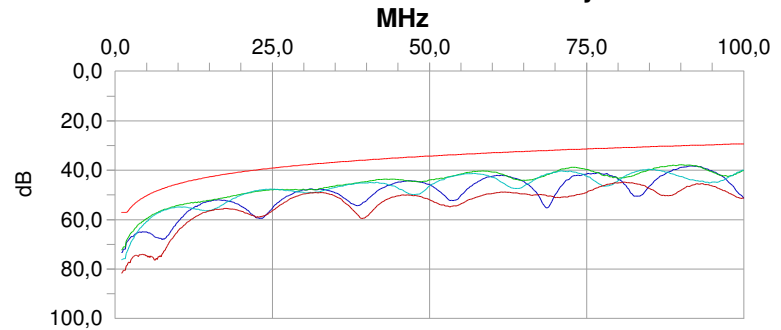
ELFEXT RH Summary



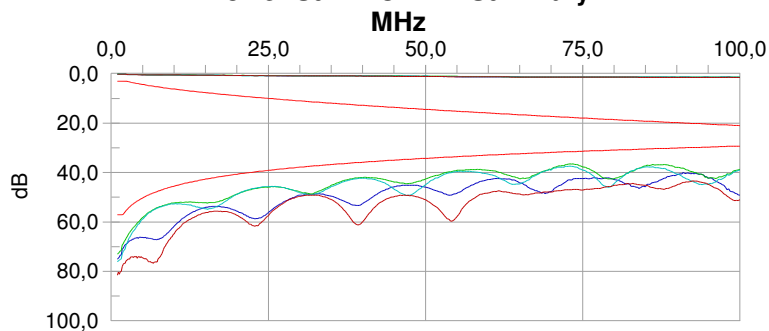
Power Sum NEXT DH Summary



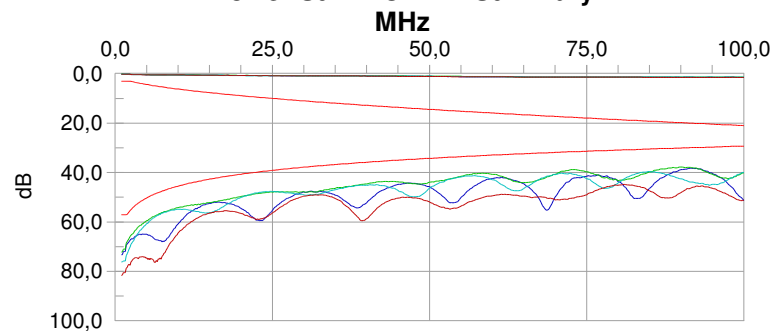
Power Sum NEXT RH Summary



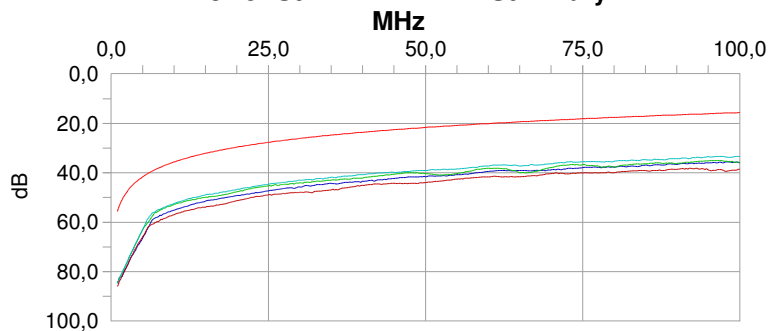
Power Sum ACR DH Summary



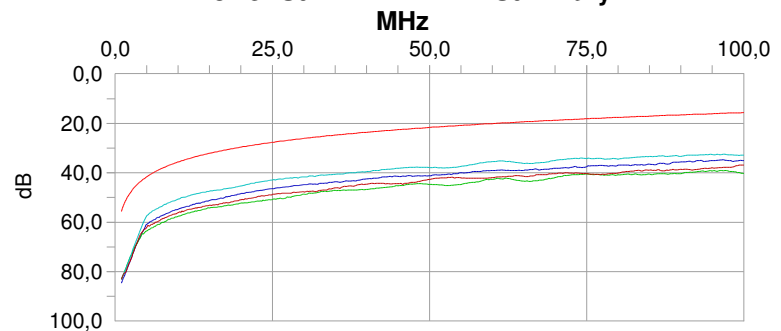
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

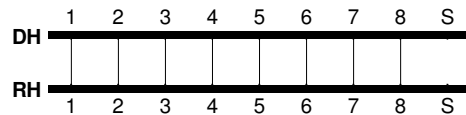
Cable ID 1: 1/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:37:34
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	38.8m	39.5m	39.9m	39.2m	< 90.0m	Pass
Prop. Delay	202.0ns	205.4ns	207.6ns	202.2ns	< 498.0ns	Pass
Delay Skew	5.6ns (Pairs 5,4 vs. 7,8)				< 44.0 ns	Pass
Headroom	17.6 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	41.6 dB @ 57.75MHz	39.0 dB	> 36.2 dB	5.4 dB
7,8-5,4	DH	Pass	63.3 dB @ 10.30MHz	52.0 dB	> 48.3 dB	15.0 dB
7,8-1,2	DH	Pass	50.7 dB @ 22.00MHz	45.2 dB	> 43.0 dB	7.7 dB
3,6-5,4	DH	Pass	47.9 dB @ 23.05MHz	44.9 dB	> 42.7 dB	5.2 dB
3,6-1,2	DH	Pass	41.9 dB @ 54.25MHz	41.9 dB	> 36.7 dB	5.2 dB
5,4-1,2	DH	Pass	54.8 dB @ 28.15MHz	47.3 dB	> 41.3 dB	13.5 dB
7,8-3,6	RH	Pass	47.9 dB @ 21.85MHz	40.9 dB	> 43.1 dB	4.8 dB
7,8-5,4	RH	Pass	53.7 dB @ 24.70MHz	44.5 dB	> 42.2 dB	11.5 dB
7,8-1,2	RH	Pass	46.3 dB @ 34.75MHz	41.2 dB	> 39.8 dB	6.5 dB
3,6-5,4	RH	Pass	51.0 dB @ 23.35MHz	42.1 dB	> 42.6 dB	8.4 dB
3,6-1,2	RH	Pass	43.9 dB @ 72.75MHz	43.8 dB	> 34.6 dB	9.3 dB
5,4-1,2	RH	Pass	49.7 dB @ 53.25MHz	48.5 dB	> 36.8 dB	12.9 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	19.3 dB @ 1.15MHz	19.3 dB	> 19.0 dB	0.3 dB
3,6	DH	Pass	21.1 dB @ 1.00MHz	17.9 dB	> 19.0 dB	2.1 dB
5,4	DH	Pass	21.7 dB @ 1.00MHz	17.9 dB	> 19.0 dB	2.7 dB
1,2	DH	Pass	21.6 dB @ 1.15MHz	18.1 dB	> 19.0 dB	2.6 dB
7,8	RH	Pass	19.2 dB @ 1.00MHz	17.8 dB	> 19.0 dB	0.2 dB
3,6	RH	Pass	20.7 dB @ 1.00MHz	20.4 dB	> 19.0 dB	1.7 dB
5,4	RH	Pass	17.1 dB @ 36.75MHz	16.5 dB	> 16.4 dB	0.7 dB
1,2	RH	Pass	21.0 dB @ 1.00MHz	19.7 dB	> 19.0 dB	2.0 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.1 dB @ 2.50MHz	8.0 dB	< 3.1 dB	2.0 dB
3,6	Pass	1.1 dB @ 2.50MHz	8.7 dB	< 3.1 dB	2.0 dB
5,4	Pass	1.2 dB @ 2.50MHz	8.7 dB	< 3.1 dB	1.9 dB
1,2	Pass	1.2 dB @ 2.50MHz	8.1 dB	< 3.1 dB	1.9 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	31.0 dB @ 98.00MHz	N/A	>= 11.7 dB	19.3 dB
3,6	DH	Pass	30.7 dB @ 98.75MHz	N/A	>= 11.6 dB	19.1 dB
5,4	DH	Pass	37.3 dB @ 93.75MHz	N/A	>= 12.6 dB	24.7 dB
1,2	DH	Pass	34.3 dB @ 95.25MHz	N/A	>= 12.3 dB	22.0 dB
7,8	RH	Pass	34.0 dB @ 90.00MHz	N/A	>= 13.3 dB	20.7 dB
3,6	RH	Pass	33.7 dB @ 77.50MHz	N/A	>= 15.8 dB	17.9 dB
5,4	RH	Pass	33.6 dB @ 99.00MHz	N/A	>= 11.5 dB	22.1 dB
1,2	RH	Pass	33.7 dB @ 90.00MHz	N/A	>= 13.3 dB	20.4 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:37:34
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	44.3 dB @ 89.25MHz	43.7 dB	> 19.6 dB	24.7 dB
7,8-5,4	DH	Pass	55.6 dB @ 15.40MHz	41.7 dB	> 34.9 dB	20.7 dB
7,8-1,2	DH	Pass	37.3 dB @ 94.75MHz	37.2 dB	> 19.1 dB	18.2 dB
3,6-7,8	DH	Pass	47.6 dB @ 97.75MHz	47.6 dB	> 18.8 dB	28.8 dB
3,6-5,4	DH	Pass	51.3 dB @ 9.55MHz	34.5 dB	> 39.0 dB	12.3 dB
3,6-1,2	DH	Pass	39.2 dB @ 94.75MHz	39.2 dB	> 19.1 dB	20.1 dB
5,4-7,8	DH	Pass	58.0 dB @ 12.10MHz	43.0 dB	> 37.0 dB	21.0 dB
5,4-3,6	DH	Pass	46.4 dB @ 10.30MHz	30.0 dB	> 38.4 dB	8.0 dB
5,4-1,2	DH	Pass	41.5 dB @ 97.00MHz	41.3 dB	> 18.9 dB	22.6 dB
1,2-7,8	DH	Pass	37.9 dB @ 82.25MHz	36.7 dB	> 20.3 dB	17.6 dB
1,2-3,6	DH	Pass	35.5 dB @ 84.50MHz	34.2 dB	> 20.1 dB	15.4 dB
1,2-5,4	DH	Pass	41.4 dB @ 90.75MHz	40.5 dB	> 19.5 dB	21.9 dB
7,8-3,6	RH	Pass	45.2 dB @ 89.25MHz	44.5 dB	> 19.6 dB	25.6 dB
7,8-5,4	RH	Pass	66.3 dB @ 4.30MHz	42.5 dB	> 45.9 dB	20.4 dB
7,8-1,2	RH	Pass	37.4 dB @ 96.50MHz	37.4 dB	> 18.9 dB	18.5 dB
3,6-7,8	RH	Pass	47.5 dB @ 97.75MHz	47.5 dB	> 18.8 dB	28.7 dB
3,6-5,4	RH	Pass	54.5 dB @ 6.70MHz	34.3 dB	> 42.1 dB	12.4 dB
3,6-1,2	RH	Pass	39.0 dB @ 94.75MHz	39.0 dB	> 19.1 dB	19.9 dB
5,4-7,8	RH	Pass	57.8 dB @ 12.10MHz	42.4 dB	> 37.0 dB	20.8 dB
5,4-3,6	RH	Pass	49.8 dB @ 6.85MHz	30.0 dB	> 41.9 dB	7.9 dB
5,4-1,2	RH	Pass	40.7 dB @ 99.25MHz	40.7 dB	> 18.7 dB	22.0 dB
1,2-7,8	RH	Pass	37.7 dB @ 82.25MHz	36.6 dB	> 20.3 dB	17.4 dB
1,2-3,6	RH	Pass	34.3 dB @ 97.75MHz	34.3 dB	> 18.8 dB	15.5 dB
1,2-5,4	RH	Pass	41.8 dB @ 90.75MHz	41.1 dB	> 19.5 dB	22.3 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.1 dB @ 57.75MHz	38.2 dB	> 33.2 dB	6.9 dB
3,6	DH	Pass	39.8 dB @ 54.75MHz	38.7 dB	> 33.6 dB	6.2 dB
5,4	DH	Pass	47.4 dB @ 23.05MHz	43.6 dB	> 39.7 dB	7.7 dB
1,2	DH	Pass	41.5 dB @ 54.25MHz	41.1 dB	> 33.7 dB	7.8 dB
7,8	RH	Pass	45.3 dB @ 21.85MHz	38.4 dB	> 40.1 dB	5.2 dB
3,6	RH	Pass	47.8 dB @ 19.45MHz	39.4 dB	> 40.9 dB	6.9 dB
5,4	RH	Pass	49.1 dB @ 23.20MHz	40.2 dB	> 39.6 dB	9.5 dB
1,2	RH	Pass	39.5 dB @ 72.75MHz	39.5 dB	> 31.6 dB	7.9 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	30.2 dB @ 98.00MHz	N/A	>= 8.7 dB	21.5 dB
3,6	DH	Pass	30.4 dB @ 98.75MHz	N/A	>= 8.6 dB	21.8 dB
5,4	DH	Pass	35.9 dB @ 83.75MHz	N/A	>= 11.6 dB	24.3 dB
1,2	DH	Pass	33.2 dB @ 95.25MHz	N/A	>= 9.3 dB	23.9 dB
7,8	RH	Pass	31.7 dB @ 77.75MHz	N/A	>= 12.8 dB	18.9 dB
3,6	RH	Pass	31.2 dB @ 99.50MHz	N/A	>= 8.4 dB	22.8 dB
5,4	RH	Pass	31.7 dB @ 99.00MHz	N/A	>= 8.5 dB	23.2 dB
1,2	RH	Pass	32.0 dB @ 95.50MHz	N/A	>= 9.1 dB	22.9 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	35.7 dB @ 98.25MHz	35.7 dB	>= 15.8 dB	19.9 dB
3,6	DH	Pass	46.0 dB @ 10.30MHz	28.6 dB	>= 35.4 dB	10.6 dB
5,4	DH	Pass	48.2 dB @ 13.00MHz	33.0 dB	>= 33.3 dB	14.9 dB
1,2	DH	Pass	34.5 dB @ 94.75MHz	34.5 dB	>= 16.1 dB	18.4 dB
7,8	RH	Pass	35.7 dB @ 99.25MHz	35.7 dB	>= 15.7 dB	20.0 dB
3,6	RH	Pass	50.1 dB @ 11.05MHz	33.4 dB	>= 34.7 dB	15.4 dB
5,4	RH	Pass	45.7 dB @ 10.90MHz	29.5 dB	>= 34.9 dB	10.8 dB
1,2	RH	Pass	31.8 dB @ 98.25MHz	31.8 dB	>= 15.8 dB	16.0 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

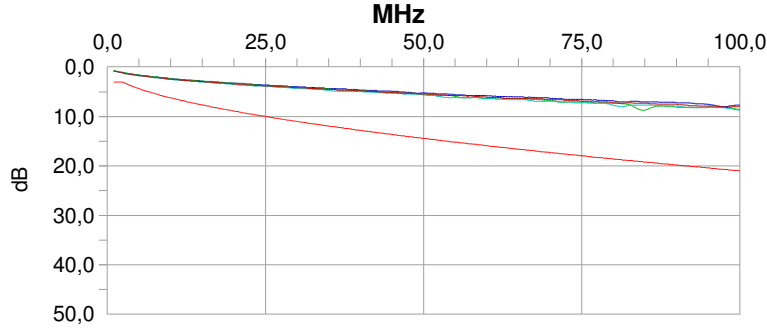
Cable ID 1: 1/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:37:34
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

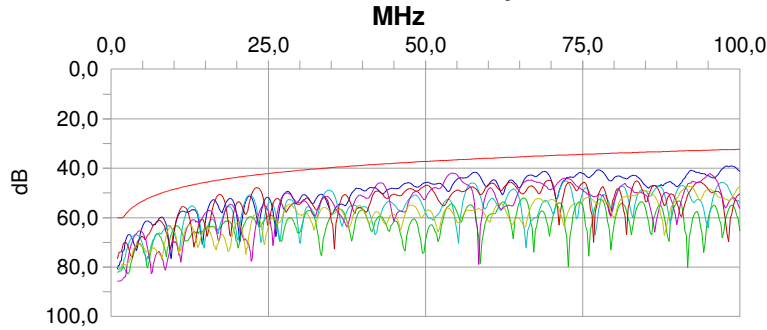
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

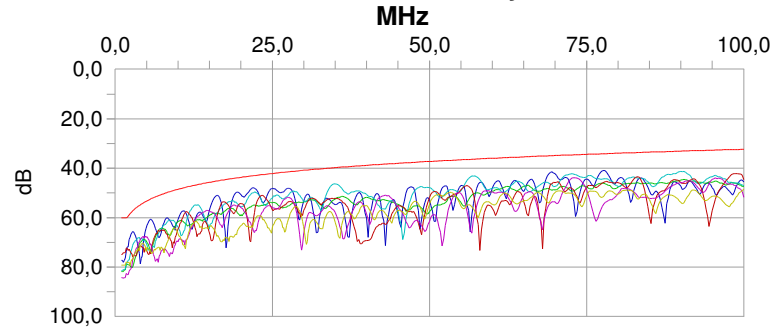
Attenuation Summary



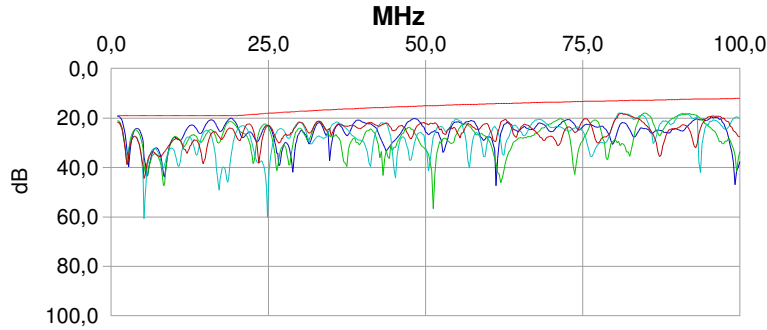
NEXT DH Summary



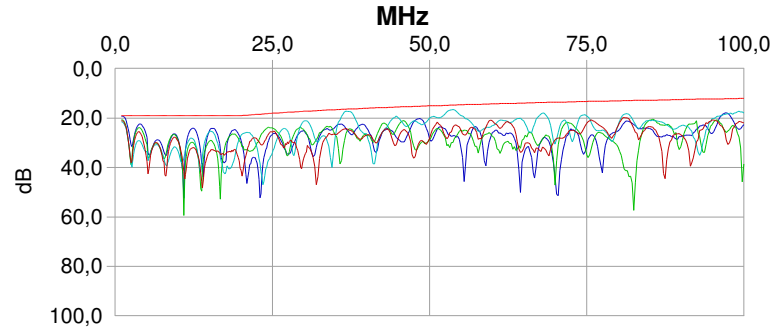
NEXT RH Summary



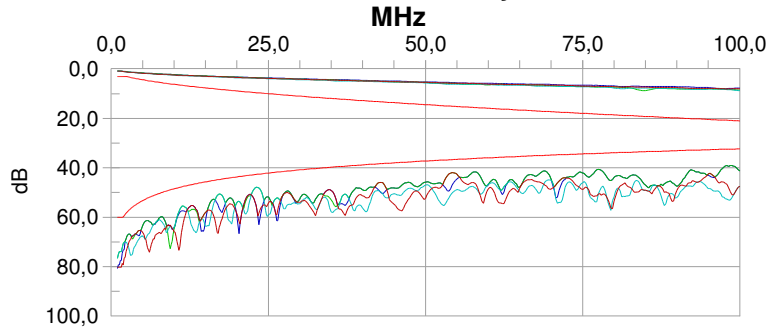
Return Loss DH Summary



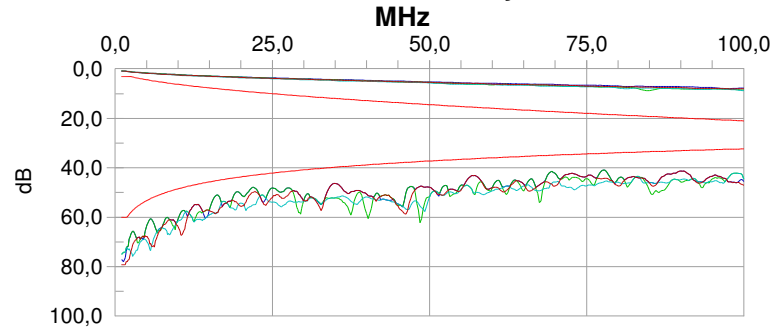
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

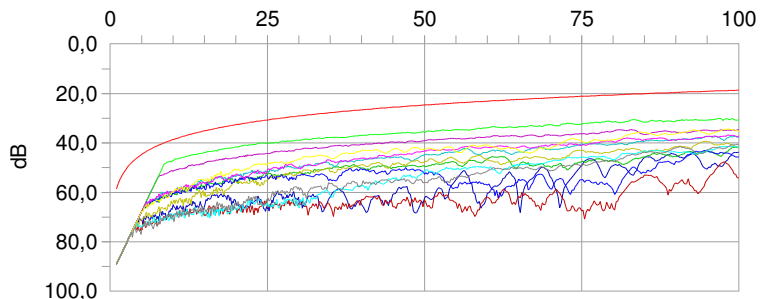
Cable ID 1: 1/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:37:34
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

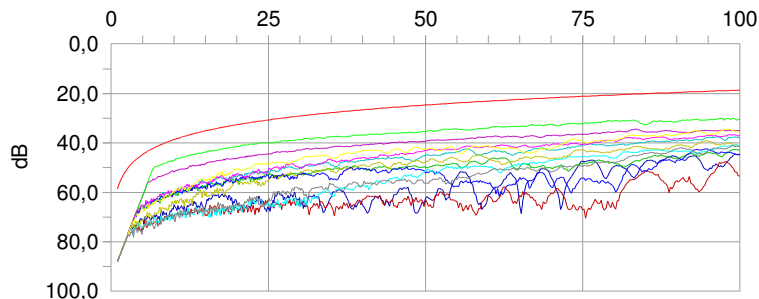
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

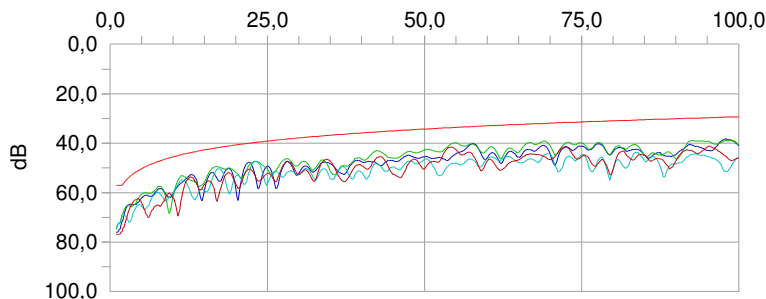
ELFEXT DH Summary
MHz



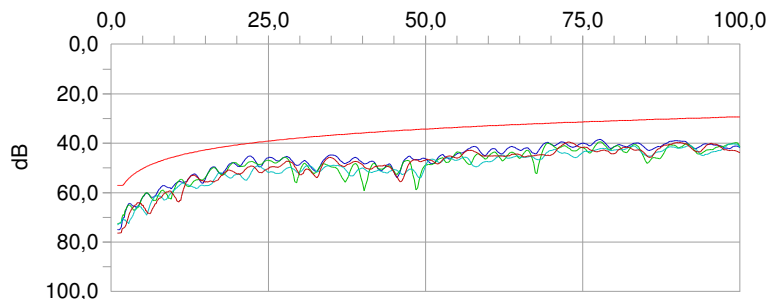
ELFEXT RH Summary
MHz



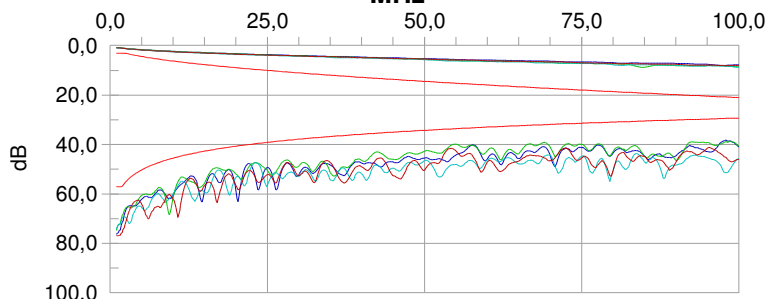
Power Sum NEXT DH Summary
MHz



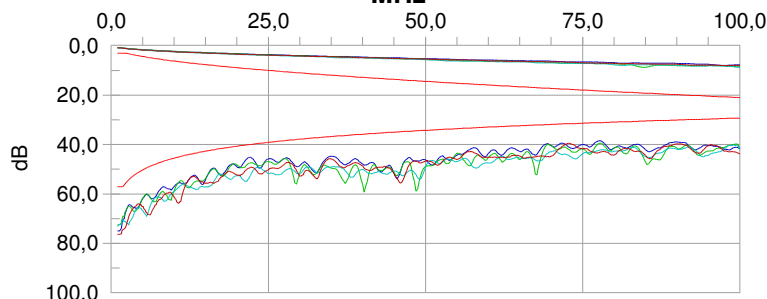
Power Sum NEXT RH Summary
MHz



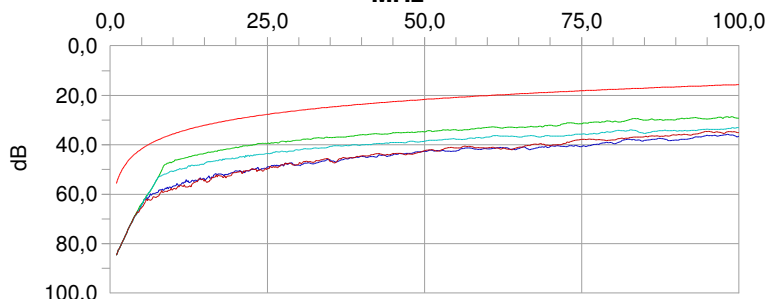
Power Sum ACR DH Summary
MHz



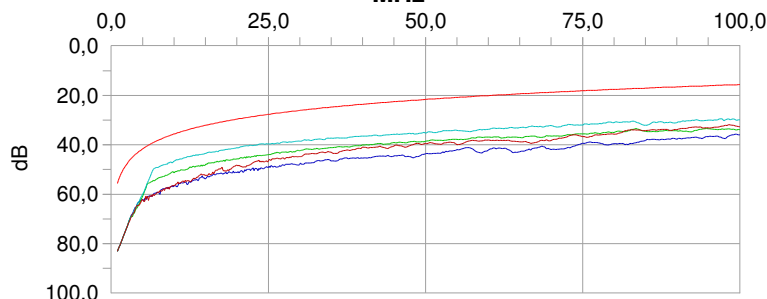
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

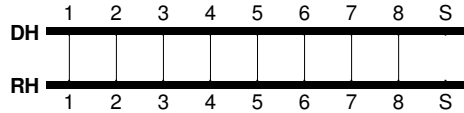
Cable ID 1: 1/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:36:46
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	39.2m	39.7m	40.2m	39.5m	< 90.0m	Pass
Prop. Delay	203.7ns	206.0ns	208.9ns	203.7ns	< 498.0ns	Pass
Delay Skew	5.2ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	15.8 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	37.5 dB @ 95.00MHz	37.5 dB	> 32.7 dB	4.8 dB
7,8-5,4	DH	Pass	56.3 dB @ 35.25MHz	52.3 dB	> 39.7 dB	16.6 dB
7,8-1,2	DH	Pass	52.3 dB @ 20.80MHz	43.8 dB	> 43.4 dB	8.9 dB
3,6-5,4	DH	Pass	58.9 dB @ 2.95MHz	39.2 dB	> 56.9 dB	2.0 dB
3,6-1,2	DH	Pass	41.6 dB @ 72.75MHz	40.2 dB	> 34.6 dB	7.0 dB
5,4-1,2	DH	Pass	46.5 dB @ 91.00MHz	46.5 dB	> 33.0 dB	13.5 dB
7,8-3,6	RH	Pass	47.6 dB @ 21.40MHz	40.4 dB	> 43.2 dB	4.4 dB
7,8-5,4	RH	Pass	52.2 dB @ 44.50MHz	50.7 dB	> 38.1 dB	14.1 dB
7,8-1,2	RH	Pass	52.7 dB @ 20.80MHz	45.5 dB	> 43.4 dB	9.3 dB
3,6-5,4	RH	Pass	62.2 dB @ 3.10MHz	44.9 dB	> 56.5 dB	5.7 dB
3,6-1,2	RH	Pass	48.6 dB @ 47.50MHz	46.4 dB	> 37.6 dB	11.0 dB
5,4-1,2	RH	Pass	63.5 dB @ 13.60MHz	53.1 dB	> 46.4 dB	17.1 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	19.9 dB @ 1.00MHz	17.7 dB	> 19.0 dB	0.9 dB
3,6	DH	Pass	19.3 dB @ 1.00MHz	19.3 dB	> 19.0 dB	0.3 dB
5,4	DH	Pass	20.1 dB @ 1.00MHz	19.1 dB	> 19.0 dB	1.1 dB
1,2	DH	Pass	19.7 dB @ 1.00MHz	14.3 dB	> 19.0 dB	0.7 dB
7,8	RH	Pass	19.3 dB @ 1.15MHz	19.3 dB	> 19.0 dB	0.3 dB
3,6	RH	Pass	18.7 dB @ 1.00MHz	18.7 dB	> 19.0 dB	-0.3 dB
5,4	RH	Pass	19.6 dB @ 1.00MHz	19.6 dB	> 19.0 dB	0.6 dB
1,2	RH	Pass	18.9 dB @ 1.15MHz	16.4 dB	> 19.0 dB	-0.1 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.1 dB @ 2.50MHz	7.9 dB	< 3.1 dB	2.0 dB
3,6	Pass	1.1 dB @ 2.50MHz	8.0 dB	< 3.1 dB	2.0 dB
5,4	Pass	1.2 dB @ 2.50MHz	8.0 dB	< 3.1 dB	1.9 dB
1,2	Pass	1.1 dB @ 2.50MHz	7.9 dB	< 3.1 dB	2.0 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	29.8 dB @ 95.00MHz	N/A	>= 12.3 dB	17.5 dB
3,6	DH	Pass	29.9 dB @ 95.00MHz	N/A	>= 12.3 dB	17.6 dB
5,4	DH	Pass	32.0 dB @ 78.00MHz	N/A	>= 15.8 dB	16.2 dB
1,2	DH	Pass	32.5 dB @ 96.50MHz	N/A	>= 12.0 dB	20.5 dB
7,8	RH	Pass	32.6 dB @ 95.75MHz	N/A	>= 12.1 dB	20.5 dB
3,6	RH	Pass	32.7 dB @ 95.75MHz	N/A	>= 12.1 dB	20.6 dB
5,4	RH	Pass	38.2 dB @ 72.25MHz	N/A	>= 17.0 dB	21.2 dB
1,2	RH	Pass	37.9 dB @ 94.25MHz	N/A	>= 12.4 dB	25.5 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:36:46
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	68.1 dB @ 5.50MHz	43.4 dB	> 43.8 dB	24.3 dB
7,8-5,4	DH	Pass	56.4 dB @ 7.90MHz	42.4 dB	> 40.7 dB	15.7 dB
7,8-1,2	DH	Pass	44.0 dB @ 65.25MHz	42.4 dB	> 22.3 dB	21.7 dB
3,6-7,8	DH	Pass	47.7 dB @ 93.25MHz	47.5 dB	> 19.2 dB	28.5 dB
3,6-5,4	DH	Pass	40.3 dB @ 95.75MHz	40.2 dB	> 19.0 dB	21.3 dB
3,6-1,2	DH	Pass	39.0 dB @ 91.50MHz	38.7 dB	> 19.4 dB	19.6 dB
5,4-7,8	DH	Pass	57.8 dB @ 7.00MHz	42.8 dB	> 41.7 dB	16.1 dB
5,4-3,6	DH	Pass	38.8 dB @ 98.25MHz	38.7 dB	> 18.8 dB	20.0 dB
5,4-1,2	DH	Pass	60.3 dB @ 7.30MHz	43.7 dB	> 41.3 dB	19.0 dB
1,2-7,8	DH	Pass	43.2 dB @ 68.75MHz	43.2 dB	> 21.9 dB	21.3 dB
1,2-3,6	DH	Pass	33.5 dB @ 90.75MHz	33.3 dB	> 19.5 dB	14.0 dB
1,2-5,4	DH	Pass	56.2 dB @ 11.80MHz	44.1 dB	> 37.2 dB	19.0 dB
7,8-3,6	RH	Pass	68.0 dB @ 5.50MHz	43.6 dB	> 43.8 dB	24.2 dB
7,8-5,4	RH	Pass	56.4 dB @ 7.90MHz	42.4 dB	> 40.7 dB	15.7 dB
7,8-1,2	RH	Pass	43.9 dB @ 65.25MHz	42.4 dB	> 22.3 dB	21.6 dB
3,6-7,8	RH	Pass	47.7 dB @ 93.25MHz	47.5 dB	> 19.2 dB	28.5 dB
3,6-5,4	RH	Pass	40.3 dB @ 95.75MHz	40.2 dB	> 19.0 dB	21.3 dB
3,6-1,2	RH	Pass	38.6 dB @ 97.25MHz	38.5 dB	> 18.9 dB	19.7 dB
5,4-7,8	RH	Pass	60.3 dB @ 5.20MHz	42.7 dB	> 44.3 dB	16.0 dB
5,4-3,6	RH	Pass	38.8 dB @ 98.25MHz	38.8 dB	> 18.8 dB	20.0 dB
5,4-1,2	RH	Pass	64.2 dB @ 4.60MHz	43.6 dB	> 45.4 dB	18.8 dB
1,2-7,8	RH	Pass	44.1 dB @ 63.25MHz	43.6 dB	> 22.6 dB	21.5 dB
1,2-3,6	RH	Pass	33.3 dB @ 91.00MHz	33.3 dB	> 19.4 dB	13.9 dB
1,2-5,4	RH	Pass	64.2 dB @ 4.75MHz	44.2 dB	> 45.1 dB	19.1 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	36.6 dB @ 95.00MHz	36.6 dB	> 29.7 dB	6.9 dB
3,6	DH	Pass	58.8 dB @ 2.80MHz	35.4 dB	> 54.2 dB	4.6 dB
5,4	DH	Pass	59.1 dB @ 2.80MHz	39.1 dB	> 54.2 dB	4.9 dB
1,2	DH	Pass	40.8 dB @ 72.25MHz	39.0 dB	> 31.6 dB	9.2 dB
7,8	RH	Pass	46.4 dB @ 21.40MHz	39.4 dB	> 40.2 dB	6.2 dB
3,6	RH	Pass	46.9 dB @ 21.40MHz	39.2 dB	> 40.2 dB	6.7 dB
5,4	RH	Pass	61.9 dB @ 3.10MHz	44.2 dB	> 53.5 dB	8.4 dB
1,2	RH	Pass	52.2 dB @ 20.80MHz	43.9 dB	> 40.4 dB	11.8 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	28.9 dB @ 95.00MHz	N/A	>= 9.3 dB	19.6 dB
3,6	DH	Pass	27.6 dB @ 96.00MHz	N/A	>= 9.1 dB	18.5 dB
5,4	DH	Pass	31.9 dB @ 78.00MHz	N/A	>= 12.8 dB	19.1 dB
1,2	DH	Pass	31.4 dB @ 94.00MHz	N/A	>= 9.4 dB	22.0 dB
7,8	RH	Pass	31.7 dB @ 95.00MHz	N/A	>= 9.3 dB	22.4 dB
3,6	RH	Pass	31.4 dB @ 96.00MHz	N/A	>= 9.1 dB	22.3 dB
5,4	RH	Pass	36.9 dB @ 96.75MHz	N/A	>= 8.9 dB	28.0 dB
1,2	RH	Pass	36.3 dB @ 93.75MHz	N/A	>= 9.6 dB	26.7 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	50.1 dB @ 16.30MHz	40.3 dB	>= 31.4 dB	18.7 dB
3,6	DH	Pass	32.5 dB @ 91.00MHz	32.0 dB	>= 16.4 dB	16.1 dB
5,4	DH	Pass	55.2 dB @ 7.45MHz	38.1 dB	>= 38.2 dB	17.0 dB
1,2	DH	Pass	57.2 dB @ 7.30MHz	37.0 dB	>= 38.3 dB	18.9 dB
7,8	RH	Pass	55.2 dB @ 7.90MHz	39.1 dB	>= 37.7 dB	17.5 dB
3,6	RH	Pass	36.1 dB @ 96.75MHz	36.1 dB	>= 15.9 dB	20.2 dB
5,4	RH	Pass	56.8 dB @ 5.80MHz	37.9 dB	>= 40.3 dB	16.5 dB
1,2	RH	Pass	34.6 dB @ 73.00MHz	32.8 dB	>= 18.3 dB	16.3 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

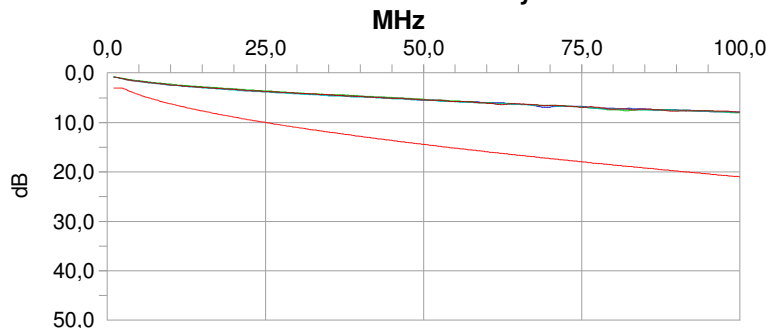
Cable ID 1: 1/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:36:46
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

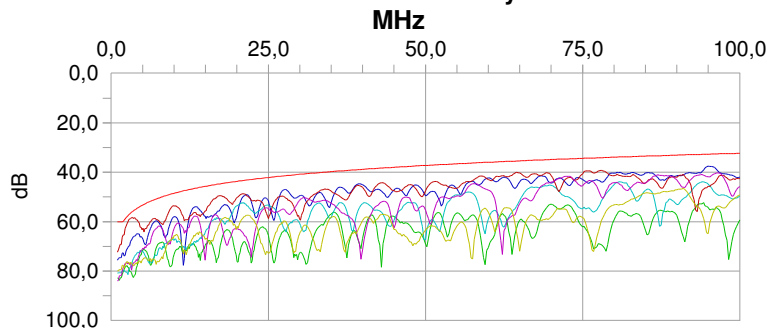
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

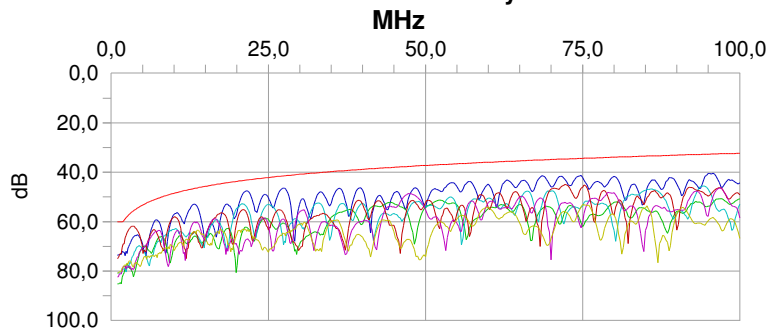
Attenuation Summary



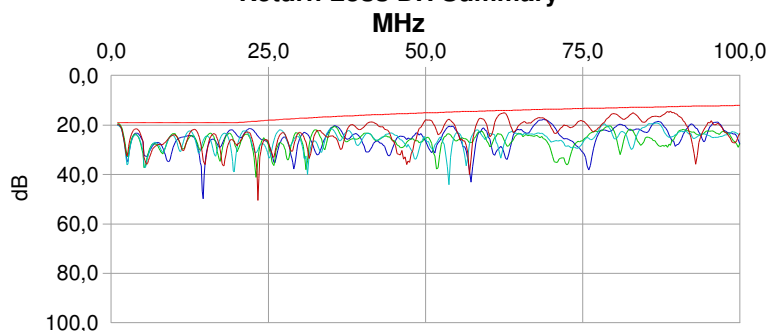
NEXT DH Summary



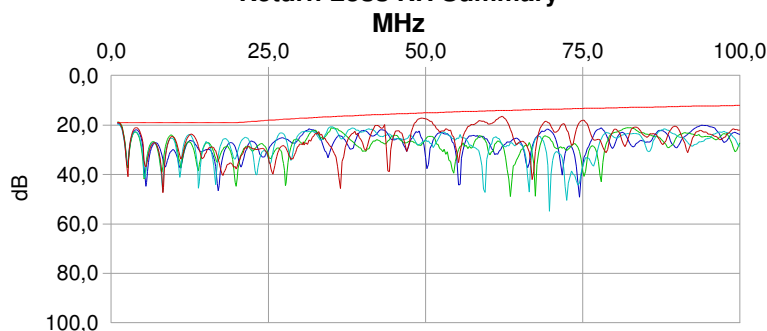
NEXT RH Summary



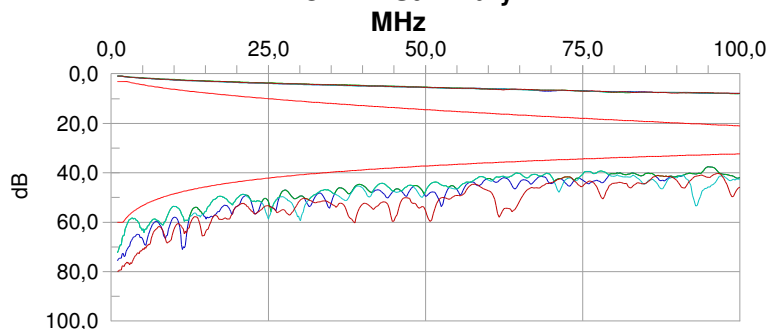
Return Loss DH Summary



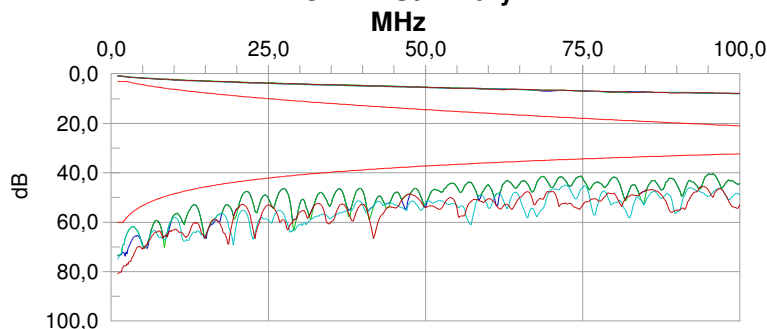
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

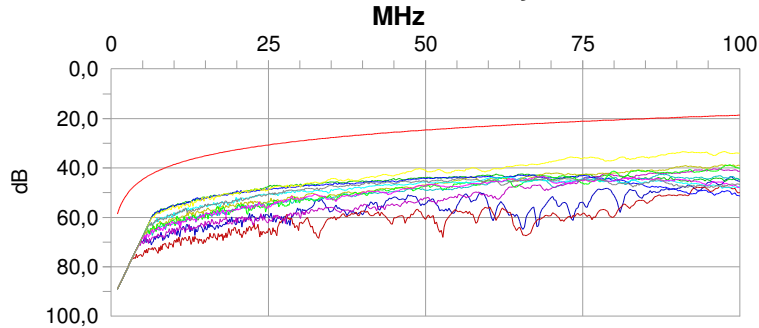
Cable ID 1: 1/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:36:46
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

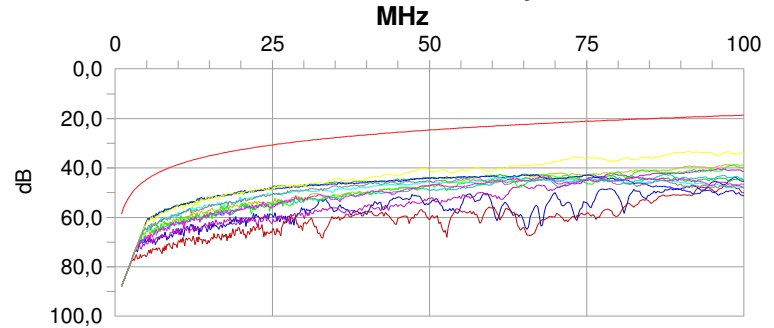
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

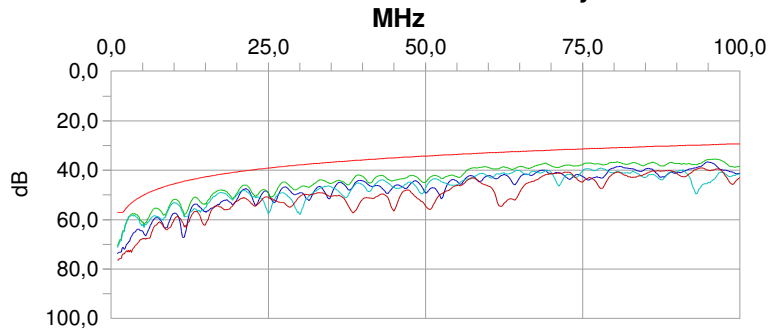
ELFEXT DH Summary



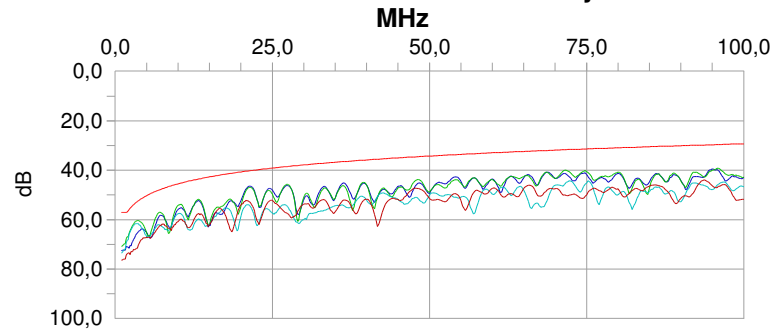
ELFEXT RH Summary



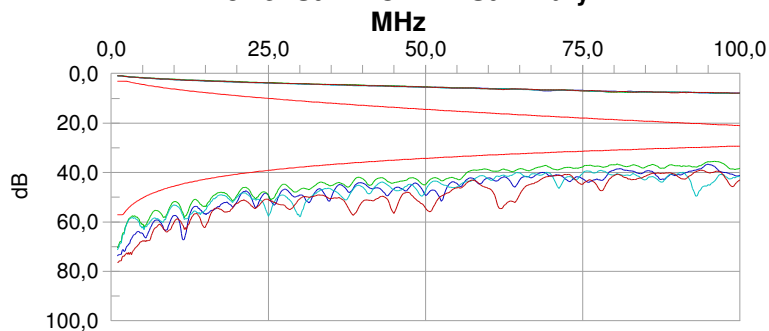
Power Sum NEXT DH Summary



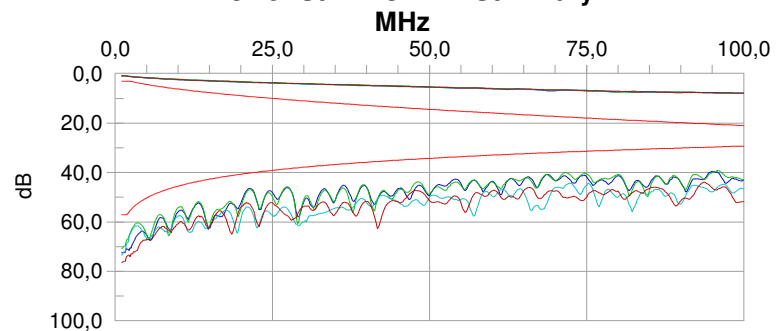
Power Sum NEXT RH Summary



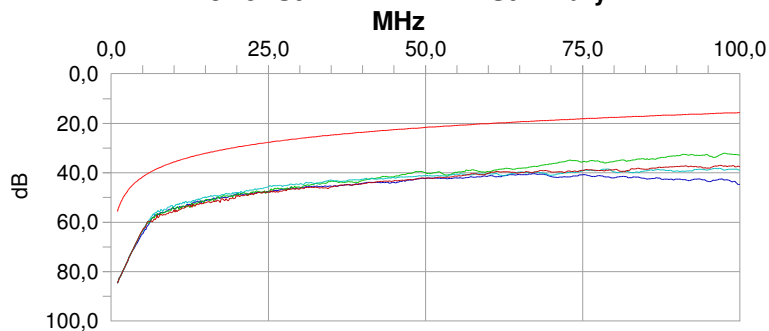
Power Sum ACR DH Summary



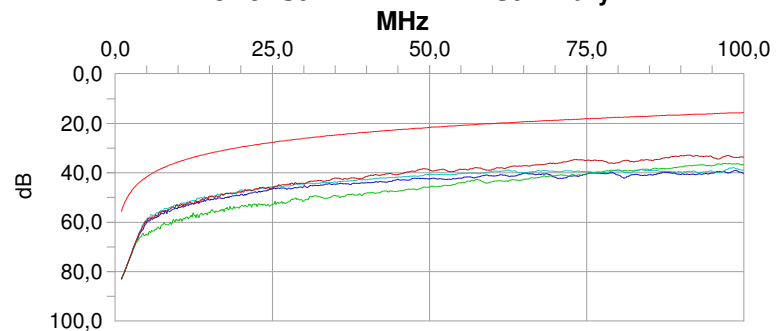
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

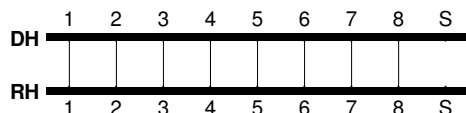
Cable ID 1: 1/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:36:01
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	38.9m	39.6m	40.1m	39.2m	< 90.0m	Pass
Prop. Delay	202.5ns	205.6ns	208.5ns	202.3ns	< 498.0ns	Pass
Delay Skew	6.2ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	17.3 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	43.2 dB @ 58.00MHz	42.0 dB	> 36.2 dB	7.0 dB
7,8-5,4	DH	Pass	55.0 dB @ 38.75MHz	54.1 dB	> 39.0 dB	16.0 dB
7,8-1,2	DH	Pass	51.6 dB @ 37.50MHz	49.4 dB	> 39.3 dB	12.3 dB
3,6-5,4	DH	Pass	46.4 dB @ 30.55MHz	40.4 dB	> 40.7 dB	5.7 dB
3,6-1,2	DH	Pass	44.8 dB @ 66.00MHz	43.4 dB	> 35.3 dB	9.5 dB
5,4-1,2	DH	Pass	53.4 dB @ 20.50MHz	44.3 dB	> 43.5 dB	9.9 dB
7,8-3,6	RH	Pass	43.5 dB @ 46.25MHz	40.1 dB	> 37.8 dB	5.7 dB
7,8-5,4	RH	Pass	62.4 dB @ 10.90MHz	48.3 dB	> 47.9 dB	14.5 dB
7,8-1,2	RH	Pass	48.2 dB @ 57.50MHz	45.6 dB	> 36.2 dB	12.0 dB
3,6-5,4	RH	Pass	42.6 dB @ 91.25MHz	42.3 dB	> 33.0 dB	9.6 dB
3,6-1,2	RH	Pass	46.4 dB @ 65.75MHz	45.5 dB	> 35.3 dB	11.1 dB
5,4-1,2	RH	Pass	44.8 dB @ 78.25MHz	44.8 dB	> 34.1 dB	10.7 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	20.0 dB @ 1.00MHz	19.4 dB	> 19.0 dB	1.0 dB
3,6	DH	Pass	19.9 dB @ 21.40MHz	19.3 dB	> 18.7 dB	1.2 dB
5,4	DH	Pass	21.0 dB @ 15.10MHz	16.5 dB	> 19.0 dB	2.0 dB
1,2	DH	Pass	20.7 dB @ 1.00MHz	19.4 dB	> 19.0 dB	1.7 dB
7,8	RH	Pass	19.6 dB @ 1.00MHz	19.6 dB	> 19.0 dB	0.6 dB
3,6	RH	Pass	20.1 dB @ 1.00MHz	19.3 dB	> 19.0 dB	1.1 dB
5,4	RH	Pass	21.8 dB @ 1.00MHz	15.9 dB	> 19.0 dB	2.8 dB
1,2	RH	Pass	20.2 dB @ 1.00MHz	20.2 dB	> 19.0 dB	1.2 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.1 dB @ 2.50MHz	7.9 dB	< 3.1 dB	2.0 dB
3,6	Pass	1.1 dB @ 2.50MHz	8.3 dB	< 3.1 dB	2.0 dB
5,4	Pass	1.2 dB @ 2.50MHz	8.5 dB	< 3.1 dB	1.9 dB
1,2	Pass	1.1 dB @ 2.50MHz	7.8 dB	< 3.1 dB	2.0 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	35.0 dB @ 82.75MHz	N/A	>= 14.8 dB	20.2 dB
3,6	DH	Pass	32.2 dB @ 99.25MHz	N/A	>= 11.5 dB	20.7 dB
5,4	DH	Pass	32.0 dB @ 99.25MHz	N/A	>= 11.5 dB	20.5 dB
1,2	DH	Pass	36.3 dB @ 84.00MHz	N/A	>= 14.4 dB	21.9 dB
7,8	RH	Pass	32.2 dB @ 99.75MHz	N/A	>= 11.4 dB	20.8 dB
3,6	RH	Pass	31.8 dB @ 99.75MHz	N/A	>= 11.4 dB	20.4 dB
5,4	RH	Pass	34.0 dB @ 98.75MHz	N/A	>= 11.6 dB	22.4 dB
1,2	RH	Pass	37.9 dB @ 78.25MHz	N/A	>= 15.8 dB	22.1 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:36:01
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	40.5 dB @ 92.75MHz	40.3 dB	> 19.3 dB	21.2 dB
7,8-5,4	DH	Pass	50.0 dB @ 11.65MHz	39.4 dB	> 37.3 dB	12.7 dB
7,8-1,2	DH	Pass	54.3 dB @ 13.00MHz	41.0 dB	> 36.3 dB	18.0 dB
3,6-7,8	DH	Pass	43.8 dB @ 90.75MHz	43.7 dB	> 19.5 dB	24.3 dB
3,6-5,4	DH	Pass	56.9 dB @ 9.25MHz	40.5 dB	> 39.3 dB	17.6 dB
3,6-1,2	DH	Pass	48.3 dB @ 9.85MHz	31.2 dB	> 38.7 dB	9.6 dB
5,4-7,8	DH	Pass	44.7 dB @ 20.05MHz	38.9 dB	> 32.6 dB	12.1 dB
5,4-3,6	DH	Pass	52.9 dB @ 9.25MHz	37.2 dB	> 39.3 dB	13.6 dB
5,4-1,2	DH	Pass	49.8 dB @ 38.50MHz	44.9 dB	> 26.9 dB	22.9 dB
1,2-7,8	DH	Pass	45.5 dB @ 35.25MHz	39.5 dB	> 27.7 dB	17.8 dB
1,2-3,6	DH	Pass	44.7 dB @ 9.40MHz	25.8 dB	> 39.2 dB	5.5 dB
1,2-5,4	DH	Pass	45.5 dB @ 50.00MHz	42.7 dB	> 24.6 dB	20.9 dB
7,8-3,6	RH	Pass	40.7 dB @ 95.00MHz	40.7 dB	> 19.1 dB	21.6 dB
7,8-5,4	RH	Pass	50.2 dB @ 11.65MHz	39.7 dB	> 37.3 dB	12.9 dB
7,8-1,2	RH	Pass	63.2 dB @ 4.75MHz	41.0 dB	> 45.1 dB	18.1 dB
3,6-7,8	RH	Pass	43.2 dB @ 91.50MHz	43.2 dB	> 19.4 dB	23.8 dB
3,6-5,4	RH	Pass	61.8 dB @ 5.35MHz	40.6 dB	> 44.0 dB	17.8 dB
3,6-1,2	RH	Pass	51.9 dB @ 6.55MHz	30.5 dB	> 42.3 dB	9.6 dB
5,4-7,8	RH	Pass	44.5 dB @ 20.05MHz	38.8 dB	> 32.6 dB	11.9 dB
5,4-3,6	RH	Pass	56.7 dB @ 5.80MHz	36.7 dB	> 43.3 dB	13.4 dB
5,4-1,2	RH	Pass	49.6 dB @ 38.50MHz	44.5 dB	> 26.9 dB	22.7 dB
1,2-7,8	RH	Pass	62.0 dB @ 5.20MHz	39.6 dB	> 44.3 dB	17.7 dB
1,2-3,6	RH	Pass	46.4 dB @ 7.45MHz	26.3 dB	> 41.2 dB	5.2 dB
1,2-5,4	RH	Pass	47.6 dB @ 41.00MHz	43.3 dB	> 26.4 dB	21.2 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	42.2 dB @ 58.00MHz	41.7 dB	> 33.2 dB	9.0 dB
3,6	DH	Pass	45.9 dB @ 30.40MHz	38.7 dB	> 37.7 dB	8.2 dB
5,4	DH	Pass	45.9 dB @ 30.55MHz	39.2 dB	> 37.7 dB	8.2 dB
1,2	DH	Pass	49.1 dB @ 28.75MHz	42.1 dB	> 38.1 dB	11.0 dB
7,8	RH	Pass	43.0 dB @ 46.25MHz	39.1 dB	> 34.8 dB	8.2 dB
3,6	RH	Pass	42.7 dB @ 44.25MHz	38.0 dB	> 35.1 dB	7.6 dB
5,4	RH	Pass	41.8 dB @ 79.50MHz	41.1 dB	> 30.9 dB	10.9 dB
1,2	RH	Pass	41.1 dB @ 86.00MHz	41.1 dB	> 30.4 dB	10.7 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	34.5 dB @ 91.00MHz	N/A	>= 10.1 dB	24.4 dB
3,6	DH	Pass	30.5 dB @ 99.50MHz	N/A	>= 8.4 dB	22.1 dB
5,4	DH	Pass	31.3 dB @ 88.00MHz	N/A	>= 10.6 dB	20.7 dB
1,2	DH	Pass	34.9 dB @ 83.75MHz	N/A	>= 11.6 dB	23.3 dB
7,8	RH	Pass	31.2 dB @ 99.75MHz	N/A	>= 8.4 dB	22.8 dB
3,6	RH	Pass	29.8 dB @ 99.50MHz	N/A	>= 8.4 dB	21.4 dB
5,4	RH	Pass	32.8 dB @ 98.75MHz	N/A	>= 8.6 dB	24.2 dB
1,2	RH	Pass	33.8 dB @ 86.00MHz	N/A	>= 11.1 dB	22.7 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	43.6 dB @ 20.50MHz	37.8 dB	>= 29.4 dB	14.2 dB
3,6	DH	Pass	43.4 dB @ 10.15MHz	25.5 dB	>= 35.5 dB	7.9 dB
5,4	DH	Pass	49.0 dB @ 11.65MHz	37.4 dB	>= 34.3 dB	14.7 dB
1,2	DH	Pass	45.7 dB @ 13.00MHz	30.6 dB	>= 33.3 dB	12.4 dB
7,8	RH	Pass	50.0 dB @ 10.60MHz	37.9 dB	>= 35.1 dB	14.9 dB
3,6	RH	Pass	48.4 dB @ 9.25MHz	29.9 dB	>= 36.3 dB	12.1 dB
5,4	RH	Pass	43.6 dB @ 17.65MHz	35.7 dB	>= 30.7 dB	12.9 dB
1,2	RH	Pass	44.2 dB @ 9.55MHz	26.0 dB	>= 36.0 dB	8.2 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

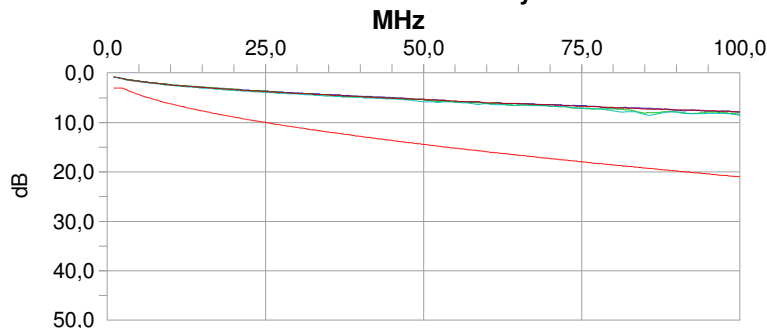
Cable ID 1: 1/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:36:01
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

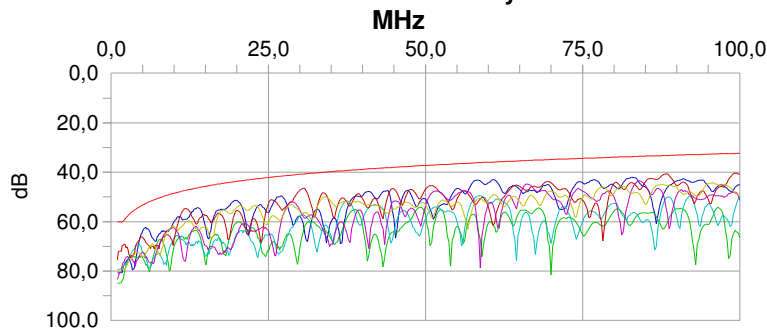
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

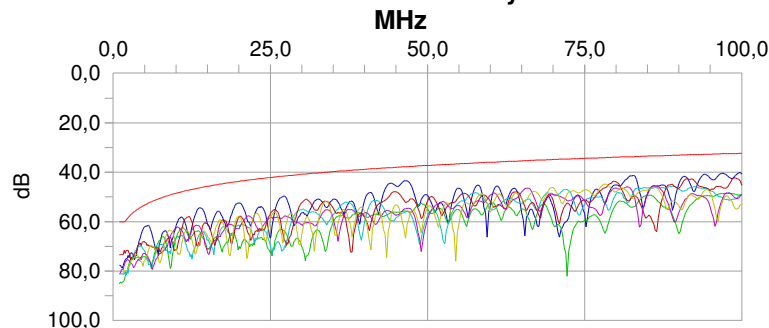
Attenuation Summary



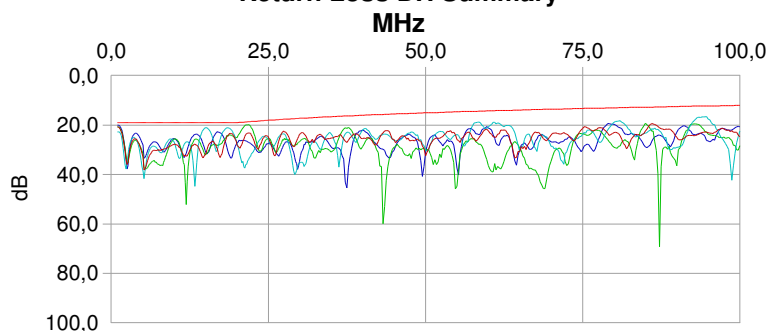
NEXT DH Summary



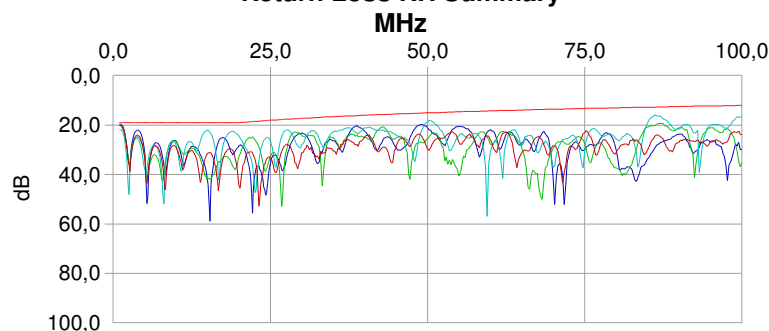
NEXT RH Summary



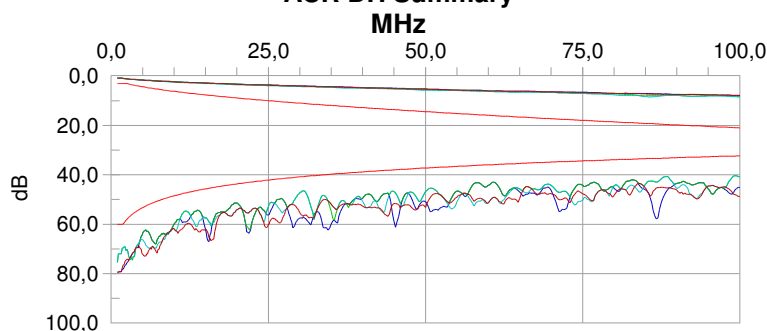
Return Loss DH Summary



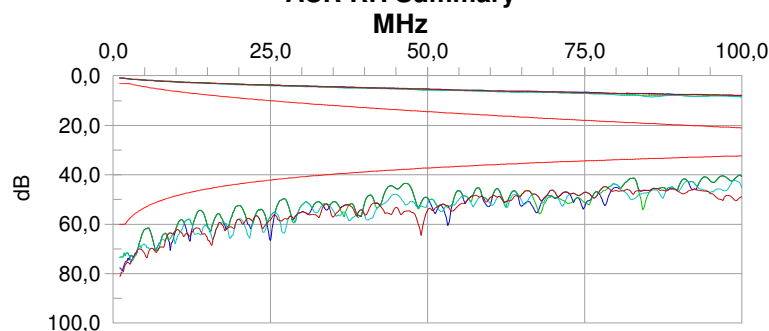
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

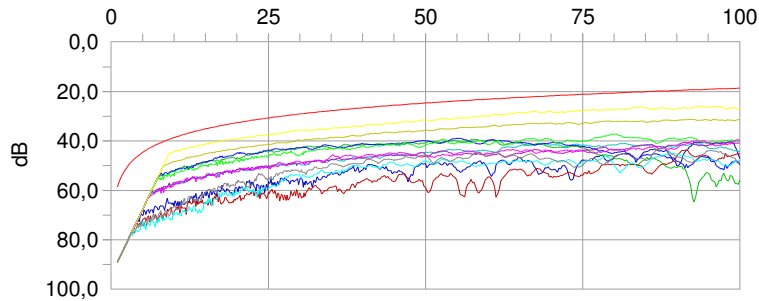
Cable ID 1: 1/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:36:01
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

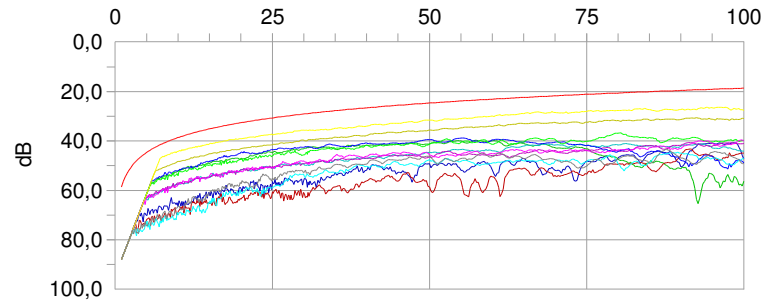
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

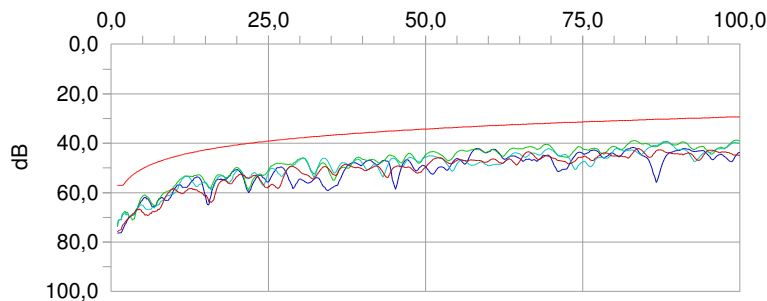
ELFEXT DH Summary
MHz



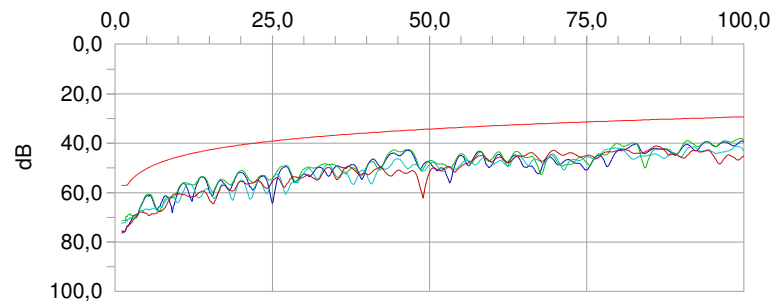
ELFEXT RH Summary
MHz



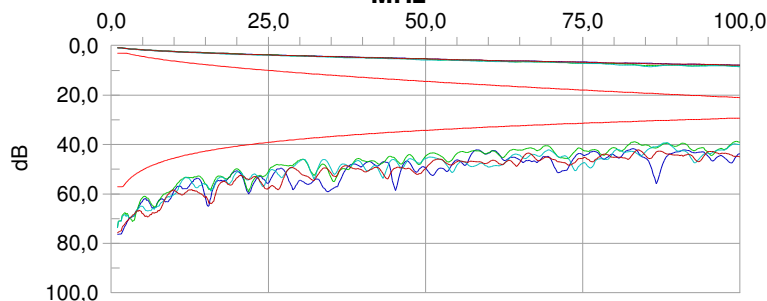
Power Sum NEXT DH Summary
MHz



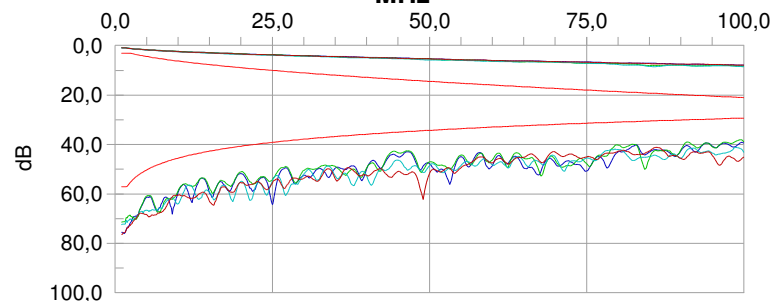
Power Sum NEXT RH Summary
MHz



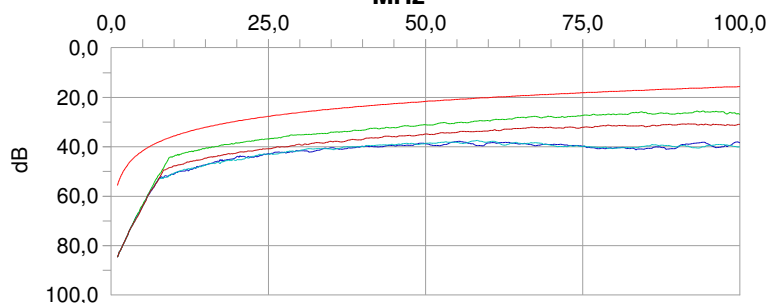
Power Sum ACR DH Summary
MHz



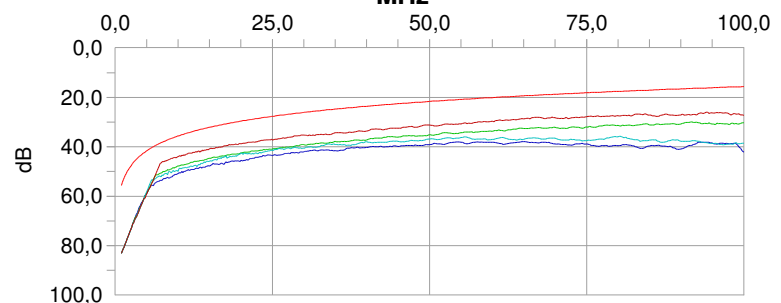
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

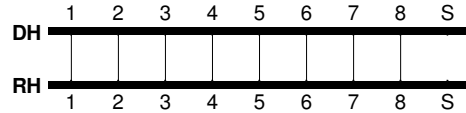
Cable ID 1: 1/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:35:19
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	39.3m	40.1m	40.5m	39.8m	< 90.0m	Pass
Prop. Delay	204.5ns	208.1ns	210.3ns	205.2ns	< 498.0ns	Pass
Delay Skew	5.8ns (Pairs 5,4 vs. 7,8)				< 44.0 ns	Pass
Headroom	14.0 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	37.3 dB @ 71.25MHz	36.3 dB	> 34.7 dB	2.6 dB
7,8-5,4	DH	Pass	66.3 dB @ 7.75MHz	50.1 dB	> 50.3 dB	16.0 dB
7,8-1,2	DH	Pass	46.9 dB @ 51.75MHz	45.2 dB	> 37.0 dB	9.9 dB
3,6-5,4	DH	Pass	39.4 dB @ 60.75MHz	38.6 dB	> 35.9 dB	3.5 dB
3,6-1,2	DH	Pass	46.3 dB @ 32.50MHz	42.3 dB	> 40.3 dB	6.0 dB
5,4-1,2	DH	Pass	43.7 dB @ 92.25MHz	43.7 dB	> 32.9 dB	10.8 dB
7,8-3,6	RH	Pass	45.1 dB @ 40.75MHz	40.8 dB	> 38.7 dB	6.4 dB
7,8-5,4	RH	Pass	50.3 dB @ 54.50MHz	49.1 dB	> 36.6 dB	13.7 dB
7,8-1,2	RH	Pass	47.5 dB @ 44.50MHz	43.8 dB	> 38.1 dB	9.4 dB
3,6-5,4	RH	Pass	47.6 dB @ 42.00MHz	42.2 dB	> 38.5 dB	9.1 dB
3,6-1,2	RH	Pass	50.4 dB @ 33.00MHz	44.4 dB	> 40.2 dB	10.2 dB
5,4-1,2	RH	Pass	59.8 dB @ 10.00MHz	45.2 dB	> 48.5 dB	11.3 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	19.1 dB @ 1.00MHz	19.1 dB	> 19.0 dB	0.1 dB
3,6	DH	Pass	20.5 dB @ 1.00MHz	19.3 dB	> 19.0 dB	1.5 dB
5,4	DH	Pass	13.2 dB @ 90.25MHz	13.1 dB	> 12.5 dB	0.7 dB
1,2	DH	Pass	20.8 dB @ 1.00MHz	16.9 dB	> 19.0 dB	1.8 dB
7,8	RH	Pass	18.3 dB @ 1.15MHz	18.3 dB	> 19.0 dB	-0.7 dB
3,6	RH	Pass	20.1 dB @ 1.00MHz	19.6 dB	> 19.0 dB	1.1 dB
5,4	RH	Pass	18.4 dB @ 44.75MHz	18.4 dB	> 15.5 dB	2.9 dB
1,2	RH	Pass	20.4 dB @ 1.00MHz	18.3 dB	> 19.0 dB	1.4 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.1 dB @ 2.50MHz	8.0 dB	< 3.1 dB	2.0 dB
3,6	Pass	1.1 dB @ 2.50MHz	8.5 dB	< 3.1 dB	2.0 dB
5,4	Pass	1.2 dB @ 2.50MHz	8.9 dB	< 3.1 dB	1.9 dB
1,2	Pass	1.2 dB @ 2.50MHz	8.1 dB	< 3.1 dB	1.9 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	28.7 dB @ 98.50MHz	N/A	>= 11.6 dB	17.1 dB
3,6	DH	Pass	28.1 dB @ 98.75MHz	N/A	>= 11.6 dB	16.5 dB
5,4	DH	Pass	30.9 dB @ 99.00MHz	N/A	>= 11.5 dB	19.4 dB
1,2	DH	Pass	34.2 dB @ 100.00MHz	N/A	>= 11.3 dB	22.9 dB
7,8	RH	Pass	33.2 dB @ 99.00MHz	N/A	>= 11.5 dB	21.7 dB
3,6	RH	Pass	32.6 dB @ 99.00MHz	N/A	>= 11.5 dB	21.1 dB
5,4	RH	Pass	33.9 dB @ 98.75MHz	N/A	>= 11.6 dB	22.3 dB
1,2	RH	Pass	36.0 dB @ 95.25MHz	N/A	>= 12.3 dB	23.7 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:35:19
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	38.9 dB @ 89.75MHz	38.9 dB	> 19.6 dB	19.3 dB
7,8-5,4	DH	Pass	58.4 dB @ 10.60MHz	42.0 dB	> 38.1 dB	20.3 dB
7,8-1,2	DH	Pass	46.2 dB @ 11.50MHz	27.7 dB	> 37.4 dB	8.8 dB
3,6-7,8	DH	Pass	49.0 dB @ 63.75MHz	47.6 dB	> 22.5 dB	26.5 dB
3,6-5,4	DH	Pass	36.0 dB @ 90.50MHz	36.0 dB	> 19.5 dB	16.5 dB
3,6-1,2	DH	Pass	62.1 dB @ 6.85MHz	42.4 dB	> 41.9 dB	20.2 dB
5,4-7,8	DH	Pass	60.7 dB @ 7.90MHz	43.9 dB	> 40.7 dB	20.0 dB
5,4-3,6	DH	Pass	52.6 dB @ 7.90MHz	32.5 dB	> 40.7 dB	11.9 dB
5,4-1,2	DH	Pass	54.3 dB @ 7.60MHz	37.6 dB	> 41.0 dB	13.3 dB
1,2-7,8	DH	Pass	46.8 dB @ 10.75MHz	28.0 dB	> 38.0 dB	8.8 dB
1,2-3,6	DH	Pass	56.3 dB @ 8.35MHz	37.8 dB	> 40.2 dB	16.1 dB
1,2-5,4	DH	Pass	53.9 dB @ 8.20MHz	37.5 dB	> 40.3 dB	13.6 dB
7,8-3,6	RH	Pass	39.9 dB @ 89.75MHz	39.9 dB	> 19.6 dB	20.3 dB
7,8-5,4	RH	Pass	58.6 dB @ 10.60MHz	42.6 dB	> 38.1 dB	20.5 dB
7,8-1,2	RH	Pass	46.3 dB @ 11.50MHz	28.2 dB	> 37.4 dB	8.9 dB
3,6-7,8	RH	Pass	48.7 dB @ 63.75MHz	46.9 dB	> 22.5 dB	26.2 dB
3,6-5,4	RH	Pass	58.3 dB @ 7.15MHz	36.1 dB	> 41.5 dB	16.8 dB
3,6-1,2	RH	Pass	63.7 dB @ 5.20MHz	41.7 dB	> 44.3 dB	19.4 dB
5,4-7,8	RH	Pass	60.5 dB @ 7.90MHz	43.3 dB	> 40.7 dB	19.8 dB
5,4-3,6	RH	Pass	52.5 dB @ 7.90MHz	32.6 dB	> 40.7 dB	11.8 dB
5,4-1,2	RH	Pass	54.9 dB @ 6.85MHz	36.9 dB	> 41.9 dB	13.0 dB
1,2-7,8	RH	Pass	29.0 dB @ 81.00MHz	27.6 dB	> 20.4 dB	8.6 dB
1,2-3,6	RH	Pass	59.9 dB @ 5.35MHz	38.1 dB	> 44.0 dB	15.9 dB
1,2-5,4	RH	Pass	57.3 dB @ 5.65MHz	38.2 dB	> 43.6 dB	13.7 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	36.9 dB @ 71.25MHz	36.0 dB	> 31.7 dB	5.2 dB
3,6	DH	Pass	38.5 dB @ 44.50MHz	34.4 dB	> 35.1 dB	3.4 dB
5,4	DH	Pass	41.6 dB @ 42.25MHz	38.3 dB	> 35.4 dB	6.2 dB
1,2	DH	Pass	44.7 dB @ 32.50MHz	40.0 dB	> 37.3 dB	7.4 dB
7,8	RH	Pass	41.9 dB @ 57.25MHz	40.0 dB	> 33.3 dB	8.6 dB
3,6	RH	Pass	43.3 dB @ 40.75MHz	38.3 dB	> 35.7 dB	7.6 dB
5,4	RH	Pass	45.6 dB @ 42.00MHz	40.9 dB	> 35.5 dB	10.1 dB
1,2	RH	Pass	44.5 dB @ 44.50MHz	40.5 dB	> 35.1 dB	9.4 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	28.3 dB @ 98.50MHz	N/A	>= 8.6 dB	19.7 dB
3,6	DH	Pass	26.2 dB @ 98.75MHz	N/A	>= 8.6 dB	17.6 dB
5,4	DH	Pass	30.2 dB @ 99.00MHz	N/A	>= 8.5 dB	21.7 dB
1,2	DH	Pass	32.2 dB @ 92.25MHz	N/A	>= 9.8 dB	22.4 dB
7,8	RH	Pass	32.4 dB @ 98.75MHz	N/A	>= 8.6 dB	23.8 dB
3,6	RH	Pass	30.1 dB @ 98.75MHz	N/A	>= 8.6 dB	21.5 dB
5,4	RH	Pass	32.5 dB @ 89.00MHz	N/A	>= 10.4 dB	22.1 dB
1,2	RH	Pass	32.5 dB @ 95.25MHz	N/A	>= 9.3 dB	23.2 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	29.2 dB @ 81.00MHz	27.8 dB	>= 17.4 dB	11.8 dB
3,6	DH	Pass	51.4 dB @ 7.90MHz	31.5 dB	>= 37.7 dB	13.7 dB
5,4	DH	Pass	52.6 dB @ 7.45MHz	34.0 dB	>= 38.2 dB	14.4 dB
1,2	DH	Pass	46.3 dB @ 9.70MHz	27.3 dB	>= 35.9 dB	10.4 dB
7,8	RH	Pass	45.9 dB @ 11.50MHz	27.9 dB	>= 34.4 dB	11.5 dB
3,6	RH	Pass	35.2 dB @ 90.75MHz	34.8 dB	>= 16.5 dB	18.7 dB
5,4	RH	Pass	49.9 dB @ 7.90MHz	31.4 dB	>= 37.7 dB	12.2 dB
1,2	RH	Pass	48.2 dB @ 7.45MHz	27.3 dB	>= 38.2 dB	10.0 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

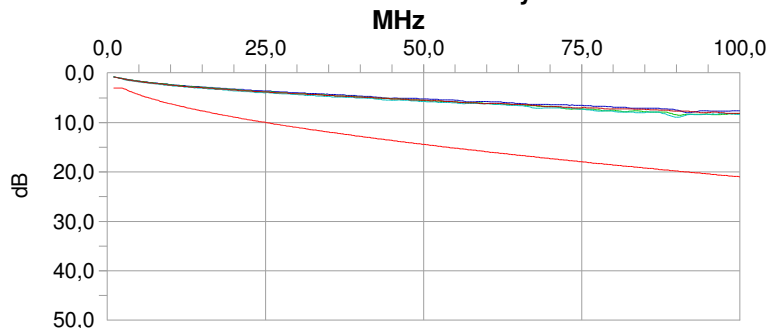
Cable ID 1: 1/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:35:19
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

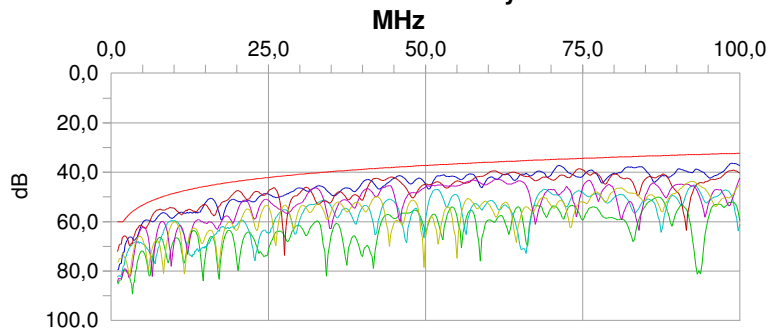
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

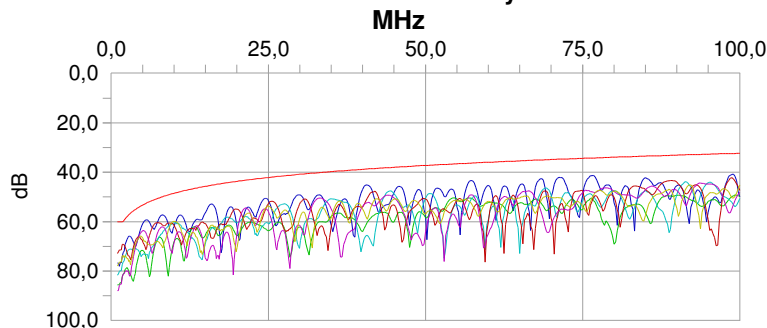
Attenuation Summary



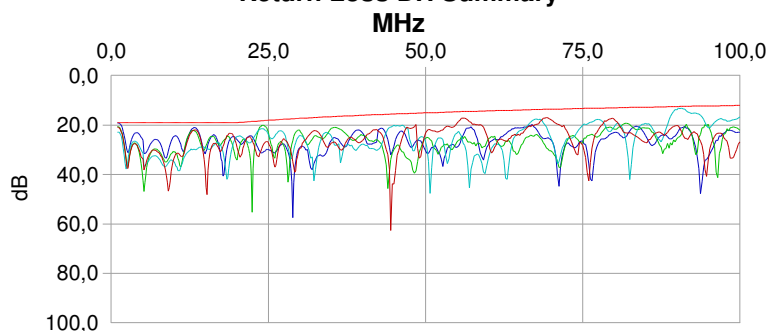
NEXT DH Summary



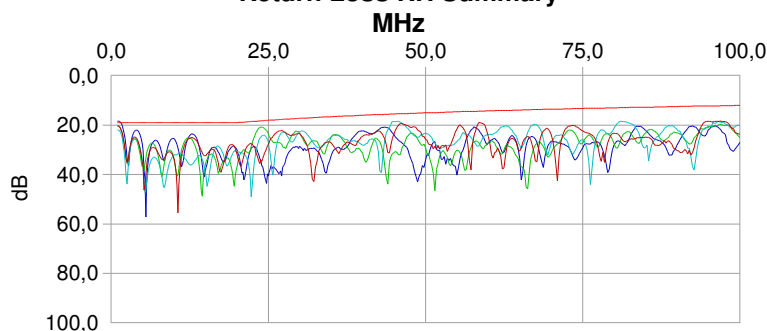
NEXT RH Summary



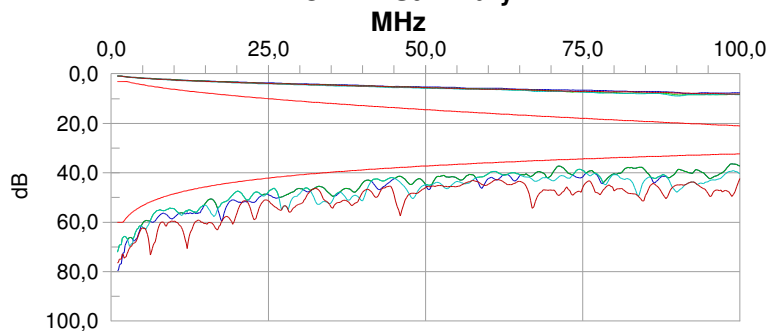
Return Loss DH Summary



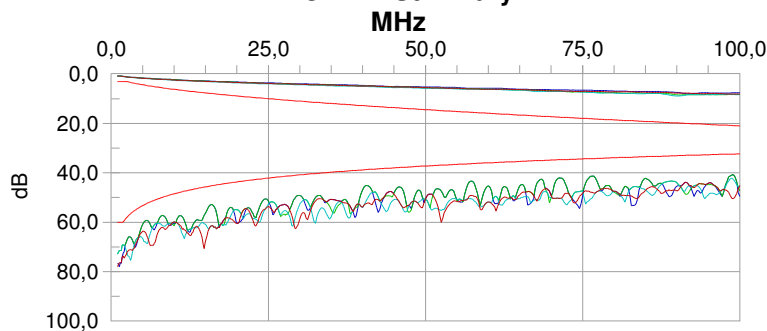
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

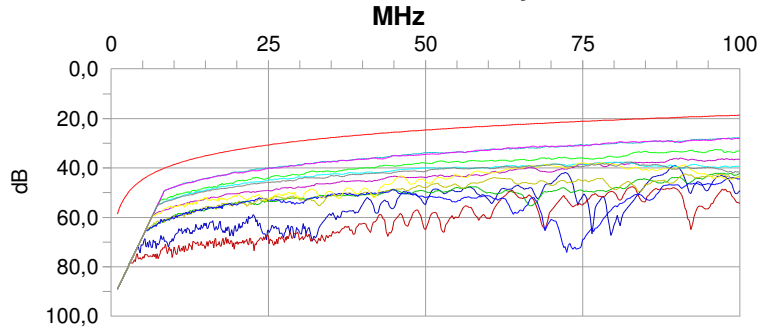
Cable ID 1: 1/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:35:19
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

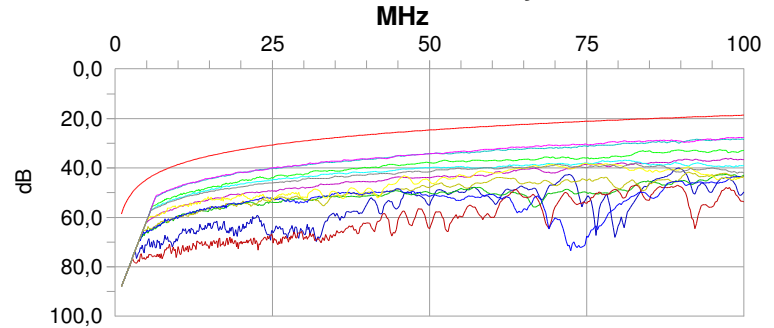
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

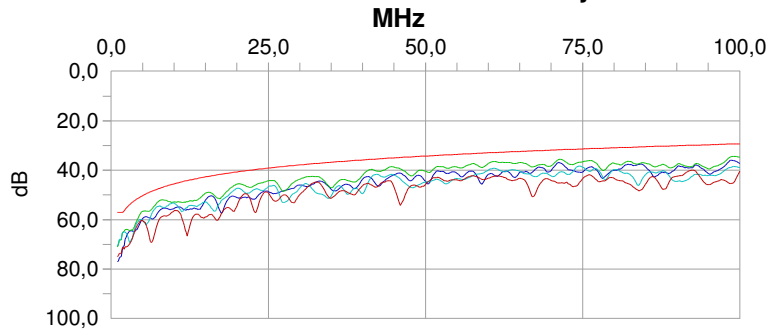
ELFEXT DH Summary



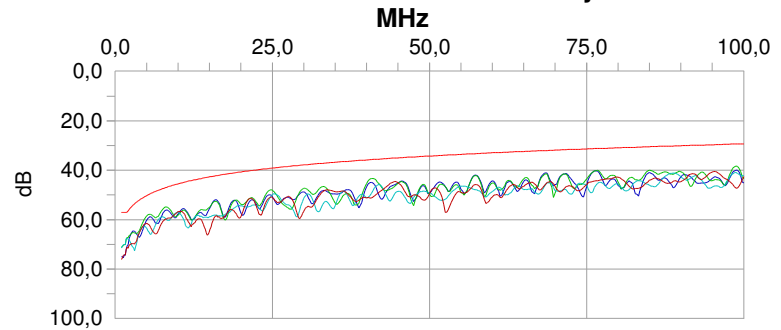
ELFEXT RH Summary



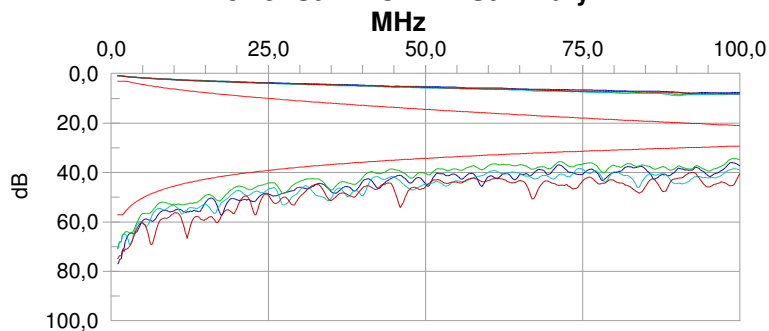
Power Sum NEXT DH Summary



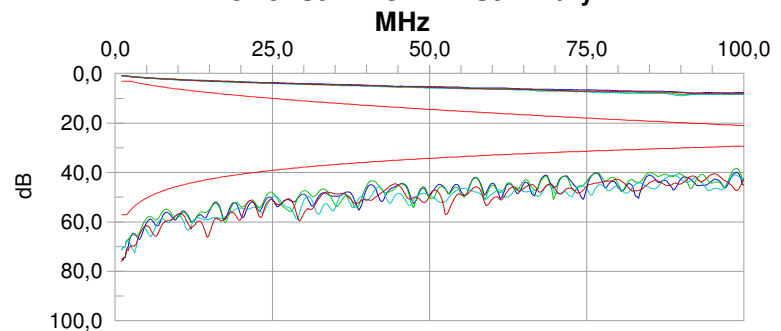
Power Sum NEXT RH Summary



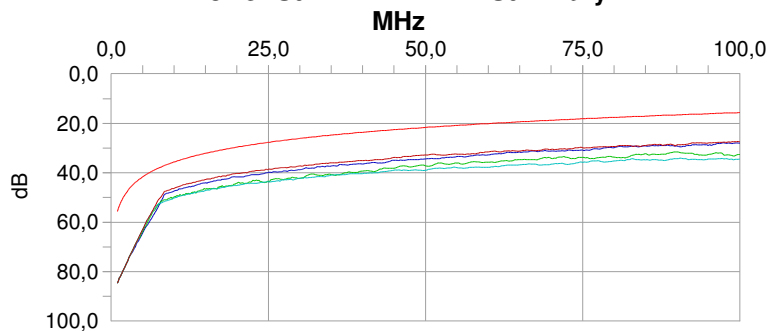
Power Sum ACR DH Summary



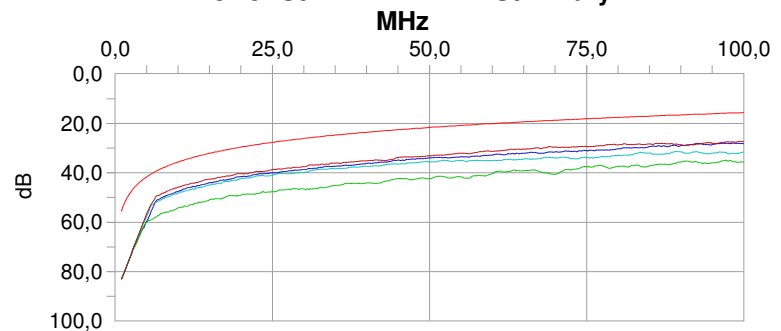
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

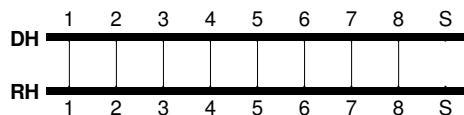
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Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:34:38
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	39.7m	39.3m	38.9m	40.0m	< 90.0m	Pass
Prop. Delay	206.0ns	204.3ns	202.9ns	206.4ns	< 498.0ns	Pass
Delay Skew	3.5ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
Headroom	18.4 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	52.3 dB @ 13.60MHz	39.0 dB	> 46.4 dB	5.9 dB
7,8-5,4	DH	Pass	48.6 dB @ 95.00MHz	48.6 dB	> 32.7 dB	15.9 dB
7,8-1,2	DH	Pass	58.7 dB @ 25.90MHz	49.9 dB	> 41.9 dB	16.8 dB
3,6-5,4	DH	Pass	52.7 dB @ 14.80MHz	42.8 dB	> 45.8 dB	6.9 dB
3,6-1,2	DH	Pass	47.4 dB @ 63.75MHz	46.0 dB	> 35.5 dB	11.9 dB
5,4-1,2	DH	Pass	57.6 dB @ 12.25MHz	48.1 dB	> 47.1 dB	10.5 dB
7,8-3,6	RH	Pass	51.8 dB @ 13.60MHz	41.9 dB	> 46.4 dB	5.4 dB
7,8-5,4	RH	Pass	52.8 dB @ 44.00MHz	49.9 dB	> 38.1 dB	14.7 dB
7,8-1,2	RH	Pass	49.5 dB @ 78.75MHz	49.4 dB	> 34.0 dB	15.5 dB
3,6-5,4	RH	Pass	54.7 dB @ 17.95MHz	43.9 dB	> 44.4 dB	10.3 dB
3,6-1,2	RH	Pass	52.0 dB @ 60.25MHz	52.0 dB	> 35.9 dB	16.1 dB
5,4-1,2	RH	Pass	57.0 dB @ 12.55MHz	47.2 dB	> 46.9 dB	10.1 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	21.7 dB @ 1.15MHz	21.7 dB	> 19.0 dB	2.7 dB
3,6	DH	Pass	20.7 dB @ 1.00MHz	20.7 dB	> 19.0 dB	1.7 dB
5,4	DH	Pass	20.4 dB @ 1.00MHz	20.4 dB	> 19.0 dB	1.4 dB
1,2	DH	Pass	22.6 dB @ 1.15MHz	22.6 dB	> 19.0 dB	3.6 dB
7,8	RH	Pass	21.2 dB @ 1.00MHz	21.2 dB	> 19.0 dB	2.2 dB
3,6	RH	Pass	20.2 dB @ 1.00MHz	20.2 dB	> 19.0 dB	1.2 dB
5,4	RH	Pass	19.9 dB @ 1.00MHz	19.9 dB	> 19.0 dB	0.9 dB
1,2	RH	Pass	21.8 dB @ 1.30MHz	21.8 dB	> 19.0 dB	2.8 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.2 dB @ 2.50MHz	7.9 dB	< 3.1 dB	1.9 dB
3,6	Pass	1.1 dB @ 2.50MHz	7.9 dB	< 3.1 dB	2.0 dB
5,4	Pass	1.1 dB @ 2.50MHz	7.7 dB	< 3.1 dB	2.0 dB
1,2	Pass	1.2 dB @ 2.50MHz	7.9 dB	< 3.1 dB	1.9 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	31.1 dB @ 99.75MHz	N/A	>= 11.4 dB	19.7 dB
3,6	DH	Pass	31.1 dB @ 99.75MHz	N/A	>= 11.4 dB	19.7 dB
5,4	DH	Pass	36.7 dB @ 65.25MHz	N/A	>= 18.7 dB	18.0 dB
1,2	DH	Pass	38.5 dB @ 88.50MHz	N/A	>= 13.6 dB	24.9 dB
7,8	RH	Pass	34.4 dB @ 96.25MHz	N/A	>= 12.1 dB	22.3 dB
3,6	RH	Pass	34.4 dB @ 96.25MHz	N/A	>= 12.1 dB	22.3 dB
5,4	RH	Pass	36.5 dB @ 93.00MHz	N/A	>= 12.6 dB	23.9 dB
1,2	RH	Pass	40.6 dB @ 94.75MHz	N/A	>= 12.3 dB	28.3 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/18
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:34:38
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	67.1 dB @ 7.00MHz	48.5 dB	> 41.7 dB	25.4 dB
7,8-5,4	DH	Pass	55.7 dB @ 13.45MHz	44.0 dB	> 36.0 dB	19.7 dB
7,8-1,2	DH	Pass	60.8 dB @ 17.65MHz	47.3 dB	> 33.7 dB	27.1 dB
3,6-7,8	DH	Pass	52.4 dB @ 97.75MHz	52.4 dB	> 18.8 dB	33.6 dB
3,6-5,4	DH	Pass	56.9 dB @ 8.05MHz	36.4 dB	> 40.5 dB	16.4 dB
3,6-1,2	DH	Pass	46.6 dB @ 87.50MHz	46.3 dB	> 19.8 dB	26.8 dB
5,4-7,8	DH	Pass	54.3 dB @ 16.90MHz	45.4 dB	> 34.1 dB	20.2 dB
5,4-3,6	DH	Pass	52.1 dB @ 8.20MHz	33.0 dB	> 40.3 dB	11.8 dB
5,4-1,2	DH	Pass	50.7 dB @ 16.90MHz	40.0 dB	> 34.1 dB	16.6 dB
1,2-7,8	DH	Pass	61.2 dB @ 17.20MHz	47.6 dB	> 33.9 dB	27.3 dB
1,2-3,6	DH	Pass	43.0 dB @ 84.75MHz	42.8 dB	> 20.1 dB	22.9 dB
1,2-5,4	DH	Pass	53.2 dB @ 13.90MHz	41.1 dB	> 35.8 dB	17.4 dB
7,8-3,6	RH	Pass	67.0 dB @ 7.00MHz	48.5 dB	> 41.7 dB	25.3 dB
7,8-5,4	RH	Pass	55.6 dB @ 13.45MHz	43.8 dB	> 36.0 dB	19.6 dB
7,8-1,2	RH	Pass	60.8 dB @ 17.65MHz	47.4 dB	> 33.7 dB	27.1 dB
3,6-7,8	RH	Pass	52.5 dB @ 97.75MHz	52.5 dB	> 18.8 dB	33.7 dB
3,6-5,4	RH	Pass	59.8 dB @ 5.80MHz	36.2 dB	> 43.3 dB	16.5 dB
3,6-1,2	RH	Pass	46.6 dB @ 87.50MHz	46.4 dB	> 19.8 dB	26.8 dB
5,4-7,8	RH	Pass	55.2 dB @ 15.40MHz	45.5 dB	> 34.9 dB	20.3 dB
5,4-3,6	RH	Pass	54.5 dB @ 6.10MHz	33.3 dB	> 42.9 dB	11.6 dB
5,4-1,2	RH	Pass	50.8 dB @ 16.90MHz	40.2 dB	> 34.1 dB	16.7 dB
1,2-7,8	RH	Pass	61.1 dB @ 17.20MHz	47.5 dB	> 33.9 dB	27.2 dB
1,2-3,6	RH	Pass	42.7 dB @ 86.00MHz	42.7 dB	> 19.9 dB	22.8 dB
1,2-5,4	RH	Pass	53.4 dB @ 13.45MHz	40.9 dB	> 36.0 dB	17.4 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	52.0 dB @ 13.60MHz	38.6 dB	> 43.4 dB	8.6 dB
3,6	DH	Pass	39.4 dB @ 65.50MHz	38.5 dB	> 32.3 dB	7.1 dB
5,4	DH	Pass	50.7 dB @ 17.80MHz	41.7 dB	> 41.5 dB	9.2 dB
1,2	DH	Pass	47.3 dB @ 45.50MHz	45.0 dB	> 34.9 dB	12.4 dB
7,8	RH	Pass	51.6 dB @ 13.60MHz	41.3 dB	> 43.4 dB	8.2 dB
3,6	RH	Pass	57.6 dB @ 5.35MHz	40.1 dB	> 49.8 dB	7.8 dB
5,4	RH	Pass	52.5 dB @ 18.10MHz	42.2 dB	> 41.4 dB	11.1 dB
1,2	RH	Pass	56.6 dB @ 12.55MHz	45.6 dB	> 43.9 dB	12.7 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	30.7 dB @ 99.75MHz	N/A	>= 8.4 dB	22.3 dB
3,6	DH	Pass	30.6 dB @ 99.75MHz	N/A	>= 8.4 dB	22.2 dB
5,4	DH	Pass	35.6 dB @ 65.25MHz	N/A	>= 15.7 dB	19.9 dB
1,2	DH	Pass	37.6 dB @ 94.00MHz	N/A	>= 9.4 dB	28.2 dB
7,8	RH	Pass	33.6 dB @ 96.25MHz	N/A	>= 9.1 dB	24.5 dB
3,6	RH	Pass	32.4 dB @ 96.25MHz	N/A	>= 9.1 dB	23.3 dB
5,4	RH	Pass	34.7 dB @ 95.25MHz	N/A	>= 9.3 dB	25.4 dB
1,2	RH	Pass	37.9 dB @ 95.00MHz	N/A	>= 9.3 dB	28.6 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	51.1 dB @ 27.70MHz	43.5 dB	>= 26.8 dB	24.3 dB
3,6	DH	Pass	48.1 dB @ 13.00MHz	32.7 dB	>= 33.3 dB	14.8 dB
5,4	DH	Pass	49.1 dB @ 13.45MHz	34.9 dB	>= 33.0 dB	16.1 dB
1,2	DH	Pass	50.9 dB @ 16.15MHz	38.5 dB	>= 31.5 dB	19.4 dB
7,8	RH	Pass	54.5 dB @ 13.45MHz	42.4 dB	>= 33.0 dB	21.5 dB
3,6	RH	Pass	39.5 dB @ 65.00MHz	35.8 dB	>= 19.4 dB	20.1 dB
5,4	RH	Pass	53.1 dB @ 6.10MHz	32.4 dB	>= 39.9 dB	13.2 dB
1,2	RH	Pass	52.6 dB @ 13.45MHz	38.4 dB	>= 33.0 dB	19.6 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

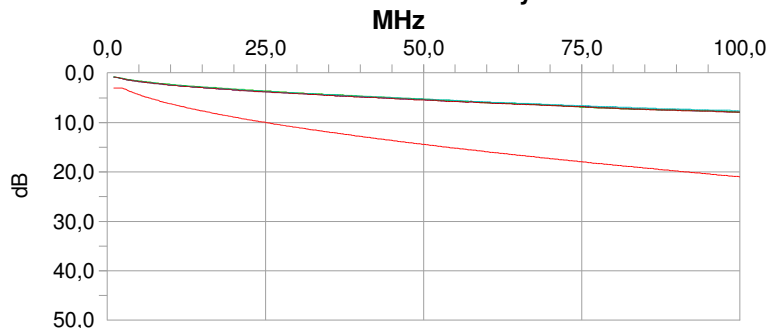
Cable ID 1: 1/18
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:34:38
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

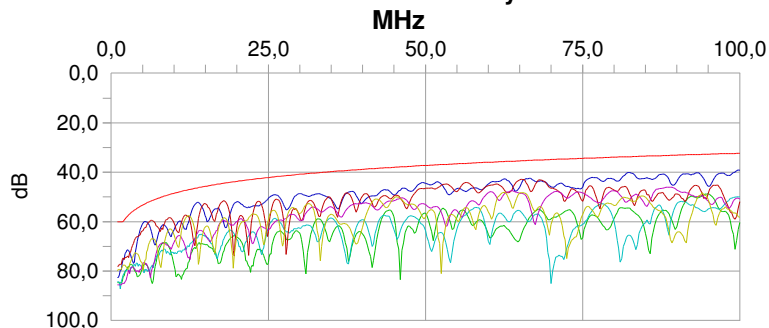
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

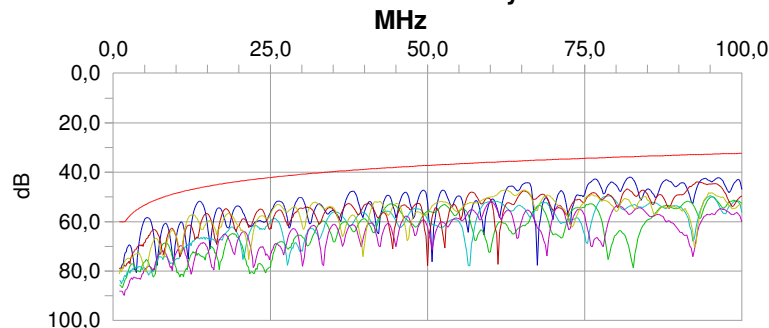
Attenuation Summary



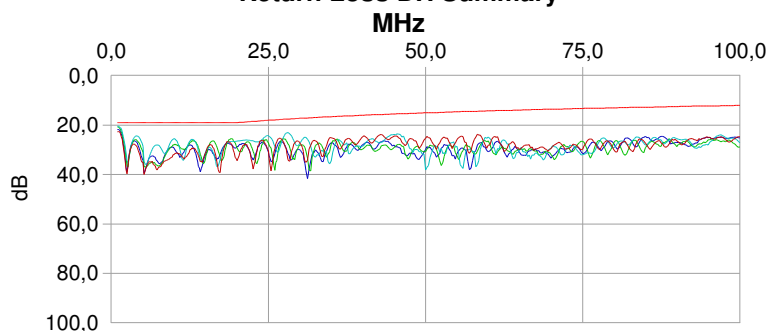
NEXT DH Summary



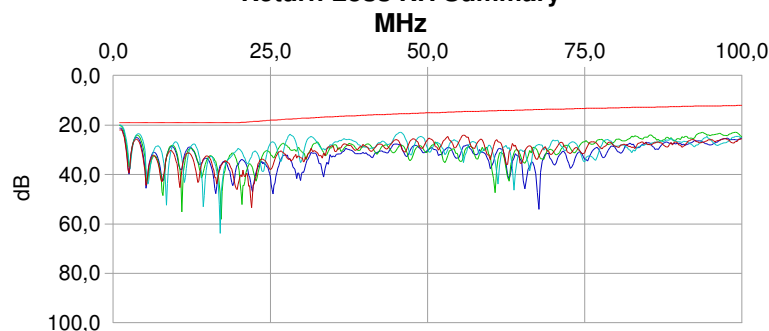
NEXT RH Summary



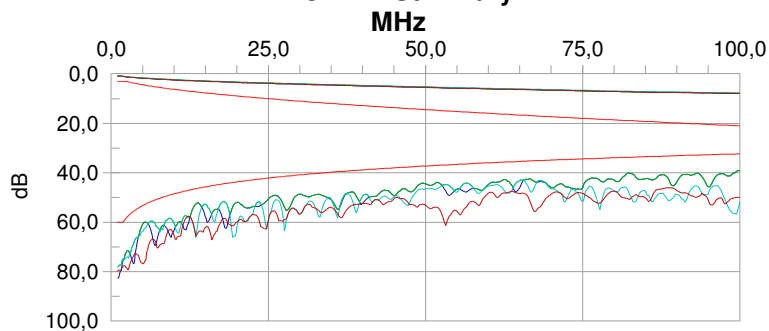
Return Loss DH Summary



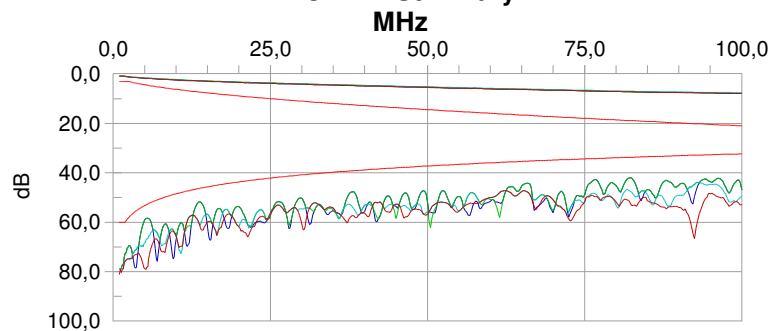
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

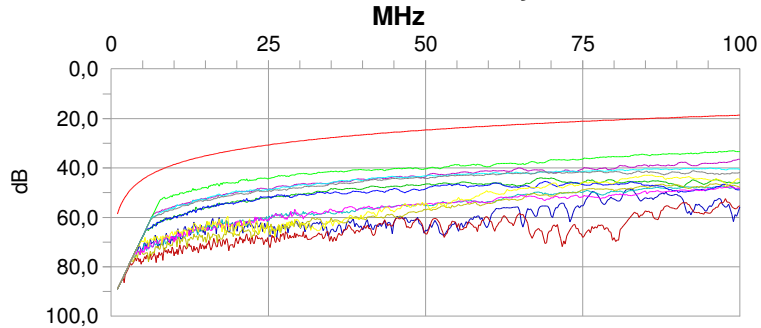
Cable ID 1: 1/18
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:34:38
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

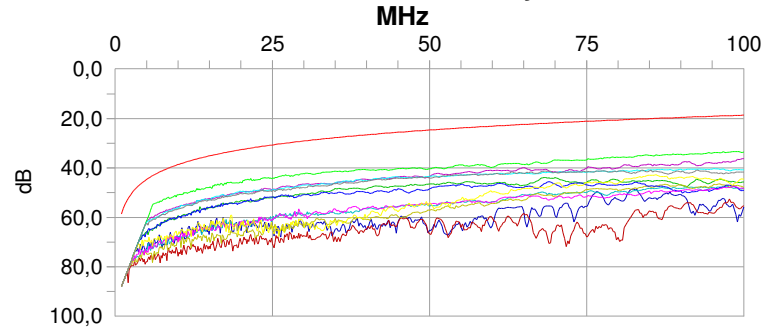
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

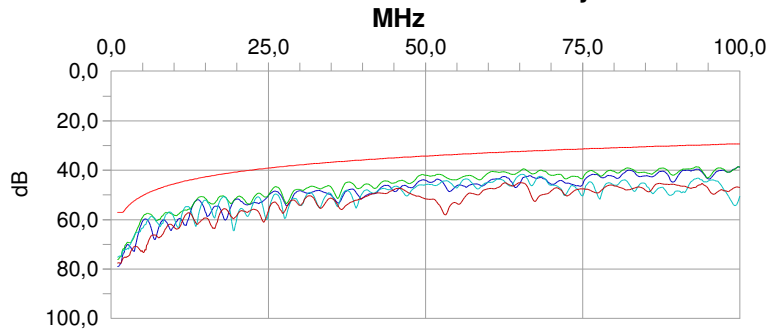
ELFEXT DH Summary



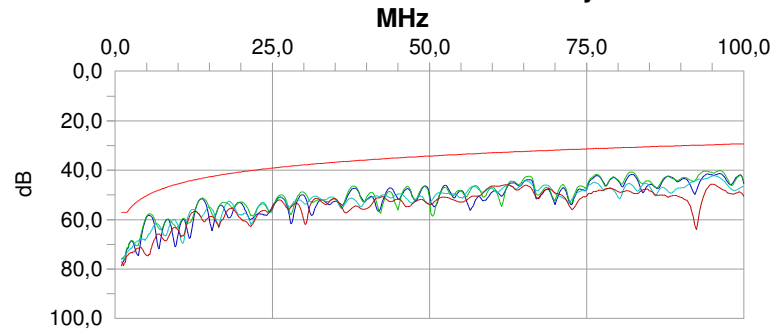
ELFEXT RH Summary



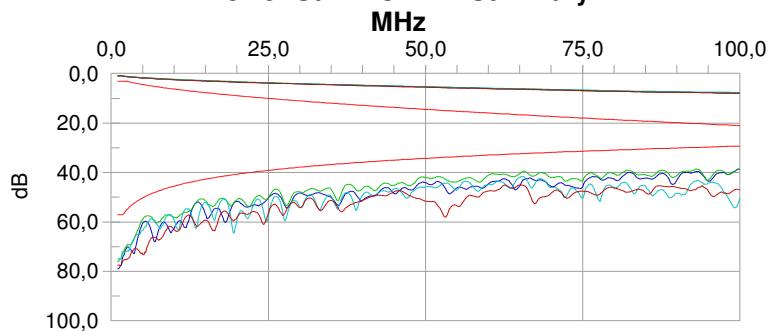
Power Sum NEXT DH Summary



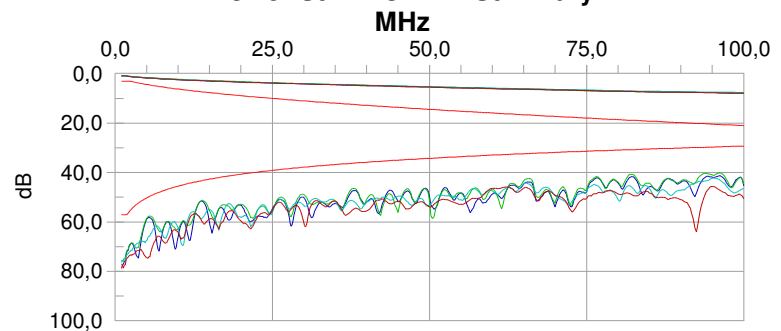
Power Sum NEXT RH Summary



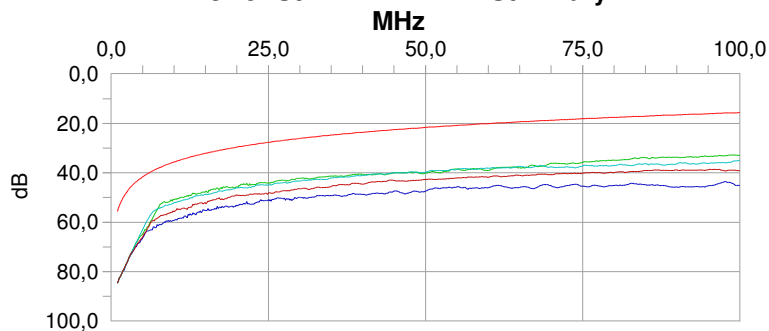
Power Sum ACR DH Summary



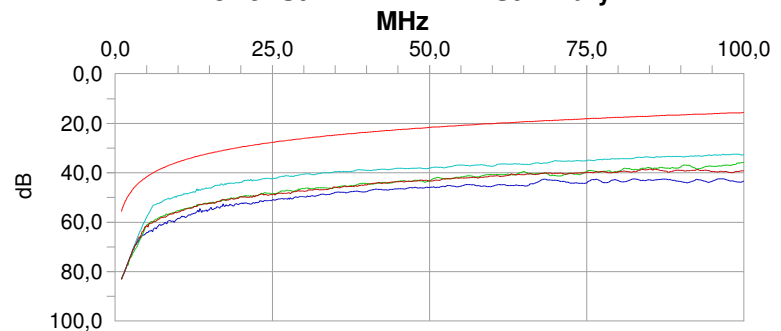
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

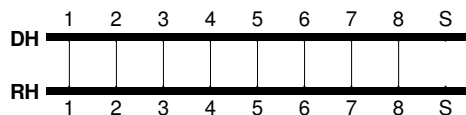
Cable ID 1: 1/19
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:33:48
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	40.0m	39.6m	39.2m	40.4m	< 90.0m	Pass
Prop. Delay	207.8ns	205.8ns	204.5ns	208.1ns	< 498.0ns	Pass
Delay Skew	3.6ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
Headroom	19.3 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	47.4 dB @ 41.75MHz	42.2 dB	> 38.5 dB	8.9 dB
7,8-5,4	DH	Pass	47.8 dB @ 99.25MHz	47.8 dB	> 32.4 dB	15.4 dB
7,8-1,2	DH	Pass	46.8 dB @ 96.75MHz	46.6 dB	> 32.5 dB	14.3 dB
3,6-5,4	DH	Pass	40.1 dB @ 65.50MHz	40.1 dB	> 35.3 dB	4.8 dB
3,6-1,2	DH	Pass	46.3 dB @ 97.75MHz	46.2 dB	> 32.5 dB	13.8 dB
5,4-1,2	DH	Pass	51.7 dB @ 24.70MHz	43.3 dB	> 42.2 dB	9.5 dB
7,8-3,6	RH	Pass	44.9 dB @ 67.75MHz	44.4 dB	> 35.1 dB	9.8 dB
7,8-5,4	RH	Pass	57.5 dB @ 21.40MHz	48.2 dB	> 43.2 dB	14.3 dB
7,8-1,2	RH	Pass	47.4 dB @ 82.50MHz	46.4 dB	> 33.7 dB	13.7 dB
3,6-5,4	RH	Pass	48.0 dB @ 39.75MHz	43.6 dB	> 38.9 dB	9.1 dB
3,6-1,2	RH	Pass	46.9 dB @ 98.75MHz	46.9 dB	> 32.4 dB	14.5 dB
5,4-1,2	RH	Pass	51.5 dB @ 19.60MHz	45.2 dB	> 43.8 dB	7.7 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.7 dB @ 1.30MHz	22.7 dB	> 19.0 dB	3.7 dB
3,6	DH	Pass	21.3 dB @ 1.00MHz	21.3 dB	> 19.0 dB	2.3 dB
5,4	DH	Pass	20.7 dB @ 1.00MHz	20.7 dB	> 19.0 dB	1.7 dB
1,2	DH	Pass	23.5 dB @ 1.30MHz	22.5 dB	> 19.0 dB	4.5 dB
7,8	RH	Pass	22.1 dB @ 1.00MHz	22.1 dB	> 19.0 dB	3.1 dB
3,6	RH	Pass	20.7 dB @ 1.00MHz	20.7 dB	> 19.0 dB	1.7 dB
5,4	RH	Pass	20.3 dB @ 1.00MHz	20.3 dB	> 19.0 dB	1.3 dB
1,2	RH	Pass	23.0 dB @ 1.30MHz	21.2 dB	> 19.0 dB	4.0 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.2 dB @ 2.50MHz	8.1 dB	< 3.1 dB	1.9 dB
3,6	Pass	1.1 dB @ 2.50MHz	8.1 dB	< 3.1 dB	2.0 dB
5,4	Pass	1.2 dB @ 2.50MHz	7.9 dB	< 3.1 dB	1.9 dB
1,2	Pass	1.2 dB @ 2.50MHz	8.2 dB	< 3.1 dB	1.9 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	34.2 dB @ 99.00MHz	N/A	>= 11.5 dB	22.7 dB
3,6	DH	Pass	33.0 dB @ 80.50MHz	N/A	>= 15.3 dB	17.7 dB
5,4	DH	Pass	33.3 dB @ 80.50MHz	N/A	>= 15.3 dB	18.0 dB
1,2	DH	Pass	35.2 dB @ 97.25MHz	N/A	>= 11.8 dB	23.4 dB
7,8	RH	Pass	36.9 dB @ 86.75MHz	N/A	>= 13.9 dB	23.0 dB
3,6	RH	Pass	35.9 dB @ 92.00MHz	N/A	>= 12.9 dB	23.0 dB
5,4	RH	Pass	36.2 dB @ 92.00MHz	N/A	>= 12.9 dB	23.3 dB
1,2	RH	Pass	37.2 dB @ 97.25MHz	N/A	>= 11.8 dB	25.4 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/19
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:33:48
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	49.9 dB @ 27.40MHz	39.4 dB	> 29.9 dB	20.0 dB
7,8-5,4	DH	Pass	57.6 dB @ 7.90MHz	41.9 dB	> 40.7 dB	16.9 dB
7,8-1,2	DH	Pass	53.8 dB @ 57.00MHz	50.9 dB	> 23.5 dB	30.3 dB
3,6-7,8	DH	Pass	57.9 dB @ 17.20MHz	43.3 dB	> 33.9 dB	24.0 dB
3,6-5,4	DH	Pass	66.2 dB @ 11.80MHz	51.0 dB	> 37.2 dB	29.0 dB
3,6-1,2	DH	Pass	38.7 dB @ 86.75MHz	37.9 dB	> 19.8 dB	18.9 dB
5,4-7,8	DH	Pass	56.0 dB @ 9.70MHz	41.9 dB	> 38.9 dB	17.1 dB
5,4-3,6	DH	Pass	44.8 dB @ 100.00MHz	44.8 dB	> 18.6 dB	26.2 dB
5,4-1,2	DH	Pass	56.1 dB @ 8.35MHz	42.1 dB	> 40.2 dB	15.9 dB
1,2-7,8	DH	Pass	62.1 dB @ 17.20MHz	48.8 dB	> 33.9 dB	28.2 dB
1,2-3,6	DH	Pass	34.1 dB @ 98.75MHz	34.1 dB	> 18.7 dB	15.4 dB
1,2-5,4	DH	Pass	57.5 dB @ 7.00MHz	42.7 dB	> 41.7 dB	15.8 dB
7,8-3,6	RH	Pass	49.8 dB @ 27.40MHz	39.4 dB	> 29.9 dB	19.9 dB
7,8-5,4	RH	Pass	57.6 dB @ 7.90MHz	41.8 dB	> 40.7 dB	16.9 dB
7,8-1,2	RH	Pass	53.9 dB @ 57.00MHz	51.0 dB	> 23.5 dB	30.4 dB
3,6-7,8	RH	Pass	58.1 dB @ 17.20MHz	43.2 dB	> 33.9 dB	24.2 dB
3,6-5,4	RH	Pass	66.1 dB @ 11.80MHz	50.7 dB	> 37.2 dB	28.9 dB
3,6-1,2	RH	Pass	39.4 dB @ 81.50MHz	38.0 dB	> 20.4 dB	19.0 dB
5,4-7,8	RH	Pass	60.5 dB @ 5.80MHz	42.1 dB	> 43.3 dB	17.2 dB
5,4-3,6	RH	Pass	44.3 dB @ 100.00MHz	44.3 dB	> 18.6 dB	25.7 dB
5,4-1,2	RH	Pass	56.2 dB @ 8.35MHz	42.4 dB	> 40.2 dB	16.0 dB
1,2-7,8	RH	Pass	62.1 dB @ 17.20MHz	48.6 dB	> 33.9 dB	28.2 dB
1,2-3,6	RH	Pass	34.2 dB @ 97.00MHz	34.0 dB	> 18.9 dB	15.3 dB
1,2-5,4	RH	Pass	60.0 dB @ 5.20MHz	42.4 dB	> 44.3 dB	15.7 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.1 dB @ 99.25MHz	40.1 dB	> 29.4 dB	10.7 dB
3,6	DH	Pass	43.3 dB @ 40.25MHz	39.5 dB	> 35.8 dB	7.5 dB
5,4	DH	Pass	39.8 dB @ 65.50MHz	39.8 dB	> 32.3 dB	7.5 dB
1,2	DH	Pass	40.6 dB @ 97.50MHz	40.6 dB	> 29.5 dB	11.1 dB
7,8	RH	Pass	47.0 dB @ 44.50MHz	42.4 dB	> 35.1 dB	11.9 dB
3,6	RH	Pass	46.6 dB @ 39.75MHz	42.9 dB	> 35.9 dB	10.7 dB
5,4	RH	Pass	50.5 dB @ 18.85MHz	41.4 dB	> 41.1 dB	9.4 dB
1,2	RH	Pass	51.3 dB @ 19.60MHz	41.8 dB	> 40.8 dB	10.5 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	32.1 dB @ 99.25MHz	N/A	>= 8.5 dB	23.6 dB
3,6	DH	Pass	31.5 dB @ 98.25MHz	N/A	>= 8.6 dB	22.9 dB
5,4	DH	Pass	32.6 dB @ 92.00MHz	N/A	>= 9.9 dB	22.7 dB
1,2	DH	Pass	32.5 dB @ 97.50MHz	N/A	>= 8.8 dB	23.7 dB
7,8	RH	Pass	34.9 dB @ 87.00MHz	N/A	>= 10.9 dB	24.0 dB
3,6	RH	Pass	34.8 dB @ 100.00MHz	N/A	>= 8.3 dB	26.5 dB
5,4	RH	Pass	33.9 dB @ 92.25MHz	N/A	>= 9.8 dB	24.1 dB
1,2	RH	Pass	33.6 dB @ 100.00MHz	N/A	>= 8.3 dB	25.3 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	51.5 dB @ 15.40MHz	39.6 dB	>= 31.9 dB	19.6 dB
3,6	DH	Pass	33.1 dB @ 96.50MHz	33.1 dB	>= 15.9 dB	17.2 dB
5,4	DH	Pass	46.9 dB @ 19.30MHz	39.4 dB	>= 29.9 dB	17.0 dB
1,2	DH	Pass	49.6 dB @ 16.90MHz	37.3 dB	>= 31.1 dB	18.5 dB
7,8	RH	Pass	46.1 dB @ 27.40MHz	37.9 dB	>= 26.9 dB	19.2 dB
3,6	RH	Pass	37.8 dB @ 86.75MHz	36.7 dB	>= 16.8 dB	21.0 dB
5,4	RH	Pass	53.3 dB @ 8.95MHz	39.3 dB	>= 36.6 dB	16.7 dB
1,2	RH	Pass	36.1 dB @ 72.75MHz	33.4 dB	>= 18.4 dB	17.7 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

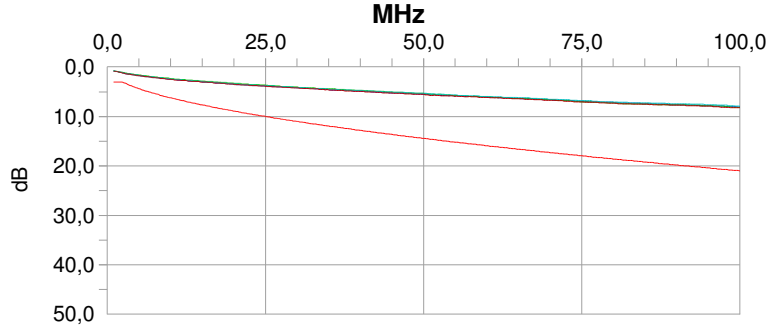
Cable ID 1: 1/19
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:33:48
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

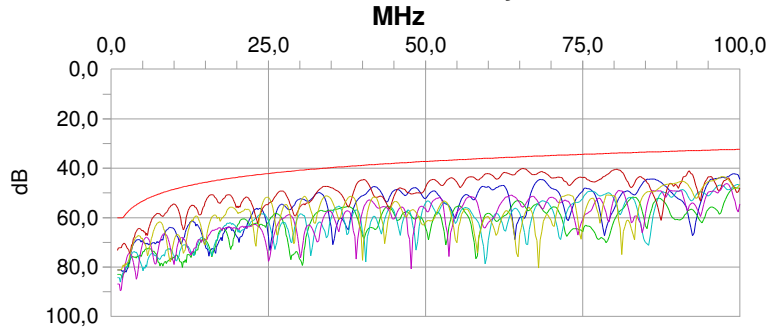
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

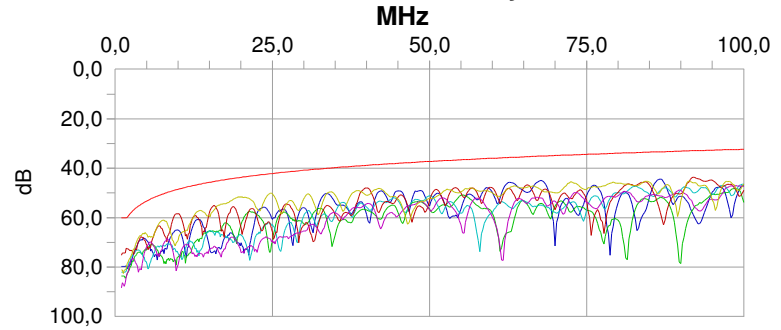
Attenuation Summary



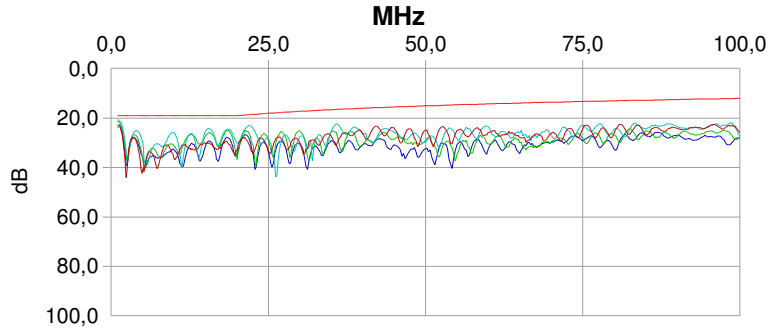
NEXT DH Summary



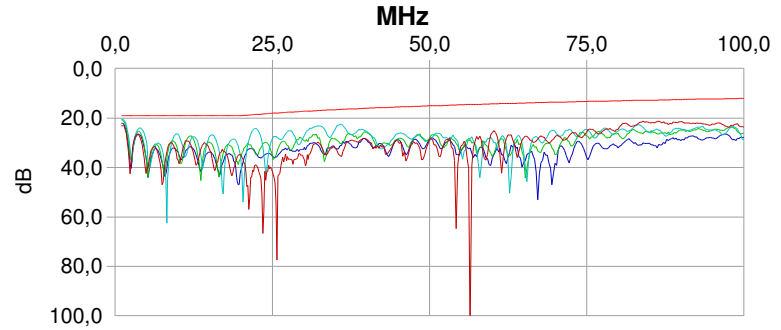
NEXT RH Summary



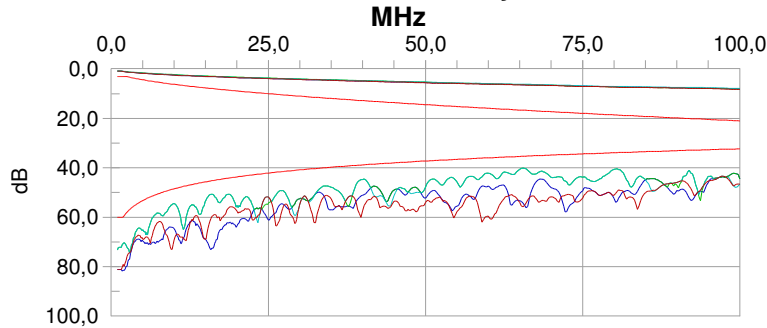
Return Loss DH Summary



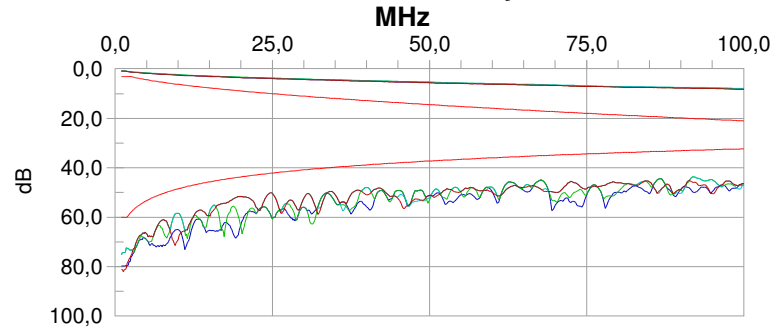
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

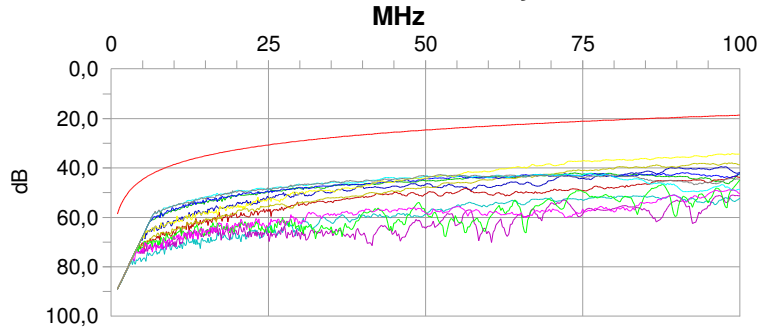
Cable ID 1: 1/19
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:33:48
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

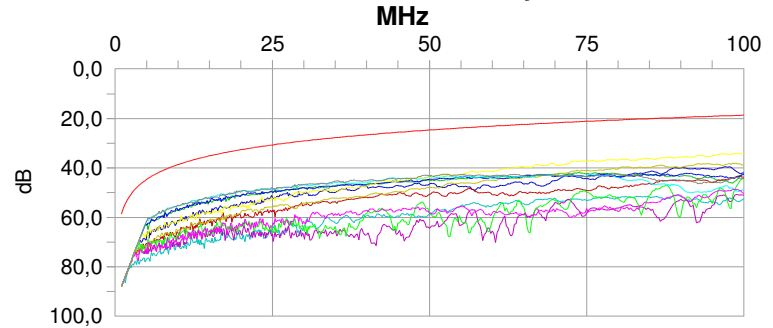
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

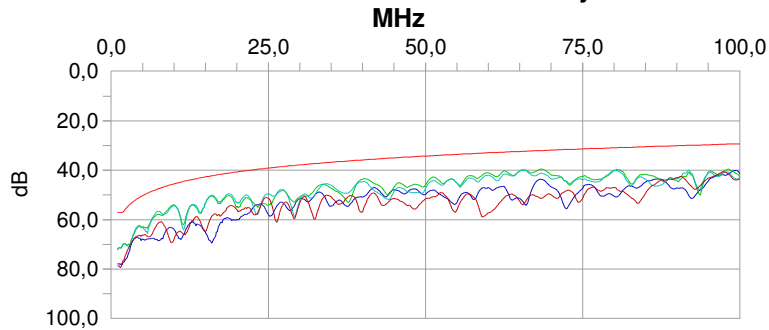
ELFEXT DH Summary



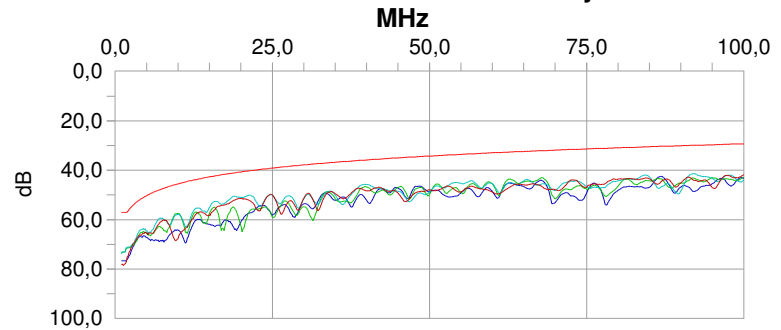
ELFEXT RH Summary



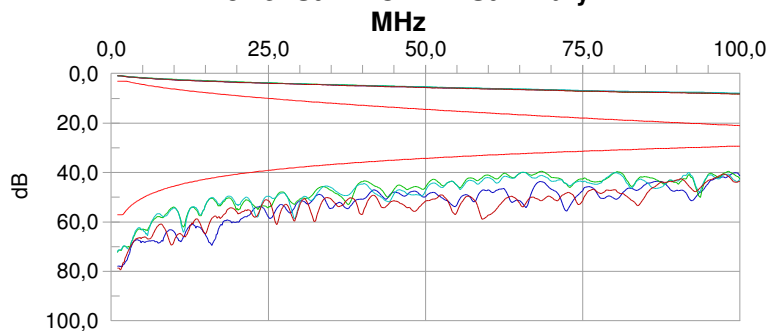
Power Sum NEXT DH Summary



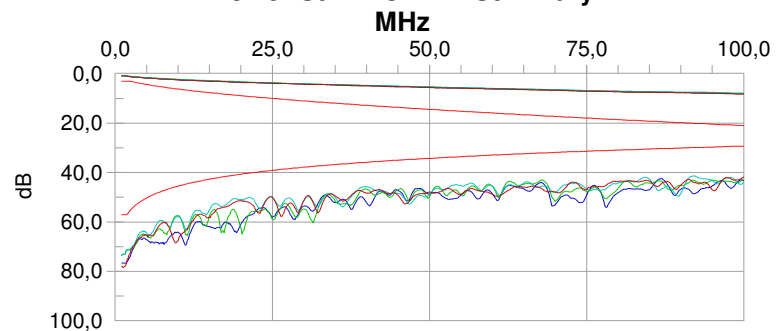
Power Sum NEXT RH Summary



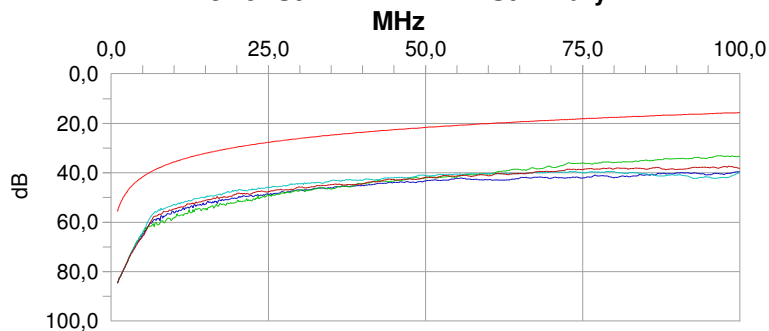
Power Sum ACR DH Summary



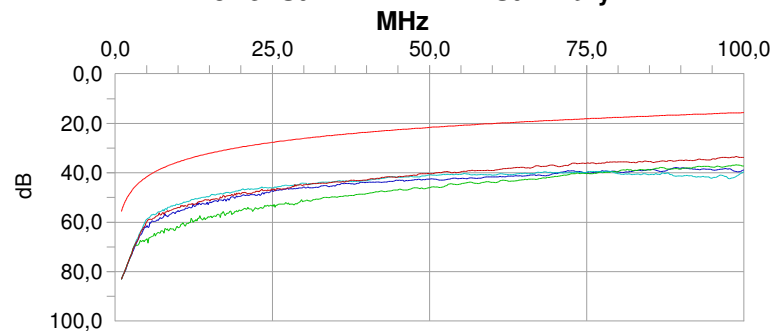
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

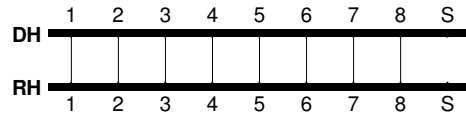
Cable ID 1: 1/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:10:56
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	23.1m	22.9m	22.6m	23.5m	< 90.0m	Pass
Prop. Delay	127.7ns	126.6ns	125.8ns	127.9ns	< 498.0ns	Pass
Delay Skew	2.1ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
Headroom	18.4 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	38.9 dB @ 98.75MHz	38.9 dB	> 32.4 dB	6.5 dB
7,8-5,4	DH	Pass	63.6 dB @ 8.20MHz	48.3 dB	> 49.9 dB	13.7 dB
7,8-1,2	DH	Pass	59.2 dB @ 22.75MHz	52.6 dB	> 42.8 dB	16.4 dB
3,6-5,4	DH	Pass	56.1 dB @ 8.80MHz	41.7 dB	> 49.4 dB	6.7 dB
3,6-1,2	DH	Pass	45.8 dB @ 82.25MHz	45.3 dB	> 33.7 dB	12.1 dB
5,4-1,2	DH	Pass	50.9 dB @ 24.10MHz	44.5 dB	> 42.4 dB	8.5 dB
7,8-3,6	RH	Pass	39.1 dB @ 98.50MHz	39.1 dB	> 32.4 dB	6.7 dB
7,8-5,4	RH	Pass	48.3 dB @ 57.75MHz	47.4 dB	> 36.2 dB	12.1 dB
7,8-1,2	RH	Pass	57.9 dB @ 22.75MHz	50.5 dB	> 42.8 dB	15.1 dB
3,6-5,4	RH	Pass	49.2 dB @ 37.00MHz	46.1 dB	> 39.4 dB	9.8 dB
3,6-1,2	RH	Pass	44.7 dB @ 96.50MHz	44.6 dB	> 32.6 dB	12.1 dB
5,4-1,2	RH	Pass	59.1 dB @ 10.30MHz	45.8 dB	> 48.3 dB	10.8 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.9 dB @ 1.60MHz	22.9 dB	> 19.0 dB	3.9 dB
3,6	DH	Pass	22.1 dB @ 1.60MHz	22.1 dB	> 19.0 dB	3.1 dB
5,4	DH	Pass	21.1 dB @ 1.60MHz	21.1 dB	> 19.0 dB	2.1 dB
1,2	DH	Pass	23.2 dB @ 1.60MHz	21.8 dB	> 19.0 dB	4.2 dB
7,8	RH	Pass	22.5 dB @ 1.60MHz	22.5 dB	> 19.0 dB	3.5 dB
3,6	RH	Pass	21.4 dB @ 1.60MHz	21.4 dB	> 19.0 dB	2.4 dB
5,4	RH	Pass	21.8 dB @ 1.75MHz	21.8 dB	> 19.0 dB	2.8 dB
1,2	RH	Pass	23.2 dB @ 1.60MHz	21.8 dB	> 19.0 dB	4.2 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.50MHz	4.7 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.50MHz	4.5 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.7 dB @ 2.50MHz	4.5 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.50MHz	4.7 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	34.3 dB @ 98.75MHz	N/A	>= 11.6 dB	22.7 dB
3,6	DH	Pass	34.4 dB @ 98.75MHz	N/A	>= 11.6 dB	22.8 dB
5,4	DH	Pass	37.7 dB @ 74.50MHz	N/A	>= 16.5 dB	21.2 dB
1,2	DH	Pass	40.0 dB @ 86.75MHz	N/A	>= 13.9 dB	26.1 dB
7,8	RH	Pass	34.5 dB @ 98.50MHz	N/A	>= 11.6 dB	22.9 dB
3,6	RH	Pass	34.6 dB @ 98.50MHz	N/A	>= 11.6 dB	23.0 dB
5,4	RH	Pass	41.3 dB @ 99.75MHz	N/A	>= 11.4 dB	29.9 dB
1,2	RH	Pass	40.0 dB @ 96.75MHz	N/A	>= 11.9 dB	28.1 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:10:56
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	36.1 dB @ 97.00MHz	36.1 dB	> 18.9 dB	17.2 dB
7,8-5,4	DH	Pass	54.9 dB @ 7.45MHz	35.2 dB	> 41.2 dB	13.7 dB
7,8-1,2	DH	Pass	60.8 dB @ 71.25MHz	60.8 dB	> 21.6 dB	39.2 dB
3,6-7,8	DH	Pass	47.1 dB @ 44.25MHz	41.0 dB	> 25.7 dB	21.4 dB
3,6-5,4	DH	Pass	54.9 dB @ 8.35MHz	35.6 dB	> 40.2 dB	14.7 dB
3,6-1,2	DH	Pass	46.1 dB @ 86.50MHz	45.8 dB	> 19.9 dB	26.2 dB
5,4-7,8	DH	Pass	54.4 dB @ 7.90MHz	35.5 dB	> 40.7 dB	13.7 dB
5,4-3,6	DH	Pass	50.1 dB @ 8.65MHz	30.9 dB	> 39.9 dB	10.2 dB
5,4-1,2	DH	Pass	53.3 dB @ 11.95MHz	39.0 dB	> 37.1 dB	16.2 dB
1,2-7,8	DH	Pass	60.9 dB @ 60.50MHz	59.8 dB	> 23.0 dB	37.9 dB
1,2-3,6	DH	Pass	42.7 dB @ 92.50MHz	42.5 dB	> 19.3 dB	23.4 dB
1,2-5,4	DH	Pass	58.1 dB @ 6.85MHz	38.5 dB	> 41.9 dB	16.2 dB
7,8-3,6	RH	Pass	35.9 dB @ 97.00MHz	35.9 dB	> 18.9 dB	17.0 dB
7,8-5,4	RH	Pass	54.8 dB @ 7.45MHz	35.1 dB	> 41.2 dB	13.6 dB
7,8-1,2	RH	Pass	60.9 dB @ 71.25MHz	60.9 dB	> 21.6 dB	39.3 dB
3,6-7,8	RH	Pass	47.3 dB @ 44.25MHz	41.1 dB	> 25.7 dB	21.6 dB
3,6-5,4	RH	Pass	58.0 dB @ 5.80MHz	35.6 dB	> 43.3 dB	14.7 dB
3,6-1,2	RH	Pass	46.3 dB @ 86.50MHz	46.0 dB	> 19.9 dB	26.4 dB
5,4-7,8	RH	Pass	56.4 dB @ 6.25MHz	35.7 dB	> 42.7 dB	13.7 dB
5,4-3,6	RH	Pass	50.8 dB @ 7.90MHz	30.9 dB	> 40.7 dB	10.1 dB
5,4-1,2	RH	Pass	59.8 dB @ 5.65MHz	39.2 dB	> 43.6 dB	16.2 dB
1,2-7,8	RH	Pass	60.8 dB @ 60.50MHz	59.7 dB	> 23.0 dB	37.8 dB
1,2-3,6	RH	Pass	42.5 dB @ 92.50MHz	42.2 dB	> 19.3 dB	23.2 dB
1,2-5,4	RH	Pass	58.1 dB @ 6.85MHz	38.3 dB	> 41.9 dB	16.2 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	38.7 dB @ 98.75MHz	38.7 dB	> 29.4 dB	9.3 dB
3,6	DH	Pass	44.3 dB @ 38.00MHz	38.6 dB	> 36.2 dB	8.1 dB
5,4	DH	Pass	54.1 dB @ 8.80MHz	40.1 dB	> 46.4 dB	7.7 dB
1,2	DH	Pass	50.4 dB @ 23.65MHz	43.1 dB	> 39.5 dB	10.9 dB
7,8	RH	Pass	38.7 dB @ 98.50MHz	38.7 dB	> 29.4 dB	9.3 dB
3,6	RH	Pass	38.0 dB @ 98.50MHz	38.0 dB	> 29.4 dB	8.6 dB
5,4	RH	Pass	56.0 dB @ 8.95MHz	43.5 dB	> 46.3 dB	9.7 dB
1,2	RH	Pass	51.8 dB @ 24.10MHz	42.6 dB	> 39.4 dB	12.4 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	34.1 dB @ 98.75MHz	N/A	>= 8.6 dB	25.5 dB
3,6	DH	Pass	34.1 dB @ 98.75MHz	N/A	>= 8.6 dB	25.5 dB
5,4	DH	Pass	36.1 dB @ 74.50MHz	N/A	>= 13.5 dB	22.6 dB
1,2	DH	Pass	38.5 dB @ 95.25MHz	N/A	>= 9.3 dB	29.2 dB
7,8	RH	Pass	34.1 dB @ 98.50MHz	N/A	>= 8.6 dB	25.5 dB
3,6	RH	Pass	33.5 dB @ 98.50MHz	N/A	>= 8.6 dB	24.9 dB
5,4	RH	Pass	39.0 dB @ 99.75MHz	N/A	>= 8.4 dB	30.6 dB
1,2	RH	Pass	37.9 dB @ 99.50MHz	N/A	>= 8.4 dB	29.5 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	38.1 dB @ 52.25MHz	34.6 dB	>= 21.3 dB	16.8 dB
3,6	DH	Pass	43.1 dB @ 19.15MHz	29.5 dB	>= 30.0 dB	13.1 dB
5,4	DH	Pass	51.2 dB @ 7.45MHz	31.6 dB	>= 38.2 dB	13.0 dB
1,2	DH	Pass	40.9 dB @ 56.25MHz	38.3 dB	>= 20.6 dB	20.3 dB
7,8	RH	Pass	36.9 dB @ 56.75MHz	33.0 dB	>= 20.5 dB	16.4 dB
3,6	RH	Pass	48.4 dB @ 17.05MHz	34.3 dB	>= 31.0 dB	17.4 dB
5,4	RH	Pass	48.5 dB @ 7.90MHz	29.3 dB	>= 37.7 dB	10.8 dB
1,2	RH	Pass	42.3 dB @ 45.00MHz	37.0 dB	>= 22.5 dB	19.8 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

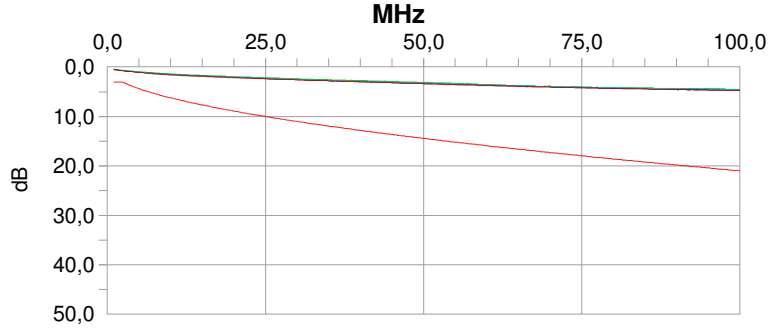
Cable ID 1: 1/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:10:56
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

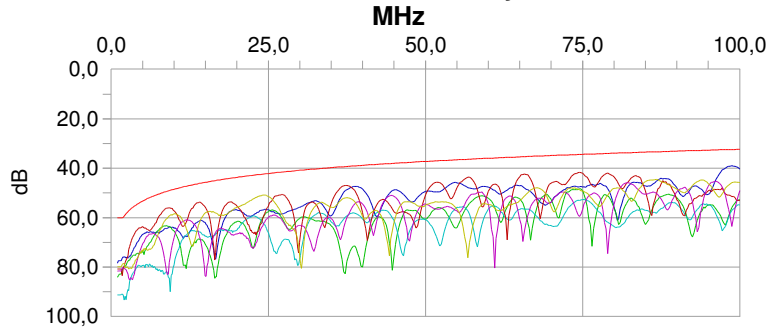
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

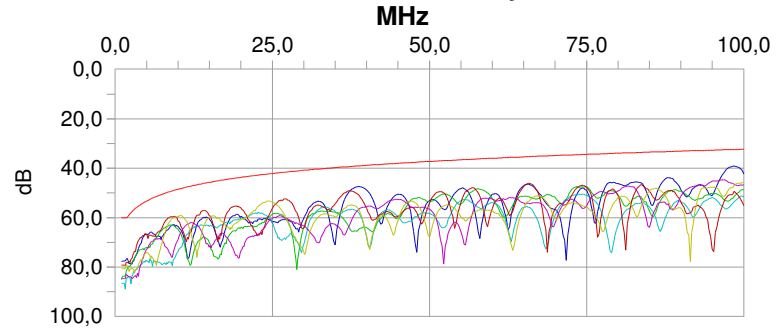
Attenuation Summary



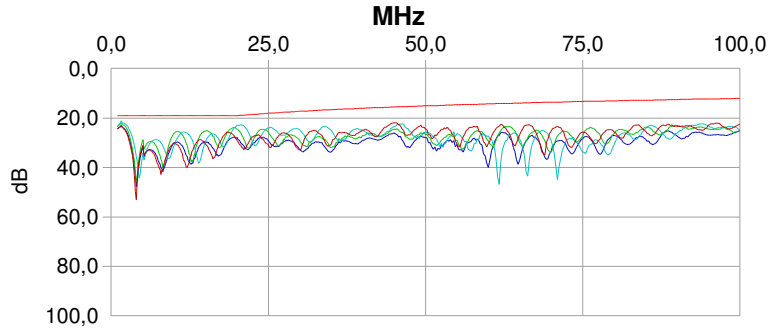
NEXT DH Summary



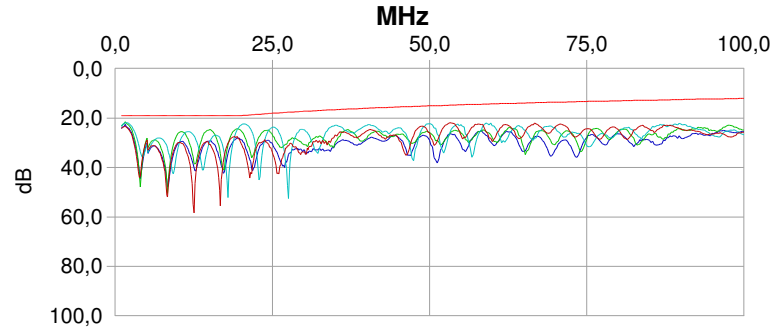
NEXT RH Summary



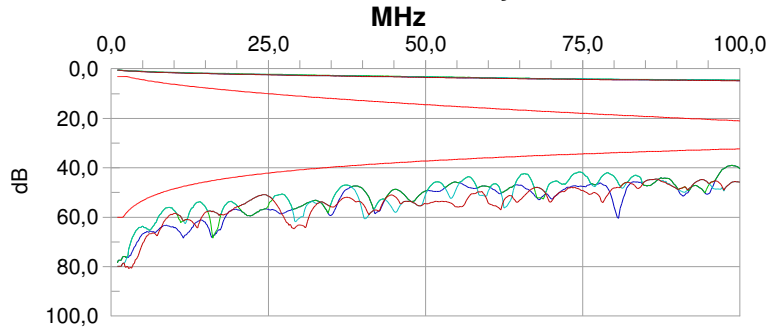
Return Loss DH Summary



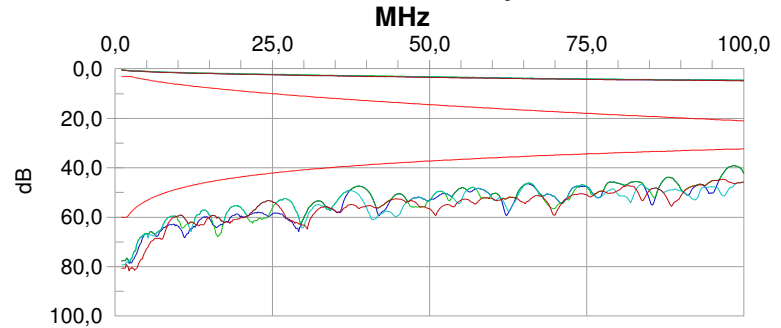
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

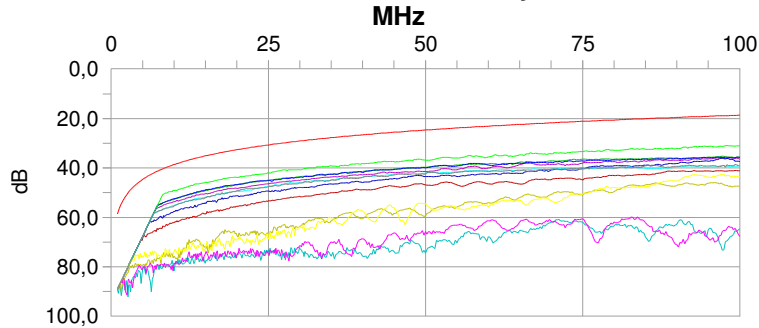
Cable ID 1: 1/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:10:56
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

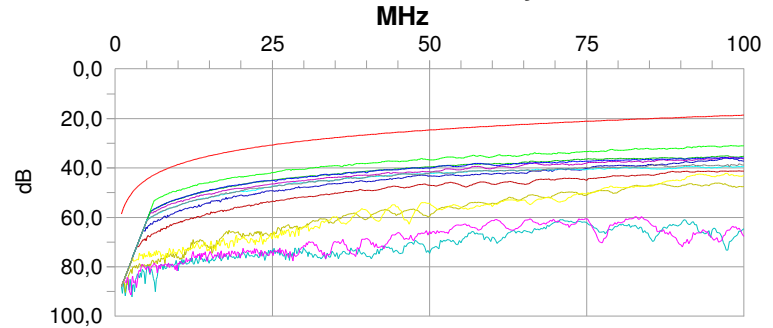
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

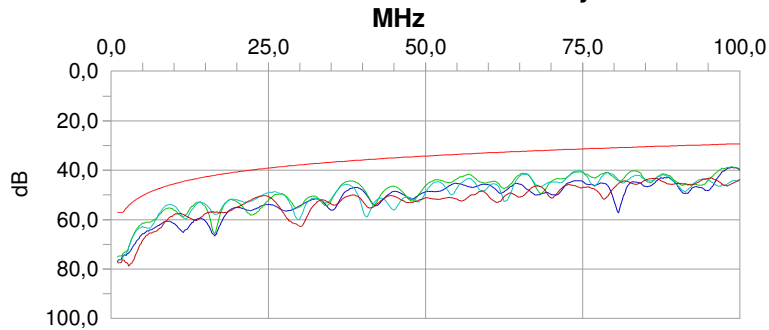
ELFEXT DH Summary



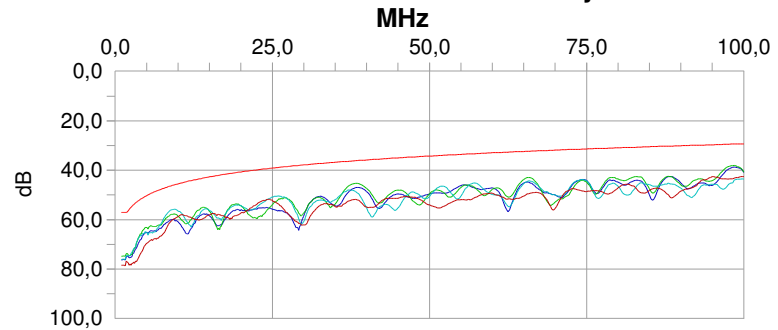
ELFEXT RH Summary



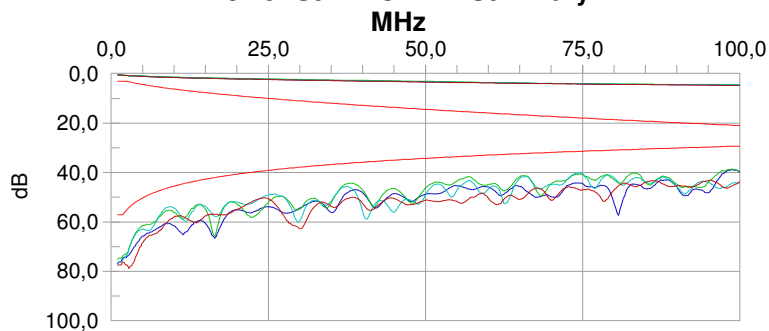
Power Sum NEXT DH Summary



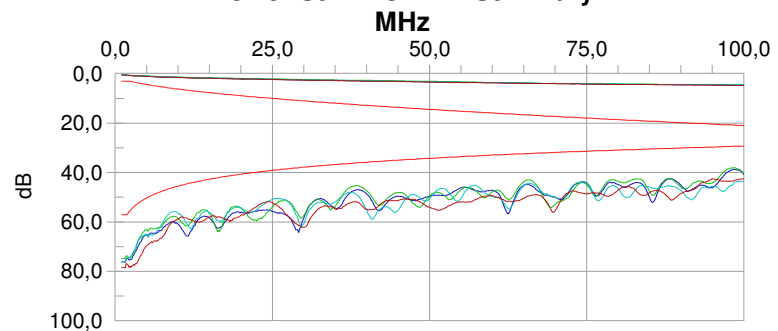
Power Sum NEXT RH Summary



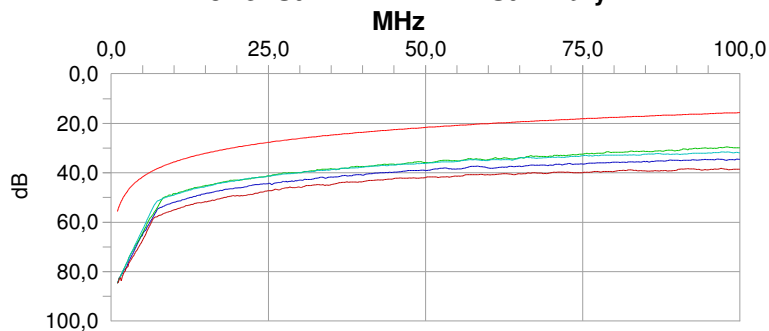
Power Sum ACR DH Summary



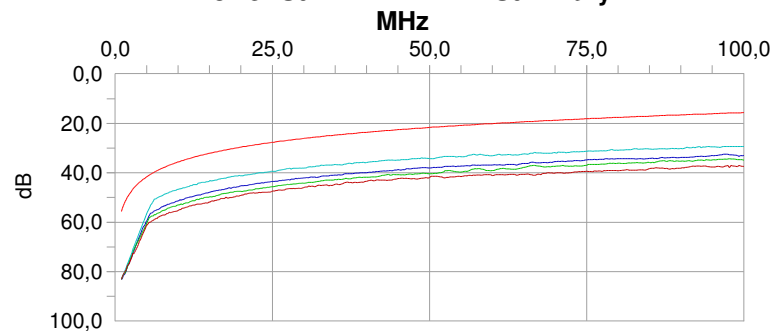
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

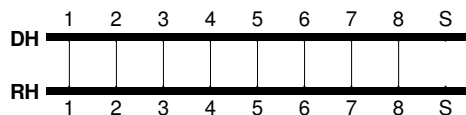
Cable ID 1: 1/20
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:29:57
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	38.7m	38.3m	37.8m	39.2m	< 90.0m	Pass
Prop. Delay	201.6ns	199.4ns	197.9ns	202.3ns	< 498.0ns	Pass
Delay Skew	4.4ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
Headroom	18.7 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	43.0 dB @ 64.50MHz	42.3 dB	> 35.4 dB	7.6 dB
7,8-5,4	DH	Pass	59.0 dB @ 21.70MHz	51.6 dB	> 43.1 dB	15.9 dB
7,8-1,2	DH	Pass	49.0 dB @ 55.75MHz	47.6 dB	> 36.5 dB	12.5 dB
3,6-5,4	DH	Pass	52.3 dB @ 12.40MHz	43.0 dB	> 47.0 dB	5.3 dB
3,6-1,2	DH	Pass	51.6 dB @ 49.75MHz	48.1 dB	> 37.3 dB	14.3 dB
5,4-1,2	DH	Pass	55.4 dB @ 20.50MHz	46.2 dB	> 43.5 dB	11.9 dB
7,8-3,6	RH	Pass	41.5 dB @ 69.50MHz	41.5 dB	> 34.9 dB	6.6 dB
7,8-5,4	RH	Pass	61.7 dB @ 13.30MHz	51.5 dB	> 46.5 dB	15.2 dB
7,8-1,2	RH	Pass	59.3 dB @ 22.30MHz	51.3 dB	> 42.9 dB	16.4 dB
3,6-5,4	RH	Pass	45.1 dB @ 40.25MHz	39.7 dB	> 38.8 dB	6.3 dB
3,6-1,2	RH	Pass	53.7 dB @ 50.25MHz	50.5 dB	> 37.2 dB	16.5 dB
5,4-1,2	RH	Pass	57.5 dB @ 21.10MHz	49.6 dB	> 43.3 dB	14.2 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	21.5 dB @ 1.00MHz	21.5 dB	> 19.0 dB	2.5 dB
3,6	DH	Pass	20.6 dB @ 1.00MHz	20.6 dB	> 19.0 dB	1.6 dB
5,4	DH	Pass	20.2 dB @ 1.00MHz	20.2 dB	> 19.0 dB	1.2 dB
1,2	DH	Pass	22.2 dB @ 1.30MHz	22.2 dB	> 19.0 dB	3.2 dB
7,8	RH	Pass	21.1 dB @ 1.00MHz	21.1 dB	> 19.0 dB	2.1 dB
3,6	RH	Pass	20.1 dB @ 1.00MHz	20.1 dB	> 19.0 dB	1.1 dB
5,4	RH	Pass	20.0 dB @ 1.00MHz	20.0 dB	> 19.0 dB	1.0 dB
1,2	RH	Pass	21.7 dB @ 1.00MHz	20.4 dB	> 19.0 dB	2.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.1 dB @ 2.50MHz	7.8 dB	< 3.1 dB	2.0 dB
3,6	Pass	1.1 dB @ 2.50MHz	7.8 dB	< 3.1 dB	2.0 dB
5,4	Pass	1.1 dB @ 2.50MHz	7.5 dB	< 3.1 dB	2.0 dB
1,2	Pass	1.2 dB @ 2.50MHz	7.8 dB	< 3.1 dB	1.9 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	34.8 dB @ 96.00MHz	N/A	>= 12.1 dB	22.7 dB
3,6	DH	Pass	34.8 dB @ 96.00MHz	N/A	>= 12.1 dB	22.7 dB
5,4	DH	Pass	36.2 dB @ 97.50MHz	N/A	>= 11.8 dB	24.4 dB
1,2	DH	Pass	38.4 dB @ 100.00MHz	N/A	>= 11.3 dB	27.1 dB
7,8	RH	Pass	34.4 dB @ 95.50MHz	N/A	>= 12.1 dB	22.3 dB
3,6	RH	Pass	32.1 dB @ 97.75MHz	N/A	>= 11.8 dB	20.3 dB
5,4	RH	Pass	32.3 dB @ 97.00MHz	N/A	>= 11.9 dB	20.4 dB
1,2	RH	Pass	41.8 dB @ 100.00MHz	N/A	>= 11.3 dB	30.5 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/20
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:29:57
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	35.3 dB @ 99.75MHz	35.3 dB	> 18.6 dB	16.7 dB
7,8-5,4	DH	Pass	54.3 dB @ 13.60MHz	43.5 dB	> 35.9 dB	18.4 dB
7,8-1,2	DH	Pass	57.1 dB @ 54.00MHz	56.0 dB	> 24.0 dB	33.1 dB
3,6-7,8	DH	Pass	41.3 dB @ 95.00MHz	41.0 dB	> 19.1 dB	22.2 dB
3,6-5,4	DH	Pass	58.0 dB @ 7.30MHz	39.2 dB	> 41.3 dB	16.7 dB
3,6-1,2	DH	Pass	39.9 dB @ 91.75MHz	39.8 dB	> 19.4 dB	20.5 dB
5,4-7,8	DH	Pass	58.0 dB @ 8.20MHz	43.5 dB	> 40.3 dB	17.7 dB
5,4-3,6	DH	Pass	50.2 dB @ 10.75MHz	31.6 dB	> 38.0 dB	12.2 dB
5,4-1,2	DH	Pass	57.5 dB @ 8.35MHz	41.7 dB	> 40.2 dB	17.3 dB
1,2-7,8	DH	Pass	66.2 dB @ 15.40MHz	53.5 dB	> 34.9 dB	31.3 dB
1,2-3,6	DH	Pass	35.5 dB @ 99.25MHz	35.5 dB	> 18.7 dB	16.8 dB
1,2-5,4	DH	Pass	59.3 dB @ 6.70MHz	42.5 dB	> 42.1 dB	17.2 dB
7,8-3,6	RH	Pass	35.3 dB @ 99.75MHz	35.3 dB	> 18.6 dB	16.7 dB
7,8-5,4	RH	Pass	62.1 dB @ 5.50MHz	43.3 dB	> 43.8 dB	18.3 dB
7,8-1,2	RH	Pass	57.2 dB @ 54.00MHz	56.1 dB	> 24.0 dB	33.2 dB
3,6-7,8	RH	Pass	41.2 dB @ 95.00MHz	41.0 dB	> 19.1 dB	22.1 dB
3,6-5,4	RH	Pass	59.3 dB @ 6.40MHz	39.0 dB	> 42.5 dB	16.8 dB
3,6-1,2	RH	Pass	39.9 dB @ 91.75MHz	39.8 dB	> 19.4 dB	20.5 dB
5,4-7,8	RH	Pass	58.0 dB @ 8.20MHz	43.6 dB	> 40.3 dB	17.7 dB
5,4-3,6	RH	Pass	53.6 dB @ 7.00MHz	31.8 dB	> 41.7 dB	11.9 dB
5,4-1,2	RH	Pass	62.0 dB @ 4.90MHz	41.9 dB	> 44.8 dB	17.2 dB
1,2-7,8	RH	Pass	66.2 dB @ 15.40MHz	53.5 dB	> 34.9 dB	31.3 dB
1,2-3,6	RH	Pass	35.5 dB @ 99.25MHz	35.5 dB	> 18.7 dB	16.8 dB
1,2-5,4	RH	Pass	59.3 dB @ 6.70MHz	42.3 dB	> 42.1 dB	17.2 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	42.5 dB @ 64.50MHz	42.0 dB	> 32.4 dB	10.1 dB
3,6	DH	Pass	52.0 dB @ 12.40MHz	41.0 dB	> 44.0 dB	8.0 dB
5,4	DH	Pass	51.8 dB @ 12.40MHz	42.0 dB	> 44.0 dB	7.8 dB
1,2	DH	Pass	43.7 dB @ 79.00MHz	43.7 dB	> 31.0 dB	12.7 dB
7,8	RH	Pass	41.7 dB @ 64.50MHz	41.3 dB	> 32.4 dB	9.3 dB
3,6	RH	Pass	38.8 dB @ 69.50MHz	38.2 dB	> 31.9 dB	6.9 dB
5,4	RH	Pass	44.4 dB @ 40.25MHz	39.1 dB	> 35.8 dB	8.6 dB
1,2	RH	Pass	55.7 dB @ 21.25MHz	47.1 dB	> 40.2 dB	15.5 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	34.5 dB @ 96.00MHz	N/A	>= 9.1 dB	25.4 dB
3,6	DH	Pass	33.6 dB @ 96.75MHz	N/A	>= 8.9 dB	24.7 dB
5,4	DH	Pass	35.1 dB @ 97.50MHz	N/A	>= 8.8 dB	26.3 dB
1,2	DH	Pass	36.8 dB @ 79.00MHz	N/A	>= 12.6 dB	24.2 dB
7,8	RH	Pass	34.0 dB @ 95.50MHz	N/A	>= 9.1 dB	24.9 dB
3,6	RH	Pass	30.7 dB @ 95.50MHz	N/A	>= 9.1 dB	21.6 dB
5,4	RH	Pass	31.7 dB @ 97.00MHz	N/A	>= 8.9 dB	22.8 dB
1,2	RH	Pass	39.7 dB @ 92.00MHz	N/A	>= 9.9 dB	29.8 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	48.3 dB @ 24.55MHz	39.7 dB	>= 27.8 dB	20.5 dB
3,6	DH	Pass	29.3 dB @ 96.00MHz	29.3 dB	>= 16.0 dB	13.3 dB
5,4	DH	Pass	54.0 dB @ 7.30MHz	37.5 dB	>= 38.3 dB	15.7 dB
1,2	DH	Pass	44.4 dB @ 36.75MHz	37.6 dB	>= 24.3 dB	20.1 dB
7,8	RH	Pass	35.0 dB @ 99.75MHz	35.0 dB	>= 15.6 dB	19.4 dB
3,6	RH	Pass	55.8 dB @ 8.35MHz	35.3 dB	>= 37.2 dB	18.6 dB
5,4	RH	Pass	52.0 dB @ 7.00MHz	31.2 dB	>= 38.7 dB	13.3 dB
1,2	RH	Pass	39.5 dB @ 52.75MHz	34.9 dB	>= 21.2 dB	18.3 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

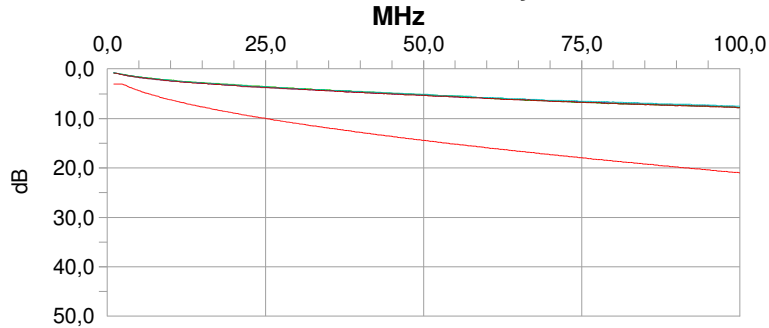
Cable ID 1: 1/20
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:29:57
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

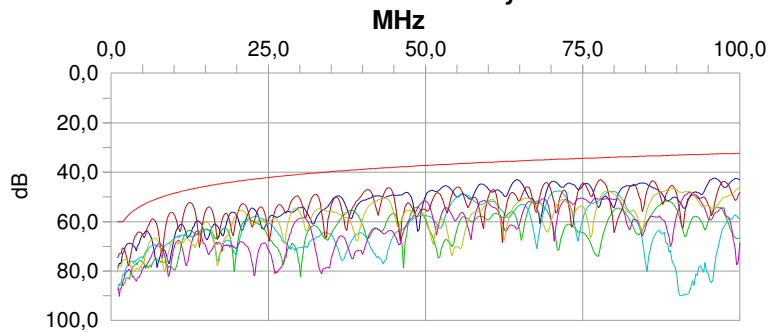
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

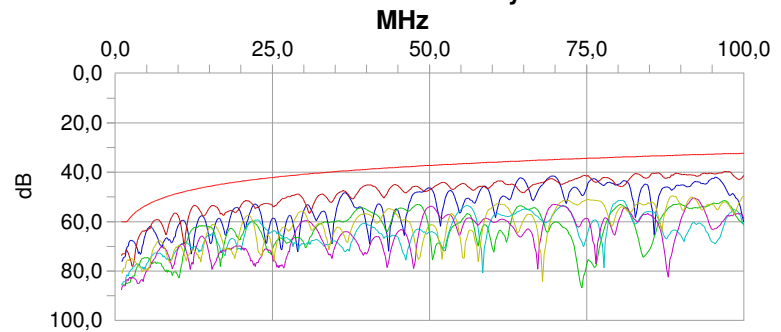
Attenuation Summary



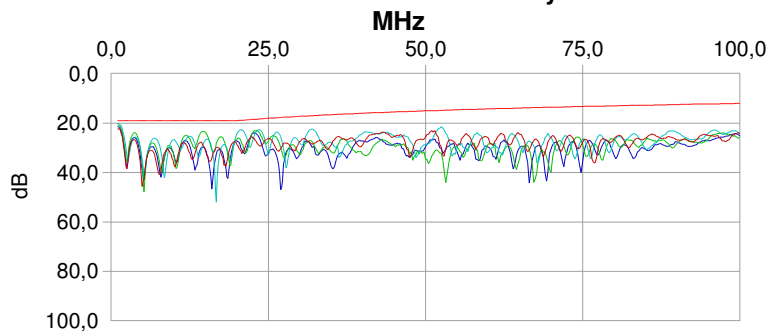
NEXT DH Summary



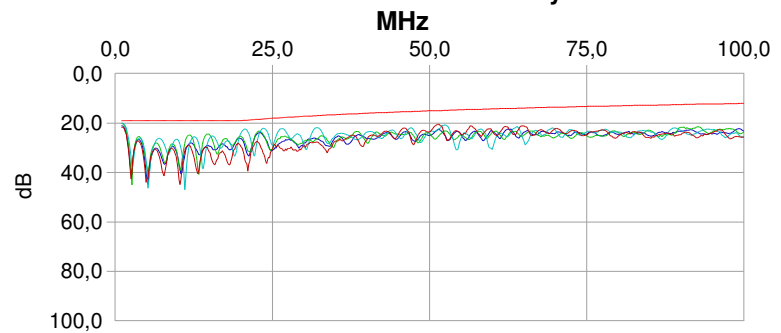
NEXT RH Summary



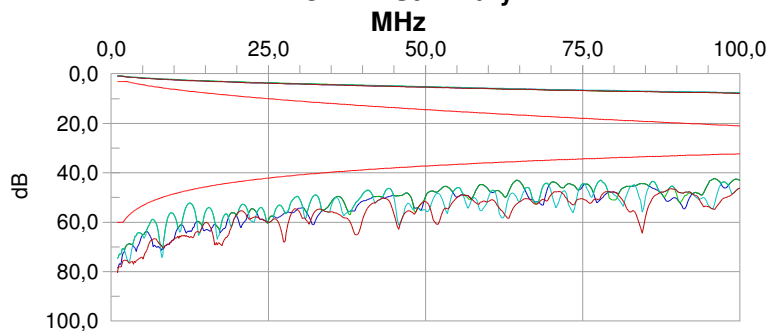
Return Loss DH Summary



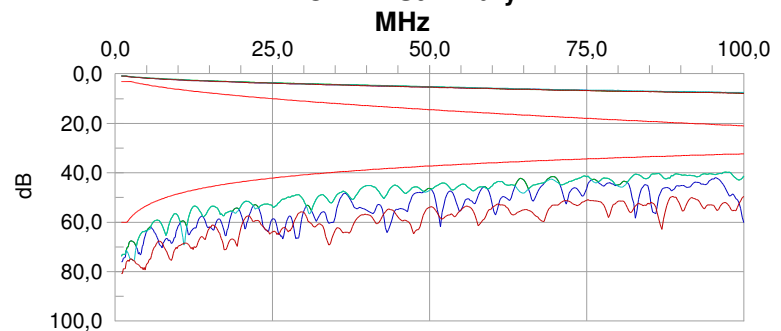
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/20
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:29:57
Adapter ID: 6014

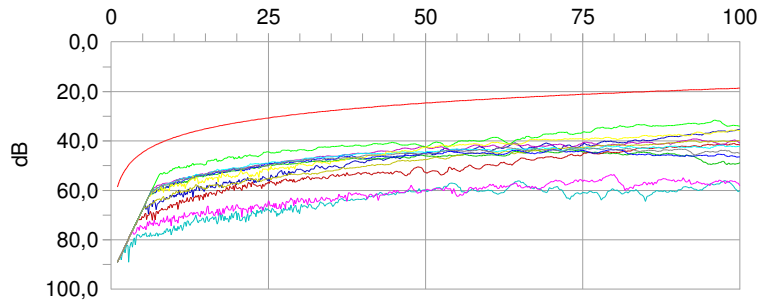
Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

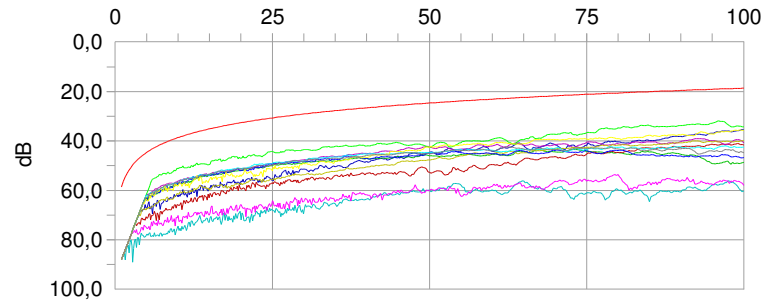
ELFEXT DH Summary

MHz



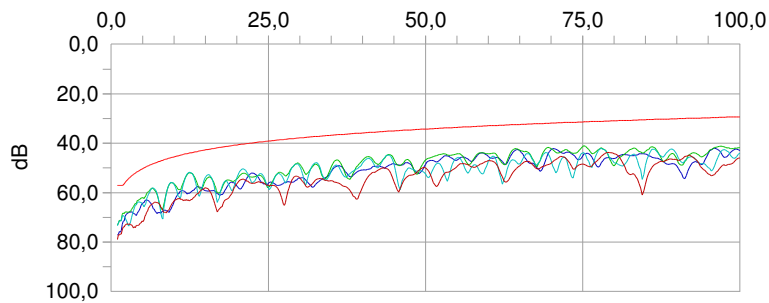
ELFEXT RH Summary

MHz



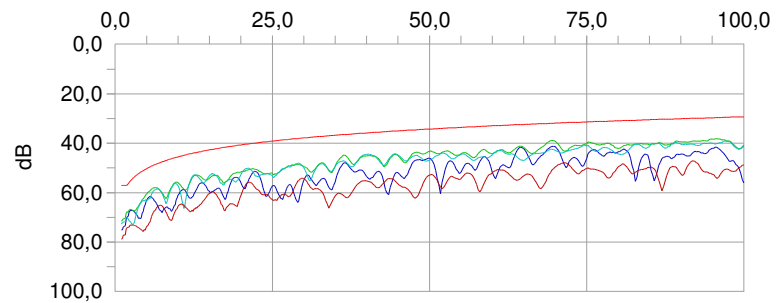
Power Sum NEXT DH Summary

MHz



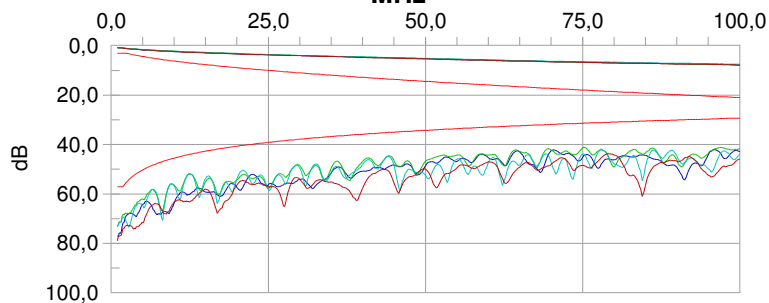
Power Sum NEXT RH Summary

MHz



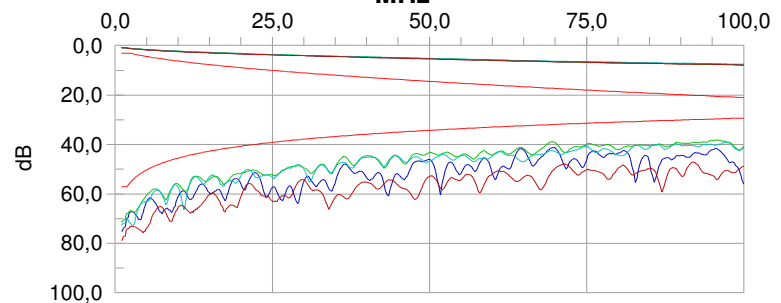
Power Sum ACR DH Summary

MHz



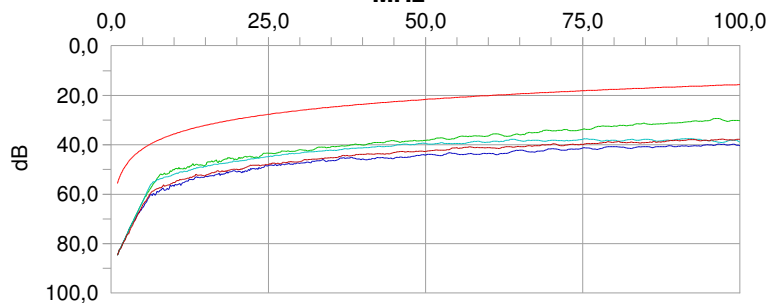
Power Sum ACR RH Summary

MHz



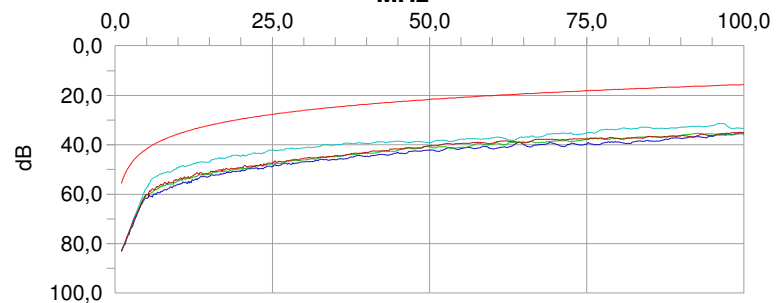
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

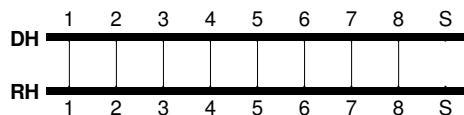
Cable ID 1: 1/22
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:19:40
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	5.0m	5.1m	5.1m	5.2m	< 90.0m	Pass
Prop. Delay	41.8ns	42.3ns	42.5ns	41.4ns	< 498.0ns	Pass
Delay Skew		1.1ns (Pairs 5,4 vs. 1,2)			< 44.0 ns	Pass
Headroom		16.9 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	47.1 dB @ 50.50MHz	46.9 dB	> 37.2 dB	9.9 dB
7,8-5,4	DH	Pass	47.1 dB @ 90.00MHz	47.0 dB	> 33.1 dB	14.0 dB
7,8-1,2	DH	Pass	48.6 dB @ 78.25MHz	48.5 dB	> 34.1 dB	14.5 dB
3,6-5,4	DH	Pass	40.8 dB @ 75.25MHz	40.7 dB	> 34.3 dB	6.5 dB
3,6-1,2	DH	Pass	43.3 dB @ 62.25MHz	43.2 dB	> 35.7 dB	7.6 dB
5,4-1,2	DH	Pass	56.8 dB @ 10.90MHz	44.3 dB	> 47.9 dB	8.9 dB
7,8-3,6	RH	Pass	44.4 dB @ 53.50MHz	44.3 dB	> 36.8 dB	7.6 dB
7,8-5,4	RH	Pass	45.1 dB @ 95.00MHz	45.1 dB	> 32.7 dB	12.4 dB
7,8-1,2	RH	Pass	49.1 dB @ 75.50MHz	49.1 dB	> 34.3 dB	14.8 dB
3,6-5,4	RH	Pass	44.0 dB @ 76.00MHz	44.0 dB	> 34.3 dB	9.7 dB
3,6-1,2	RH	Pass	45.3 dB @ 63.25MHz	45.3 dB	> 35.6 dB	9.7 dB
5,4-1,2	RH	Pass	57.3 dB @ 11.35MHz	44.9 dB	> 47.6 dB	9.7 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	25.6 dB @ 5.05MHz	24.5 dB	> 19.0 dB	6.6 dB
3,6	DH	Pass	25.4 dB @ 4.90MHz	23.3 dB	> 19.0 dB	6.4 dB
5,4	DH	Pass	23.9 dB @ 25.45MHz	21.4 dB	> 18.0 dB	5.9 dB
1,2	DH	Pass	19.7 dB @ 54.00MHz	19.2 dB	> 14.7 dB	5.0 dB
7,8	RH	Pass	25.4 dB @ 5.05MHz	24.7 dB	> 19.0 dB	6.4 dB
3,6	RH	Pass	24.8 dB @ 4.90MHz	20.5 dB	> 19.0 dB	5.8 dB
5,4	RH	Pass	24.8 dB @ 10.00MHz	20.7 dB	> 19.0 dB	5.8 dB
1,2	RH	Pass	24.9 dB @ 5.05MHz	21.0 dB	> 19.0 dB	5.9 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.2 dB @ 2.50MHz	1.2 dB	< 3.1 dB	2.9 dB
3,6	Pass	0.2 dB @ 2.50MHz	1.1 dB	< 3.1 dB	2.9 dB
5,4	Pass	0.2 dB @ 2.50MHz	1.3 dB	< 3.1 dB	2.9 dB
1,2	Pass	0.2 dB @ 2.50MHz	1.2 dB	< 3.1 dB	2.9 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	45.8 dB @ 94.50MHz	N/A	>= 12.4 dB	33.4 dB
3,6	DH	Pass	39.6 dB @ 89.25MHz	N/A	>= 13.4 dB	26.2 dB
5,4	DH	Pass	39.5 dB @ 89.25MHz	N/A	>= 13.4 dB	26.1 dB
1,2	DH	Pass	42.1 dB @ 87.25MHz	N/A	>= 13.8 dB	28.3 dB
7,8	RH	Pass	43.3 dB @ 76.25MHz	N/A	>= 16.1 dB	27.2 dB
3,6	RH	Pass	43.0 dB @ 76.00MHz	N/A	>= 16.2 dB	26.8 dB
5,4	RH	Pass	42.9 dB @ 76.00MHz	N/A	>= 16.2 dB	26.7 dB
1,2	RH	Pass	43.8 dB @ 77.00MHz	N/A	>= 16.0 dB	27.8 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/22
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:19:40
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	39.6 dB @ 68.75MHz	38.4 dB	> 21.9 dB	17.7 dB
7,8-5,4	DH	Pass	58.7 dB @ 7.30MHz	37.5 dB	> 41.3 dB	17.4 dB
7,8-1,2	DH	Pass	56.0 dB @ 23.05MHz	44.5 dB	> 31.4 dB	24.6 dB
3,6-7,8	DH	Pass	66.6 dB @ 5.20MHz	42.6 dB	> 44.3 dB	22.3 dB
3,6-5,4	DH	Pass	55.2 dB @ 7.45MHz	34.3 dB	> 41.2 dB	14.0 dB
3,6-1,2	DH	Pass	43.7 dB @ 61.25MHz	42.5 dB	> 22.9 dB	20.8 dB
5,4-7,8	DH	Pass	51.0 dB @ 17.35MHz	37.3 dB	> 33.8 dB	17.2 dB
5,4-3,6	DH	Pass	48.4 dB @ 9.70MHz	29.6 dB	> 38.9 dB	9.5 dB
5,4-1,2	DH	Pass	63.1 dB @ 6.40MHz	40.5 dB	> 42.5 dB	20.6 dB
1,2-7,8	DH	Pass	50.5 dB @ 43.00MHz	44.8 dB	> 25.9 dB	24.6 dB
1,2-3,6	DH	Pass	39.8 dB @ 62.50MHz	38.1 dB	> 22.7 dB	17.1 dB
1,2-5,4	DH	Pass	49.0 dB @ 31.75MHz	39.6 dB	> 28.6 dB	20.4 dB
7,8-3,6	RH	Pass	39.7 dB @ 68.75MHz	38.3 dB	> 21.9 dB	17.8 dB
7,8-5,4	RH	Pass	56.3 dB @ 9.70MHz	37.5 dB	> 38.9 dB	17.4 dB
7,8-1,2	RH	Pass	69.5 dB @ 4.90MHz	44.5 dB	> 44.8 dB	24.7 dB
3,6-7,8	RH	Pass	68.8 dB @ 4.00MHz	42.7 dB	> 46.6 dB	22.2 dB
3,6-5,4	RH	Pass	57.5 dB @ 5.65MHz	34.3 dB	> 43.6 dB	13.9 dB
3,6-1,2	RH	Pass	43.7 dB @ 61.25MHz	42.6 dB	> 22.9 dB	20.8 dB
5,4-7,8	RH	Pass	51.0 dB @ 17.35MHz	37.3 dB	> 33.8 dB	17.2 dB
5,4-3,6	RH	Pass	50.5 dB @ 7.60MHz	29.5 dB	> 41.0 dB	9.5 dB
5,4-1,2	RH	Pass	65.5 dB @ 4.75MHz	40.5 dB	> 45.1 dB	20.4 dB
1,2-7,8	RH	Pass	50.6 dB @ 43.00MHz	44.8 dB	> 25.9 dB	24.7 dB
1,2-3,6	RH	Pass	39.8 dB @ 62.50MHz	38.0 dB	> 22.7 dB	17.1 dB
1,2-5,4	RH	Pass	65.2 dB @ 4.90MHz	39.6 dB	> 44.8 dB	20.4 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	46.5 dB @ 48.75MHz	43.4 dB	> 34.4 dB	12.1 dB
3,6	DH	Pass	39.4 dB @ 75.25MHz	38.4 dB	> 31.3 dB	8.1 dB
5,4	DH	Pass	39.0 dB @ 75.25MHz	39.0 dB	> 31.3 dB	7.7 dB
1,2	DH	Pass	42.2 dB @ 60.50MHz	41.2 dB	> 32.9 dB	9.3 dB
7,8	RH	Pass	44.1 dB @ 53.50MHz	42.6 dB	> 33.8 dB	10.3 dB
3,6	RH	Pass	42.9 dB @ 56.50MHz	40.9 dB	> 33.4 dB	9.5 dB
5,4	RH	Pass	41.1 dB @ 76.00MHz	41.1 dB	> 31.3 dB	9.8 dB
1,2	RH	Pass	42.7 dB @ 77.00MHz	42.6 dB	> 31.2 dB	11.5 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	42.3 dB @ 92.50MHz	N/A	>= 9.8 dB	32.5 dB
3,6	DH	Pass	37.3 dB @ 89.25MHz	N/A	>= 10.4 dB	26.9 dB
5,4	DH	Pass	37.9 dB @ 75.25MHz	N/A	>= 13.3 dB	24.6 dB
1,2	DH	Pass	40.1 dB @ 78.50MHz	N/A	>= 12.6 dB	27.5 dB
7,8	RH	Pass	41.5 dB @ 76.75MHz	N/A	>= 13.0 dB	28.5 dB
3,6	RH	Pass	39.9 dB @ 76.00MHz	N/A	>= 13.2 dB	26.7 dB
5,4	RH	Pass	40.0 dB @ 76.00MHz	N/A	>= 13.2 dB	26.8 dB
1,2	RH	Pass	41.5 dB @ 77.50MHz	N/A	>= 12.8 dB	28.7 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.4 dB @ 17.35MHz	35.6 dB	>= 30.8 dB	18.6 dB
3,6	DH	Pass	47.8 dB @ 9.10MHz	28.5 dB	>= 36.4 dB	11.4 dB
5,4	DH	Pass	53.1 dB @ 7.30MHz	31.9 dB	>= 38.3 dB	14.8 dB
1,2	DH	Pass	40.3 dB @ 60.50MHz	37.5 dB	>= 20.0 dB	20.3 dB
7,8	RH	Pass	54.4 dB @ 8.50MHz	34.4 dB	>= 37.0 dB	17.4 dB
3,6	RH	Pass	56.3 dB @ 5.65MHz	33.2 dB	>= 40.6 dB	15.7 dB
5,4	RH	Pass	49.5 dB @ 7.60MHz	28.5 dB	>= 38.0 dB	11.5 dB
1,2	RH	Pass	40.1 dB @ 48.75MHz	35.3 dB	>= 21.9 dB	18.2 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

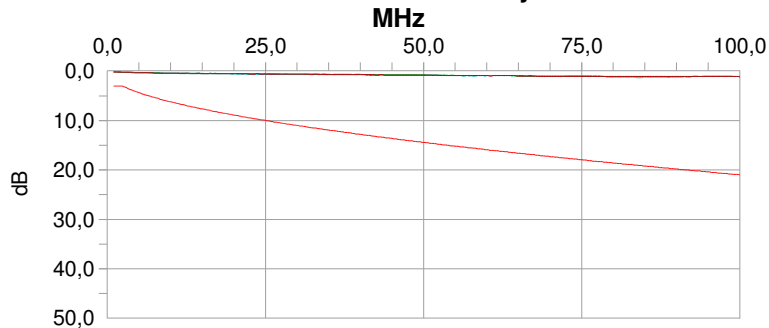
Cable ID 1: 1/22
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:19:40
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

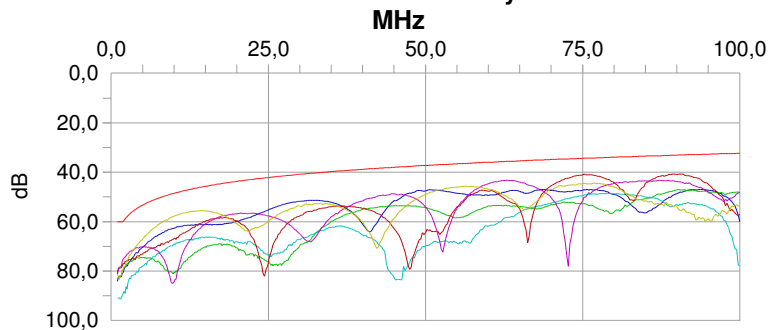
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

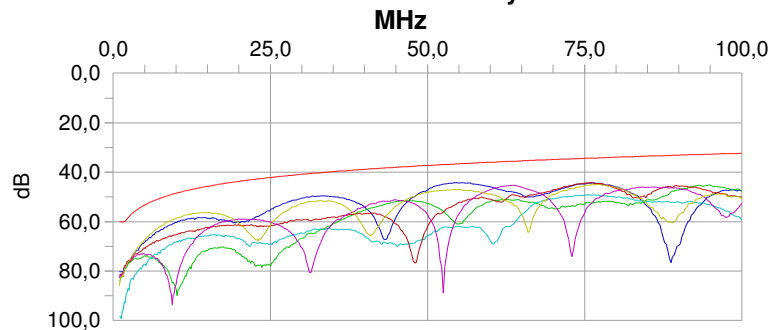
Attenuation Summary



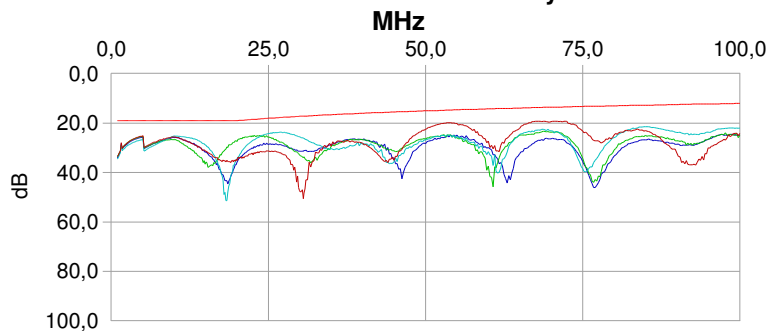
NEXT DH Summary



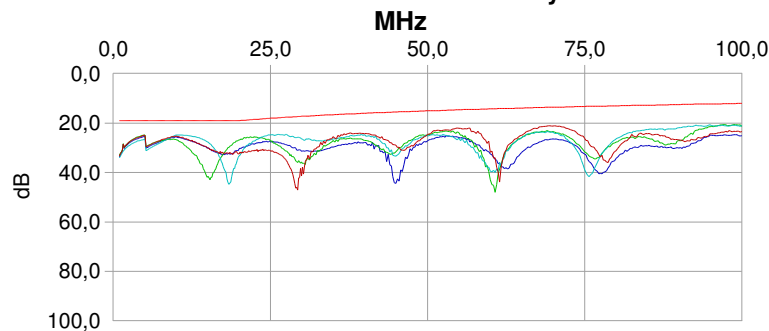
NEXT RH Summary



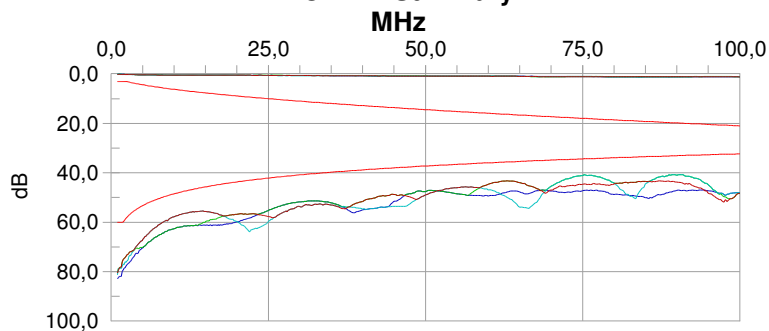
Return Loss DH Summary



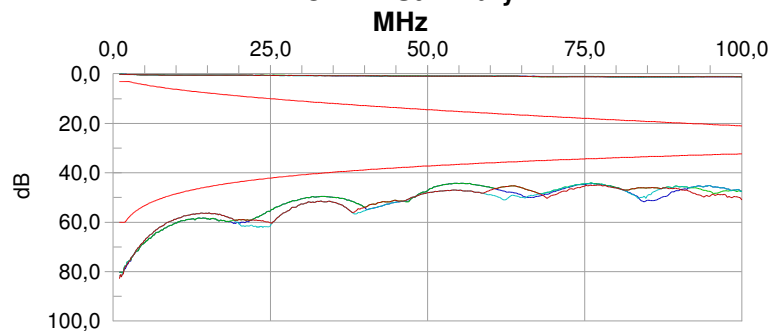
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

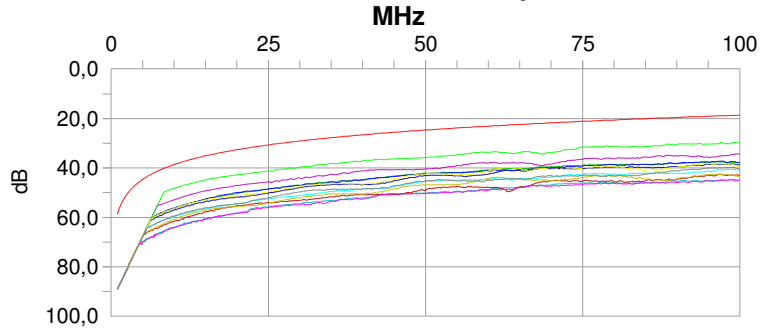
Cable ID 1: 1/22
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:19:40
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

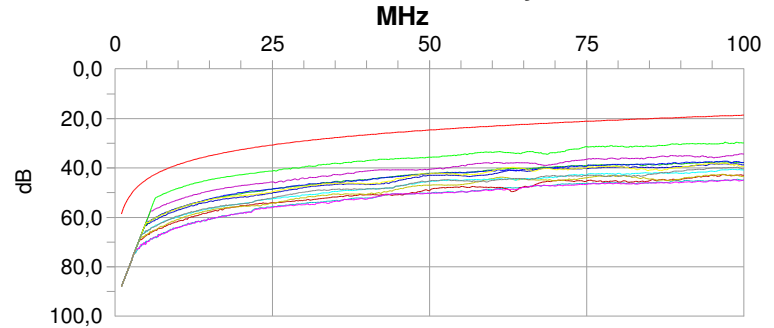
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

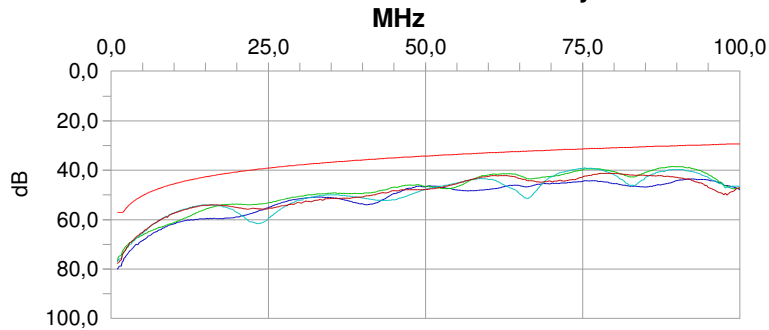
ELFEXT DH Summary



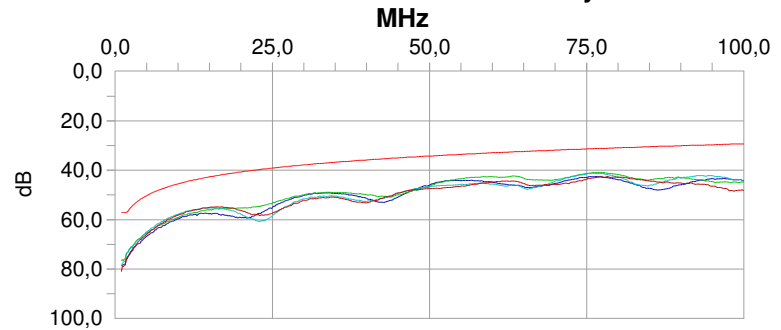
ELFEXT RH Summary



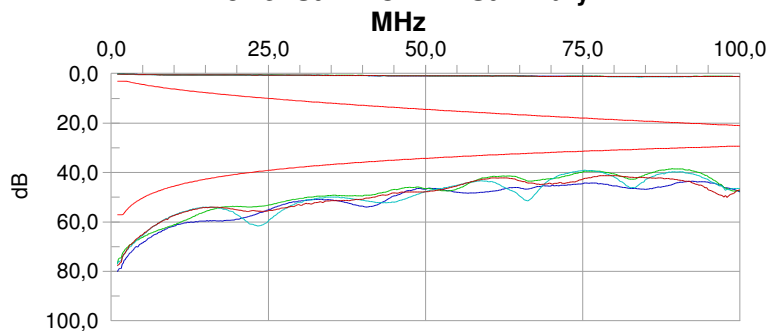
Power Sum NEXT DH Summary



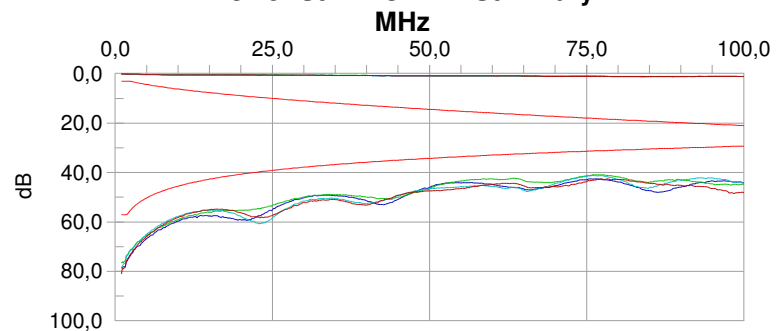
Power Sum NEXT RH Summary



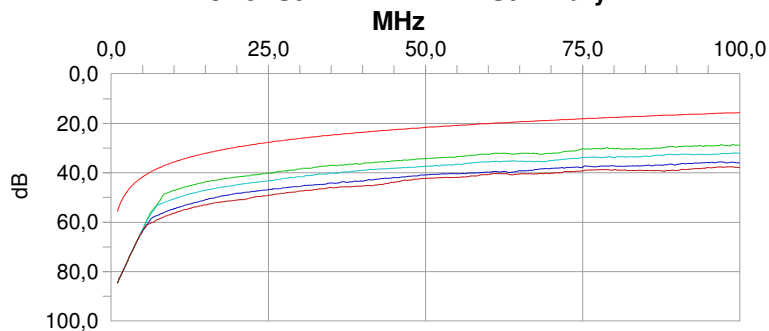
Power Sum ACR DH Summary



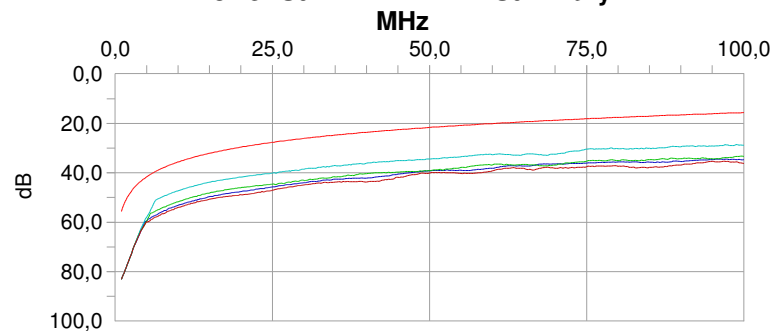
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

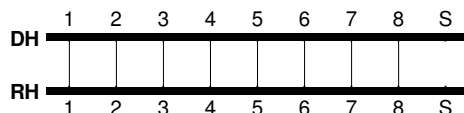
Cable ID 1: 1/23
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:20:53
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	5.0m	4.9m	4.9m	5.1m	< 90.0m	Pass
Prop. Delay	41.6ns	41.4ns	41.6ns	41.0ns	< 498.0ns	Pass
Delay Skew		0.6ns (Pairs 5,4 vs. 1,2)			< 44.0 ns	Pass
Headroom		15.4 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	40.7 dB @ 96.00MHz	40.7 dB	> 32.6 dB	8.1 dB
7,8-5,4	DH	Pass	52.0 dB @ 46.75MHz	50.9 dB	> 37.7 dB	14.3 dB
7,8-1,2	DH	Pass	53.5 dB @ 92.25MHz	53.4 dB	> 32.9 dB	20.6 dB
3,6-5,4	DH	Pass	37.0 dB @ 78.75MHz	37.0 dB	> 34.0 dB	3.0 dB
3,6-1,2	DH	Pass	49.0 dB @ 48.50MHz	44.8 dB	> 37.4 dB	11.6 dB
5,4-1,2	DH	Pass	58.4 dB @ 10.75MHz	44.9 dB	> 48.0 dB	10.4 dB
7,8-3,6	RH	Pass	41.9 dB @ 77.00MHz	41.3 dB	> 34.2 dB	7.7 dB
7,8-5,4	RH	Pass	50.5 dB @ 63.00MHz	50.5 dB	> 35.6 dB	14.9 dB
7,8-1,2	RH	Pass	53.2 dB @ 93.75MHz	53.2 dB	> 32.8 dB	20.4 dB
3,6-5,4	RH	Pass	41.8 dB @ 55.00MHz	40.0 dB	> 36.6 dB	5.2 dB
3,6-1,2	RH	Pass	49.5 dB @ 61.50MHz	49.4 dB	> 35.8 dB	13.7 dB
5,4-1,2	RH	Pass	50.6 dB @ 32.50MHz	44.6 dB	> 40.3 dB	10.3 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	28.2 dB @ 4.90MHz	25.0 dB	> 19.0 dB	9.2 dB
3,6	DH	Pass	25.6 dB @ 4.90MHz	22.9 dB	> 19.0 dB	6.6 dB
5,4	DH	Pass	24.3 dB @ 10.45MHz	20.9 dB	> 19.0 dB	5.3 dB
1,2	DH	Pass	21.8 dB @ 54.50MHz	21.2 dB	> 14.6 dB	7.2 dB
7,8	RH	Pass	27.9 dB @ 5.05MHz	24.6 dB	> 19.0 dB	8.9 dB
3,6	RH	Pass	23.8 dB @ 22.45MHz	23.1 dB	> 18.5 dB	5.3 dB
5,4	RH	Pass	24.0 dB @ 10.60MHz	21.7 dB	> 19.0 dB	5.0 dB
1,2	RH	Pass	22.6 dB @ 54.00MHz	21.5 dB	> 14.7 dB	7.9 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.2 dB @ 2.50MHz	1.2 dB	< 3.1 dB	2.9 dB
3,6	Pass	0.2 dB @ 2.50MHz	1.1 dB	< 3.1 dB	2.9 dB
5,4	Pass	0.2 dB @ 2.50MHz	1.1 dB	< 3.1 dB	2.9 dB
1,2	Pass	0.2 dB @ 2.50MHz	1.1 dB	< 3.1 dB	2.9 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	39.6 dB @ 96.00MHz	N/A	>= 12.1 dB	27.5 dB
3,6	DH	Pass	36.0 dB @ 78.75MHz	N/A	>= 15.6 dB	20.4 dB
5,4	DH	Pass	35.9 dB @ 78.75MHz	N/A	>= 15.6 dB	20.3 dB
1,2	DH	Pass	43.7 dB @ 94.75MHz	N/A	>= 12.3 dB	31.4 dB
7,8	RH	Pass	40.1 dB @ 99.00MHz	N/A	>= 11.5 dB	28.6 dB
3,6	RH	Pass	39.0 dB @ 75.00MHz	N/A	>= 16.5 dB	22.5 dB
5,4	RH	Pass	38.9 dB @ 75.00MHz	N/A	>= 16.5 dB	22.4 dB
1,2	RH	Pass	43.5 dB @ 96.25MHz	N/A	>= 12.1 dB	31.4 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/23
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:20:53
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	68.4 dB @ 5.20MHz	45.5 dB	> 44.3 dB	24.1 dB
7,8-5,4	DH	Pass	40.4 dB @ 50.25MHz	34.8 dB	> 24.6 dB	15.8 dB
7,8-1,2	DH	Pass	56.6 dB @ 68.00MHz	55.8 dB	> 22.0 dB	34.6 dB
3,6-7,8	DH	Pass	68.3 dB @ 9.10MHz	49.5 dB	> 39.4 dB	28.9 dB
3,6-5,4	DH	Pass	50.0 dB @ 16.90MHz	36.5 dB	> 34.1 dB	15.9 dB
3,6-1,2	DH	Pass	45.3 dB @ 62.75MHz	44.2 dB	> 22.7 dB	22.6 dB
5,4-7,8	DH	Pass	50.6 dB @ 15.40MHz	35.4 dB	> 34.9 dB	15.7 dB
5,4-3,6	DH	Pass	48.4 dB @ 12.10MHz	31.5 dB	> 37.0 dB	11.4 dB
5,4-1,2	DH	Pass	46.0 dB @ 51.50MHz	41.5 dB	> 24.4 dB	21.6 dB
1,2-7,8	DH	Pass	58.7 dB @ 67.00MHz	58.5 dB	> 22.1 dB	36.6 dB
1,2-3,6	DH	Pass	43.7 dB @ 48.75MHz	38.3 dB	> 24.9 dB	18.8 dB
1,2-5,4	DH	Pass	46.5 dB @ 50.25MHz	41.6 dB	> 24.6 dB	21.9 dB
7,8-3,6	RH	Pass	68.4 dB @ 5.20MHz	45.3 dB	> 44.3 dB	24.1 dB
7,8-5,4	RH	Pass	40.4 dB @ 50.25MHz	34.8 dB	> 24.6 dB	15.8 dB
7,8-1,2	RH	Pass	56.3 dB @ 70.50MHz	55.8 dB	> 21.7 dB	34.6 dB
3,6-7,8	RH	Pass	68.3 dB @ 9.10MHz	49.7 dB	> 39.4 dB	28.9 dB
3,6-5,4	RH	Pass	60.1 dB @ 5.20MHz	36.6 dB	> 44.3 dB	15.8 dB
3,6-1,2	RH	Pass	45.3 dB @ 62.75MHz	44.4 dB	> 22.7 dB	22.6 dB
5,4-7,8	RH	Pass	50.6 dB @ 15.40MHz	35.5 dB	> 34.9 dB	15.7 dB
5,4-3,6	RH	Pass	48.3 dB @ 12.10MHz	31.4 dB	> 37.0 dB	11.3 dB
5,4-1,2	RH	Pass	46.6 dB @ 48.75MHz	41.5 dB	> 24.9 dB	21.7 dB
1,2-7,8	RH	Pass	58.7 dB @ 67.00MHz	58.5 dB	> 22.1 dB	36.6 dB
1,2-3,6	RH	Pass	43.6 dB @ 48.75MHz	38.1 dB	> 24.9 dB	18.7 dB
1,2-5,4	RH	Pass	46.2 dB @ 51.50MHz	41.6 dB	> 24.4 dB	21.8 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.2 dB @ 94.50MHz	40.1 dB	> 29.7 dB	10.5 dB
3,6	DH	Pass	36.0 dB @ 77.00MHz	35.8 dB	> 31.2 dB	4.8 dB
5,4	DH	Pass	36.5 dB @ 77.00MHz	36.3 dB	> 31.2 dB	5.3 dB
1,2	DH	Pass	43.1 dB @ 77.00MHz	42.8 dB	> 31.2 dB	11.9 dB
7,8	RH	Pass	41.7 dB @ 77.00MHz	40.8 dB	> 31.2 dB	10.5 dB
3,6	RH	Pass	39.8 dB @ 55.00MHz	37.6 dB	> 33.6 dB	6.2 dB
5,4	RH	Pass	52.7 dB @ 10.15MHz	38.9 dB	> 45.4 dB	7.3 dB
1,2	RH	Pass	50.2 dB @ 30.70MHz	43.7 dB	> 37.7 dB	12.5 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	39.0 dB @ 96.00MHz	N/A	>= 9.1 dB	29.9 dB
3,6	DH	Pass	34.8 dB @ 78.75MHz	N/A	>= 12.6 dB	22.2 dB
5,4	DH	Pass	35.2 dB @ 78.75MHz	N/A	>= 12.6 dB	22.6 dB
1,2	DH	Pass	41.7 dB @ 97.00MHz	N/A	>= 8.9 dB	32.8 dB
7,8	RH	Pass	39.6 dB @ 99.00MHz	N/A	>= 8.5 dB	31.1 dB
3,6	RH	Pass	36.6 dB @ 77.00MHz	N/A	>= 13.0 dB	23.6 dB
5,4	RH	Pass	37.8 dB @ 77.00MHz	N/A	>= 13.0 dB	24.8 dB
1,2	RH	Pass	42.6 dB @ 96.25MHz	N/A	>= 9.1 dB	33.5 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.9 dB @ 49.25MHz	35.2 dB	>= 21.8 dB	19.1 dB
3,6	DH	Pass	47.5 dB @ 12.10MHz	30.7 dB	>= 34.0 dB	13.5 dB
5,4	DH	Pass	47.4 dB @ 15.10MHz	32.3 dB	>= 32.0 dB	15.4 dB
1,2	DH	Pass	43.8 dB @ 51.50MHz	39.5 dB	>= 21.4 dB	22.4 dB
7,8	RH	Pass	39.9 dB @ 50.25MHz	34.4 dB	>= 21.6 dB	18.3 dB
3,6	RH	Pass	49.9 dB @ 15.55MHz	35.9 dB	>= 31.8 dB	18.1 dB
5,4	RH	Pass	46.7 dB @ 12.10MHz	29.9 dB	>= 34.0 dB	12.7 dB
1,2	RH	Pass	41.9 dB @ 48.75MHz	36.5 dB	>= 21.9 dB	20.0 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

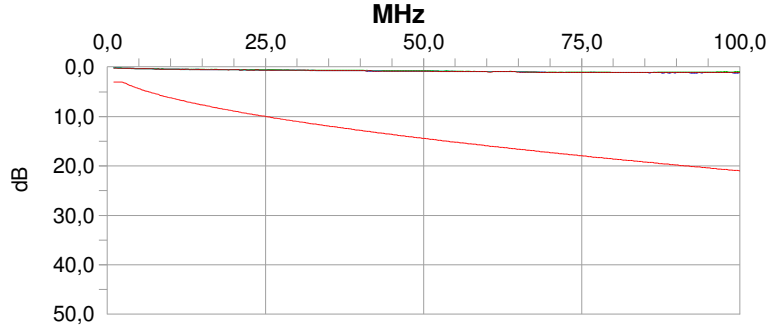
Cable ID 1: 1/23
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:20:53
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

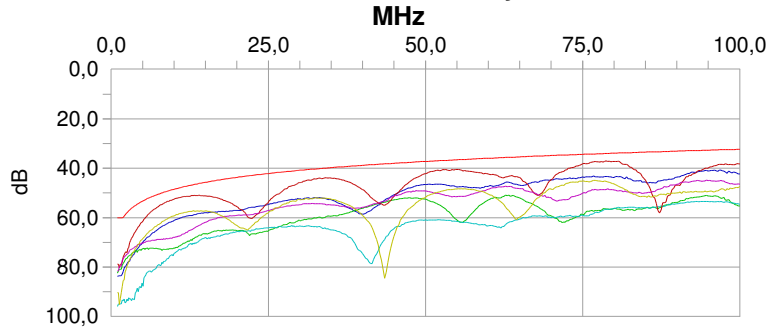
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

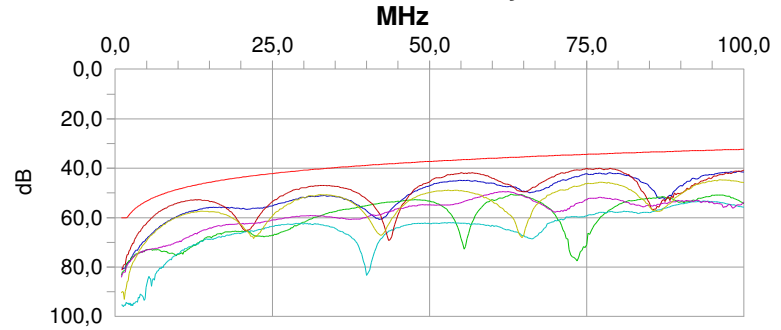
Attenuation Summary



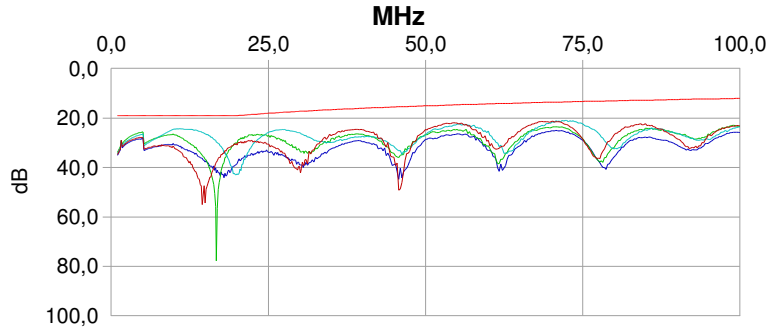
NEXT DH Summary



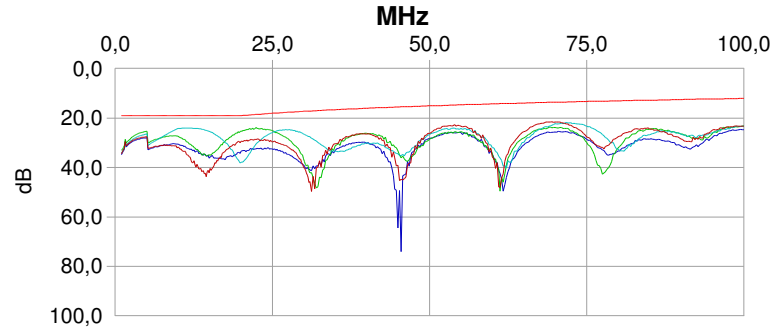
NEXT RH Summary



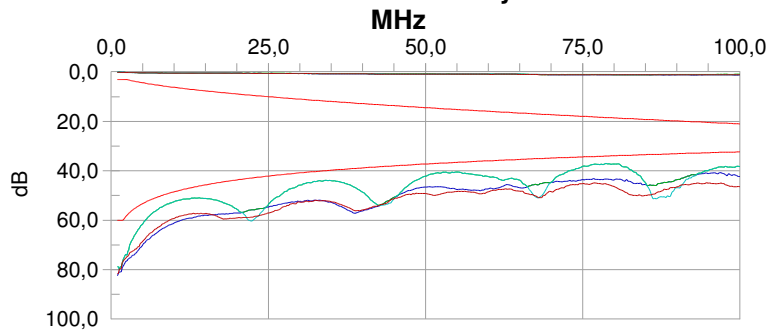
Return Loss DH Summary



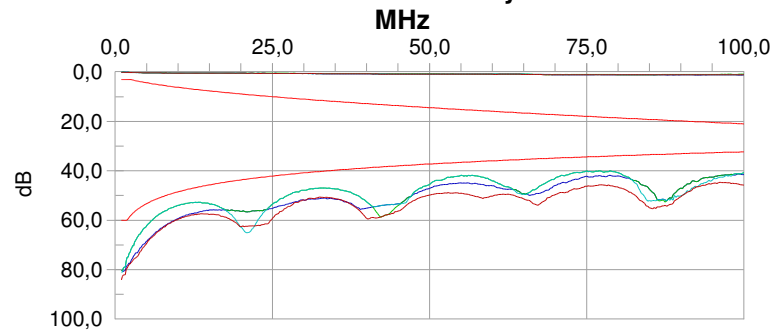
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

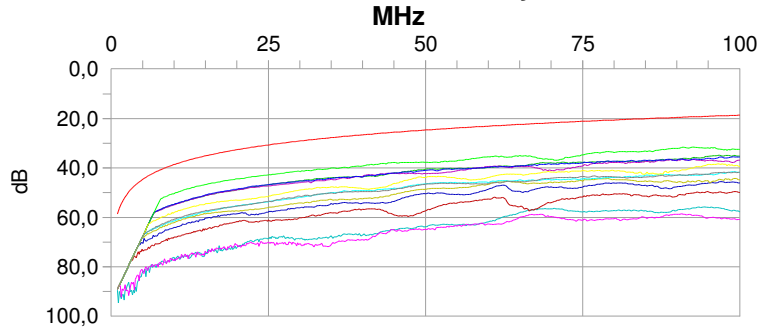
Cable ID 1: 1/23
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:20:53
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

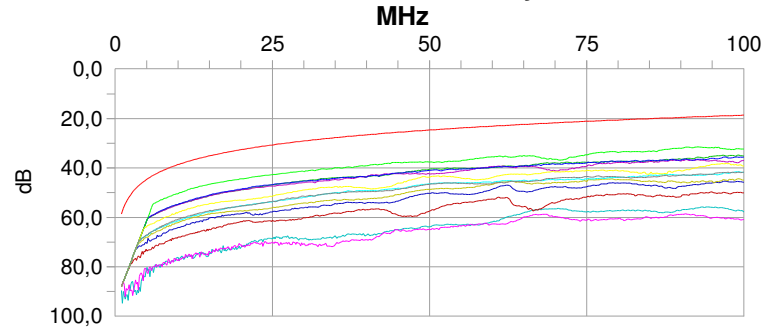
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

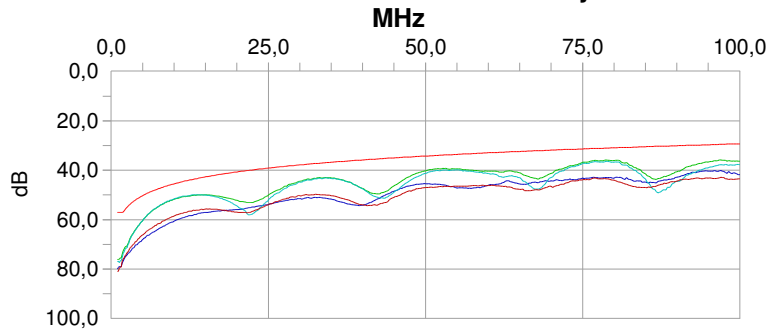
ELFEXT DH Summary



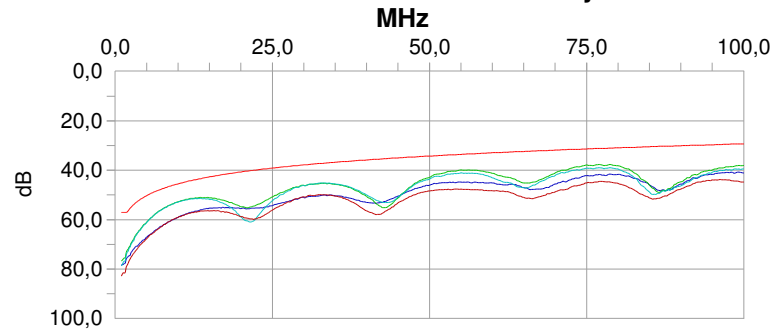
ELFEXT RH Summary



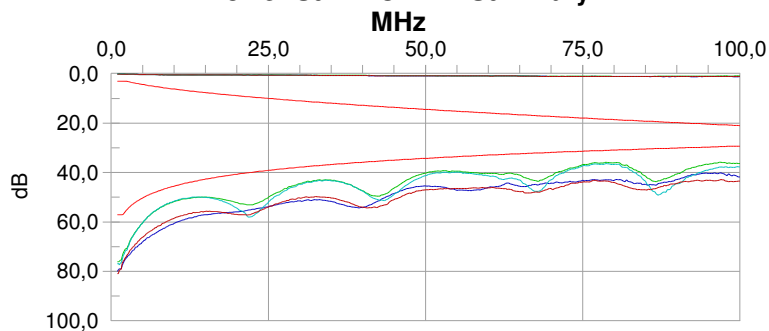
Power Sum NEXT DH Summary



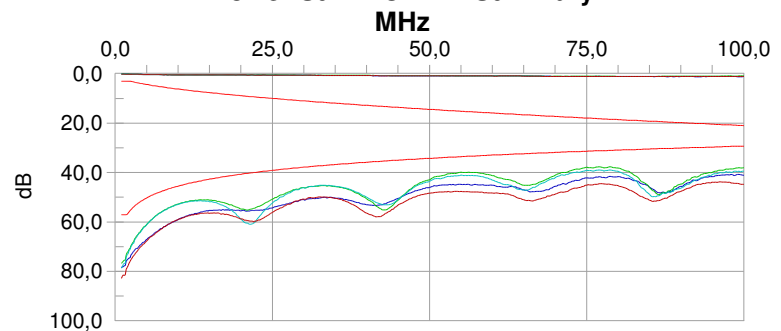
Power Sum NEXT RH Summary



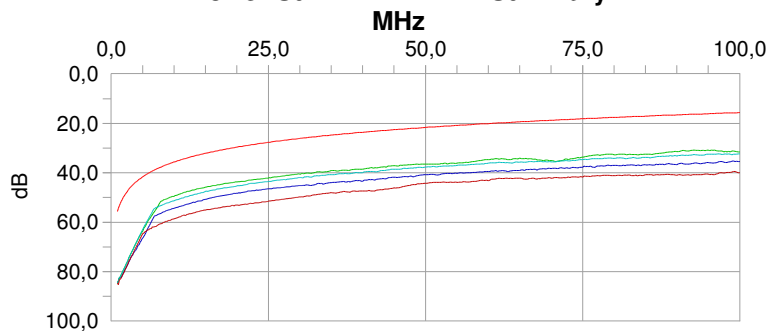
Power Sum ACR DH Summary



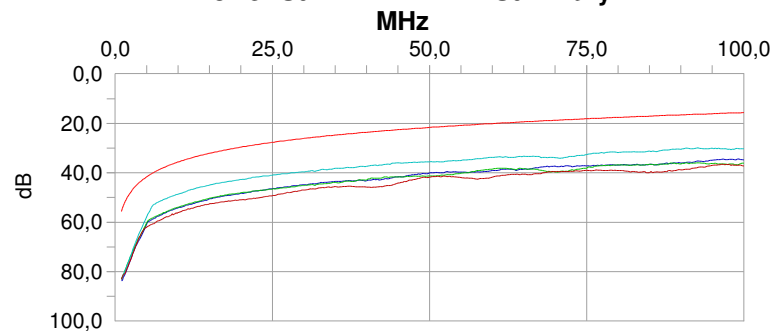
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

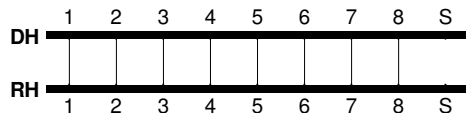
Cable ID 1: 1/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:12:30
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	19.3m	19.6m	19.8m	19.5m	< 90.0m	Pass
Prop. Delay	109.4ns	111.0ns	112.5ns	109.2ns	< 498.0ns	Pass
Delay Skew	3.3ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	15.3 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	48.8 dB @ 32.75MHz	41.8 dB	> 40.2 dB	8.6 dB
7,8-5,4	DH	Pass	52.0 dB @ 50.00MHz	50.5 dB	> 37.2 dB	14.8 dB
7,8-1,2	DH	Pass	47.7 dB @ 51.00MHz	46.8 dB	> 37.1 dB	10.6 dB
3,6-5,4	DH	Pass	41.9 dB @ 44.00MHz	41.1 dB	> 38.1 dB	3.8 dB
3,6-1,2	DH	Pass	45.4 dB @ 70.75MHz	44.8 dB	> 34.8 dB	10.6 dB
5,4-1,2	DH	Pass	49.3 dB @ 69.75MHz	48.6 dB	> 34.9 dB	14.4 dB
7,8-3,6	RH	Pass	47.1 dB @ 33.00MHz	44.1 dB	> 40.2 dB	6.9 dB
7,8-5,4	RH	Pass	52.8 dB @ 55.00MHz	49.8 dB	> 36.6 dB	16.2 dB
7,8-1,2	RH	Pass	56.8 dB @ 20.05MHz	46.5 dB	> 43.7 dB	13.1 dB
3,6-5,4	RH	Pass	44.8 dB @ 43.50MHz	44.2 dB	> 38.2 dB	6.6 dB
3,6-1,2	RH	Pass	48.2 dB @ 66.75MHz	47.0 dB	> 35.2 dB	13.0 dB
5,4-1,2	RH	Pass	55.1 dB @ 39.00MHz	51.5 dB	> 39.0 dB	16.1 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	20.8 dB @ 1.60MHz	20.8 dB	> 19.0 dB	1.8 dB
3,6	DH	Pass	14.8 dB @ 88.75MHz	14.8 dB	> 12.5 dB	2.3 dB
5,4	DH	Pass	22.6 dB @ 1.60MHz	19.8 dB	> 19.0 dB	3.6 dB
1,2	DH	Pass	21.4 dB @ 1.60MHz	17.8 dB	> 19.0 dB	2.4 dB
7,8	RH	Pass	20.8 dB @ 1.60MHz	20.7 dB	> 19.0 dB	1.8 dB
3,6	RH	Pass	21.8 dB @ 1.60MHz	16.6 dB	> 19.0 dB	2.8 dB
5,4	RH	Pass	18.9 dB @ 36.75MHz	18.8 dB	> 16.4 dB	2.5 dB
1,2	RH	Pass	21.5 dB @ 1.60MHz	16.5 dB	> 19.0 dB	2.5 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.6 dB @ 2.50MHz	4.6 dB	< 3.1 dB	2.5 dB
5,4	Pass	0.7 dB @ 2.50MHz	4.1 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.6 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.5 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	38.0 dB @ 89.00MHz	N/A	>= 13.4 dB	24.6 dB
3,6	DH	Pass	37.2 dB @ 89.00MHz	N/A	>= 13.4 dB	23.8 dB
5,4	DH	Pass	37.2 dB @ 97.25MHz	N/A	>= 11.8 dB	25.4 dB
1,2	DH	Pass	41.0 dB @ 89.75MHz	N/A	>= 13.3 dB	27.7 dB
7,8	RH	Pass	40.2 dB @ 98.75MHz	N/A	>= 11.6 dB	28.6 dB
3,6	RH	Pass	39.5 dB @ 88.75MHz	N/A	>= 13.6 dB	25.9 dB
5,4	RH	Pass	40.2 dB @ 97.25MHz	N/A	>= 11.8 dB	28.4 dB
1,2	RH	Pass	42.7 dB @ 92.75MHz	N/A	>= 12.7 dB	30.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:12:30
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	36.2 dB @ 90.75MHz	36.2 dB	> 19.5 dB	16.7 dB
7,8-5,4	DH	Pass	47.2 dB @ 23.80MHz	37.3 dB	> 31.1 dB	16.1 dB
7,8-1,2	DH	Pass	52.6 dB @ 15.25MHz	39.4 dB	> 34.9 dB	17.7 dB
3,6-7,8	DH	Pass	47.4 dB @ 47.00MHz	42.7 dB	> 25.2 dB	22.2 dB
3,6-5,4	DH	Pass	41.9 dB @ 95.00MHz	41.6 dB	> 19.1 dB	22.8 dB
3,6-1,2	DH	Pass	43.6 dB @ 71.00MHz	42.2 dB	> 21.6 dB	22.0 dB
5,4-7,8	DH	Pass	54.8 dB @ 10.00MHz	37.3 dB	> 38.6 dB	16.2 dB
5,4-3,6	DH	Pass	39.1 dB @ 92.75MHz	39.1 dB	> 19.3 dB	19.8 dB
5,4-1,2	DH	Pass	54.3 dB @ 12.10MHz	38.1 dB	> 37.0 dB	17.3 dB
1,2-7,8	DH	Pass	48.5 dB @ 24.40MHz	37.9 dB	> 30.9 dB	17.6 dB
1,2-3,6	DH	Pass	41.8 dB @ 65.75MHz	39.5 dB	> 22.3 dB	19.5 dB
1,2-5,4	DH	Pass	54.4 dB @ 12.40MHz	38.4 dB	> 36.7 dB	17.7 dB
7,8-3,6	RH	Pass	36.8 dB @ 90.75MHz	36.5 dB	> 19.5 dB	17.3 dB
7,8-5,4	RH	Pass	47.3 dB @ 23.80MHz	37.4 dB	> 31.1 dB	16.2 dB
7,8-1,2	RH	Pass	62.0 dB @ 5.20MHz	39.4 dB	> 44.3 dB	17.7 dB
3,6-7,8	RH	Pass	44.6 dB @ 62.75MHz	42.2 dB	> 22.7 dB	21.9 dB
3,6-5,4	RH	Pass	42.4 dB @ 87.25MHz	41.7 dB	> 19.8 dB	22.6 dB
3,6-1,2	RH	Pass	41.4 dB @ 88.50MHz	41.4 dB	> 19.7 dB	21.7 dB
5,4-7,8	RH	Pass	46.2 dB @ 26.20MHz	37.1 dB	> 30.2 dB	16.0 dB
5,4-3,6	RH	Pass	39.2 dB @ 92.75MHz	39.2 dB	> 19.3 dB	19.9 dB
5,4-1,2	RH	Pass	54.2 dB @ 12.10MHz	37.9 dB	> 37.0 dB	17.2 dB
1,2-7,8	RH	Pass	48.5 dB @ 24.40MHz	37.8 dB	> 30.9 dB	17.6 dB
1,2-3,6	RH	Pass	64.6 dB @ 4.60MHz	39.5 dB	> 45.4 dB	19.2 dB
1,2-5,4	RH	Pass	61.6 dB @ 5.50MHz	38.6 dB	> 43.8 dB	17.8 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	44.2 dB @ 50.50MHz	41.4 dB	> 34.2 dB	10.0 dB
3,6	DH	Pass	41.2 dB @ 44.25MHz	38.7 dB	> 35.1 dB	6.1 dB
5,4	DH	Pass	41.6 dB @ 44.00MHz	40.5 dB	> 35.1 dB	6.5 dB
1,2	DH	Pass	45.4 dB @ 51.00MHz	42.8 dB	> 34.1 dB	11.3 dB
7,8	RH	Pass	46.8 dB @ 32.50MHz	41.8 dB	> 37.3 dB	9.5 dB
3,6	RH	Pass	44.6 dB @ 32.50MHz	41.1 dB	> 37.3 dB	7.3 dB
5,4	RH	Pass	44.3 dB @ 44.00MHz	43.5 dB	> 35.1 dB	9.2 dB
1,2	RH	Pass	43.4 dB @ 91.00MHz	43.4 dB	> 30.0 dB	13.4 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	37.6 dB @ 89.00MHz	N/A	>= 10.4 dB	27.2 dB
3,6	DH	Pass	34.1 dB @ 89.00MHz	N/A	>= 10.4 dB	23.7 dB
5,4	DH	Pass	36.6 dB @ 98.25MHz	N/A	>= 8.6 dB	28.0 dB
1,2	DH	Pass	39.0 dB @ 90.75MHz	N/A	>= 10.1 dB	28.9 dB
7,8	RH	Pass	37.9 dB @ 99.25MHz	N/A	>= 8.5 dB	29.4 dB
3,6	RH	Pass	36.8 dB @ 87.50MHz	N/A	>= 10.8 dB	26.0 dB
5,4	RH	Pass	39.5 dB @ 97.25MHz	N/A	>= 8.8 dB	30.7 dB
1,2	RH	Pass	39.6 dB @ 91.00MHz	N/A	>= 10.1 dB	29.5 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	44.1 dB @ 24.85MHz	34.2 dB	>= 27.7 dB	16.4 dB
3,6	DH	Pass	33.7 dB @ 90.75MHz	33.7 dB	>= 16.5 dB	17.2 dB
5,4	DH	Pass	36.2 dB @ 65.00MHz	34.1 dB	>= 19.4 dB	16.8 dB
1,2	DH	Pass	51.1 dB @ 12.10MHz	35.0 dB	>= 34.0 dB	17.1 dB
7,8	RH	Pass	46.9 dB @ 16.90MHz	32.9 dB	>= 31.1 dB	15.8 dB
3,6	RH	Pass	37.4 dB @ 88.75MHz	37.4 dB	>= 16.7 dB	20.7 dB
5,4	RH	Pass	52.3 dB @ 9.70MHz	33.6 dB	>= 35.9 dB	16.4 dB
1,2	RH	Pass	57.5 dB @ 5.35MHz	34.0 dB	>= 41.0 dB	16.5 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

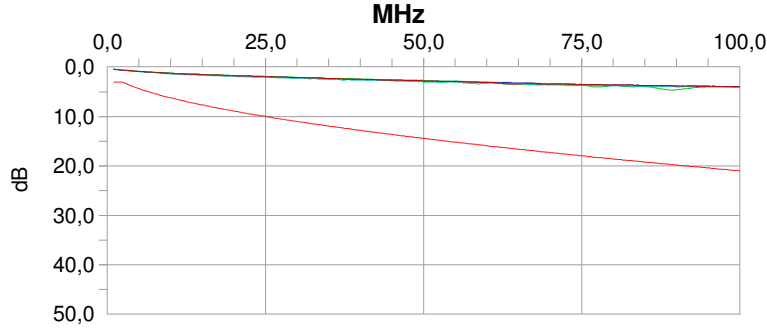
Cable ID 1: 1/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:12:30
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

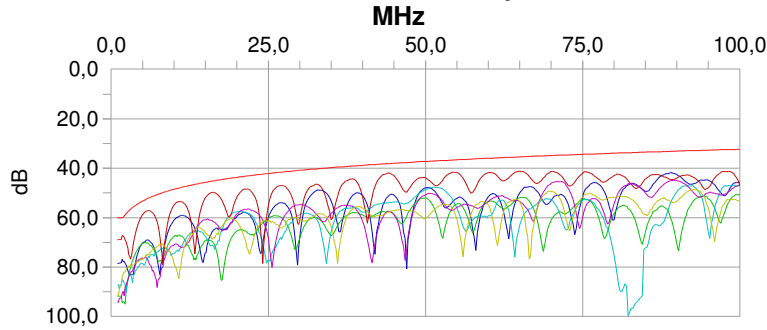
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

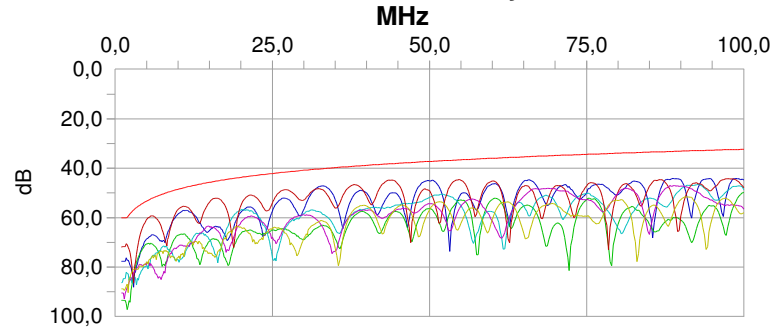
Attenuation Summary



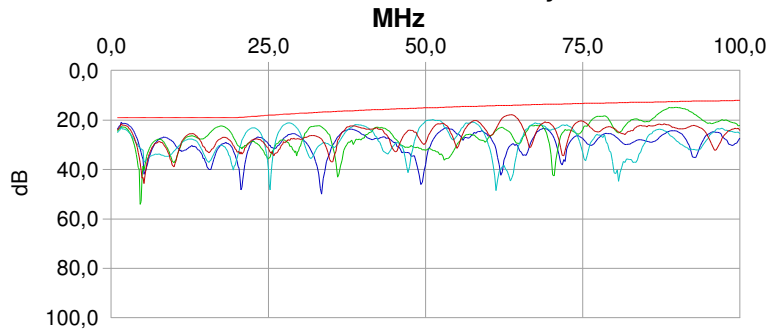
NEXT DH Summary



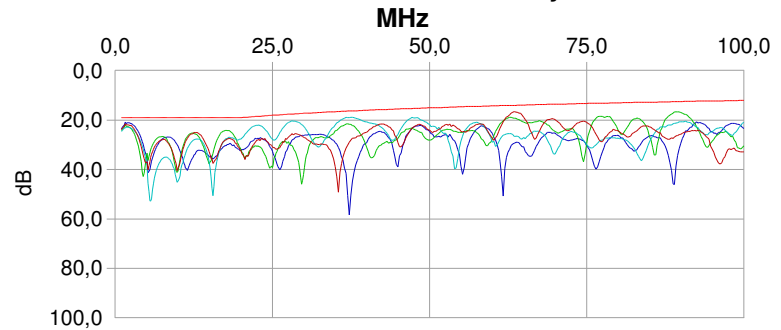
NEXT RH Summary



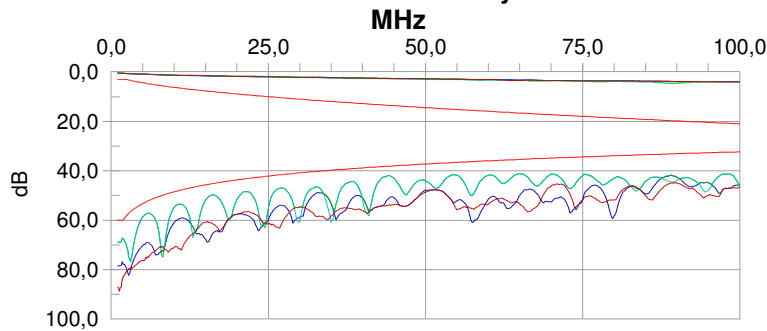
Return Loss DH Summary



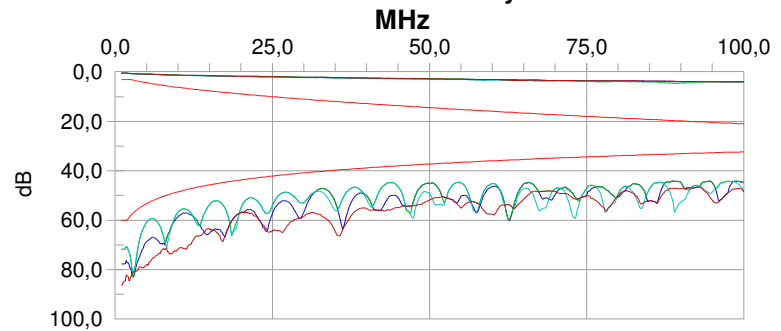
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

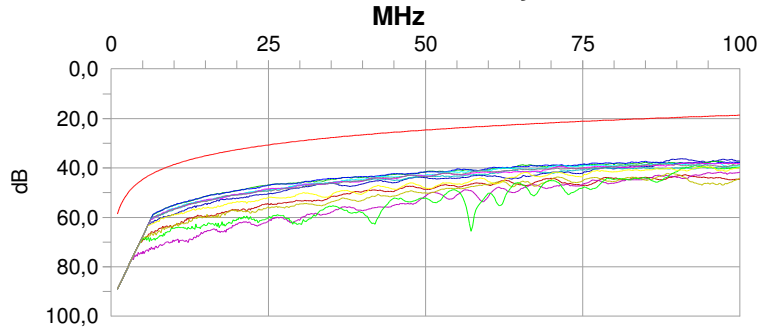
Cable ID 1: 1/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:12:30
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

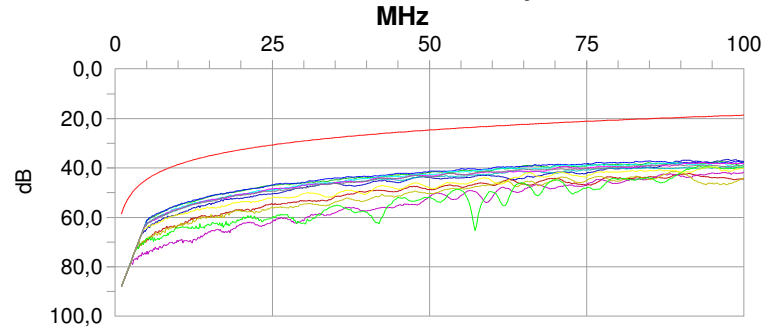
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

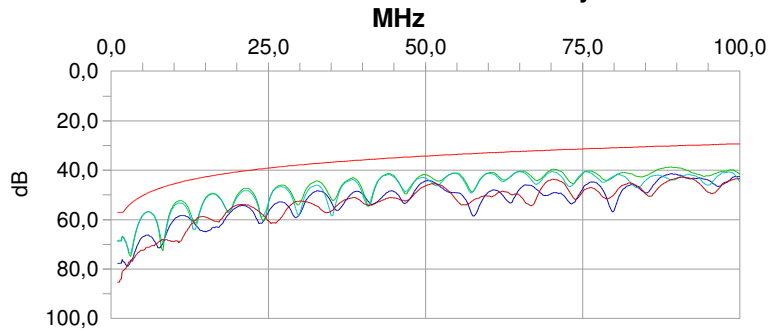
ELFEXT DH Summary



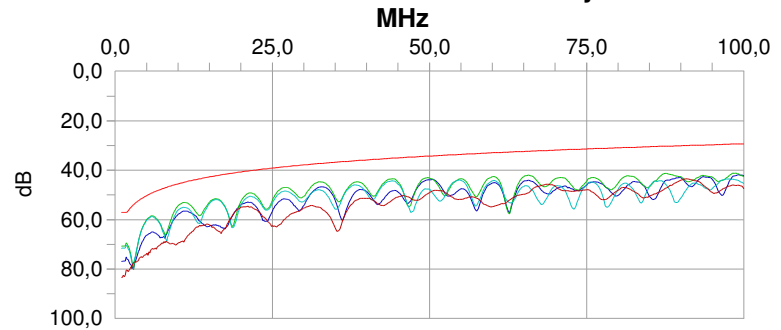
ELFEXT RH Summary



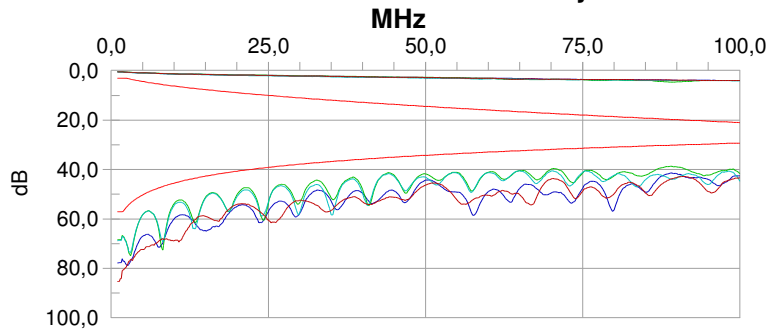
Power Sum NEXT DH Summary



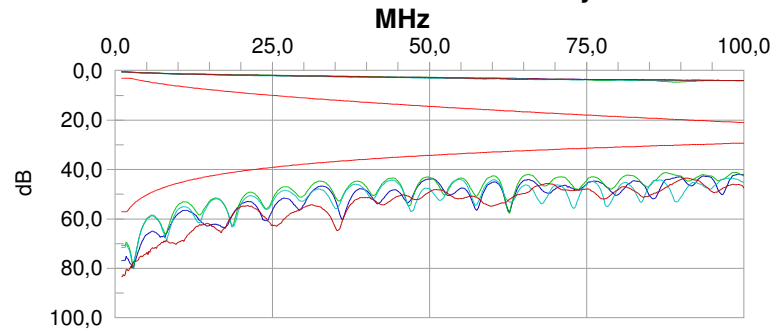
Power Sum NEXT RH Summary



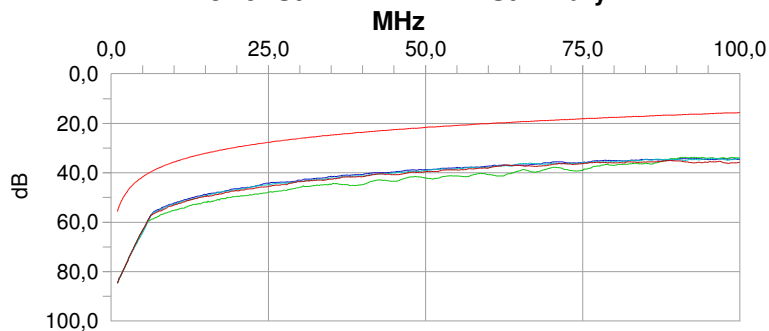
Power Sum ACR DH Summary



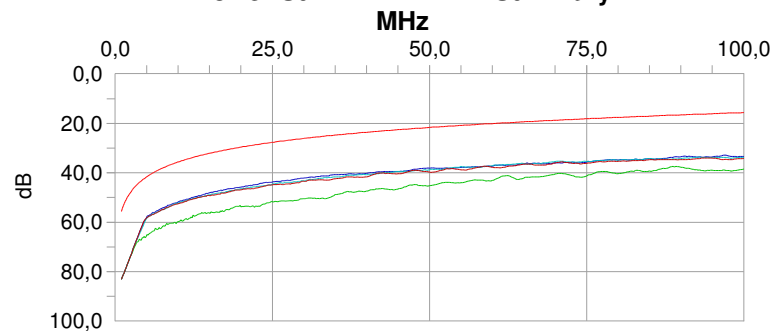
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

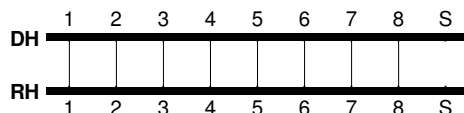
Cable ID 1: 1/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:14:42
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	19.2m	19.5m	19.7m	19.4m	< 90.0m	Pass
Prop. Delay	108.8ns	110.4ns	111.9ns	108.4ns	< 498.0ns	Pass
Delay Skew	3.5ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	18.7 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	43.8 dB @ 50.50MHz	42.4 dB	> 37.2 dB	6.6 dB
7,8-5,4	DH	Pass	50.4 dB @ 65.75MHz	50.4 dB	> 35.3 dB	15.1 dB
7,8-1,2	DH	Pass	56.2 dB @ 18.25MHz	45.5 dB	> 44.3 dB	11.9 dB
3,6-5,4	DH	Pass	42.1 dB @ 55.00MHz	42.1 dB	> 36.6 dB	5.5 dB
3,6-1,2	DH	Pass	42.0 dB @ 65.75MHz	41.1 dB	> 35.3 dB	6.7 dB
5,4-1,2	DH	Pass	56.5 dB @ 8.35MHz	44.2 dB	> 49.7 dB	6.8 dB
7,8-3,6	RH	Pass	49.6 dB @ 22.30MHz	43.3 dB	> 42.9 dB	6.7 dB
7,8-5,4	RH	Pass	47.7 dB @ 71.25MHz	47.7 dB	> 34.7 dB	13.0 dB
7,8-1,2	RH	Pass	55.5 dB @ 18.25MHz	45.2 dB	> 44.3 dB	11.2 dB
3,6-5,4	RH	Pass	62.5 dB @ 4.90MHz	45.8 dB	> 53.4 dB	9.1 dB
3,6-1,2	RH	Pass	45.2 dB @ 66.00MHz	43.8 dB	> 35.3 dB	9.9 dB
5,4-1,2	RH	Pass	42.4 dB @ 58.00MHz	40.0 dB	> 36.2 dB	6.2 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	21.1 dB @ 1.60MHz	20.1 dB	> 19.0 dB	2.1 dB
3,6	DH	Pass	21.5 dB @ 1.60MHz	20.9 dB	> 19.0 dB	2.5 dB
5,4	DH	Pass	22.6 dB @ 1.60MHz	18.0 dB	> 19.0 dB	3.6 dB
1,2	DH	Pass	21.5 dB @ 1.60MHz	15.8 dB	> 19.0 dB	2.5 dB
7,8	RH	Pass	20.9 dB @ 1.60MHz	20.9 dB	> 19.0 dB	1.9 dB
3,6	RH	Pass	21.1 dB @ 1.60MHz	18.3 dB	> 19.0 dB	2.1 dB
5,4	RH	Pass	18.7 dB @ 41.00MHz	16.8 dB	> 15.9 dB	2.8 dB
1,2	RH	Pass	15.4 dB @ 75.50MHz	15.4 dB	> 13.2 dB	2.2 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.6 dB @ 2.50MHz	4.0 dB	< 3.1 dB	2.5 dB
5,4	Pass	0.6 dB @ 2.50MHz	4.2 dB	< 3.1 dB	2.5 dB
1,2	Pass	0.6 dB @ 2.50MHz	4.1 dB	< 3.1 dB	2.5 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	38.6 dB @ 90.50MHz	N/A	>= 13.1 dB	25.5 dB
3,6	DH	Pass	37.1 dB @ 94.50MHz	N/A	>= 12.4 dB	24.7 dB
5,4	DH	Pass	38.7 dB @ 75.25MHz	N/A	>= 16.3 dB	22.4 dB
1,2	DH	Pass	37.3 dB @ 94.50MHz	N/A	>= 12.4 dB	24.9 dB
7,8	RH	Pass	40.1 dB @ 67.00MHz	N/A	>= 18.3 dB	21.8 dB
3,6	RH	Pass	39.9 dB @ 67.25MHz	N/A	>= 18.2 dB	21.7 dB
5,4	RH	Pass	36.0 dB @ 86.75MHz	N/A	>= 13.9 dB	22.1 dB
1,2	RH	Pass	36.2 dB @ 86.50MHz	N/A	>= 13.9 dB	22.3 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:14:42
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	38.7 dB @ 88.75MHz	38.6 dB	> 19.7 dB	19.0 dB
7,8-5,4	DH	Pass	48.8 dB @ 21.25MHz	38.8 dB	> 32.1 dB	16.7 dB
7,8-1,2	DH	Pass	48.2 dB @ 62.75MHz	46.0 dB	> 22.7 dB	25.5 dB
3,6-7,8	DH	Pass	46.2 dB @ 62.75MHz	44.3 dB	> 22.7 dB	23.5 dB
3,6-5,4	DH	Pass	52.0 dB @ 9.10MHz	33.4 dB	> 39.4 dB	12.6 dB
3,6-1,2	DH	Pass	47.4 dB @ 65.75MHz	44.3 dB	> 22.3 dB	25.1 dB
5,4-7,8	DH	Pass	55.1 dB @ 10.15MHz	39.1 dB	> 38.5 dB	16.6 dB
5,4-3,6	DH	Pass	47.0 dB @ 9.70MHz	29.2 dB	> 38.9 dB	8.1 dB
5,4-1,2	DH	Pass	50.9 dB @ 10.75MHz	35.1 dB	> 38.0 dB	12.9 dB
1,2-7,8	DH	Pass	47.0 dB @ 67.25MHz	45.7 dB	> 22.1 dB	24.9 dB
1,2-3,6	DH	Pass	41.4 dB @ 73.50MHz	41.4 dB	> 21.3 dB	20.1 dB
1,2-5,4	DH	Pass	50.1 dB @ 12.10MHz	35.2 dB	> 37.0 dB	13.1 dB
7,8-3,6	RH	Pass	38.7 dB @ 88.75MHz	38.7 dB	> 19.7 dB	19.0 dB
7,8-5,4	RH	Pass	49.2 dB @ 20.50MHz	39.1 dB	> 32.4 dB	16.8 dB
7,8-1,2	RH	Pass	48.3 dB @ 62.75MHz	46.2 dB	> 22.7 dB	25.6 dB
3,6-7,8	RH	Pass	46.1 dB @ 62.75MHz	44.2 dB	> 22.7 dB	23.4 dB
3,6-5,4	RH	Pass	54.7 dB @ 6.70MHz	33.7 dB	> 42.1 dB	12.6 dB
3,6-1,2	RH	Pass	47.4 dB @ 65.75MHz	44.1 dB	> 22.3 dB	25.1 dB
5,4-7,8	RH	Pass	55.1 dB @ 10.15MHz	38.8 dB	> 38.5 dB	16.6 dB
5,4-3,6	RH	Pass	48.2 dB @ 8.35MHz	29.0 dB	> 40.2 dB	8.0 dB
5,4-1,2	RH	Pass	50.8 dB @ 10.75MHz	35.0 dB	> 38.0 dB	12.8 dB
1,2-7,8	RH	Pass	46.9 dB @ 67.25MHz	45.6 dB	> 22.1 dB	24.8 dB
1,2-3,6	RH	Pass	41.5 dB @ 73.50MHz	41.3 dB	> 21.3 dB	20.2 dB
1,2-5,4	RH	Pass	56.3 dB @ 5.95MHz	35.4 dB	> 43.1 dB	13.2 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	43.2 dB @ 50.50MHz	40.6 dB	> 34.2 dB	9.0 dB
3,6	DH	Pass	39.4 dB @ 55.50MHz	39.0 dB	> 33.5 dB	5.9 dB
5,4	DH	Pass	41.3 dB @ 55.00MHz	40.0 dB	> 33.6 dB	7.7 dB
1,2	DH	Pass	49.4 dB @ 19.15MHz	40.0 dB	> 41.0 dB	8.4 dB
7,8	RH	Pass	43.8 dB @ 44.75MHz	40.9 dB	> 35.0 dB	8.8 dB
3,6	RH	Pass	57.7 dB @ 5.35MHz	40.8 dB	> 49.8 dB	7.9 dB
5,4	RH	Pass	40.9 dB @ 60.25MHz	38.9 dB	> 32.9 dB	8.0 dB
1,2	RH	Pass	38.3 dB @ 81.25MHz	38.2 dB	> 30.8 dB	7.5 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	36.9 dB @ 88.75MHz	N/A	>= 10.6 dB	26.3 dB
3,6	DH	Pass	35.5 dB @ 94.50MHz	N/A	>= 9.4 dB	26.1 dB
5,4	DH	Pass	36.4 dB @ 75.25MHz	N/A	>= 13.3 dB	23.1 dB
1,2	DH	Pass	36.2 dB @ 93.00MHz	N/A	>= 9.6 dB	26.6 dB
7,8	RH	Pass	37.2 dB @ 88.25MHz	N/A	>= 10.6 dB	26.6 dB
3,6	RH	Pass	37.4 dB @ 80.75MHz	N/A	>= 12.1 dB	25.3 dB
5,4	RH	Pass	35.0 dB @ 81.25MHz	N/A	>= 12.1 dB	22.9 dB
1,2	RH	Pass	34.4 dB @ 86.75MHz	N/A	>= 10.9 dB	23.5 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	54.4 dB @ 10.15MHz	37.4 dB	>= 35.5 dB	18.9 dB
3,6	DH	Pass	46.7 dB @ 9.70MHz	28.6 dB	>= 35.9 dB	10.8 dB
5,4	DH	Pass	48.5 dB @ 9.10MHz	30.6 dB	>= 36.4 dB	12.1 dB
1,2	DH	Pass	52.2 dB @ 8.95MHz	34.8 dB	>= 36.6 dB	15.6 dB
7,8	RH	Pass	43.8 dB @ 32.50MHz	35.5 dB	>= 25.4 dB	18.4 dB
3,6	RH	Pass	52.7 dB @ 8.20MHz	33.0 dB	>= 37.3 dB	15.4 dB
5,4	RH	Pass	45.2 dB @ 9.70MHz	27.8 dB	>= 35.9 dB	9.3 dB
1,2	RH	Pass	53.9 dB @ 7.30MHz	34.4 dB	>= 38.3 dB	15.6 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

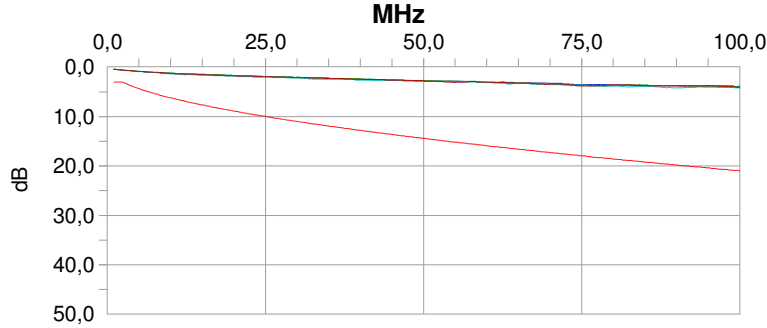
Cable ID 1: 1/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:14:42
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

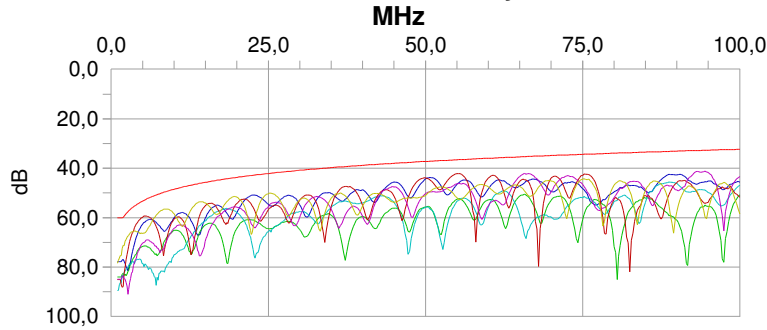
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

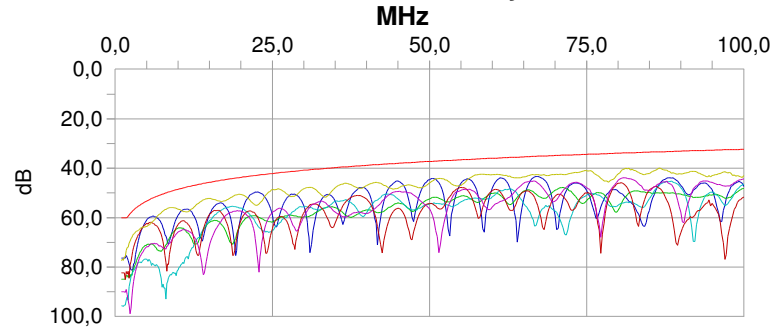
Attenuation Summary



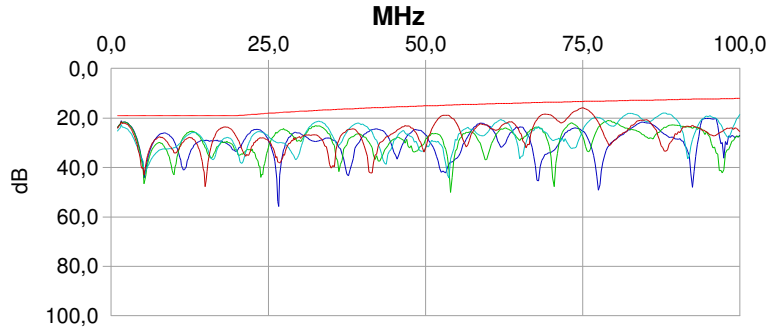
NEXT DH Summary



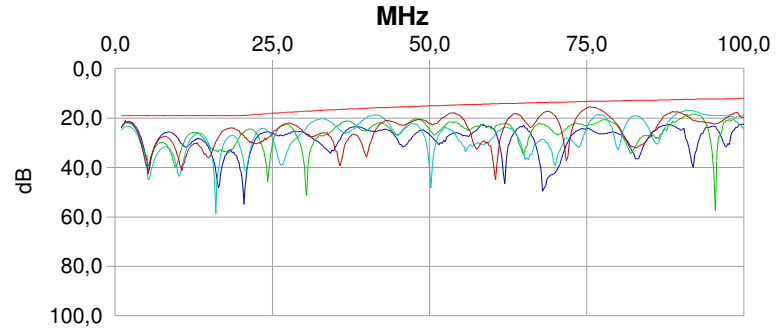
NEXT RH Summary



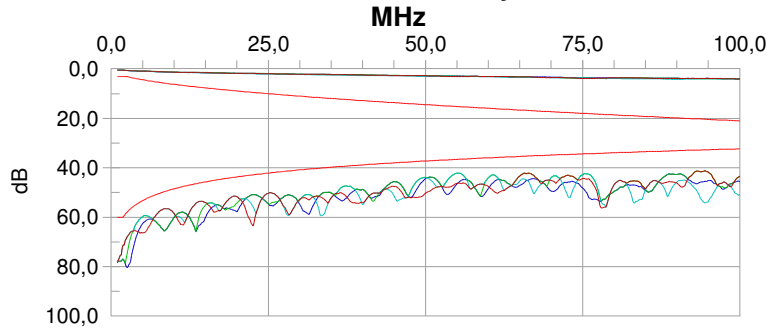
Return Loss DH Summary



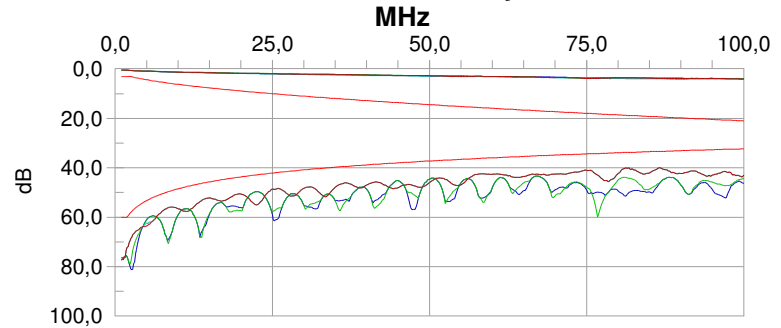
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

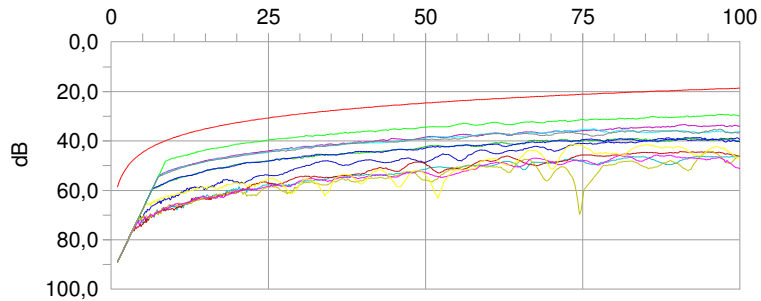
Cable ID 1: 1/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:14:42
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

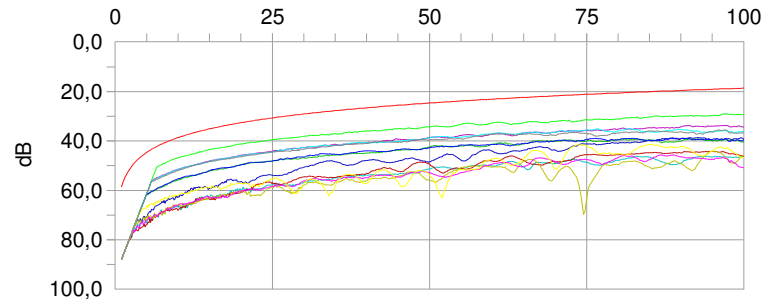
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

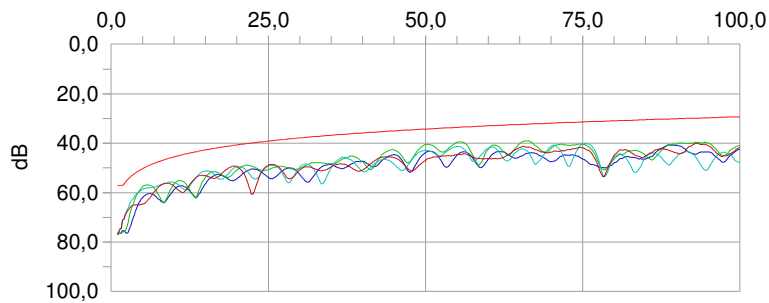
ELFEXT DH Summary
MHz



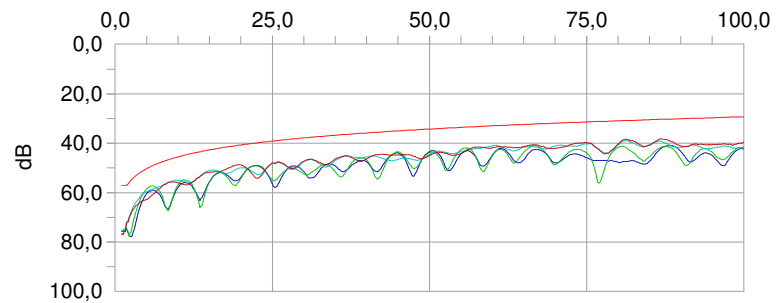
ELFEXT RH Summary
MHz



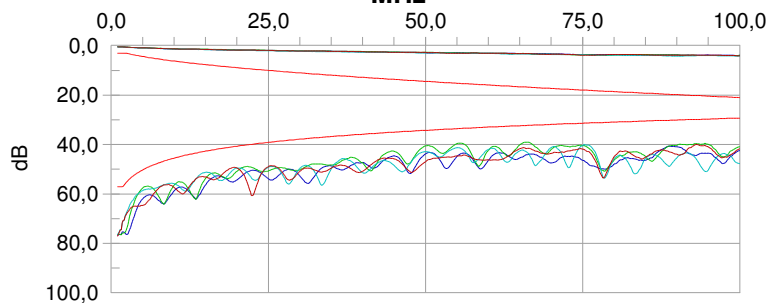
Power Sum NEXT DH Summary
MHz



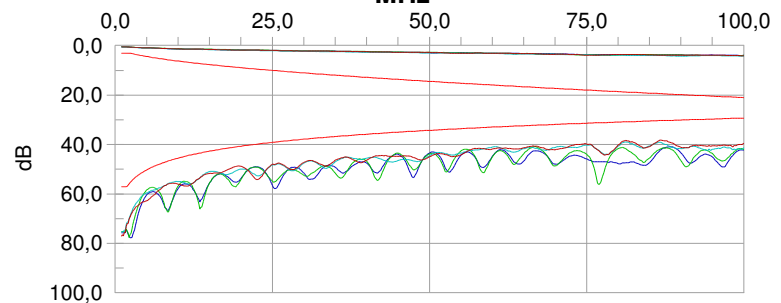
Power Sum NEXT RH Summary
MHz



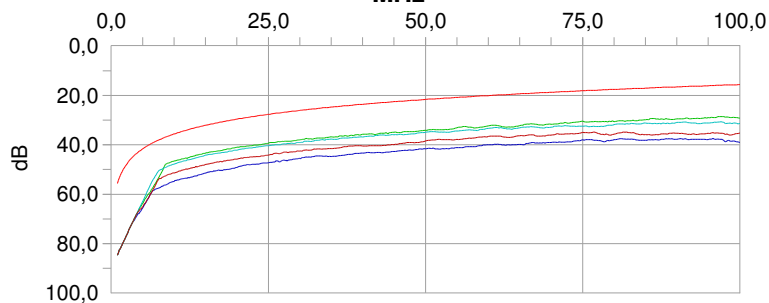
Power Sum ACR DH Summary
MHz



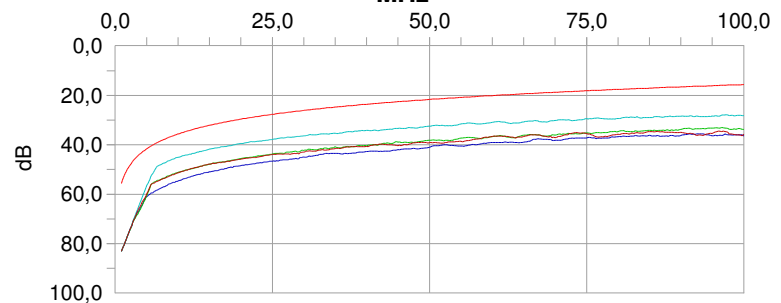
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

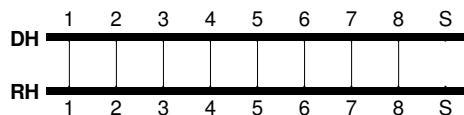
Cable ID 1: 1/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:04:25
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	16.6m	16.3m	16.2m	16.8m	< 90.0m	Pass
Prop. Delay	96.5ns	95.5ns	95.3ns	96.3ns	< 498.0ns	Pass
Delay Skew	1.2ns (Pairs 7,8 vs. 5,4)				< 44.0 ns	Pass
Headroom	19.7 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	47.0 dB @ 63.00MHz	45.8 dB	> 35.6 dB	11.4 dB
7,8-5,4	DH	Pass	50.6 dB @ 70.00MHz	50.6 dB	> 34.8 dB	15.8 dB
7,8-1,2	DH	Pass	62.0 dB @ 15.25MHz	51.3 dB	> 45.6 dB	16.4 dB
3,6-5,4	DH	Pass	43.3 dB @ 43.25MHz	39.4 dB	> 38.3 dB	5.0 dB
3,6-1,2	DH	Pass	44.4 dB @ 65.00MHz	41.6 dB	> 35.4 dB	9.0 dB
5,4-1,2	DH	Pass	55.4 dB @ 22.60MHz	45.8 dB	> 42.8 dB	12.6 dB
7,8-3,6	RH	Pass	46.5 dB @ 62.50MHz	44.7 dB	> 35.7 dB	10.8 dB
7,8-5,4	RH	Pass	55.6 dB @ 46.00MHz	52.6 dB	> 37.8 dB	17.8 dB
7,8-1,2	RH	Pass	57.6 dB @ 22.15MHz	50.0 dB	> 43.0 dB	14.6 dB
3,6-5,4	RH	Pass	52.2 dB @ 22.60MHz	43.7 dB	> 42.8 dB	9.4 dB
3,6-1,2	RH	Pass	49.9 dB @ 64.25MHz	47.7 dB	> 35.5 dB	14.4 dB
5,4-1,2	RH	Pass	53.5 dB @ 22.30MHz	45.3 dB	> 42.9 dB	10.6 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.8 dB @ 1.60MHz	22.8 dB	> 19.0 dB	3.8 dB
3,6	DH	Pass	22.3 dB @ 2.20MHz	22.3 dB	> 19.0 dB	3.3 dB
5,4	DH	Pass	21.9 dB @ 1.60MHz	20.7 dB	> 19.0 dB	2.9 dB
1,2	DH	Pass	22.9 dB @ 1.60MHz	21.3 dB	> 19.0 dB	3.9 dB
7,8	RH	Pass	22.5 dB @ 1.60MHz	22.5 dB	> 19.0 dB	3.5 dB
3,6	RH	Pass	21.9 dB @ 1.60MHz	21.4 dB	> 19.0 dB	2.9 dB
5,4	RH	Pass	21.7 dB @ 15.70MHz	20.6 dB	> 19.0 dB	2.7 dB
1,2	RH	Pass	23.0 dB @ 1.60MHz	19.3 dB	> 19.0 dB	4.0 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.5 dB @ 2.50MHz	3.3 dB	< 3.1 dB	2.6 dB
3,6	Pass	0.5 dB @ 2.50MHz	3.2 dB	< 3.1 dB	2.6 dB
5,4	Pass	0.5 dB @ 2.50MHz	3.3 dB	< 3.1 dB	2.6 dB
1,2	Pass	0.5 dB @ 2.50MHz	3.4 dB	< 3.1 dB	2.6 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	42.5 dB @ 99.00MHz	N/A	>= 11.5 dB	31.0 dB
3,6	DH	Pass	36.4 dB @ 89.75MHz	N/A	>= 13.3 dB	23.1 dB
5,4	DH	Pass	36.3 dB @ 89.50MHz	N/A	>= 13.4 dB	22.9 dB
1,2	DH	Pass	38.2 dB @ 97.00MHz	N/A	>= 11.9 dB	26.3 dB
7,8	RH	Pass	41.4 dB @ 99.25MHz	N/A	>= 11.5 dB	29.9 dB
3,6	RH	Pass	40.8 dB @ 76.50MHz	N/A	>= 16.1 dB	24.7 dB
5,4	RH	Pass	40.7 dB @ 76.50MHz	N/A	>= 16.1 dB	24.6 dB
1,2	RH	Pass	42.0 dB @ 95.50MHz	N/A	>= 12.1 dB	29.9 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:04:25
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	45.1 dB @ 88.25MHz	44.3 dB	> 19.7 dB	25.4 dB
7,8-5,4	DH	Pass	39.4 dB @ 70.50MHz	38.2 dB	> 21.7 dB	17.7 dB
7,8-1,2	DH	Pass	63.6 dB @ 6.55MHz	41.5 dB	> 42.3 dB	21.3 dB
3,6-7,8	DH	Pass	46.8 dB @ 99.00MHz	46.8 dB	> 18.7 dB	28.1 dB
3,6-5,4	DH	Pass	52.6 dB @ 12.10MHz	35.9 dB	> 37.0 dB	15.6 dB
3,6-1,2	DH	Pass	45.7 dB @ 71.25MHz	45.1 dB	> 21.6 dB	24.1 dB
5,4-7,8	DH	Pass	54.4 dB @ 12.10MHz	38.0 dB	> 37.0 dB	17.4 dB
5,4-3,6	DH	Pass	49.1 dB @ 10.75MHz	31.3 dB	> 38.0 dB	11.1 dB
5,4-1,2	DH	Pass	49.2 dB @ 58.25MHz	46.8 dB	> 23.3 dB	25.9 dB
1,2-7,8	DH	Pass	61.1 dB @ 8.80MHz	41.3 dB	> 39.7 dB	21.4 dB
1,2-3,6	DH	Pass	64.4 dB @ 5.80MHz	42.1 dB	> 43.3 dB	21.1 dB
1,2-5,4	DH	Pass	60.4 dB @ 17.50MHz	47.4 dB	> 33.8 dB	26.6 dB
7,8-3,6	RH	Pass	44.1 dB @ 96.75MHz	44.1 dB	> 18.9 dB	25.2 dB
7,8-5,4	RH	Pass	39.4 dB @ 70.50MHz	38.2 dB	> 21.7 dB	17.7 dB
7,8-1,2	RH	Pass	63.6 dB @ 6.55MHz	41.5 dB	> 42.3 dB	21.3 dB
3,6-7,8	RH	Pass	47.0 dB @ 99.00MHz	47.0 dB	> 18.7 dB	28.3 dB
3,6-5,4	RH	Pass	59.1 dB @ 5.65MHz	36.0 dB	> 43.6 dB	15.5 dB
3,6-1,2	RH	Pass	45.9 dB @ 70.75MHz	45.2 dB	> 21.6 dB	24.3 dB
5,4-7,8	RH	Pass	54.4 dB @ 12.10MHz	38.1 dB	> 37.0 dB	17.4 dB
5,4-3,6	RH	Pass	53.5 dB @ 6.25MHz	31.2 dB	> 42.7 dB	10.8 dB
5,4-1,2	RH	Pass	49.2 dB @ 58.25MHz	46.9 dB	> 23.3 dB	25.9 dB
1,2-7,8	RH	Pass	66.0 dB @ 4.75MHz	41.3 dB	> 45.1 dB	20.9 dB
1,2-3,6	RH	Pass	65.0 dB @ 5.20MHz	42.0 dB	> 44.3 dB	20.7 dB
1,2-5,4	RH	Pass	60.4 dB @ 17.50MHz	47.3 dB	> 33.8 dB	26.6 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	45.6 dB @ 63.00MHz	45.0 dB	> 32.6 dB	13.0 dB
3,6	DH	Pass	38.6 dB @ 64.75MHz	38.1 dB	> 32.4 dB	6.2 dB
5,4	DH	Pass	42.9 dB @ 43.25MHz	39.1 dB	> 35.3 dB	7.6 dB
1,2	DH	Pass	40.8 dB @ 96.00MHz	40.7 dB	> 29.6 dB	11.2 dB
7,8	RH	Pass	45.0 dB @ 62.50MHz	43.5 dB	> 32.7 dB	12.3 dB
3,6	RH	Pass	42.9 dB @ 64.25MHz	42.8 dB	> 32.5 dB	10.4 dB
5,4	RH	Pass	49.6 dB @ 22.45MHz	41.7 dB	> 39.9 dB	9.7 dB
1,2	RH	Pass	51.6 dB @ 22.45MHz	43.0 dB	> 39.9 dB	11.7 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	41.7 dB @ 99.00MHz	N/A	>= 8.5 dB	33.2 dB
3,6	DH	Pass	35.1 dB @ 89.25MHz	N/A	>= 10.4 dB	24.7 dB
5,4	DH	Pass	36.0 dB @ 89.25MHz	N/A	>= 10.4 dB	25.6 dB
1,2	DH	Pass	37.4 dB @ 96.75MHz	N/A	>= 8.9 dB	28.5 dB
7,8	RH	Pass	40.2 dB @ 99.25MHz	N/A	>= 8.5 dB	31.7 dB
3,6	RH	Pass	39.7 dB @ 96.75MHz	N/A	>= 8.9 dB	30.8 dB
5,4	RH	Pass	38.5 dB @ 96.00MHz	N/A	>= 9.1 dB	29.4 dB
1,2	RH	Pass	39.7 dB @ 95.50MHz	N/A	>= 9.1 dB	30.6 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.2 dB @ 19.00MHz	36.0 dB	>= 30.0 dB	19.2 dB
3,6	DH	Pass	31.2 dB @ 89.00MHz	30.7 dB	>= 16.6 dB	14.6 dB
5,4	DH	Pass	50.4 dB @ 12.10MHz	33.7 dB	>= 34.0 dB	16.4 dB
1,2	DH	Pass	61.6 dB @ 6.40MHz	39.4 dB	>= 39.5 dB	22.1 dB
7,8	RH	Pass	38.5 dB @ 64.00MHz	35.9 dB	>= 19.5 dB	19.0 dB
3,6	RH	Pass	48.7 dB @ 19.15MHz	35.3 dB	>= 30.0 dB	18.7 dB
5,4	RH	Pass	52.0 dB @ 6.70MHz	30.3 dB	>= 39.1 dB	12.9 dB
1,2	RH	Pass	55.3 dB @ 12.10MHz	38.1 dB	>= 34.0 dB	21.3 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

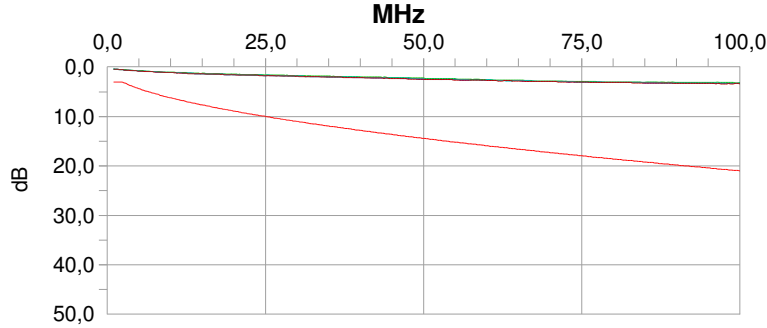
Cable ID 1: 1/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:04:25
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

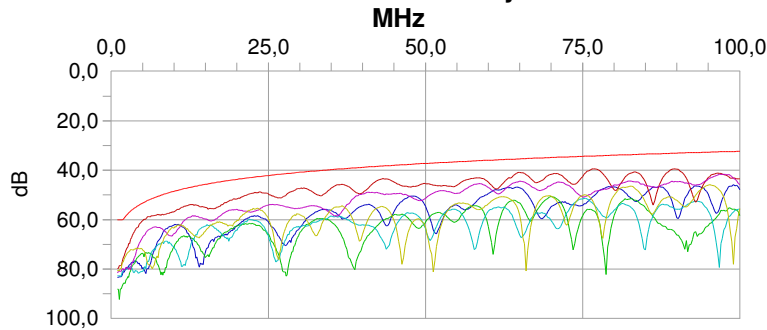
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

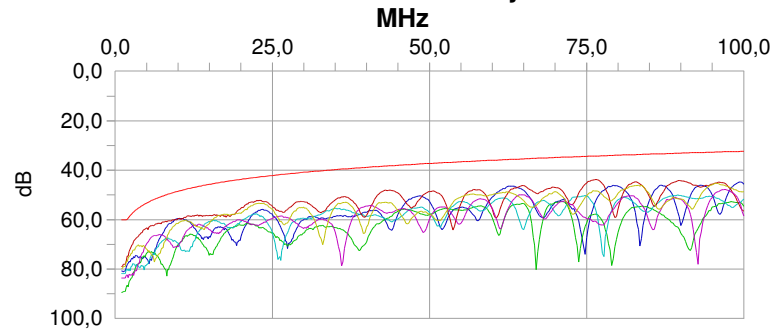
Attenuation Summary



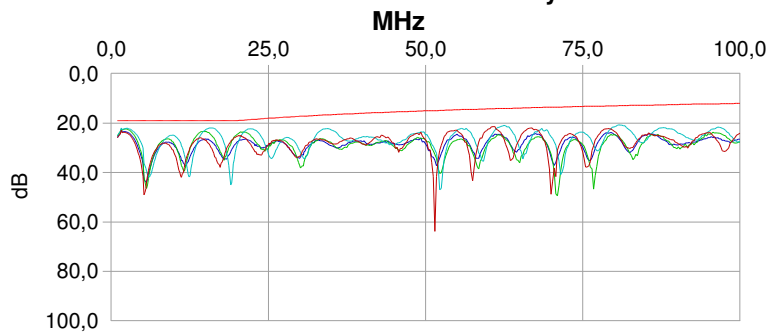
NEXT DH Summary



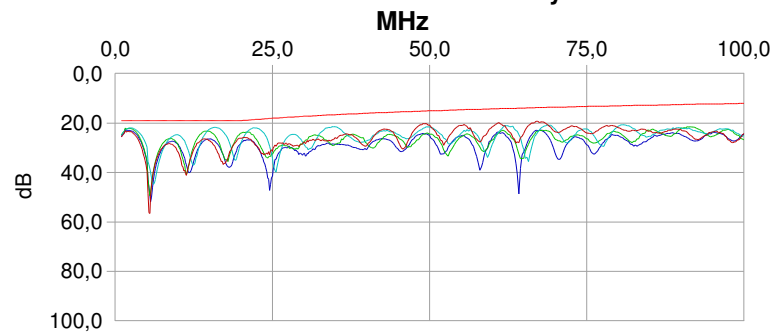
NEXT RH Summary



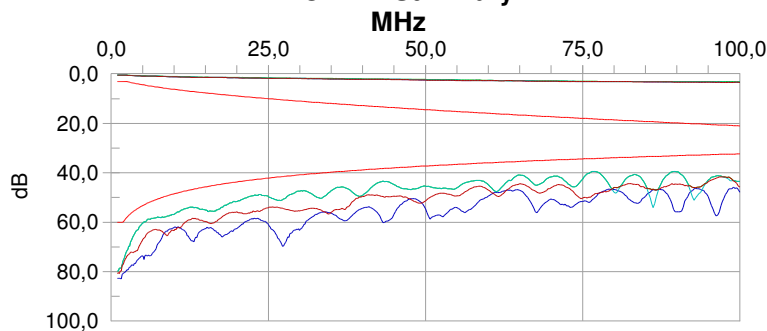
Return Loss DH Summary



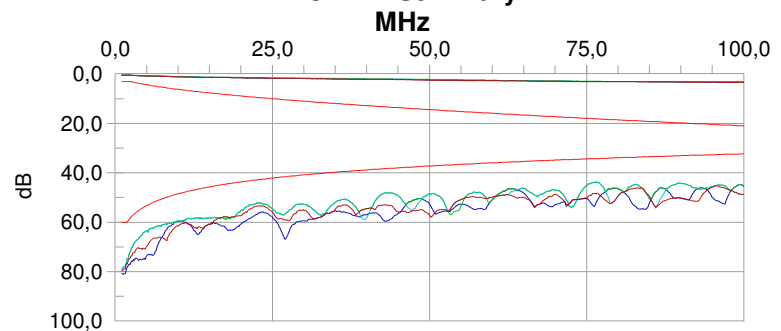
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

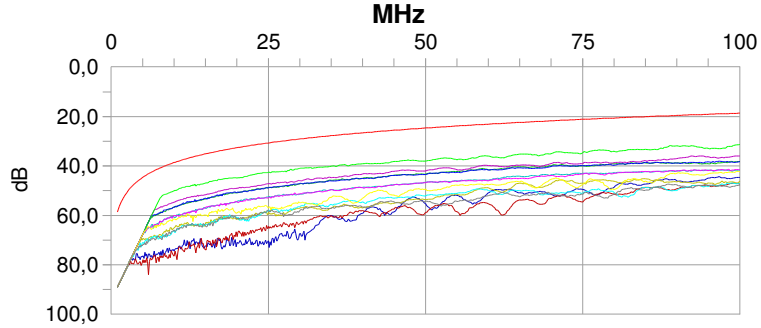
Cable ID 1: 1/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:04:25
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

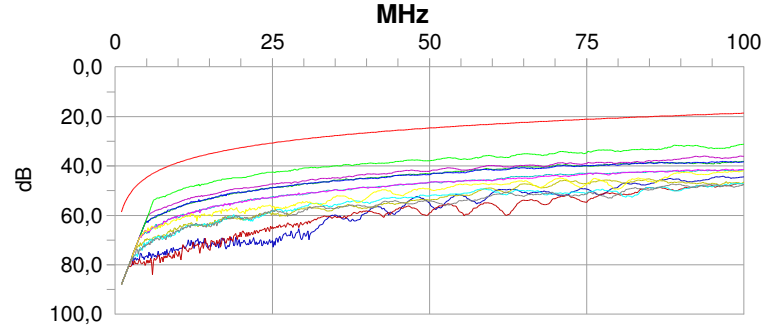
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

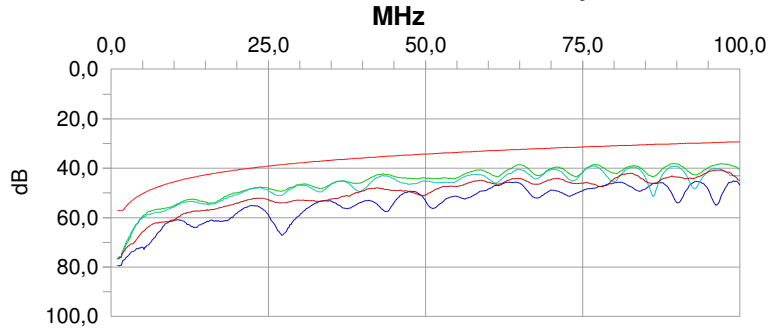
ELFEXT DH Summary



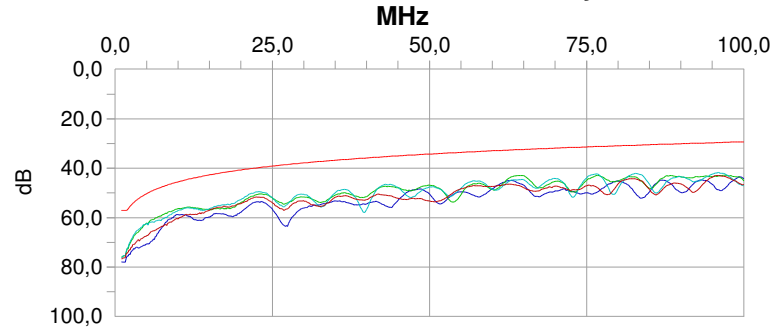
ELFEXT RH Summary



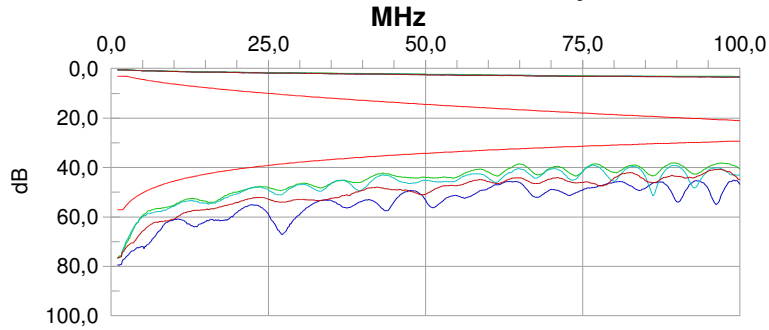
Power Sum NEXT DH Summary



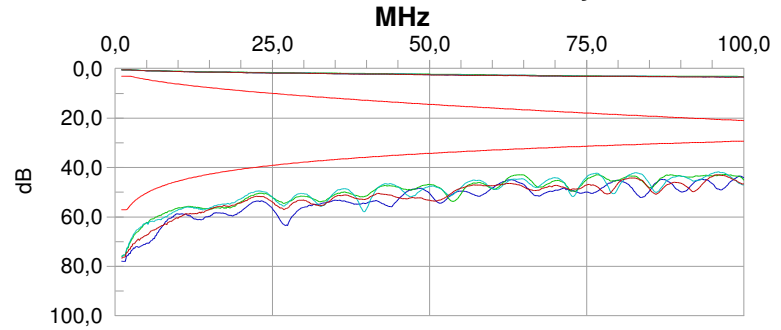
Power Sum NEXT RH Summary



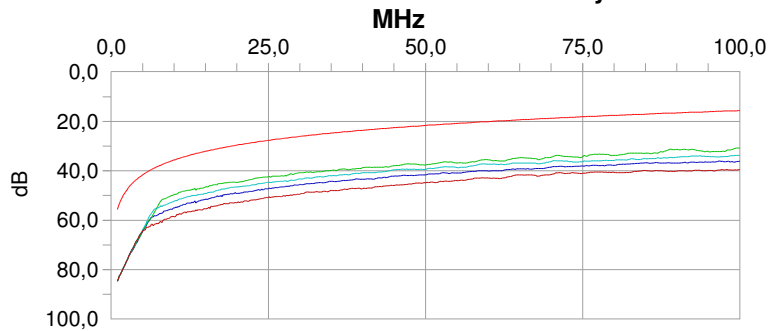
Power Sum ACR DH Summary



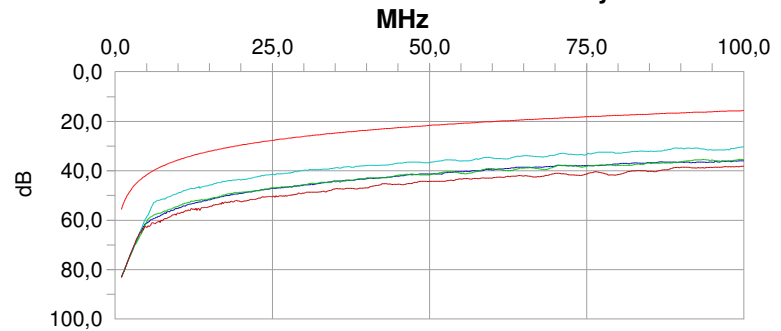
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

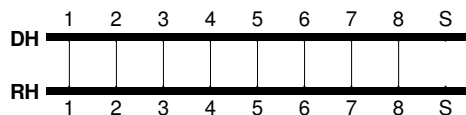
Cable ID 1: 1/8
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:09:36
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	16.1m	16.6m	16.6m	16.4m	< 90.0m	Pass
Prop. Delay	94.5ns	96.5ns	97.3ns	94.5ns	< 498.0ns	Pass
Delay Skew	2.8ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	15.7 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	37.9 dB @ 86.00MHz	37.9 dB	> 33.4 dB	4.5 dB
7,8-5,4	DH	Pass	59.2 dB @ 17.05MHz	49.0 dB	> 44.8 dB	14.4 dB
7,8-1,2	DH	Pass	49.4 dB @ 48.75MHz	46.2 dB	> 37.4 dB	12.0 dB
3,6-5,4	DH	Pass	48.0 dB @ 18.55MHz	39.4 dB	> 44.2 dB	3.8 dB
3,6-1,2	DH	Pass	42.6 dB @ 88.75MHz	42.5 dB	> 33.2 dB	9.4 dB
5,4-1,2	DH	Pass	52.3 dB @ 32.50MHz	44.9 dB	> 40.3 dB	12.0 dB
7,8-3,6	RH	Pass	36.8 dB @ 86.00MHz	36.6 dB	> 33.4 dB	3.4 dB
7,8-5,4	RH	Pass	48.7 dB @ 63.25MHz	46.7 dB	> 35.6 dB	13.1 dB
7,8-1,2	RH	Pass	56.9 dB @ 20.20MHz	49.5 dB	> 43.6 dB	13.3 dB
3,6-5,4	RH	Pass	53.9 dB @ 11.95MHz	41.6 dB	> 47.3 dB	6.6 dB
3,6-1,2	RH	Pass	48.1 dB @ 70.00MHz	47.4 dB	> 34.8 dB	13.3 dB
5,4-1,2	RH	Pass	54.1 dB @ 19.75MHz	45.9 dB	> 43.8 dB	10.3 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.0 dB @ 1.60MHz	21.8 dB	> 19.0 dB	3.0 dB
3,6	DH	Pass	22.1 dB @ 2.20MHz	19.9 dB	> 19.0 dB	3.1 dB
5,4	DH	Pass	14.7 dB @ 84.00MHz	14.7 dB	> 12.8 dB	1.9 dB
1,2	DH	Pass	21.8 dB @ 1.60MHz	17.1 dB	> 19.0 dB	2.8 dB
7,8	RH	Pass	22.1 dB @ 1.60MHz	18.3 dB	> 19.0 dB	3.1 dB
3,6	RH	Pass	21.8 dB @ 1.60MHz	19.9 dB	> 19.0 dB	2.8 dB
5,4	RH	Pass	13.9 dB @ 85.00MHz	13.9 dB	> 12.7 dB	1.2 dB
1,2	RH	Pass	16.0 dB @ 75.00MHz	15.9 dB	> 13.3 dB	2.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.5 dB @ 2.50MHz	3.3 dB	< 3.1 dB	2.6 dB
3,6	Pass	0.5 dB @ 2.50MHz	3.3 dB	< 3.1 dB	2.6 dB
5,4	Pass	0.5 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.6 dB
1,2	Pass	0.5 dB @ 2.50MHz	3.3 dB	< 3.1 dB	2.6 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	34.8 dB @ 86.00MHz	N/A	>= 14.1 dB	20.7 dB
3,6	DH	Pass	34.6 dB @ 86.00MHz	N/A	>= 14.1 dB	20.5 dB
5,4	DH	Pass	36.3 dB @ 70.75MHz	N/A	>= 17.4 dB	18.9 dB
1,2	DH	Pass	39.3 dB @ 89.00MHz	N/A	>= 13.4 dB	25.9 dB
7,8	RH	Pass	33.3 dB @ 99.75MHz	N/A	>= 11.4 dB	21.9 dB
3,6	RH	Pass	33.3 dB @ 99.75MHz	N/A	>= 11.4 dB	21.9 dB
5,4	RH	Pass	38.4 dB @ 77.00MHz	N/A	>= 16.0 dB	22.4 dB
1,2	RH	Pass	42.7 dB @ 92.00MHz	N/A	>= 12.9 dB	29.8 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/8
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:09:36
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	36.2 dB @ 72.50MHz	35.4 dB	> 21.4 dB	14.8 dB
7,8-5,4	DH	Pass	53.0 dB @ 12.55MHz	37.8 dB	> 36.6 dB	16.4 dB
7,8-1,2	DH	Pass	46.2 dB @ 91.75MHz	46.2 dB	> 19.4 dB	26.8 dB
3,6-7,8	DH	Pass	41.9 dB @ 64.50MHz	39.3 dB	> 22.4 dB	19.5 dB
3,6-5,4	DH	Pass	49.5 dB @ 10.75MHz	31.8 dB	> 38.0 dB	11.5 dB
3,6-1,2	DH	Pass	57.0 dB @ 9.70MHz	40.2 dB	> 38.9 dB	18.1 dB
5,4-7,8	DH	Pass	52.7 dB @ 12.55MHz	37.3 dB	> 36.6 dB	16.1 dB
5,4-3,6	DH	Pass	45.5 dB @ 10.30MHz	27.8 dB	> 38.4 dB	7.1 dB
5,4-1,2	DH	Pass	67.8 dB @ 5.80MHz	46.6 dB	> 43.3 dB	24.5 dB
1,2-7,8	DH	Pass	45.4 dB @ 100.00MHz	45.4 dB	> 18.6 dB	26.8 dB
1,2-3,6	DH	Pass	52.2 dB @ 10.60MHz	37.1 dB	> 38.1 dB	14.1 dB
1,2-5,4	DH	Pass	43.0 dB @ 91.50MHz	42.9 dB	> 19.4 dB	23.6 dB
7,8-3,6	RH	Pass	36.2 dB @ 72.50MHz	35.4 dB	> 21.4 dB	14.8 dB
7,8-5,4	RH	Pass	53.1 dB @ 12.55MHz	38.4 dB	> 36.6 dB	16.5 dB
7,8-1,2	RH	Pass	46.1 dB @ 91.75MHz	46.1 dB	> 19.4 dB	26.7 dB
3,6-7,8	RH	Pass	64.6 dB @ 4.60MHz	39.3 dB	> 45.4 dB	19.2 dB
3,6-5,4	RH	Pass	54.5 dB @ 6.10MHz	32.2 dB	> 42.9 dB	11.6 dB
3,6-1,2	RH	Pass	62.9 dB @ 4.90MHz	40.2 dB	> 44.8 dB	18.1 dB
5,4-7,8	RH	Pass	52.6 dB @ 12.55MHz	36.8 dB	> 36.6 dB	16.0 dB
5,4-3,6	RH	Pass	45.5 dB @ 10.15MHz	27.2 dB	> 38.5 dB	7.0 dB
5,4-1,2	RH	Pass	68.5 dB @ 5.35MHz	46.1 dB	> 44.0 dB	24.5 dB
1,2-7,8	RH	Pass	45.4 dB @ 100.00MHz	45.4 dB	> 18.6 dB	26.8 dB
1,2-3,6	RH	Pass	57.0 dB @ 5.95MHz	37.0 dB	> 43.1 dB	13.9 dB
1,2-5,4	RH	Pass	43.4 dB @ 91.50MHz	43.4 dB	> 19.4 dB	24.0 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	37.6 dB @ 86.00MHz	37.6 dB	> 30.4 dB	7.2 dB
3,6	DH	Pass	38.7 dB @ 52.00MHz	36.8 dB	> 34.0 dB	4.7 dB
5,4	DH	Pass	47.2 dB @ 18.85MHz	39.0 dB	> 41.1 dB	6.1 dB
1,2	DH	Pass	39.9 dB @ 90.50MHz	39.9 dB	> 30.0 dB	9.9 dB
7,8	RH	Pass	36.5 dB @ 86.00MHz	36.1 dB	> 30.4 dB	6.1 dB
3,6	RH	Pass	39.5 dB @ 52.75MHz	36.2 dB	> 33.9 dB	5.6 dB
5,4	RH	Pass	49.3 dB @ 18.55MHz	40.3 dB	> 41.2 dB	8.1 dB
1,2	RH	Pass	52.0 dB @ 20.20MHz	42.8 dB	> 40.6 dB	11.4 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	34.5 dB @ 86.00MHz	N/A	>= 11.1 dB	23.4 dB
3,6	DH	Pass	33.6 dB @ 93.25MHz	N/A	>= 9.6 dB	24.0 dB
5,4	DH	Pass	35.9 dB @ 70.75MHz	N/A	>= 14.4 dB	21.5 dB
1,2	DH	Pass	36.7 dB @ 90.50MHz	N/A	>= 10.1 dB	26.6 dB
7,8	RH	Pass	32.8 dB @ 99.75MHz	N/A	>= 8.4 dB	24.4 dB
3,6	RH	Pass	32.9 dB @ 99.75MHz	N/A	>= 8.4 dB	24.5 dB
5,4	RH	Pass	37.1 dB @ 77.00MHz	N/A	>= 13.0 dB	24.1 dB
1,2	RH	Pass	39.6 dB @ 92.00MHz	N/A	>= 9.9 dB	29.7 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	51.1 dB @ 12.55MHz	35.1 dB	>= 33.6 dB	17.5 dB
3,6	DH	Pass	44.4 dB @ 10.15MHz	26.8 dB	>= 35.5 dB	8.9 dB
5,4	DH	Pass	48.2 dB @ 10.75MHz	30.8 dB	>= 35.0 dB	13.2 dB
1,2	DH	Pass	55.8 dB @ 9.70MHz	38.7 dB	>= 35.9 dB	19.9 dB
7,8	RH	Pass	49.8 dB @ 12.25MHz	33.5 dB	>= 33.9 dB	15.9 dB
3,6	RH	Pass	48.2 dB @ 10.75MHz	31.1 dB	>= 35.0 dB	13.2 dB
5,4	RH	Pass	44.9 dB @ 10.15MHz	26.8 dB	>= 35.5 dB	9.4 dB
1,2	RH	Pass	51.7 dB @ 10.90MHz	36.1 dB	>= 34.9 dB	16.8 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

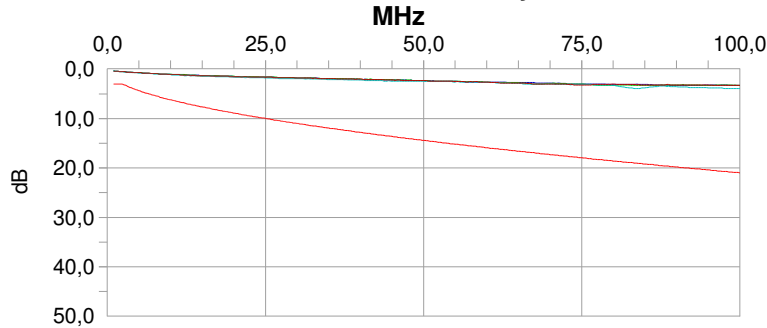
Cable ID 1: 1/8
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:09:36
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

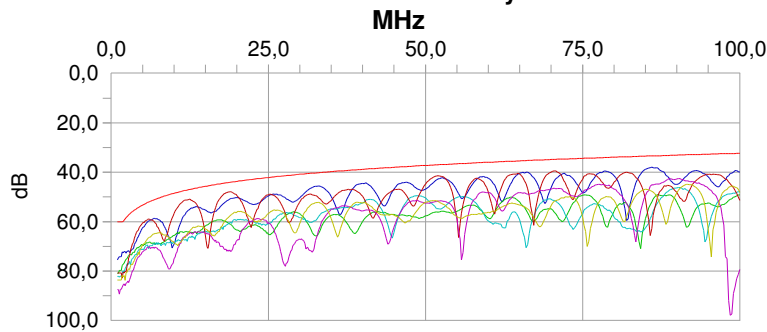
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

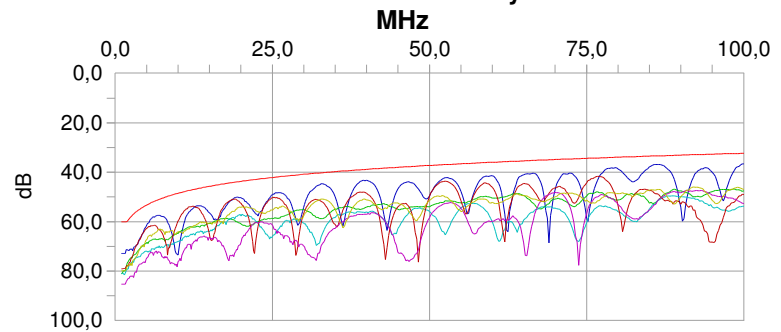
Attenuation Summary



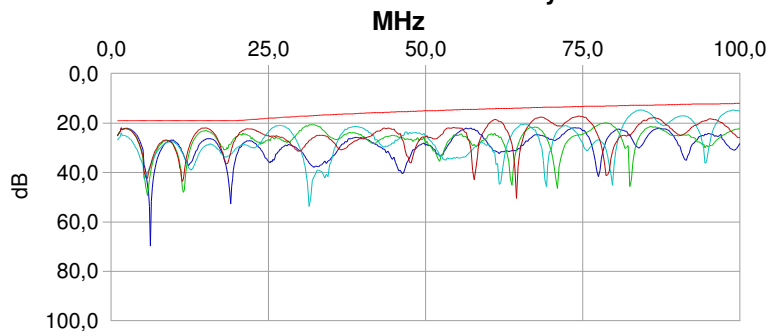
NEXT DH Summary



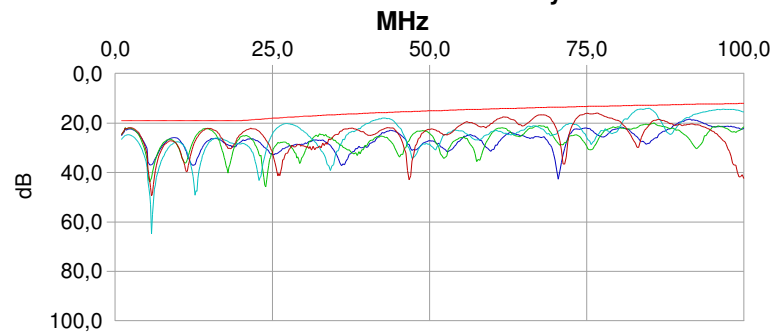
NEXT RH Summary



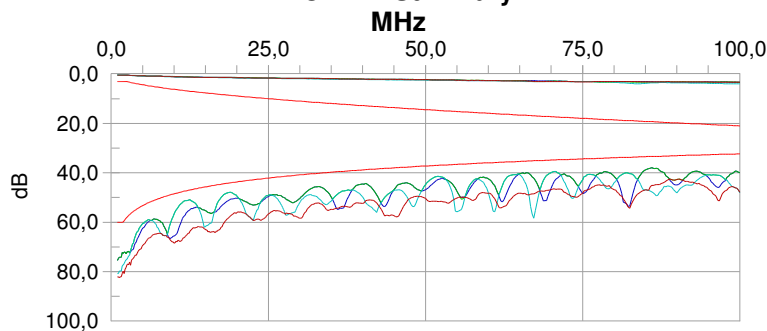
Return Loss DH Summary



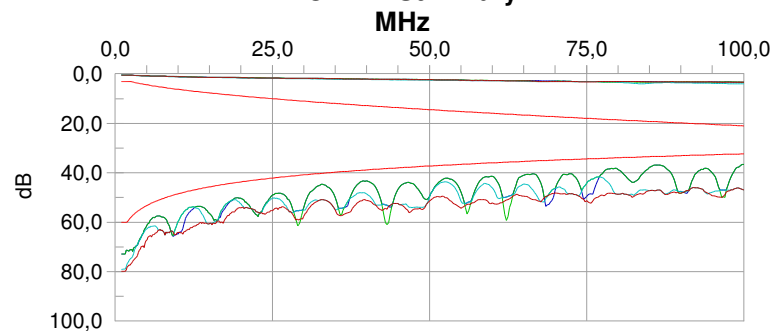
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

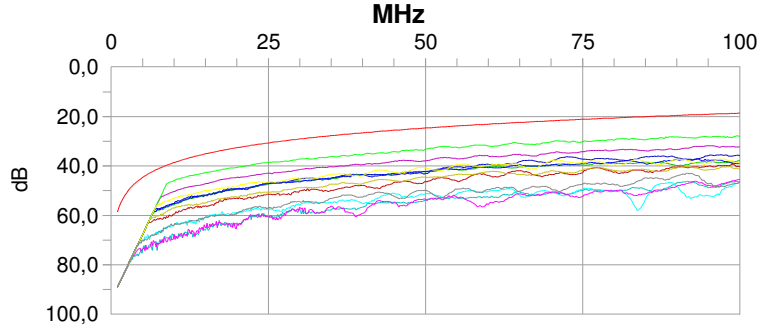
Cable ID 1: 1/8
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:09:36
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

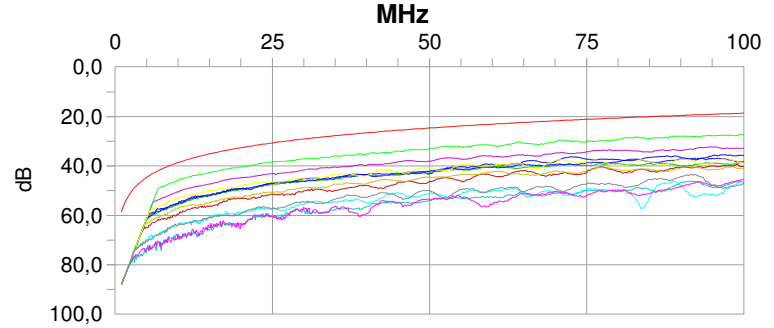
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

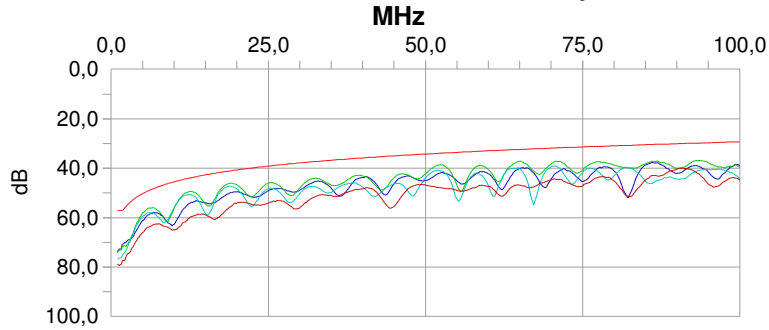
ELFEXT DH Summary



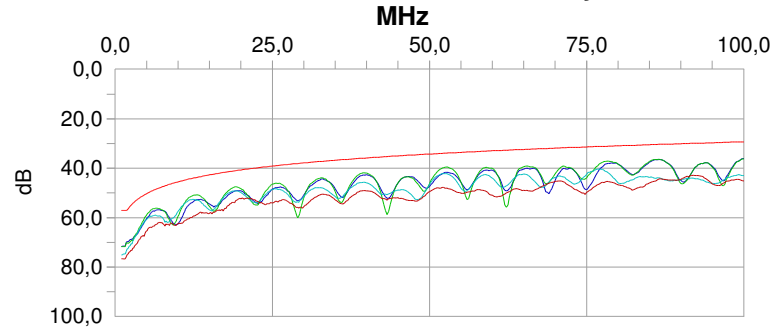
ELFEXT RH Summary



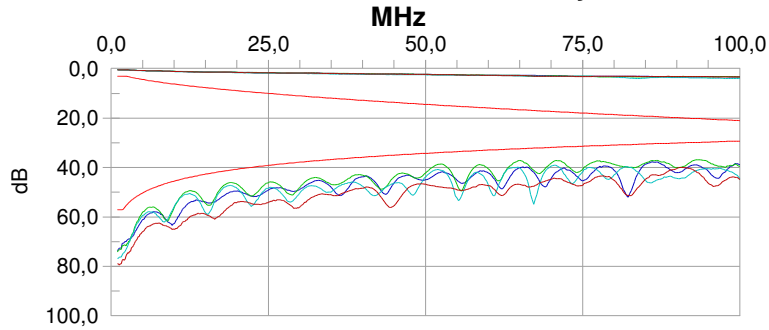
Power Sum NEXT DH Summary



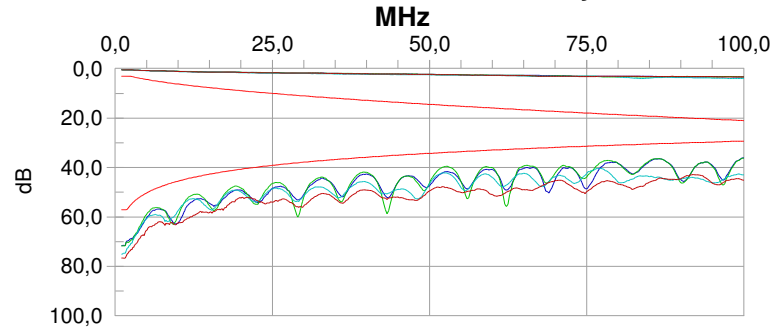
Power Sum NEXT RH Summary



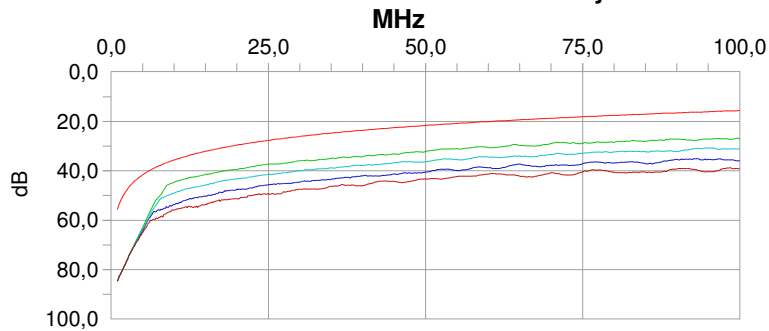
Power Sum ACR DH Summary



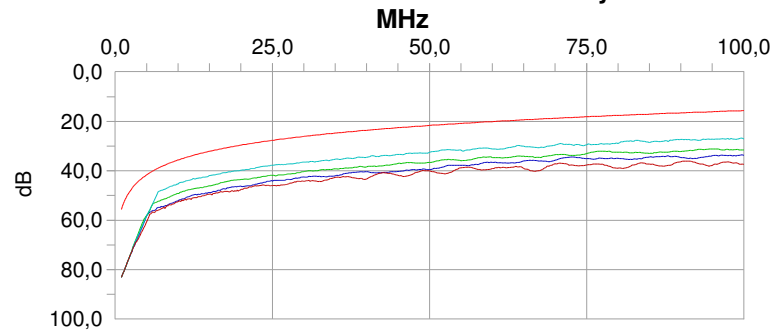
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

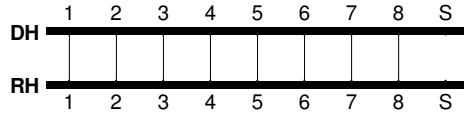
Cable ID 1: 1/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:00:20
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	20.8m	21.1m	21.3m	21.1m	< 90.0m	Pass
Prop. Delay	116.4ns	118.1ns	119.7ns	116.6ns	< 498.0ns	Pass
Delay Skew	3.3ns (Pairs 5,4 vs. 7,8)				< 44.0 ns	Pass
Headroom	18.3 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	44.6 dB @ 37.00MHz	39.8 dB	> 39.4 dB	5.2 dB
7,8-5,4	DH	Pass	51.5 dB @ 51.00MHz	51.3 dB	> 37.1 dB	14.4 dB
7,8-1,2	DH	Pass	43.1 dB @ 79.00MHz	43.1 dB	> 34.0 dB	9.1 dB
3,6-5,4	DH	Pass	53.5 dB @ 8.80MHz	38.5 dB	> 49.4 dB	4.1 dB
3,6-1,2	DH	Pass	55.1 dB @ 14.20MHz	45.3 dB	> 46.1 dB	9.0 dB
5,4-1,2	DH	Pass	48.5 dB @ 80.00MHz	48.5 dB	> 33.9 dB	14.6 dB
7,8-3,6	RH	Pass	43.5 dB @ 37.75MHz	39.9 dB	> 39.2 dB	4.3 dB
7,8-5,4	RH	Pass	49.5 dB @ 56.25MHz	48.4 dB	> 36.4 dB	13.1 dB
7,8-1,2	RH	Pass	43.7 dB @ 78.75MHz	43.7 dB	> 34.0 dB	9.7 dB
3,6-5,4	RH	Pass	58.2 dB @ 7.75MHz	42.5 dB	> 50.3 dB	7.9 dB
3,6-1,2	RH	Pass	58.1 dB @ 14.05MHz	46.9 dB	> 46.1 dB	12.0 dB
5,4-1,2	RH	Pass	47.6 dB @ 79.75MHz	47.6 dB	> 33.9 dB	13.7 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	20.3 dB @ 21.40MHz	18.6 dB	> 18.7 dB	1.6 dB
3,6	DH	Pass	19.6 dB @ 30.40MHz	18.0 dB	> 17.2 dB	2.4 dB
5,4	DH	Pass	17.2 dB @ 63.25MHz	17.2 dB	> 14.0 dB	3.2 dB
1,2	DH	Pass	21.7 dB @ 1.60MHz	18.9 dB	> 19.0 dB	2.7 dB
7,8	RH	Pass	20.4 dB @ 1.60MHz	19.5 dB	> 19.0 dB	1.4 dB
3,6	RH	Pass	21.6 dB @ 1.60MHz	20.8 dB	> 19.0 dB	2.6 dB
5,4	RH	Pass	20.6 dB @ 30.40MHz	17.0 dB	> 17.2 dB	3.4 dB
1,2	RH	Pass	21.5 dB @ 1.60MHz	17.2 dB	> 19.0 dB	2.5 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.50MHz	4.2 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.50MHz	4.3 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.7 dB @ 2.50MHz	4.7 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.50MHz	4.3 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	35.7 dB @ 91.00MHz	N/A	>= 13.1 dB	22.6 dB
3,6	DH	Pass	34.6 dB @ 79.75MHz	N/A	>= 15.4 dB	19.2 dB
5,4	DH	Pass	34.4 dB @ 79.75MHz	N/A	>= 15.4 dB	19.0 dB
1,2	DH	Pass	39.2 dB @ 79.00MHz	N/A	>= 15.6 dB	23.6 dB
7,8	RH	Pass	35.9 dB @ 80.00MHz	N/A	>= 15.3 dB	20.6 dB
3,6	RH	Pass	36.0 dB @ 80.00MHz	N/A	>= 15.3 dB	20.7 dB
5,4	RH	Pass	38.4 dB @ 80.25MHz	N/A	>= 15.3 dB	23.1 dB
1,2	RH	Pass	39.8 dB @ 78.75MHz	N/A	>= 15.6 dB	24.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 1/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:00:20
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	55.5 dB @ 7.90MHz	35.8 dB	> 40.7 dB	14.8 dB
7,8-5,4	DH	Pass	57.1 dB @ 9.70MHz	42.4 dB	> 38.9 dB	18.2 dB
7,8-1,2	DH	Pass	57.5 dB @ 13.45MHz	41.8 dB	> 36.0 dB	21.5 dB
3,6-7,8	DH	Pass	54.9 dB @ 13.30MHz	39.7 dB	> 36.1 dB	18.8 dB
3,6-5,4	DH	Pass	57.6 dB @ 8.35MHz	39.0 dB	> 40.2 dB	17.4 dB
3,6-1,2	DH	Pass	66.6 dB @ 5.20MHz	44.3 dB	> 44.3 dB	22.3 dB
5,4-7,8	DH	Pass	51.3 dB @ 18.85MHz	40.5 dB	> 33.1 dB	18.2 dB
5,4-3,6	DH	Pass	52.4 dB @ 8.95MHz	35.9 dB	> 39.6 dB	12.8 dB
5,4-1,2	DH	Pass	57.8 dB @ 6.85MHz	38.8 dB	> 41.9 dB	15.9 dB
1,2-7,8	DH	Pass	39.6 dB @ 86.50MHz	39.1 dB	> 19.9 dB	19.7 dB
1,2-3,6	DH	Pass	58.3 dB @ 8.35MHz	39.9 dB	> 40.2 dB	18.1 dB
1,2-5,4	DH	Pass	57.9 dB @ 7.00MHz	37.4 dB	> 41.7 dB	16.2 dB
7,8-3,6	RH	Pass	55.5 dB @ 7.90MHz	36.0 dB	> 40.7 dB	14.8 dB
7,8-5,4	RH	Pass	57.2 dB @ 9.70MHz	42.6 dB	> 38.9 dB	18.3 dB
7,8-1,2	RH	Pass	65.3 dB @ 5.20MHz	41.8 dB	> 44.3 dB	21.0 dB
3,6-7,8	RH	Pass	63.1 dB @ 5.20MHz	39.6 dB	> 44.3 dB	18.8 dB
3,6-5,4	RH	Pass	57.7 dB @ 8.35MHz	39.3 dB	> 40.2 dB	17.5 dB
3,6-1,2	RH	Pass	66.8 dB @ 4.45MHz	44.3 dB	> 45.6 dB	21.2 dB
5,4-7,8	RH	Pass	51.1 dB @ 18.85MHz	40.1 dB	> 33.1 dB	18.0 dB
5,4-3,6	RH	Pass	52.3 dB @ 8.95MHz	35.6 dB	> 39.6 dB	12.7 dB
5,4-1,2	RH	Pass	57.7 dB @ 6.85MHz	38.6 dB	> 41.9 dB	15.8 dB
1,2-7,8	RH	Pass	39.7 dB @ 86.50MHz	39.0 dB	> 19.9 dB	19.8 dB
1,2-3,6	RH	Pass	58.3 dB @ 8.35MHz	40.0 dB	> 40.2 dB	18.1 dB
1,2-5,4	RH	Pass	58.0 dB @ 7.00MHz	37.7 dB	> 41.7 dB	16.3 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	44.4 dB @ 37.00MHz	38.9 dB	> 36.4 dB	8.0 dB
3,6	DH	Pass	48.2 dB @ 13.75MHz	36.7 dB	> 43.3 dB	4.9 dB
5,4	DH	Pass	53.2 dB @ 8.80MHz	38.0 dB	> 46.4 dB	6.8 dB
1,2	DH	Pass	53.1 dB @ 14.20MHz	41.0 dB	> 43.1 dB	10.0 dB
7,8	RH	Pass	43.2 dB @ 37.75MHz	38.5 dB	> 36.2 dB	7.0 dB
3,6	RH	Pass	42.8 dB @ 37.75MHz	37.9 dB	> 36.2 dB	6.6 dB
5,4	RH	Pass	41.0 dB @ 80.25MHz	41.0 dB	> 30.9 dB	10.1 dB
1,2	RH	Pass	42.2 dB @ 78.75MHz	42.1 dB	> 31.0 dB	11.2 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	34.8 dB @ 85.25MHz	N/A	>= 11.2 dB	23.6 dB
3,6	DH	Pass	32.8 dB @ 79.75MHz	N/A	>= 12.4 dB	20.4 dB
5,4	DH	Pass	33.9 dB @ 79.75MHz	N/A	>= 12.4 dB	21.5 dB
1,2	DH	Pass	37.0 dB @ 85.25MHz	N/A	>= 11.2 dB	25.8 dB
7,8	RH	Pass	34.5 dB @ 79.75MHz	N/A	>= 12.4 dB	22.1 dB
3,6	RH	Pass	34.0 dB @ 80.25MHz	N/A	>= 12.3 dB	21.7 dB
5,4	RH	Pass	36.8 dB @ 80.25MHz	N/A	>= 12.3 dB	24.5 dB
1,2	RH	Pass	38.2 dB @ 79.50MHz	N/A	>= 12.4 dB	25.8 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	53.6 dB @ 9.70MHz	35.1 dB	>= 35.9 dB	17.7 dB
3,6	DH	Pass	50.7 dB @ 7.90MHz	32.6 dB	>= 37.7 dB	13.0 dB
5,4	DH	Pass	52.7 dB @ 8.35MHz	34.7 dB	>= 37.2 dB	15.5 dB
1,2	DH	Pass	56.2 dB @ 6.85MHz	36.6 dB	>= 38.9 dB	17.3 dB
7,8	RH	Pass	53.6 dB @ 7.90MHz	34.6 dB	>= 37.7 dB	15.9 dB
3,6	RH	Pass	58.5 dB @ 5.20MHz	36.0 dB	>= 41.3 dB	17.2 dB
5,4	RH	Pass	50.0 dB @ 8.95MHz	33.1 dB	>= 36.6 dB	13.4 dB
1,2	RH	Pass	53.6 dB @ 8.35MHz	34.2 dB	>= 37.2 dB	16.4 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

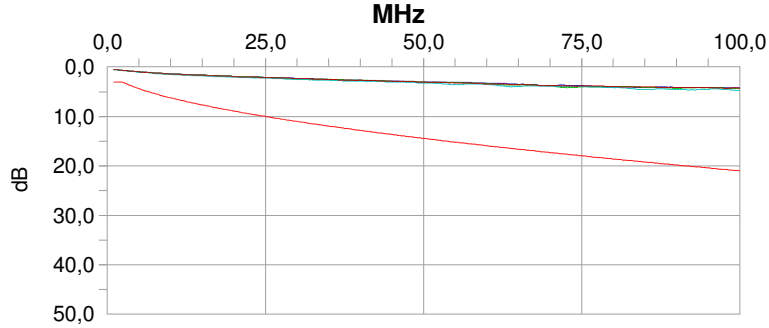
Cable ID 1: 1/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:00:20
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

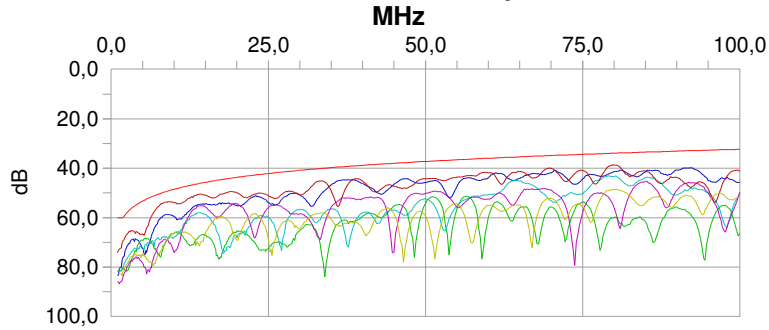
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

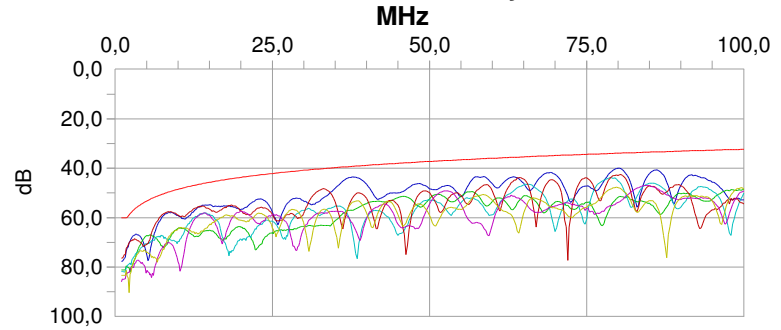
Attenuation Summary



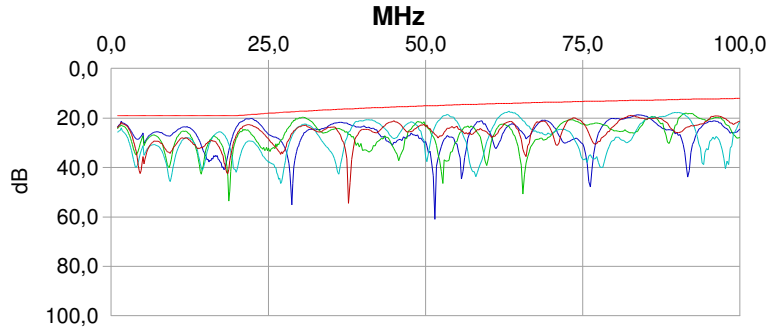
NEXT DH Summary



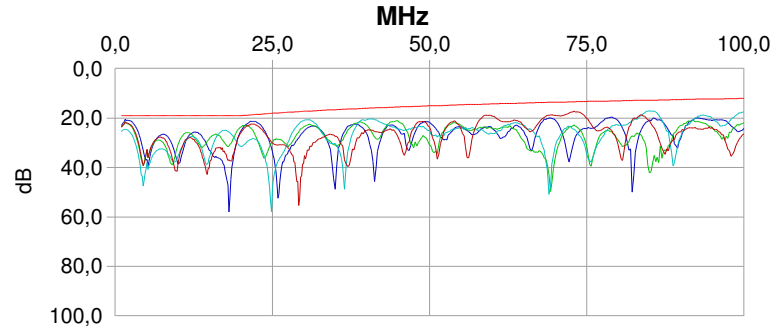
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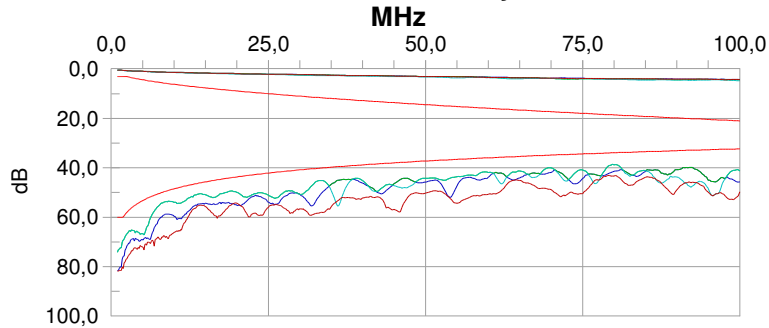
Return Loss DH Summary



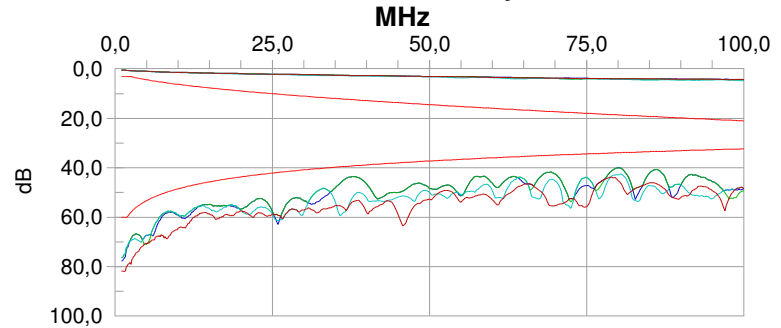
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

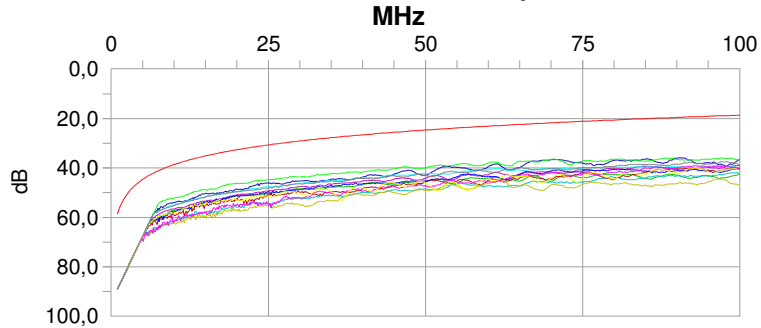
Cable ID 1: 1/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:00:20
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

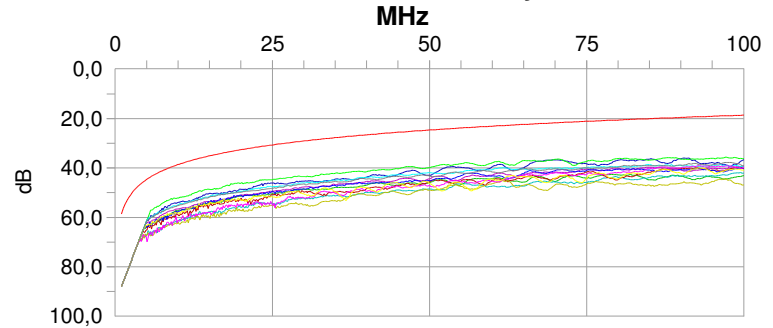
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

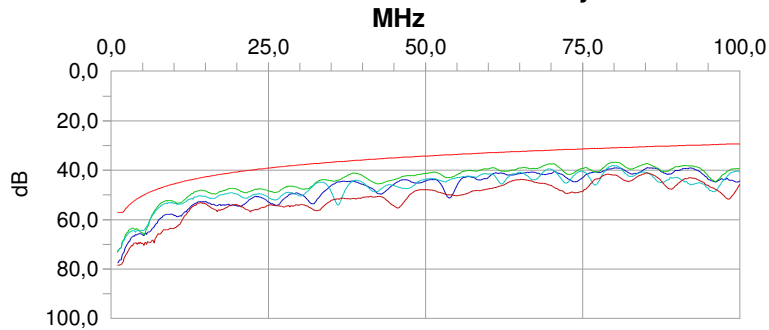
ELFEXT DH Summary



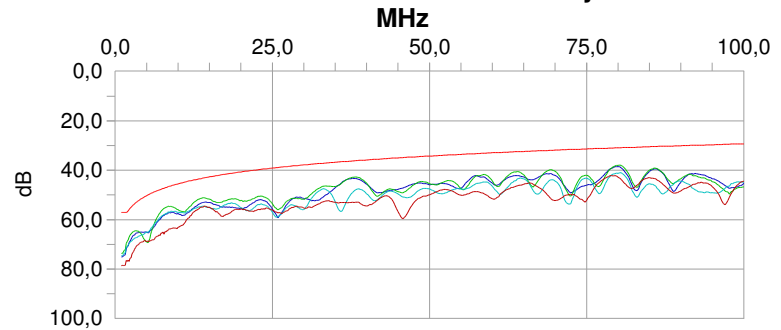
ELFEXT RH Summary



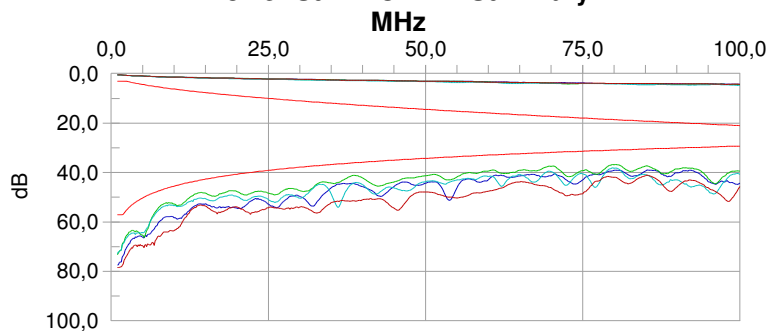
Power Sum NEXT DH Summary



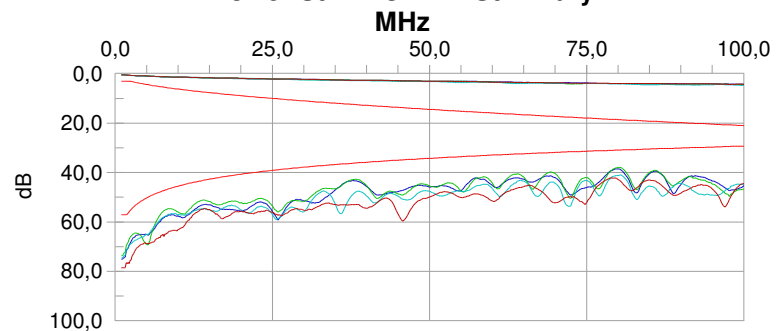
Power Sum NEXT RH Summary



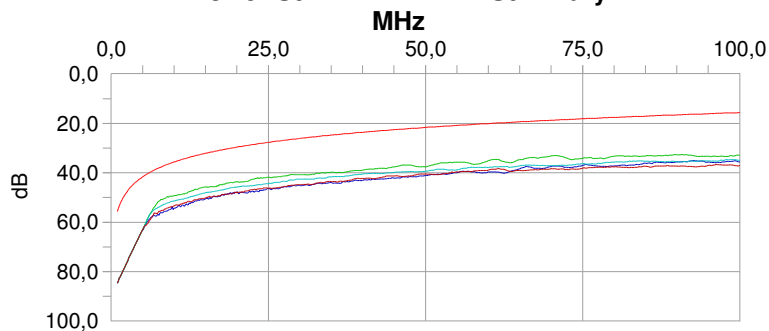
Power Sum ACR DH Summary



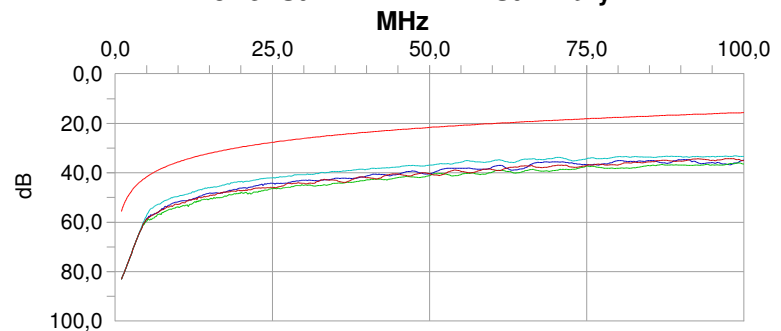
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

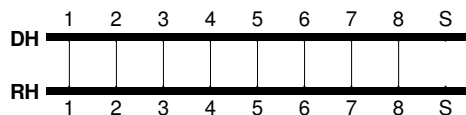
Cable ID 1: 2/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:45:22
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	63.7m	62.9m	62.2m	64.3m	< 90.0m	Pass
Prop. Delay	320.2ns	316.1ns	313.2ns	321.4ns	< 498.0ns	Pass
Delay Skew	8.2ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
Headroom	15.0 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	36.3 dB @ 99.50MHz	36.3 dB	> 32.3 dB	4.0 dB
7,8-5,4	DH	Pass	58.8 dB @ 11.05MHz	50.6 dB	> 47.8 dB	11.0 dB
7,8-1,2	DH	Pass	61.4 dB @ 13.90MHz	50.2 dB	> 46.2 dB	15.2 dB
3,6-5,4	DH	Pass	54.2 dB @ 9.70MHz	43.4 dB	> 48.7 dB	5.5 dB
3,6-1,2	DH	Pass	52.3 dB @ 44.25MHz	47.7 dB	> 38.1 dB	14.2 dB
5,4-1,2	DH	Pass	51.6 dB @ 21.10MHz	46.2 dB	> 43.3 dB	8.3 dB
7,8-3,6	RH	Pass	42.8 dB @ 47.00MHz	40.7 dB	> 37.7 dB	5.1 dB
7,8-5,4	RH	Pass	58.3 dB @ 11.20MHz	48.1 dB	> 47.7 dB	10.6 dB
7,8-1,2	RH	Pass	49.7 dB @ 45.00MHz	47.6 dB	> 38.0 dB	11.7 dB
3,6-5,4	RH	Pass	66.0 dB @ 2.20MHz	43.9 dB	> 58.9 dB	7.1 dB
3,6-1,2	RH	Pass	51.7 dB @ 44.50MHz	49.6 dB	> 38.1 dB	13.6 dB
5,4-1,2	RH	Pass	50.6 dB @ 21.25MHz	42.6 dB	> 43.2 dB	7.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.9 dB @ 2.35MHz	24.9 dB	> 19.0 dB	5.9 dB
3,6	DH	Pass	23.3 dB @ 2.35MHz	23.3 dB	> 19.0 dB	4.3 dB
5,4	DH	Pass	22.6 dB @ 2.35MHz	22.6 dB	> 19.0 dB	3.6 dB
1,2	DH	Pass	25.5 dB @ 2.35MHz	24.1 dB	> 19.0 dB	6.5 dB
7,8	RH	Pass	24.1 dB @ 2.20MHz	24.0 dB	> 19.0 dB	5.1 dB
3,6	RH	Pass	22.7 dB @ 2.20MHz	22.7 dB	> 19.0 dB	3.7 dB
5,4	RH	Pass	21.8 dB @ 2.35MHz	20.0 dB	> 19.0 dB	2.8 dB
1,2	RH	Pass	24.0 dB @ 2.20MHz	20.8 dB	> 19.0 dB	5.0 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.8 dB @ 2.50MHz	13.2 dB	< 3.1 dB	1.3 dB
3,6	Pass	1.7 dB @ 2.50MHz	13.1 dB	< 3.1 dB	1.4 dB
5,4	Pass	1.8 dB @ 2.50MHz	12.7 dB	< 3.1 dB	1.3 dB
1,2	Pass	1.9 dB @ 2.50MHz	13.3 dB	< 3.1 dB	1.2 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.2 dB @ 99.50MHz	N/A	>= 11.4 dB	11.8 dB
3,6	DH	Pass	23.2 dB @ 99.50MHz	N/A	>= 11.4 dB	11.8 dB
5,4	DH	Pass	31.4 dB @ 90.75MHz	N/A	>= 13.1 dB	18.3 dB
1,2	DH	Pass	33.1 dB @ 97.50MHz	N/A	>= 11.8 dB	21.3 dB
7,8	RH	Pass	27.8 dB @ 96.50MHz	N/A	>= 12.0 dB	15.8 dB
3,6	RH	Pass	28.0 dB @ 96.50MHz	N/A	>= 12.0 dB	16.0 dB
5,4	RH	Pass	30.2 dB @ 97.00MHz	N/A	>= 11.9 dB	18.3 dB
1,2	RH	Pass	29.5 dB @ 97.00MHz	N/A	>= 11.9 dB	17.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 2/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:45:22
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	34.2 dB @ 98.00MHz	34.2 dB	> 18.8 dB	15.4 dB
7,8-5,4	DH	Pass	56.7 dB @ 7.30MHz	40.9 dB	> 41.3 dB	15.4 dB
7,8-1,2	DH	Pass	66.9 dB @ 5.80MHz	46.3 dB	> 43.3 dB	23.6 dB
3,6-7,8	DH	Pass	38.9 dB @ 96.75MHz	38.9 dB	> 18.9 dB	20.0 dB
3,6-5,4	DH	Pass	59.2 dB @ 7.75MHz	40.7 dB	> 40.8 dB	18.4 dB
3,6-1,2	DH	Pass	59.9 dB @ 7.30MHz	42.0 dB	> 41.3 dB	18.6 dB
5,4-7,8	DH	Pass	55.0 dB @ 8.05MHz	40.0 dB	> 40.5 dB	14.5 dB
5,4-3,6	DH	Pass	53.4 dB @ 9.70MHz	35.2 dB	> 38.9 dB	14.5 dB
5,4-1,2	DH	Pass	40.9 dB @ 87.00MHz	40.9 dB	> 19.8 dB	21.1 dB
1,2-7,8	DH	Pass	66.4 dB @ 5.65MHz	45.1 dB	> 43.6 dB	22.8 dB
1,2-3,6	DH	Pass	54.0 dB @ 9.25MHz	37.1 dB	> 39.3 dB	14.7 dB
1,2-5,4	DH	Pass	62.5 dB @ 7.15MHz	42.1 dB	> 41.5 dB	21.0 dB
7,8-3,6	RH	Pass	34.1 dB @ 97.50MHz	34.1 dB	> 18.8 dB	15.3 dB
7,8-5,4	RH	Pass	56.7 dB @ 6.85MHz	40.3 dB	> 41.9 dB	14.8 dB
7,8-1,2	RH	Pass	67.0 dB @ 5.80MHz	46.5 dB	> 43.3 dB	23.7 dB
3,6-7,8	RH	Pass	39.1 dB @ 96.75MHz	39.1 dB	> 18.9 dB	20.2 dB
3,6-5,4	RH	Pass	63.1 dB @ 4.75MHz	40.2 dB	> 45.1 dB	18.0 dB
3,6-1,2	RH	Pass	63.7 dB @ 4.75MHz	42.2 dB	> 45.1 dB	18.6 dB
5,4-7,8	RH	Pass	55.1 dB @ 8.05MHz	40.4 dB	> 40.5 dB	14.6 dB
5,4-3,6	RH	Pass	57.5 dB @ 5.80MHz	35.6 dB	> 43.3 dB	14.2 dB
5,4-1,2	RH	Pass	41.5 dB @ 87.50MHz	41.5 dB	> 19.8 dB	21.7 dB
1,2-7,8	RH	Pass	66.4 dB @ 5.65MHz	45.0 dB	> 43.6 dB	22.8 dB
1,2-3,6	RH	Pass	55.6 dB @ 6.55MHz	36.7 dB	> 42.3 dB	13.3 dB
1,2-5,4	RH	Pass	65.2 dB @ 4.90MHz	41.5 dB	> 44.8 dB	20.4 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	36.2 dB @ 99.50MHz	36.2 dB	> 29.3 dB	6.9 dB
3,6	DH	Pass	35.8 dB @ 99.50MHz	35.8 dB	> 29.3 dB	6.5 dB
5,4	DH	Pass	53.4 dB @ 9.70MHz	42.4 dB	> 45.7 dB	7.7 dB
1,2	DH	Pass	51.2 dB @ 20.95MHz	44.0 dB	> 40.3 dB	10.9 dB
7,8	RH	Pass	42.1 dB @ 47.00MHz	39.5 dB	> 34.7 dB	7.4 dB
3,6	RH	Pass	42.4 dB @ 47.00MHz	39.1 dB	> 34.7 dB	7.7 dB
5,4	RH	Pass	51.8 dB @ 13.90MHz	40.1 dB	> 43.2 dB	8.6 dB
1,2	RH	Pass	52.6 dB @ 13.90MHz	41.1 dB	> 43.2 dB	9.4 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	23.1 dB @ 99.50MHz	N/A	>= 8.4 dB	14.7 dB
3,6	DH	Pass	22.7 dB @ 99.50MHz	N/A	>= 8.4 dB	14.3 dB
5,4	DH	Pass	30.4 dB @ 91.25MHz	N/A	>= 10.0 dB	20.4 dB
1,2	DH	Pass	30.8 dB @ 98.75MHz	N/A	>= 8.6 dB	22.2 dB
7,8	RH	Pass	26.6 dB @ 96.50MHz	N/A	>= 9.0 dB	17.6 dB
3,6	RH	Pass	26.4 dB @ 96.50MHz	N/A	>= 9.0 dB	17.4 dB
5,4	RH	Pass	27.7 dB @ 97.00MHz	N/A	>= 8.9 dB	18.8 dB
1,2	RH	Pass	28.0 dB @ 97.00MHz	N/A	>= 8.9 dB	19.1 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	51.4 dB @ 12.10MHz	36.9 dB	>= 34.0 dB	17.4 dB
3,6	DH	Pass	52.0 dB @ 8.05MHz	30.7 dB	>= 37.5 dB	14.5 dB
5,4	DH	Pass	54.5 dB @ 7.30MHz	36.8 dB	>= 38.3 dB	16.2 dB
1,2	DH	Pass	57.6 dB @ 7.30MHz	38.5 dB	>= 38.3 dB	19.3 dB
7,8	RH	Pass	33.1 dB @ 97.50MHz	33.1 dB	>= 15.8 dB	17.3 dB
3,6	RH	Pass	53.2 dB @ 11.65MHz	35.8 dB	>= 34.3 dB	18.9 dB
5,4	RH	Pass	51.8 dB @ 8.05MHz	34.3 dB	>= 37.5 dB	14.3 dB
1,2	RH	Pass	54.6 dB @ 6.55MHz	35.2 dB	>= 39.3 dB	15.3 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

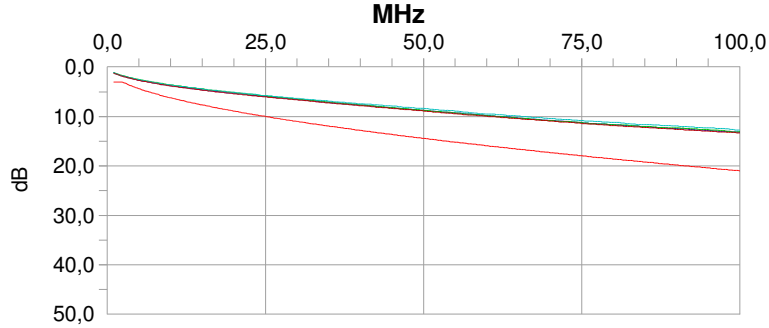
Cable ID 1: 2/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:45:22
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

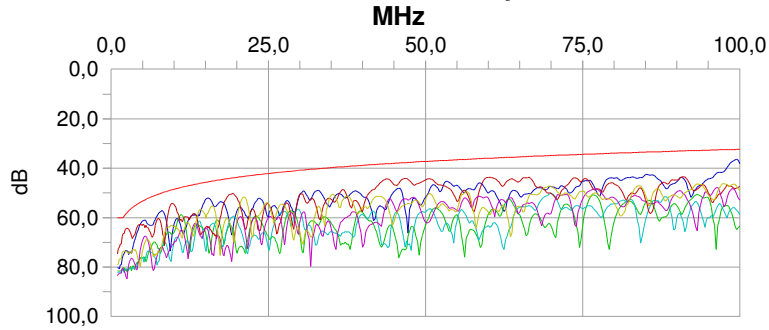
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

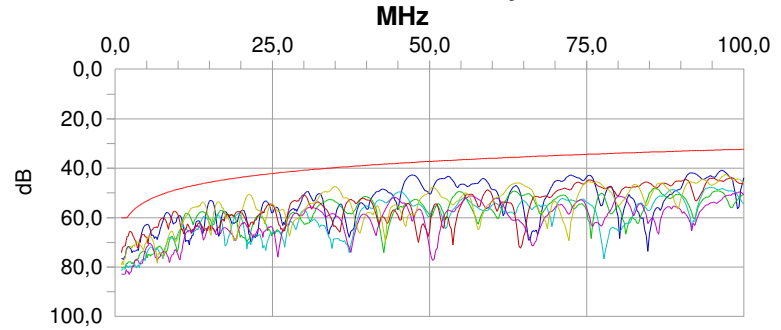
Attenuation Summary



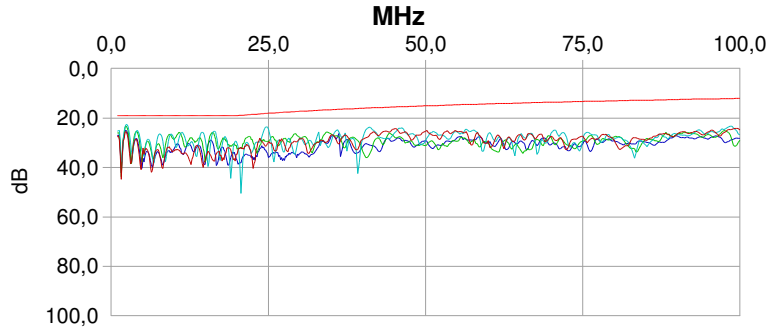
NEXT DH Summary



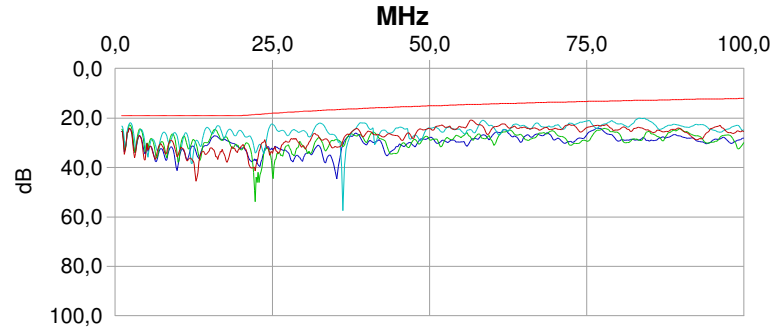
NEXT RH Summary



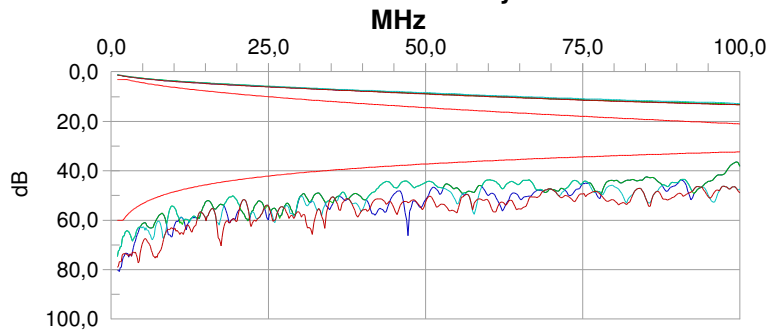
Return Loss DH Summary



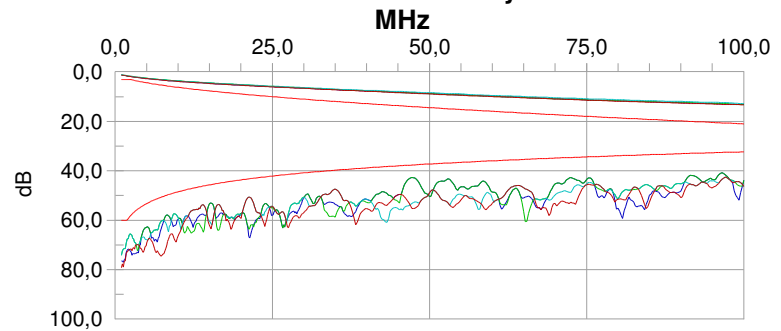
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

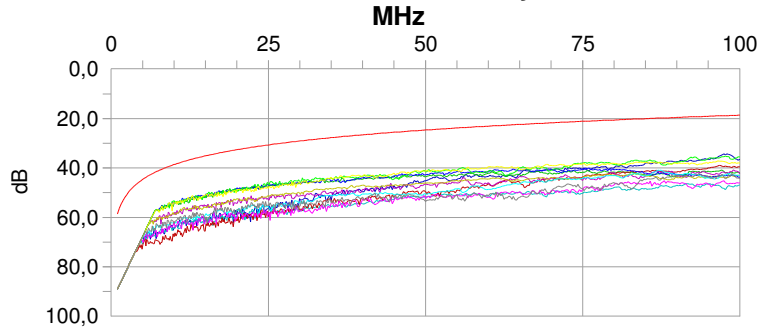
Cable ID 1: 2/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:45:22
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

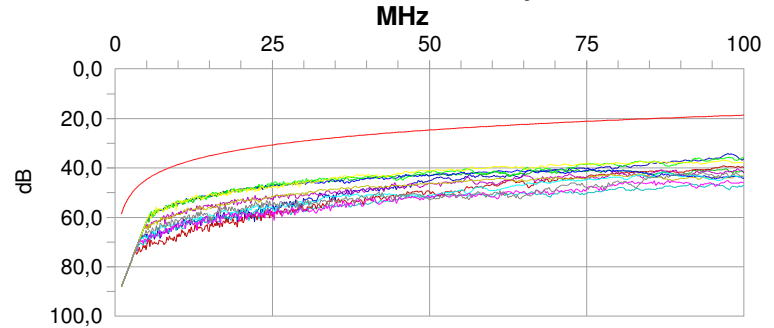
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

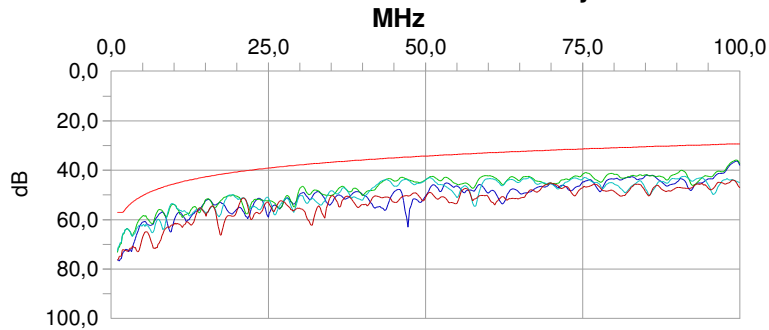
ELFEXT DH Summary



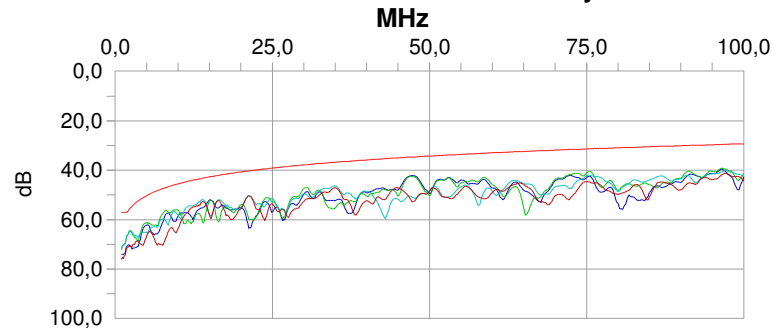
ELFEXT RH Summary



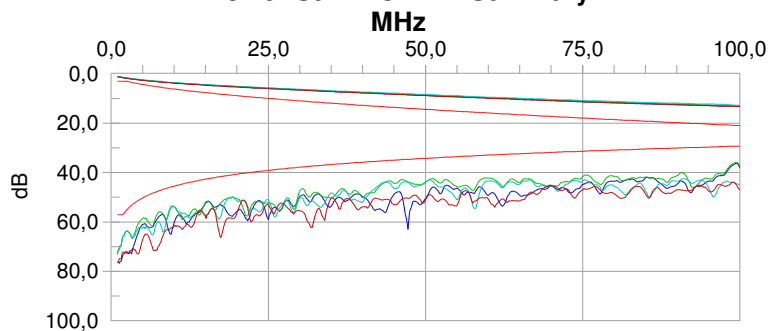
Power Sum NEXT DH Summary



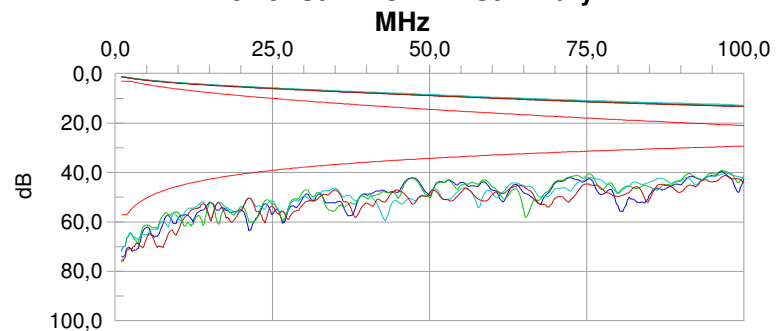
Power Sum NEXT RH Summary



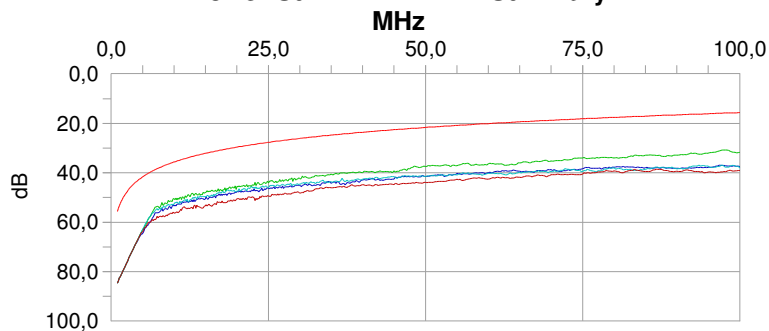
Power Sum ACR DH Summary



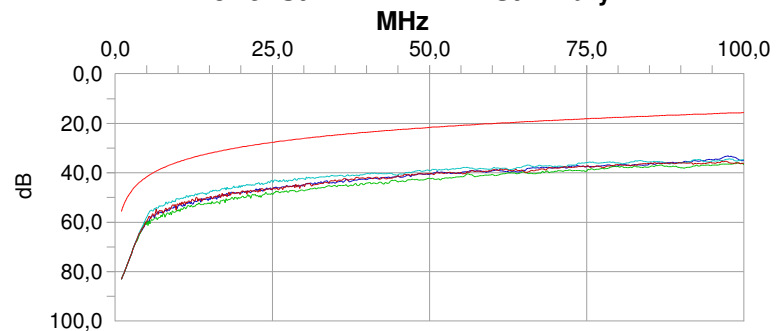
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

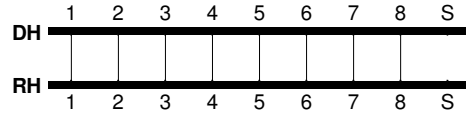
Cable ID 1: 2/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:47:18
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	58.2m	59.1m	59.9m	58.5m	< 90.0m	Pass
Prop. Delay	293.9ns	298.0ns	302.6ns	293.7ns	< 498.0ns	Pass
Delay Skew	8.9ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	19.2 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	49.2 dB @ 31.50MHz	45.1 dB	> 40.5 dB	8.7 dB
7,8-5,4	DH	Pass	70.4 dB @ 7.00MHz	55.6 dB	> 51.0 dB	19.4 dB
7,8-1,2	DH	Pass	49.1 dB @ 90.75MHz	49.1 dB	> 33.0 dB	16.1 dB
3,6-5,4	DH	Pass	48.7 dB @ 12.55MHz	37.8 dB	> 46.9 dB	1.8 dB
3,6-1,2	DH	Pass	43.9 dB @ 72.50MHz	41.7 dB	> 34.6 dB	9.3 dB
5,4-1,2	DH	Pass	61.0 dB @ 12.70MHz	52.1 dB	> 46.8 dB	14.2 dB
7,8-3,6	RH	Pass	52.1 dB @ 27.40MHz	46.2 dB	> 41.5 dB	10.6 dB
7,8-5,4	RH	Pass	53.1 dB @ 53.25MHz	50.4 dB	> 36.8 dB	16.3 dB
7,8-1,2	RH	Pass	55.1 dB @ 32.25MHz	50.7 dB	> 40.3 dB	14.8 dB
3,6-5,4	RH	Pass	48.9 dB @ 21.40MHz	46.0 dB	> 43.2 dB	5.7 dB
3,6-1,2	RH	Pass	60.8 dB @ 14.20MHz	53.9 dB	> 46.1 dB	14.7 dB
5,4-1,2	RH	Pass	62.3 dB @ 12.85MHz	53.6 dB	> 46.8 dB	15.5 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	21.9 dB @ 2.50MHz	21.9 dB	> 19.0 dB	2.9 dB
3,6	DH	Pass	23.2 dB @ 11.50MHz	23.2 dB	> 19.0 dB	4.2 dB
5,4	DH	Pass	25.0 dB @ 1.15MHz	22.6 dB	> 19.0 dB	6.0 dB
1,2	DH	Pass	22.3 dB @ 2.50MHz	21.9 dB	> 19.0 dB	3.3 dB
7,8	RH	Pass	21.6 dB @ 2.50MHz	21.6 dB	> 19.0 dB	2.6 dB
3,6	RH	Pass	23.4 dB @ 11.50MHz	23.4 dB	> 19.0 dB	4.4 dB
5,4	RH	Pass	25.3 dB @ 1.30MHz	24.4 dB	> 19.0 dB	6.3 dB
1,2	RH	Pass	21.7 dB @ 2.50MHz	21.3 dB	> 19.0 dB	2.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.6 dB @ 2.50MHz	11.8 dB	< 3.1 dB	1.5 dB
3,6	Pass	1.6 dB @ 2.50MHz	12.1 dB	< 3.1 dB	1.5 dB
5,4	Pass	1.9 dB @ 2.80MHz	12.4 dB	< 3.2 dB	1.3 dB
1,2	Pass	1.7 dB @ 2.50MHz	11.9 dB	< 3.1 dB	1.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	33.4 dB @ 98.75MHz	N/A	>= 11.6 dB	21.8 dB
3,6	DH	Pass	27.4 dB @ 73.50MHz	N/A	>= 16.8 dB	10.6 dB
5,4	DH	Pass	27.3 dB @ 74.00MHz	N/A	>= 16.7 dB	10.6 dB
1,2	DH	Pass	29.9 dB @ 99.50MHz	N/A	>= 11.4 dB	18.5 dB
7,8	RH	Pass	35.1 dB @ 94.50MHz	N/A	>= 12.4 dB	22.7 dB
3,6	RH	Pass	34.6 dB @ 94.00MHz	N/A	>= 12.4 dB	22.2 dB
5,4	RH	Pass	34.4 dB @ 94.00MHz	N/A	>= 12.4 dB	22.0 dB
1,2	RH	Pass	40.5 dB @ 82.25MHz	N/A	>= 14.8 dB	25.7 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 2/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:47:18
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	55.1 dB @ 11.80MHz	38.1 dB	> 37.2 dB	17.9 dB
7,8-5,4	DH	Pass	40.3 dB @ 99.25MHz	40.3 dB	> 18.7 dB	21.6 dB
7,8-1,2	DH	Pass	54.1 dB @ 10.15MHz	35.1 dB	> 38.5 dB	15.6 dB
3,6-7,8	DH	Pass	62.9 dB @ 7.15MHz	42.0 dB	> 41.5 dB	21.4 dB
3,6-5,4	DH	Pass	45.7 dB @ 12.25MHz	31.5 dB	> 36.9 dB	8.8 dB
3,6-1,2	DH	Pass	42.8 dB @ 99.50MHz	42.8 dB	> 18.7 dB	24.1 dB
5,4-7,8	DH	Pass	64.9 dB @ 5.65MHz	41.2 dB	> 43.6 dB	21.3 dB
5,4-3,6	DH	Pass	43.6 dB @ 9.70MHz	27.0 dB	> 38.9 dB	4.7 dB
5,4-1,2	DH	Pass	59.6 dB @ 7.00MHz	39.7 dB	> 41.7 dB	17.9 dB
1,2-7,8	DH	Pass	56.2 dB @ 7.90MHz	35.6 dB	> 40.7 dB	15.5 dB
1,2-3,6	DH	Pass	37.8 dB @ 99.00MHz	37.8 dB	> 18.7 dB	19.1 dB
1,2-5,4	DH	Pass	60.6 dB @ 6.40MHz	39.3 dB	> 42.5 dB	18.1 dB
7,8-3,6	RH	Pass	55.1 dB @ 11.80MHz	38.4 dB	> 37.2 dB	17.9 dB
7,8-5,4	RH	Pass	63.9 dB @ 6.85MHz	40.8 dB	> 41.9 dB	22.0 dB
7,8-1,2	RH	Pass	59.5 dB @ 5.35MHz	35.2 dB	> 44.0 dB	15.5 dB
3,6-7,8	RH	Pass	62.9 dB @ 7.15MHz	41.7 dB	> 41.5 dB	21.4 dB
3,6-5,4	RH	Pass	51.3 dB @ 6.55MHz	31.7 dB	> 42.3 dB	9.0 dB
3,6-1,2	RH	Pass	42.5 dB @ 99.50MHz	42.5 dB	> 18.7 dB	23.8 dB
5,4-7,8	RH	Pass	64.6 dB @ 5.65MHz	40.6 dB	> 43.6 dB	21.0 dB
5,4-3,6	RH	Pass	45.6 dB @ 7.45MHz	26.8 dB	> 41.2 dB	4.4 dB
5,4-1,2	RH	Pass	61.3 dB @ 5.65MHz	39.2 dB	> 43.6 dB	17.7 dB
1,2-7,8	RH	Pass	57.3 dB @ 6.70MHz	35.5 dB	> 42.1 dB	15.2 dB
1,2-3,6	RH	Pass	38.1 dB @ 99.00MHz	38.1 dB	> 18.7 dB	19.4 dB
1,2-5,4	RH	Pass	63.1 dB @ 4.75MHz	39.8 dB	> 45.1 dB	18.0 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.1 dB @ 31.50MHz	44.3 dB	> 37.5 dB	11.6 dB
3,6	DH	Pass	52.1 dB @ 7.00MHz	36.7 dB	> 48.0 dB	4.1 dB
5,4	DH	Pass	48.4 dB @ 12.55MHz	37.6 dB	> 43.9 dB	4.5 dB
1,2	DH	Pass	41.7 dB @ 89.25MHz	41.1 dB	> 30.1 dB	11.6 dB
7,8	RH	Pass	48.5 dB @ 40.75MHz	45.2 dB	> 35.7 dB	12.8 dB
3,6	RH	Pass	56.1 dB @ 7.00MHz	43.3 dB	> 48.0 dB	8.1 dB
5,4	RH	Pass	65.5 dB @ 1.90MHz	45.3 dB	> 56.9 dB	8.6 dB
1,2	RH	Pass	73.3 dB @ 1.90MHz	49.6 dB	> 56.9 dB	16.4 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	32.9 dB @ 93.75MHz	N/A	>= 9.6 dB	23.3 dB
3,6	DH	Pass	26.3 dB @ 73.25MHz	N/A	>= 13.8 dB	12.5 dB
5,4	DH	Pass	27.2 dB @ 74.00MHz	N/A	>= 13.7 dB	13.5 dB
1,2	DH	Pass	29.3 dB @ 99.50MHz	N/A	>= 8.4 dB	20.9 dB
7,8	RH	Pass	34.0 dB @ 98.00MHz	N/A	>= 8.7 dB	25.3 dB
3,6	RH	Pass	31.5 dB @ 94.50MHz	N/A	>= 9.4 dB	22.1 dB
5,4	RH	Pass	33.3 dB @ 96.50MHz	N/A	>= 9.0 dB	24.3 dB
1,2	RH	Pass	39.0 dB @ 82.50MHz	N/A	>= 11.8 dB	27.2 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	54.6 dB @ 7.90MHz	33.9 dB	>= 37.7 dB	16.9 dB
3,6	DH	Pass	43.4 dB @ 9.70MHz	26.3 dB	>= 35.9 dB	7.5 dB
5,4	DH	Pass	45.1 dB @ 12.25MHz	30.4 dB	>= 33.9 dB	11.2 dB
1,2	DH	Pass	52.9 dB @ 9.40MHz	33.3 dB	>= 36.2 dB	16.7 dB
7,8	RH	Pass	51.9 dB @ 10.15MHz	32.9 dB	>= 35.5 dB	16.4 dB
3,6	RH	Pass	45.6 dB @ 12.25MHz	31.1 dB	>= 33.9 dB	11.7 dB
5,4	RH	Pass	45.3 dB @ 7.45MHz	26.4 dB	>= 38.2 dB	7.1 dB
1,2	RH	Pass	51.4 dB @ 11.20MHz	32.8 dB	>= 34.6 dB	16.8 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

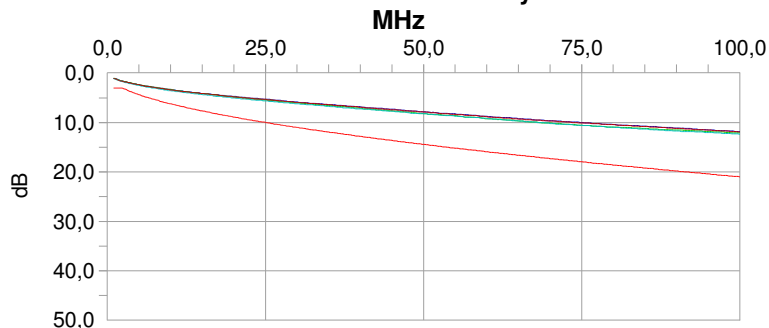
Cable ID 1: 2/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:47:18
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

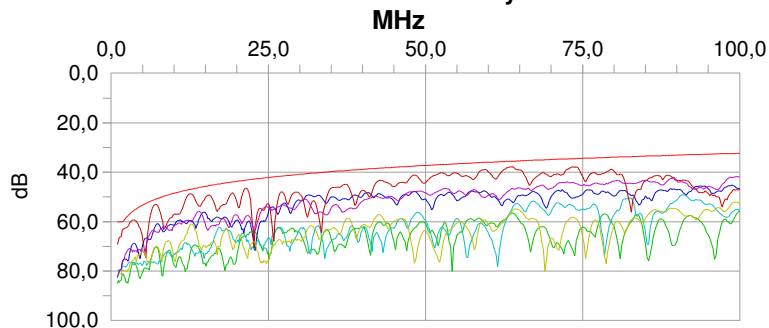
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

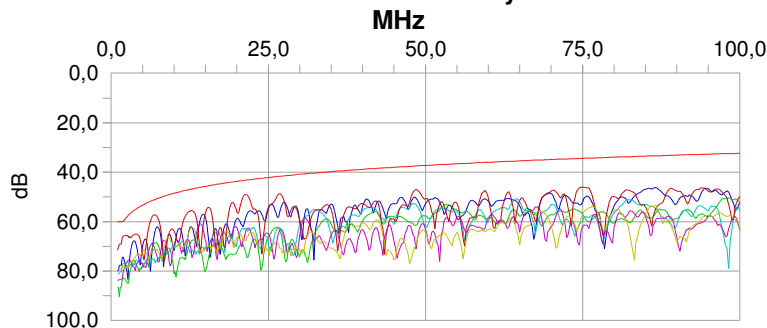
Attenuation Summary



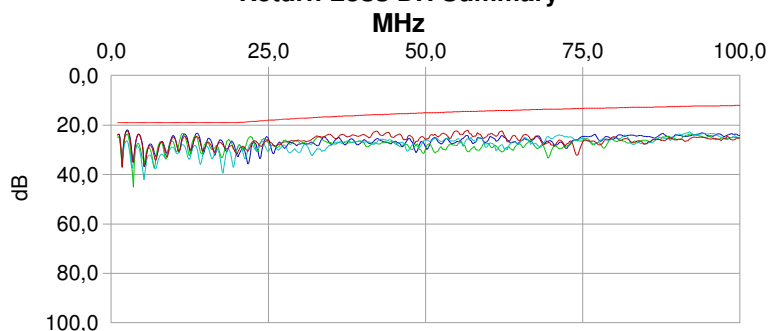
NEXT DH Summary



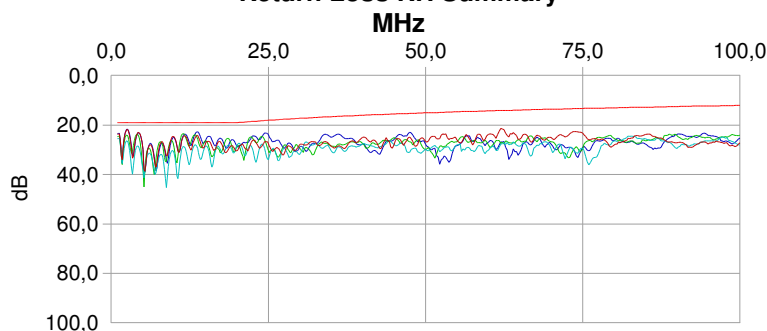
NEXT RH Summary



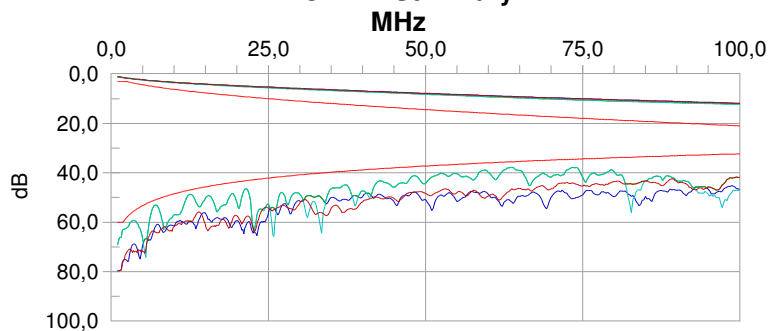
Return Loss DH Summary



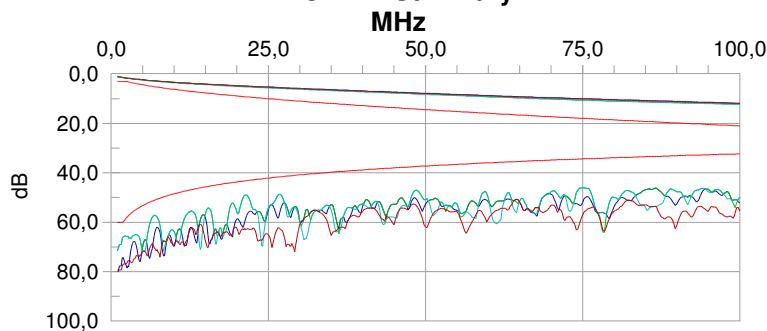
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

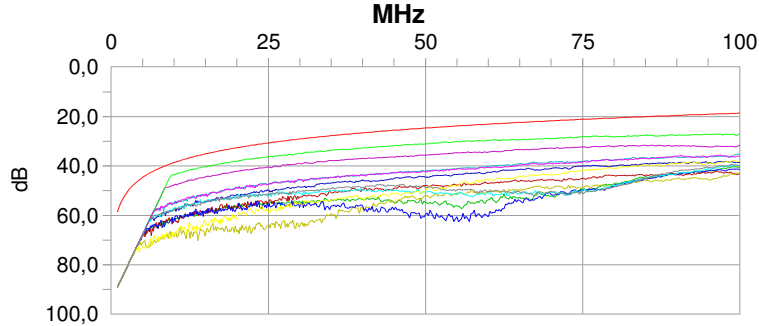
Cable ID 1: 2/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:47:18
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

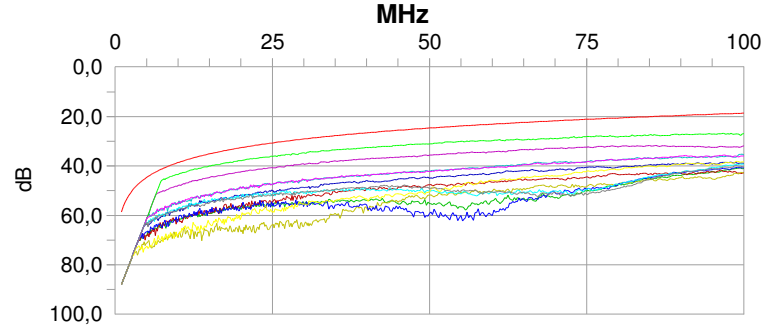
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

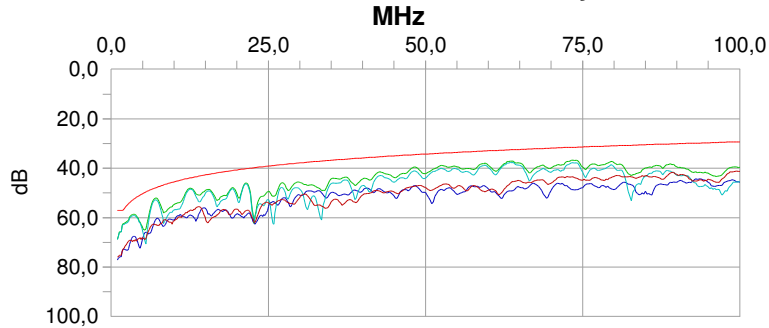
ELFEXT DH Summary



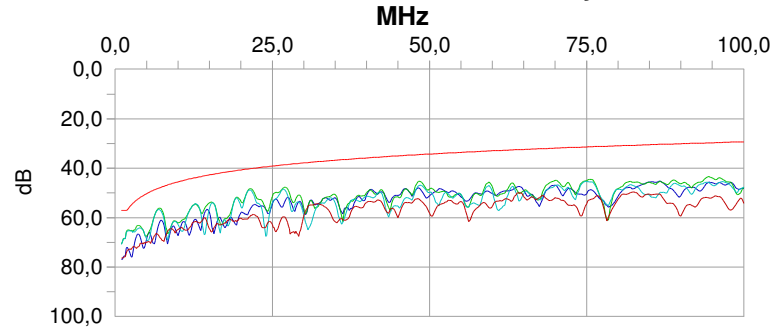
ELFEXT RH Summary



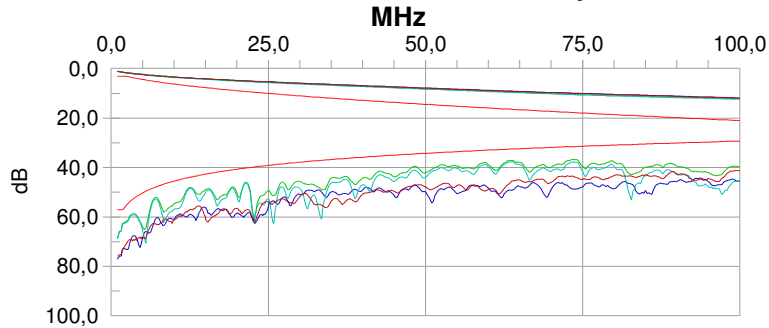
Power Sum NEXT DH Summary



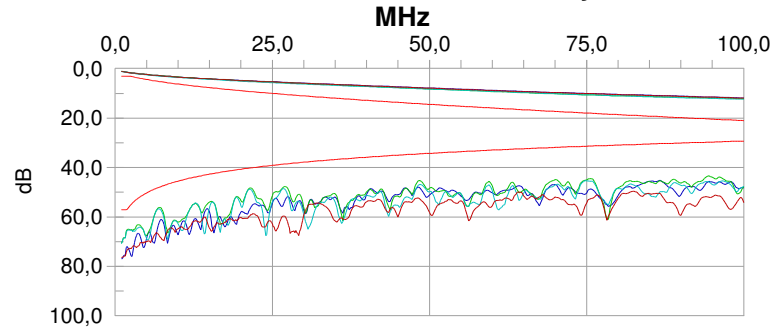
Power Sum NEXT RH Summary



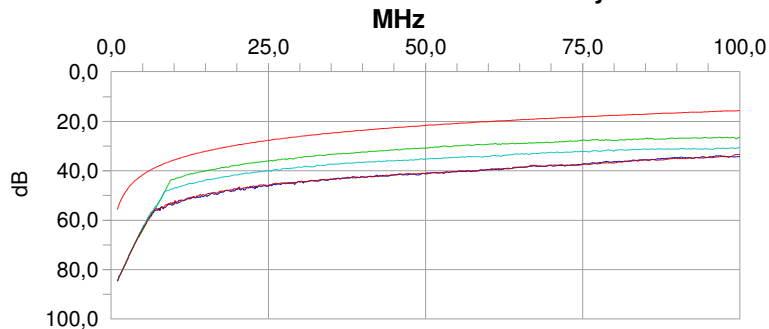
Power Sum ACR DH Summary



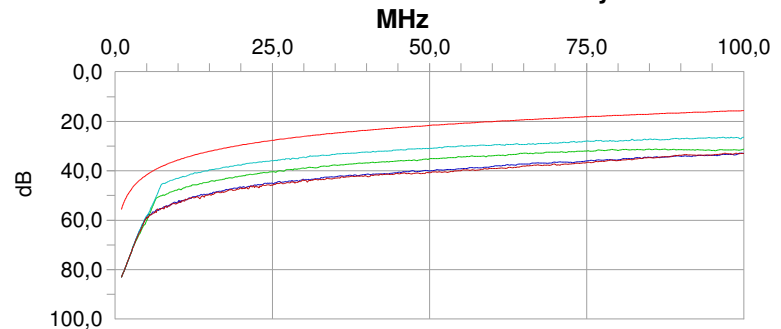
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

FAIL

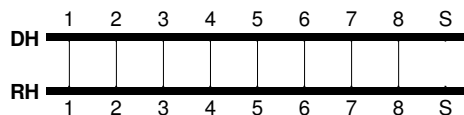
Cable ID 1: 2/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:49:59
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	61.9m	63.0m	63.7m	62.4m	< 90.0m	Pass
Prop. Delay	311.5ns	316.5ns	320.6ns	312.6ns	< 498.0ns	Pass
Delay Skew		9.1ns (Pairs 5,4 vs. 7,8)			< 44.0 ns	Pass
Headroom		15.0 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	40.5 dB @ 54.00MHz	40.3 dB	> 36.7 dB	3.8 dB
7,8-5,4	DH	Pass	62.9 dB @ 14.80MHz	52.7 dB	> 45.8 dB	17.1 dB
7,8-1,2	DH	Pass	48.4 dB @ 38.50MHz	46.4 dB	> 39.1 dB	9.3 dB
3,6-5,4	DH	Pass	52.4 dB @ 12.25MHz	41.0 dB	> 47.1 dB	5.3 dB
3,6-1,2	DH	Pass	40.9 dB @ 86.00MHz	40.9 dB	> 33.4 dB	7.5 dB
5,4-1,2	DH	Pass	61.1 dB @ 9.10MHz	45.9 dB	> 49.1 dB	12.0 dB
7,8-3,6	RH	Pass	55.5 dB @ 6.85MHz	40.4 dB	> 51.1 dB	4.4 dB
7,8-5,4	RH	Pass	45.0 dB @ 87.00MHz	45.0 dB	> 33.3 dB	11.7 dB
7,8-1,2	RH	Pass	48.6 dB @ 38.50MHz	42.8 dB	> 39.1 dB	9.5 dB
3,6-5,4	RH	Pass	47.4 dB @ 26.35MHz	41.9 dB	> 41.7 dB	5.7 dB
3,6-1,2	RH	Pass	59.1 dB @ 10.60MHz	46.0 dB	> 48.1 dB	11.0 dB
5,4-1,2	RH	Pass	66.8 dB @ 3.70MHz	52.7 dB	> 55.3 dB	11.5 dB

Return Loss: FAIL

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	19.3 dB @ 19.90MHz	19.3 dB	> 19.0 dB	0.3 dB
3,6	DH	Pass	19.0 dB @ 36.75MHz	18.8 dB	> 16.4 dB	2.6 dB
5,4	DH	Fail	18.5 dB @ 17.50MHz	17.8 dB	> 19.0 dB	-0.5 dB
1,2	DH	Pass	23.2 dB @ 2.35MHz	18.9 dB	> 19.0 dB	4.2 dB
7,8	RH	Pass	19.4 dB @ 20.05MHz	16.8 dB	> 19.0 dB	0.4 dB
3,6	RH	Pass	19.2 dB @ 36.50MHz	17.3 dB	> 16.4 dB	2.8 dB
5,4	RH	Pass	19.0 dB @ 17.50MHz	14.7 dB	> 19.0 dB	0.0 dB
1,2	RH	Pass	22.3 dB @ 2.35MHz	19.1 dB	> 19.0 dB	3.3 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.8 dB @ 2.50MHz	12.7 dB	< 3.1 dB	1.3 dB
3,6	Pass	1.7 dB @ 2.50MHz	15.1 dB	< 3.1 dB	1.4 dB
5,4	Pass	1.9 dB @ 2.50MHz	13.9 dB	< 3.1 dB	1.2 dB
1,2	Pass	1.8 dB @ 2.50MHz	12.9 dB	< 3.1 dB	1.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	28.2 dB @ 96.50MHz	N/A	>= 12.0 dB	16.2 dB
3,6	DH	Pass	26.0 dB @ 100.00MHz	N/A	>= 11.3 dB	14.7 dB
5,4	DH	Pass	27.4 dB @ 87.00MHz	N/A	>= 13.9 dB	13.5 dB
1,2	DH	Pass	29.1 dB @ 86.00MHz	N/A	>= 14.1 dB	15.0 dB
7,8	RH	Pass	28.0 dB @ 90.75MHz	N/A	>= 13.1 dB	14.9 dB
3,6	RH	Pass	27.3 dB @ 92.00MHz	N/A	>= 12.9 dB	14.4 dB
5,4	RH	Pass	28.1 dB @ 98.75MHz	N/A	>= 11.6 dB	16.5 dB
1,2	RH	Pass	29.9 dB @ 100.00MHz	N/A	>= 11.3 dB	18.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

FAIL

Cable ID 1: 2/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:49:59
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	43.1 dB @ 92.50MHz	43.1 dB	> 19.3 dB	23.8 dB
7,8-5,4	DH	Pass	50.6 dB @ 13.00MHz	35.7 dB	> 36.3 dB	14.3 dB
7,8-1,2	DH	Pass	37.7 dB @ 56.50MHz	35.9 dB	> 23.6 dB	14.1 dB
3,6-7,8	DH	Pass	63.1 dB @ 16.30MHz	49.4 dB	> 34.4 dB	28.7 dB
3,6-5,4	DH	Pass	38.6 dB @ 97.25MHz	38.6 dB	> 18.9 dB	19.7 dB
3,6-1,2	DH	Pass	34.0 dB @ 96.75MHz	34.0 dB	> 18.9 dB	15.1 dB
5,4-7,8	DH	Pass	54.8 dB @ 8.35MHz	37.0 dB	> 40.2 dB	14.6 dB
5,4-3,6	DH	Pass	38.7 dB @ 65.75MHz	36.9 dB	> 22.3 dB	16.4 dB
5,4-1,2	DH	Pass	40.0 dB @ 94.25MHz	40.0 dB	> 19.1 dB	20.9 dB
1,2-7,8	DH	Pass	39.7 dB @ 47.00MHz	35.4 dB	> 25.2 dB	14.5 dB
1,2-3,6	DH	Pass	28.1 dB @ 98.00MHz	28.0 dB	> 18.8 dB	9.3 dB
1,2-5,4	DH	Pass	38.3 dB @ 86.25MHz	38.3 dB	> 19.9 dB	18.4 dB
7,8-3,6	RH	Pass	44.0 dB @ 92.50MHz	44.0 dB	> 19.3 dB	24.7 dB
7,8-5,4	RH	Pass	57.1 dB @ 6.25MHz	36.9 dB	> 42.7 dB	14.4 dB
7,8-1,2	RH	Pass	38.0 dB @ 56.50MHz	36.0 dB	> 23.6 dB	14.4 dB
3,6-7,8	RH	Pass	63.4 dB @ 15.55MHz	47.9 dB	> 34.8 dB	28.6 dB
3,6-5,4	RH	Pass	38.3 dB @ 98.75MHz	38.3 dB	> 18.7 dB	19.6 dB
3,6-1,2	RH	Pass	33.2 dB @ 97.25MHz	33.1 dB	> 18.9 dB	14.3 dB
5,4-7,8	RH	Pass	56.5 dB @ 6.70MHz	35.8 dB	> 42.1 dB	14.4 dB
5,4-3,6	RH	Pass	38.6 dB @ 65.75MHz	36.9 dB	> 22.3 dB	16.3 dB
5,4-1,2	RH	Pass	39.1 dB @ 89.50MHz	38.9 dB	> 19.6 dB	19.5 dB
1,2-7,8	RH	Pass	38.7 dB @ 52.50MHz	35.2 dB	> 24.2 dB	14.5 dB
1,2-3,6	RH	Pass	29.2 dB @ 97.25MHz	29.1 dB	> 18.9 dB	10.3 dB
1,2-5,4	RH	Pass	39.6 dB @ 84.75MHz	39.5 dB	> 20.1 dB	19.5 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.2 dB @ 54.00MHz	39.7 dB	> 33.7 dB	6.5 dB
3,6	DH	Pass	39.0 dB @ 57.25MHz	37.9 dB	> 33.3 dB	5.7 dB
5,4	DH	Pass	52.2 dB @ 11.95MHz	40.0 dB	> 44.3 dB	7.9 dB
1,2	DH	Pass	40.0 dB @ 85.50MHz	40.0 dB	> 30.4 dB	9.6 dB
7,8	RH	Pass	55.1 dB @ 6.70MHz	39.2 dB	> 48.3 dB	6.8 dB
3,6	RH	Pass	55.1 dB @ 6.85MHz	37.9 dB	> 48.1 dB	7.0 dB
5,4	RH	Pass	46.5 dB @ 26.50MHz	40.3 dB	> 38.7 dB	7.8 dB
1,2	RH	Pass	47.9 dB @ 38.50MHz	41.8 dB	> 36.1 dB	11.8 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	27.3 dB @ 94.75MHz	N/A	>= 9.3 dB	18.0 dB
3,6	DH	Pass	23.8 dB @ 99.75MHz	N/A	>= 8.4 dB	15.4 dB
5,4	DH	Pass	26.4 dB @ 87.00MHz	N/A	>= 10.9 dB	15.5 dB
1,2	DH	Pass	28.2 dB @ 85.50MHz	N/A	>= 11.1 dB	17.1 dB
7,8	RH	Pass	26.7 dB @ 92.00MHz	N/A	>= 9.9 dB	16.8 dB
3,6	RH	Pass	25.0 dB @ 90.75MHz	N/A	>= 10.1 dB	14.9 dB
5,4	RH	Pass	26.5 dB @ 98.75MHz	N/A	>= 8.6 dB	17.9 dB
1,2	RH	Pass	29.0 dB @ 98.50MHz	N/A	>= 8.6 dB	20.4 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	45.2 dB @ 22.00MHz	33.1 dB	>= 28.8 dB	16.4 dB
3,6	DH	Pass	27.7 dB @ 98.00MHz	27.6 dB	>= 15.8 dB	11.9 dB
5,4	DH	Pass	50.1 dB @ 13.00MHz	32.9 dB	>= 33.3 dB	16.8 dB
1,2	DH	Pass	36.0 dB @ 56.50MHz	31.6 dB	>= 20.6 dB	15.4 dB
7,8	RH	Pass	46.3 dB @ 17.65MHz	33.3 dB	>= 30.7 dB	15.6 dB
3,6	RH	Pass	32.0 dB @ 97.25MHz	31.9 dB	>= 15.9 dB	16.1 dB
5,4	RH	Pass	53.4 dB @ 8.35MHz	33.7 dB	>= 37.2 dB	16.2 dB
1,2	RH	Pass	27.9 dB @ 98.00MHz	27.9 dB	>= 15.8 dB	12.1 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

FAIL

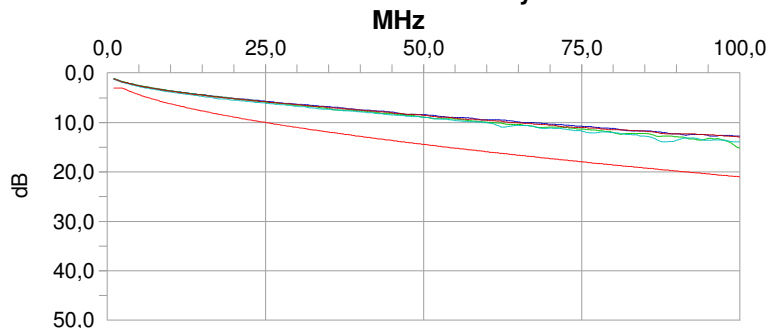
Cable ID 1: 2/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:49:59
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

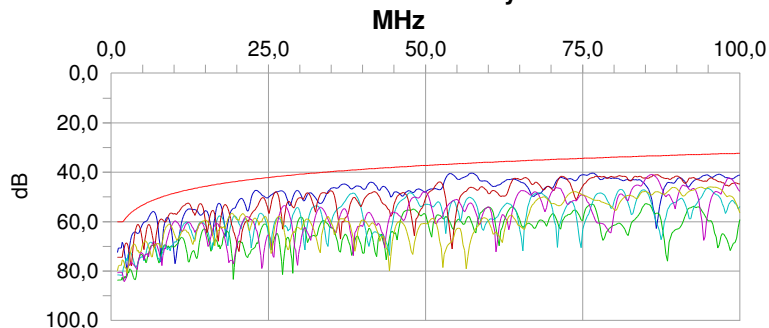
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

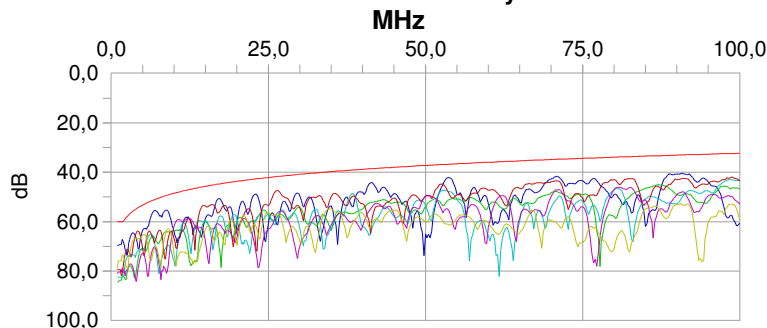
Attenuation Summary



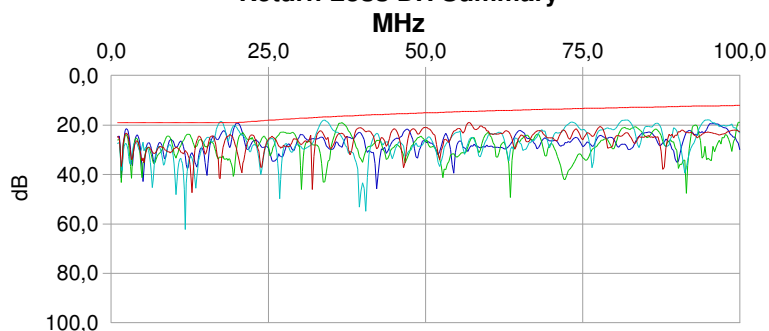
NEXT DH Summary



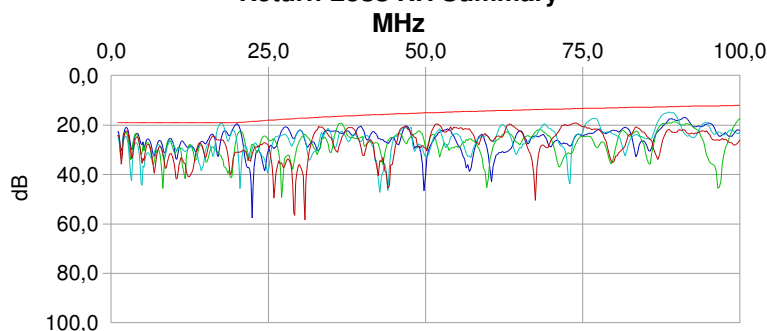
NEXT RH Summary



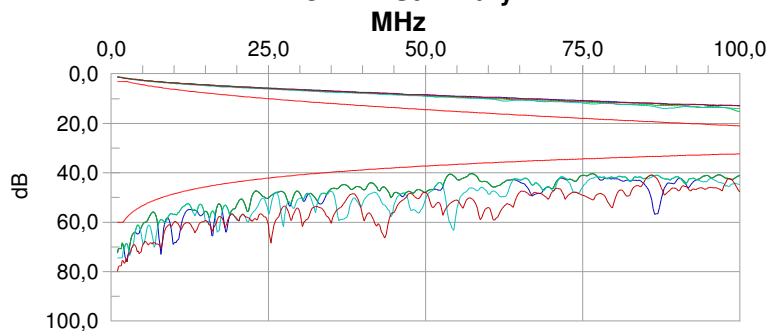
Return Loss DH Summary



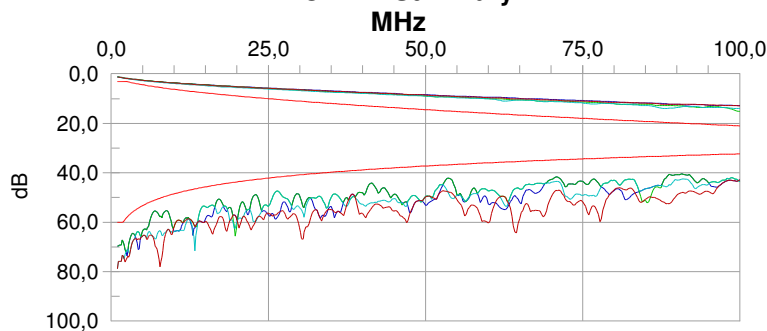
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

FAIL

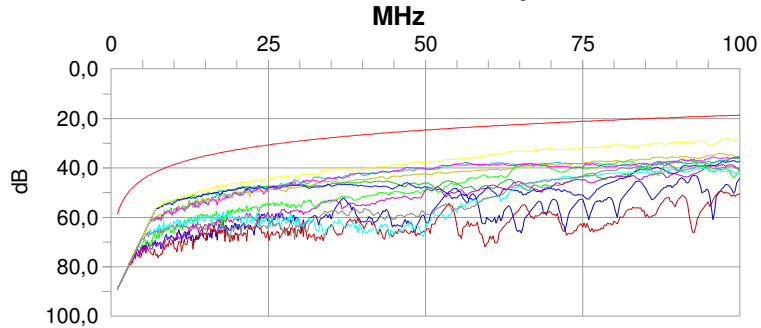
Cable ID 1: 2/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:49:59
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

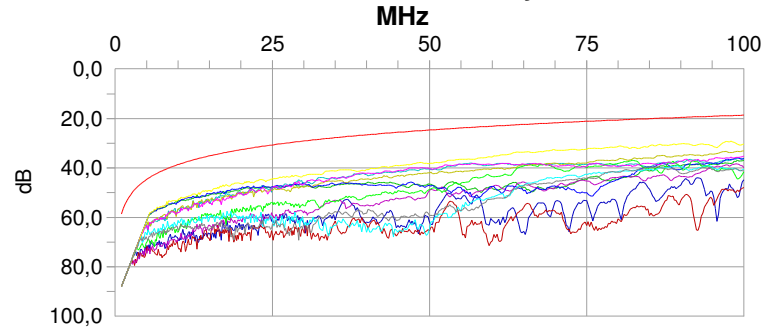
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

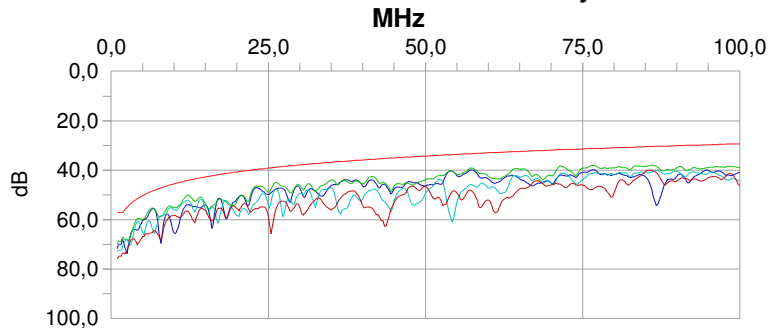
ELFEXT DH Summary



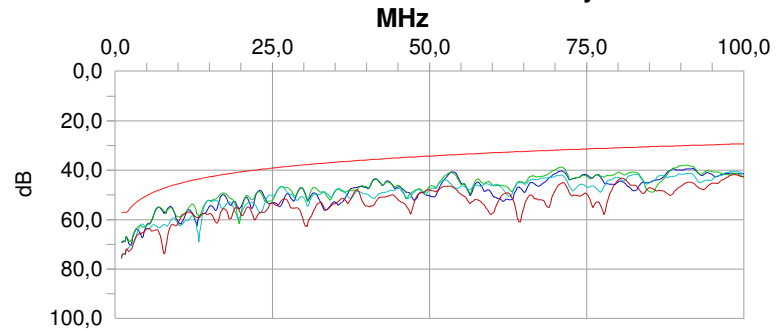
ELFEXT RH Summary



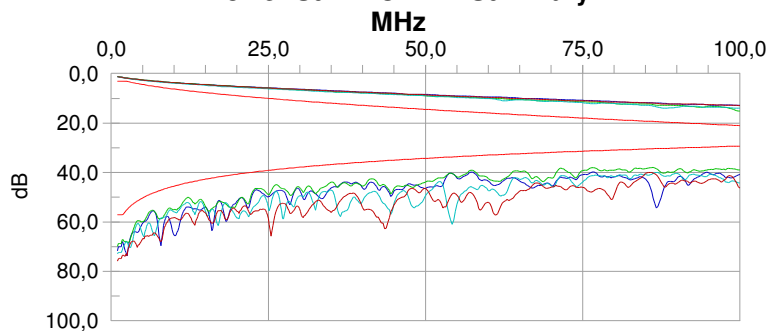
Power Sum NEXT DH Summary



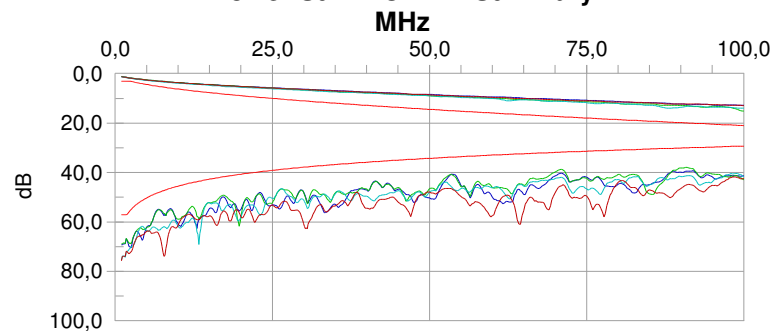
Power Sum NEXT RH Summary



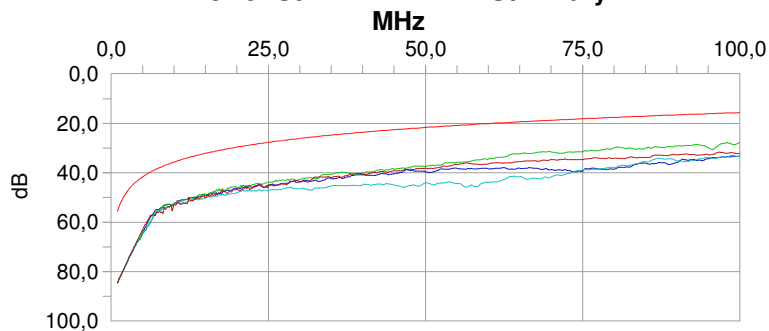
Power Sum ACR DH Summary



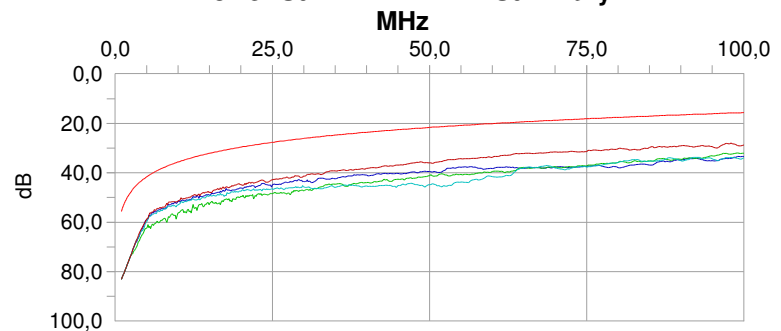
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

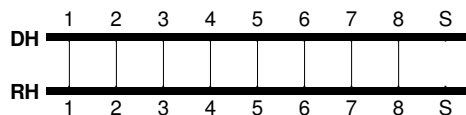
Cable ID 1: 2/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:53:58
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	66.2m	65.2m	64.5m	66.6m	< 90.0m	Pass
Prop. Delay	332.0ns	326.9ns	324.4ns	332.5ns	< 498.0ns	Pass
Delay Skew	8.1ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
Headroom	18.2 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	53.4 dB @ 10.90MHz	42.2 dB	> 47.9 dB	5.5 dB
7,8-5,4	DH	Pass	69.9 dB @ 3.55MHz	49.3 dB	> 55.6 dB	14.3 dB
7,8-1,2	DH	Pass	60.6 dB @ 16.90MHz	51.0 dB	> 44.8 dB	15.8 dB
3,6-5,4	DH	Pass	43.7 dB @ 39.00MHz	39.6 dB	> 39.0 dB	4.7 dB
3,6-1,2	DH	Pass	47.5 dB @ 62.50MHz	46.4 dB	> 35.7 dB	11.8 dB
5,4-1,2	DH	Pass	55.6 dB @ 13.60MHz	48.5 dB	> 46.4 dB	9.2 dB
7,8-3,6	RH	Pass	55.0 dB @ 10.90MHz	39.9 dB	> 47.9 dB	7.1 dB
7,8-5,4	RH	Pass	52.2 dB @ 40.25MHz	51.1 dB	> 38.8 dB	13.4 dB
7,8-1,2	RH	Pass	48.4 dB @ 81.00MHz	48.4 dB	> 33.8 dB	14.6 dB
3,6-5,4	RH	Pass	61.3 dB @ 7.45MHz	43.7 dB	> 50.5 dB	10.8 dB
3,6-1,2	RH	Pass	50.6 dB @ 92.00MHz	50.6 dB	> 32.9 dB	17.7 dB
5,4-1,2	RH	Pass	62.4 dB @ 7.45MHz	48.0 dB	> 50.5 dB	11.9 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.8 dB @ 2.20MHz	24.8 dB	> 19.0 dB	5.8 dB
3,6	DH	Pass	23.5 dB @ 2.20MHz	23.4 dB	> 19.0 dB	4.5 dB
5,4	DH	Pass	23.0 dB @ 2.35MHz	22.4 dB	> 19.0 dB	4.0 dB
1,2	DH	Pass	24.7 dB @ 21.25MHz	22.3 dB	> 18.7 dB	6.0 dB
7,8	RH	Pass	23.6 dB @ 2.20MHz	23.6 dB	> 19.0 dB	4.6 dB
3,6	RH	Pass	22.5 dB @ 2.20MHz	22.5 dB	> 19.0 dB	3.5 dB
5,4	RH	Pass	22.1 dB @ 2.20MHz	20.9 dB	> 19.0 dB	3.1 dB
1,2	RH	Pass	24.4 dB @ 2.20MHz	21.3 dB	> 19.0 dB	5.4 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.9 dB @ 2.50MHz	13.6 dB	< 3.1 dB	1.2 dB
3,6	Pass	1.8 dB @ 2.50MHz	13.3 dB	< 3.1 dB	1.3 dB
5,4	Pass	1.9 dB @ 2.50MHz	13.2 dB	< 3.1 dB	1.2 dB
1,2	Pass	2.0 dB @ 2.50MHz	13.9 dB	< 3.1 dB	1.1 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	28.8 dB @ 96.50MHz	N/A	>= 12.0 dB	16.8 dB
3,6	DH	Pass	26.8 dB @ 93.50MHz	N/A	>= 12.6 dB	14.2 dB
5,4	DH	Pass	26.9 dB @ 93.50MHz	N/A	>= 12.6 dB	14.3 dB
1,2	DH	Pass	32.5 dB @ 100.00MHz	N/A	>= 11.3 dB	21.2 dB
7,8	RH	Pass	26.6 dB @ 95.50MHz	N/A	>= 12.1 dB	14.5 dB
3,6	RH	Pass	26.9 dB @ 95.50MHz	N/A	>= 12.1 dB	14.8 dB
5,4	RH	Pass	30.7 dB @ 98.25MHz	N/A	>= 11.6 dB	19.1 dB
1,2	RH	Pass	34.1 dB @ 100.00MHz	N/A	>= 11.3 dB	22.8 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 2/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:53:58
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	41.1 dB @ 92.50MHz	41.0 dB	> 19.3 dB	21.8 dB
7,8-5,4	DH	Pass	53.6 dB @ 11.65MHz	40.7 dB	> 37.3 dB	16.3 dB
7,8-1,2	DH	Pass	52.5 dB @ 8.20MHz	31.8 dB	> 40.3 dB	12.2 dB
3,6-7,8	DH	Pass	45.5 dB @ 92.75MHz	45.5 dB	> 19.3 dB	26.2 dB
3,6-5,4	DH	Pass	53.9 dB @ 8.35MHz	34.7 dB	> 40.2 dB	13.7 dB
3,6-1,2	DH	Pass	66.0 dB @ 8.05MHz	45.0 dB	> 40.5 dB	25.5 dB
5,4-7,8	DH	Pass	56.6 dB @ 7.90MHz	39.3 dB	> 40.7 dB	15.9 dB
5,4-3,6	DH	Pass	49.9 dB @ 8.50MHz	30.2 dB	> 40.0 dB	9.9 dB
5,4-1,2	DH	Pass	53.9 dB @ 8.20MHz	42.6 dB	> 40.3 dB	13.6 dB
1,2-7,8	DH	Pass	52.3 dB @ 8.35MHz	32.1 dB	> 40.2 dB	12.1 dB
1,2-3,6	DH	Pass	45.4 dB @ 50.50MHz	40.2 dB	> 24.5 dB	20.9 dB
1,2-5,4	DH	Pass	54.9 dB @ 7.60MHz	42.0 dB	> 41.0 dB	13.9 dB
7,8-3,6	RH	Pass	40.9 dB @ 92.50MHz	40.7 dB	> 19.3 dB	21.6 dB
7,8-5,4	RH	Pass	53.6 dB @ 11.65MHz	40.3 dB	> 37.3 dB	16.3 dB
7,8-1,2	RH	Pass	54.1 dB @ 6.85MHz	32.1 dB	> 41.9 dB	12.2 dB
3,6-7,8	RH	Pass	45.8 dB @ 92.50MHz	45.8 dB	> 19.3 dB	26.5 dB
3,6-5,4	RH	Pass	56.3 dB @ 6.25MHz	34.5 dB	> 42.7 dB	13.6 dB
3,6-1,2	RH	Pass	66.2 dB @ 8.05MHz	45.5 dB	> 40.5 dB	25.7 dB
5,4-7,8	RH	Pass	56.6 dB @ 7.90MHz	39.7 dB	> 40.7 dB	15.9 dB
5,4-3,6	RH	Pass	49.7 dB @ 8.05MHz	30.4 dB	> 40.5 dB	9.2 dB
5,4-1,2	RH	Pass	57.0 dB @ 5.80MHz	43.2 dB	> 43.3 dB	13.7 dB
1,2-7,8	RH	Pass	53.5 dB @ 7.15MHz	31.9 dB	> 41.5 dB	12.0 dB
1,2-3,6	RH	Pass	66.0 dB @ 4.60MHz	39.6 dB	> 45.4 dB	20.6 dB
1,2-5,4	RH	Pass	54.8 dB @ 7.60MHz	41.3 dB	> 41.0 dB	13.8 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	53.0 dB @ 10.90MHz	41.8 dB	> 44.9 dB	8.1 dB
3,6	DH	Pass	50.2 dB @ 10.90MHz	37.9 dB	> 44.9 dB	5.3 dB
5,4	DH	Pass	43.3 dB @ 39.00MHz	39.2 dB	> 36.0 dB	7.3 dB
1,2	DH	Pass	54.1 dB @ 13.60MHz	44.3 dB	> 43.4 dB	10.7 dB
7,8	RH	Pass	54.2 dB @ 10.90MHz	39.7 dB	> 44.9 dB	9.3 dB
3,6	RH	Pass	53.4 dB @ 10.90MHz	39.1 dB	> 44.9 dB	8.5 dB
5,4	RH	Pass	58.6 dB @ 7.45MHz	42.5 dB	> 47.5 dB	11.1 dB
1,2	RH	Pass	61.6 dB @ 7.45MHz	45.9 dB	> 47.5 dB	14.1 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	28.5 dB @ 96.50MHz	N/A	>= 9.0 dB	19.5 dB
3,6	DH	Pass	25.0 dB @ 93.75MHz	N/A	>= 9.6 dB	15.4 dB
5,4	DH	Pass	26.5 dB @ 93.50MHz	N/A	>= 9.6 dB	16.9 dB
1,2	DH	Pass	30.4 dB @ 100.00MHz	N/A	>= 8.3 dB	22.1 dB
7,8	RH	Pass	26.4 dB @ 95.50MHz	N/A	>= 9.1 dB	17.3 dB
3,6	RH	Pass	26.1 dB @ 95.50MHz	N/A	>= 9.1 dB	17.0 dB
5,4	RH	Pass	29.5 dB @ 98.25MHz	N/A	>= 8.6 dB	20.9 dB
1,2	RH	Pass	32.0 dB @ 100.00MHz	N/A	>= 8.3 dB	23.7 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	46.5 dB @ 14.05MHz	31.4 dB	>= 32.7 dB	13.8 dB
3,6	DH	Pass	49.6 dB @ 8.65MHz	29.6 dB	>= 36.9 dB	12.7 dB
5,4	DH	Pass	50.6 dB @ 7.90MHz	33.4 dB	>= 37.7 dB	12.9 dB
1,2	DH	Pass	50.0 dB @ 8.20MHz	31.3 dB	>= 37.3 dB	12.7 dB
7,8	RH	Pass	49.5 dB @ 10.00MHz	31.2 dB	>= 35.6 dB	13.9 dB
3,6	RH	Pass	50.8 dB @ 12.40MHz	33.9 dB	>= 33.7 dB	17.1 dB
5,4	RH	Pass	48.0 dB @ 7.90MHz	29.8 dB	>= 37.7 dB	10.3 dB
1,2	RH	Pass	50.6 dB @ 7.60MHz	30.9 dB	>= 38.0 dB	12.6 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

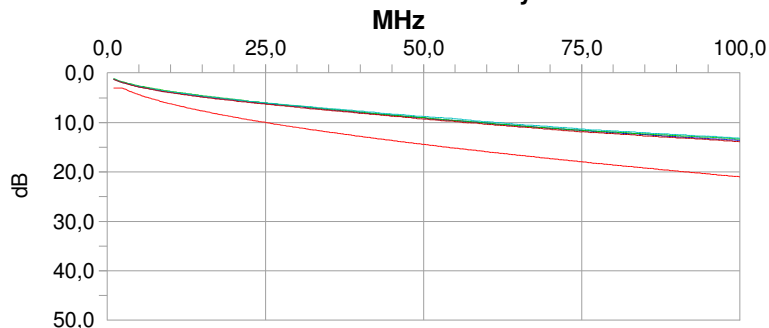
Cable ID 1: 2/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:53:58
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

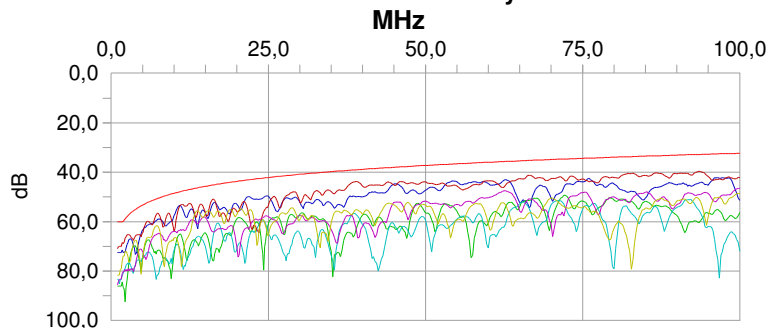
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

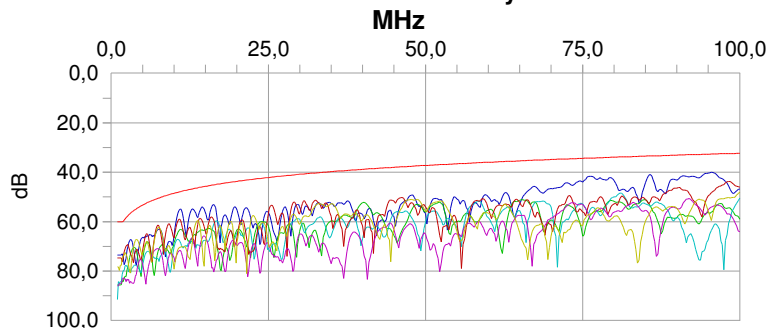
Attenuation Summary



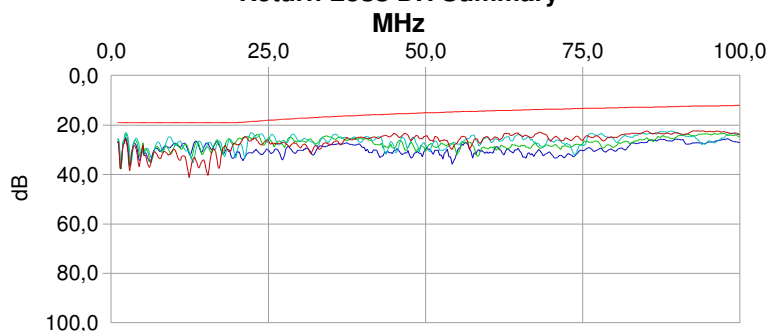
NEXT DH Summary



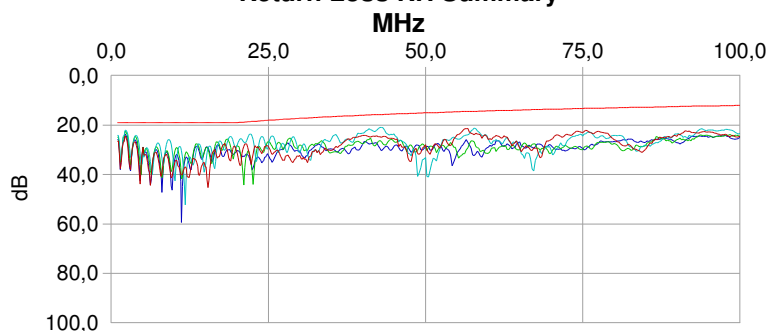
NEXT RH Summary



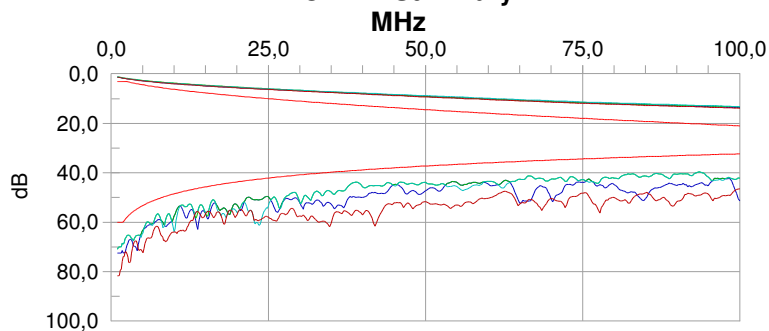
Return Loss DH Summary



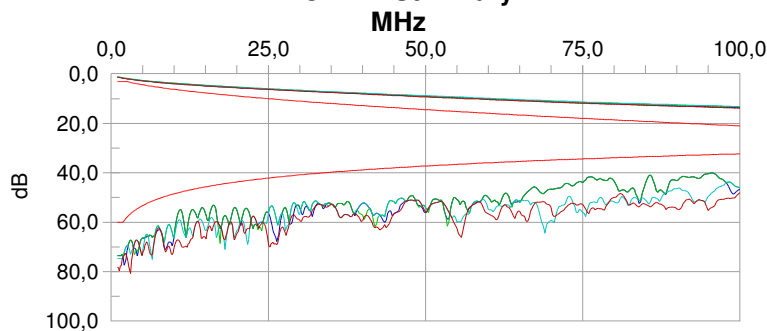
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

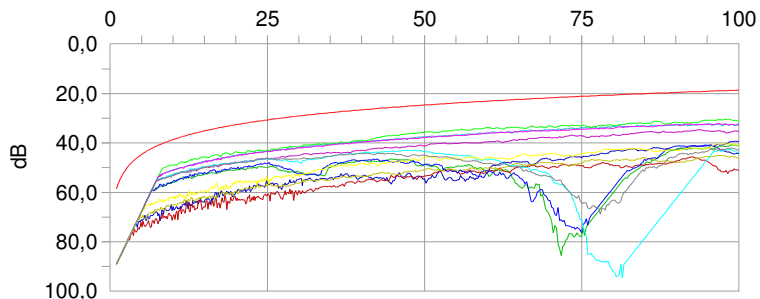
Cable ID 1: 2/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:53:58
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

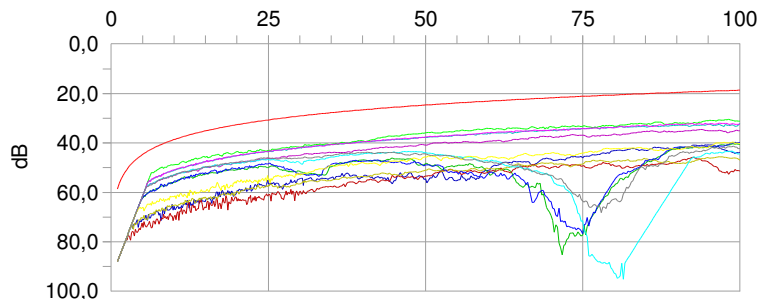
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

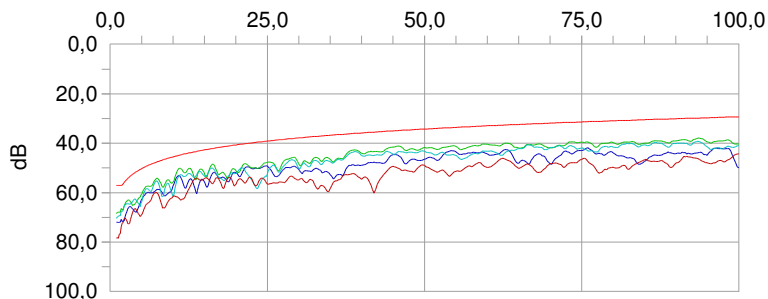
ELFEXT DH Summary
MHz



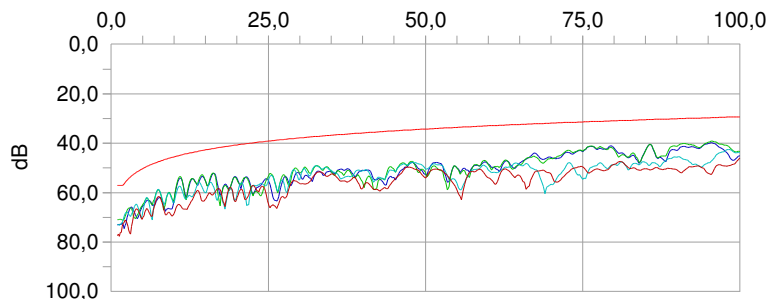
ELFEXT RH Summary
MHz



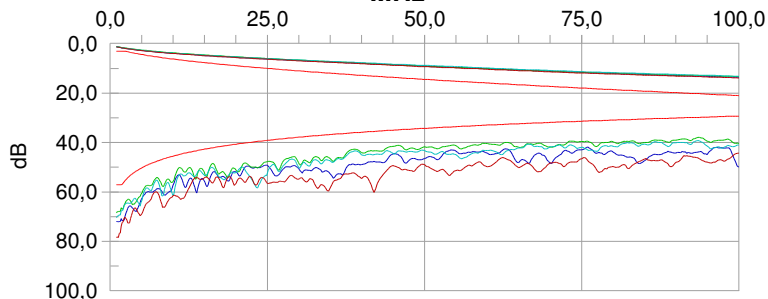
Power Sum NEXT DH Summary
MHz



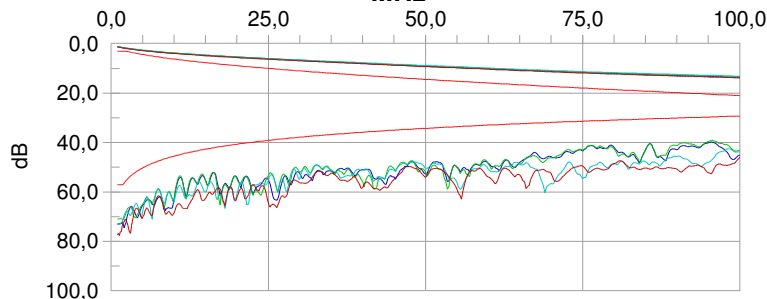
Power Sum NEXT RH Summary
MHz



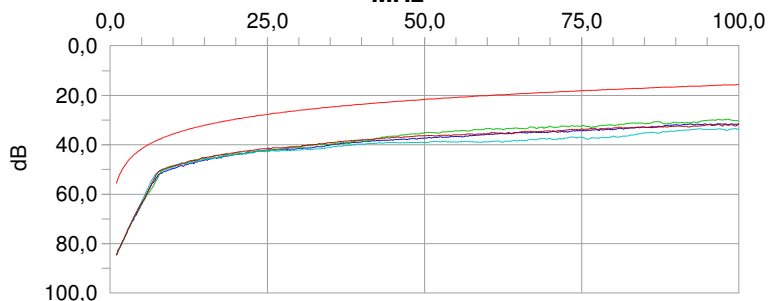
Power Sum ACR DH Summary
MHz



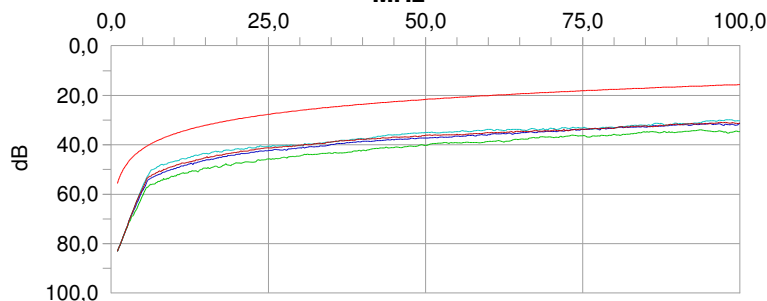
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

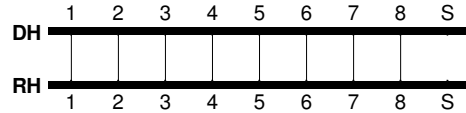
Cable ID 1: 2/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:56:18
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	76.8m	75.9m	75.2m	77.2m	< 90.0m	Pass
Prop. Delay	381.9ns	377.6ns	374.8ns	382.7ns	< 498.0ns	Pass
Delay Skew	7.9ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
Headroom	19.6 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	40.3 dB @ 84.50MHz	40.2 dB	> 33.5 dB	6.8 dB
7,8-5,4	DH	Pass	52.1 dB @ 71.75MHz	51.6 dB	> 34.7 dB	17.4 dB
7,8-1,2	DH	Pass	62.7 dB @ 9.40MHz	50.7 dB	> 48.9 dB	13.8 dB
3,6-5,4	DH	Pass	42.1 dB @ 68.75MHz	42.1 dB	> 35.0 dB	7.1 dB
3,6-1,2	DH	Pass	50.9 dB @ 40.50MHz	48.9 dB	> 38.7 dB	12.2 dB
5,4-1,2	DH	Pass	56.3 dB @ 14.95MHz	47.1 dB	> 45.7 dB	10.6 dB
7,8-3,6	RH	Pass	65.4 dB @ 2.80MHz	43.5 dB	> 57.2 dB	8.2 dB
7,8-5,4	RH	Pass	49.8 dB @ 60.75MHz	49.7 dB	> 35.9 dB	13.9 dB
7,8-1,2	RH	Pass	56.9 dB @ 22.15MHz	50.9 dB	> 43.0 dB	13.9 dB
3,6-5,4	RH	Pass	55.7 dB @ 16.15MHz	43.8 dB	> 45.2 dB	10.5 dB
3,6-1,2	RH	Pass	57.2 dB @ 27.85MHz	50.7 dB	> 41.4 dB	15.8 dB
5,4-1,2	RH	Pass	53.5 dB @ 14.80MHz	44.0 dB	> 45.8 dB	7.7 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	25.9 dB @ 1.00MHz	25.9 dB	> 19.0 dB	6.9 dB
3,6	DH	Pass	24.6 dB @ 2.20MHz	24.2 dB	> 19.0 dB	5.6 dB
5,4	DH	Pass	24.8 dB @ 2.20MHz	23.9 dB	> 19.0 dB	5.8 dB
1,2	DH	Pass	26.9 dB @ 1.00MHz	22.7 dB	> 19.0 dB	7.9 dB
7,8	RH	Pass	25.4 dB @ 2.05MHz	24.7 dB	> 19.0 dB	6.4 dB
3,6	RH	Pass	23.1 dB @ 2.20MHz	23.1 dB	> 19.0 dB	4.1 dB
5,4	RH	Pass	23.4 dB @ 2.20MHz	23.4 dB	> 19.0 dB	4.4 dB
1,2	RH	Pass	25.6 dB @ 2.05MHz	24.3 dB	> 19.0 dB	6.6 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	2.2 dB @ 2.50MHz	15.8 dB	< 3.1 dB	0.9 dB
3,6	Pass	2.1 dB @ 2.50MHz	15.4 dB	< 3.1 dB	1.0 dB
5,4	Pass	2.2 dB @ 2.50MHz	15.4 dB	< 3.1 dB	0.9 dB
1,2	Pass	2.2 dB @ 2.50MHz	16.0 dB	< 3.1 dB	0.9 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.8 dB @ 99.75MHz	N/A	>= 11.4 dB	13.4 dB
3,6	DH	Pass	25.2 dB @ 99.75MHz	N/A	>= 11.4 dB	13.8 dB
5,4	DH	Pass	28.3 dB @ 95.00MHz	N/A	>= 12.3 dB	16.0 dB
1,2	DH	Pass	32.5 dB @ 99.50MHz	N/A	>= 11.4 dB	21.1 dB
7,8	RH	Pass	28.4 dB @ 91.75MHz	N/A	>= 12.9 dB	15.5 dB
3,6	RH	Pass	28.7 dB @ 92.00MHz	N/A	>= 12.9 dB	15.8 dB
5,4	RH	Pass	28.6 dB @ 99.75MHz	N/A	>= 11.4 dB	17.2 dB
1,2	RH	Pass	28.0 dB @ 99.75MHz	N/A	>= 11.4 dB	16.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 2/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:56:18
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	35.8 dB @ 91.75MHz	35.6 dB	> 19.4 dB	16.4 dB
7,8-5,4	DH	Pass	51.6 dB @ 9.70MHz	39.2 dB	> 38.9 dB	12.7 dB
7,8-1,2	DH	Pass	47.2 dB @ 8.95MHz	27.5 dB	> 39.6 dB	7.6 dB
3,6-7,8	DH	Pass	38.8 dB @ 92.75MHz	38.7 dB	> 19.3 dB	19.5 dB
3,6-5,4	DH	Pass	54.1 dB @ 7.90MHz	35.4 dB	> 40.7 dB	13.4 dB
3,6-1,2	DH	Pass	37.5 dB @ 76.75MHz	36.4 dB	> 20.9 dB	16.6 dB
5,4-7,8	DH	Pass	52.8 dB @ 8.20MHz	39.2 dB	> 40.3 dB	12.5 dB
5,4-3,6	DH	Pass	50.1 dB @ 8.35MHz	31.9 dB	> 40.2 dB	9.9 dB
5,4-1,2	DH	Pass	43.7 dB @ 65.00MHz	43.5 dB	> 22.4 dB	21.3 dB
1,2-7,8	DH	Pass	45.5 dB @ 10.90MHz	27.7 dB	> 37.9 dB	7.6 dB
1,2-3,6	DH	Pass	32.7 dB @ 84.75MHz	32.2 dB	> 20.1 dB	12.6 dB
1,2-5,4	DH	Pass	46.2 dB @ 52.75MHz	44.4 dB	> 24.2 dB	22.0 dB
7,8-3,6	RH	Pass	35.4 dB @ 91.75MHz	35.2 dB	> 19.4 dB	16.0 dB
7,8-5,4	RH	Pass	51.5 dB @ 9.70MHz	38.8 dB	> 38.9 dB	12.6 dB
7,8-1,2	RH	Pass	49.2 dB @ 7.15MHz	27.7 dB	> 41.5 dB	7.7 dB
3,6-7,8	RH	Pass	39.2 dB @ 92.75MHz	39.0 dB	> 19.3 dB	19.9 dB
3,6-5,4	RH	Pass	57.0 dB @ 5.65MHz	35.4 dB	> 43.6 dB	13.4 dB
3,6-1,2	RH	Pass	37.8 dB @ 76.75MHz	36.9 dB	> 20.9 dB	16.9 dB
5,4-7,8	RH	Pass	52.9 dB @ 8.20MHz	39.5 dB	> 40.3 dB	12.6 dB
5,4-3,6	RH	Pass	51.3 dB @ 6.55MHz	31.9 dB	> 42.3 dB	9.0 dB
5,4-1,2	RH	Pass	44.1 dB @ 64.75MHz	43.9 dB	> 22.4 dB	21.7 dB
1,2-7,8	RH	Pass	48.5 dB @ 7.60MHz	27.5 dB	> 41.0 dB	7.5 dB
1,2-3,6	RH	Pass	32.2 dB @ 84.75MHz	31.7 dB	> 20.1 dB	12.1 dB
1,2-5,4	RH	Pass	45.7 dB @ 52.75MHz	44.0 dB	> 24.2 dB	21.5 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.0 dB @ 84.50MHz	40.0 dB	> 30.5 dB	9.5 dB
3,6	DH	Pass	39.4 dB @ 68.75MHz	38.8 dB	> 32.0 dB	7.4 dB
5,4	DH	Pass	41.6 dB @ 68.75MHz	41.1 dB	> 32.0 dB	9.6 dB
1,2	DH	Pass	55.0 dB @ 15.10MHz	45.0 dB	> 42.6 dB	12.4 dB
7,8	RH	Pass	65.0 dB @ 2.80MHz	43.1 dB	> 54.2 dB	10.8 dB
3,6	RH	Pass	65.0 dB @ 2.80MHz	40.8 dB	> 54.2 dB	10.8 dB
5,4	RH	Pass	53.2 dB @ 14.80MHz	41.9 dB	> 42.8 dB	10.4 dB
1,2	RH	Pass	53.3 dB @ 14.80MHz	42.8 dB	> 42.8 dB	10.5 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	24.6 dB @ 99.75MHz	N/A	>= 8.4 dB	16.2 dB
3,6	DH	Pass	24.3 dB @ 95.00MHz	N/A	>= 9.3 dB	15.0 dB
5,4	DH	Pass	27.1 dB @ 87.75MHz	N/A	>= 10.7 dB	16.4 dB
1,2	DH	Pass	29.6 dB @ 98.75MHz	N/A	>= 8.6 dB	21.0 dB
7,8	RH	Pass	28.0 dB @ 91.75MHz	N/A	>= 9.9 dB	18.1 dB
3,6	RH	Pass	26.0 dB @ 92.25MHz	N/A	>= 9.8 dB	16.2 dB
5,4	RH	Pass	26.5 dB @ 99.75MHz	N/A	>= 8.4 dB	18.1 dB
1,2	RH	Pass	26.8 dB @ 99.75MHz	N/A	>= 8.4 dB	18.4 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	43.6 dB @ 12.10MHz	27.1 dB	>= 34.0 dB	9.6 dB
3,6	DH	Pass	31.1 dB @ 63.75MHz	28.2 dB	>= 19.5 dB	11.6 dB
5,4	DH	Pass	49.0 dB @ 9.85MHz	33.8 dB	>= 35.7 dB	13.3 dB
1,2	DH	Pass	43.5 dB @ 13.00MHz	27.3 dB	>= 33.3 dB	10.2 dB
7,8	RH	Pass	43.3 dB @ 12.40MHz	26.7 dB	>= 33.7 dB	9.6 dB
3,6	RH	Pass	32.9 dB @ 84.50MHz	32.1 dB	>= 17.1 dB	15.8 dB
5,4	RH	Pass	46.2 dB @ 10.90MHz	31.3 dB	>= 34.9 dB	11.3 dB
1,2	RH	Pass	30.8 dB @ 53.25MHz	26.1 dB	>= 21.1 dB	9.7 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

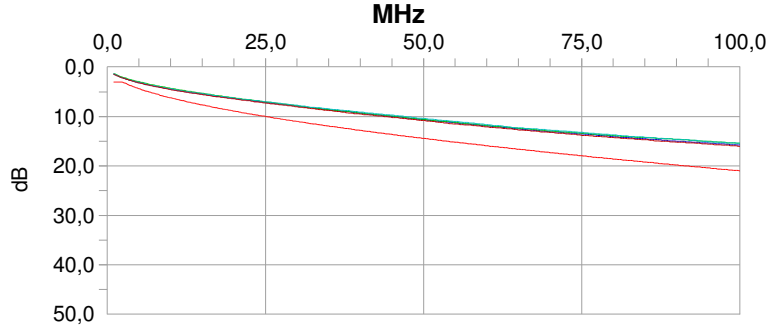
Cable ID 1: 2/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:56:18
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

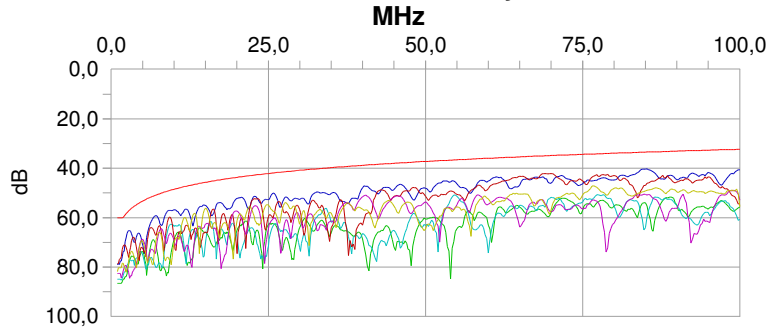
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

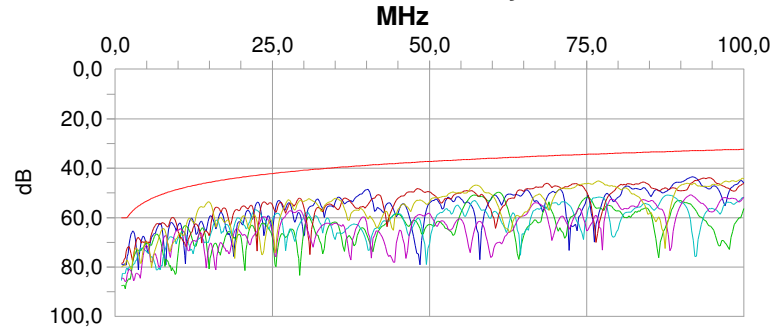
Attenuation Summary



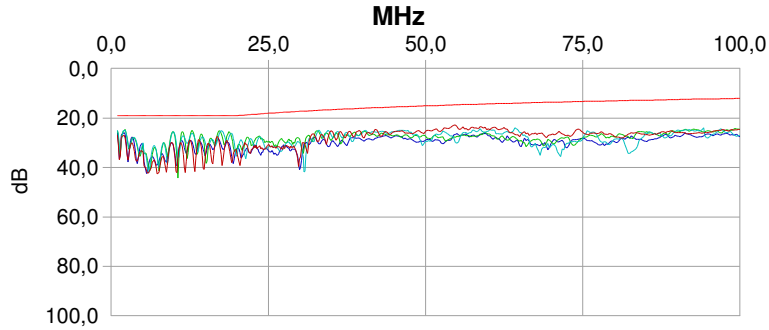
NEXT DH Summary



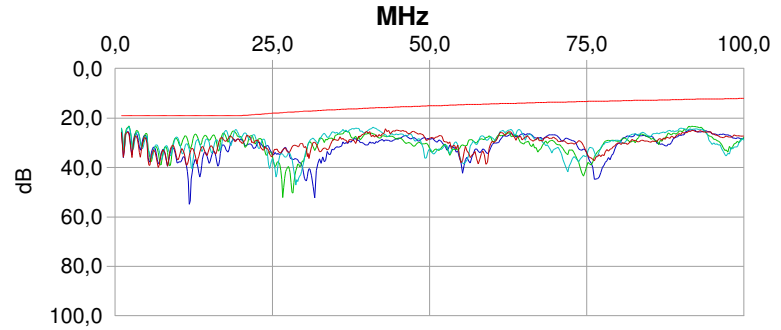
NEXT RH Summary



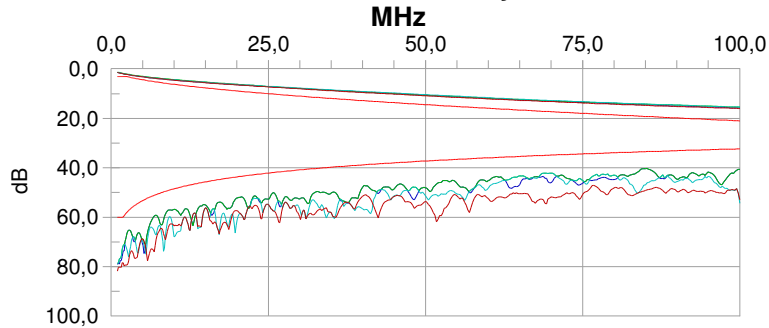
Return Loss DH Summary



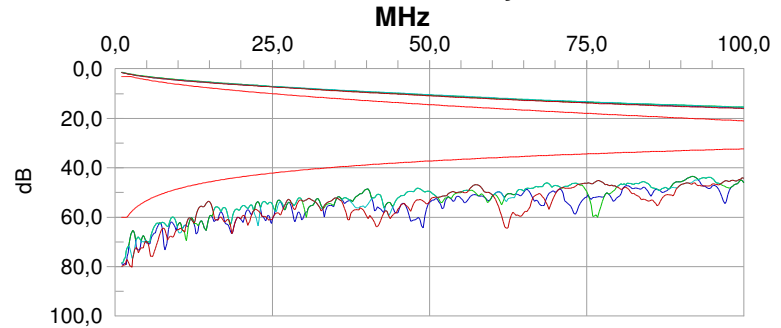
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

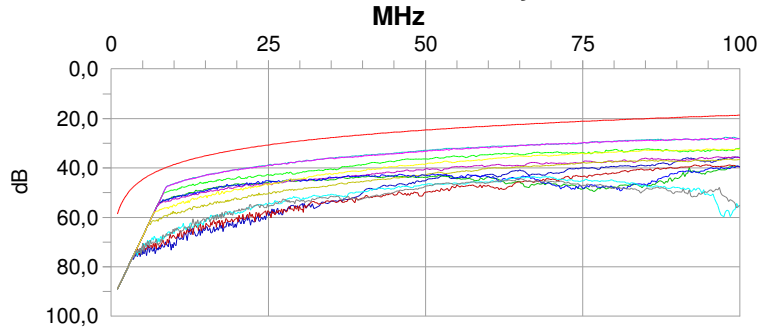
Cable ID 1: 2/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:56:18
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

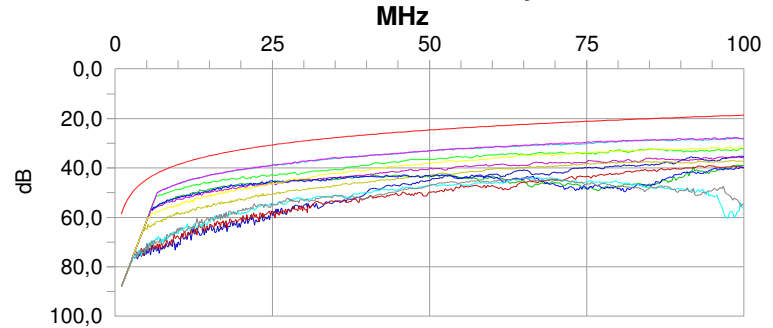
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

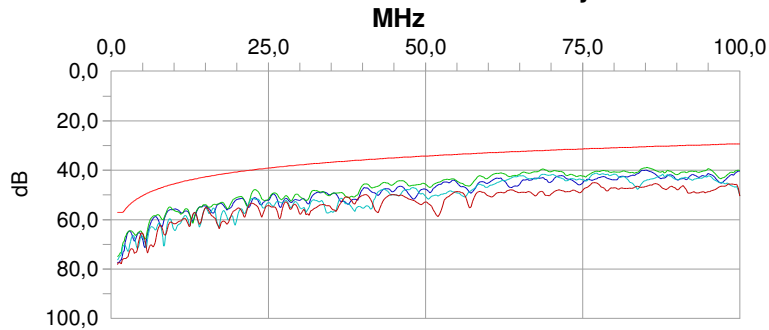
ELFEXT DH Summary



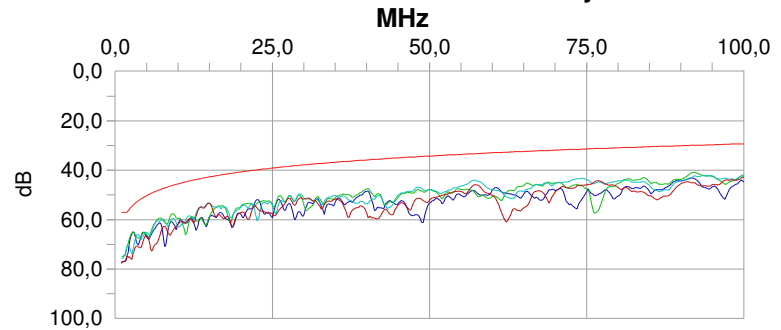
ELFEXT RH Summary



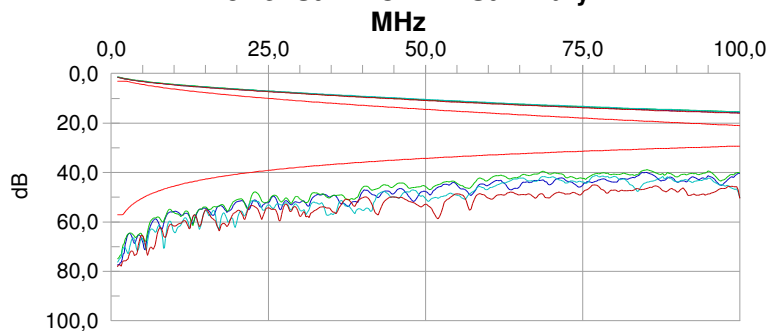
Power Sum NEXT DH Summary



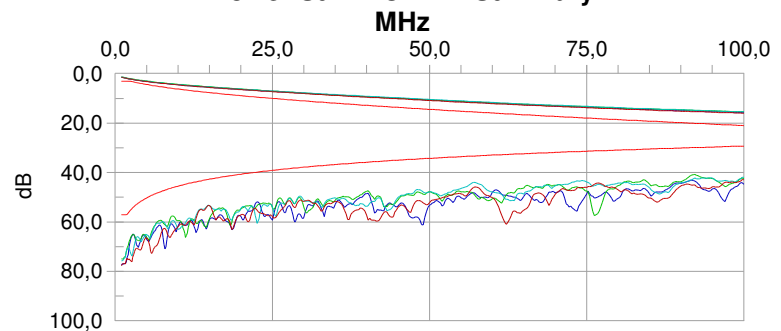
Power Sum NEXT RH Summary



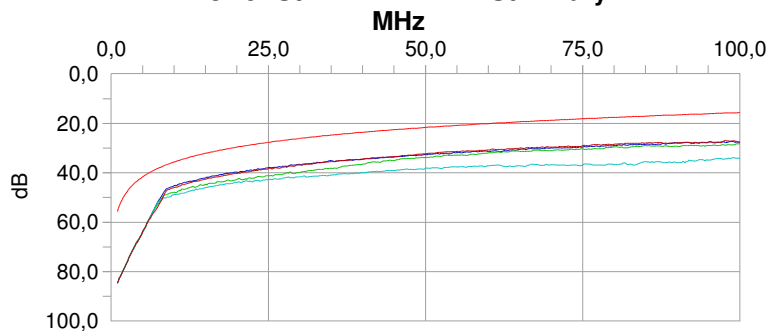
Power Sum ACR DH Summary



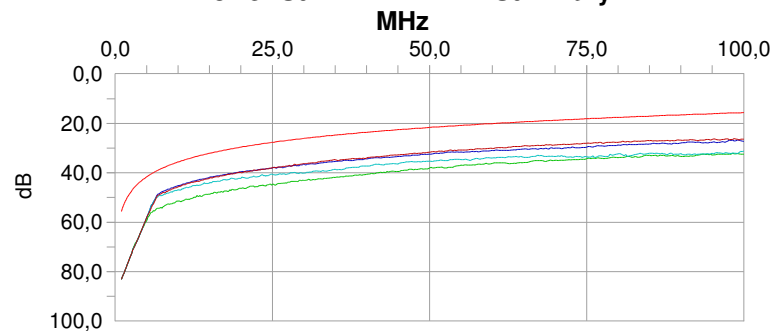
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

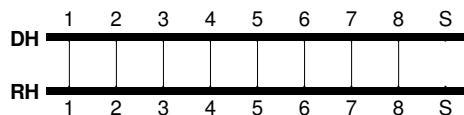
Cable ID 1: 2/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:00:28
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	70.3m	71.4m	72.7m	70.6m	< 90.0m	Pass
Prop. Delay	351.2ns	356.3ns	363.2ns	351.1ns	< 498.0ns	Pass
Delay Skew	12.1ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	16.1 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	50.2 dB @ 14.80MHz	38.8 dB	> 45.8 dB	4.4 dB
7,8-5,4	DH	Pass	62.7 dB @ 12.85MHz	53.1 dB	> 46.8 dB	15.9 dB
7,8-1,2	DH	Pass	55.0 dB @ 15.85MHz	46.0 dB	> 45.3 dB	9.7 dB
3,6-5,4	DH	Pass	51.8 dB @ 13.90MHz	41.1 dB	> 46.2 dB	5.6 dB
3,6-1,2	DH	Pass	40.5 dB @ 88.50MHz	40.5 dB	> 33.2 dB	7.3 dB
5,4-1,2	DH	Pass	53.9 dB @ 20.50MHz	43.2 dB	> 43.5 dB	10.4 dB
7,8-3,6	RH	Pass	45.9 dB @ 27.10MHz	40.5 dB	> 41.5 dB	4.4 dB
7,8-5,4	RH	Pass	50.2 dB @ 57.00MHz	50.2 dB	> 36.3 dB	13.9 dB
7,8-1,2	RH	Pass	54.7 dB @ 15.70MHz	47.0 dB	> 45.4 dB	9.3 dB
3,6-5,4	RH	Pass	52.4 dB @ 15.70MHz	42.7 dB	> 45.4 dB	7.0 dB
3,6-1,2	RH	Pass	52.2 dB @ 27.40MHz	44.9 dB	> 41.5 dB	10.7 dB
5,4-1,2	RH	Pass	55.9 dB @ 17.20MHz	46.1 dB	> 44.7 dB	11.2 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.3 dB @ 2.20MHz	20.0 dB	> 19.0 dB	3.3 dB
3,6	DH	Pass	21.1 dB @ 23.20MHz	17.7 dB	> 18.4 dB	2.7 dB
5,4	DH	Pass	19.0 dB @ 28.45MHz	16.2 dB	> 17.5 dB	1.5 dB
1,2	DH	Pass	22.7 dB @ 2.20MHz	19.1 dB	> 19.0 dB	3.7 dB
7,8	RH	Pass	21.7 dB @ 2.20MHz	18.9 dB	> 19.0 dB	2.7 dB
3,6	RH	Pass	19.2 dB @ 22.90MHz	16.8 dB	> 18.4 dB	0.8 dB
5,4	RH	Pass	20.5 dB @ 21.55MHz	16.9 dB	> 18.7 dB	1.8 dB
1,2	RH	Pass	17.5 dB @ 56.00MHz	17.4 dB	> 14.5 dB	3.0 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	2.0 dB @ 2.50MHz	14.8 dB	< 3.1 dB	1.1 dB
3,6	Pass	2.0 dB @ 2.50MHz	15.4 dB	< 3.1 dB	1.1 dB
5,4	Pass	2.2 dB @ 2.50MHz	16.2 dB	< 3.1 dB	0.9 dB
1,2	Pass	2.0 dB @ 2.50MHz	14.5 dB	< 3.1 dB	1.1 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.1 dB @ 100.00MHz	N/A	>= 11.3 dB	12.8 dB
3,6	DH	Pass	23.8 dB @ 100.00MHz	N/A	>= 11.3 dB	12.5 dB
5,4	DH	Pass	24.9 dB @ 97.25MHz	N/A	>= 11.8 dB	13.1 dB
1,2	DH	Pass	26.8 dB @ 88.50MHz	N/A	>= 13.6 dB	13.2 dB
7,8	RH	Pass	25.9 dB @ 98.00MHz	N/A	>= 11.7 dB	14.2 dB
3,6	RH	Pass	25.2 dB @ 98.00MHz	N/A	>= 11.7 dB	13.5 dB
5,4	RH	Pass	26.7 dB @ 97.25MHz	N/A	>= 11.8 dB	14.9 dB
1,2	RH	Pass	30.7 dB @ 94.50MHz	N/A	>= 12.4 dB	18.3 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 2/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:00:28
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	50.1 dB @ 8.80MHz	34.9 dB	> 39.7 dB	10.4 dB
7,8-5,4	DH	Pass	45.7 dB @ 17.80MHz	33.0 dB	> 33.6 dB	12.1 dB
7,8-1,2	DH	Pass	49.0 dB @ 12.10MHz	32.1 dB	> 37.0 dB	12.0 dB
3,6-7,8	DH	Pass	55.1 dB @ 8.65MHz	39.0 dB	> 39.9 dB	15.2 dB
3,6-5,4	DH	Pass	48.4 dB @ 9.70MHz	34.1 dB	> 38.9 dB	9.5 dB
3,6-1,2	DH	Pass	43.0 dB @ 56.75MHz	39.3 dB	> 23.5 dB	19.5 dB
5,4-7,8	DH	Pass	48.0 dB @ 13.45MHz	35.5 dB	> 36.0 dB	12.0 dB
5,4-3,6	DH	Pass	44.4 dB @ 9.70MHz	31.5 dB	> 38.9 dB	5.5 dB
5,4-1,2	DH	Pass	49.6 dB @ 19.30MHz	40.5 dB	> 32.9 dB	16.7 dB
1,2-7,8	DH	Pass	49.3 dB @ 11.95MHz	32.4 dB	> 37.1 dB	12.2 dB
1,2-3,6	DH	Pass	32.9 dB @ 88.75MHz	32.9 dB	> 19.7 dB	13.2 dB
1,2-5,4	DH	Pass	48.0 dB @ 19.30MHz	36.6 dB	> 32.9 dB	15.1 dB
7,8-3,6	RH	Pass	50.1 dB @ 8.80MHz	35.4 dB	> 39.7 dB	10.4 dB
7,8-5,4	RH	Pass	46.3 dB @ 17.80MHz	34.6 dB	> 33.6 dB	12.7 dB
7,8-1,2	RH	Pass	49.1 dB @ 12.10MHz	32.2 dB	> 37.0 dB	12.1 dB
3,6-7,8	RH	Pass	57.8 dB @ 6.25MHz	38.3 dB	> 42.7 dB	15.1 dB
3,6-5,4	RH	Pass	52.3 dB @ 6.40MHz	35.9 dB	> 42.5 dB	9.8 dB
3,6-1,2	RH	Pass	38.1 dB @ 89.25MHz	38.1 dB	> 19.6 dB	18.5 dB
5,4-7,8	RH	Pass	47.5 dB @ 13.45MHz	34.0 dB	> 36.0 dB	11.5 dB
5,4-3,6	RH	Pass	44.0 dB @ 9.70MHz	30.6 dB	> 38.9 dB	5.1 dB
5,4-1,2	RH	Pass	49.0 dB @ 19.30MHz	38.8 dB	> 32.9 dB	16.1 dB
1,2-7,8	RH	Pass	49.2 dB @ 11.95MHz	32.8 dB	> 37.1 dB	12.1 dB
1,2-3,6	RH	Pass	36.1 dB @ 72.00MHz	34.3 dB	> 21.5 dB	14.6 dB
1,2-5,4	RH	Pass	48.6 dB @ 19.30MHz	38.3 dB	> 32.9 dB	15.7 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.6 dB @ 14.95MHz	38.6 dB	> 42.7 dB	6.9 dB
3,6	DH	Pass	48.3 dB @ 15.85MHz	37.1 dB	> 42.3 dB	6.0 dB
5,4	DH	Pass	51.5 dB @ 13.90MHz	39.8 dB	> 43.2 dB	8.3 dB
1,2	DH	Pass	39.8 dB @ 88.50MHz	39.5 dB	> 30.2 dB	9.6 dB
7,8	RH	Pass	45.5 dB @ 27.10MHz	39.8 dB	> 38.5 dB	7.0 dB
3,6	RH	Pass	44.3 dB @ 27.10MHz	38.3 dB	> 38.5 dB	5.8 dB
5,4	RH	Pass	51.4 dB @ 15.70MHz	41.6 dB	> 42.4 dB	9.0 dB
1,2	RH	Pass	46.6 dB @ 38.00MHz	42.5 dB	> 36.2 dB	10.4 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	23.9 dB @ 100.00MHz	N/A	>= 8.3 dB	15.6 dB
3,6	DH	Pass	22.1 dB @ 99.25MHz	N/A	>= 8.5 dB	13.6 dB
5,4	DH	Pass	23.6 dB @ 97.00MHz	N/A	>= 8.9 dB	14.7 dB
1,2	DH	Pass	25.1 dB @ 96.00MHz	N/A	>= 9.1 dB	16.0 dB
7,8	RH	Pass	25.2 dB @ 98.00MHz	N/A	>= 8.7 dB	16.5 dB
3,6	RH	Pass	23.1 dB @ 97.50MHz	N/A	>= 8.8 dB	14.3 dB
5,4	RH	Pass	26.1 dB @ 90.50MHz	N/A	>= 10.1 dB	16.0 dB
1,2	RH	Pass	28.7 dB @ 90.25MHz	N/A	>= 10.2 dB	18.5 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	44.8 dB @ 13.45MHz	31.1 dB	>= 33.0 dB	11.8 dB
3,6	DH	Pass	43.1 dB @ 9.70MHz	29.4 dB	>= 35.9 dB	7.2 dB
5,4	DH	Pass	41.1 dB @ 17.65MHz	30.7 dB	>= 30.7 dB	10.4 dB
1,2	DH	Pass	48.3 dB @ 11.95MHz	31.2 dB	>= 34.1 dB	14.2 dB
7,8	RH	Pass	41.0 dB @ 17.65MHz	29.7 dB	>= 30.7 dB	10.3 dB
3,6	RH	Pass	50.8 dB @ 6.55MHz	33.8 dB	>= 39.3 dB	11.5 dB
5,4	RH	Pass	40.7 dB @ 13.15MHz	30.4 dB	>= 33.2 dB	7.5 dB
1,2	RH	Pass	47.3 dB @ 11.95MHz	30.7 dB	>= 34.1 dB	13.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

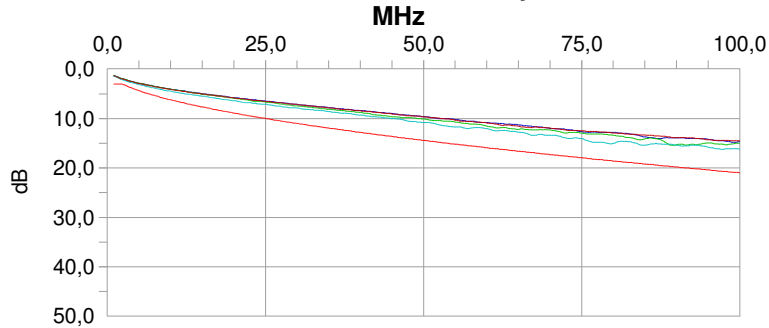
Cable ID 1: 2/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:00:28
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

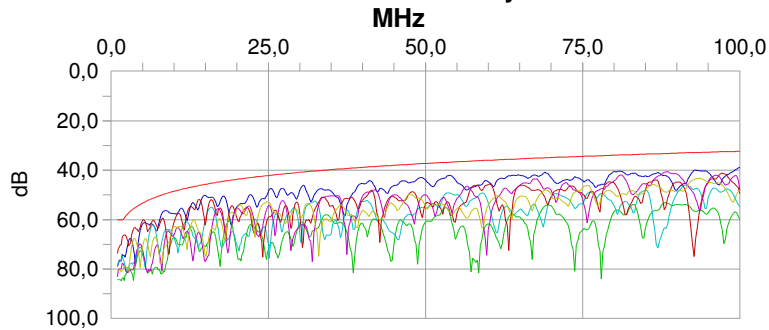
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

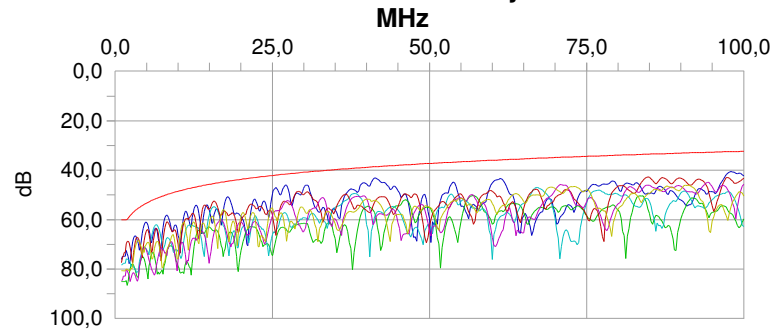
Attenuation Summary



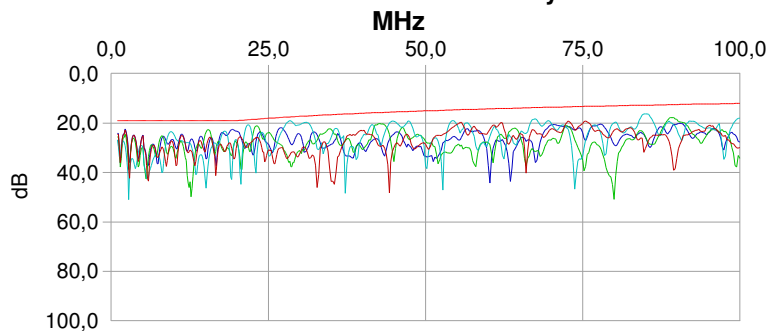
NEXT DH Summary



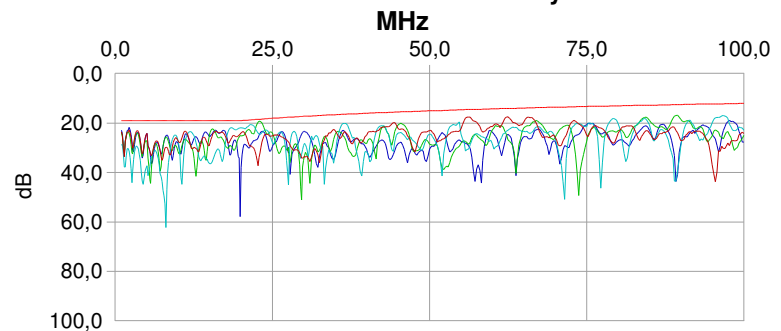
NEXT RH Summary



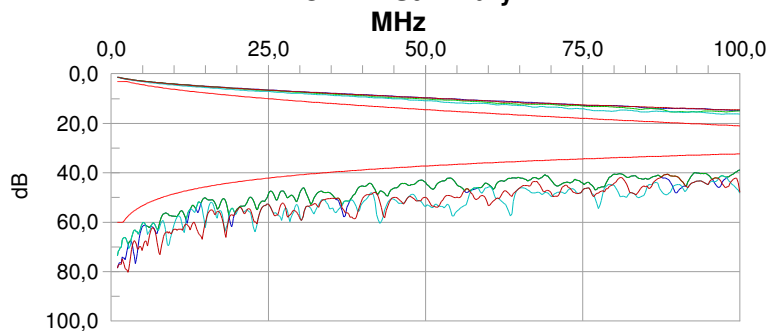
Return Loss DH Summary



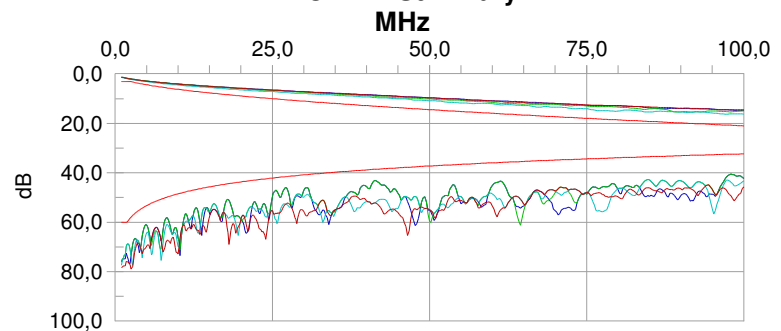
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

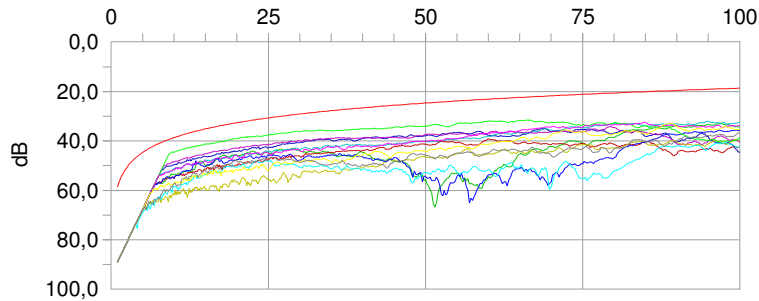
Cable ID 1: 2/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:00:28
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

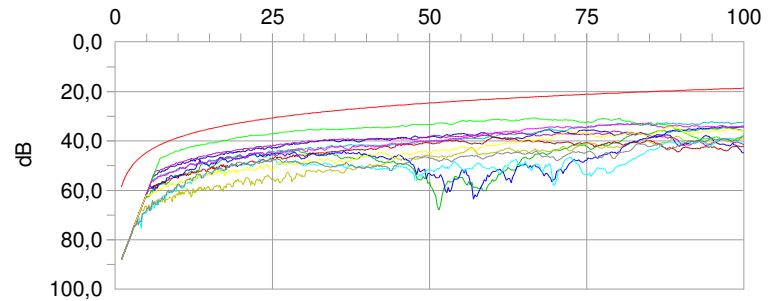
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

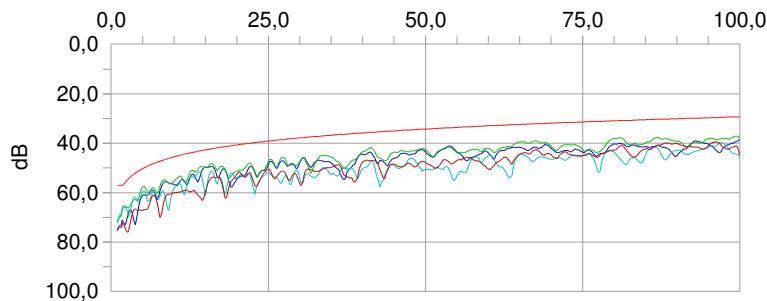
ELFEXT DH Summary
MHz



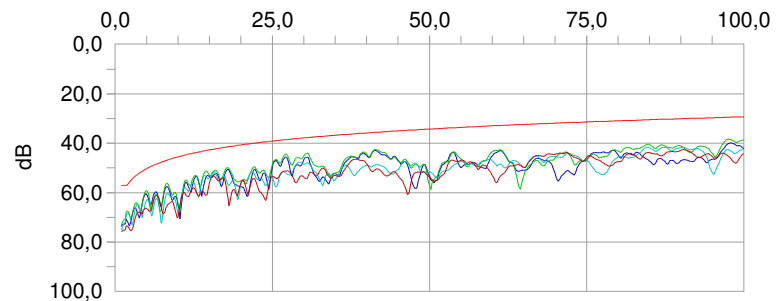
ELFEXT RH Summary
MHz



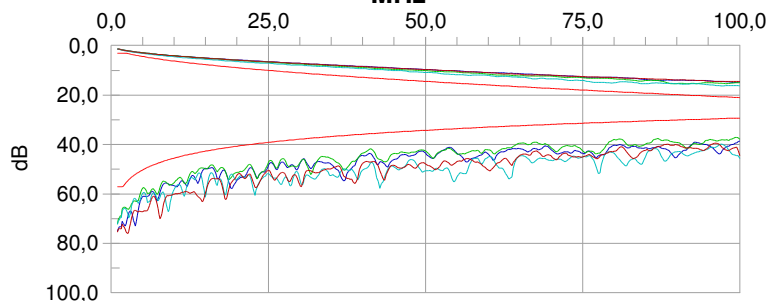
Power Sum NEXT DH Summary
MHz



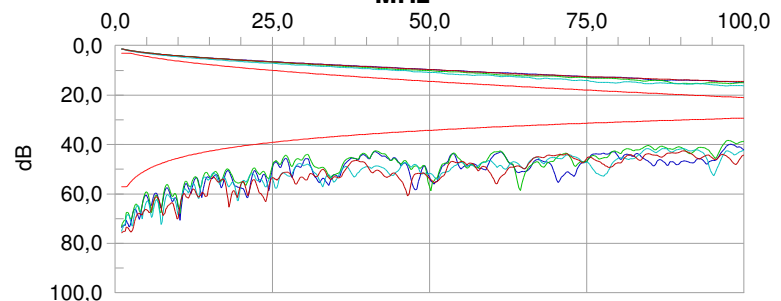
Power Sum NEXT RH Summary
MHz



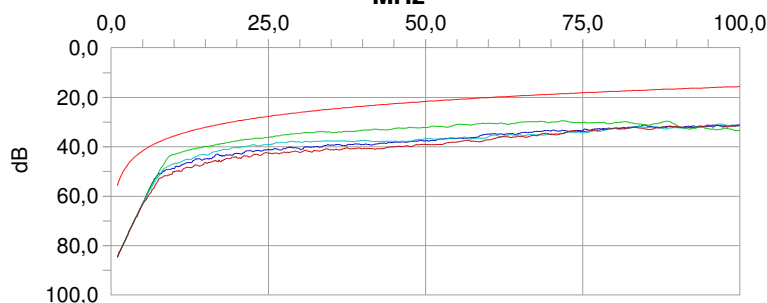
Power Sum ACR DH Summary
MHz



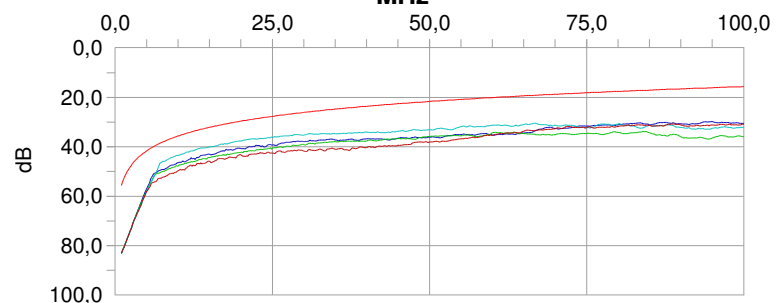
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

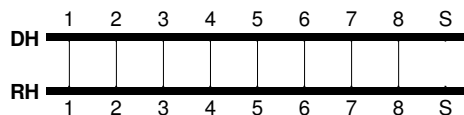
Cable ID 1: 2/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:41:42
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	71.5m	70.5m	69.7m	72.1m	< 90.0m	Pass
Prop. Delay	356.8ns	352.2ns	349.1ns	358.2ns	< 498.0ns	Pass
Delay Skew	9.1ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
Headroom	16.1 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	54.3 dB @ 9.40MHz	38.0 dB	> 48.9 dB	5.4 dB
7,8-5,4	DH	Pass	48.3 dB @ 64.25MHz	48.3 dB	> 35.5 dB	12.8 dB
7,8-1,2	DH	Pass	52.6 dB @ 40.25MHz	50.9 dB	> 38.8 dB	13.8 dB
3,6-5,4	DH	Pass	46.8 dB @ 20.95MHz	39.2 dB	> 43.3 dB	3.5 dB
3,6-1,2	DH	Pass	44.6 dB @ 62.50MHz	44.6 dB	> 35.7 dB	8.9 dB
5,4-1,2	DH	Pass	51.9 dB @ 26.35MHz	46.8 dB	> 41.7 dB	10.2 dB
7,8-3,6	RH	Pass	50.9 dB @ 13.00MHz	42.5 dB	> 46.7 dB	4.2 dB
7,8-5,4	RH	Pass	49.5 dB @ 56.50MHz	46.3 dB	> 36.4 dB	13.1 dB
7,8-1,2	RH	Pass	53.4 dB @ 39.50MHz	50.9 dB	> 38.9 dB	14.5 dB
3,6-5,4	RH	Pass	47.9 dB @ 20.80MHz	46.1 dB	> 43.4 dB	4.5 dB
3,6-1,2	RH	Pass	49.9 dB @ 55.00MHz	48.7 dB	> 36.6 dB	13.3 dB
5,4-1,2	RH	Pass	49.5 dB @ 39.00MHz	48.8 dB	> 39.0 dB	10.5 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	25.4 dB @ 2.20MHz	25.1 dB	> 19.0 dB	6.4 dB
3,6	DH	Pass	23.6 dB @ 2.20MHz	23.4 dB	> 19.0 dB	4.6 dB
5,4	DH	Pass	23.1 dB @ 2.20MHz	22.6 dB	> 19.0 dB	4.1 dB
1,2	DH	Pass	22.7 dB @ 42.00MHz	22.4 dB	> 15.8 dB	6.9 dB
7,8	RH	Pass	25.3 dB @ 2.20MHz	25.3 dB	> 19.0 dB	6.3 dB
3,6	RH	Pass	23.3 dB @ 2.20MHz	22.6 dB	> 19.0 dB	4.3 dB
5,4	RH	Pass	22.2 dB @ 19.30MHz	21.6 dB	> 19.0 dB	3.2 dB
1,2	RH	Pass	25.6 dB @ 2.20MHz	23.1 dB	> 19.0 dB	6.6 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	2.1 dB @ 2.50MHz	14.8 dB	< 3.1 dB	1.0 dB
3,6	Pass	1.9 dB @ 2.50MHz	14.4 dB	< 3.1 dB	1.2 dB
5,4	Pass	2.0 dB @ 2.50MHz	14.3 dB	< 3.1 dB	1.1 dB
1,2	Pass	2.1 dB @ 2.50MHz	15.0 dB	< 3.1 dB	1.0 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.3 dB @ 98.75MHz	N/A	>= 11.6 dB	11.7 dB
3,6	DH	Pass	23.6 dB @ 99.00MHz	N/A	>= 11.5 dB	12.1 dB
5,4	DH	Pass	25.9 dB @ 88.50MHz	N/A	>= 13.6 dB	12.3 dB
1,2	DH	Pass	30.9 dB @ 89.75MHz	N/A	>= 13.3 dB	17.6 dB
7,8	RH	Pass	27.9 dB @ 97.25MHz	N/A	>= 11.8 dB	16.1 dB
3,6	RH	Pass	28.3 dB @ 97.25MHz	N/A	>= 11.8 dB	16.5 dB
5,4	RH	Pass	32.4 dB @ 92.50MHz	N/A	>= 12.8 dB	19.6 dB
1,2	RH	Pass	34.4 dB @ 92.25MHz	N/A	>= 12.8 dB	21.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 2/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:41:42
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	33.2 dB @ 92.00MHz	32.9 dB	> 19.3 dB	13.9 dB
7,8-5,4	DH	Pass	58.2 dB @ 7.30MHz	40.5 dB	> 41.3 dB	16.9 dB
7,8-1,2	DH	Pass	39.4 dB @ 99.50MHz	39.3 dB	> 18.7 dB	20.7 dB
3,6-7,8	DH	Pass	38.5 dB @ 89.50MHz	37.8 dB	> 19.6 dB	18.9 dB
3,6-5,4	DH	Pass	38.0 dB @ 82.75MHz	37.0 dB	> 20.3 dB	17.7 dB
3,6-1,2	DH	Pass	59.5 dB @ 16.90MHz	47.6 dB	> 34.1 dB	25.4 dB
5,4-7,8	DH	Pass	58.2 dB @ 7.00MHz	39.1 dB	> 41.7 dB	16.5 dB
5,4-3,6	DH	Pass	35.2 dB @ 59.50MHz	33.9 dB	> 23.1 dB	12.1 dB
5,4-1,2	DH	Pass	55.1 dB @ 8.65MHz	39.3 dB	> 39.9 dB	15.2 dB
1,2-7,8	DH	Pass	39.7 dB @ 94.50MHz	39.7 dB	> 19.1 dB	20.6 dB
1,2-3,6	DH	Pass	46.0 dB @ 52.25MHz	40.3 dB	> 24.3 dB	21.7 dB
1,2-5,4	DH	Pass	55.3 dB @ 9.70MHz	39.3 dB	> 38.9 dB	16.4 dB
7,8-3,6	RH	Pass	33.0 dB @ 92.00MHz	32.5 dB	> 19.3 dB	13.7 dB
7,8-5,4	RH	Pass	60.0 dB @ 5.65MHz	40.0 dB	> 43.6 dB	16.4 dB
7,8-1,2	RH	Pass	39.5 dB @ 99.75MHz	39.5 dB	> 18.6 dB	20.9 dB
3,6-7,8	RH	Pass	38.8 dB @ 89.00MHz	38.2 dB	> 19.6 dB	19.2 dB
3,6-5,4	RH	Pass	37.6 dB @ 82.75MHz	36.8 dB	> 20.3 dB	17.3 dB
3,6-1,2	RH	Pass	59.6 dB @ 16.90MHz	47.9 dB	> 34.1 dB	25.5 dB
5,4-7,8	RH	Pass	59.5 dB @ 5.95MHz	39.6 dB	> 43.1 dB	16.4 dB
5,4-3,6	RH	Pass	35.6 dB @ 59.50MHz	34.1 dB	> 23.1 dB	12.5 dB
5,4-1,2	RH	Pass	55.3 dB @ 8.65MHz	40.0 dB	> 39.9 dB	15.4 dB
1,2-7,8	RH	Pass	39.5 dB @ 94.50MHz	39.5 dB	> 19.1 dB	20.4 dB
1,2-3,6	RH	Pass	39.7 dB @ 100.00MHz	39.7 dB	> 18.6 dB	21.1 dB
1,2-5,4	RH	Pass	60.3 dB @ 5.20MHz	38.6 dB	> 44.3 dB	16.0 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	54.0 dB @ 9.25MHz	37.8 dB	> 46.0 dB	8.0 dB
3,6	DH	Pass	50.8 dB @ 9.70MHz	36.3 dB	> 45.7 dB	5.1 dB
5,4	DH	Pass	46.5 dB @ 20.95MHz	38.6 dB	> 40.3 dB	6.2 dB
1,2	DH	Pass	44.9 dB @ 52.00MHz	43.4 dB	> 34.0 dB	10.9 dB
7,8	RH	Pass	50.6 dB @ 13.15MHz	41.4 dB	> 43.6 dB	7.0 dB
3,6	RH	Pass	52.0 dB @ 9.55MHz	41.1 dB	> 45.8 dB	6.2 dB
5,4	RH	Pass	47.5 dB @ 20.80MHz	42.8 dB	> 40.4 dB	7.1 dB
1,2	RH	Pass	47.7 dB @ 39.25MHz	45.7 dB	> 35.9 dB	11.8 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	23.1 dB @ 98.75MHz	N/A	>= 8.6 dB	14.5 dB
3,6	DH	Pass	22.1 dB @ 99.75MHz	N/A	>= 8.4 dB	13.7 dB
5,4	DH	Pass	25.2 dB @ 88.50MHz	N/A	>= 10.6 dB	14.6 dB
1,2	DH	Pass	29.2 dB @ 90.00MHz	N/A	>= 10.3 dB	18.9 dB
7,8	RH	Pass	26.8 dB @ 97.25MHz	N/A	>= 8.8 dB	18.0 dB
3,6	RH	Pass	26.9 dB @ 97.00MHz	N/A	>= 8.9 dB	18.0 dB
5,4	RH	Pass	29.2 dB @ 91.00MHz	N/A	>= 10.1 dB	19.1 dB
1,2	RH	Pass	31.5 dB @ 90.50MHz	N/A	>= 10.1 dB	21.4 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	34.2 dB @ 99.50MHz	34.2 dB	>= 15.7 dB	18.5 dB
3,6	DH	Pass	33.6 dB @ 59.25MHz	30.3 dB	>= 20.2 dB	13.4 dB
5,4	DH	Pass	51.5 dB @ 9.70MHz	34.4 dB	>= 35.9 dB	15.6 dB
1,2	DH	Pass	51.8 dB @ 13.30MHz	36.3 dB	>= 33.1 dB	18.7 dB
7,8	RH	Pass	31.9 dB @ 92.00MHz	31.2 dB	>= 16.3 dB	15.6 dB
3,6	RH	Pass	35.4 dB @ 82.75MHz	34.4 dB	>= 17.3 dB	18.1 dB
5,4	RH	Pass	50.9 dB @ 8.20MHz	32.7 dB	>= 37.3 dB	13.6 dB
1,2	RH	Pass	51.6 dB @ 13.30MHz	34.7 dB	>= 33.1 dB	18.5 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

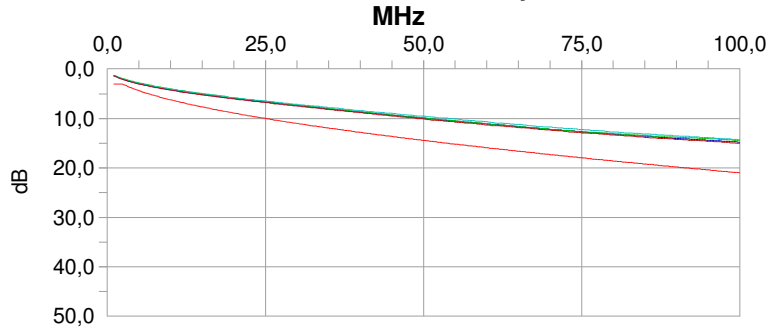
Cable ID 1: 2/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:41:42
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

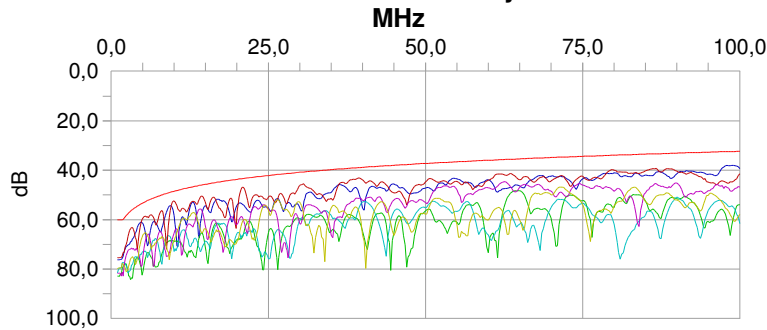
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

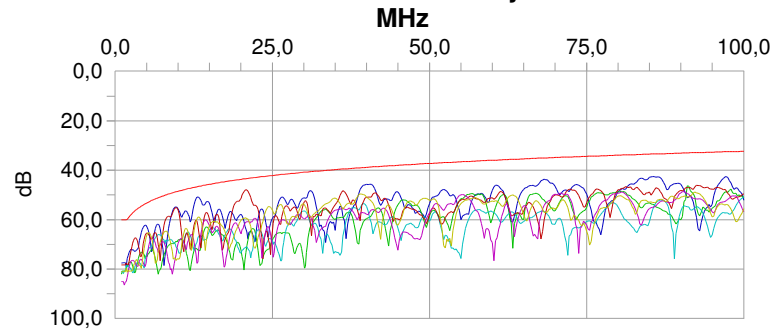
Attenuation Summary



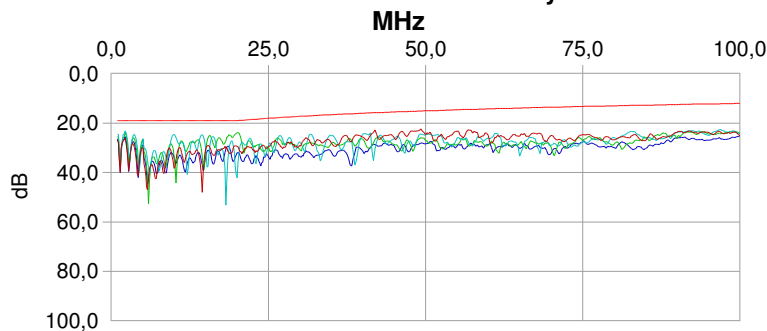
NEXT DH Summary



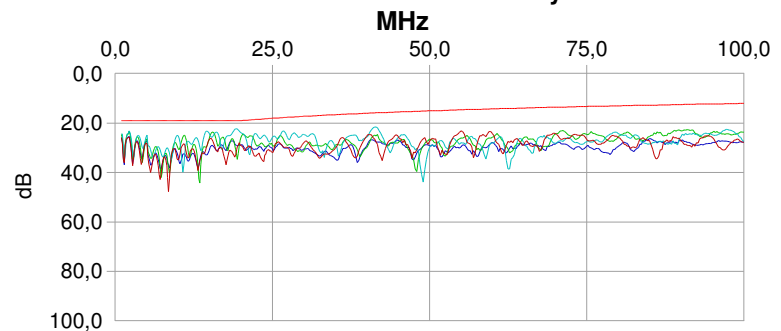
NEXT RH Summary



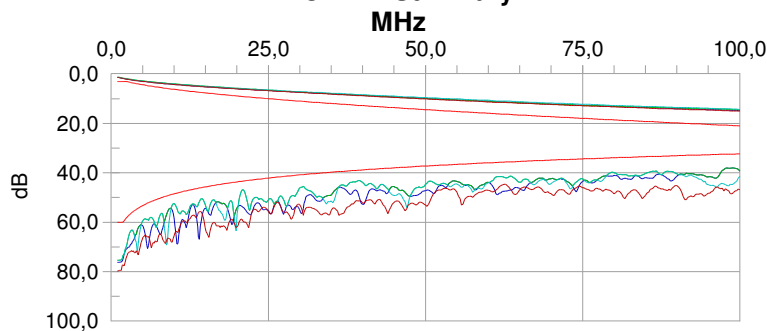
Return Loss DH Summary



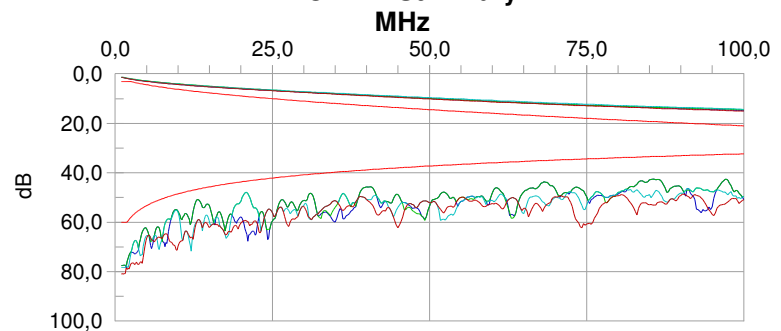
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 2/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:41:42
Adapter ID: 6014

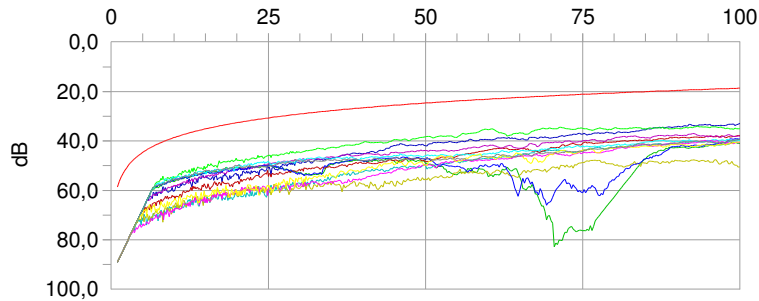
Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

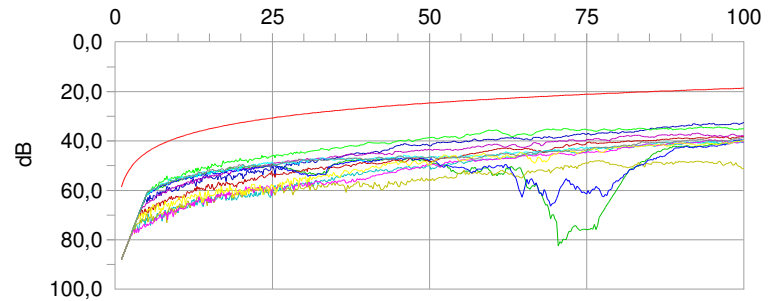
ELFEXT DH Summary

MHz



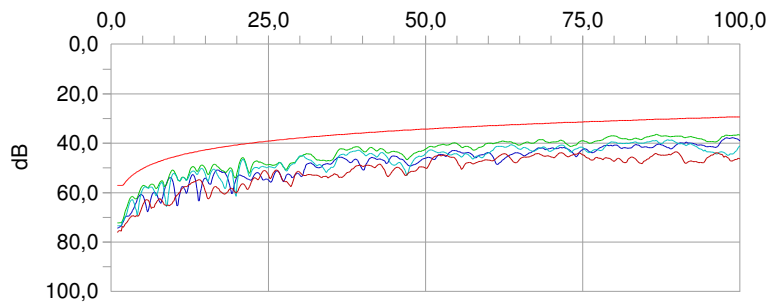
ELFEXT RH Summary

MHz



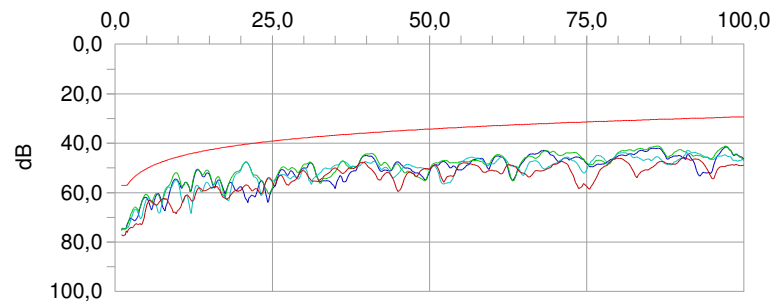
Power Sum NEXT DH Summary

MHz



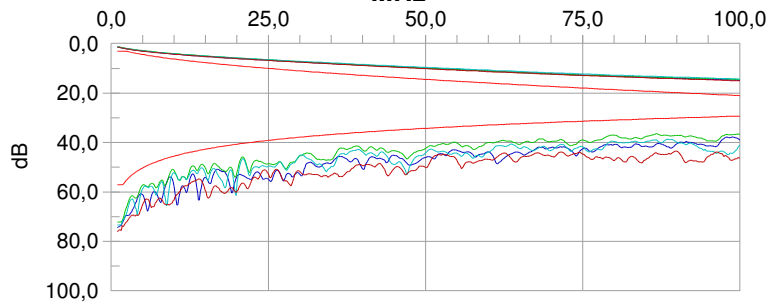
Power Sum NEXT RH Summary

MHz



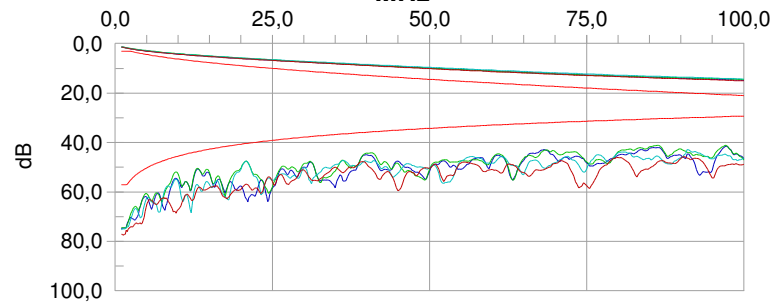
Power Sum ACR DH Summary

MHz



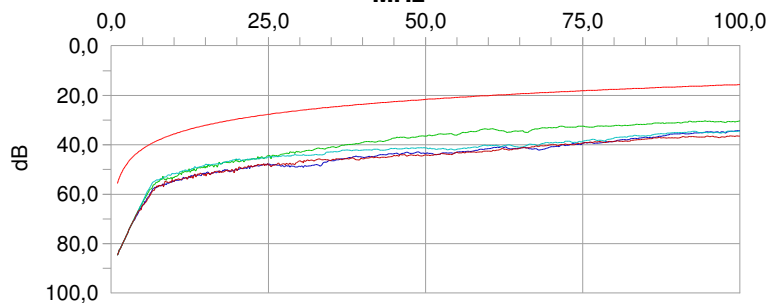
Power Sum ACR RH Summary

MHz



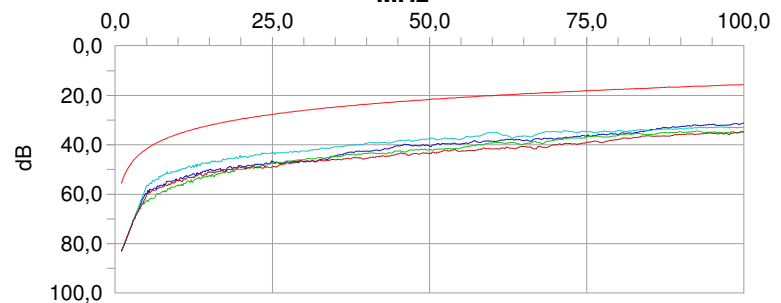
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

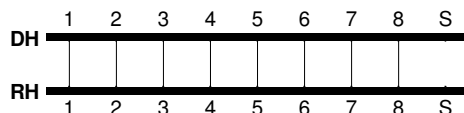
Cable ID 1: 2/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:04:35
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	42.4m	42.8m	43.5m	42.7m	< 90.0m	Pass
Prop. Delay	218.8ns	221.1ns	224.5ns	218.8ns	< 498.0ns	Pass
Delay Skew		5.7ns (Pairs 5,4 vs. 1,2)			< 44.0 ns	Pass
Headroom		18.9 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	45.9 dB @ 35.75MHz	41.7 dB	> 39.6 dB	6.3 dB
7,8-5,4	DH	Pass	68.4 dB @ 4.30MHz	51.9 dB	> 54.3 dB	14.1 dB
7,8-1,2	DH	Pass	68.7 dB @ 4.00MHz	49.1 dB	> 54.8 dB	13.9 dB
3,6-5,4	DH	Pass	38.5 dB @ 61.75MHz	38.5 dB	> 35.7 dB	2.8 dB
3,6-1,2	DH	Pass	47.6 dB @ 49.50MHz	43.2 dB	> 37.3 dB	10.3 dB
5,4-1,2	DH	Pass	46.8 dB @ 84.50MHz	46.8 dB	> 33.5 dB	13.3 dB
7,8-3,6	RH	Pass	40.2 dB @ 63.25MHz	38.4 dB	> 35.6 dB	4.6 dB
7,8-5,4	RH	Pass	49.2 dB @ 69.25MHz	48.8 dB	> 34.9 dB	14.3 dB
7,8-1,2	RH	Pass	47.5 dB @ 79.75MHz	47.5 dB	> 33.9 dB	13.6 dB
3,6-5,4	RH	Pass	61.7 dB @ 4.60MHz	45.5 dB	> 53.8 dB	7.9 dB
3,6-1,2	RH	Pass	45.4 dB @ 83.25MHz	45.2 dB	> 33.6 dB	11.8 dB
5,4-1,2	RH	Pass	50.3 dB @ 69.25MHz	50.0 dB	> 34.9 dB	15.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	19.8 dB @ 19.00MHz	19.1 dB	> 19.0 dB	0.8 dB
3,6	DH	Pass	20.2 dB @ 1.15MHz	20.2 dB	> 19.0 dB	1.2 dB
5,4	DH	Pass	20.8 dB @ 1.00MHz	19.1 dB	> 19.0 dB	1.8 dB
1,2	DH	Pass	15.6 dB @ 52.00MHz	15.5 dB	> 14.9 dB	0.7 dB
7,8	RH	Pass	20.2 dB @ 1.30MHz	19.0 dB	> 19.0 dB	1.2 dB
3,6	RH	Pass	20.0 dB @ 1.00MHz	20.0 dB	> 19.0 dB	1.0 dB
5,4	RH	Pass	18.3 dB @ 30.25MHz	17.8 dB	> 17.2 dB	1.1 dB
1,2	RH	Pass	20.6 dB @ 1.45MHz	15.8 dB	> 19.0 dB	1.6 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.4 dB @ 2.80MHz	8.7 dB	< 3.2 dB	1.8 dB
3,6	Pass	1.2 dB @ 2.50MHz	8.8 dB	< 3.1 dB	1.9 dB
5,4	Pass	1.3 dB @ 2.50MHz	8.7 dB	< 3.1 dB	1.8 dB
1,2	Pass	1.3 dB @ 2.50MHz	8.7 dB	< 3.1 dB	1.8 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	33.8 dB @ 83.50MHz	N/A	>= 14.6 dB	19.2 dB
3,6	DH	Pass	31.7 dB @ 61.75MHz	N/A	>= 19.6 dB	12.1 dB
5,4	DH	Pass	31.7 dB @ 61.75MHz	N/A	>= 19.6 dB	12.1 dB
1,2	DH	Pass	34.6 dB @ 99.25MHz	N/A	>= 11.5 dB	23.1 dB
7,8	RH	Pass	30.4 dB @ 86.25MHz	N/A	>= 14.1 dB	16.3 dB
3,6	RH	Pass	30.4 dB @ 86.25MHz	N/A	>= 14.1 dB	16.3 dB
5,4	RH	Pass	37.9 dB @ 87.00MHz	N/A	>= 13.9 dB	24.0 dB
1,2	RH	Pass	36.6 dB @ 98.00MHz	N/A	>= 11.7 dB	24.9 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 2/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:04:35
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	35.9 dB @ 84.00MHz	35.2 dB	> 20.1 dB	15.8 dB
7,8-5,4	DH	Pass	53.7 dB @ 9.70MHz	39.7 dB	> 38.9 dB	14.8 dB
7,8-1,2	DH	Pass	55.8 dB @ 10.75MHz	37.8 dB	> 38.0 dB	17.8 dB
3,6-7,8	DH	Pass	39.7 dB @ 94.00MHz	39.7 dB	> 19.2 dB	20.5 dB
3,6-5,4	DH	Pass	37.8 dB @ 96.00MHz	37.8 dB	> 19.0 dB	18.8 dB
3,6-1,2	DH	Pass	68.0 dB @ 5.65MHz	43.9 dB	> 43.6 dB	24.4 dB
5,4-7,8	DH	Pass	54.2 dB @ 9.25MHz	40.4 dB	> 39.3 dB	14.9 dB
5,4-3,6	DH	Pass	36.6 dB @ 83.75MHz	35.0 dB	> 20.2 dB	16.4 dB
5,4-1,2	DH	Pass	58.8 dB @ 6.85MHz	42.1 dB	> 41.9 dB	16.9 dB
1,2-7,8	DH	Pass	54.6 dB @ 12.85MHz	37.5 dB	> 36.4 dB	18.2 dB
1,2-3,6	DH	Pass	38.2 dB @ 98.00MHz	38.2 dB	> 18.8 dB	19.4 dB
1,2-5,4	DH	Pass	57.6 dB @ 8.35MHz	43.4 dB	> 40.2 dB	17.4 dB
7,8-3,6	RH	Pass	35.8 dB @ 84.00MHz	35.3 dB	> 20.1 dB	15.7 dB
7,8-5,4	RH	Pass	57.0 dB @ 6.70MHz	39.9 dB	> 42.1 dB	14.9 dB
7,8-1,2	RH	Pass	55.8 dB @ 10.75MHz	38.0 dB	> 38.0 dB	17.8 dB
3,6-7,8	RH	Pass	39.6 dB @ 94.00MHz	39.6 dB	> 19.2 dB	20.4 dB
3,6-5,4	RH	Pass	37.9 dB @ 96.00MHz	37.9 dB	> 19.0 dB	18.9 dB
3,6-1,2	RH	Pass	68.1 dB @ 5.65MHz	43.8 dB	> 43.6 dB	24.5 dB
5,4-7,8	RH	Pass	58.3 dB @ 5.65MHz	40.4 dB	> 43.6 dB	14.7 dB
5,4-3,6	RH	Pass	36.5 dB @ 83.75MHz	35.1 dB	> 20.2 dB	16.3 dB
5,4-1,2	RH	Pass	58.8 dB @ 6.55MHz	42.0 dB	> 42.3 dB	16.5 dB
1,2-7,8	RH	Pass	63.3 dB @ 4.75MHz	37.5 dB	> 45.1 dB	18.2 dB
1,2-3,6	RH	Pass	38.7 dB @ 90.25MHz	38.1 dB	> 19.5 dB	19.2 dB
1,2-5,4	RH	Pass	60.7 dB @ 5.80MHz	43.5 dB	> 43.3 dB	17.4 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	45.3 dB @ 35.50MHz	41.3 dB	> 36.6 dB	8.7 dB
3,6	DH	Pass	52.5 dB @ 7.30MHz	37.9 dB	> 47.7 dB	4.8 dB
5,4	DH	Pass	38.3 dB @ 61.75MHz	38.3 dB	> 32.7 dB	5.6 dB
1,2	DH	Pass	47.7 dB @ 42.75MHz	42.7 dB	> 35.3 dB	12.4 dB
7,8	RH	Pass	40.1 dB @ 63.25MHz	37.9 dB	> 32.6 dB	7.5 dB
3,6	RH	Pass	39.4 dB @ 63.00MHz	37.5 dB	> 32.6 dB	6.8 dB
5,4	RH	Pass	60.4 dB @ 4.60MHz	44.9 dB	> 50.8 dB	9.6 dB
1,2	RH	Pass	43.8 dB @ 69.25MHz	43.4 dB	> 31.9 dB	11.9 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	33.4 dB @ 83.50MHz	N/A	>= 11.6 dB	21.8 dB
3,6	DH	Pass	30.7 dB @ 72.75MHz	N/A	>= 14.0 dB	16.7 dB
5,4	DH	Pass	31.5 dB @ 61.75MHz	N/A	>= 16.6 dB	14.9 dB
1,2	DH	Pass	34.1 dB @ 98.50MHz	N/A	>= 8.6 dB	25.5 dB
7,8	RH	Pass	29.9 dB @ 86.25MHz	N/A	>= 11.1 dB	18.8 dB
3,6	RH	Pass	29.5 dB @ 86.50MHz	N/A	>= 10.9 dB	18.6 dB
5,4	RH	Pass	36.8 dB @ 87.00MHz	N/A	>= 10.9 dB	25.9 dB
1,2	RH	Pass	35.5 dB @ 83.50MHz	N/A	>= 11.6 dB	23.9 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	46.9 dB @ 18.40MHz	34.4 dB	>= 30.3 dB	16.6 dB
3,6	DH	Pass	32.4 dB @ 84.75MHz	31.5 dB	>= 17.1 dB	15.3 dB
5,4	DH	Pass	48.2 dB @ 15.10MHz	35.6 dB	>= 32.0 dB	16.2 dB
1,2	DH	Pass	56.1 dB @ 6.85MHz	36.3 dB	>= 38.9 dB	17.2 dB
7,8	RH	Pass	53.6 dB @ 7.90MHz	32.7 dB	>= 37.7 dB	15.9 dB
3,6	RH	Pass	35.6 dB @ 92.50MHz	35.4 dB	>= 16.3 dB	19.3 dB
5,4	RH	Pass	53.9 dB @ 7.45MHz	33.6 dB	>= 38.2 dB	15.7 dB
1,2	RH	Pass	57.2 dB @ 5.80MHz	34.5 dB	>= 40.3 dB	16.9 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

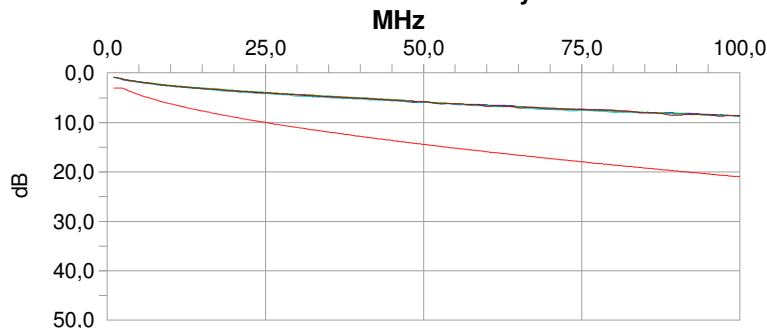
Cable ID 1: 2/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:04:35
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

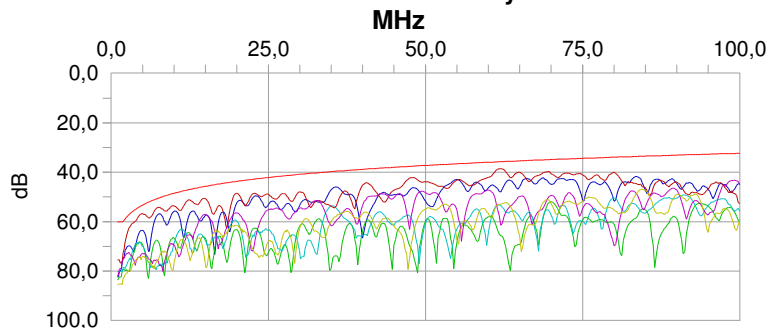
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

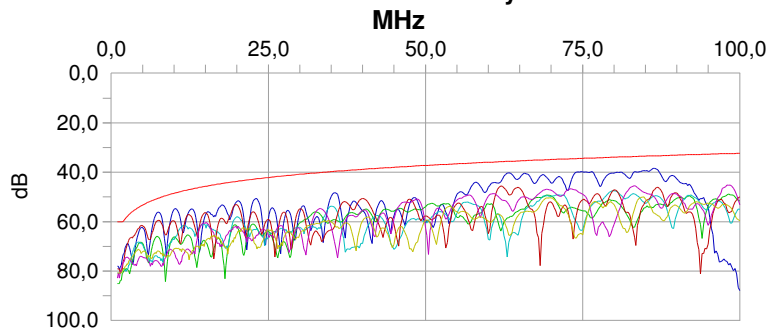
Attenuation Summary



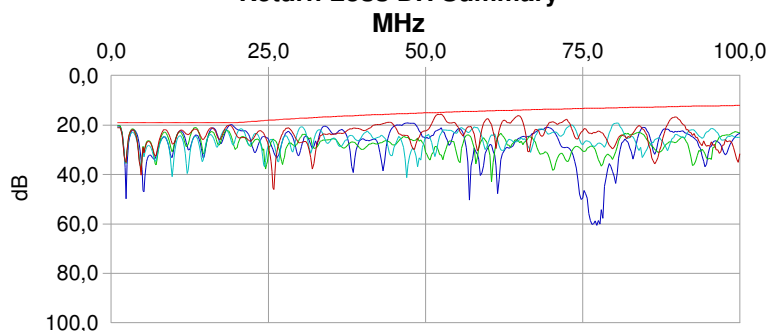
NEXT DH Summary



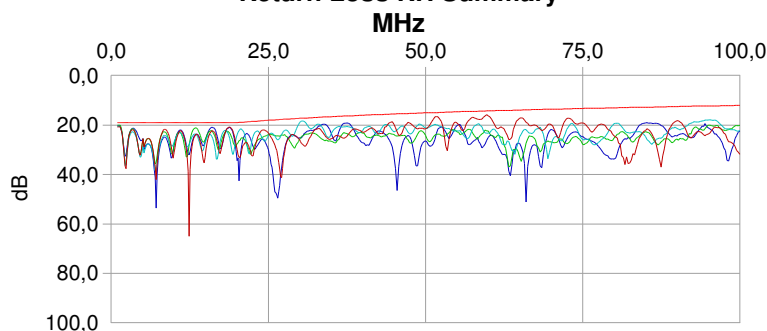
NEXT RH Summary



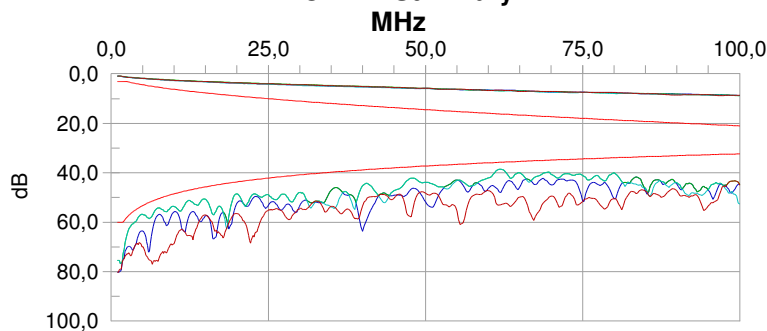
Return Loss DH Summary



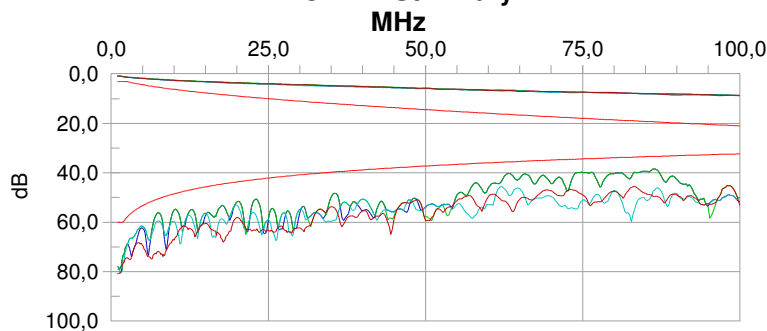
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 2/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:04:35
Adapter ID: 6014

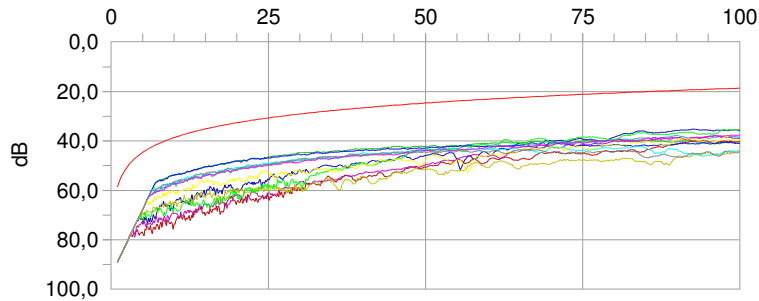
Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

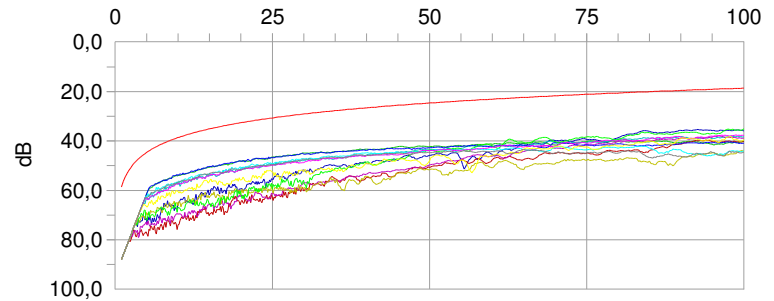
ELFEXT DH Summary

MHz



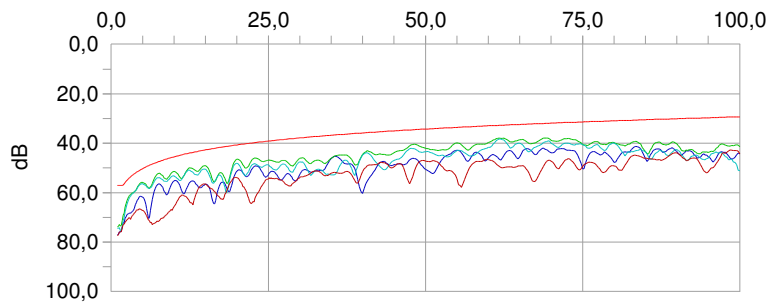
ELFEXT RH Summary

MHz



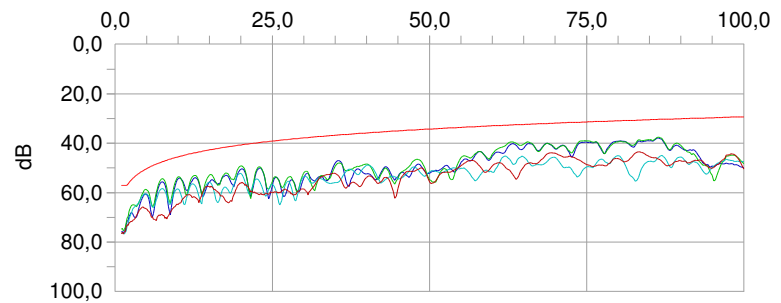
Power Sum NEXT DH Summary

MHz



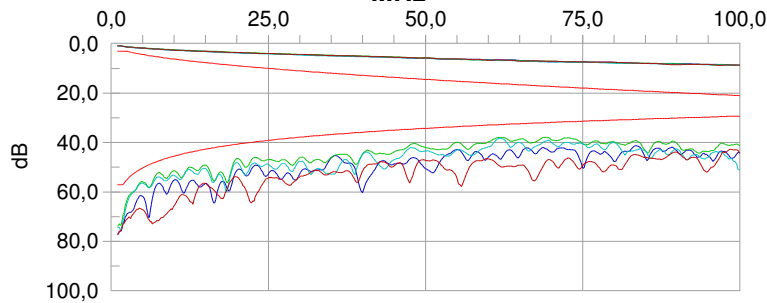
Power Sum NEXT RH Summary

MHz



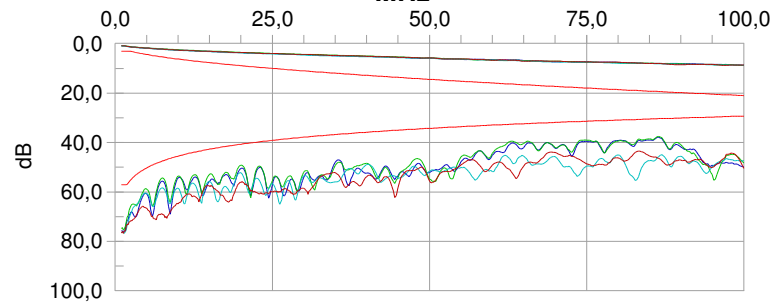
Power Sum ACR DH Summary

MHz



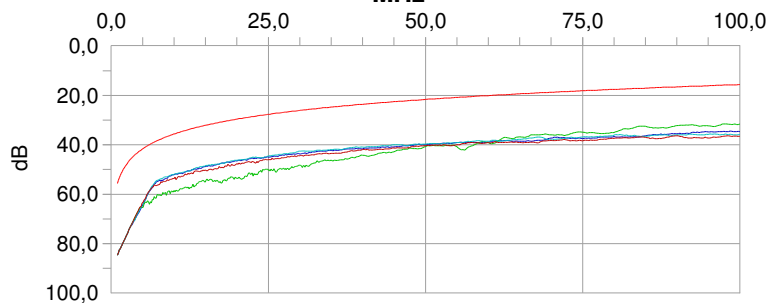
Power Sum ACR RH Summary

MHz



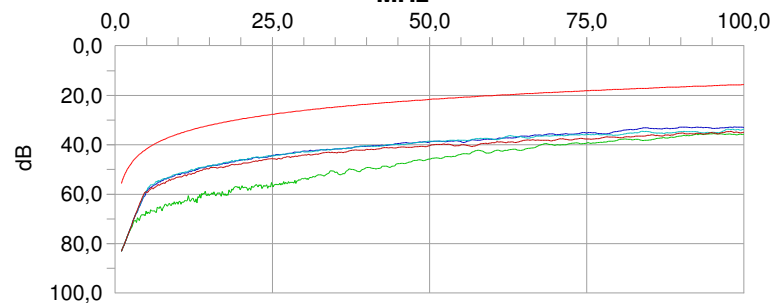
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

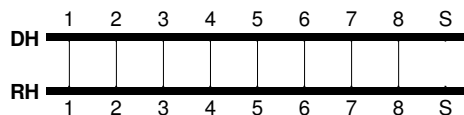
Cable ID 1: 2/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:43:30
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	63.3m	62.5m	61.9m	63.9m	< 90.0m	Pass
Prop. Delay	318.2ns	314.2ns	312.1ns	319.4ns	< 498.0ns	Pass
Delay Skew	7.3ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
Headroom	16.8 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	49.8 dB @ 17.80MHz	38.9 dB	> 44.5 dB	5.3 dB
7,8-5,4	DH	Pass	61.4 dB @ 14.80MHz	53.5 dB	> 45.8 dB	15.6 dB
7,8-1,2	DH	Pass	56.2 dB @ 14.80MHz	47.5 dB	> 45.8 dB	10.4 dB
3,6-5,4	DH	Pass	53.3 dB @ 8.65MHz	40.7 dB	> 49.5 dB	3.8 dB
3,6-1,2	DH	Pass	43.0 dB @ 97.75MHz	42.8 dB	> 32.5 dB	10.5 dB
5,4-1,2	DH	Pass	58.1 dB @ 10.30MHz	45.0 dB	> 48.3 dB	9.8 dB
7,8-3,6	RH	Pass	51.0 dB @ 17.80MHz	41.2 dB	> 44.5 dB	6.5 dB
7,8-5,4	RH	Pass	56.6 dB @ 20.05MHz	50.1 dB	> 43.7 dB	12.9 dB
7,8-1,2	RH	Pass	61.6 dB @ 8.50MHz	51.1 dB	> 49.6 dB	12.0 dB
3,6-5,4	RH	Pass	48.1 dB @ 30.85MHz	45.3 dB	> 40.6 dB	7.5 dB
3,6-1,2	RH	Pass	63.7 dB @ 13.30MHz	51.1 dB	> 46.5 dB	17.2 dB
5,4-1,2	RH	Pass	54.2 dB @ 14.65MHz	46.6 dB	> 45.8 dB	8.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.1 dB @ 2.35MHz	24.1 dB	> 19.0 dB	5.1 dB
3,6	DH	Pass	23.0 dB @ 2.35MHz	22.7 dB	> 19.0 dB	4.0 dB
5,4	DH	Pass	22.5 dB @ 18.10MHz	22.4 dB	> 19.0 dB	3.5 dB
1,2	DH	Pass	25.1 dB @ 2.35MHz	23.3 dB	> 19.0 dB	6.1 dB
7,8	RH	Pass	23.0 dB @ 2.20MHz	23.0 dB	> 19.0 dB	4.0 dB
3,6	RH	Pass	22.1 dB @ 2.35MHz	22.1 dB	> 19.0 dB	3.1 dB
5,4	RH	Pass	21.7 dB @ 18.10MHz	21.7 dB	> 19.0 dB	2.7 dB
1,2	RH	Pass	23.7 dB @ 2.20MHz	22.2 dB	> 19.0 dB	4.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.8 dB @ 2.50MHz	12.9 dB	< 3.1 dB	1.3 dB
3,6	Pass	1.7 dB @ 2.50MHz	12.8 dB	< 3.1 dB	1.4 dB
5,4	Pass	1.8 dB @ 2.50MHz	12.5 dB	< 3.1 dB	1.3 dB
1,2	Pass	1.8 dB @ 2.50MHz	13.1 dB	< 3.1 dB	1.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	26.2 dB @ 96.75MHz	N/A	>= 11.9 dB	14.3 dB
3,6	DH	Pass	26.4 dB @ 96.25MHz	N/A	>= 12.1 dB	14.3 dB
5,4	DH	Pass	30.0 dB @ 78.00MHz	N/A	>= 15.8 dB	14.2 dB
1,2	DH	Pass	29.7 dB @ 100.00MHz	N/A	>= 11.3 dB	18.4 dB
7,8	RH	Pass	28.8 dB @ 93.00MHz	N/A	>= 12.6 dB	16.2 dB
3,6	RH	Pass	28.9 dB @ 96.25MHz	N/A	>= 12.1 dB	16.8 dB
5,4	RH	Pass	34.2 dB @ 81.25MHz	N/A	>= 15.1 dB	19.1 dB
1,2	RH	Pass	35.6 dB @ 73.75MHz	N/A	>= 16.7 dB	18.9 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 2/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:43:30
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	32.0 dB @ 95.75MHz	31.8 dB	> 19.0 dB	13.0 dB
7,8-5,4	DH	Pass	54.2 dB @ 8.35MHz	40.4 dB	> 40.2 dB	14.0 dB
7,8-1,2	DH	Pass	36.0 dB @ 86.50MHz	35.1 dB	> 19.9 dB	16.1 dB
3,6-7,8	DH	Pass	36.7 dB @ 92.75MHz	36.4 dB	> 19.3 dB	17.4 dB
3,6-5,4	DH	Pass	51.0 dB @ 8.65MHz	31.5 dB	> 39.9 dB	11.1 dB
3,6-1,2	DH	Pass	40.7 dB @ 76.25MHz	38.5 dB	> 21.0 dB	19.7 dB
5,4-7,8	DH	Pass	52.2 dB @ 9.55MHz	39.6 dB	> 39.0 dB	13.2 dB
5,4-3,6	DH	Pass	45.2 dB @ 10.15MHz	28.3 dB	> 38.5 dB	6.7 dB
5,4-1,2	DH	Pass	54.7 dB @ 8.65MHz	40.7 dB	> 39.9 dB	14.8 dB
1,2-7,8	DH	Pass	35.6 dB @ 88.25MHz	34.8 dB	> 19.7 dB	15.9 dB
1,2-3,6	DH	Pass	35.1 dB @ 82.25MHz	33.8 dB	> 20.3 dB	14.8 dB
1,2-5,4	DH	Pass	57.0 dB @ 7.15MHz	41.5 dB	> 41.5 dB	15.5 dB
7,8-3,6	RH	Pass	31.9 dB @ 95.75MHz	31.7 dB	> 19.0 dB	12.9 dB
7,8-5,4	RH	Pass	57.2 dB @ 5.65MHz	40.1 dB	> 43.6 dB	13.6 dB
7,8-1,2	RH	Pass	36.2 dB @ 86.50MHz	35.3 dB	> 19.9 dB	16.3 dB
3,6-7,8	RH	Pass	36.9 dB @ 92.75MHz	36.5 dB	> 19.3 dB	17.6 dB
3,6-5,4	RH	Pass	52.5 dB @ 7.15MHz	31.2 dB	> 41.5 dB	11.0 dB
3,6-1,2	RH	Pass	40.8 dB @ 76.25MHz	38.8 dB	> 21.0 dB	19.8 dB
5,4-7,8	RH	Pass	52.3 dB @ 9.55MHz	39.9 dB	> 39.0 dB	13.3 dB
5,4-3,6	RH	Pass	46.7 dB @ 8.20MHz	28.6 dB	> 40.3 dB	6.4 dB
5,4-1,2	RH	Pass	54.9 dB @ 8.65MHz	41.4 dB	> 39.9 dB	15.0 dB
1,2-7,8	RH	Pass	35.4 dB @ 88.75MHz	34.6 dB	> 19.7 dB	15.7 dB
1,2-3,6	RH	Pass	34.9 dB @ 82.25MHz	33.5 dB	> 20.3 dB	14.6 dB
1,2-5,4	RH	Pass	57.6 dB @ 6.40MHz	40.9 dB	> 42.5 dB	15.1 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	45.7 dB @ 31.00MHz	38.8 dB	> 37.6 dB	8.1 dB
3,6	DH	Pass	42.7 dB @ 30.85MHz	36.8 dB	> 37.6 dB	5.1 dB
5,4	DH	Pass	53.0 dB @ 8.65MHz	39.8 dB	> 46.5 dB	6.5 dB
1,2	DH	Pass	44.0 dB @ 53.00MHz	40.8 dB	> 33.8 dB	10.2 dB
7,8	RH	Pass	50.7 dB @ 17.80MHz	40.9 dB	> 41.5 dB	9.2 dB
3,6	RH	Pass	50.4 dB @ 17.95MHz	40.3 dB	> 41.4 dB	9.0 dB
5,4	RH	Pass	64.6 dB @ 2.50MHz	43.9 dB	> 55.0 dB	9.6 dB
1,2	RH	Pass	53.1 dB @ 14.80MHz	46.0 dB	> 42.8 dB	10.3 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	26.1 dB @ 96.75MHz	N/A	>= 8.9 dB	17.2 dB
3,6	DH	Pass	24.3 dB @ 96.75MHz	N/A	>= 8.9 dB	15.4 dB
5,4	DH	Pass	28.9 dB @ 78.25MHz	N/A	>= 12.8 dB	16.1 dB
1,2	DH	Pass	27.8 dB @ 98.75MHz	N/A	>= 8.6 dB	19.2 dB
7,8	RH	Pass	28.5 dB @ 93.00MHz	N/A	>= 9.6 dB	18.9 dB
3,6	RH	Pass	28.1 dB @ 93.00MHz	N/A	>= 9.6 dB	18.5 dB
5,4	RH	Pass	32.9 dB @ 99.50MHz	N/A	>= 8.4 dB	24.5 dB
1,2	RH	Pass	34.9 dB @ 74.00MHz	N/A	>= 13.7 dB	21.2 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	47.5 dB @ 14.65MHz	32.0 dB	>= 32.3 dB	15.2 dB
3,6	DH	Pass	29.1 dB @ 62.75MHz	26.3 dB	>= 19.7 dB	9.4 dB
5,4	DH	Pass	48.7 dB @ 8.35MHz	30.7 dB	>= 37.2 dB	11.5 dB
1,2	DH	Pass	52.1 dB @ 9.70MHz	32.9 dB	>= 35.9 dB	16.2 dB
7,8	RH	Pass	30.1 dB @ 95.75MHz	29.8 dB	>= 16.0 dB	14.1 dB
3,6	RH	Pass	31.1 dB @ 82.75MHz	29.5 dB	>= 17.3 dB	13.8 dB
5,4	RH	Pass	45.6 dB @ 8.20MHz	28.4 dB	>= 37.3 dB	8.3 dB
1,2	RH	Pass	30.9 dB @ 94.75MHz	30.5 dB	>= 16.1 dB	14.8 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

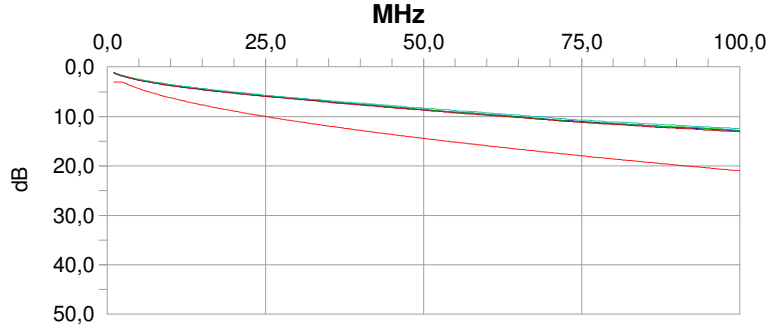
Cable ID 1: 2/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:43:30
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

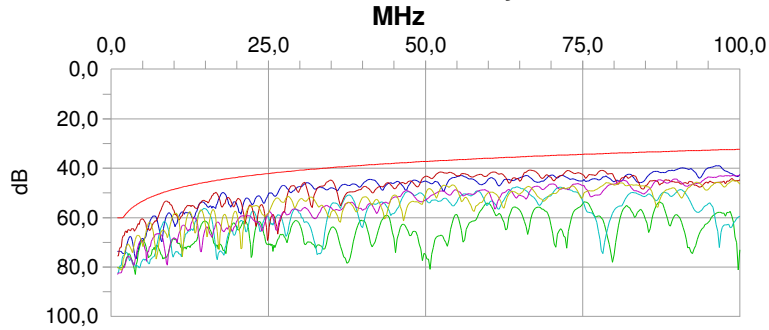
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

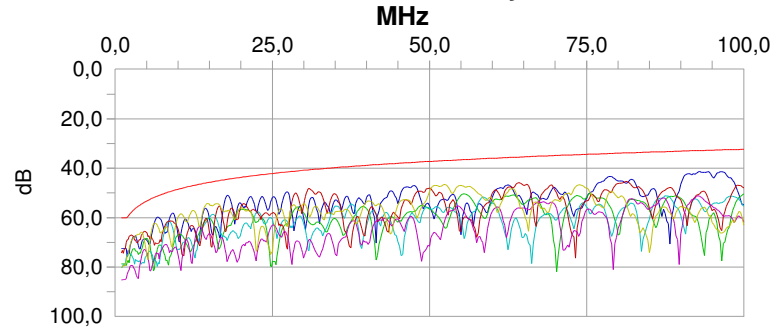
Attenuation Summary



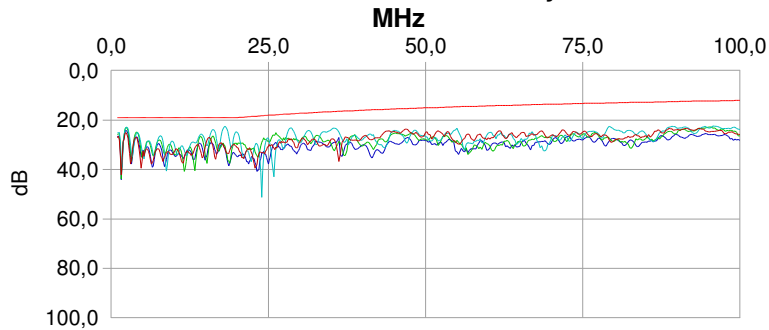
NEXT DH Summary



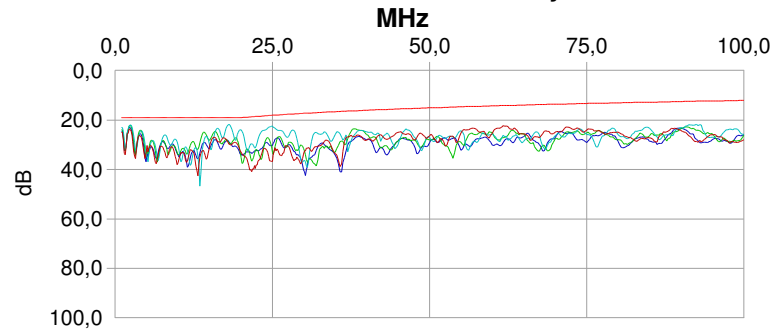
NEXT RH Summary



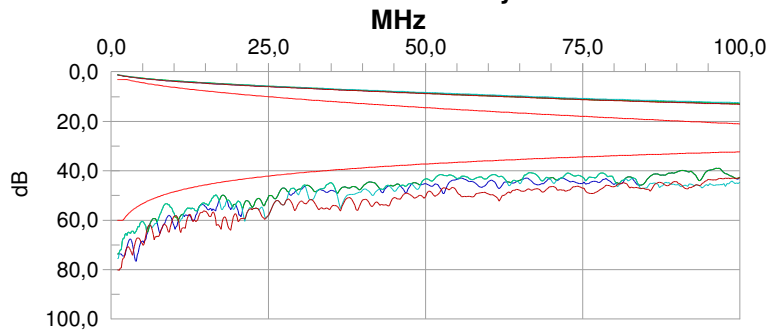
Return Loss DH Summary



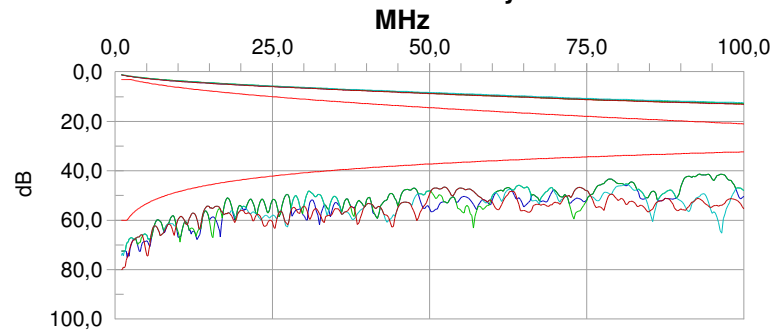
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

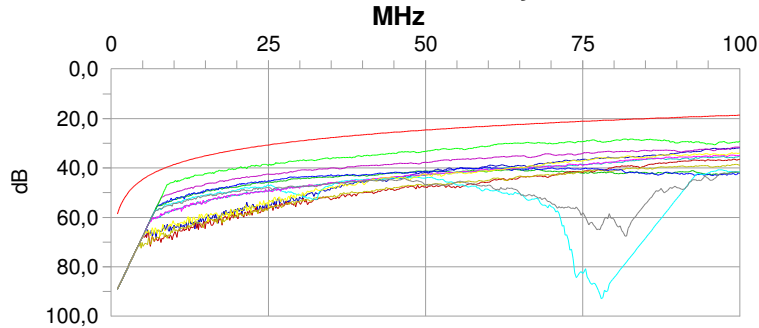
Cable ID 1: 2/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:43:30
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

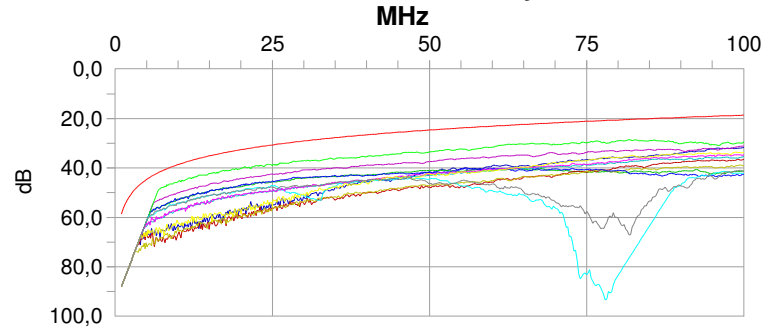
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

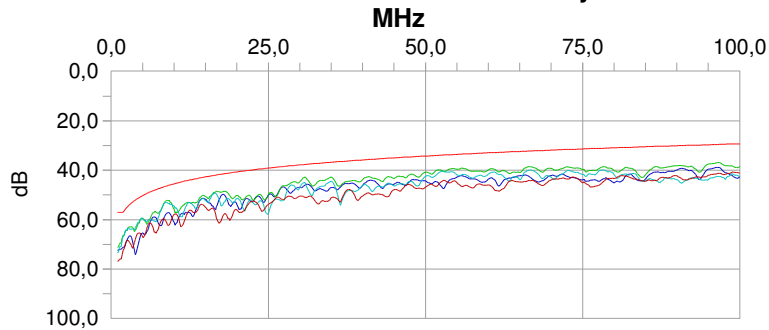
ELFEXT DH Summary



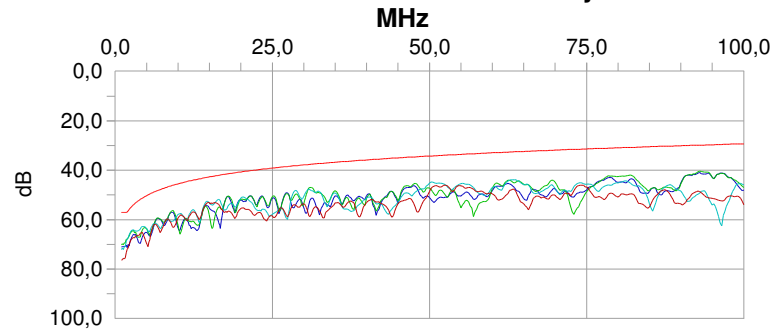
ELFEXT RH Summary



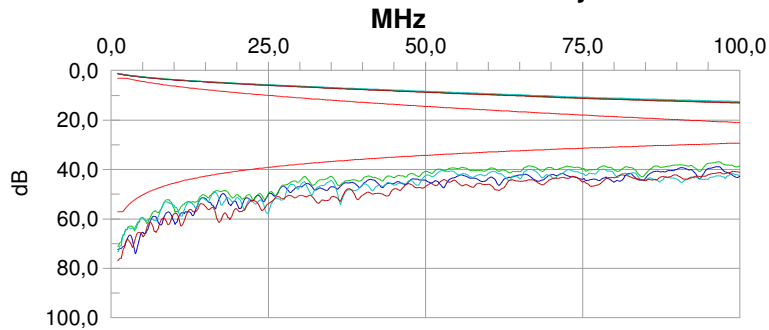
Power Sum NEXT DH Summary



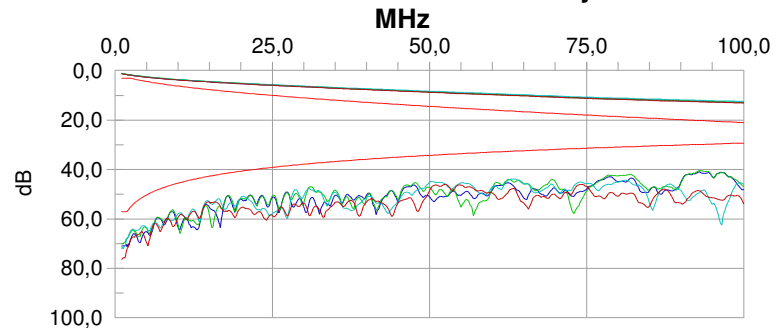
Power Sum NEXT RH Summary



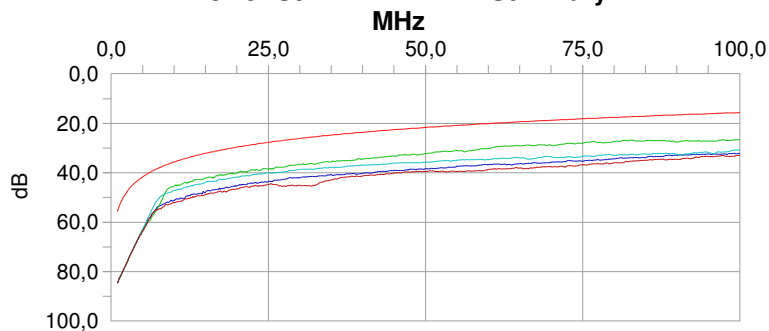
Power Sum ACR DH Summary



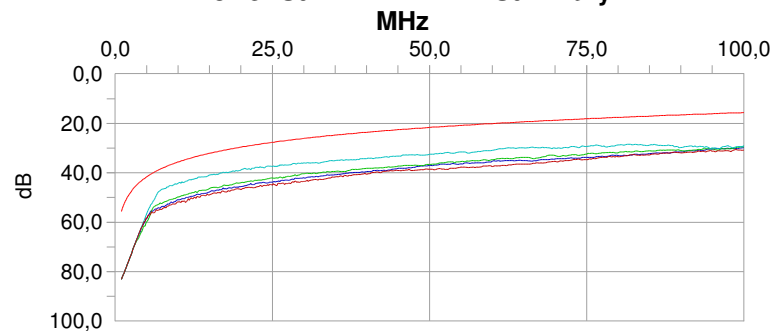
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

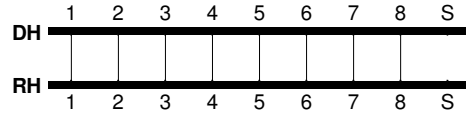
Cable ID 1: 3/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:10:03
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	23.1m	23.3m	23.6m	23.6m	< 90.0m	Pass
Prop. Delay	127.6ns	128.3ns	130.3ns	128.3ns	< 498.0ns	Pass
Delay Skew	2.7ns (Pairs 5,4 vs. 7,8)				< 44.0 ns	Pass
Headroom	16.2 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	43.6 dB @ 56.50MHz	42.7 dB	> 36.4 dB	7.2 dB
7,8-5,4	DH	Pass	53.5 dB @ 72.75MHz	53.1 dB	> 34.6 dB	18.9 dB
7,8-1,2	DH	Pass	45.9 dB @ 75.75MHz	45.9 dB	> 34.3 dB	11.6 dB
3,6-5,4	DH	Pass	43.6 dB @ 39.00MHz	40.3 dB	> 39.0 dB	4.6 dB
3,6-1,2	DH	Pass	47.2 dB @ 60.50MHz	45.9 dB	> 35.9 dB	11.3 dB
5,4-1,2	DH	Pass	50.6 dB @ 43.00MHz	46.1 dB	> 38.3 dB	12.3 dB
7,8-3,6	RH	Pass	42.5 dB @ 56.25MHz	41.5 dB	> 36.4 dB	6.1 dB
7,8-5,4	RH	Pass	54.4 dB @ 52.00MHz	53.9 dB	> 37.0 dB	17.4 dB
7,8-1,2	RH	Pass	47.8 dB @ 51.75MHz	46.2 dB	> 37.0 dB	10.8 dB
3,6-5,4	RH	Pass	59.2 dB @ 9.10MHz	46.8 dB	> 49.1 dB	10.1 dB
3,6-1,2	RH	Pass	49.5 dB @ 68.75MHz	49.5 dB	> 35.0 dB	14.5 dB
5,4-1,2	RH	Pass	55.9 dB @ 17.65MHz	45.5 dB	> 44.5 dB	11.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	17.8 dB @ 1.60MHz	17.8 dB	> 19.0 dB	-1.2 dB
3,6	DH	Pass	18.2 dB @ 1.60MHz	18.2 dB	> 19.0 dB	-0.8 dB
5,4	DH	Pass	19.1 dB @ 1.60MHz	19.1 dB	> 19.0 dB	0.1 dB
1,2	DH	Pass	18.3 dB @ 1.60MHz	16.3 dB	> 19.0 dB	-0.7 dB
7,8	RH	Pass	17.6 dB @ 1.60MHz	17.6 dB	> 19.0 dB	-1.4 dB
3,6	RH	Pass	17.8 dB @ 1.60MHz	17.8 dB	> 19.0 dB	-1.2 dB
5,4	RH	Pass	19.3 dB @ 1.60MHz	19.3 dB	> 19.0 dB	0.3 dB
1,2	RH	Pass	18.0 dB @ 1.60MHz	16.0 dB	> 19.0 dB	-1.0 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.0 dB @ 2.50MHz	5.8 dB	< 3.1 dB	2.1 dB
3,6	Pass	1.0 dB @ 2.50MHz	5.7 dB	< 3.1 dB	2.1 dB
5,4	Pass	1.0 dB @ 2.50MHz	5.9 dB	< 3.1 dB	2.1 dB
1,2	Pass	1.0 dB @ 2.50MHz	5.8 dB	< 3.1 dB	2.1 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	37.0 dB @ 97.25MHz	N/A	>= 11.8 dB	25.2 dB
3,6	DH	Pass	35.4 dB @ 86.75MHz	N/A	>= 13.9 dB	21.5 dB
5,4	DH	Pass	35.2 dB @ 86.75MHz	N/A	>= 13.9 dB	21.3 dB
1,2	DH	Pass	40.3 dB @ 98.25MHz	N/A	>= 11.6 dB	28.7 dB
7,8	RH	Pass	35.8 dB @ 98.00MHz	N/A	>= 11.7 dB	24.1 dB
3,6	RH	Pass	35.9 dB @ 98.00MHz	N/A	>= 11.7 dB	24.2 dB
5,4	RH	Pass	39.7 dB @ 94.50MHz	N/A	>= 12.4 dB	27.3 dB
1,2	RH	Pass	40.0 dB @ 94.50MHz	N/A	>= 12.4 dB	27.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 3/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:10:03
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	42.2 dB @ 79.50MHz	41.4 dB	> 20.6 dB	21.6 dB
7,8-5,4	DH	Pass	54.0 dB @ 8.50MHz	35.8 dB	> 40.0 dB	14.0 dB
7,8-1,2	DH	Pass	67.5 dB @ 7.15MHz	47.1 dB	> 41.5 dB	26.0 dB
3,6-7,8	DH	Pass	44.9 dB @ 90.75MHz	44.9 dB	> 19.5 dB	25.4 dB
3,6-5,4	DH	Pass	58.8 dB @ 8.35MHz	40.0 dB	> 40.2 dB	18.6 dB
3,6-1,2	DH	Pass	54.2 dB @ 8.05MHz	34.6 dB	> 40.5 dB	13.7 dB
5,4-7,8	DH	Pass	54.5 dB @ 7.90MHz	36.2 dB	> 40.7 dB	13.8 dB
5,4-3,6	DH	Pass	53.9 dB @ 8.35MHz	34.6 dB	> 40.2 dB	13.7 dB
5,4-1,2	DH	Pass	43.5 dB @ 64.25MHz	41.0 dB	> 22.5 dB	21.0 dB
1,2-7,8	DH	Pass	61.3 dB @ 13.75MHz	46.2 dB	> 35.8 dB	25.5 dB
1,2-3,6	DH	Pass	49.3 dB @ 8.65MHz	29.4 dB	> 39.9 dB	9.4 dB
1,2-5,4	DH	Pass	47.0 dB @ 44.75MHz	41.0 dB	> 25.6 dB	21.4 dB
7,8-3,6	RH	Pass	42.1 dB @ 79.50MHz	41.2 dB	> 20.6 dB	21.5 dB
7,8-5,4	RH	Pass	54.1 dB @ 8.50MHz	35.9 dB	> 40.0 dB	14.1 dB
7,8-1,2	RH	Pass	67.5 dB @ 7.15MHz	47.1 dB	> 41.5 dB	26.0 dB
3,6-7,8	RH	Pass	45.2 dB @ 90.75MHz	45.2 dB	> 19.5 dB	25.7 dB
3,6-5,4	RH	Pass	64.0 dB @ 4.60MHz	40.2 dB	> 45.4 dB	18.6 dB
3,6-1,2	RH	Pass	54.3 dB @ 8.05MHz	34.6 dB	> 40.5 dB	13.8 dB
5,4-7,8	RH	Pass	54.4 dB @ 7.90MHz	36.0 dB	> 40.7 dB	13.7 dB
5,4-3,6	RH	Pass	53.7 dB @ 8.35MHz	34.4 dB	> 40.2 dB	13.5 dB
5,4-1,2	RH	Pass	43.4 dB @ 64.25MHz	40.8 dB	> 22.5 dB	20.9 dB
1,2-7,8	RH	Pass	61.3 dB @ 13.75MHz	46.4 dB	> 35.8 dB	25.5 dB
1,2-3,6	RH	Pass	48.9 dB @ 8.35MHz	29.3 dB	> 40.2 dB	8.7 dB
1,2-5,4	RH	Pass	47.2 dB @ 44.75MHz	41.2 dB	> 25.6 dB	21.6 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	42.8 dB @ 56.50MHz	42.0 dB	> 33.4 dB	9.4 dB
3,6	DH	Pass	39.4 dB @ 60.75MHz	38.9 dB	> 32.9 dB	6.5 dB
5,4	DH	Pass	43.5 dB @ 39.00MHz	40.0 dB	> 36.0 dB	7.5 dB
1,2	DH	Pass	43.4 dB @ 74.50MHz	43.4 dB	> 31.4 dB	12.0 dB
7,8	RH	Pass	41.4 dB @ 56.50MHz	41.0 dB	> 33.4 dB	8.0 dB
3,6	RH	Pass	44.8 dB @ 37.00MHz	41.1 dB	> 36.4 dB	8.4 dB
5,4	RH	Pass	53.4 dB @ 18.10MHz	44.6 dB	> 41.4 dB	12.0 dB
1,2	RH	Pass	47.8 dB @ 43.00MHz	43.6 dB	> 35.3 dB	12.5 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	36.6 dB @ 83.75MHz	N/A	>= 11.6 dB	25.0 dB
3,6	DH	Pass	33.9 dB @ 86.75MHz	N/A	>= 10.9 dB	23.0 dB
5,4	DH	Pass	34.7 dB @ 86.75MHz	N/A	>= 10.9 dB	23.8 dB
1,2	DH	Pass	37.9 dB @ 93.75MHz	N/A	>= 9.6 dB	28.3 dB
7,8	RH	Pass	35.6 dB @ 84.50MHz	N/A	>= 11.4 dB	24.2 dB
3,6	RH	Pass	35.5 dB @ 98.00MHz	N/A	>= 8.7 dB	26.8 dB
5,4	RH	Pass	38.9 dB @ 94.50MHz	N/A	>= 9.4 dB	29.5 dB
1,2	RH	Pass	38.1 dB @ 94.50MHz	N/A	>= 9.4 dB	28.7 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.2 dB @ 13.75MHz	35.3 dB	>= 32.8 dB	16.4 dB
3,6	DH	Pass	47.5 dB @ 8.95MHz	28.1 dB	>= 36.6 dB	10.9 dB
5,4	DH	Pass	53.1 dB @ 7.75MHz	33.5 dB	>= 37.8 dB	15.3 dB
1,2	DH	Pass	53.4 dB @ 8.05MHz	33.5 dB	>= 37.5 dB	15.9 dB
7,8	RH	Pass	53.4 dB @ 8.65MHz	34.6 dB	>= 36.9 dB	16.5 dB
3,6	RH	Pass	49.2 dB @ 12.70MHz	33.3 dB	>= 33.5 dB	15.7 dB
5,4	RH	Pass	50.6 dB @ 8.35MHz	31.7 dB	>= 37.2 dB	13.4 dB
1,2	RH	Pass	49.2 dB @ 8.20MHz	28.9 dB	>= 37.3 dB	11.9 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

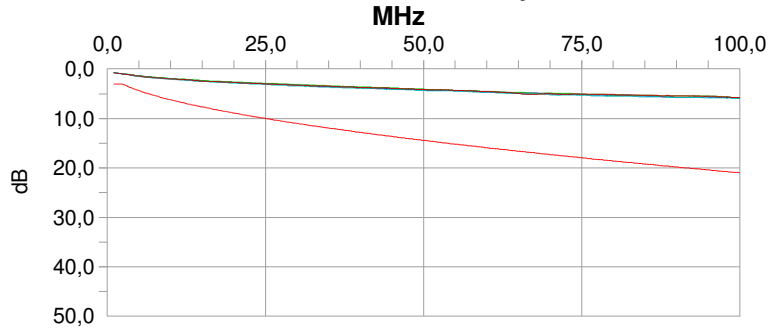
Cable ID 1: 3/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:10:03
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

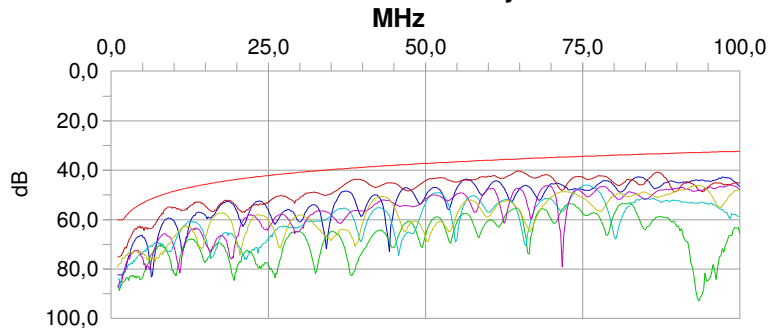
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

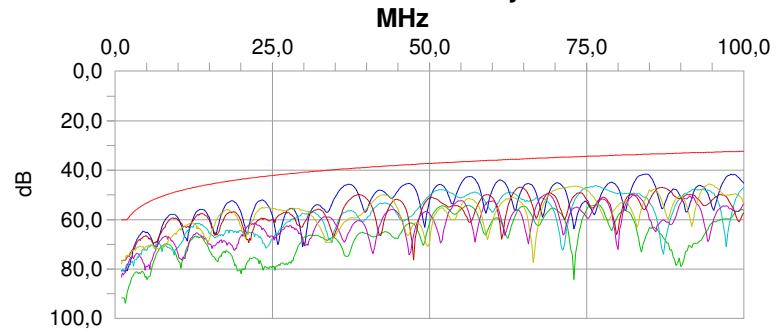
Attenuation Summary



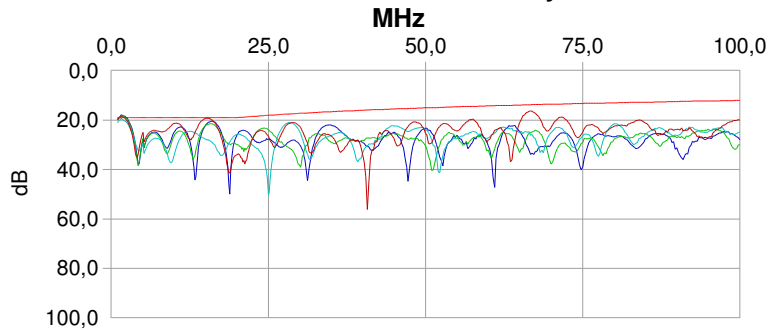
NEXT DH Summary



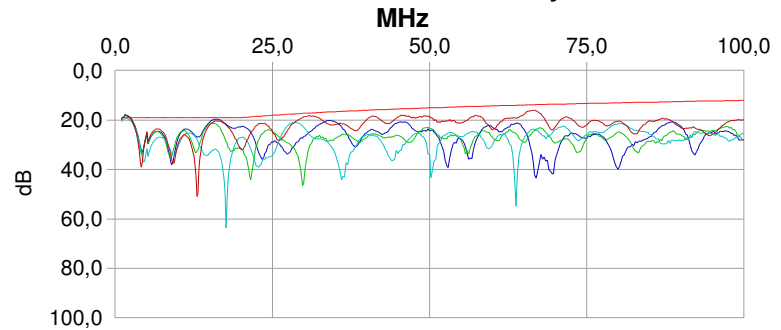
NEXT RH Summary



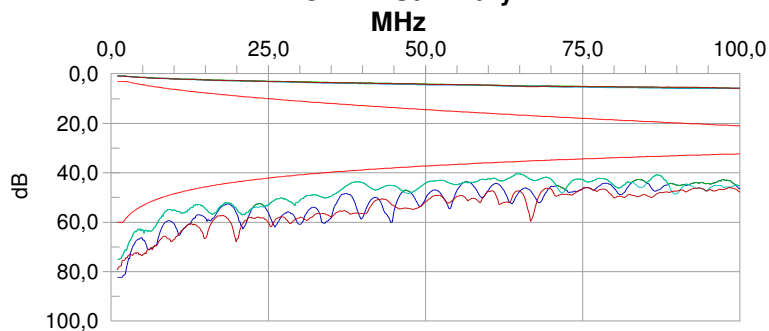
Return Loss DH Summary



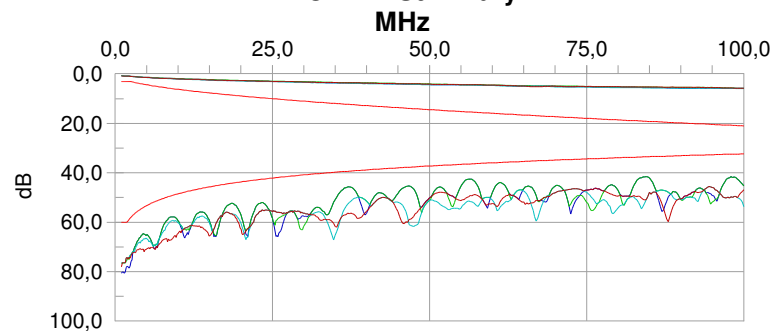
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

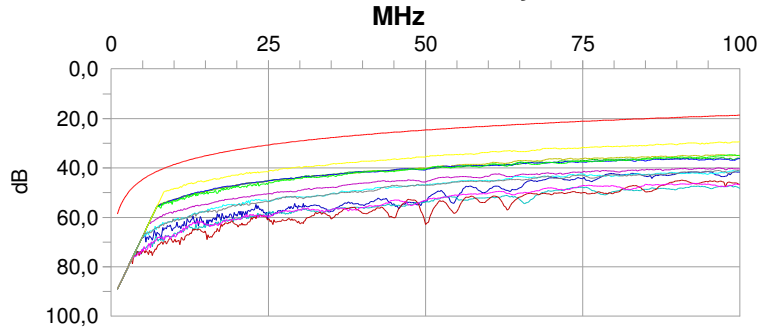
Cable ID 1: 3/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:10:03
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

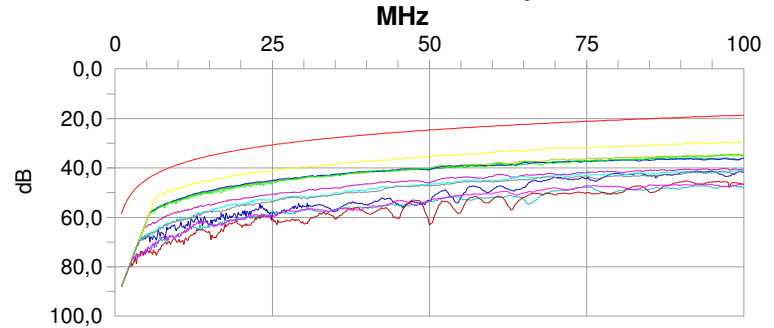
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

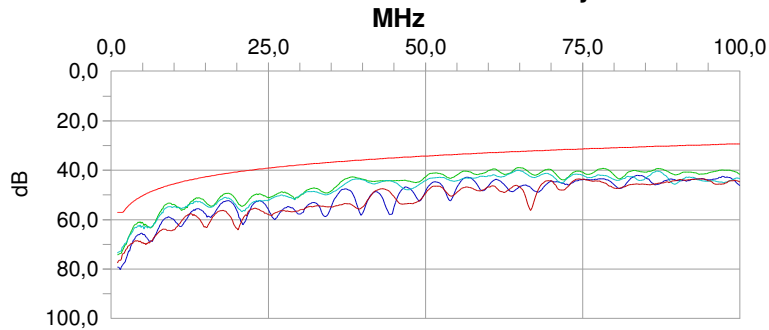
ELFEXT DH Summary



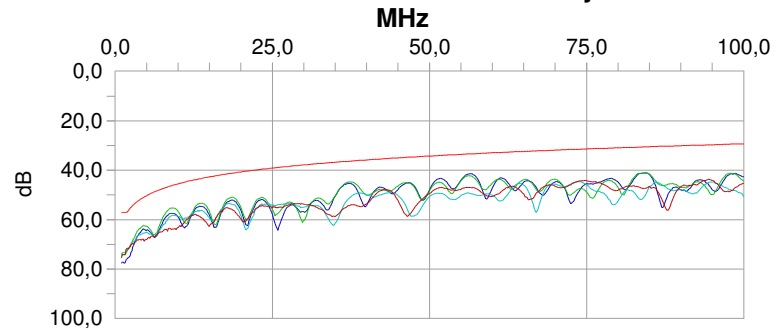
ELFEXT RH Summary



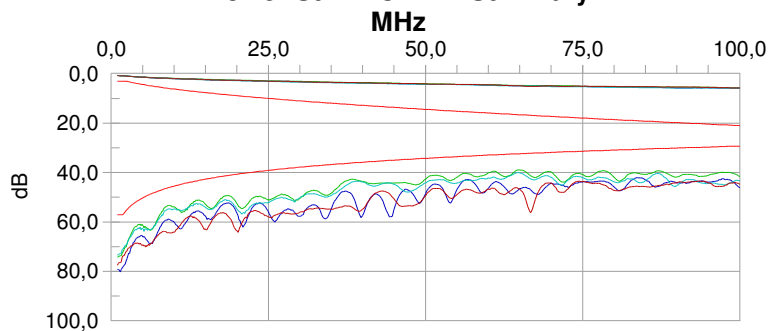
Power Sum NEXT DH Summary



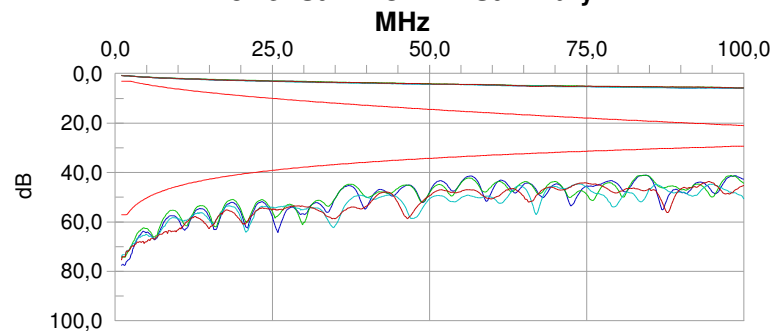
Power Sum NEXT RH Summary



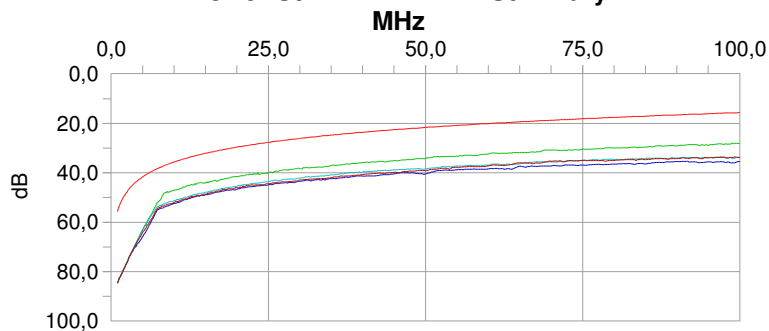
Power Sum ACR DH Summary



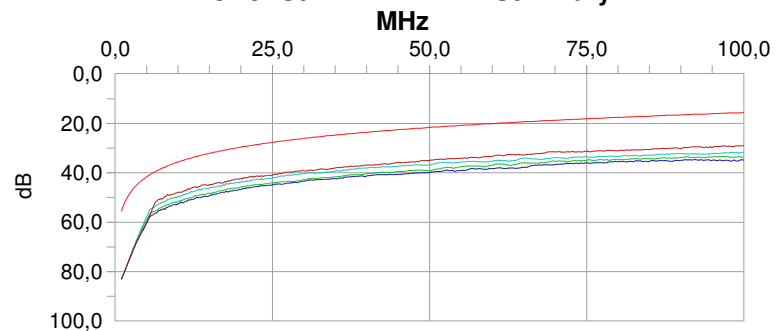
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

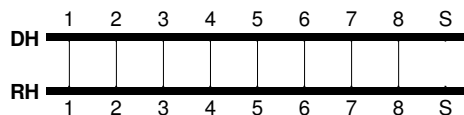
Cable ID 1: 3/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 17:58:05
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	20.7m	21.2m	21.3m	21.0m	< 90.0m	Pass
Prop. Delay	116.2ns	118.3ns	119.7ns	116.2ns	< 498.0ns	Pass
Delay Skew	3.5ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	14.6 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	39.8 dB @ 98.50MHz	39.8 dB	> 32.4 dB	7.4 dB
7,8-5,4	DH	Pass	53.7 dB @ 60.00MHz	53.7 dB	> 35.9 dB	17.8 dB
7,8-1,2	DH	Pass	43.6 dB @ 69.75MHz	43.6 dB	> 34.9 dB	8.7 dB
3,6-5,4	DH	Pass	51.2 dB @ 12.40MHz	39.4 dB	> 47.0 dB	4.2 dB
3,6-1,2	DH	Pass	43.3 dB @ 43.50MHz	39.0 dB	> 38.2 dB	5.1 dB
5,4-1,2	DH	Pass	58.2 dB @ 12.10MHz	48.2 dB	> 47.2 dB	11.0 dB
7,8-3,6	RH	Pass	57.8 dB @ 8.65MHz	42.0 dB	> 49.5 dB	8.3 dB
7,8-5,4	RH	Pass	50.7 dB @ 69.25MHz	49.8 dB	> 34.9 dB	15.8 dB
7,8-1,2	RH	Pass	43.5 dB @ 72.00MHz	43.5 dB	> 34.6 dB	8.9 dB
3,6-5,4	RH	Pass	52.2 dB @ 12.55MHz	40.3 dB	> 46.9 dB	5.3 dB
3,6-1,2	RH	Pass	47.3 dB @ 44.50MHz	44.2 dB	> 38.1 dB	9.2 dB
5,4-1,2	RH	Pass	57.7 dB @ 12.10MHz	45.0 dB	> 47.2 dB	10.5 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	20.5 dB @ 1.60MHz	20.5 dB	> 19.0 dB	1.5 dB
3,6	DH	Pass	21.9 dB @ 1.60MHz	19.1 dB	> 19.0 dB	2.9 dB
5,4	DH	Pass	16.2 dB @ 47.25MHz	16.2 dB	> 15.3 dB	0.9 dB
1,2	DH	Pass	17.4 dB @ 58.25MHz	17.3 dB	> 14.4 dB	3.0 dB
7,8	RH	Pass	20.3 dB @ 1.60MHz	20.3 dB	> 19.0 dB	1.3 dB
3,6	RH	Pass	21.4 dB @ 1.60MHz	20.0 dB	> 19.0 dB	2.4 dB
5,4	RH	Pass	16.5 dB @ 46.75MHz	16.5 dB	> 15.3 dB	1.2 dB
1,2	RH	Pass	17.2 dB @ 44.75MHz	17.2 dB	> 15.5 dB	1.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 2.50MHz	4.2 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.7 dB @ 2.50MHz	4.7 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.7 dB @ 2.50MHz	4.4 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.50MHz	4.3 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	35.6 dB @ 98.50MHz	N/A	>= 11.6 dB	24.0 dB
3,6	DH	Pass	34.7 dB @ 100.00MHz	N/A	>= 11.3 dB	23.4 dB
5,4	DH	Pass	35.2 dB @ 83.25MHz	N/A	>= 14.6 dB	20.6 dB
1,2	DH	Pass	34.7 dB @ 100.00MHz	N/A	>= 11.3 dB	23.4 dB
7,8	RH	Pass	37.8 dB @ 99.50MHz	N/A	>= 11.4 dB	26.4 dB
3,6	RH	Pass	36.1 dB @ 99.50MHz	N/A	>= 11.4 dB	24.7 dB
5,4	RH	Pass	36.0 dB @ 99.50MHz	N/A	>= 11.4 dB	24.6 dB
1,2	RH	Pass	39.8 dB @ 72.00MHz	N/A	>= 17.1 dB	22.7 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 3/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 17:58:05
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	37.8 dB @ 96.75MHz	37.8 dB	> 18.9 dB	18.9 dB
7,8-5,4	DH	Pass	56.7 dB @ 9.25MHz	40.7 dB	> 39.3 dB	17.4 dB
7,8-1,2	DH	Pass	49.1 dB @ 8.65MHz	28.7 dB	> 39.9 dB	9.2 dB
3,6-7,8	DH	Pass	44.3 dB @ 95.00MHz	44.2 dB	> 19.1 dB	25.2 dB
3,6-5,4	DH	Pass	50.8 dB @ 8.95MHz	31.5 dB	> 39.6 dB	11.2 dB
3,6-1,2	DH	Pass	45.6 dB @ 95.00MHz	45.5 dB	> 19.1 dB	26.5 dB
5,4-7,8	DH	Pass	57.2 dB @ 8.20MHz	40.8 dB	> 40.3 dB	16.9 dB
5,4-3,6	DH	Pass	46.4 dB @ 9.10MHz	27.7 dB	> 39.4 dB	7.0 dB
5,4-1,2	DH	Pass	64.9 dB @ 5.80MHz	44.7 dB	> 43.3 dB	21.6 dB
1,2-7,8	DH	Pass	49.2 dB @ 8.65MHz	28.3 dB	> 39.9 dB	9.3 dB
1,2-3,6	DH	Pass	44.2 dB @ 98.50MHz	44.2 dB	> 18.7 dB	25.5 dB
1,2-5,4	DH	Pass	60.8 dB @ 9.55MHz	43.9 dB	> 39.0 dB	21.8 dB
7,8-3,6	RH	Pass	38.0 dB @ 96.75MHz	37.9 dB	> 18.9 dB	19.1 dB
7,8-5,4	RH	Pass	53.6 dB @ 13.30MHz	40.9 dB	> 36.1 dB	17.5 dB
7,8-1,2	RH	Pass	49.2 dB @ 8.65MHz	28.8 dB	> 39.9 dB	9.3 dB
3,6-7,8	RH	Pass	43.8 dB @ 95.00MHz	43.8 dB	> 19.1 dB	24.7 dB
3,6-5,4	RH	Pass	52.0 dB @ 7.90MHz	31.2 dB	> 40.7 dB	11.3 dB
3,6-1,2	RH	Pass	45.1 dB @ 95.00MHz	45.1 dB	> 19.1 dB	26.0 dB
5,4-7,8	RH	Pass	57.1 dB @ 8.20MHz	40.5 dB	> 40.3 dB	16.8 dB
5,4-3,6	RH	Pass	47.4 dB @ 7.90MHz	27.6 dB	> 40.7 dB	6.7 dB
5,4-1,2	RH	Pass	66.0 dB @ 4.45MHz	44.6 dB	> 45.6 dB	20.4 dB
1,2-7,8	RH	Pass	49.5 dB @ 8.20MHz	28.2 dB	> 40.3 dB	9.2 dB
1,2-3,6	RH	Pass	44.2 dB @ 98.50MHz	44.2 dB	> 18.7 dB	25.5 dB
1,2-5,4	RH	Pass	68.0 dB @ 4.00MHz	44.0 dB	> 46.6 dB	21.4 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	46.9 dB @ 29.05MHz	39.4 dB	> 38.1 dB	8.8 dB
3,6	DH	Pass	40.3 dB @ 43.00MHz	36.7 dB	> 35.3 dB	5.0 dB
5,4	DH	Pass	50.3 dB @ 12.40MHz	38.7 dB	> 44.0 dB	6.3 dB
1,2	DH	Pass	45.6 dB @ 27.55MHz	38.5 dB	> 38.4 dB	7.2 dB
7,8	RH	Pass	46.9 dB @ 29.65MHz	40.0 dB	> 37.9 dB	9.0 dB
3,6	RH	Pass	45.6 dB @ 27.40MHz	37.2 dB	> 38.5 dB	7.1 dB
5,4	RH	Pass	51.0 dB @ 12.55MHz	39.3 dB	> 43.9 dB	7.1 dB
1,2	RH	Pass	47.0 dB @ 28.15MHz	41.2 dB	> 38.3 dB	8.7 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	35.2 dB @ 97.75MHz	N/A	>= 8.8 dB	26.4 dB
3,6	DH	Pass	32.0 dB @ 94.50MHz	N/A	>= 9.4 dB	22.6 dB
5,4	DH	Pass	34.5 dB @ 83.50MHz	N/A	>= 11.6 dB	22.9 dB
1,2	DH	Pass	34.3 dB @ 94.75MHz	N/A	>= 9.3 dB	25.0 dB
7,8	RH	Pass	35.8 dB @ 99.50MHz	N/A	>= 8.4 dB	27.4 dB
3,6	RH	Pass	32.9 dB @ 99.50MHz	N/A	>= 8.4 dB	24.5 dB
5,4	RH	Pass	34.9 dB @ 99.50MHz	N/A	>= 8.4 dB	26.5 dB
1,2	RH	Pass	36.9 dB @ 99.25MHz	N/A	>= 8.5 dB	28.4 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	45.6 dB @ 12.10MHz	28.0 dB	>= 34.0 dB	11.6 dB
3,6	DH	Pass	43.4 dB @ 12.85MHz	27.2 dB	>= 33.4 dB	10.0 dB
5,4	DH	Pass	49.6 dB @ 8.95MHz	30.8 dB	>= 36.6 dB	13.0 dB
1,2	DH	Pass	42.8 dB @ 17.65MHz	28.5 dB	>= 30.7 dB	12.1 dB
7,8	RH	Pass	48.5 dB @ 8.65MHz	28.1 dB	>= 36.9 dB	11.6 dB
3,6	RH	Pass	45.6 dB @ 17.20MHz	31.0 dB	>= 30.9 dB	14.7 dB
5,4	RH	Pass	46.9 dB @ 7.90MHz	27.3 dB	>= 37.7 dB	9.2 dB
1,2	RH	Pass	29.1 dB @ 83.50MHz	27.9 dB	>= 17.2 dB	11.9 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

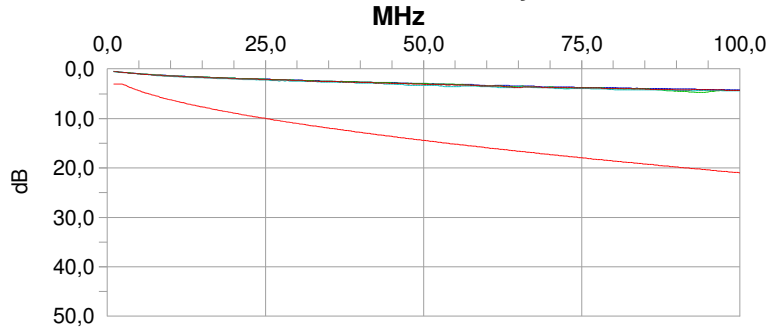
Cable ID 1: 3/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 17:58:05
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

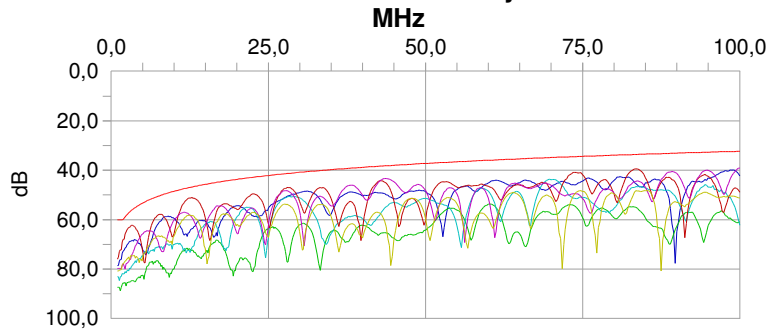
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

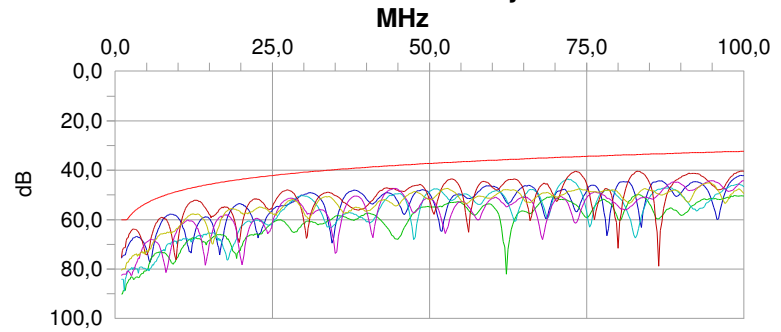
Attenuation Summary



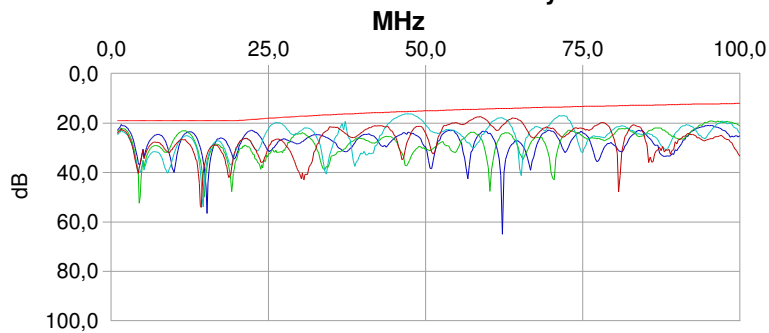
NEXT DH Summary



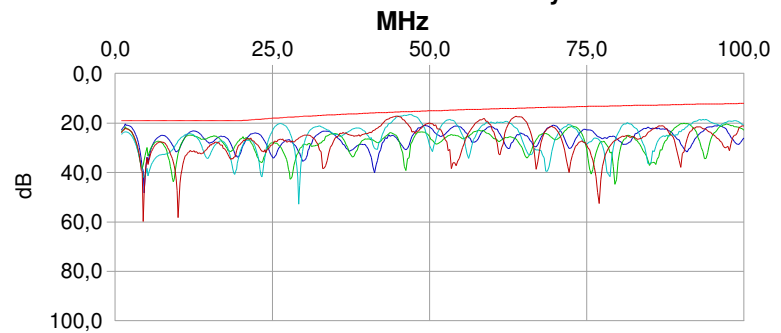
NEXT RH Summary



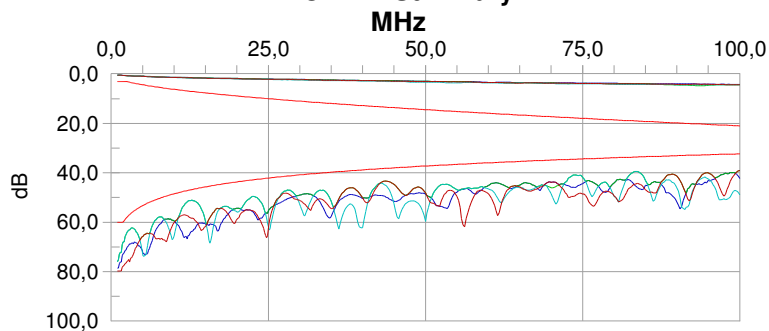
Return Loss DH Summary



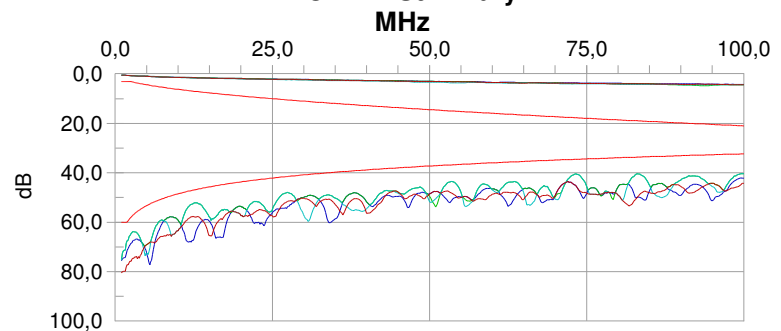
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

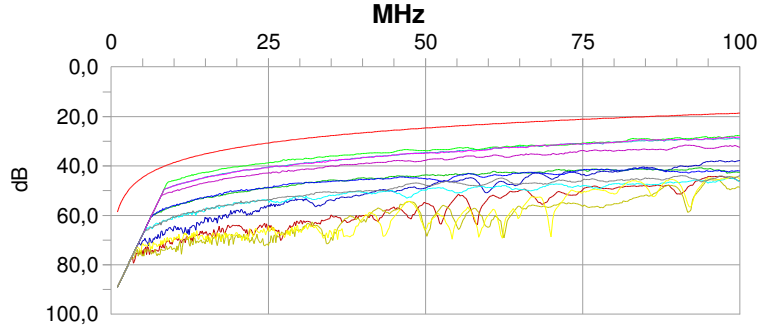
Cable ID 1: 3/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 17:58:05
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

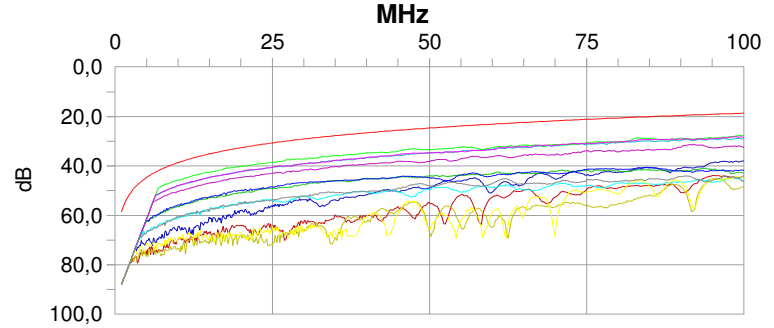
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

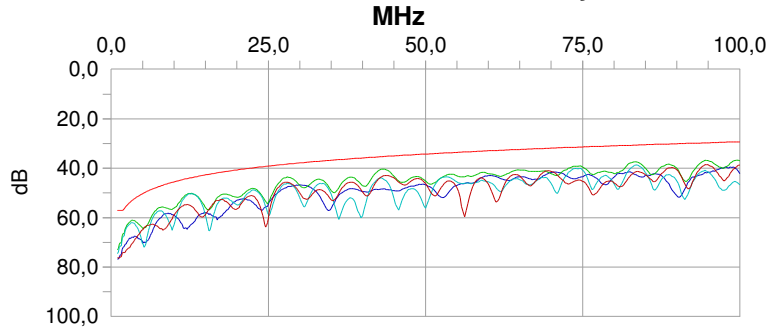
ELFEXT DH Summary



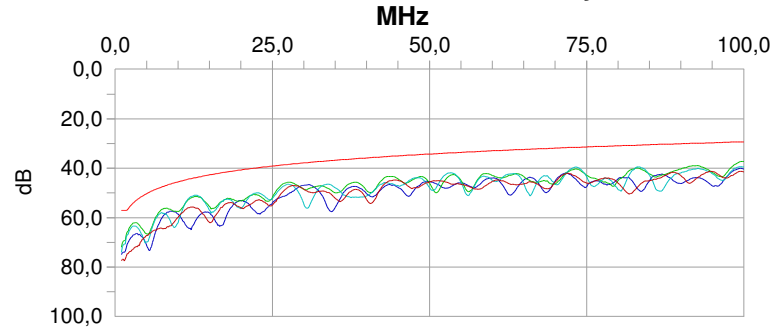
ELFEXT RH Summary



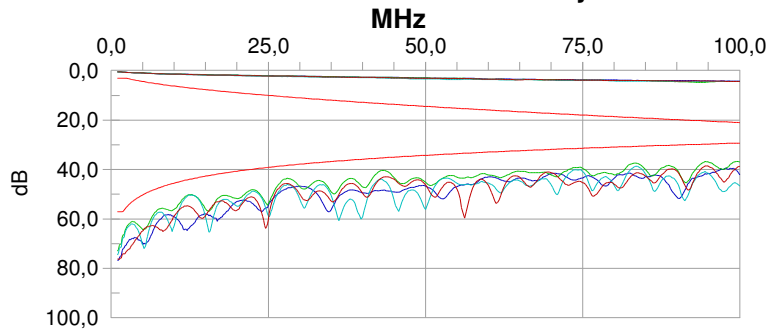
Power Sum NEXT DH Summary



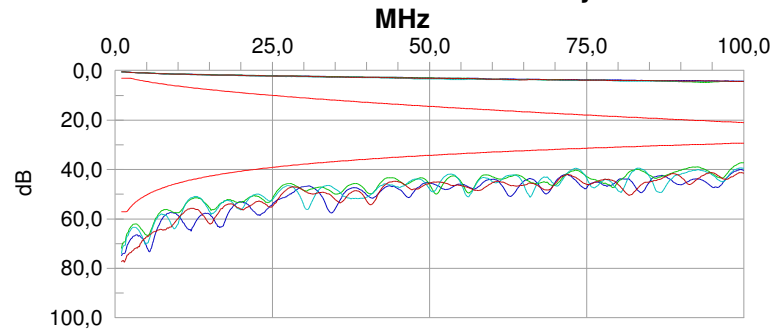
Power Sum NEXT RH Summary



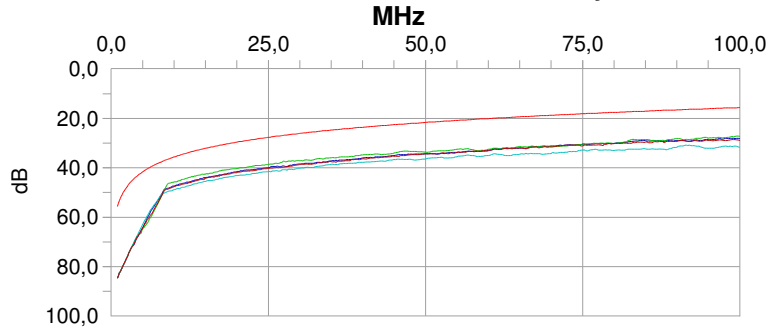
Power Sum ACR DH Summary



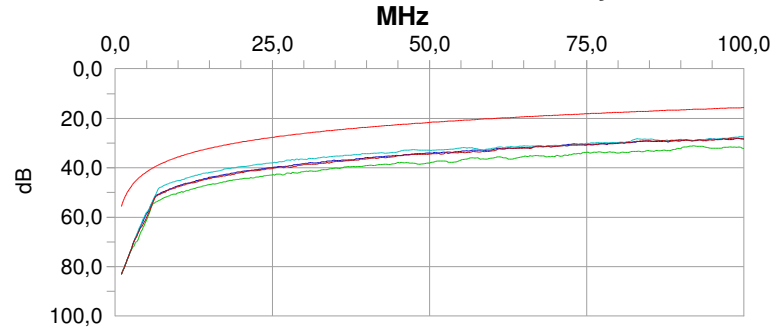
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

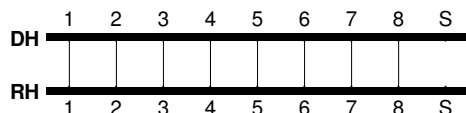
Cable ID 1: 3/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:15:38
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	25.4m	25.8m	26.2m	25.7m	< 90.0m	Pass
Prop. Delay	138.6ns	140.5ns	142.5ns	138.2ns	< 498.0ns	Pass
Delay Skew		4.3ns (Pairs 5,4 vs. 1,2)			< 44.0 ns	Pass
Headroom		15.2 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	40.8 dB @ 67.00MHz	39.8 dB	> 35.2 dB	5.6 dB
7,8-5,4	DH	Pass	51.4 dB @ 58.00MHz	51.4 dB	> 36.2 dB	15.2 dB
7,8-1,2	DH	Pass	55.3 dB @ 24.40MHz	49.2 dB	> 42.3 dB	13.0 dB
3,6-5,4	DH	Pass	44.8 dB @ 22.75MHz	37.1 dB	> 42.8 dB	2.0 dB
3,6-1,2	DH	Pass	43.8 dB @ 76.75MHz	43.7 dB	> 34.2 dB	9.6 dB
5,4-1,2	DH	Pass	52.1 dB @ 18.55MHz	45.6 dB	> 44.2 dB	7.9 dB
7,8-3,6	RH	Pass	43.4 dB @ 52.00MHz	42.5 dB	> 37.0 dB	6.4 dB
7,8-5,4	RH	Pass	54.4 dB @ 49.50MHz	52.9 dB	> 37.3 dB	17.1 dB
7,8-1,2	RH	Pass	54.1 dB @ 24.70MHz	48.4 dB	> 42.2 dB	11.9 dB
3,6-5,4	RH	Pass	47.8 dB @ 22.75MHz	40.3 dB	> 42.8 dB	5.0 dB
3,6-1,2	RH	Pass	51.2 dB @ 54.75MHz	50.5 dB	> 36.6 dB	14.6 dB
5,4-1,2	RH	Pass	53.7 dB @ 18.40MHz	44.4 dB	> 44.3 dB	9.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	20.7 dB @ 1.60MHz	20.7 dB	> 19.0 dB	1.7 dB
3,6	DH	Pass	21.5 dB @ 1.60MHz	20.6 dB	> 19.0 dB	2.5 dB
5,4	DH	Pass	23.2 dB @ 1.60MHz	17.3 dB	> 19.0 dB	4.2 dB
1,2	DH	Pass	20.3 dB @ 1.60MHz	18.3 dB	> 19.0 dB	1.3 dB
7,8	RH	Pass	20.3 dB @ 1.60MHz	19.7 dB	> 19.0 dB	1.3 dB
3,6	RH	Pass	20.4 dB @ 1.60MHz	16.2 dB	> 19.0 dB	1.4 dB
5,4	RH	Pass	21.2 dB @ 25.45MHz	17.9 dB	> 18.0 dB	3.2 dB
1,2	RH	Pass	20.0 dB @ 1.60MHz	19.4 dB	> 19.0 dB	1.0 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.8 dB @ 2.50MHz	5.1 dB	< 3.1 dB	2.3 dB
3,6	Pass	0.8 dB @ 2.50MHz	5.6 dB	< 3.1 dB	2.3 dB
5,4	Pass	0.8 dB @ 2.50MHz	5.6 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.8 dB @ 2.50MHz	5.1 dB	< 3.1 dB	2.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	35.2 dB @ 79.00MHz	N/A	>= 15.6 dB	19.6 dB
3,6	DH	Pass	32.2 dB @ 85.75MHz	N/A	>= 14.1 dB	18.1 dB
5,4	DH	Pass	32.0 dB @ 85.50MHz	N/A	>= 14.1 dB	17.9 dB
1,2	DH	Pass	38.7 dB @ 96.75MHz	N/A	>= 11.9 dB	26.8 dB
7,8	RH	Pass	37.4 dB @ 91.75MHz	N/A	>= 12.9 dB	24.5 dB
3,6	RH	Pass	34.8 dB @ 93.50MHz	N/A	>= 12.6 dB	22.2 dB
5,4	RH	Pass	34.9 dB @ 93.50MHz	N/A	>= 12.6 dB	22.3 dB
1,2	RH	Pass	39.5 dB @ 94.75MHz	N/A	>= 12.3 dB	27.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 3/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:15:38
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	41.5 dB @ 79.75MHz	41.3 dB	> 20.6 dB	20.9 dB
7,8-5,4	DH	Pass	53.9 dB @ 11.80MHz	40.5 dB	> 37.2 dB	16.7 dB
7,8-1,2	DH	Pass	37.2 dB @ 92.75MHz	37.2 dB	> 19.3 dB	17.9 dB
3,6-7,8	DH	Pass	51.3 dB @ 53.25MHz	47.4 dB	> 24.1 dB	27.2 dB
3,6-5,4	DH	Pass	55.4 dB @ 7.45MHz	34.5 dB	> 41.2 dB	14.2 dB
3,6-1,2	DH	Pass	37.4 dB @ 96.50MHz	37.4 dB	> 18.9 dB	18.5 dB
5,4-7,8	DH	Pass	48.8 dB @ 20.65MHz	40.0 dB	> 32.3 dB	16.5 dB
5,4-3,6	DH	Pass	50.1 dB @ 8.35MHz	30.1 dB	> 40.2 dB	9.9 dB
5,4-1,2	DH	Pass	46.8 dB @ 64.25MHz	44.0 dB	> 22.5 dB	24.3 dB
1,2-7,8	DH	Pass	36.3 dB @ 99.00MHz	36.3 dB	> 18.7 dB	17.6 dB
1,2-3,6	DH	Pass	33.1 dB @ 90.50MHz	33.0 dB	> 19.5 dB	13.6 dB
1,2-5,4	DH	Pass	44.1 dB @ 71.00MHz	43.4 dB	> 21.6 dB	22.5 dB
7,8-3,6	RH	Pass	41.8 dB @ 79.75MHz	41.5 dB	> 20.6 dB	21.2 dB
7,8-5,4	RH	Pass	53.7 dB @ 12.25MHz	40.7 dB	> 36.9 dB	16.8 dB
7,8-1,2	RH	Pass	37.1 dB @ 92.75MHz	37.1 dB	> 19.3 dB	17.8 dB
3,6-7,8	RH	Pass	51.4 dB @ 53.25MHz	46.8 dB	> 24.1 dB	27.3 dB
3,6-5,4	RH	Pass	57.9 dB @ 5.65MHz	34.3 dB	> 43.6 dB	14.3 dB
3,6-1,2	RH	Pass	37.8 dB @ 90.75MHz	37.3 dB	> 19.5 dB	18.3 dB
5,4-7,8	RH	Pass	48.7 dB @ 20.65MHz	39.8 dB	> 32.3 dB	16.4 dB
5,4-3,6	RH	Pass	50.6 dB @ 7.45MHz	30.3 dB	> 41.2 dB	9.4 dB
5,4-1,2	RH	Pass	46.2 dB @ 66.50MHz	43.5 dB	> 22.2 dB	24.0 dB
1,2-7,8	RH	Pass	36.4 dB @ 99.00MHz	36.4 dB	> 18.7 dB	17.7 dB
1,2-3,6	RH	Pass	40.5 dB @ 39.00MHz	33.5 dB	> 26.8 dB	13.7 dB
1,2-5,4	RH	Pass	44.6 dB @ 71.00MHz	43.9 dB	> 21.6 dB	23.0 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.6 dB @ 67.00MHz	39.7 dB	> 32.2 dB	8.4 dB
3,6	DH	Pass	44.3 dB @ 22.75MHz	35.9 dB	> 39.8 dB	4.5 dB
5,4	DH	Pass	44.3 dB @ 22.75MHz	36.5 dB	> 39.8 dB	4.5 dB
1,2	DH	Pass	51.1 dB @ 18.55MHz	42.0 dB	> 41.2 dB	9.9 dB
7,8	RH	Pass	43.0 dB @ 52.00MHz	41.6 dB	> 34.0 dB	9.0 dB
3,6	RH	Pass	39.9 dB @ 56.50MHz	38.7 dB	> 33.4 dB	6.5 dB
5,4	RH	Pass	48.0 dB @ 18.40MHz	38.9 dB	> 41.3 dB	6.7 dB
1,2	RH	Pass	52.7 dB @ 18.85MHz	43.0 dB	> 41.1 dB	11.6 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	35.1 dB @ 78.75MHz	N/A	>= 12.6 dB	22.5 dB
3,6	DH	Pass	30.7 dB @ 90.00MHz	N/A	>= 10.3 dB	20.4 dB
5,4	DH	Pass	31.4 dB @ 85.50MHz	N/A	>= 11.1 dB	20.3 dB
1,2	DH	Pass	36.9 dB @ 97.50MHz	N/A	>= 8.8 dB	28.1 dB
7,8	RH	Pass	36.5 dB @ 91.75MHz	N/A	>= 9.9 dB	26.6 dB
3,6	RH	Pass	33.1 dB @ 92.00MHz	N/A	>= 9.9 dB	23.2 dB
5,4	RH	Pass	33.5 dB @ 94.25MHz	N/A	>= 9.4 dB	24.1 dB
1,2	RH	Pass	37.9 dB @ 98.00MHz	N/A	>= 8.7 dB	29.2 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	46.5 dB @ 21.70MHz	35.1 dB	>= 28.9 dB	17.6 dB
3,6	DH	Pass	44.9 dB @ 13.00MHz	28.4 dB	>= 33.3 dB	11.6 dB
5,4	DH	Pass	50.5 dB @ 10.45MHz	33.3 dB	>= 35.2 dB	15.3 dB
1,2	DH	Pass	34.4 dB @ 92.75MHz	34.3 dB	>= 16.3 dB	18.1 dB
7,8	RH	Pass	51.3 dB @ 12.25MHz	35.3 dB	>= 33.9 dB	17.4 dB
3,6	RH	Pass	32.5 dB @ 92.75MHz	32.5 dB	>= 16.3 dB	16.2 dB
5,4	RH	Pass	47.0 dB @ 10.45MHz	29.7 dB	>= 35.2 dB	11.8 dB
1,2	RH	Pass	39.1 dB @ 38.75MHz	31.5 dB	>= 23.8 dB	15.3 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

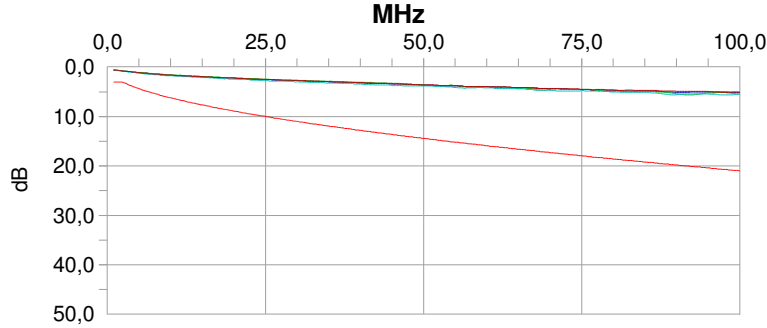
Cable ID 1: 3/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:15:38
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

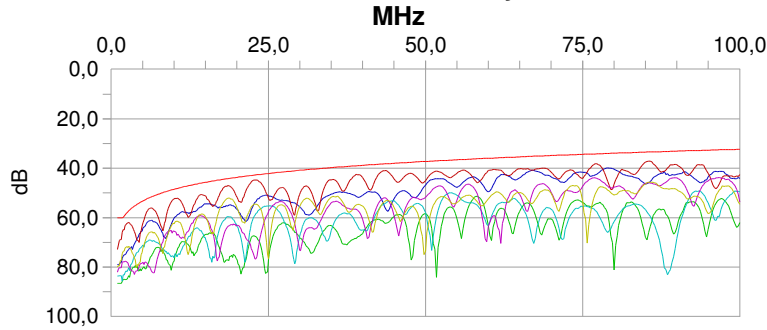
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

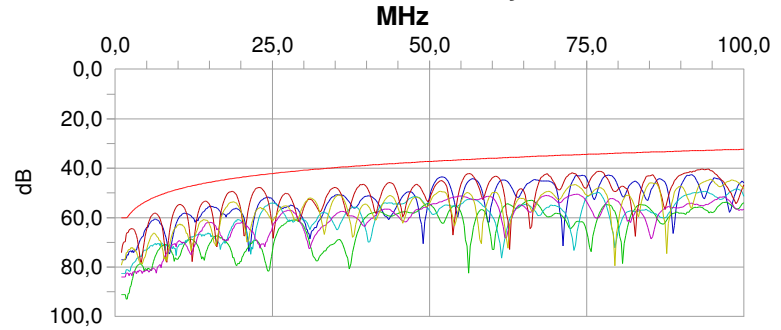
Attenuation Summary



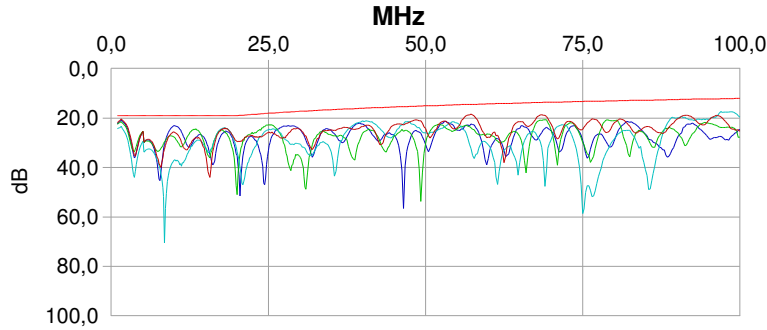
NEXT DH Summary



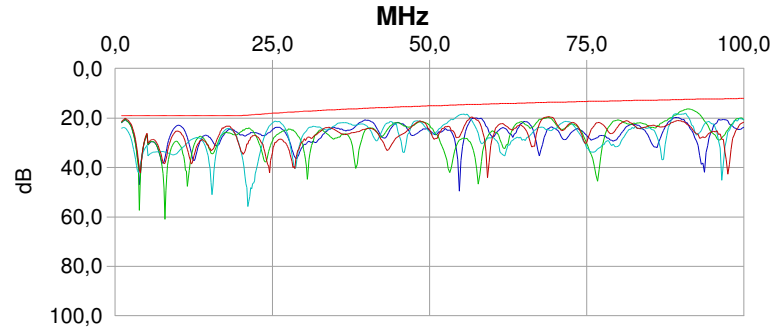
NEXT RH Summary



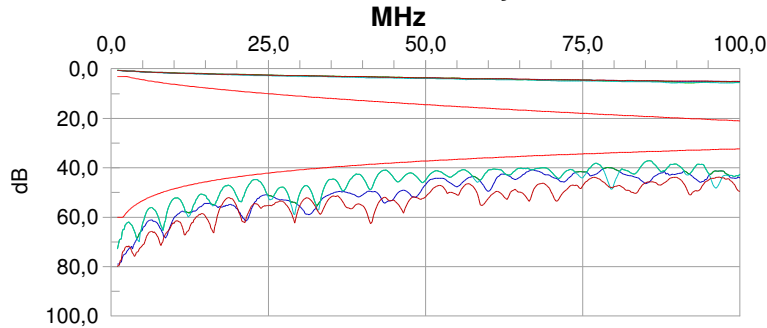
Return Loss DH Summary



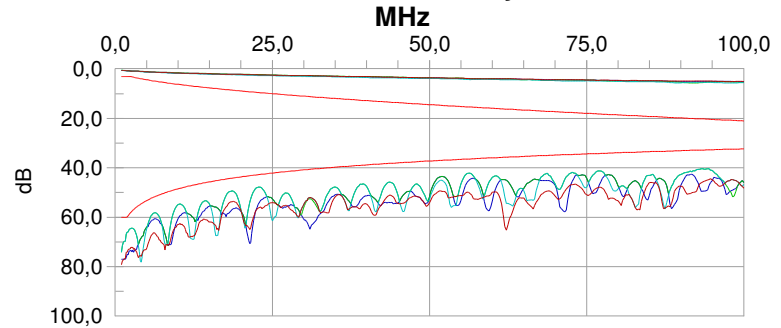
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

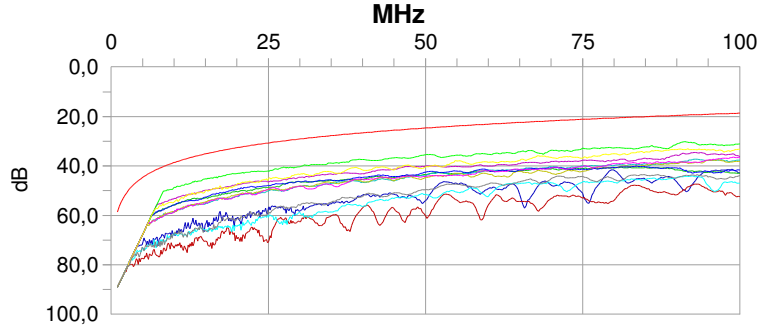
Cable ID 1: 3/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:15:38
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

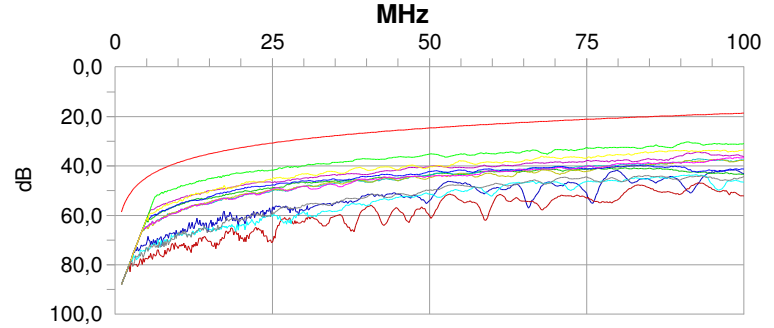
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

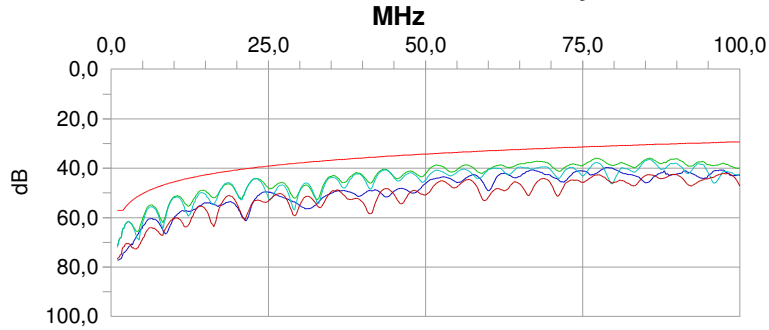
ELFEXT DH Summary



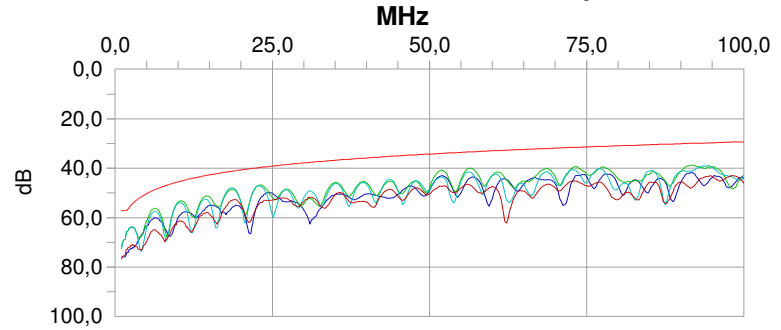
ELFEXT RH Summary



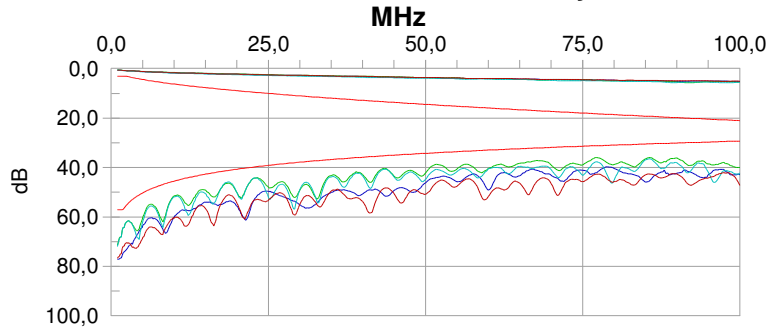
Power Sum NEXT DH Summary



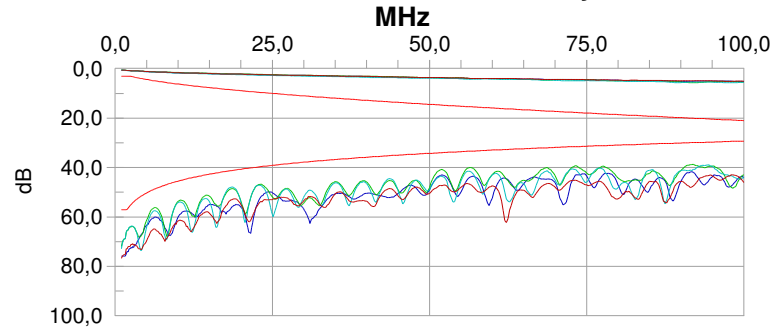
Power Sum NEXT RH Summary



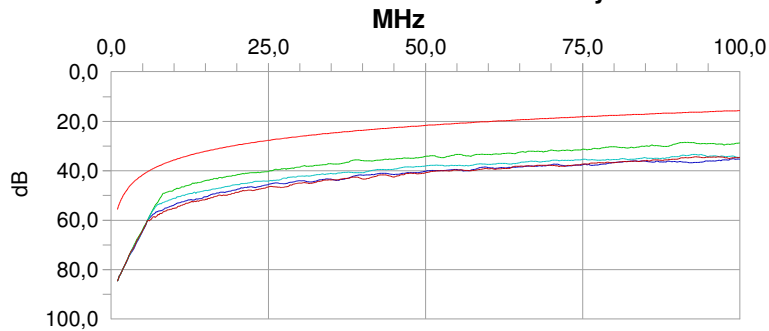
Power Sum ACR DH Summary



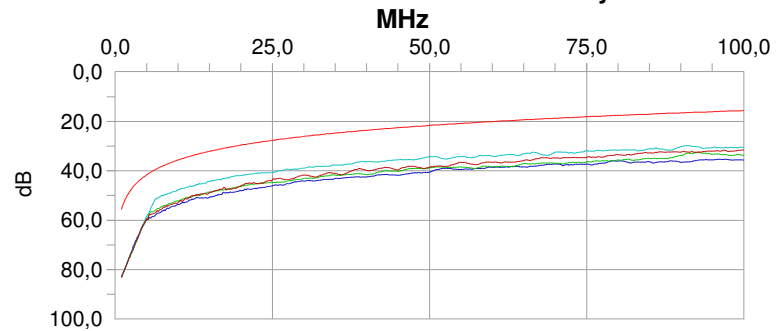
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

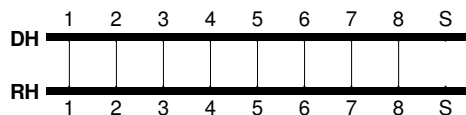
Cable ID 1: 3/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:12:59
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	10.1m	10.0m	9.8m	10.2m	< 90.0m	Pass
Prop. Delay	65.7ns	65.3ns	64.9ns	65.1ns	< 498.0ns	Pass
Delay Skew		0.8ns (Pairs 7,8 vs. 5,4)			< 44.0 ns	Pass
Headroom		18.7 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	41.4 dB @ 82.75MHz	41.2 dB	> 33.7 dB	7.7 dB
7,8-5,4	DH	Pass	49.5 dB @ 54.00MHz	46.7 dB	> 36.7 dB	12.8 dB
7,8-1,2	DH	Pass	52.6 dB @ 82.50MHz	52.0 dB	> 33.7 dB	18.9 dB
3,6-5,4	DH	Pass	40.4 dB @ 72.25MHz	40.4 dB	> 34.6 dB	5.8 dB
3,6-1,2	DH	Pass	46.5 dB @ 53.00MHz	43.5 dB	> 36.8 dB	9.7 dB
5,4-1,2	DH	Pass	63.0 dB @ 5.20MHz	44.5 dB	> 53.0 dB	10.0 dB
7,8-3,6	RH	Pass	40.4 dB @ 82.25MHz	39.5 dB	> 33.7 dB	6.7 dB
7,8-5,4	RH	Pass	50.1 dB @ 54.00MHz	47.2 dB	> 36.7 dB	13.4 dB
7,8-1,2	RH	Pass	50.9 dB @ 82.25MHz	50.2 dB	> 33.7 dB	17.2 dB
3,6-5,4	RH	Pass	44.8 dB @ 70.25MHz	44.0 dB	> 34.8 dB	10.0 dB
3,6-1,2	RH	Pass	45.5 dB @ 73.50MHz	45.0 dB	> 34.5 dB	11.0 dB
5,4-1,2	RH	Pass	62.2 dB @ 5.35MHz	43.6 dB	> 52.8 dB	9.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	25.0 dB @ 3.25MHz	24.2 dB	> 19.0 dB	6.0 dB
3,6	DH	Pass	23.7 dB @ 3.25MHz	23.6 dB	> 19.0 dB	4.7 dB
5,4	DH	Pass	23.0 dB @ 24.25MHz	19.4 dB	> 18.2 dB	4.8 dB
1,2	DH	Pass	25.5 dB @ 3.10MHz	21.0 dB	> 19.0 dB	6.5 dB
7,8	RH	Pass	25.0 dB @ 3.55MHz	23.9 dB	> 19.0 dB	6.0 dB
3,6	RH	Pass	23.7 dB @ 3.40MHz	22.1 dB	> 19.0 dB	4.7 dB
5,4	RH	Pass	23.6 dB @ 3.85MHz	19.8 dB	> 19.0 dB	4.6 dB
1,2	RH	Pass	21.2 dB @ 48.50MHz	19.9 dB	> 15.2 dB	6.0 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.3 dB @ 2.50MHz	2.1 dB	< 3.1 dB	2.8 dB
3,6	Pass	0.3 dB @ 2.50MHz	1.9 dB	< 3.1 dB	2.8 dB
5,4	Pass	0.3 dB @ 2.50MHz	2.1 dB	< 3.1 dB	2.8 dB
1,2	Pass	0.4 dB @ 2.50MHz	2.1 dB	< 3.1 dB	2.7 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	39.2 dB @ 97.00MHz	N/A	>= 11.9 dB	27.3 dB
3,6	DH	Pass	38.6 dB @ 72.25MHz	N/A	>= 17.0 dB	21.6 dB
5,4	DH	Pass	38.5 dB @ 82.00MHz	N/A	>= 14.9 dB	23.6 dB
1,2	DH	Pass	41.5 dB @ 96.50MHz	N/A	>= 12.0 dB	29.5 dB
7,8	RH	Pass	37.4 dB @ 96.75MHz	N/A	>= 11.9 dB	25.5 dB
3,6	RH	Pass	37.6 dB @ 96.75MHz	N/A	>= 11.9 dB	25.7 dB
5,4	RH	Pass	41.6 dB @ 92.25MHz	N/A	>= 12.8 dB	28.8 dB
1,2	RH	Pass	41.5 dB @ 92.25MHz	N/A	>= 12.8 dB	28.7 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 3/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:12:59
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	46.9 dB @ 30.70MHz	37.9 dB	> 28.9 dB	18.0 dB
7,8-5,4	DH	Pass	54.1 dB @ 8.95MHz	33.8 dB	> 39.6 dB	14.5 dB
7,8-1,2	DH	Pass	46.4 dB @ 68.75MHz	45.2 dB	> 21.9 dB	24.5 dB
3,6-7,8	DH	Pass	47.1 dB @ 44.75MHz	41.9 dB	> 25.6 dB	21.5 dB
3,6-5,4	DH	Pass	55.9 dB @ 7.90MHz	35.7 dB	> 40.7 dB	15.2 dB
3,6-1,2	DH	Pass	60.1 dB @ 7.15MHz	39.6 dB	> 41.5 dB	18.6 dB
5,4-7,8	DH	Pass	54.5 dB @ 8.35MHz	33.9 dB	> 40.2 dB	14.3 dB
5,4-3,6	DH	Pass	51.2 dB @ 8.20MHz	30.7 dB	> 40.3 dB	10.9 dB
5,4-1,2	DH	Pass	44.8 dB @ 64.25MHz	41.7 dB	> 22.5 dB	22.3 dB
1,2-7,8	DH	Pass	63.8 dB @ 9.85MHz	45.4 dB	> 38.7 dB	25.1 dB
1,2-3,6	DH	Pass	56.2 dB @ 7.15MHz	35.9 dB	> 41.5 dB	14.7 dB
1,2-5,4	DH	Pass	41.9 dB @ 90.75MHz	41.9 dB	> 19.5 dB	22.4 dB
7,8-3,6	RH	Pass	46.5 dB @ 31.75MHz	37.7 dB	> 28.6 dB	17.9 dB
7,8-5,4	RH	Pass	54.1 dB @ 8.95MHz	33.7 dB	> 39.6 dB	14.5 dB
7,8-1,2	RH	Pass	46.2 dB @ 69.50MHz	45.1 dB	> 21.8 dB	24.4 dB
3,6-7,8	RH	Pass	47.2 dB @ 44.75MHz	42.0 dB	> 25.6 dB	21.6 dB
3,6-5,4	RH	Pass	56.0 dB @ 7.90MHz	35.8 dB	> 40.7 dB	15.3 dB
3,6-1,2	RH	Pass	60.2 dB @ 7.15MHz	39.8 dB	> 41.5 dB	18.7 dB
5,4-7,8	RH	Pass	54.5 dB @ 8.35MHz	34.0 dB	> 40.2 dB	14.3 dB
5,4-3,6	RH	Pass	50.4 dB @ 8.95MHz	30.6 dB	> 39.6 dB	10.8 dB
5,4-1,2	RH	Pass	44.8 dB @ 64.25MHz	41.8 dB	> 22.5 dB	22.3 dB
1,2-7,8	RH	Pass	63.8 dB @ 9.85MHz	45.4 dB	> 38.7 dB	25.1 dB
1,2-3,6	RH	Pass	58.1 dB @ 5.65MHz	35.8 dB	> 43.6 dB	14.5 dB
1,2-5,4	RH	Pass	41.8 dB @ 90.75MHz	41.8 dB	> 19.5 dB	22.3 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.9 dB @ 82.00MHz	40.1 dB	> 30.7 dB	10.2 dB
3,6	DH	Pass	38.6 dB @ 72.25MHz	37.7 dB	> 31.6 dB	7.0 dB
5,4	DH	Pass	39.0 dB @ 71.50MHz	38.9 dB	> 31.7 dB	7.3 dB
1,2	DH	Pass	41.7 dB @ 72.75MHz	41.7 dB	> 31.6 dB	10.1 dB
7,8	RH	Pass	39.8 dB @ 82.25MHz	38.9 dB	> 30.7 dB	9.1 dB
3,6	RH	Pass	38.4 dB @ 82.75MHz	38.1 dB	> 30.7 dB	7.7 dB
5,4	RH	Pass	41.5 dB @ 70.75MHz	41.4 dB	> 31.8 dB	9.7 dB
1,2	RH	Pass	42.3 dB @ 72.75MHz	41.3 dB	> 31.6 dB	10.7 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	38.0 dB @ 99.25MHz	N/A	>= 8.5 dB	29.5 dB
3,6	DH	Pass	35.8 dB @ 82.00MHz	N/A	>= 11.9 dB	23.9 dB
5,4	DH	Pass	37.1 dB @ 71.50MHz	N/A	>= 14.2 dB	22.9 dB
1,2	DH	Pass	39.8 dB @ 72.75MHz	N/A	>= 14.0 dB	25.8 dB
7,8	RH	Pass	36.8 dB @ 96.75MHz	N/A	>= 8.9 dB	27.9 dB
3,6	RH	Pass	36.2 dB @ 96.75MHz	N/A	>= 8.9 dB	27.3 dB
5,4	RH	Pass	39.5 dB @ 71.00MHz	N/A	>= 14.3 dB	25.2 dB
1,2	RH	Pass	39.3 dB @ 94.00MHz	N/A	>= 9.4 dB	29.9 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	53.7 dB @ 8.35MHz	33.0 dB	>= 37.2 dB	16.5 dB
3,6	DH	Pass	49.2 dB @ 8.20MHz	29.1 dB	>= 37.3 dB	11.9 dB
5,4	DH	Pass	51.1 dB @ 8.95MHz	31.3 dB	>= 36.6 dB	14.5 dB
1,2	DH	Pass	38.9 dB @ 64.75MHz	36.9 dB	>= 19.4 dB	19.5 dB
7,8	RH	Pass	43.6 dB @ 24.70MHz	32.1 dB	>= 27.8 dB	15.8 dB
3,6	RH	Pass	54.0 dB @ 7.90MHz	33.7 dB	>= 37.7 dB	16.3 dB
5,4	RH	Pass	51.0 dB @ 6.85MHz	28.8 dB	>= 38.9 dB	12.1 dB
1,2	RH	Pass	57.3 dB @ 5.65MHz	34.5 dB	>= 40.6 dB	16.7 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

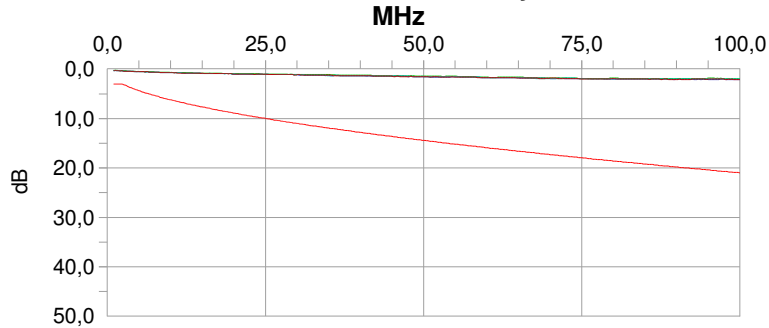
Cable ID 1: 3/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:12:59
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

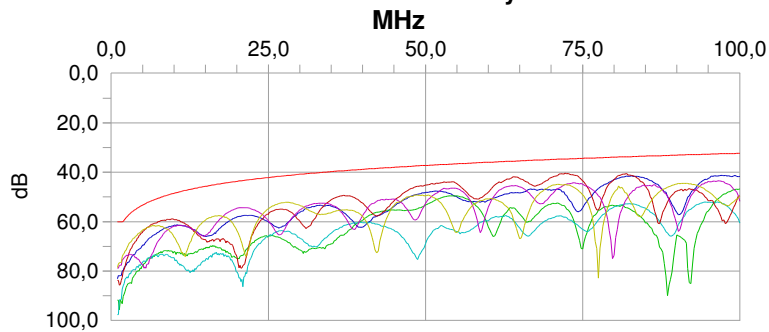
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

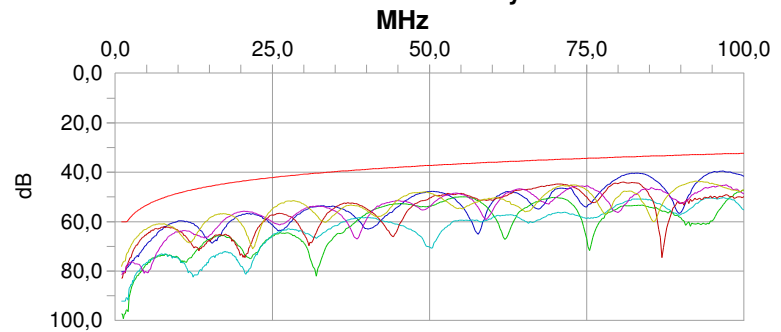
Attenuation Summary



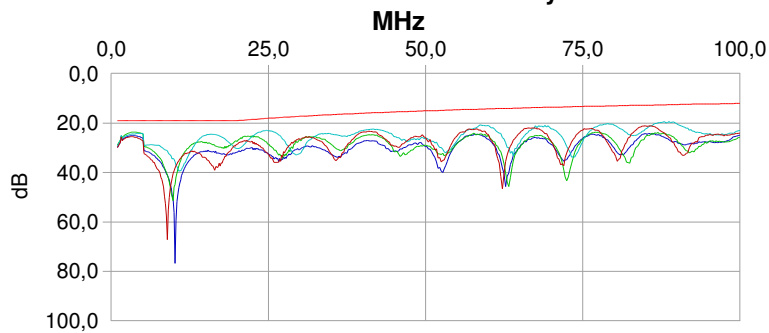
NEXT DH Summary



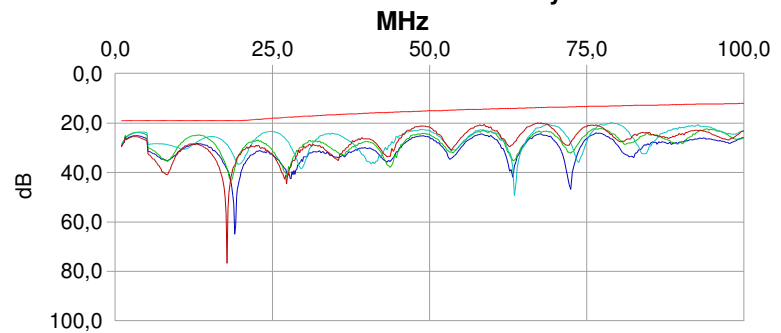
NEXT RH Summary



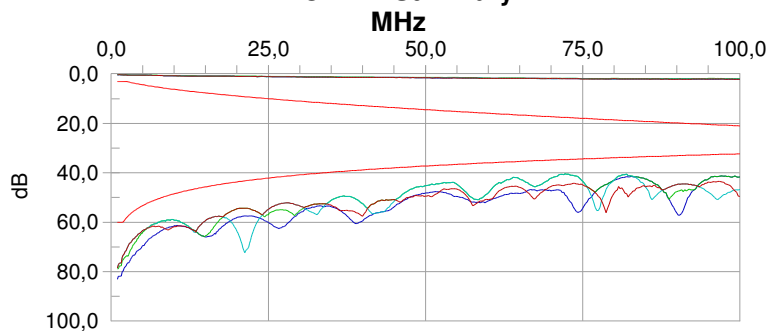
Return Loss DH Summary



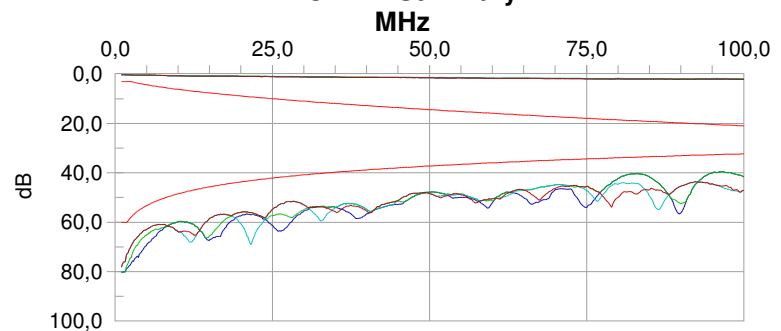
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

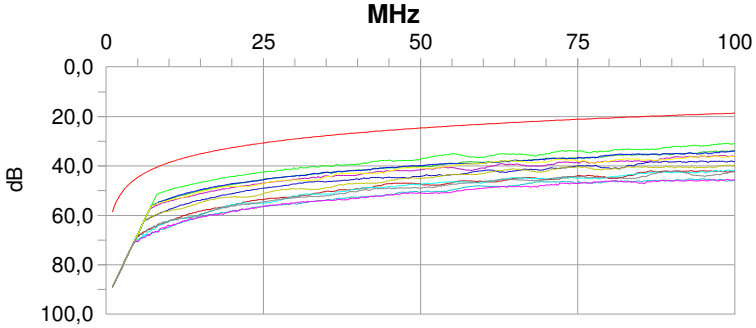
Cable ID 1: 3/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:12:59
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

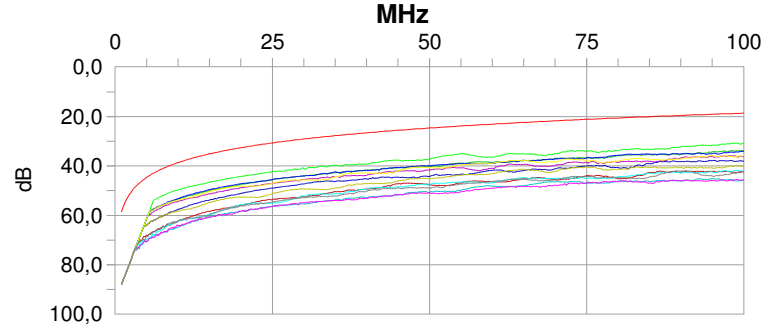
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

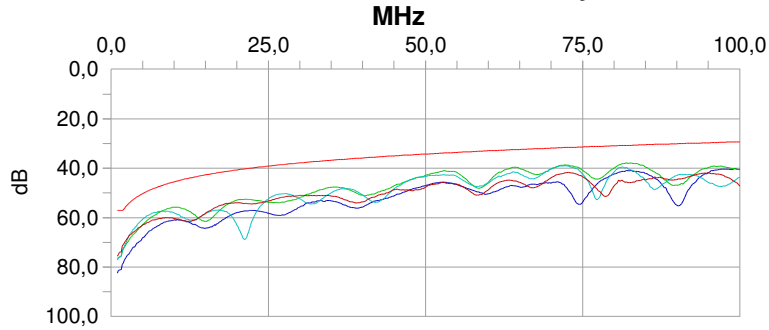
ELFEXT DH Summary



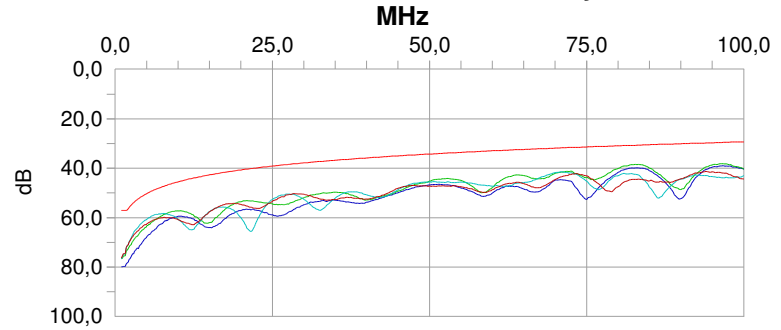
ELFEXT RH Summary



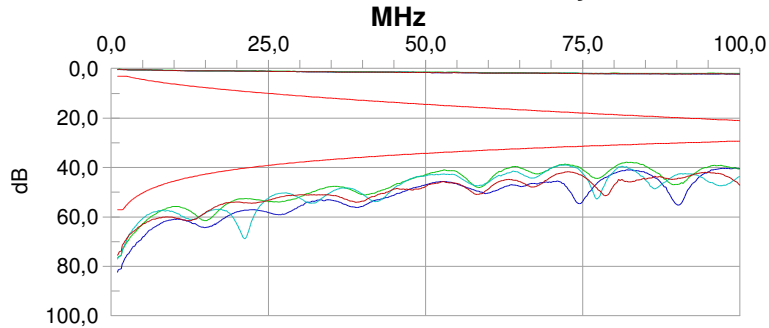
Power Sum NEXT DH Summary



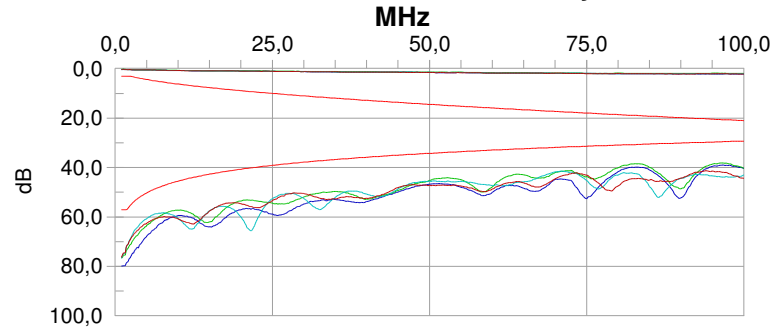
Power Sum NEXT RH Summary



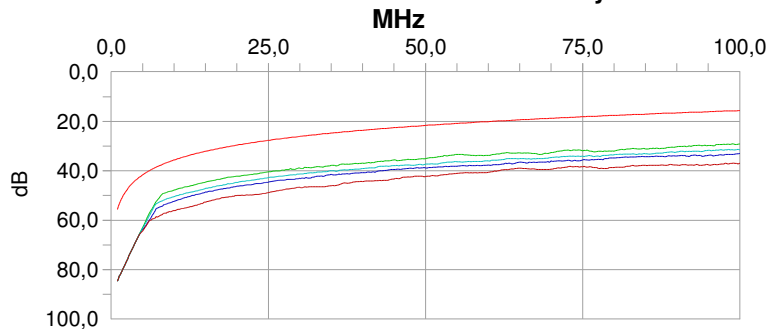
Power Sum ACR DH Summary



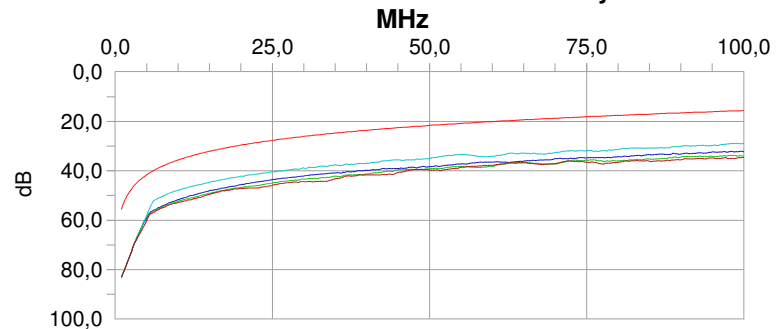
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

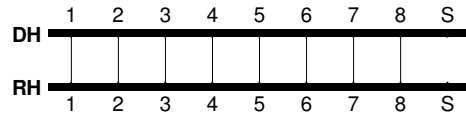
Cable ID 1: 3/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:21:29
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	7.0m	7.0m	6.8m	7.2m	< 90.0m	Pass
Prop. Delay	51.2ns	51.0ns	50.8ns	50.6ns	< 498.0ns	Pass
Delay Skew		0.6ns (Pairs 7,8 vs. 1,2)			< 44.0 ns	Pass
Headroom		14.8 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	39.9 dB @ 87.25MHz	39.8 dB	> 33.3 dB	6.6 dB
7,8-5,4	DH	Pass	50.8 dB @ 71.75MHz	49.8 dB	> 34.7 dB	16.1 dB
7,8-1,2	DH	Pass	49.1 dB @ 99.25MHz	49.0 dB	> 32.4 dB	16.7 dB
3,6-5,4	DH	Pass	45.6 dB @ 23.80MHz	36.7 dB	> 42.5 dB	3.1 dB
3,6-1,2	DH	Pass	46.8 dB @ 99.25MHz	46.8 dB	> 32.4 dB	14.4 dB
5,4-1,2	DH	Pass	49.9 dB @ 93.25MHz	49.8 dB	> 32.8 dB	17.1 dB
7,8-3,6	RH	Pass	38.9 dB @ 89.00MHz	38.9 dB	> 33.1 dB	5.8 dB
7,8-5,4	RH	Pass	51.1 dB @ 72.50MHz	49.6 dB	> 34.6 dB	16.5 dB
7,8-1,2	RH	Pass	49.0 dB @ 100.00MHz	49.0 dB	> 32.3 dB	16.7 dB
3,6-5,4	RH	Pass	47.9 dB @ 23.05MHz	40.1 dB	> 42.7 dB	5.2 dB
3,6-1,2	RH	Pass	54.8 dB @ 56.50MHz	52.0 dB	> 36.4 dB	18.4 dB
5,4-1,2	RH	Pass	50.0 dB @ 96.50MHz	50.0 dB	> 32.6 dB	17.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	26.1 dB @ 4.15MHz	24.0 dB	> 19.0 dB	7.1 dB
3,6	DH	Pass	24.7 dB @ 4.60MHz	23.3 dB	> 19.0 dB	5.7 dB
5,4	DH	Pass	20.1 dB @ 20.95MHz	20.0 dB	> 18.8 dB	1.3 dB
1,2	DH	Pass	21.0 dB @ 53.00MHz	20.6 dB	> 14.8 dB	6.2 dB
7,8	RH	Pass	25.3 dB @ 4.15MHz	24.9 dB	> 19.0 dB	6.3 dB
3,6	RH	Pass	24.2 dB @ 4.60MHz	23.1 dB	> 19.0 dB	5.2 dB
5,4	RH	Pass	20.0 dB @ 20.95MHz	19.9 dB	> 18.8 dB	1.2 dB
1,2	RH	Pass	25.7 dB @ 4.90MHz	20.6 dB	> 19.0 dB	6.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.3 dB @ 2.50MHz	1.5 dB	< 3.1 dB	2.8 dB
3,6	Pass	0.3 dB @ 2.50MHz	1.4 dB	< 3.1 dB	2.8 dB
5,4	Pass	0.3 dB @ 2.50MHz	1.5 dB	< 3.1 dB	2.8 dB
1,2	Pass	0.3 dB @ 2.50MHz	1.5 dB	< 3.1 dB	2.8 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	38.3 dB @ 88.00MHz	N/A	>= 13.6 dB	24.7 dB
3,6	DH	Pass	35.3 dB @ 85.75MHz	N/A	>= 14.1 dB	21.2 dB
5,4	DH	Pass	35.2 dB @ 86.50MHz	N/A	>= 13.9 dB	21.3 dB
1,2	DH	Pass	45.4 dB @ 99.25MHz	N/A	>= 11.5 dB	33.9 dB
7,8	RH	Pass	37.4 dB @ 89.00MHz	N/A	>= 13.4 dB	24.0 dB
3,6	RH	Pass	37.5 dB @ 89.00MHz	N/A	>= 13.4 dB	24.1 dB
5,4	RH	Pass	38.6 dB @ 86.50MHz	N/A	>= 13.9 dB	24.7 dB
1,2	RH	Pass	47.5 dB @ 100.00MHz	N/A	>= 11.3 dB	36.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 3/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:21:29
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	47.5 dB @ 62.75MHz	47.4 dB	> 22.7 dB	24.8 dB
7,8-5,4	DH	Pass	51.2 dB @ 12.10MHz	33.4 dB	> 37.0 dB	14.2 dB
7,8-1,2	DH	Pass	61.5 dB @ 67.00MHz	61.5 dB	> 22.1 dB	39.4 dB
3,6-7,8	DH	Pass	51.8 dB @ 71.75MHz	51.6 dB	> 21.5 dB	30.3 dB
3,6-5,4	DH	Pass	59.6 dB @ 7.90MHz	39.2 dB	> 40.7 dB	18.9 dB
3,6-1,2	DH	Pass	50.9 dB @ 73.25MHz	50.8 dB	> 21.3 dB	29.6 dB
5,4-7,8	DH	Pass	52.9 dB @ 9.70MHz	33.4 dB	> 38.9 dB	14.0 dB
5,4-3,6	DH	Pass	53.4 dB @ 9.40MHz	34.2 dB	> 39.2 dB	14.2 dB
5,4-1,2	DH	Pass	59.7 dB @ 11.95MHz	42.6 dB	> 37.1 dB	22.6 dB
1,2-7,8	DH	Pass	58.2 dB @ 75.50MHz	58.2 dB	> 21.1 dB	37.1 dB
1,2-3,6	DH	Pass	68.6 dB @ 6.25MHz	48.2 dB	> 42.7 dB	25.9 dB
1,2-5,4	DH	Pass	45.8 dB @ 62.75MHz	43.5 dB	> 22.7 dB	23.1 dB
7,8-3,6	RH	Pass	47.4 dB @ 62.75MHz	47.3 dB	> 22.7 dB	24.7 dB
7,8-5,4	RH	Pass	51.2 dB @ 12.10MHz	33.3 dB	> 37.0 dB	14.2 dB
7,8-1,2	RH	Pass	61.5 dB @ 67.00MHz	61.5 dB	> 22.1 dB	39.4 dB
3,6-7,8	RH	Pass	51.9 dB @ 71.75MHz	51.7 dB	> 21.5 dB	30.4 dB
3,6-5,4	RH	Pass	59.7 dB @ 7.90MHz	39.2 dB	> 40.7 dB	19.0 dB
3,6-1,2	RH	Pass	51.1 dB @ 72.75MHz	50.8 dB	> 21.4 dB	29.7 dB
5,4-7,8	RH	Pass	56.3 dB @ 6.55MHz	33.5 dB	> 42.3 dB	14.0 dB
5,4-3,6	RH	Pass	51.1 dB @ 12.10MHz	34.2 dB	> 37.0 dB	14.1 dB
5,4-1,2	RH	Pass	59.7 dB @ 11.95MHz	42.7 dB	> 37.1 dB	22.6 dB
1,2-7,8	RH	Pass	58.2 dB @ 75.50MHz	58.2 dB	> 21.1 dB	37.1 dB
1,2-3,6	RH	Pass	68.6 dB @ 6.25MHz	48.1 dB	> 42.7 dB	25.9 dB
1,2-5,4	RH	Pass	45.8 dB @ 62.75MHz	43.4 dB	> 22.7 dB	23.1 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	39.4 dB @ 87.25MHz	39.4 dB	> 30.3 dB	9.1 dB
3,6	DH	Pass	34.8 dB @ 87.25MHz	34.8 dB	> 30.3 dB	4.5 dB
5,4	DH	Pass	37.4 dB @ 72.50MHz	36.5 dB	> 31.6 dB	5.8 dB
1,2	DH	Pass	44.3 dB @ 99.25MHz	44.3 dB	> 29.4 dB	14.9 dB
7,8	RH	Pass	38.5 dB @ 89.00MHz	38.5 dB	> 30.1 dB	8.4 dB
3,6	RH	Pass	36.8 dB @ 87.00MHz	36.8 dB	> 30.3 dB	6.5 dB
5,4	RH	Pass	47.6 dB @ 23.05MHz	39.7 dB	> 39.7 dB	7.9 dB
1,2	RH	Pass	46.4 dB @ 99.25MHz	46.4 dB	> 29.4 dB	17.0 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	37.9 dB @ 87.25MHz	N/A	>= 10.8 dB	27.1 dB
3,6	DH	Pass	33.4 dB @ 87.25MHz	N/A	>= 10.8 dB	22.6 dB
5,4	DH	Pass	35.0 dB @ 86.50MHz	N/A	>= 10.9 dB	24.1 dB
1,2	DH	Pass	42.9 dB @ 99.25MHz	N/A	>= 8.5 dB	34.4 dB
7,8	RH	Pass	37.0 dB @ 89.00MHz	N/A	>= 10.4 dB	26.6 dB
3,6	RH	Pass	35.4 dB @ 87.00MHz	N/A	>= 10.9 dB	24.5 dB
5,4	RH	Pass	38.2 dB @ 86.50MHz	N/A	>= 10.9 dB	27.3 dB
1,2	RH	Pass	44.9 dB @ 100.00MHz	N/A	>= 8.3 dB	36.6 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	35.6 dB @ 73.25MHz	33.3 dB	>= 18.3 dB	17.3 dB
3,6	DH	Pass	53.0 dB @ 9.40MHz	33.9 dB	>= 36.2 dB	16.8 dB
5,4	DH	Pass	53.3 dB @ 7.90MHz	32.2 dB	>= 37.7 dB	15.6 dB
1,2	DH	Pass	45.0 dB @ 61.00MHz	42.4 dB	>= 19.9 dB	25.1 dB
7,8	RH	Pass	35.3 dB @ 72.75MHz	33.1 dB	>= 18.4 dB	16.9 dB
3,6	RH	Pass	56.1 dB @ 11.20MHz	38.8 dB	>= 34.6 dB	21.5 dB
5,4	RH	Pass	49.7 dB @ 9.70MHz	30.6 dB	>= 35.9 dB	13.8 dB
1,2	RH	Pass	44.9 dB @ 62.25MHz	42.1 dB	>= 19.7 dB	25.2 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

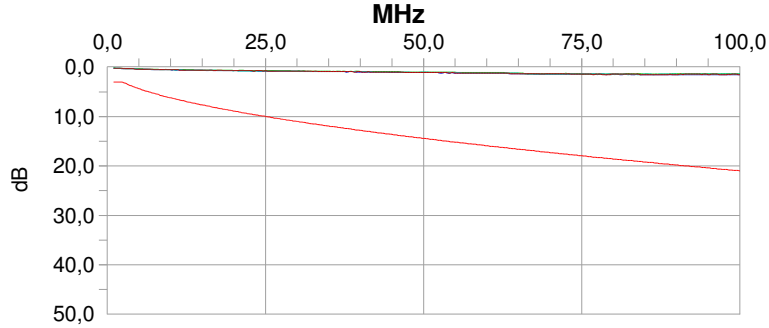
Cable ID 1: 3/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:21:29
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

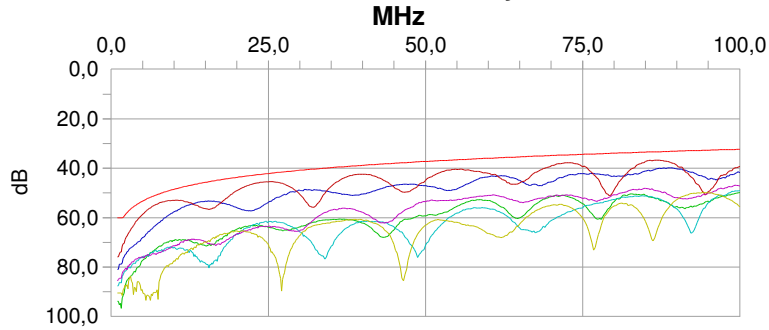
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

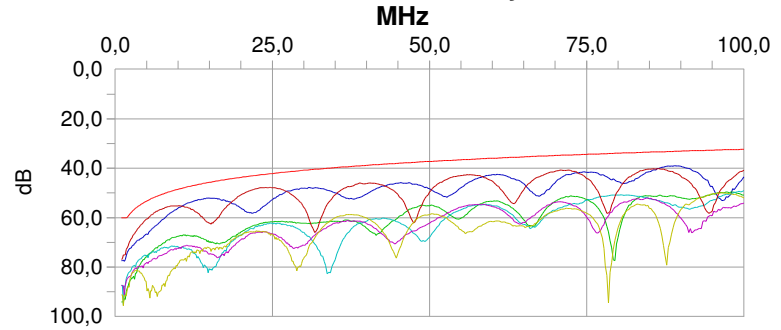
Attenuation Summary



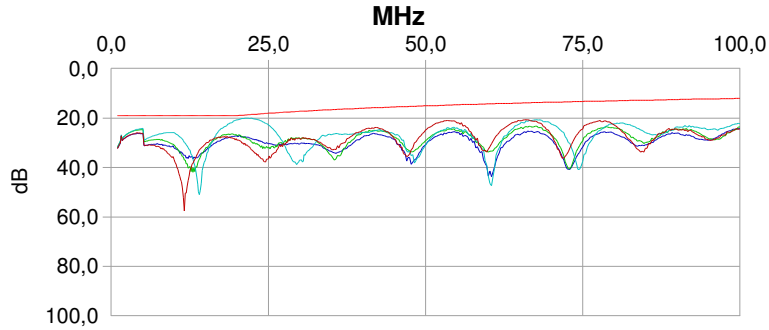
NEXT DH Summary



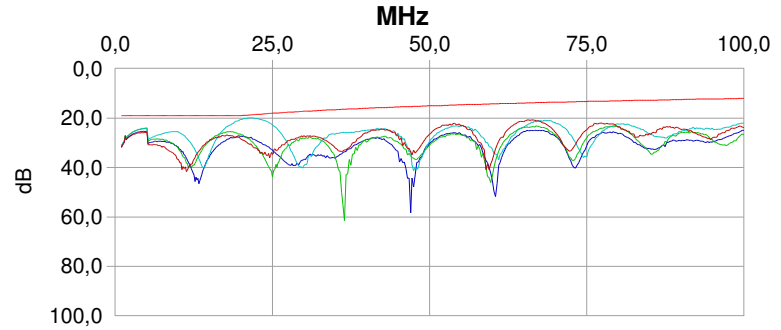
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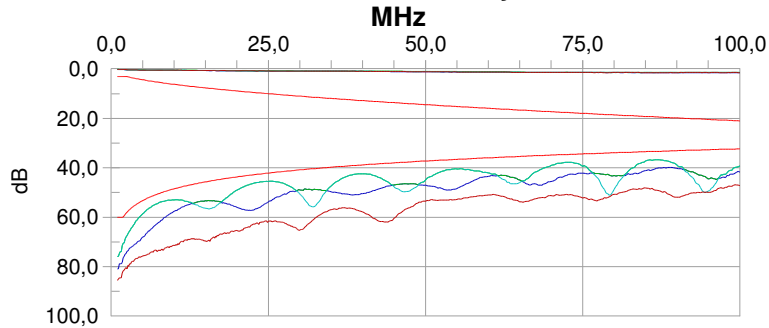
Return Loss DH Summary



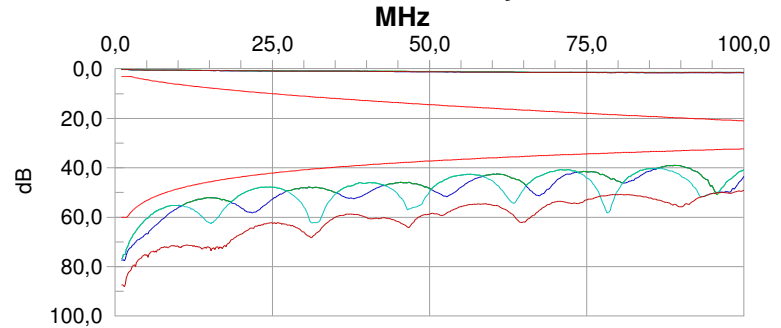
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

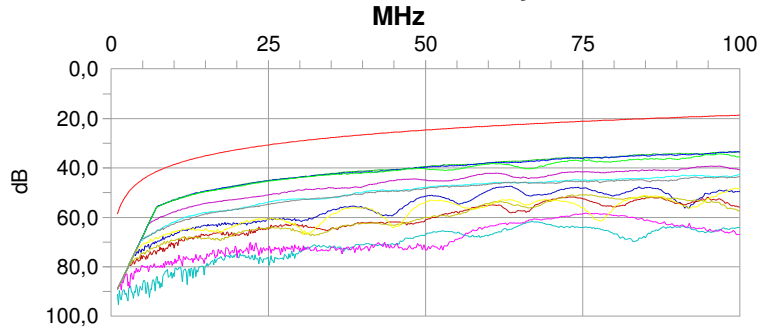
Cable ID 1: 3/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:21:29
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

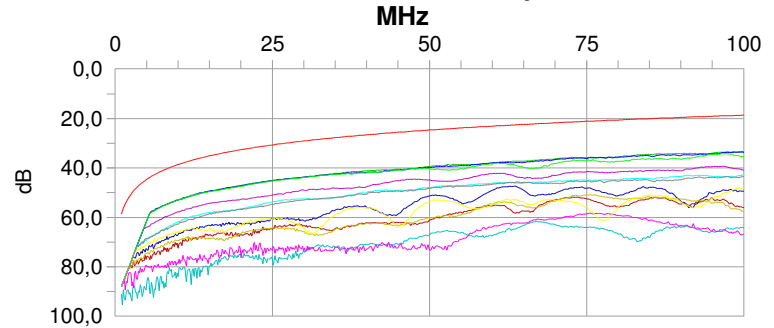
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

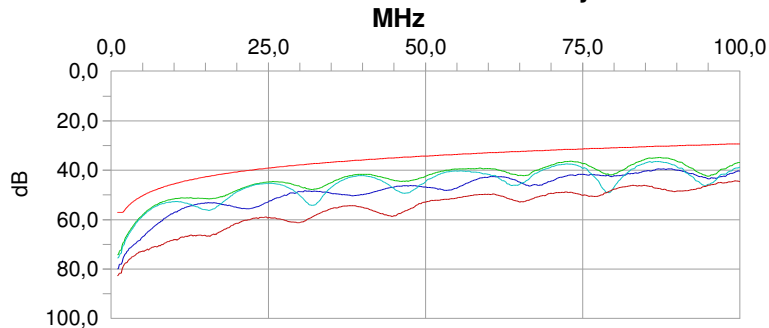
ELFEXT DH Summary



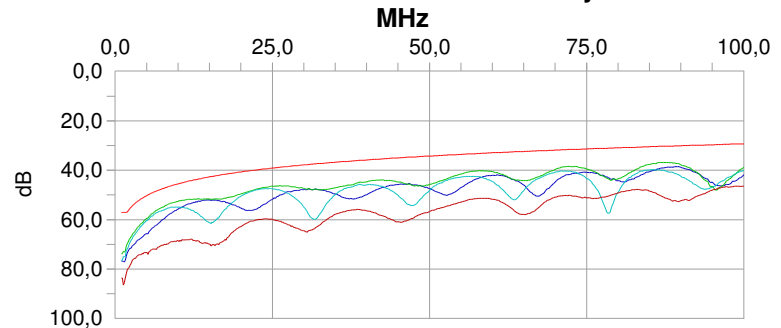
ELFEXT RH Summary



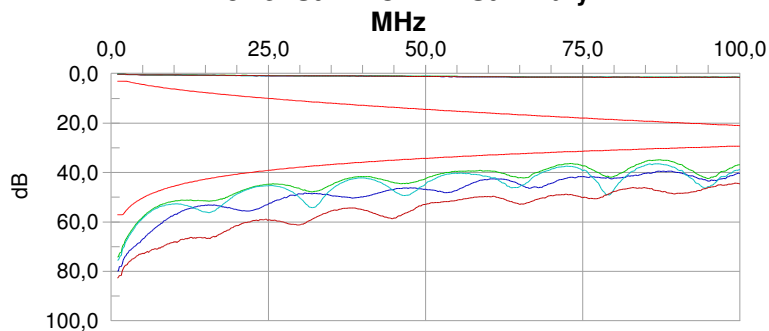
Power Sum NEXT DH Summary



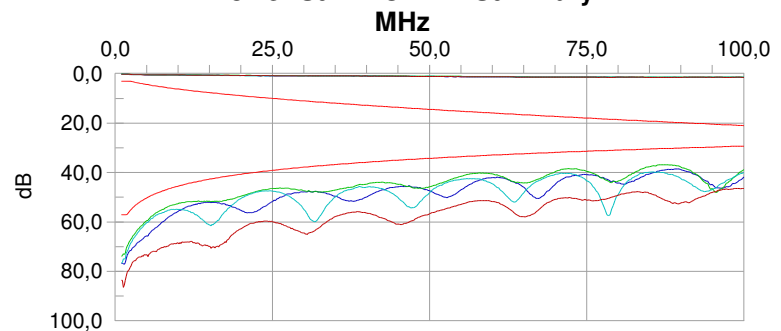
Power Sum NEXT RH Summary



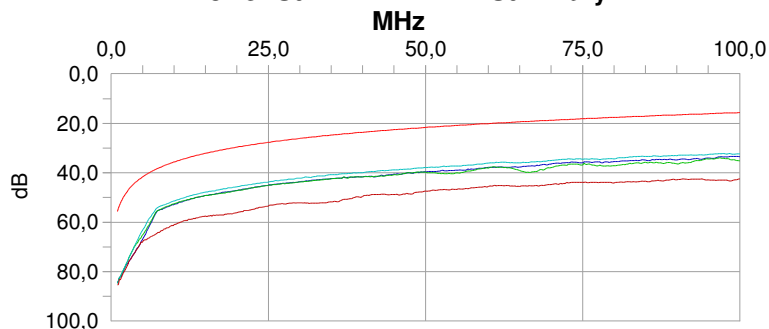
Power Sum ACR DH Summary



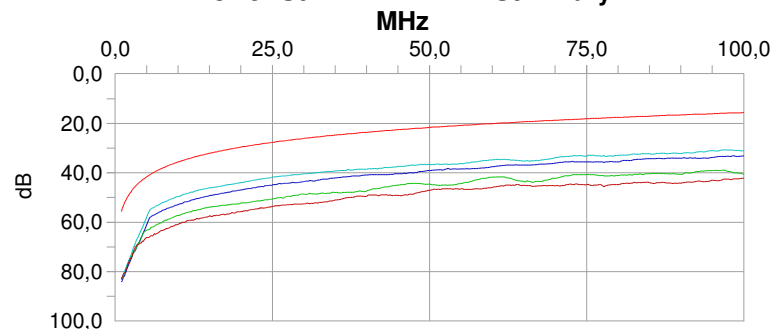
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

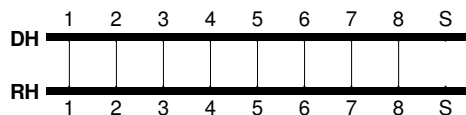
Cable ID 1: 3/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:25:10
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	34.7m	35.3m	35.6m	35.0m	< 90.0m	Pass
Prop. Delay	182.3ns	185.2ns	187.2ns	182.7ns	< 498.0ns	Pass
Delay Skew	4.9ns (Pairs 5,4 vs. 7,8)				< 44.0 ns	Pass
Headroom	15.5 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	40.0 dB @ 50.50MHz	37.7 dB	> 37.2 dB	2.8 dB
7,8-5,4	DH	Pass	52.9 dB @ 49.25MHz	52.8 dB	> 37.3 dB	15.6 dB
7,8-1,2	DH	Pass	49.0 dB @ 31.00MHz	43.9 dB	> 40.6 dB	8.4 dB
3,6-5,4	DH	Pass	51.0 dB @ 10.60MHz	37.4 dB	> 48.1 dB	2.9 dB
3,6-1,2	DH	Pass	47.0 dB @ 26.65MHz	39.8 dB	> 41.7 dB	5.3 dB
5,4-1,2	DH	Pass	46.5 dB @ 72.00MHz	46.3 dB	> 34.6 dB	11.9 dB
7,8-3,6	RH	Pass	50.9 dB @ 20.20MHz	43.6 dB	> 43.6 dB	7.3 dB
7,8-5,4	RH	Pass	51.7 dB @ 58.25MHz	50.2 dB	> 36.1 dB	15.6 dB
7,8-1,2	RH	Pass	49.4 dB @ 31.50MHz	45.3 dB	> 40.5 dB	8.9 dB
3,6-5,4	RH	Pass	55.6 dB @ 10.45MHz	44.4 dB	> 48.2 dB	7.4 dB
3,6-1,2	RH	Pass	49.7 dB @ 33.50MHz	44.5 dB	> 40.1 dB	9.6 dB
5,4-1,2	RH	Pass	55.8 dB @ 31.50MHz	48.6 dB	> 40.5 dB	15.3 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	20.9 dB @ 1.15MHz	17.6 dB	> 19.0 dB	1.9 dB
3,6	DH	Pass	20.4 dB @ 1.15MHz	17.3 dB	> 19.0 dB	1.4 dB
5,4	DH	Pass	16.0 dB @ 87.75MHz	16.0 dB	> 12.6 dB	3.4 dB
1,2	DH	Pass	21.6 dB @ 1.15MHz	17.8 dB	> 19.0 dB	2.6 dB
7,8	RH	Pass	20.7 dB @ 1.15MHz	15.8 dB	> 19.0 dB	1.7 dB
3,6	RH	Pass	19.9 dB @ 1.15MHz	19.0 dB	> 19.0 dB	0.9 dB
5,4	RH	Pass	18.3 dB @ 48.25MHz	18.1 dB	> 15.2 dB	3.1 dB
1,2	RH	Pass	20.9 dB @ 1.15MHz	20.7 dB	> 19.0 dB	1.9 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.0 dB @ 2.50MHz	7.2 dB	< 3.1 dB	2.1 dB
3,6	Pass	1.0 dB @ 2.50MHz	7.6 dB	< 3.1 dB	2.1 dB
5,4	Pass	1.1 dB @ 2.50MHz	7.7 dB	< 3.1 dB	2.0 dB
1,2	Pass	1.0 dB @ 2.50MHz	7.2 dB	< 3.1 dB	2.1 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	30.7 dB @ 93.00MHz	N/A	>= 12.6 dB	18.1 dB
3,6	DH	Pass	30.6 dB @ 96.75MHz	N/A	>= 11.9 dB	18.7 dB
5,4	DH	Pass	30.8 dB @ 75.25MHz	N/A	>= 16.3 dB	14.5 dB
1,2	DH	Pass	33.2 dB @ 82.25MHz	N/A	>= 14.8 dB	18.4 dB
7,8	RH	Pass	37.0 dB @ 92.00MHz	N/A	>= 12.9 dB	24.1 dB
3,6	RH	Pass	37.1 dB @ 79.75MHz	N/A	>= 15.4 dB	21.7 dB
5,4	RH	Pass	37.5 dB @ 84.50MHz	N/A	>= 14.4 dB	23.1 dB
1,2	RH	Pass	37.9 dB @ 82.50MHz	N/A	>= 14.8 dB	23.1 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 3/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:25:10
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	33.5 dB @ 86.25MHz	33.5 dB	> 19.9 dB	13.6 dB
7,8-5,4	DH	Pass	65.4 dB @ 5.65MHz	41.7 dB	> 43.6 dB	21.8 dB
7,8-1,2	DH	Pass	37.6 dB @ 98.75MHz	37.6 dB	> 18.7 dB	18.9 dB
3,6-7,8	DH	Pass	41.9 dB @ 50.75MHz	39.6 dB	> 24.5 dB	17.4 dB
3,6-5,4	DH	Pass	57.6 dB @ 8.35MHz	38.5 dB	> 40.2 dB	17.4 dB
3,6-1,2	DH	Pass	45.7 dB @ 98.75MHz	45.7 dB	> 18.7 dB	27.0 dB
5,4-7,8	DH	Pass	65.0 dB @ 5.95MHz	43.7 dB	> 43.1 dB	21.9 dB
5,4-3,6	DH	Pass	54.1 dB @ 7.90MHz	35.3 dB	> 40.7 dB	13.4 dB
5,4-1,2	DH	Pass	55.1 dB @ 7.45MHz	38.2 dB	> 41.2 dB	13.9 dB
1,2-7,8	DH	Pass	37.8 dB @ 91.00MHz	37.8 dB	> 19.4 dB	18.4 dB
1,2-3,6	DH	Pass	39.6 dB @ 85.25MHz	39.2 dB	> 20.0 dB	19.6 dB
1,2-5,4	DH	Pass	55.3 dB @ 7.60MHz	37.9 dB	> 41.0 dB	14.3 dB
7,8-3,6	RH	Pass	34.0 dB @ 86.25MHz	33.8 dB	> 19.9 dB	14.1 dB
7,8-5,4	RH	Pass	65.5 dB @ 5.65MHz	42.4 dB	> 43.6 dB	21.9 dB
7,8-1,2	RH	Pass	37.7 dB @ 98.75MHz	37.7 dB	> 18.7 dB	19.0 dB
3,6-7,8	RH	Pass	42.0 dB @ 50.75MHz	39.3 dB	> 24.5 dB	17.5 dB
3,6-5,4	RH	Pass	62.4 dB @ 4.90MHz	39.1 dB	> 44.8 dB	17.6 dB
3,6-1,2	RH	Pass	45.8 dB @ 97.25MHz	45.7 dB	> 18.9 dB	26.9 dB
5,4-7,8	RH	Pass	67.2 dB @ 4.60MHz	43.0 dB	> 45.4 dB	21.8 dB
5,4-3,6	RH	Pass	56.2 dB @ 5.95MHz	34.9 dB	> 43.1 dB	13.1 dB
5,4-1,2	RH	Pass	54.5 dB @ 7.90MHz	37.6 dB	> 40.7 dB	13.8 dB
1,2-7,8	RH	Pass	37.8 dB @ 90.75MHz	37.7 dB	> 19.5 dB	18.3 dB
1,2-3,6	RH	Pass	40.6 dB @ 78.75MHz	39.5 dB	> 20.7 dB	19.9 dB
1,2-5,4	RH	Pass	58.1 dB @ 5.50MHz	38.5 dB	> 43.8 dB	14.3 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	39.7 dB @ 50.50MHz	37.1 dB	> 34.2 dB	5.5 dB
3,6	DH	Pass	36.0 dB @ 66.50MHz	35.0 dB	> 32.2 dB	3.8 dB
5,4	DH	Pass	50.9 dB @ 10.60MHz	37.1 dB	> 45.1 dB	5.8 dB
1,2	DH	Pass	46.7 dB @ 26.65MHz	39.1 dB	> 38.7 dB	8.0 dB
7,8	RH	Pass	46.8 dB @ 32.00MHz	41.1 dB	> 37.4 dB	9.4 dB
3,6	RH	Pass	53.4 dB @ 10.90MHz	40.9 dB	> 44.9 dB	8.5 dB
5,4	RH	Pass	55.7 dB @ 10.15MHz	43.9 dB	> 45.4 dB	10.3 dB
1,2	RH	Pass	47.3 dB @ 32.00MHz	42.1 dB	> 37.4 dB	9.9 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	30.0 dB @ 93.00MHz	N/A	>= 9.6 dB	20.4 dB
3,6	DH	Pass	28.3 dB @ 86.00MHz	N/A	>= 11.1 dB	17.2 dB
5,4	DH	Pass	30.5 dB @ 75.25MHz	N/A	>= 13.3 dB	17.2 dB
1,2	DH	Pass	32.5 dB @ 82.25MHz	N/A	>= 11.8 dB	20.7 dB
7,8	RH	Pass	34.2 dB @ 92.00MHz	N/A	>= 9.9 dB	24.3 dB
3,6	RH	Pass	34.2 dB @ 83.00MHz	N/A	>= 11.7 dB	22.5 dB
5,4	RH	Pass	36.7 dB @ 99.25MHz	N/A	>= 8.5 dB	28.2 dB
1,2	RH	Pass	34.9 dB @ 100.00MHz	N/A	>= 8.3 dB	26.6 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	39.6 dB @ 50.75MHz	35.6 dB	>= 21.5 dB	18.1 dB
3,6	DH	Pass	31.3 dB @ 86.25MHz	31.0 dB	>= 16.9 dB	14.4 dB
5,4	DH	Pass	52.3 dB @ 8.35MHz	35.4 dB	>= 37.2 dB	15.1 dB
1,2	DH	Pass	44.1 dB @ 27.10MHz	34.8 dB	>= 27.0 dB	17.1 dB
7,8	RH	Pass	32.8 dB @ 86.25MHz	32.3 dB	>= 16.9 dB	15.9 dB
3,6	RH	Pass	43.2 dB @ 36.00MHz	35.9 dB	>= 24.5 dB	18.7 dB
5,4	RH	Pass	50.9 dB @ 7.90MHz	32.9 dB	>= 37.7 dB	13.2 dB
1,2	RH	Pass	36.1 dB @ 68.00MHz	34.3 dB	>= 19.0 dB	17.1 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

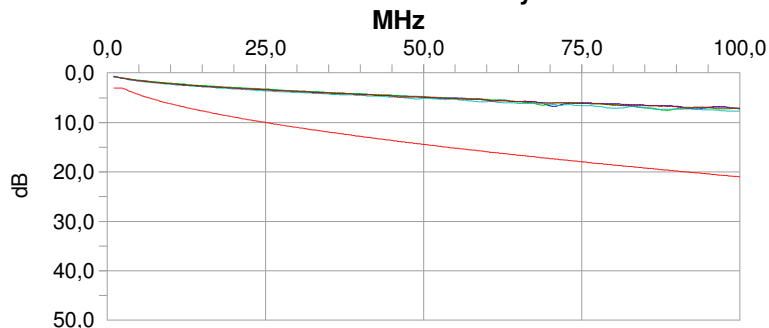
Cable ID 1: 3/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:25:10
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

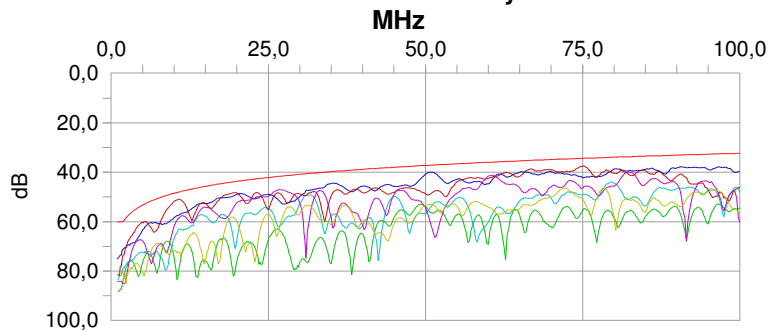
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

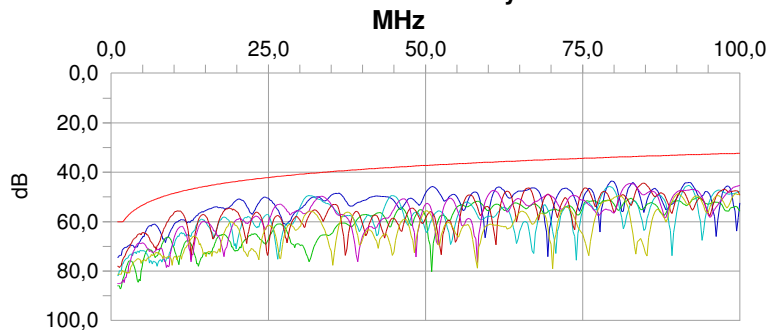
Attenuation Summary



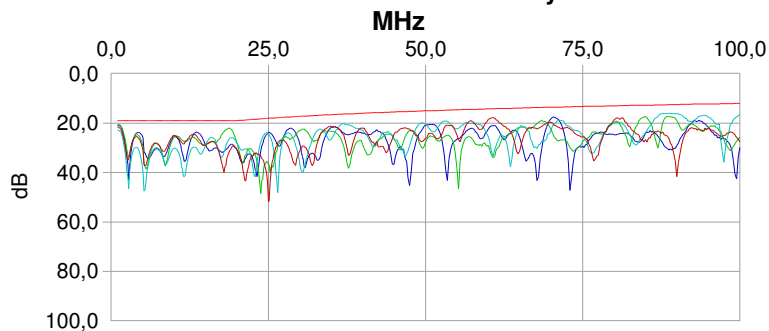
NEXT DH Summary



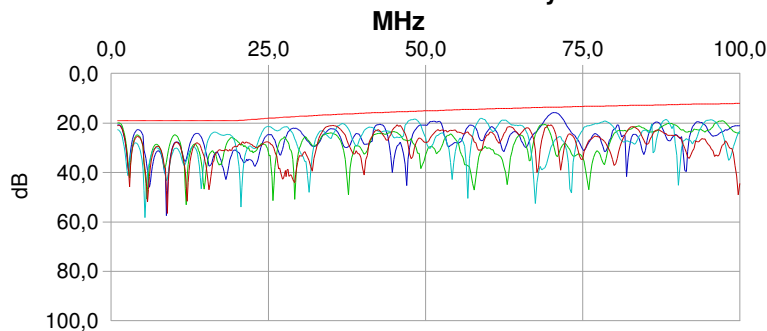
NEXT RH Summary



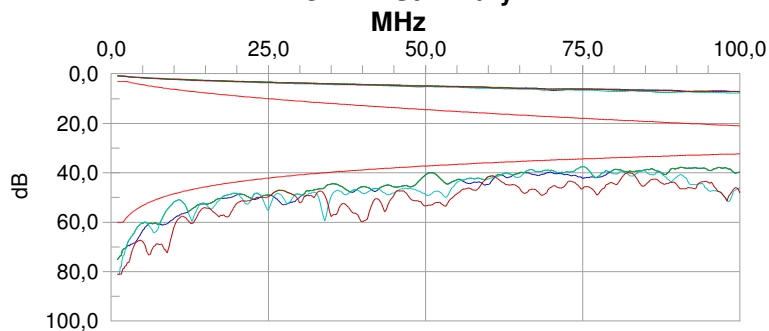
Return Loss DH Summary



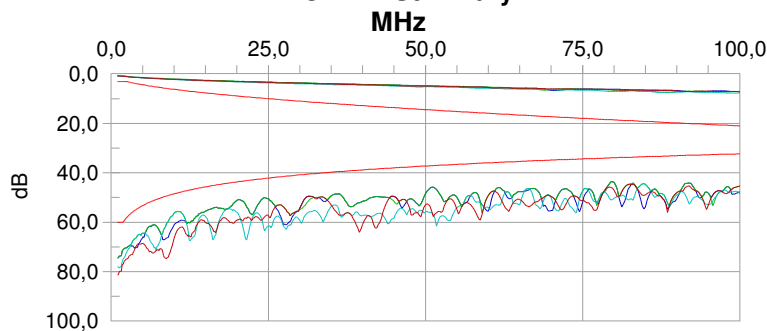
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

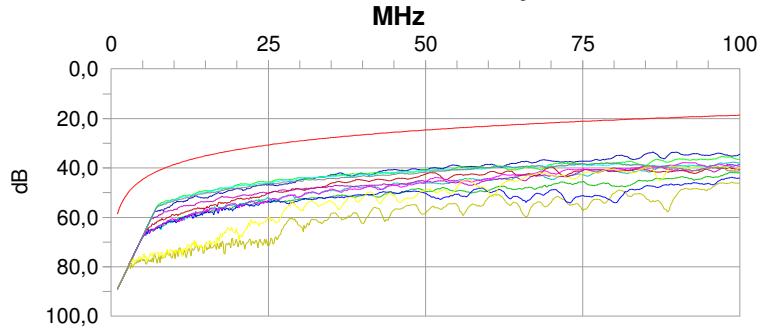
Cable ID 1: 3/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:25:10
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

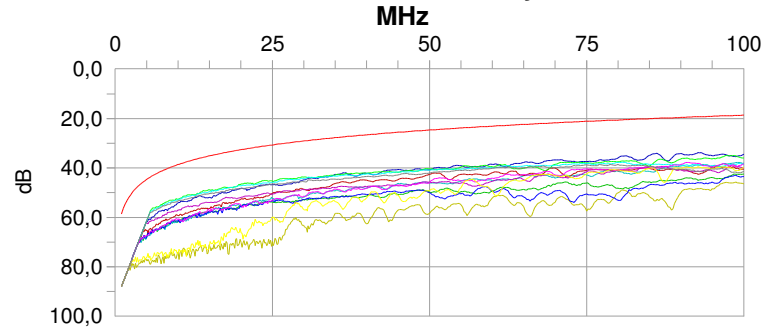
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

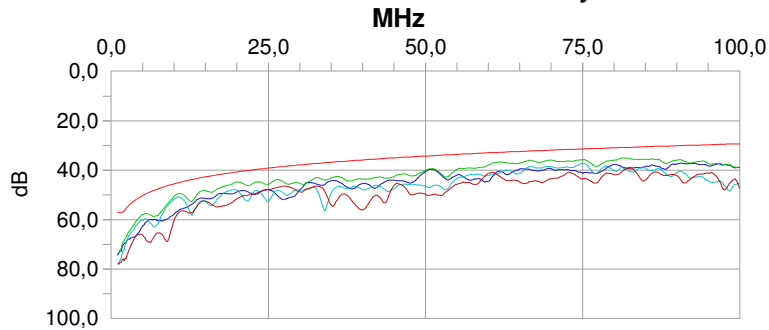
ELFEXT DH Summary



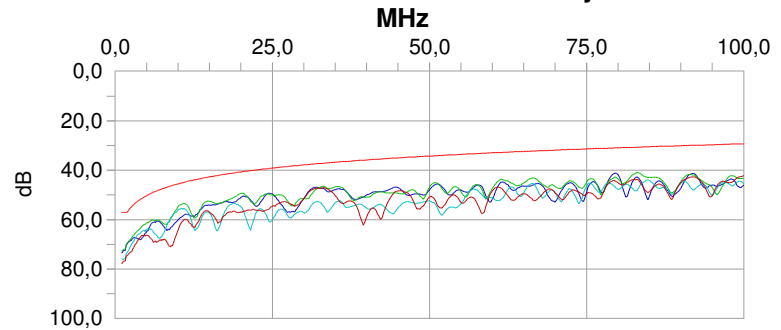
ELFEXT RH Summary



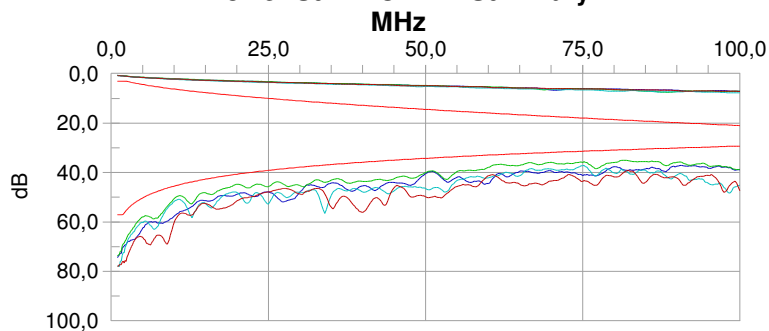
Power Sum NEXT DH Summary



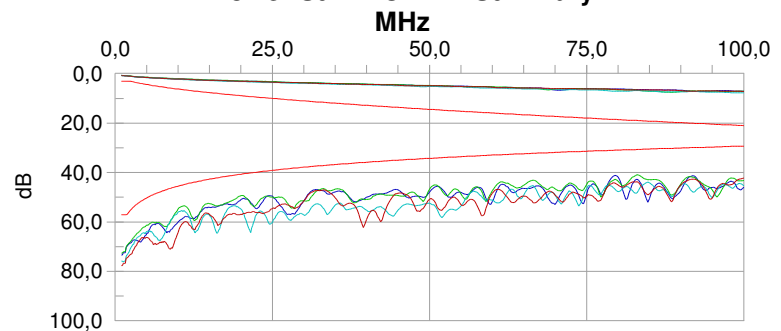
Power Sum NEXT RH Summary



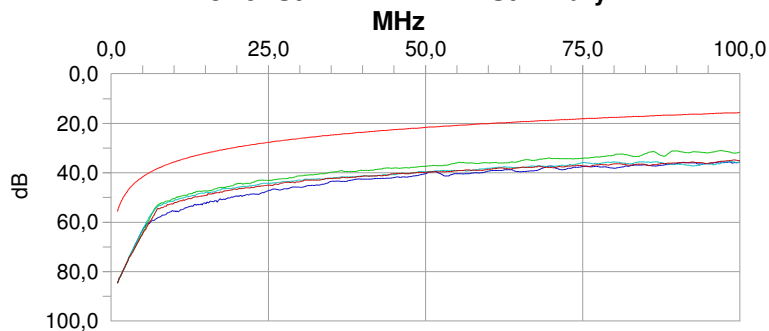
Power Sum ACR DH Summary



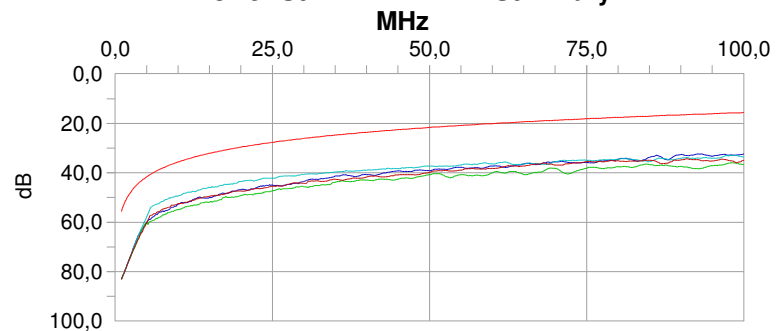
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

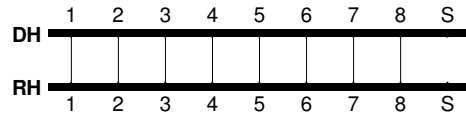
Cable ID 1: 3/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:26:01
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	34.9m	35.4m	35.7m	35.0m	< 90.0m	Pass
Prop. Delay	183.5ns	185.6ns	187.9ns	182.5ns	< 498.0ns	Pass
Delay Skew	5.4ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	17.5 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	44.8 dB @ 30.70MHz	39.1 dB	> 40.7 dB	4.1 dB
7,8-5,4	DH	Pass	51.5 dB @ 72.75MHz	51.5 dB	> 34.6 dB	16.9 dB
7,8-1,2	DH	Pass	48.3 dB @ 34.25MHz	45.8 dB	> 39.9 dB	8.4 dB
3,6-5,4	DH	Pass	48.3 dB @ 20.05MHz	41.6 dB	> 43.7 dB	4.6 dB
3,6-1,2	DH	Pass	42.5 dB @ 88.75MHz	42.5 dB	> 33.2 dB	9.3 dB
5,4-1,2	DH	Pass	55.0 dB @ 37.25MHz	50.5 dB	> 39.3 dB	15.7 dB
7,8-3,6	RH	Pass	49.5 dB @ 15.25MHz	38.2 dB	> 45.6 dB	3.9 dB
7,8-5,4	RH	Pass	65.2 dB @ 8.65MHz	50.7 dB	> 49.5 dB	15.7 dB
7,8-1,2	RH	Pass	50.2 dB @ 35.00MHz	50.1 dB	> 39.7 dB	10.5 dB
3,6-5,4	RH	Pass	62.3 dB @ 4.45MHz	44.3 dB	> 54.1 dB	8.2 dB
3,6-1,2	RH	Pass	45.0 dB @ 100.00MHz	45.0 dB	> 32.3 dB	12.7 dB
5,4-1,2	RH	Pass	75.5 dB @ 2.05MHz	51.6 dB	> 59.4 dB	16.1 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	20.1 dB @ 1.15MHz	19.0 dB	> 19.0 dB	1.1 dB
3,6	DH	Pass	19.2 dB @ 1.15MHz	19.2 dB	> 19.0 dB	0.2 dB
5,4	DH	Pass	20.6 dB @ 1.00MHz	18.1 dB	> 19.0 dB	1.6 dB
1,2	DH	Pass	19.4 dB @ 1.15MHz	15.7 dB	> 19.0 dB	0.4 dB
7,8	RH	Pass	19.8 dB @ 1.15MHz	18.8 dB	> 19.0 dB	0.8 dB
3,6	RH	Pass	18.8 dB @ 1.15MHz	18.8 dB	> 19.0 dB	-0.2 dB
5,4	RH	Pass	20.2 dB @ 1.15MHz	19.5 dB	> 19.0 dB	1.2 dB
1,2	RH	Pass	19.3 dB @ 1.15MHz	15.6 dB	> 19.0 dB	0.3 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.0 dB @ 2.50MHz	7.3 dB	< 3.1 dB	2.1 dB
3,6	Pass	1.0 dB @ 2.50MHz	7.1 dB	< 3.1 dB	2.1 dB
5,4	Pass	1.0 dB @ 2.50MHz	7.2 dB	< 3.1 dB	2.1 dB
1,2	Pass	1.0 dB @ 2.50MHz	7.3 dB	< 3.1 dB	2.1 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	31.9 dB @ 98.75MHz	N/A	>= 11.6 dB	20.3 dB
3,6	DH	Pass	32.1 dB @ 98.75MHz	N/A	>= 11.6 dB	20.5 dB
5,4	DH	Pass	34.9 dB @ 89.75MHz	N/A	>= 13.3 dB	21.6 dB
1,2	DH	Pass	36.0 dB @ 88.75MHz	N/A	>= 13.6 dB	22.4 dB
7,8	RH	Pass	31.2 dB @ 98.75MHz	N/A	>= 11.6 dB	19.6 dB
3,6	RH	Pass	31.4 dB @ 92.25MHz	N/A	>= 12.8 dB	18.6 dB
5,4	RH	Pass	38.6 dB @ 62.25MHz	N/A	>= 19.5 dB	19.1 dB
1,2	RH	Pass	37.9 dB @ 100.00MHz	N/A	>= 11.3 dB	26.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 3/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:26:01
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	53.6 dB @ 12.40MHz	38.1 dB	> 36.7 dB	16.9 dB
7,8-5,4	DH	Pass	53.6 dB @ 7.75MHz	38.4 dB	> 40.8 dB	12.8 dB
7,8-1,2	DH	Pass	67.5 dB @ 5.35MHz	43.5 dB	> 44.0 dB	23.5 dB
3,6-7,8	DH	Pass	55.1 dB @ 15.40MHz	41.7 dB	> 34.9 dB	20.2 dB
3,6-5,4	DH	Pass	51.8 dB @ 8.05MHz	33.3 dB	> 40.5 dB	11.3 dB
3,6-1,2	DH	Pass	40.7 dB @ 99.50MHz	40.7 dB	> 18.7 dB	22.0 dB
5,4-7,8	DH	Pass	51.7 dB @ 9.40MHz	38.0 dB	> 39.2 dB	12.5 dB
5,4-3,6	DH	Pass	45.9 dB @ 9.70MHz	29.7 dB	> 38.9 dB	7.0 dB
5,4-1,2	DH	Pass	62.1 dB @ 8.35MHz	41.5 dB	> 40.2 dB	21.9 dB
1,2-7,8	DH	Pass	67.6 dB @ 5.20MHz	43.5 dB	> 44.3 dB	23.3 dB
1,2-3,6	DH	Pass	35.9 dB @ 97.00MHz	35.9 dB	> 18.9 dB	17.0 dB
1,2-5,4	DH	Pass	48.6 dB @ 42.75MHz	42.3 dB	> 26.0 dB	22.6 dB
7,8-3,6	RH	Pass	60.7 dB @ 5.20MHz	37.9 dB	> 44.3 dB	16.4 dB
7,8-5,4	RH	Pass	55.4 dB @ 6.25MHz	38.5 dB	> 42.7 dB	12.7 dB
7,8-1,2	RH	Pass	67.5 dB @ 5.35MHz	43.6 dB	> 44.0 dB	23.5 dB
3,6-7,8	RH	Pass	55.2 dB @ 15.40MHz	41.8 dB	> 34.9 dB	20.3 dB
3,6-5,4	RH	Pass	54.0 dB @ 6.25MHz	33.5 dB	> 42.7 dB	11.3 dB
3,6-1,2	RH	Pass	40.8 dB @ 99.50MHz	40.8 dB	> 18.7 dB	22.1 dB
5,4-7,8	RH	Pass	55.4 dB @ 6.10MHz	37.9 dB	> 42.9 dB	12.5 dB
5,4-3,6	RH	Pass	47.8 dB @ 7.45MHz	29.6 dB	> 41.2 dB	6.6 dB
5,4-1,2	RH	Pass	62.0 dB @ 8.35MHz	41.5 dB	> 40.2 dB	21.8 dB
1,2-7,8	RH	Pass	67.6 dB @ 5.20MHz	43.6 dB	> 44.3 dB	23.3 dB
1,2-3,6	RH	Pass	35.9 dB @ 97.00MHz	35.9 dB	> 18.9 dB	17.0 dB
1,2-5,4	RH	Pass	48.8 dB @ 42.75MHz	42.4 dB	> 26.0 dB	22.8 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	44.3 dB @ 30.70MHz	38.3 dB	> 37.7 dB	6.6 dB
3,6	DH	Pass	44.9 dB @ 27.40MHz	38.2 dB	> 38.5 dB	6.4 dB
5,4	DH	Pass	48.1 dB @ 20.05MHz	41.4 dB	> 40.7 dB	7.4 dB
1,2	DH	Pass	46.9 dB @ 34.25MHz	41.5 dB	> 36.9 dB	10.0 dB
7,8	RH	Pass	49.3 dB @ 15.25MHz	38.1 dB	> 42.6 dB	6.7 dB
3,6	RH	Pass	49.2 dB @ 15.25MHz	37.2 dB	> 42.6 dB	6.6 dB
5,4	RH	Pass	61.9 dB @ 4.45MHz	43.7 dB	> 51.1 dB	10.8 dB
1,2	RH	Pass	49.0 dB @ 34.75MHz	44.4 dB	> 36.8 dB	12.2 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	31.1 dB @ 98.75MHz	N/A	>= 8.6 dB	22.5 dB
3,6	DH	Pass	31.2 dB @ 98.75MHz	N/A	>= 8.6 dB	22.6 dB
5,4	DH	Pass	34.6 dB @ 89.75MHz	N/A	>= 10.3 dB	24.3 dB
1,2	DH	Pass	34.9 dB @ 97.50MHz	N/A	>= 8.8 dB	26.1 dB
7,8	RH	Pass	30.9 dB @ 98.75MHz	N/A	>= 8.6 dB	22.3 dB
3,6	RH	Pass	30.2 dB @ 98.75MHz	N/A	>= 8.6 dB	21.6 dB
5,4	RH	Pass	37.9 dB @ 98.75MHz	N/A	>= 8.6 dB	29.3 dB
1,2	RH	Pass	37.3 dB @ 100.00MHz	N/A	>= 8.3 dB	29.0 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	50.9 dB @ 9.40MHz	36.6 dB	>= 36.2 dB	14.7 dB
3,6	DH	Pass	46.1 dB @ 8.95MHz	28.5 dB	>= 36.6 dB	9.5 dB
5,4	DH	Pass	49.1 dB @ 8.20MHz	32.5 dB	>= 37.3 dB	11.8 dB
1,2	DH	Pass	58.7 dB @ 8.35MHz	37.3 dB	>= 37.2 dB	21.5 dB
7,8	RH	Pass	53.8 dB @ 6.25MHz	35.8 dB	>= 39.7 dB	14.1 dB
3,6	RH	Pass	52.7 dB @ 6.85MHz	32.3 dB	>= 38.9 dB	13.8 dB
5,4	RH	Pass	46.7 dB @ 7.45MHz	28.9 dB	>= 38.2 dB	8.5 dB
1,2	RH	Pass	34.5 dB @ 97.00MHz	34.5 dB	>= 15.9 dB	18.6 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

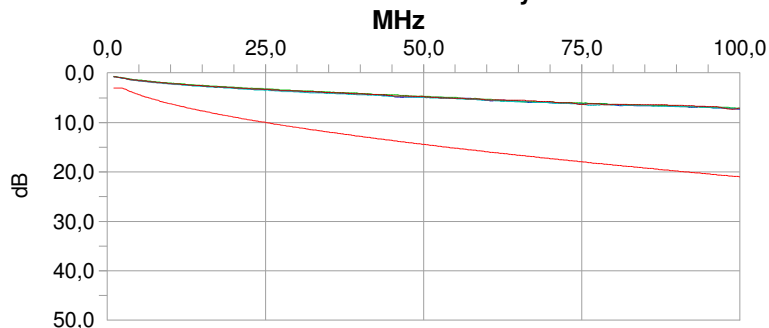
Cable ID 1: 3/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:26:01
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

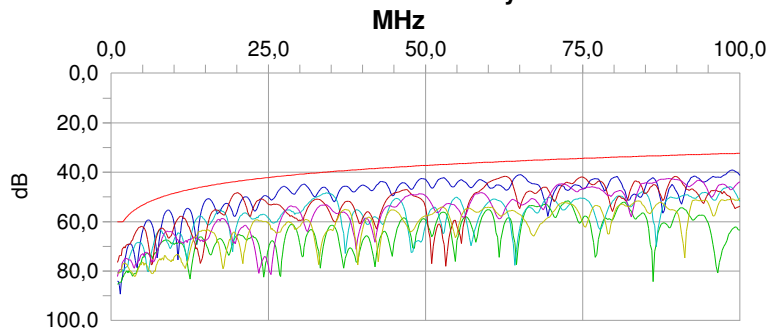
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

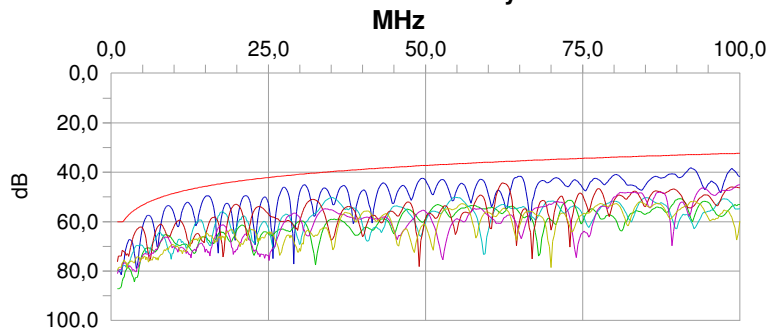
Attenuation Summary



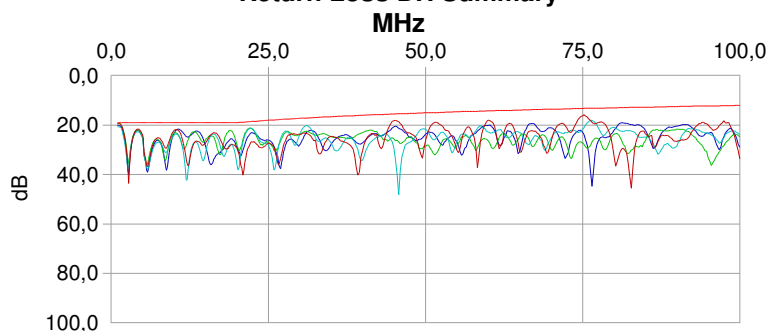
NEXT DH Summary



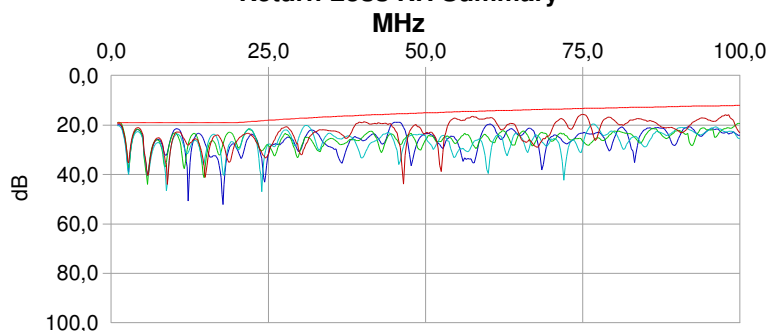
NEXT RH Summary



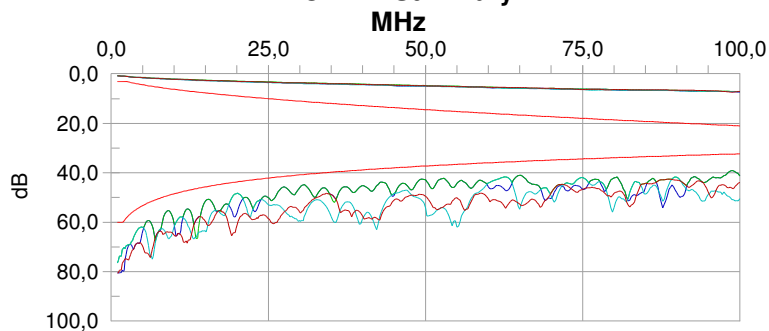
Return Loss DH Summary



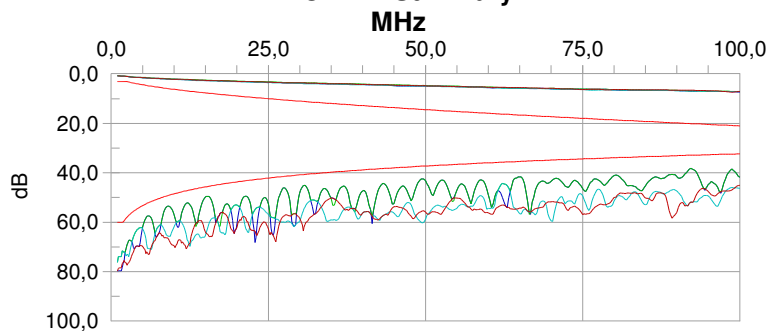
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

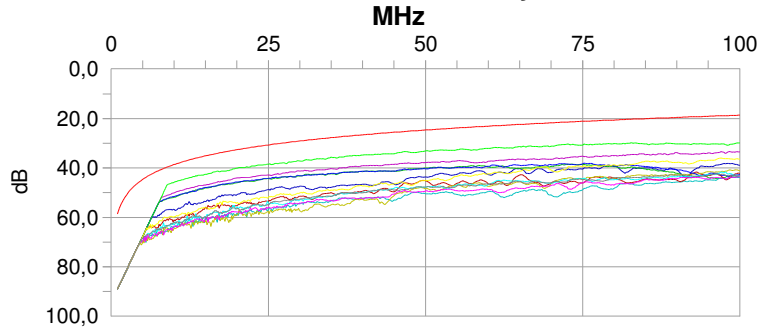
Cable ID 1: 3/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:26:01
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

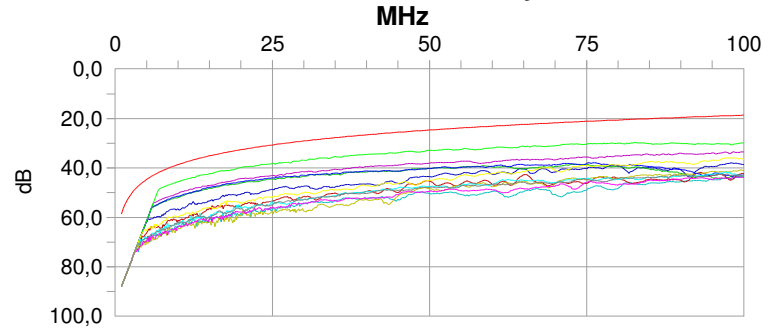
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

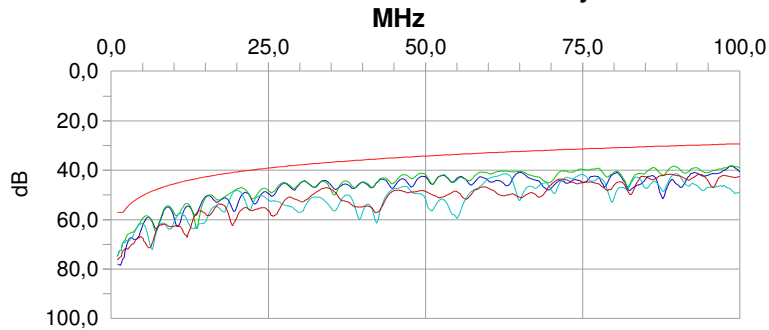
ELFEXT DH Summary



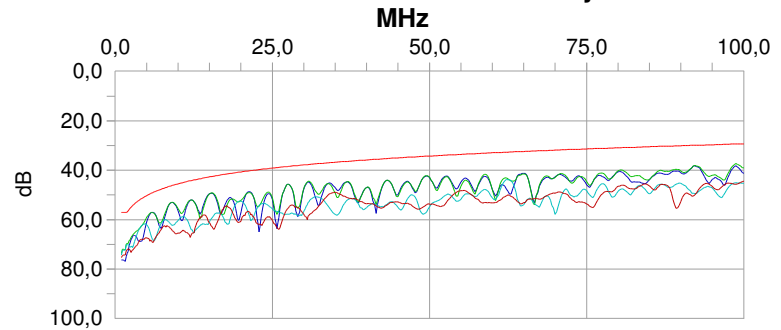
ELFEXT RH Summary



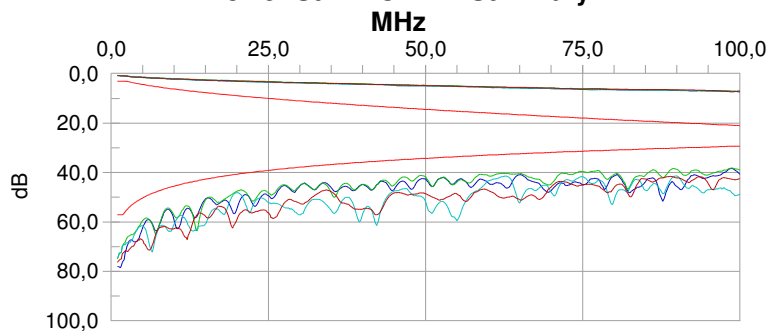
Power Sum NEXT DH Summary



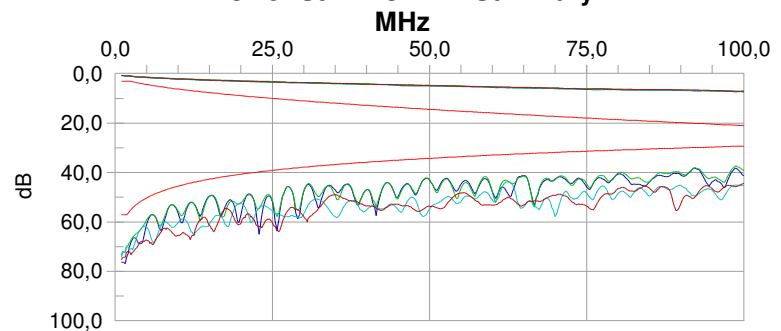
Power Sum NEXT RH Summary



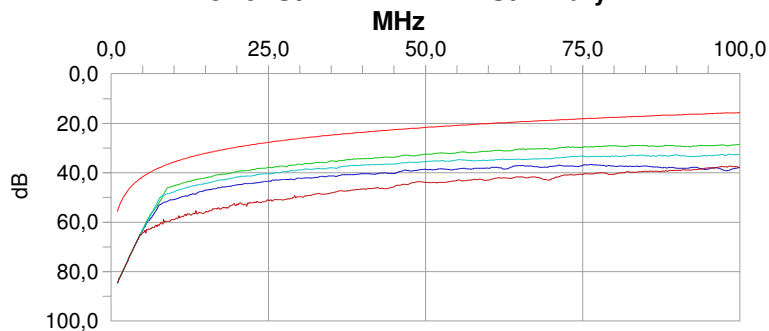
Power Sum ACR DH Summary



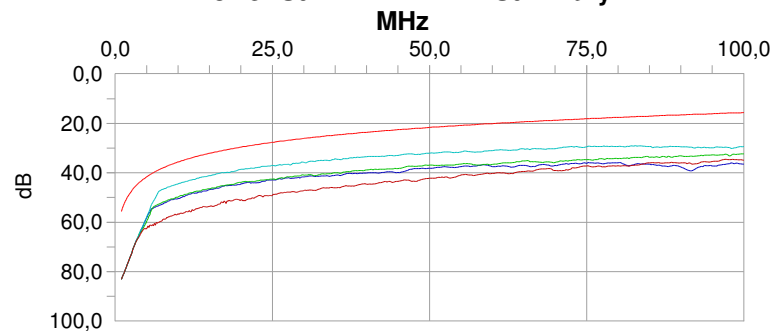
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

FAIL

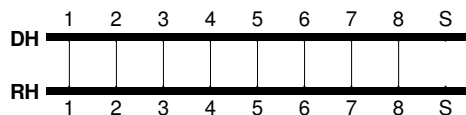
Cable ID 1: 3/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:28:22
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	34.7m	35.2m	35.9m	34.9m	< 90.0m	Pass
Prop. Delay	182.3ns	185.0ns	188.7ns	182.1ns	< 498.0ns	Pass
Delay Skew	6.6ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	13.6 dB					Pass

NEXT: FAIL

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	47.8 dB @ 55.00MHz	44.6 dB	> 36.6 dB	11.2 dB
7,8-5,4	DH	Pass	59.5 dB @ 16.30MHz	52.9 dB	> 45.1 dB	14.4 dB
7,8-1,2	DH	Pass	54.4 dB @ 16.60MHz	47.4 dB	> 45.0 dB	9.4 dB
3,6-5,4	DH	Fail	44.9 dB @ 14.95MHz	34.3 dB	> 45.7 dB	-0.8 dB
3,6-1,2	DH	Pass	40.0 dB @ 60.75MHz	39.9 dB	> 35.9 dB	4.1 dB
5,4-1,2	DH	Pass	43.1 dB @ 62.25MHz	43.1 dB	> 35.7 dB	7.4 dB
7,8-3,6	RH	Pass	45.6 dB @ 55.50MHz	41.8 dB	> 36.5 dB	9.1 dB
7,8-5,4	RH	Pass	57.3 dB @ 26.05MHz	49.0 dB	> 41.8 dB	15.5 dB
7,8-1,2	RH	Pass	56.1 dB @ 16.75MHz	47.3 dB	> 44.9 dB	11.2 dB
3,6-5,4	RH	Pass	52.3 dB @ 10.90MHz	43.2 dB	> 47.9 dB	4.4 dB
3,6-1,2	RH	Pass	48.2 dB @ 42.50MHz	47.7 dB	> 38.4 dB	9.8 dB
5,4-1,2	RH	Pass	60.5 dB @ 8.95MHz	53.4 dB	> 49.3 dB	11.2 dB

Return Loss: FAIL

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	20.4 dB @ 1.15MHz	19.3 dB	> 19.0 dB	1.4 dB
3,6	DH	Pass	20.7 dB @ 1.15MHz	18.9 dB	> 19.0 dB	1.7 dB
5,4	DH	Pass	18.8 dB @ 1.60MHz	16.4 dB	> 19.0 dB	-0.2 dB
1,2	DH	Pass	20.7 dB @ 1.15MHz	18.3 dB	> 19.0 dB	1.7 dB
7,8	RH	Pass	20.3 dB @ 1.15MHz	20.0 dB	> 19.0 dB	1.3 dB
3,6	RH	Pass	20.7 dB @ 1.00MHz	19.8 dB	> 19.0 dB	1.7 dB
5,4	RH	Fail	18.6 dB @ 1.30MHz	17.0 dB	> 19.0 dB	-0.4 dB
1,2	RH	Pass	20.6 dB @ 1.15MHz	18.2 dB	> 19.0 dB	1.6 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.0 dB @ 2.50MHz	7.0 dB	< 3.1 dB	2.1 dB
3,6	Pass	1.0 dB @ 2.50MHz	7.1 dB	< 3.1 dB	2.1 dB
5,4	Pass	1.0 dB @ 2.50MHz	6.9 dB	< 3.1 dB	2.1 dB
1,2	Pass	1.0 dB @ 2.50MHz	7.0 dB	< 3.1 dB	2.1 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	37.6 dB @ 97.75MHz	N/A	>= 11.8 dB	25.8 dB
3,6	DH	Pass	27.2 dB @ 100.00MHz	N/A	>= 11.3 dB	15.9 dB
5,4	DH	Pass	27.4 dB @ 90.25MHz	N/A	>= 13.2 dB	14.2 dB
1,2	DH	Pass	33.2 dB @ 92.00MHz	N/A	>= 12.9 dB	20.3 dB
7,8	RH	Pass	34.8 dB @ 97.50MHz	N/A	>= 11.8 dB	23.0 dB
3,6	RH	Pass	34.8 dB @ 97.25MHz	N/A	>= 11.8 dB	23.0 dB
5,4	RH	Pass	36.7 dB @ 87.00MHz	N/A	>= 13.9 dB	22.8 dB
1,2	RH	Pass	40.7 dB @ 98.75MHz	N/A	>= 11.6 dB	29.1 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

FAIL

Cable ID 1: 3/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:28:22
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	46.5 dB @ 65.75MHz	46.5 dB	> 22.3 dB	24.2 dB
7,8-5,4	DH	Pass	41.7 dB @ 94.75MHz	41.6 dB	> 19.1 dB	22.6 dB
7,8-1,2	DH	Pass	53.3 dB @ 10.90MHz	38.4 dB	> 37.9 dB	15.4 dB
3,6-7,8	DH	Pass	56.0 dB @ 39.50MHz	51.9 dB	> 26.7 dB	29.3 dB
3,6-5,4	DH	Pass	61.2 dB @ 6.25MHz	40.3 dB	> 42.7 dB	18.5 dB
3,6-1,2	DH	Pass	43.1 dB @ 100.00MHz	43.1 dB	> 18.6 dB	24.5 dB
5,4-7,8	DH	Pass	39.6 dB @ 98.25MHz	39.5 dB	> 18.8 dB	20.8 dB
5,4-3,6	DH	Pass	51.5 dB @ 11.80MHz	38.8 dB	> 37.2 dB	14.3 dB
5,4-1,2	DH	Pass	42.5 dB @ 37.00MHz	37.4 dB	> 27.2 dB	15.3 dB
1,2-7,8	DH	Pass	49.0 dB @ 17.20MHz	37.4 dB	> 33.9 dB	15.1 dB
1,2-3,6	DH	Pass	38.7 dB @ 78.00MHz	37.0 dB	> 20.8 dB	17.9 dB
1,2-5,4	DH	Pass	41.7 dB @ 48.50MHz	37.6 dB	> 24.9 dB	16.8 dB
7,8-3,6	RH	Pass	48.1 dB @ 55.25MHz	46.9 dB	> 23.8 dB	24.3 dB
7,8-5,4	RH	Pass	41.7 dB @ 94.75MHz	41.5 dB	> 19.1 dB	22.6 dB
7,8-1,2	RH	Pass	53.3 dB @ 10.90MHz	38.2 dB	> 37.9 dB	15.4 dB
3,6-7,8	RH	Pass	55.9 dB @ 39.50MHz	51.6 dB	> 26.7 dB	29.2 dB
3,6-5,4	RH	Pass	62.6 dB @ 5.35MHz	40.0 dB	> 44.0 dB	18.6 dB
3,6-1,2	RH	Pass	43.6 dB @ 92.50MHz	43.0 dB	> 19.3 dB	24.3 dB
5,4-7,8	RH	Pass	39.7 dB @ 98.00MHz	39.6 dB	> 18.8 dB	20.9 dB
5,4-3,6	RH	Pass	57.2 dB @ 5.80MHz	39.0 dB	> 43.3 dB	13.9 dB
5,4-1,2	RH	Pass	45.1 dB @ 27.70MHz	37.6 dB	> 29.8 dB	15.3 dB
1,2-7,8	RH	Pass	49.0 dB @ 17.20MHz	37.3 dB	> 33.9 dB	15.1 dB
1,2-3,6	RH	Pass	39.1 dB @ 78.00MHz	37.2 dB	> 20.8 dB	18.3 dB
1,2-5,4	RH	Pass	39.1 dB @ 63.50MHz	37.8 dB	> 22.6 dB	16.5 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	53.1 dB @ 16.60MHz	43.7 dB	> 42.0 dB	11.1 dB
3,6	DH	Pass	44.7 dB @ 14.95MHz	33.2 dB	> 42.7 dB	2.0 dB
5,4	DH	Pass	44.5 dB @ 14.95MHz	34.0 dB	> 42.7 dB	1.8 dB
1,2	DH	Pass	38.5 dB @ 60.75MHz	38.4 dB	> 32.9 dB	5.6 dB
7,8	RH	Pass	44.3 dB @ 55.50MHz	40.8 dB	> 33.5 dB	10.8 dB
3,6	RH	Pass	57.8 dB @ 4.45MHz	40.3 dB	> 51.1 dB	6.7 dB
5,4	RH	Pass	51.5 dB @ 10.90MHz	42.1 dB	> 44.9 dB	6.6 dB
1,2	RH	Pass	47.0 dB @ 42.50MHz	45.1 dB	> 35.4 dB	11.6 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	36.7 dB @ 97.50MHz	N/A	>= 8.8 dB	27.9 dB
3,6	DH	Pass	26.3 dB @ 90.25MHz	N/A	>= 10.2 dB	16.1 dB
5,4	DH	Pass	27.1 dB @ 90.00MHz	N/A	>= 10.3 dB	16.8 dB
1,2	DH	Pass	32.7 dB @ 92.00MHz	N/A	>= 9.9 dB	22.8 dB
7,8	RH	Pass	33.9 dB @ 97.25MHz	N/A	>= 8.8 dB	25.1 dB
3,6	RH	Pass	33.4 dB @ 96.75MHz	N/A	>= 8.9 dB	24.5 dB
5,4	RH	Pass	35.6 dB @ 87.00MHz	N/A	>= 10.9 dB	24.7 dB
1,2	RH	Pass	38.9 dB @ 98.75MHz	N/A	>= 8.6 dB	30.3 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	48.6 dB @ 17.20MHz	35.2 dB	>= 30.9 dB	17.7 dB
3,6	DH	Pass	50.9 dB @ 12.40MHz	34.9 dB	>= 33.7 dB	17.2 dB
5,4	DH	Pass	46.6 dB @ 23.05MHz	35.2 dB	>= 28.4 dB	18.2 dB
1,2	DH	Pass	41.0 dB @ 32.75MHz	34.4 dB	>= 25.3 dB	15.7 dB
7,8	RH	Pass	49.2 dB @ 16.90MHz	36.8 dB	>= 31.1 dB	18.1 dB
3,6	RH	Pass	51.0 dB @ 20.05MHz	38.2 dB	>= 29.6 dB	21.4 dB
5,4	RH	Pass	38.9 dB @ 38.50MHz	34.1 dB	>= 23.9 dB	15.0 dB
1,2	RH	Pass	35.2 dB @ 66.25MHz	33.0 dB	>= 19.2 dB	16.0 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

FAIL

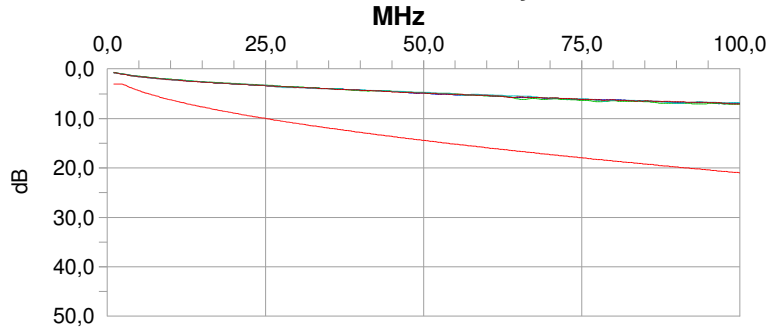
Cable ID 1: 3/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:28:22
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

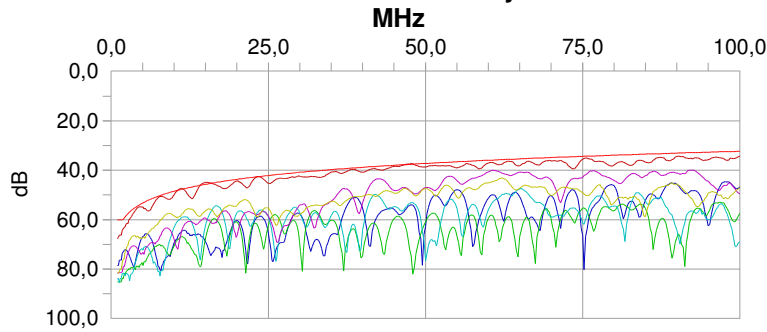
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

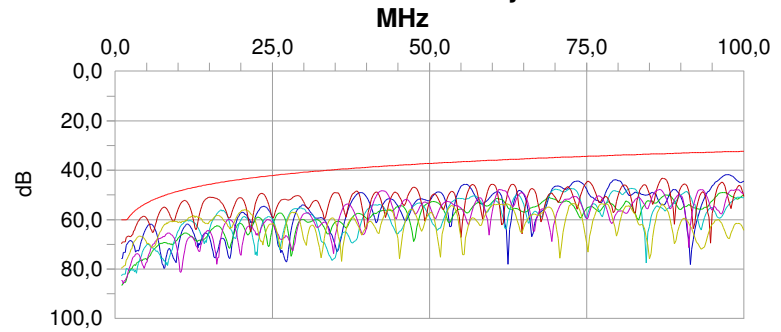
Attenuation Summary



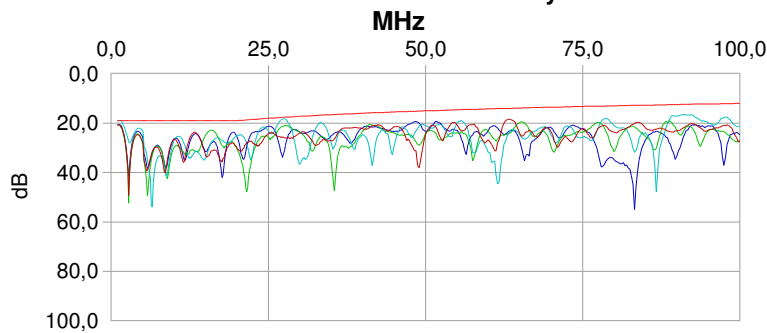
NEXT DH Summary



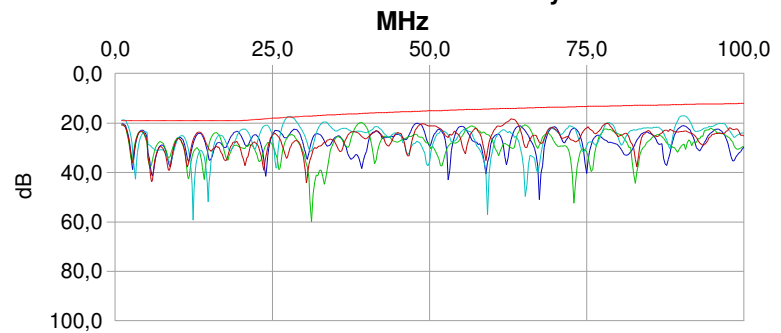
NEXT RH Summary



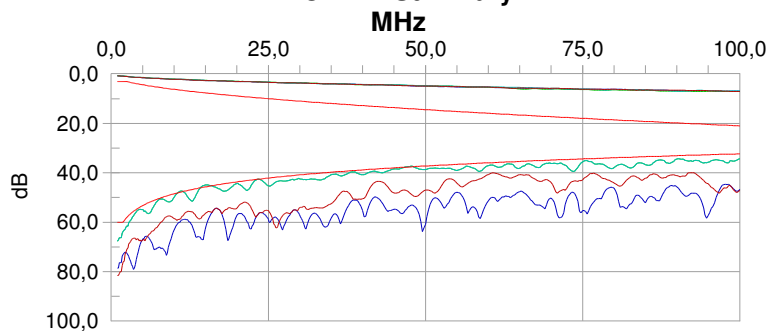
Return Loss DH Summary



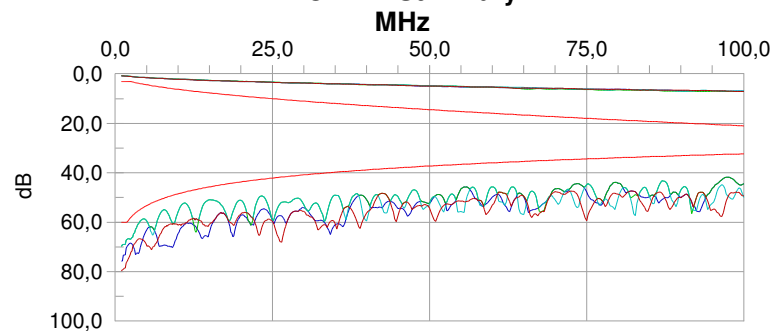
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

FAIL

Cable ID 1: 3/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:28:22
Adapter ID: 6014

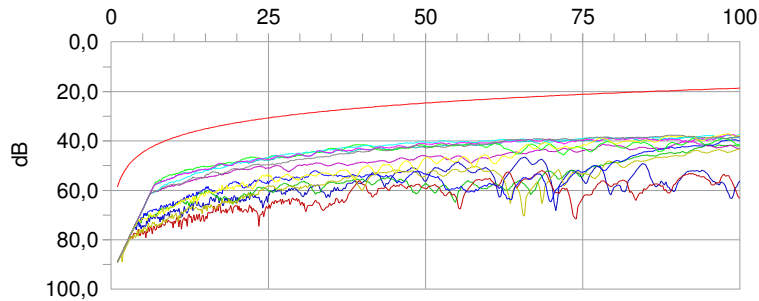
Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

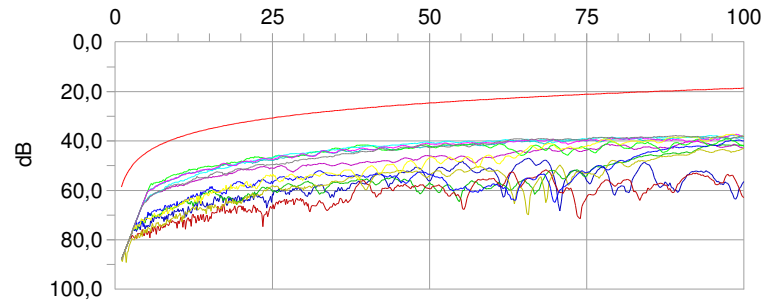
ELFEXT DH Summary

MHz



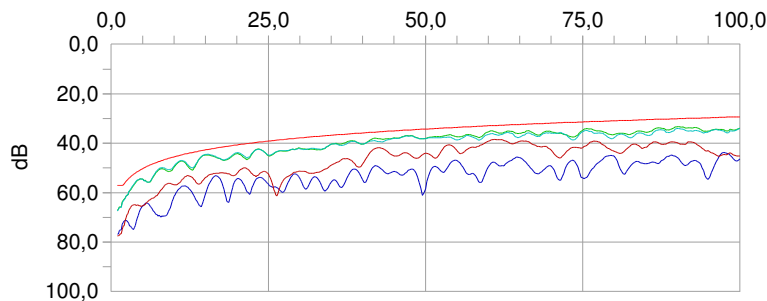
ELFEXT RH Summary

MHz



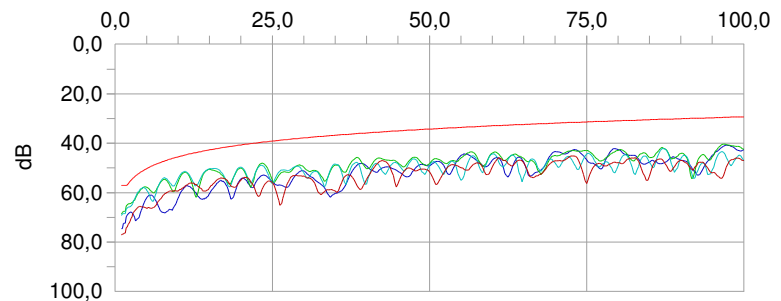
Power Sum NEXT DH Summary

MHz



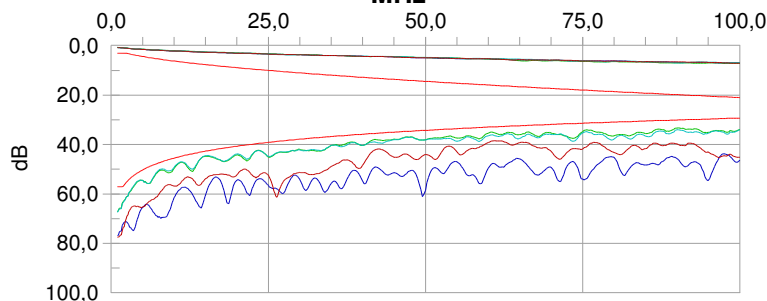
Power Sum NEXT RH Summary

MHz



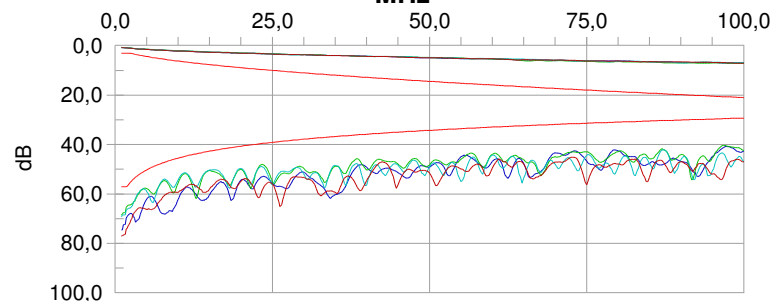
Power Sum ACR DH Summary

MHz



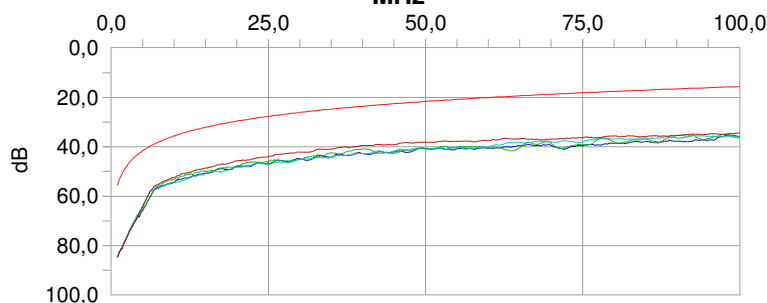
Power Sum ACR RH Summary

MHz



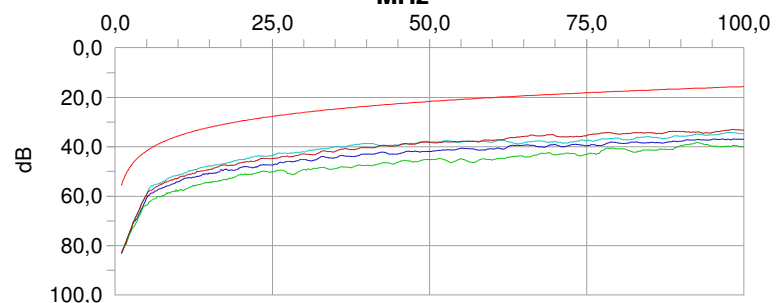
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

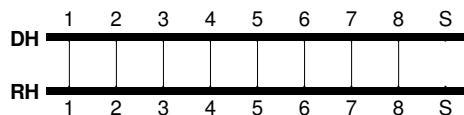
Cable ID 1: 3/18
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:38:09
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	39.5m	39.1m	38.8m	39.9m	< 90.0m	Pass
Prop. Delay	205.2ns	203.5ns	202.2ns	205.6ns	< 498.0ns	Pass
Delay Skew	3.4ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
Headroom	19.8 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	43.7 dB @ 55.00MHz	43.3 dB	> 36.6 dB	7.1 dB
7,8-5,4	DH	Pass	74.5 dB @ 1.90MHz	50.9 dB	> 59.9 dB	14.6 dB
7,8-1,2	DH	Pass	61.5 dB @ 9.10MHz	49.2 dB	> 49.1 dB	12.4 dB
3,6-5,4	DH	Pass	50.1 dB @ 14.80MHz	42.0 dB	> 45.8 dB	4.3 dB
3,6-1,2	DH	Pass	45.2 dB @ 52.50MHz	43.9 dB	> 36.9 dB	8.3 dB
5,4-1,2	DH	Pass	52.8 dB @ 29.05MHz	47.8 dB	> 41.1 dB	11.7 dB
7,8-3,6	RH	Pass	43.4 dB @ 54.75MHz	42.6 dB	> 36.6 dB	6.8 dB
7,8-5,4	RH	Pass	49.6 dB @ 53.00MHz	47.3 dB	> 36.8 dB	12.8 dB
7,8-1,2	RH	Pass	52.4 dB @ 23.80MHz	45.4 dB	> 42.5 dB	9.9 dB
3,6-5,4	RH	Pass	54.7 dB @ 14.65MHz	43.7 dB	> 45.8 dB	8.9 dB
3,6-1,2	RH	Pass	53.0 dB @ 52.50MHz	52.0 dB	> 36.9 dB	16.1 dB
5,4-1,2	RH	Pass	50.7 dB @ 28.90MHz	46.5 dB	> 41.1 dB	9.6 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	21.8 dB @ 1.15MHz	21.8 dB	> 19.0 dB	2.8 dB
3,6	DH	Pass	20.8 dB @ 1.00MHz	20.8 dB	> 19.0 dB	1.8 dB
5,4	DH	Pass	20.4 dB @ 1.00MHz	20.4 dB	> 19.0 dB	1.4 dB
1,2	DH	Pass	22.6 dB @ 1.15MHz	22.6 dB	> 19.0 dB	3.6 dB
7,8	RH	Pass	21.2 dB @ 1.00MHz	21.2 dB	> 19.0 dB	2.2 dB
3,6	RH	Pass	20.2 dB @ 1.00MHz	20.2 dB	> 19.0 dB	1.2 dB
5,4	RH	Pass	19.9 dB @ 1.00MHz	19.9 dB	> 19.0 dB	0.9 dB
1,2	RH	Pass	21.7 dB @ 1.30MHz	21.7 dB	> 19.0 dB	2.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.2 dB @ 2.50MHz	7.9 dB	< 3.1 dB	1.9 dB
3,6	Pass	1.1 dB @ 2.50MHz	7.8 dB	< 3.1 dB	2.0 dB
5,4	Pass	1.1 dB @ 2.50MHz	7.6 dB	< 3.1 dB	2.0 dB
1,2	Pass	1.2 dB @ 2.50MHz	7.9 dB	< 3.1 dB	1.9 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	36.1 dB @ 96.75MHz	N/A	>= 11.9 dB	24.2 dB
3,6	DH	Pass	34.9 dB @ 88.00MHz	N/A	>= 13.6 dB	21.3 dB
5,4	DH	Pass	35.0 dB @ 88.00MHz	N/A	>= 13.6 dB	21.4 dB
1,2	DH	Pass	36.1 dB @ 96.75MHz	N/A	>= 11.9 dB	24.2 dB
7,8	RH	Pass	35.4 dB @ 85.00MHz	N/A	>= 14.3 dB	21.1 dB
3,6	RH	Pass	35.4 dB @ 85.00MHz	N/A	>= 14.3 dB	21.1 dB
5,4	RH	Pass	36.5 dB @ 88.50MHz	N/A	>= 13.6 dB	22.9 dB
1,2	RH	Pass	37.6 dB @ 97.00MHz	N/A	>= 11.9 dB	25.7 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 3/18
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:38:09
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	41.6 dB @ 97.75MHz	41.6 dB	> 18.8 dB	22.8 dB
7,8-5,4	DH	Pass	52.8 dB @ 8.05MHz	35.3 dB	> 40.5 dB	12.3 dB
7,8-1,2	DH	Pass	57.4 dB @ 32.50MHz	49.0 dB	> 28.4 dB	29.0 dB
3,6-7,8	DH	Pass	46.1 dB @ 90.75MHz	46.1 dB	> 19.5 dB	26.6 dB
3,6-5,4	DH	Pass	57.4 dB @ 8.35MHz	37.7 dB	> 40.2 dB	17.2 dB
3,6-1,2	DH	Pass	42.4 dB @ 79.00MHz	41.6 dB	> 20.7 dB	21.7 dB
5,4-7,8	DH	Pass	48.1 dB @ 13.45MHz	35.1 dB	> 36.0 dB	12.1 dB
5,4-3,6	DH	Pass	52.8 dB @ 8.35MHz	33.0 dB	> 40.2 dB	12.6 dB
5,4-1,2	DH	Pass	55.2 dB @ 14.05MHz	45.9 dB	> 35.7 dB	19.5 dB
1,2-7,8	DH	Pass	64.6 dB @ 13.45MHz	48.0 dB	> 36.0 dB	28.6 dB
1,2-3,6	DH	Pass	42.0 dB @ 52.50MHz	37.2 dB	> 24.2 dB	17.8 dB
1,2-5,4	DH	Pass	59.1 dB @ 10.00MHz	46.0 dB	> 38.6 dB	20.5 dB
7,8-3,6	RH	Pass	41.7 dB @ 97.50MHz	41.7 dB	> 18.8 dB	22.9 dB
7,8-5,4	RH	Pass	54.2 dB @ 6.85MHz	35.2 dB	> 41.9 dB	12.3 dB
7,8-1,2	RH	Pass	57.4 dB @ 32.50MHz	49.1 dB	> 28.4 dB	29.0 dB
3,6-7,8	RH	Pass	46.1 dB @ 90.75MHz	46.0 dB	> 19.5 dB	26.6 dB
3,6-5,4	RH	Pass	60.0 dB @ 6.10MHz	37.5 dB	> 42.9 dB	17.1 dB
3,6-1,2	RH	Pass	42.4 dB @ 79.00MHz	41.7 dB	> 20.7 dB	21.7 dB
5,4-7,8	RH	Pass	50.4 dB @ 10.45MHz	35.3 dB	> 38.2 dB	12.2 dB
5,4-3,6	RH	Pass	52.7 dB @ 8.35MHz	33.3 dB	> 40.2 dB	12.5 dB
5,4-1,2	RH	Pass	55.2 dB @ 14.05MHz	46.1 dB	> 35.7 dB	19.5 dB
1,2-7,8	RH	Pass	64.6 dB @ 13.45MHz	47.9 dB	> 36.0 dB	28.6 dB
1,2-3,6	RH	Pass	41.8 dB @ 52.50MHz	37.1 dB	> 24.2 dB	17.6 dB
1,2-5,4	RH	Pass	63.7 dB @ 5.65MHz	45.8 dB	> 43.6 dB	20.1 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	43.4 dB @ 55.25MHz	42.6 dB	> 33.5 dB	9.9 dB
3,6	DH	Pass	40.3 dB @ 55.00MHz	38.9 dB	> 33.6 dB	6.7 dB
5,4	DH	Pass	49.6 dB @ 14.80MHz	41.6 dB	> 42.8 dB	6.8 dB
1,2	DH	Pass	44.5 dB @ 52.50MHz	42.2 dB	> 33.9 dB	10.6 dB
7,8	RH	Pass	42.3 dB @ 54.75MHz	40.8 dB	> 33.6 dB	8.7 dB
3,6	RH	Pass	42.7 dB @ 54.50MHz	40.5 dB	> 33.6 dB	9.1 dB
5,4	RH	Pass	47.0 dB @ 29.35MHz	41.5 dB	> 38.0 dB	9.0 dB
1,2	RH	Pass	49.8 dB @ 23.80MHz	42.6 dB	> 39.5 dB	10.3 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	34.9 dB @ 96.75MHz	N/A	>= 8.9 dB	26.0 dB
3,6	DH	Pass	31.7 dB @ 96.75MHz	N/A	>= 8.9 dB	22.8 dB
5,4	DH	Pass	34.4 dB @ 88.00MHz	N/A	>= 10.6 dB	23.8 dB
1,2	DH	Pass	34.4 dB @ 97.00MHz	N/A	>= 8.9 dB	25.5 dB
7,8	RH	Pass	33.1 dB @ 96.50MHz	N/A	>= 9.0 dB	24.1 dB
3,6	RH	Pass	33.2 dB @ 87.75MHz	N/A	>= 10.7 dB	22.5 dB
5,4	RH	Pass	34.1 dB @ 95.75MHz	N/A	>= 9.1 dB	25.0 dB
1,2	RH	Pass	34.8 dB @ 97.25MHz	N/A	>= 8.8 dB	26.0 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	46.5 dB @ 16.30MHz	34.5 dB	>= 31.4 dB	15.1 dB
3,6	DH	Pass	48.6 dB @ 12.40MHz	31.3 dB	>= 33.7 dB	14.9 dB
5,4	DH	Pass	51.2 dB @ 8.05MHz	33.7 dB	>= 37.5 dB	13.7 dB
1,2	DH	Pass	53.6 dB @ 14.05MHz	40.1 dB	>= 32.7 dB	20.9 dB
7,8	RH	Pass	47.4 dB @ 14.80MHz	34.5 dB	>= 32.2 dB	15.2 dB
3,6	RH	Pass	46.6 dB @ 27.40MHz	35.7 dB	>= 26.9 dB	19.7 dB
5,4	RH	Pass	49.3 dB @ 8.35MHz	31.1 dB	>= 37.2 dB	12.1 dB
1,2	RH	Pass	40.6 dB @ 52.50MHz	36.7 dB	>= 21.2 dB	19.4 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

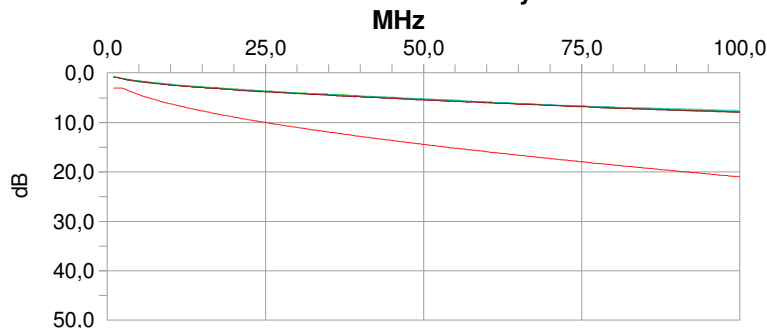
Cable ID 1: 3/18
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:38:09
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

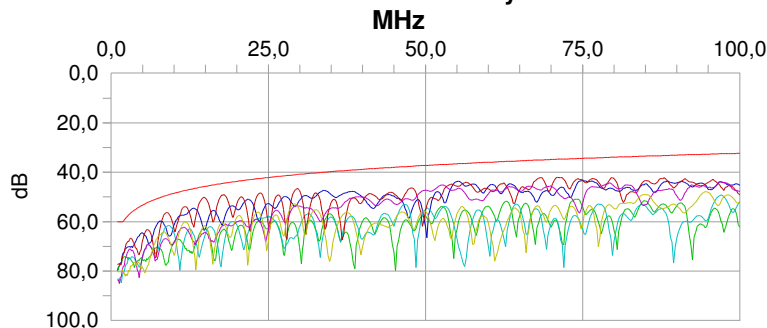
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

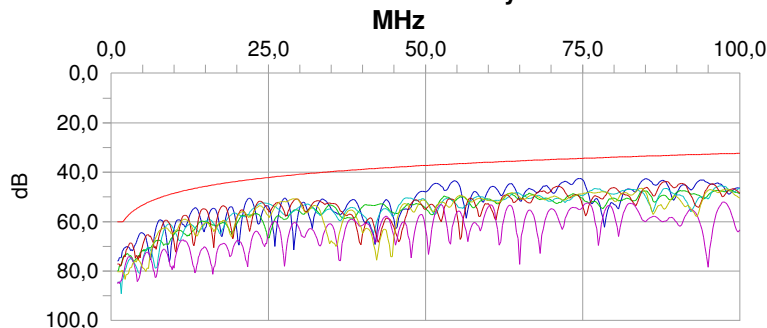
Attenuation Summary



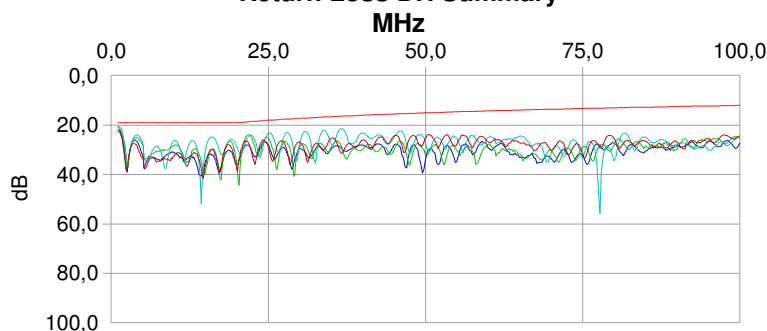
NEXT DH Summary



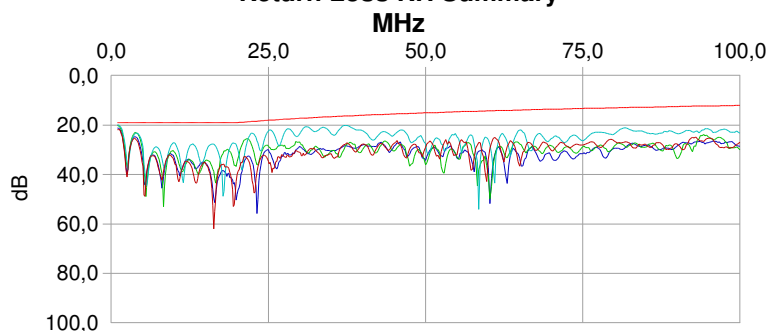
NEXT RH Summary



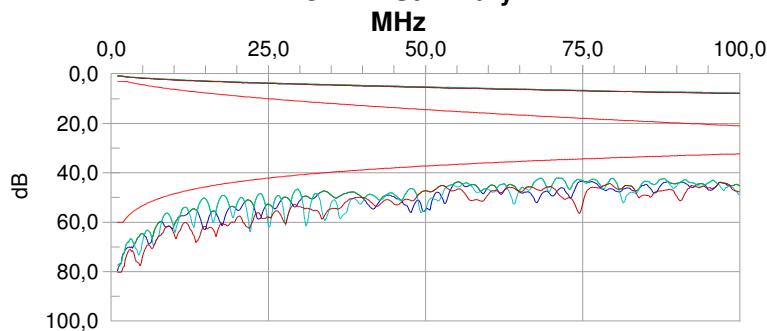
Return Loss DH Summary



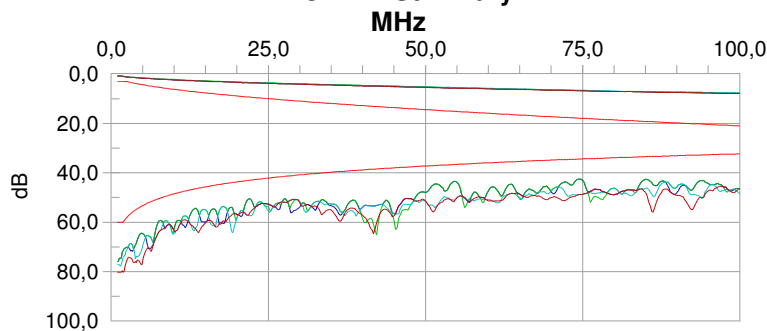
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

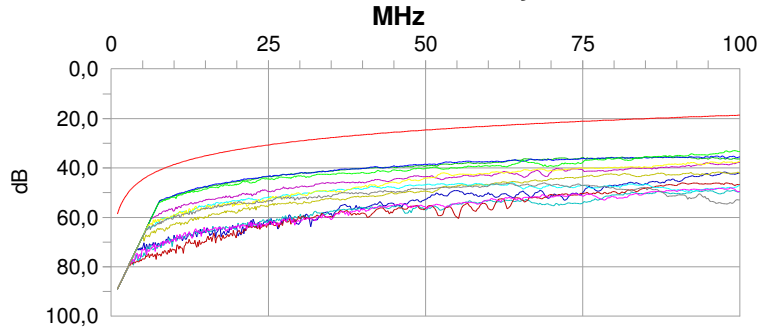
Cable ID 1: 3/18
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:38:09
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

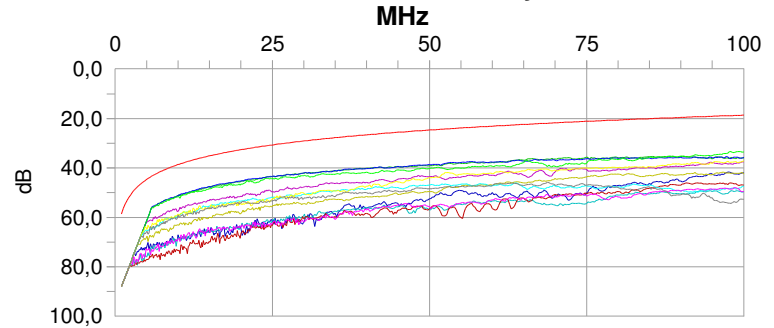
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

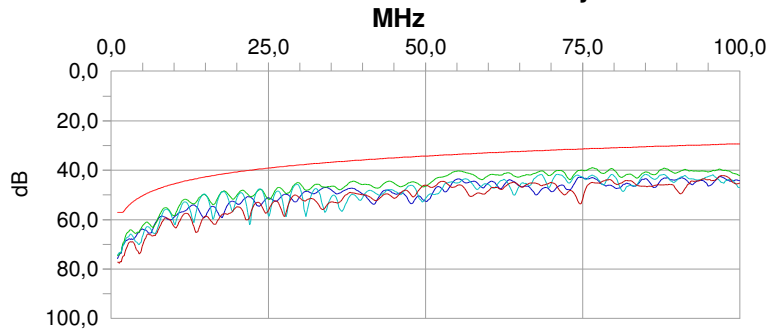
ELFEXT DH Summary



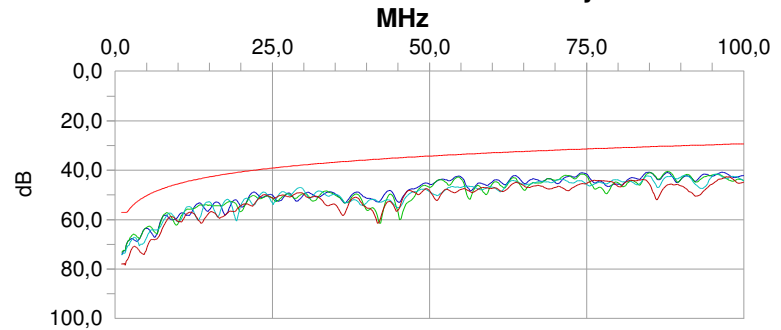
ELFEXT RH Summary



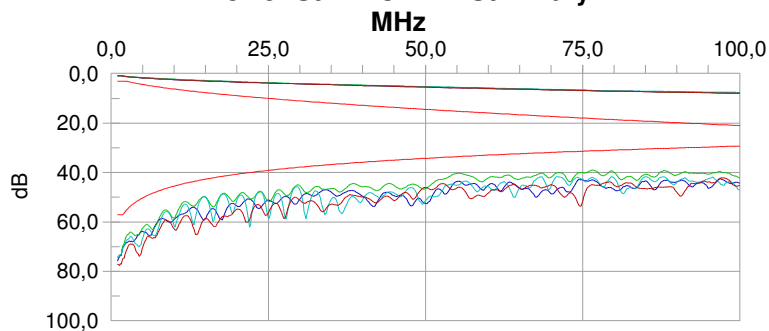
Power Sum NEXT DH Summary



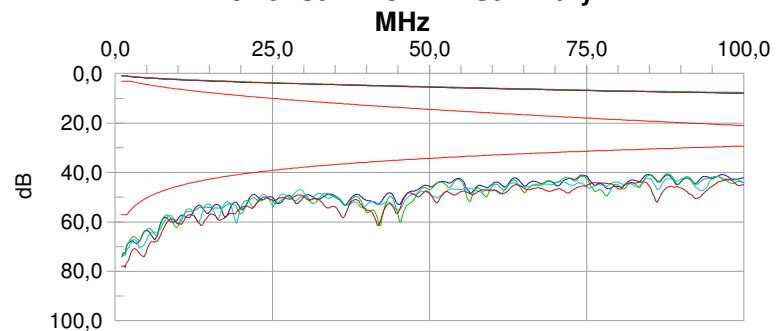
Power Sum NEXT RH Summary



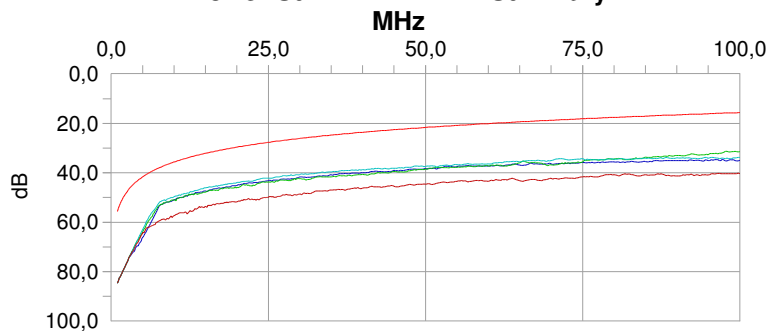
Power Sum ACR DH Summary



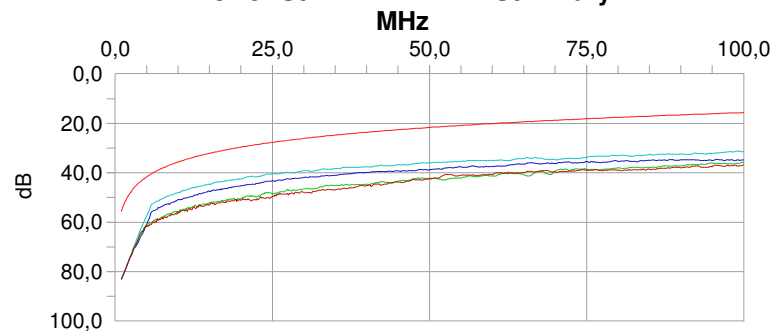
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

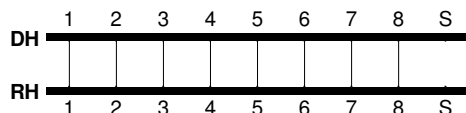
Cable ID 1: 3/19
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:39:45
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	39.7m	39.4m	39.1m	40.2m	< 90.0m	Pass
Prop. Delay	206.4ns	204.7ns	203.7ns	207.2ns	< 498.0ns	Pass
Delay Skew	3.5ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
Headroom	17.1 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	38.9 dB @ 99.50MHz	38.9 dB	> 32.3 dB	6.6 dB
7,8-5,4	DH	Pass	55.6 dB @ 22.45MHz	47.4 dB	> 42.9 dB	12.7 dB
7,8-1,2	DH	Pass	46.1 dB @ 89.00MHz	46.1 dB	> 33.1 dB	13.0 dB
3,6-5,4	DH	Pass	46.9 dB @ 19.15MHz	39.7 dB	> 44.0 dB	2.9 dB
3,6-1,2	DH	Pass	56.7 dB @ 21.55MHz	48.0 dB	> 43.1 dB	13.6 dB
5,4-1,2	DH	Pass	52.0 dB @ 15.25MHz	43.1 dB	> 45.6 dB	6.4 dB
7,8-3,6	RH	Pass	40.1 dB @ 85.00MHz	39.8 dB	> 33.5 dB	6.6 dB
7,8-5,4	RH	Pass	51.3 dB @ 38.50MHz	48.1 dB	> 39.1 dB	12.2 dB
7,8-1,2	RH	Pass	57.8 dB @ 20.05MHz	50.3 dB	> 43.7 dB	14.1 dB
3,6-5,4	RH	Pass	64.6 dB @ 2.65MHz	44.8 dB	> 57.6 dB	7.0 dB
3,6-1,2	RH	Pass	52.0 dB @ 57.00MHz	50.2 dB	> 36.3 dB	15.7 dB
5,4-1,2	RH	Pass	53.5 dB @ 14.95MHz	45.8 dB	> 45.7 dB	7.8 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.0 dB @ 1.30MHz	23.0 dB	> 19.0 dB	4.0 dB
3,6	DH	Pass	21.5 dB @ 1.00MHz	21.5 dB	> 19.0 dB	2.5 dB
5,4	DH	Pass	20.9 dB @ 1.00MHz	20.9 dB	> 19.0 dB	1.9 dB
1,2	DH	Pass	23.6 dB @ 1.30MHz	23.0 dB	> 19.0 dB	4.6 dB
7,8	RH	Pass	22.4 dB @ 1.30MHz	22.4 dB	> 19.0 dB	3.4 dB
3,6	RH	Pass	20.7 dB @ 1.00MHz	20.7 dB	> 19.0 dB	1.7 dB
5,4	RH	Pass	20.4 dB @ 1.00MHz	20.4 dB	> 19.0 dB	1.4 dB
1,2	RH	Pass	22.8 dB @ 1.30MHz	22.7 dB	> 19.0 dB	3.8 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.2 dB @ 2.50MHz	8.0 dB	< 3.1 dB	1.9 dB
3,6	Pass	1.1 dB @ 2.50MHz	8.0 dB	< 3.1 dB	2.0 dB
5,4	Pass	1.1 dB @ 2.50MHz	7.8 dB	< 3.1 dB	2.0 dB
1,2	Pass	1.2 dB @ 2.50MHz	8.1 dB	< 3.1 dB	1.9 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	30.9 dB @ 99.50MHz	N/A	>= 11.4 dB	19.5 dB
3,6	DH	Pass	30.9 dB @ 99.50MHz	N/A	>= 11.4 dB	19.5 dB
5,4	DH	Pass	33.0 dB @ 74.00MHz	N/A	>= 16.7 dB	16.3 dB
1,2	DH	Pass	35.4 dB @ 91.75MHz	N/A	>= 12.9 dB	22.5 dB
7,8	RH	Pass	31.8 dB @ 99.50MHz	N/A	>= 11.4 dB	20.4 dB
3,6	RH	Pass	31.8 dB @ 99.50MHz	N/A	>= 11.4 dB	20.4 dB
5,4	RH	Pass	38.1 dB @ 74.75MHz	N/A	>= 16.5 dB	21.6 dB
1,2	RH	Pass	38.0 dB @ 92.75MHz	N/A	>= 12.7 dB	25.3 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 3/19
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:39:45
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	44.0 dB @ 73.50MHz	42.5 dB	> 21.3 dB	22.7 dB
7,8-5,4	DH	Pass	57.7 dB @ 8.05MHz	39.9 dB	> 40.5 dB	17.2 dB
7,8-1,2	DH	Pass	52.2 dB @ 72.50MHz	51.6 dB	> 21.4 dB	30.8 dB
3,6-7,8	DH	Pass	45.1 dB @ 98.75MHz	45.1 dB	> 18.7 dB	26.4 dB
3,6-5,4	DH	Pass	64.6 dB @ 5.95MHz	43.3 dB	> 43.1 dB	21.5 dB
3,6-1,2	DH	Pass	40.9 dB @ 92.50MHz	40.9 dB	> 19.3 dB	21.6 dB
5,4-7,8	DH	Pass	57.1 dB @ 8.20MHz	39.7 dB	> 40.3 dB	16.8 dB
5,4-3,6	DH	Pass	55.3 dB @ 10.75MHz	38.3 dB	> 38.0 dB	17.3 dB
5,4-1,2	DH	Pass	56.7 dB @ 8.50MHz	42.2 dB	> 40.0 dB	16.7 dB
1,2-7,8	DH	Pass	49.1 dB @ 99.50MHz	49.1 dB	> 18.7 dB	30.4 dB
1,2-3,6	DH	Pass	36.3 dB @ 93.75MHz	36.0 dB	> 19.2 dB	17.1 dB
1,2-5,4	DH	Pass	58.1 dB @ 7.15MHz	42.0 dB	> 41.5 dB	16.6 dB
7,8-3,6	RH	Pass	44.2 dB @ 73.25MHz	42.5 dB	> 21.3 dB	22.9 dB
7,8-5,4	RH	Pass	57.7 dB @ 8.05MHz	39.7 dB	> 40.5 dB	17.2 dB
7,8-1,2	RH	Pass	52.5 dB @ 71.75MHz	51.8 dB	> 21.5 dB	31.0 dB
3,6-7,8	RH	Pass	45.1 dB @ 99.00MHz	45.1 dB	> 18.7 dB	26.4 dB
3,6-5,4	RH	Pass	66.2 dB @ 4.90MHz	43.1 dB	> 44.8 dB	21.4 dB
3,6-1,2	RH	Pass	41.1 dB @ 92.50MHz	41.1 dB	> 19.3 dB	21.8 dB
5,4-7,8	RH	Pass	57.2 dB @ 8.20MHz	39.9 dB	> 40.3 dB	16.9 dB
5,4-3,6	RH	Pass	55.2 dB @ 10.75MHz	38.6 dB	> 38.0 dB	17.2 dB
5,4-1,2	RH	Pass	56.8 dB @ 8.50MHz	42.5 dB	> 40.0 dB	16.8 dB
1,2-7,8	RH	Pass	49.0 dB @ 99.50MHz	49.0 dB	> 18.7 dB	30.3 dB
1,2-3,6	RH	Pass	36.2 dB @ 93.75MHz	35.9 dB	> 19.2 dB	17.0 dB
1,2-5,4	RH	Pass	58.0 dB @ 7.15MHz	41.8 dB	> 41.5 dB	16.5 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	38.3 dB @ 99.50MHz	38.3 dB	> 29.3 dB	9.0 dB
3,6	DH	Pass	48.6 dB @ 13.30MHz	37.4 dB	> 43.5 dB	5.1 dB
5,4	DH	Pass	45.7 dB @ 19.00MHz	38.7 dB	> 41.0 dB	4.7 dB
1,2	DH	Pass	51.7 dB @ 15.25MHz	41.6 dB	> 42.6 dB	9.1 dB
7,8	RH	Pass	39.3 dB @ 88.50MHz	39.2 dB	> 30.2 dB	9.1 dB
3,6	RH	Pass	52.0 dB @ 13.15MHz	38.9 dB	> 43.6 dB	8.4 dB
5,4	RH	Pass	49.8 dB @ 19.15MHz	43.3 dB	> 41.0 dB	8.8 dB
1,2	RH	Pass	53.4 dB @ 14.80MHz	45.0 dB	> 42.8 dB	10.6 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	30.3 dB @ 99.50MHz	N/A	>= 8.4 dB	21.9 dB
3,6	DH	Pass	29.4 dB @ 99.50MHz	N/A	>= 8.4 dB	21.0 dB
5,4	DH	Pass	31.5 dB @ 91.75MHz	N/A	>= 9.9 dB	21.6 dB
1,2	DH	Pass	33.9 dB @ 91.75MHz	N/A	>= 9.9 dB	24.0 dB
7,8	RH	Pass	31.2 dB @ 99.75MHz	N/A	>= 8.4 dB	22.8 dB
3,6	RH	Pass	31.1 dB @ 99.50MHz	N/A	>= 8.4 dB	22.7 dB
5,4	RH	Pass	35.9 dB @ 91.25MHz	N/A	>= 10.0 dB	25.9 dB
1,2	RH	Pass	37.2 dB @ 92.75MHz	N/A	>= 9.7 dB	27.5 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.4 dB @ 20.65MHz	38.4 dB	>= 29.3 dB	20.1 dB
3,6	DH	Pass	37.8 dB @ 59.50MHz	33.5 dB	>= 20.1 dB	17.7 dB
5,4	DH	Pass	55.4 dB @ 6.85MHz	37.7 dB	>= 38.9 dB	16.5 dB
1,2	DH	Pass	45.3 dB @ 33.00MHz	38.9 dB	>= 25.2 dB	20.1 dB
7,8	RH	Pass	40.2 dB @ 60.50MHz	38.3 dB	>= 20.0 dB	20.2 dB
3,6	RH	Pass	38.6 dB @ 95.00MHz	38.6 dB	>= 16.1 dB	22.5 dB
5,4	RH	Pass	50.5 dB @ 10.75MHz	35.8 dB	>= 35.0 dB	15.5 dB
1,2	RH	Pass	37.3 dB @ 73.50MHz	35.2 dB	>= 18.3 dB	19.0 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

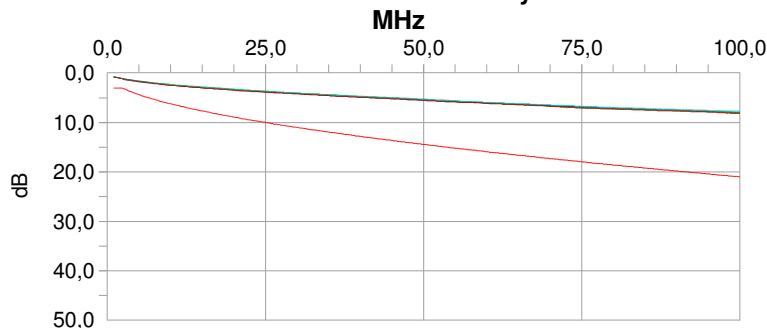
Cable ID 1: 3/19
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:39:45
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

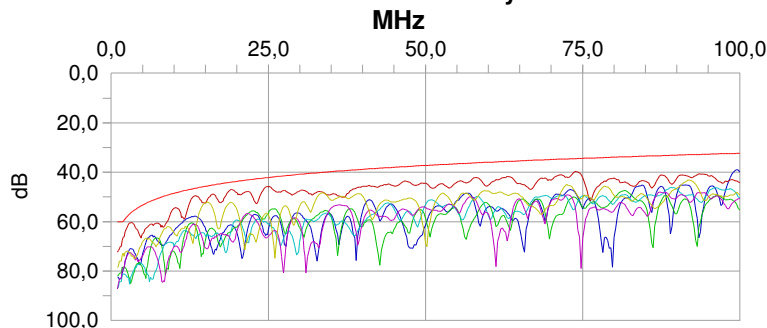
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

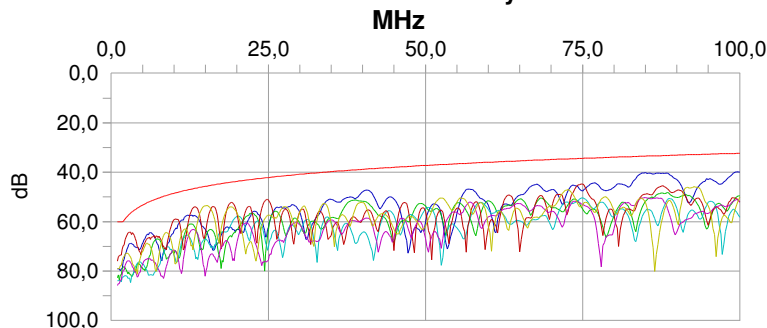
Attenuation Summary



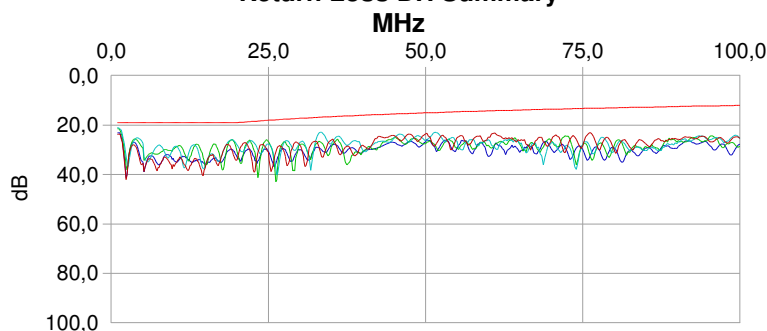
NEXT DH Summary



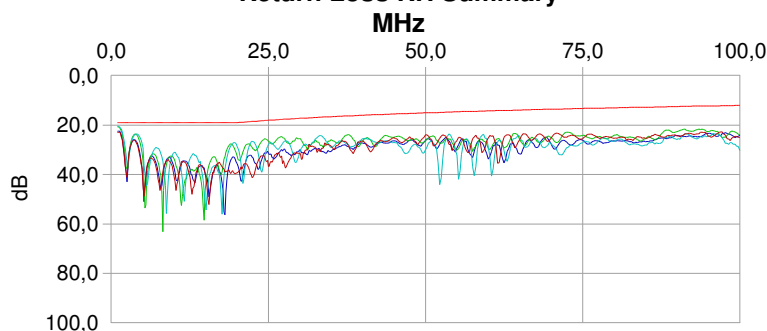
NEXT RH Summary



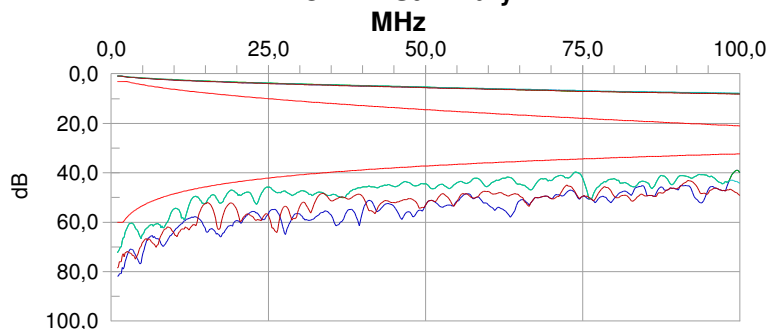
Return Loss DH Summary



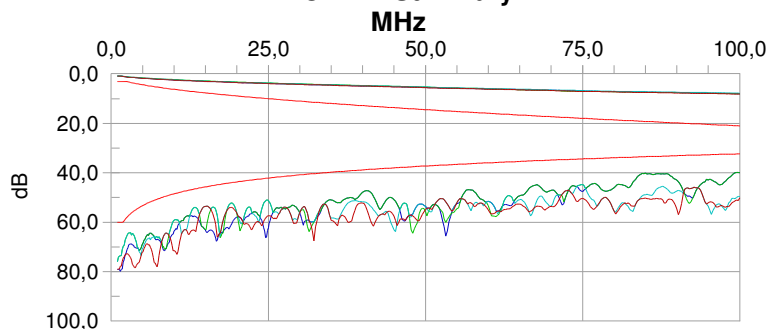
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 3/19
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:39:45
Adapter ID: 6014

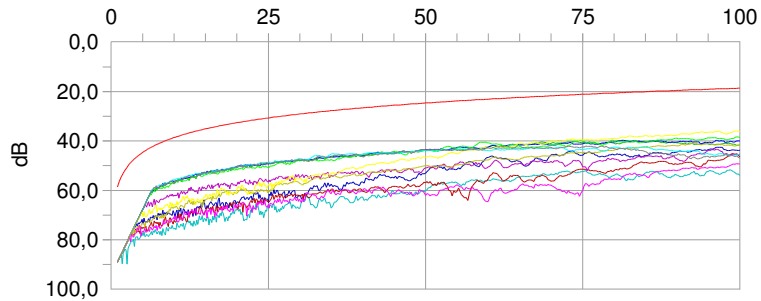
Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

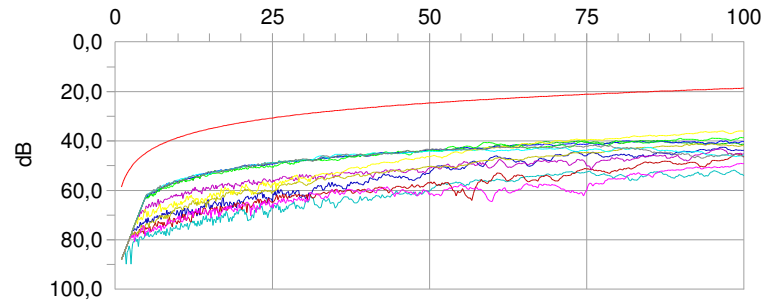
ELFEXT DH Summary

MHz



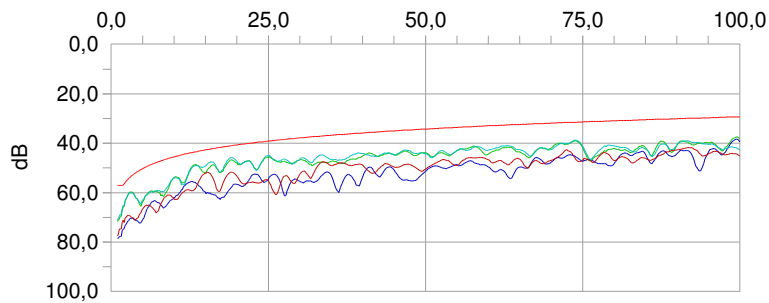
ELFEXT RH Summary

MHz



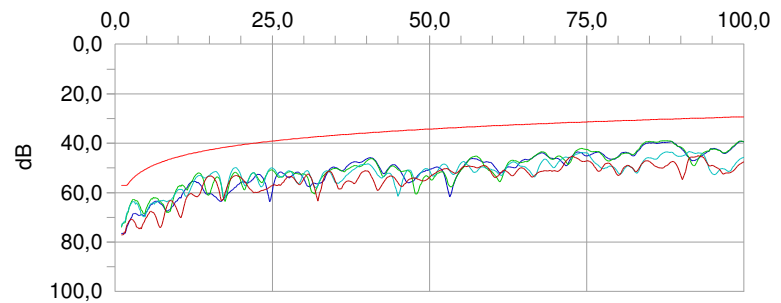
Power Sum NEXT DH Summary

MHz



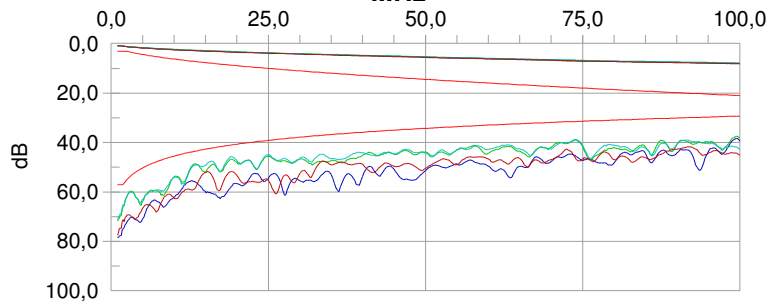
Power Sum NEXT RH Summary

MHz



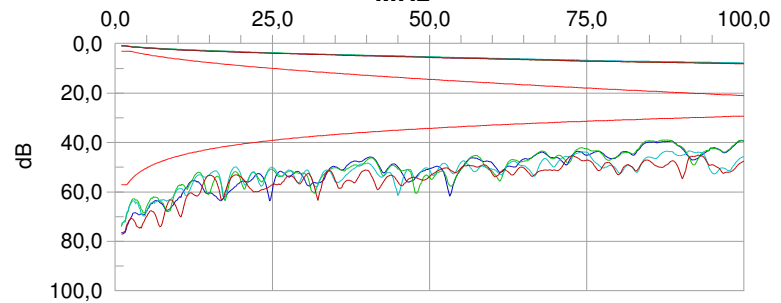
Power Sum ACR DH Summary

MHz



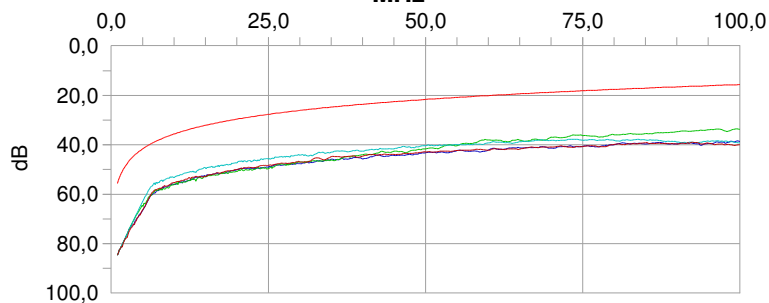
Power Sum ACR RH Summary

MHz



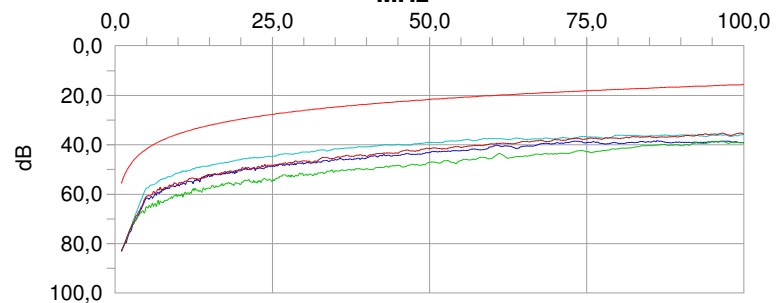
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

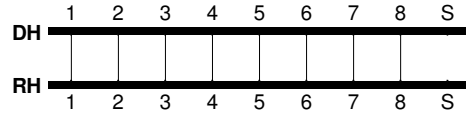
Cable ID 1: 3/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:11:30
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	22.6m	23.1m	23.3m	22.9m	< 90.0m	Pass
Prop. Delay	125.2ns	127.6ns	128.9ns	125.2ns	< 498.0ns	Pass
Delay Skew	3.7ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	18.5 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	42.3 dB @ 51.25MHz	42.2 dB	> 37.1 dB	5.2 dB
7,8-5,4	DH	Pass	58.7 dB @ 44.00MHz	53.8 dB	> 38.1 dB	20.6 dB
7,8-1,2	DH	Pass	47.5 dB @ 59.00MHz	44.4 dB	> 36.1 dB	11.4 dB
3,6-5,4	DH	Pass	48.8 dB @ 20.80MHz	39.6 dB	> 43.4 dB	5.4 dB
3,6-1,2	DH	Pass	49.0 dB @ 30.70MHz	42.5 dB	> 40.7 dB	8.3 dB
5,4-1,2	DH	Pass	60.3 dB @ 11.35MHz	46.6 dB	> 47.6 dB	12.7 dB
7,8-3,6	RH	Pass	39.8 dB @ 51.25MHz	38.9 dB	> 37.1 dB	2.7 dB
7,8-5,4	RH	Pass	53.1 dB @ 96.25MHz	53.0 dB	> 32.6 dB	20.5 dB
7,8-1,2	RH	Pass	41.7 dB @ 98.25MHz	41.7 dB	> 32.4 dB	9.3 dB
3,6-5,4	RH	Pass	43.5 dB @ 58.75MHz	43.3 dB	> 36.1 dB	7.4 dB
3,6-1,2	RH	Pass	47.7 dB @ 65.00MHz	47.6 dB	> 35.4 dB	12.3 dB
5,4-1,2	RH	Pass	59.1 dB @ 11.80MHz	45.2 dB	> 47.3 dB	11.8 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	20.1 dB @ 1.60MHz	20.1 dB	> 19.0 dB	1.1 dB
3,6	DH	Pass	21.7 dB @ 1.60MHz	21.2 dB	> 19.0 dB	2.7 dB
5,4	DH	Pass	21.5 dB @ 23.35MHz	18.0 dB	> 18.3 dB	3.2 dB
1,2	DH	Pass	21.8 dB @ 1.60MHz	17.7 dB	> 19.0 dB	2.8 dB
7,8	RH	Pass	20.2 dB @ 1.60MHz	19.1 dB	> 19.0 dB	1.2 dB
3,6	RH	Pass	21.1 dB @ 1.60MHz	19.7 dB	> 19.0 dB	2.1 dB
5,4	RH	Pass	14.5 dB @ 86.25MHz	14.4 dB	> 12.7 dB	1.8 dB
1,2	RH	Pass	21.8 dB @ 1.60MHz	18.4 dB	> 19.0 dB	2.8 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.50MHz	4.6 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.50MHz	5.0 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.7 dB @ 2.50MHz	5.1 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.50MHz	4.7 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	38.7 dB @ 99.00MHz	N/A	>= 11.5 dB	27.2 dB
3,6	DH	Pass	35.4 dB @ 77.75MHz	N/A	>= 15.8 dB	19.6 dB
5,4	DH	Pass	35.2 dB @ 77.75MHz	N/A	>= 15.8 dB	19.4 dB
1,2	DH	Pass	38.0 dB @ 91.25MHz	N/A	>= 13.0 dB	25.0 dB
7,8	RH	Pass	34.8 dB @ 80.25MHz	N/A	>= 15.3 dB	19.5 dB
3,6	RH	Pass	34.7 dB @ 80.25MHz	N/A	>= 15.3 dB	19.4 dB
5,4	RH	Pass	38.9 dB @ 77.00MHz	N/A	>= 16.0 dB	22.9 dB
1,2	RH	Pass	37.0 dB @ 98.50MHz	N/A	>= 11.6 dB	25.4 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 3/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:11:30
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	39.8 dB @ 94.00MHz	39.8 dB	> 19.2 dB	20.6 dB
7,8-5,4	DH	Pass	58.7 dB @ 8.80MHz	42.3 dB	> 39.7 dB	19.0 dB
7,8-1,2	DH	Pass	36.3 dB @ 95.00MHz	36.3 dB	> 19.1 dB	17.2 dB
3,6-7,8	DH	Pass	49.9 dB @ 56.25MHz	45.8 dB	> 23.6 dB	26.3 dB
3,6-5,4	DH	Pass	53.0 dB @ 7.75MHz	32.7 dB	> 40.8 dB	12.2 dB
3,6-1,2	DH	Pass	57.8 dB @ 7.30MHz	37.7 dB	> 41.3 dB	16.5 dB
5,4-7,8	DH	Pass	52.3 dB @ 17.65MHz	42.2 dB	> 33.7 dB	18.6 dB
5,4-3,6	DH	Pass	47.5 dB @ 8.80MHz	28.6 dB	> 39.7 dB	7.8 dB
5,4-1,2	DH	Pass	59.2 dB @ 7.00MHz	40.3 dB	> 41.7 dB	17.5 dB
1,2-7,8	DH	Pass	36.9 dB @ 98.25MHz	36.8 dB	> 18.8 dB	18.1 dB
1,2-3,6	DH	Pass	52.9 dB @ 7.90MHz	33.3 dB	> 40.7 dB	12.2 dB
1,2-5,4	DH	Pass	58.9 dB @ 7.60MHz	40.2 dB	> 41.0 dB	17.9 dB
7,8-3,6	RH	Pass	39.7 dB @ 93.25MHz	39.7 dB	> 19.2 dB	20.5 dB
7,8-5,4	RH	Pass	58.8 dB @ 8.80MHz	42.7 dB	> 39.7 dB	19.1 dB
7,8-1,2	RH	Pass	36.3 dB @ 95.00MHz	36.3 dB	> 19.1 dB	17.2 dB
3,6-7,8	RH	Pass	49.8 dB @ 55.75MHz	45.3 dB	> 23.7 dB	26.1 dB
3,6-5,4	RH	Pass	55.1 dB @ 6.10MHz	32.8 dB	> 42.9 dB	12.2 dB
3,6-1,2	RH	Pass	57.8 dB @ 7.30MHz	37.4 dB	> 41.3 dB	16.5 dB
5,4-7,8	RH	Pass	52.2 dB @ 17.65MHz	41.5 dB	> 33.7 dB	18.5 dB
5,4-3,6	RH	Pass	49.4 dB @ 6.85MHz	28.4 dB	> 41.9 dB	7.5 dB
5,4-1,2	RH	Pass	59.1 dB @ 7.00MHz	39.6 dB	> 41.7 dB	17.4 dB
1,2-7,8	RH	Pass	36.6 dB @ 99.50MHz	36.6 dB	> 18.7 dB	17.9 dB
1,2-3,6	RH	Pass	52.8 dB @ 7.90MHz	33.6 dB	> 40.7 dB	12.1 dB
1,2-5,4	RH	Pass	59.2 dB @ 7.45MHz	40.7 dB	> 41.2 dB	18.0 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	41.9 dB @ 51.25MHz	41.1 dB	> 34.1 dB	7.8 dB
3,6	DH	Pass	41.2 dB @ 51.75MHz	38.4 dB	> 34.0 dB	7.2 dB
5,4	DH	Pass	48.5 dB @ 20.80MHz	39.2 dB	> 40.4 dB	8.1 dB
1,2	DH	Pass	47.3 dB @ 30.70MHz	40.5 dB	> 37.7 dB	9.6 dB
7,8	RH	Pass	39.5 dB @ 51.25MHz	38.2 dB	> 34.1 dB	5.4 dB
3,6	RH	Pass	39.4 dB @ 51.25MHz	38.1 dB	> 34.1 dB	5.3 dB
5,4	RH	Pass	43.0 dB @ 58.75MHz	42.4 dB	> 33.1 dB	9.9 dB
1,2	RH	Pass	40.8 dB @ 98.25MHz	40.8 dB	> 29.4 dB	11.4 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	36.6 dB @ 98.75MHz	N/A	>= 8.6 dB	28.0 dB
3,6	DH	Pass	34.2 dB @ 77.75MHz	N/A	>= 12.8 dB	21.4 dB
5,4	DH	Pass	34.8 dB @ 77.75MHz	N/A	>= 12.8 dB	22.0 dB
1,2	DH	Pass	35.9 dB @ 97.00MHz	N/A	>= 8.9 dB	27.0 dB
7,8	RH	Pass	33.9 dB @ 99.25MHz	N/A	>= 8.5 dB	25.4 dB
3,6	RH	Pass	33.9 dB @ 80.50MHz	N/A	>= 12.3 dB	21.6 dB
5,4	RH	Pass	38.0 dB @ 77.00MHz	N/A	>= 13.0 dB	25.0 dB
1,2	RH	Pass	36.1 dB @ 98.50MHz	N/A	>= 8.6 dB	27.5 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	51.8 dB @ 13.45MHz	35.5 dB	>= 33.0 dB	18.8 dB
3,6	DH	Pass	46.2 dB @ 8.80MHz	27.2 dB	>= 36.7 dB	9.5 dB
5,4	DH	Pass	51.2 dB @ 7.90MHz	31.8 dB	>= 37.7 dB	13.5 dB
1,2	DH	Pass	51.9 dB @ 9.70MHz	33.3 dB	>= 35.9 dB	16.0 dB
7,8	RH	Pass	34.4 dB @ 93.50MHz	34.4 dB	>= 16.2 dB	18.2 dB
3,6	RH	Pass	48.4 dB @ 11.65MHz	31.5 dB	>= 34.3 dB	14.1 dB
5,4	RH	Pass	48.7 dB @ 6.85MHz	28.0 dB	>= 38.9 dB	9.8 dB
1,2	RH	Pass	51.3 dB @ 7.90MHz	31.3 dB	>= 37.7 dB	13.6 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

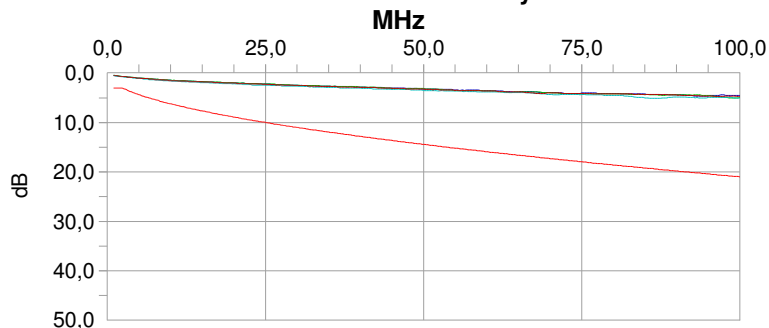
Cable ID 1: 3/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:11:30
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

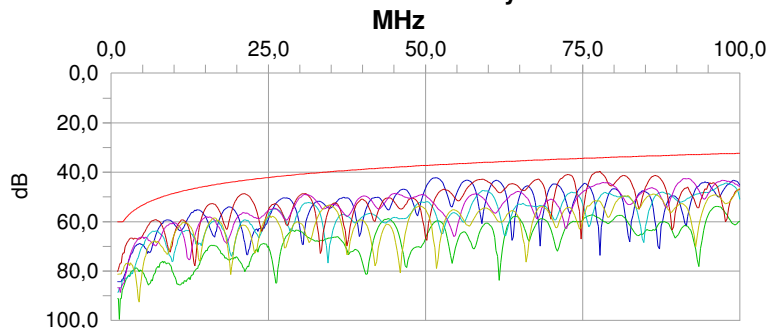
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

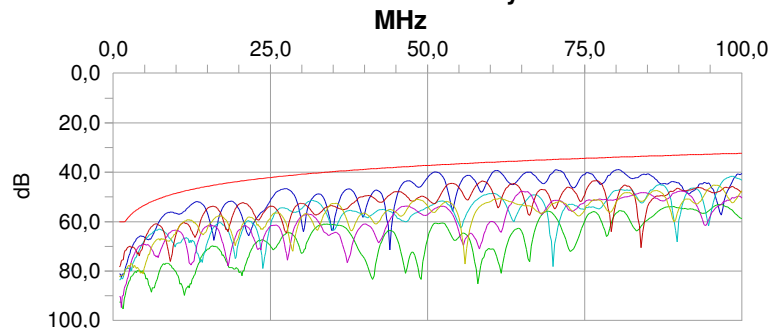
Attenuation Summary



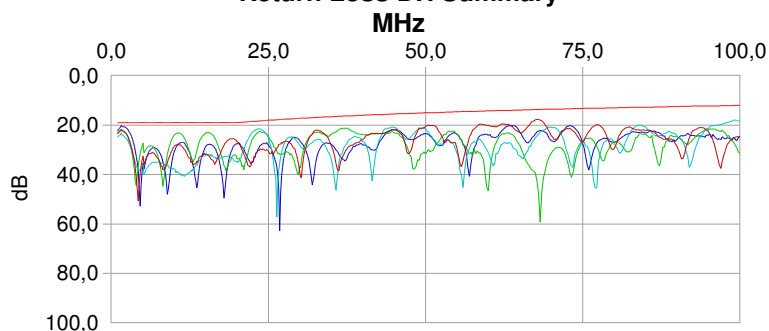
NEXT DH Summary



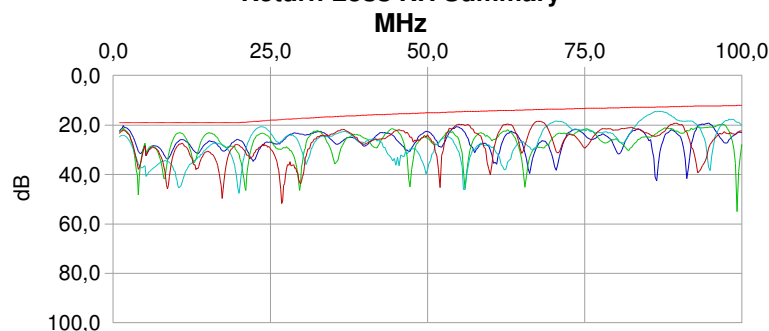
NEXT RH Summary



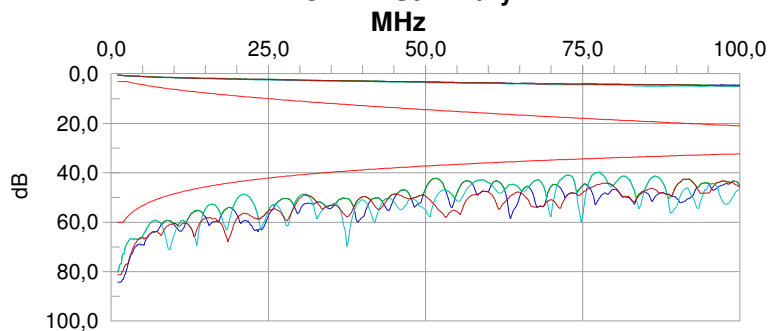
Return Loss DH Summary



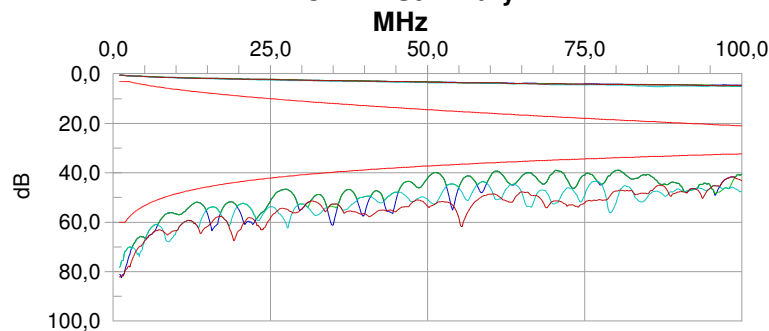
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

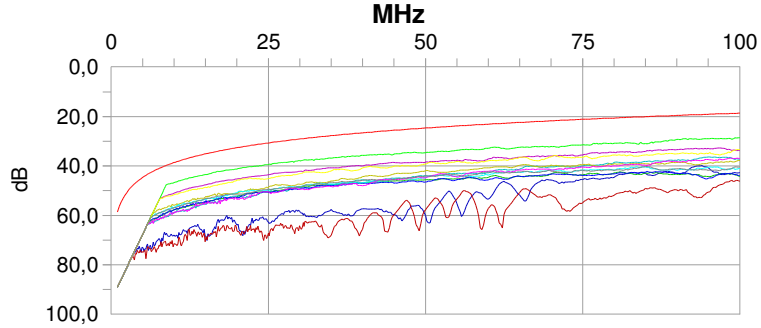
Cable ID 1: 3/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:11:30
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

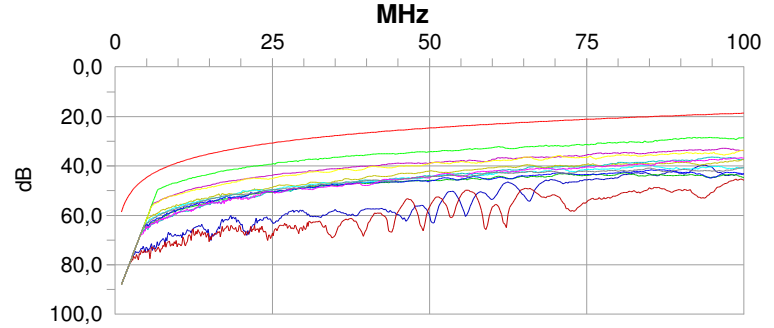
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

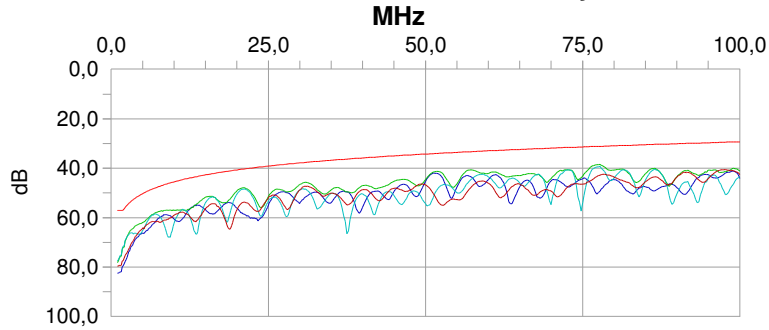
ELFEXT DH Summary



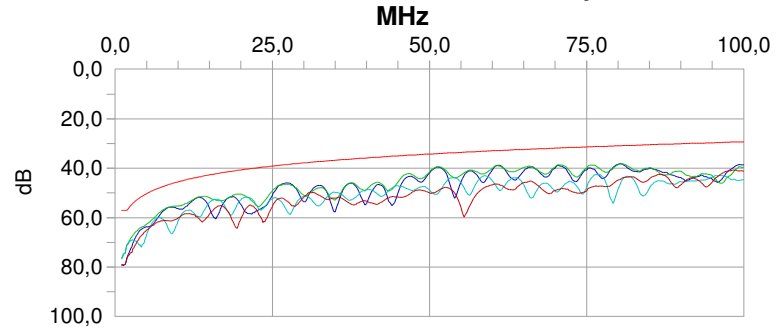
ELFEXT RH Summary



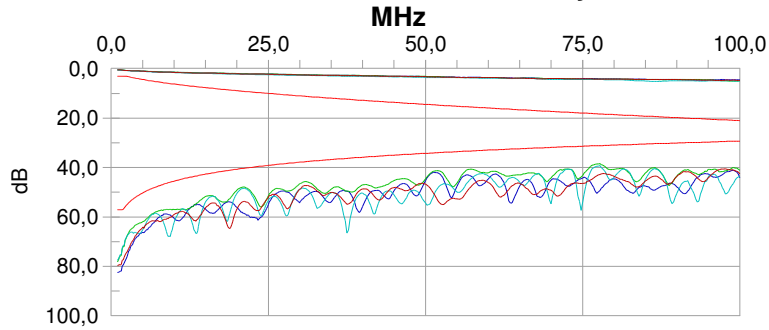
Power Sum NEXT DH Summary



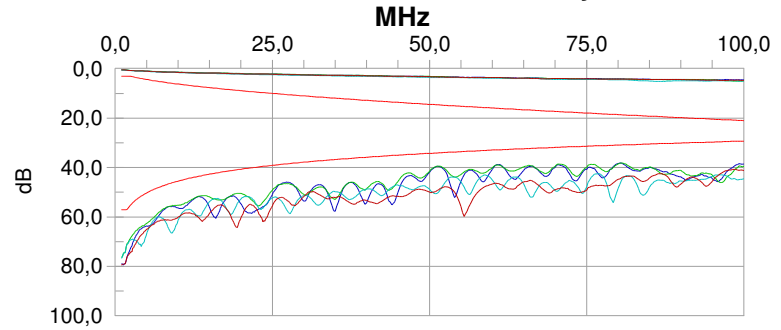
Power Sum NEXT RH Summary



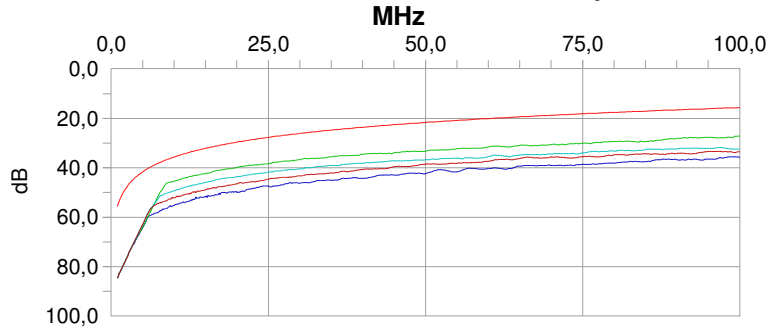
Power Sum ACR DH Summary



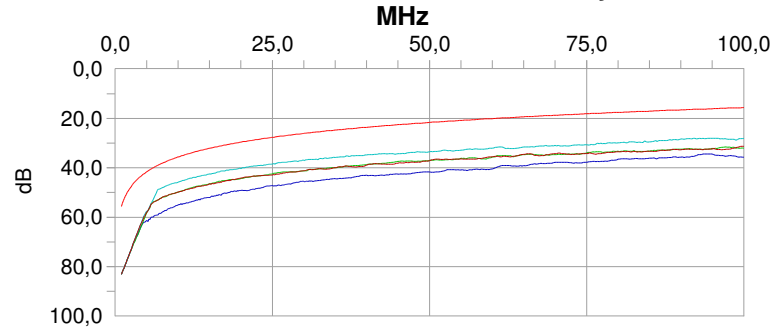
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

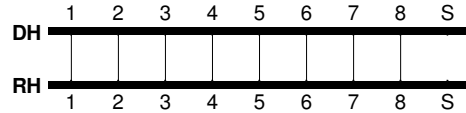
Cable ID 1: 3/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:13:50
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	19.4m	19.7m	20.0m	19.7m	< 90.0m	Pass
Prop. Delay	110.2ns	111.3ns	113.1ns	109.8ns	< 498.0ns	Pass
Delay Skew	3.3ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	18.1 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	49.2 dB @ 38.75MHz	44.0 dB	> 39.0 dB	10.2 dB
7,8-5,4	DH	Pass	51.0 dB @ 70.00MHz	51.0 dB	> 34.8 dB	16.2 dB
7,8-1,2	DH	Pass	50.5 dB @ 29.80MHz	44.1 dB	> 40.9 dB	9.6 dB
3,6-5,4	DH	Pass	37.5 dB @ 79.25MHz	37.5 dB	> 34.0 dB	3.5 dB
3,6-1,2	DH	Pass	43.0 dB @ 93.25MHz	43.0 dB	> 32.8 dB	10.2 dB
5,4-1,2	DH	Pass	52.3 dB @ 24.10MHz	44.0 dB	> 42.4 dB	9.9 dB
7,8-3,6	RH	Pass	48.4 dB @ 38.00MHz	43.2 dB	> 39.2 dB	9.2 dB
7,8-5,4	RH	Pass	53.0 dB @ 45.50MHz	51.2 dB	> 37.9 dB	15.1 dB
7,8-1,2	RH	Pass	54.3 dB @ 29.65MHz	47.5 dB	> 40.9 dB	13.4 dB
3,6-5,4	RH	Pass	57.8 dB @ 7.45MHz	43.0 dB	> 50.5 dB	7.3 dB
3,6-1,2	RH	Pass	47.4 dB @ 64.75MHz	46.9 dB	> 35.4 dB	12.0 dB
5,4-1,2	RH	Pass	49.8 dB @ 40.50MHz	45.6 dB	> 38.7 dB	11.1 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	21.1 dB @ 1.60MHz	16.7 dB	> 19.0 dB	2.1 dB
3,6	DH	Pass	20.4 dB @ 1.60MHz	20.4 dB	> 19.0 dB	1.4 dB
5,4	DH	Pass	20.6 dB @ 1.60MHz	18.1 dB	> 19.0 dB	1.6 dB
1,2	DH	Pass	20.3 dB @ 1.60MHz	16.5 dB	> 19.0 dB	1.3 dB
7,8	RH	Pass	21.1 dB @ 1.60MHz	18.8 dB	> 19.0 dB	2.1 dB
3,6	RH	Pass	20.0 dB @ 1.60MHz	20.0 dB	> 19.0 dB	1.0 dB
5,4	RH	Pass	20.9 dB @ 2.05MHz	20.3 dB	> 19.0 dB	1.9 dB
1,2	RH	Pass	20.4 dB @ 1.60MHz	17.3 dB	> 19.0 dB	1.4 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 2.50MHz	4.2 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.6 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.5 dB
5,4	Pass	0.6 dB @ 2.50MHz	4.2 dB	< 3.1 dB	2.5 dB
1,2	Pass	0.6 dB @ 2.50MHz	4.1 dB	< 3.1 dB	2.5 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	40.0 dB @ 87.75MHz	N/A	>= 13.7 dB	26.3 dB
3,6	DH	Pass	33.9 dB @ 79.25MHz	N/A	>= 15.5 dB	18.4 dB
5,4	DH	Pass	33.8 dB @ 79.25MHz	N/A	>= 15.5 dB	18.3 dB
1,2	DH	Pass	39.1 dB @ 93.25MHz	N/A	>= 12.6 dB	26.5 dB
7,8	RH	Pass	39.2 dB @ 87.75MHz	N/A	>= 13.7 dB	25.5 dB
3,6	RH	Pass	39.4 dB @ 79.25MHz	N/A	>= 15.5 dB	23.9 dB
5,4	RH	Pass	39.3 dB @ 79.25MHz	N/A	>= 15.5 dB	23.8 dB
1,2	RH	Pass	41.9 dB @ 79.25MHz	N/A	>= 15.5 dB	26.4 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 3/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:13:50
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	40.9 dB @ 83.25MHz	40.2 dB	> 20.2 dB	20.7 dB
7,8-5,4	DH	Pass	51.4 dB @ 13.90MHz	38.6 dB	> 35.8 dB	15.6 dB
7,8-1,2	DH	Pass	52.9 dB @ 8.65MHz	32.8 dB	> 39.9 dB	13.0 dB
3,6-7,8	DH	Pass	42.6 dB @ 93.25MHz	42.6 dB	> 19.2 dB	23.4 dB
3,6-5,4	DH	Pass	48.2 dB @ 61.75MHz	44.4 dB	> 22.8 dB	25.4 dB
3,6-1,2	DH	Pass	55.8 dB @ 34.50MHz	47.5 dB	> 27.9 dB	27.9 dB
5,4-7,8	DH	Pass	50.1 dB @ 15.55MHz	38.8 dB	> 34.8 dB	15.3 dB
5,4-3,6	DH	Pass	44.7 dB @ 62.75MHz	44.2 dB	> 22.7 dB	22.0 dB
5,4-1,2	DH	Pass	60.5 dB @ 8.65MHz	43.2 dB	> 39.9 dB	20.6 dB
1,2-7,8	DH	Pass	53.5 dB @ 7.90MHz	33.0 dB	> 40.7 dB	12.8 dB
1,2-3,6	DH	Pass	43.6 dB @ 83.50MHz	43.0 dB	> 20.2 dB	23.4 dB
1,2-5,4	DH	Pass	58.3 dB @ 11.35MHz	40.7 dB	> 37.5 dB	20.8 dB
7,8-3,6	RH	Pass	40.6 dB @ 83.50MHz	40.0 dB	> 20.2 dB	20.4 dB
7,8-5,4	RH	Pass	60.0 dB @ 5.20MHz	38.4 dB	> 44.3 dB	15.7 dB
7,8-1,2	RH	Pass	51.1 dB @ 10.45MHz	32.8 dB	> 38.2 dB	12.9 dB
3,6-7,8	RH	Pass	43.1 dB @ 93.25MHz	43.1 dB	> 19.2 dB	23.9 dB
3,6-5,4	RH	Pass	48.4 dB @ 62.00MHz	44.8 dB	> 22.8 dB	25.6 dB
3,6-1,2	RH	Pass	48.0 dB @ 84.00MHz	47.6 dB	> 20.1 dB	27.9 dB
5,4-7,8	RH	Pass	59.0 dB @ 5.50MHz	38.8 dB	> 43.8 dB	15.2 dB
5,4-3,6	RH	Pass	44.5 dB @ 62.75MHz	44.1 dB	> 22.7 dB	21.8 dB
5,4-1,2	RH	Pass	60.5 dB @ 8.65MHz	43.2 dB	> 39.9 dB	20.6 dB
1,2-7,8	RH	Pass	53.5 dB @ 7.90MHz	32.9 dB	> 40.7 dB	12.8 dB
1,2-3,6	RH	Pass	43.6 dB @ 83.50MHz	42.7 dB	> 20.2 dB	23.4 dB
1,2-5,4	RH	Pass	64.0 dB @ 5.95MHz	40.8 dB	> 43.1 dB	20.9 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	41.6 dB @ 87.75MHz	41.6 dB	> 30.2 dB	11.4 dB
3,6	DH	Pass	37.4 dB @ 79.25MHz	37.4 dB	> 31.0 dB	6.4 dB
5,4	DH	Pass	36.6 dB @ 79.25MHz	36.6 dB	> 31.0 dB	5.6 dB
1,2	DH	Pass	39.5 dB @ 93.50MHz	39.4 dB	> 29.8 dB	9.7 dB
7,8	RH	Pass	47.5 dB @ 37.25MHz	42.0 dB	> 36.3 dB	11.2 dB
3,6	RH	Pass	57.6 dB @ 7.15MHz	40.3 dB	> 47.8 dB	9.8 dB
5,4	RH	Pass	56.5 dB @ 7.60MHz	41.0 dB	> 47.4 dB	9.1 dB
1,2	RH	Pass	52.0 dB @ 24.10MHz	42.8 dB	> 39.4 dB	12.6 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	37.6 dB @ 87.75MHz	N/A	>= 10.7 dB	26.9 dB
3,6	DH	Pass	33.7 dB @ 94.75MHz	N/A	>= 9.3 dB	24.4 dB
5,4	DH	Pass	32.9 dB @ 79.25MHz	N/A	>= 12.5 dB	20.4 dB
1,2	DH	Pass	35.5 dB @ 94.00MHz	N/A	>= 9.4 dB	26.1 dB
7,8	RH	Pass	37.9 dB @ 94.75MHz	N/A	>= 9.3 dB	28.6 dB
3,6	RH	Pass	36.6 dB @ 94.75MHz	N/A	>= 9.3 dB	27.3 dB
5,4	RH	Pass	37.3 dB @ 79.25MHz	N/A	>= 12.5 dB	24.8 dB
1,2	RH	Pass	38.8 dB @ 95.25MHz	N/A	>= 9.3 dB	29.5 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	51.5 dB @ 7.90MHz	31.8 dB	>= 37.7 dB	13.8 dB
3,6	DH	Pass	37.8 dB @ 83.50MHz	37.7 dB	>= 17.2 dB	20.6 dB
5,4	DH	Pass	51.9 dB @ 11.50MHz	35.8 dB	>= 34.4 dB	17.5 dB
1,2	DH	Pass	49.8 dB @ 11.20MHz	32.3 dB	>= 34.6 dB	15.2 dB
7,8	RH	Pass	50.7 dB @ 8.65MHz	31.1 dB	>= 36.9 dB	13.8 dB
3,6	RH	Pass	40.7 dB @ 92.75MHz	40.5 dB	>= 16.3 dB	24.4 dB
5,4	RH	Pass	51.9 dB @ 10.90MHz	36.7 dB	>= 34.9 dB	17.0 dB
1,2	RH	Pass	49.4 dB @ 11.65MHz	31.9 dB	>= 34.3 dB	15.1 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

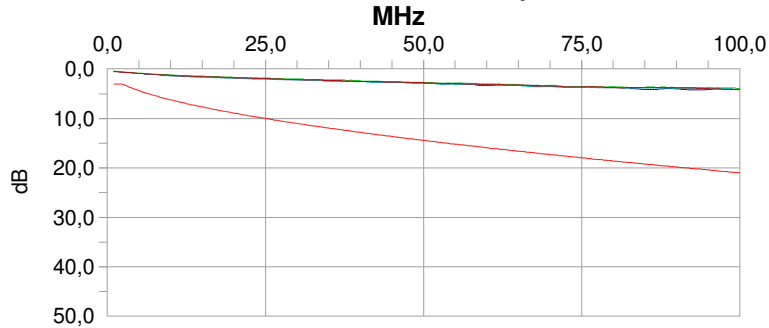
Cable ID 1: 3/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:13:50
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

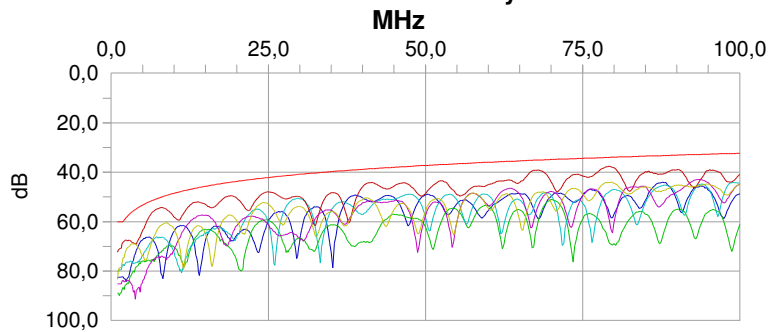
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

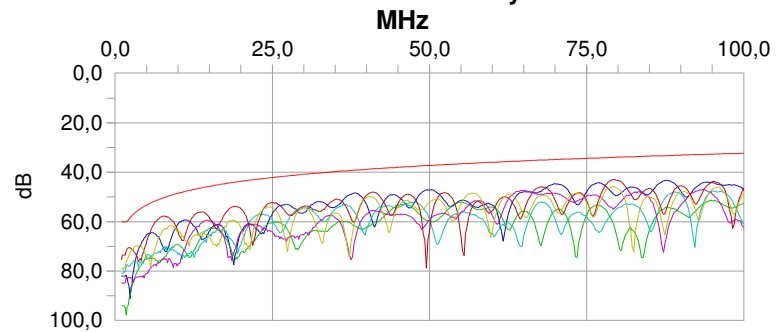
Attenuation Summary



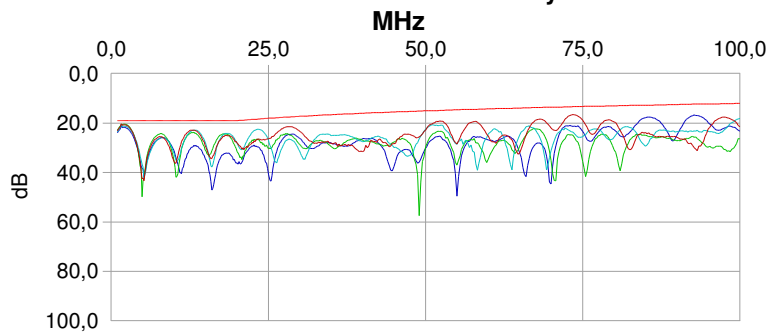
NEXT DH Summary



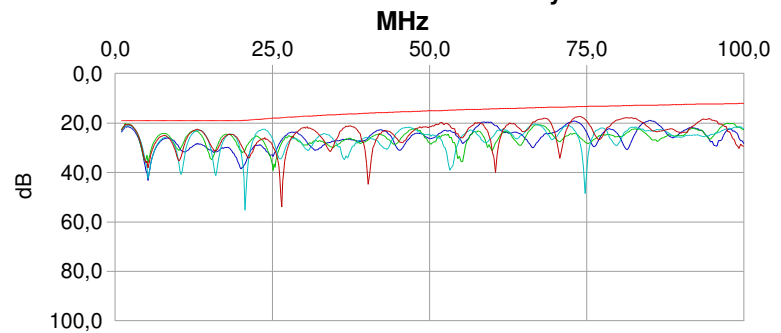
NEXT RH Summary



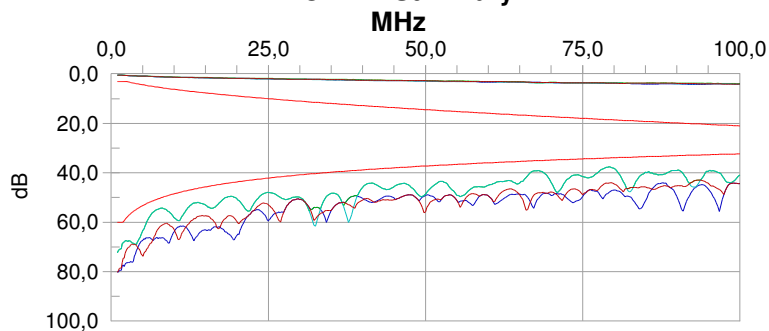
Return Loss DH Summary



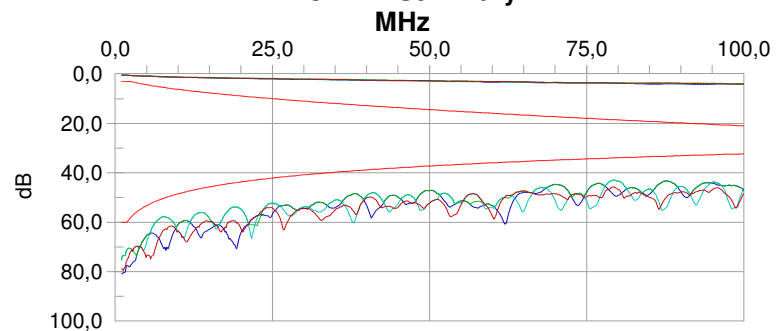
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

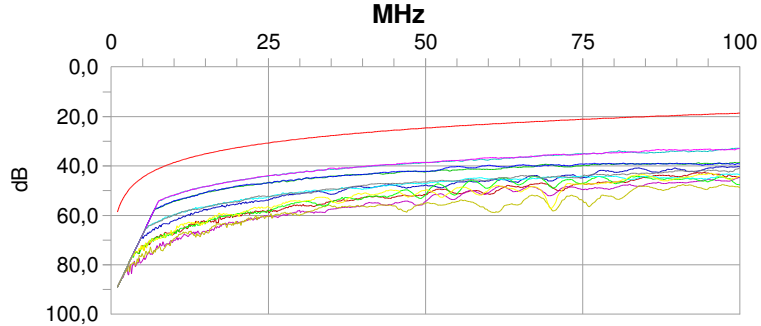
Cable ID 1: 3/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:13:50
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

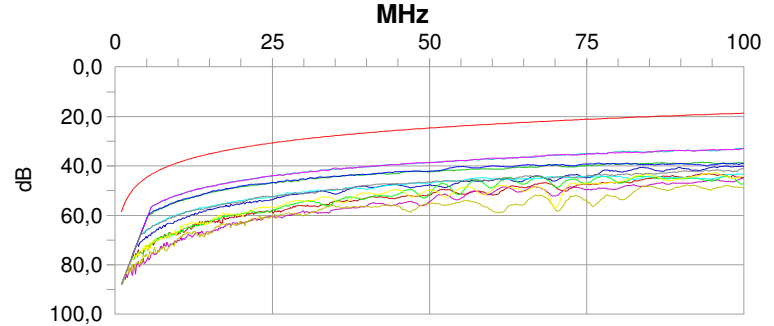
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

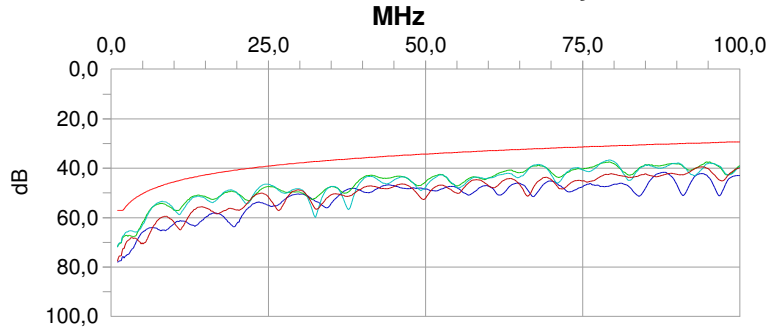
ELFEXT DH Summary



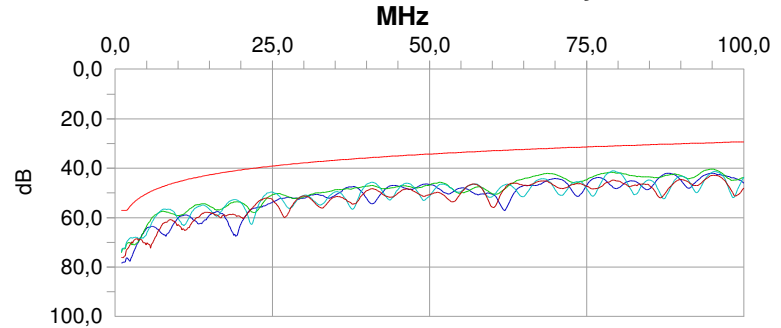
ELFEXT RH Summary



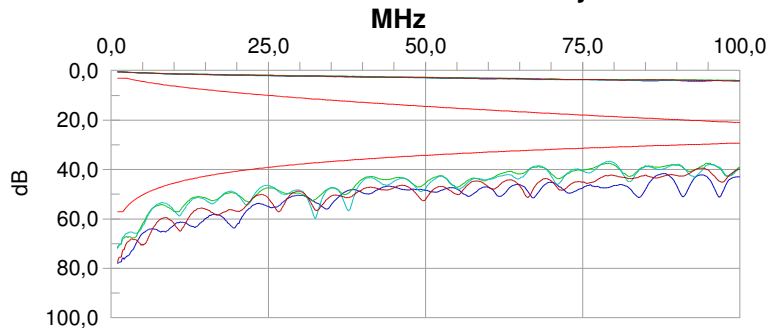
Power Sum NEXT DH Summary



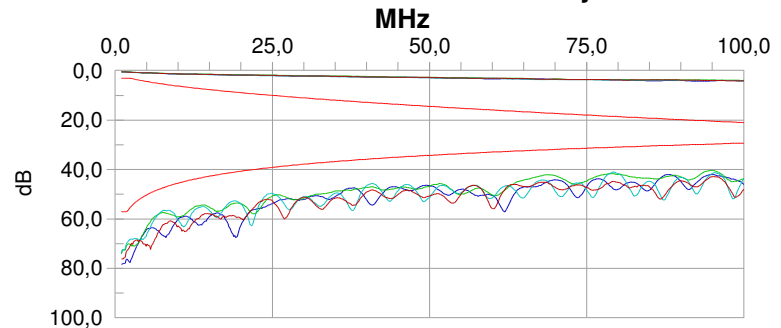
Power Sum NEXT RH Summary



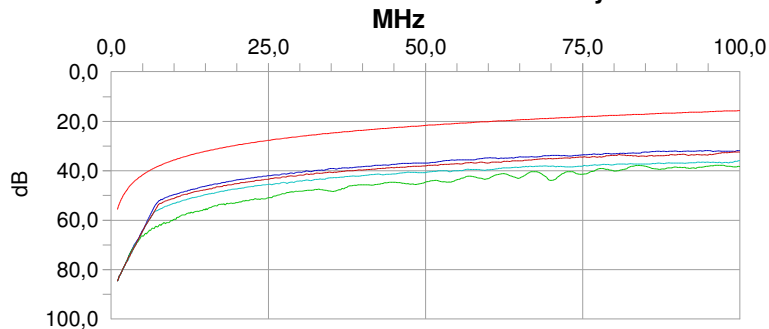
Power Sum ACR DH Summary



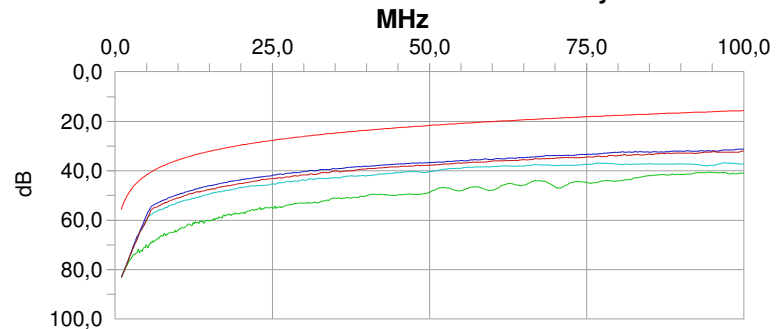
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

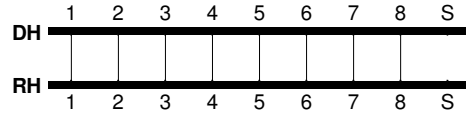
Cable ID 1: 3/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:15:15
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	19.5m	19.2m	19.1m	19.7m	< 90.0m	Pass
Prop. Delay	110.4ns	109.2ns	108.8ns	110.2ns	< 498.0ns	Pass
Delay Skew	1.6ns (Pairs 7,8 vs. 5,4)				< 44.0 ns	Pass
Headroom	16.5 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	41.4 dB @ 61.25MHz	40.4 dB	> 35.8 dB	5.6 dB
7,8-5,4	DH	Pass	49.9 dB @ 27.85MHz	44.1 dB	> 41.4 dB	8.5 dB
7,8-1,2	DH	Pass	51.7 dB @ 49.75MHz	50.2 dB	> 37.3 dB	14.4 dB
3,6-5,4	DH	Pass	41.5 dB @ 76.00MHz	41.5 dB	> 34.3 dB	7.2 dB
3,6-1,2	DH	Pass	45.9 dB @ 60.75MHz	45.1 dB	> 35.9 dB	10.0 dB
5,4-1,2	DH	Pass	51.9 dB @ 24.55MHz	46.0 dB	> 42.2 dB	9.7 dB
7,8-3,6	RH	Pass	40.8 dB @ 60.75MHz	39.6 dB	> 35.9 dB	4.9 dB
7,8-5,4	RH	Pass	38.3 dB @ 89.25MHz	38.3 dB	> 33.1 dB	5.2 dB
7,8-1,2	RH	Pass	50.0 dB @ 64.25MHz	50.0 dB	> 35.5 dB	14.5 dB
3,6-5,4	RH	Pass	45.5 dB @ 59.00MHz	43.2 dB	> 36.1 dB	9.4 dB
3,6-1,2	RH	Pass	47.6 dB @ 60.75MHz	46.0 dB	> 35.9 dB	11.7 dB
5,4-1,2	RH	Pass	51.8 dB @ 25.15MHz	47.7 dB	> 42.1 dB	9.7 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.5 dB @ 1.60MHz	22.5 dB	> 19.0 dB	3.5 dB
3,6	DH	Pass	22.0 dB @ 1.60MHz	22.0 dB	> 19.0 dB	3.0 dB
5,4	DH	Pass	21.4 dB @ 1.60MHz	21.4 dB	> 19.0 dB	2.4 dB
1,2	DH	Pass	22.8 dB @ 1.60MHz	21.2 dB	> 19.0 dB	3.8 dB
7,8	RH	Pass	22.3 dB @ 1.60MHz	22.3 dB	> 19.0 dB	3.3 dB
3,6	RH	Pass	21.4 dB @ 1.60MHz	21.4 dB	> 19.0 dB	2.4 dB
5,4	RH	Pass	22.0 dB @ 1.90MHz	21.5 dB	> 19.0 dB	3.0 dB
1,2	RH	Pass	22.7 dB @ 1.60MHz	21.3 dB	> 19.0 dB	3.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.6 dB @ 2.50MHz	3.7 dB	< 3.1 dB	2.5 dB
5,4	Pass	0.6 dB @ 2.50MHz	3.8 dB	< 3.1 dB	2.5 dB
1,2	Pass	0.6 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.5 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	37.0 dB @ 71.50MHz	N/A	>= 17.2 dB	19.8 dB
3,6	DH	Pass	37.1 dB @ 71.75MHz	N/A	>= 17.2 dB	19.9 dB
5,4	DH	Pass	38.0 dB @ 76.00MHz	N/A	>= 16.2 dB	21.8 dB
1,2	DH	Pass	41.4 dB @ 82.75MHz	N/A	>= 14.8 dB	26.6 dB
7,8	RH	Pass	34.5 dB @ 90.00MHz	N/A	>= 13.3 dB	21.2 dB
3,6	RH	Pass	36.0 dB @ 94.00MHz	N/A	>= 12.4 dB	23.6 dB
5,4	RH	Pass	34.6 dB @ 89.50MHz	N/A	>= 13.4 dB	21.2 dB
1,2	RH	Pass	42.2 dB @ 94.25MHz	N/A	>= 12.4 dB	29.8 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 3/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:15:15
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	39.7 dB @ 61.00MHz	38.9 dB	> 22.9 dB	16.8 dB
7,8-5,4	DH	Pass	37.3 dB @ 97.00MHz	37.3 dB	> 18.9 dB	18.4 dB
7,8-1,2	DH	Pass	60.0 dB @ 63.75MHz	60.0 dB	> 22.5 dB	37.5 dB
3,6-7,8	DH	Pass	44.7 dB @ 61.00MHz	42.9 dB	> 22.9 dB	21.8 dB
3,6-5,4	DH	Pass	55.3 dB @ 7.45MHz	34.4 dB	> 41.2 dB	14.1 dB
3,6-1,2	DH	Pass	42.0 dB @ 72.00MHz	41.4 dB	> 21.5 dB	20.5 dB
5,4-7,8	DH	Pass	39.1 dB @ 75.25MHz	37.6 dB	> 21.1 dB	18.0 dB
5,4-3,6	DH	Pass	49.2 dB @ 8.95MHz	30.6 dB	> 39.6 dB	9.6 dB
5,4-1,2	DH	Pass	50.5 dB @ 15.55MHz	36.3 dB	> 34.8 dB	15.7 dB
1,2-7,8	DH	Pass	58.8 dB @ 91.00MHz	58.8 dB	> 19.4 dB	39.4 dB
1,2-3,6	DH	Pass	57.3 dB @ 7.90MHz	36.0 dB	> 40.7 dB	16.6 dB
1,2-5,4	DH	Pass	55.8 dB @ 8.65MHz	36.5 dB	> 39.9 dB	15.9 dB
7,8-3,6	RH	Pass	39.5 dB @ 61.00MHz	38.8 dB	> 22.9 dB	16.6 dB
7,8-5,4	RH	Pass	37.2 dB @ 97.00MHz	37.2 dB	> 18.9 dB	18.3 dB
7,8-1,2	RH	Pass	60.0 dB @ 63.75MHz	60.0 dB	> 22.5 dB	37.5 dB
3,6-7,8	RH	Pass	68.2 dB @ 4.15MHz	43.1 dB	> 46.3 dB	21.9 dB
3,6-5,4	RH	Pass	56.8 dB @ 6.10MHz	34.5 dB	> 42.9 dB	13.9 dB
3,6-1,2	RH	Pass	66.3 dB @ 4.30MHz	41.6 dB	> 45.9 dB	20.4 dB
5,4-7,8	RH	Pass	39.1 dB @ 75.25MHz	37.8 dB	> 21.1 dB	18.0 dB
5,4-3,6	RH	Pass	51.0 dB @ 7.15MHz	30.5 dB	> 41.5 dB	9.5 dB
5,4-1,2	RH	Pass	50.2 dB @ 16.15MHz	36.3 dB	> 34.5 dB	15.7 dB
1,2-7,8	RH	Pass	58.8 dB @ 91.00MHz	58.8 dB	> 19.4 dB	39.4 dB
1,2-3,6	RH	Pass	60.1 dB @ 5.50MHz	35.8 dB	> 43.8 dB	16.3 dB
1,2-5,4	RH	Pass	60.2 dB @ 5.20MHz	36.4 dB	> 44.3 dB	15.9 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.8 dB @ 61.25MHz	39.5 dB	> 32.8 dB	8.0 dB
3,6	DH	Pass	39.4 dB @ 61.00MHz	38.4 dB	> 32.8 dB	6.6 dB
5,4	DH	Pass	47.4 dB @ 24.10MHz	40.0 dB	> 39.4 dB	8.0 dB
1,2	DH	Pass	44.0 dB @ 65.00MHz	43.1 dB	> 32.4 dB	11.6 dB
7,8	RH	Pass	39.1 dB @ 60.75MHz	35.9 dB	> 32.9 dB	6.2 dB
3,6	RH	Pass	39.4 dB @ 60.75MHz	37.8 dB	> 32.9 dB	6.5 dB
5,4	RH	Pass	37.0 dB @ 91.00MHz	37.0 dB	> 30.0 dB	7.0 dB
1,2	RH	Pass	51.1 dB @ 25.15MHz	43.9 dB	> 39.1 dB	12.0 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	35.6 dB @ 100.00MHz	N/A	>= 8.3 dB	27.3 dB
3,6	DH	Pass	34.9 dB @ 82.25MHz	N/A	>= 11.8 dB	23.1 dB
5,4	DH	Pass	36.5 dB @ 76.00MHz	N/A	>= 13.2 dB	23.3 dB
1,2	DH	Pass	39.6 dB @ 76.25MHz	N/A	>= 13.1 dB	26.5 dB
7,8	RH	Pass	32.1 dB @ 94.25MHz	N/A	>= 9.4 dB	22.7 dB
3,6	RH	Pass	34.2 dB @ 94.25MHz	N/A	>= 9.4 dB	24.8 dB
5,4	RH	Pass	33.3 dB @ 91.00MHz	N/A	>= 10.1 dB	23.2 dB
1,2	RH	Pass	40.0 dB @ 98.25MHz	N/A	>= 8.6 dB	31.4 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	38.1 dB @ 75.25MHz	36.5 dB	>= 18.1 dB	20.0 dB
3,6	DH	Pass	47.9 dB @ 8.95MHz	29.1 dB	>= 36.6 dB	11.3 dB
5,4	DH	Pass	52.7 dB @ 7.45MHz	31.3 dB	>= 38.2 dB	14.5 dB
1,2	DH	Pass	39.2 dB @ 51.75MHz	35.1 dB	>= 21.3 dB	17.9 dB
7,8	RH	Pass	37.9 dB @ 61.00MHz	35.0 dB	>= 19.9 dB	18.0 dB
3,6	RH	Pass	56.3 dB @ 5.65MHz	33.2 dB	>= 40.6 dB	15.7 dB
5,4	RH	Pass	49.9 dB @ 7.15MHz	29.0 dB	>= 38.5 dB	11.4 dB
1,2	RH	Pass	35.1 dB @ 76.75MHz	33.1 dB	>= 17.9 dB	17.2 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

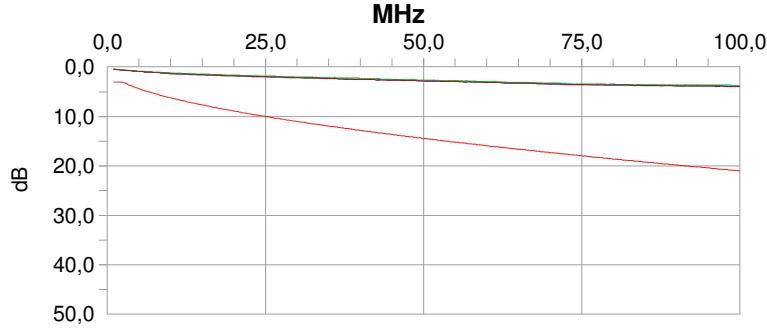
Cable ID 1: 3/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:15:15
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

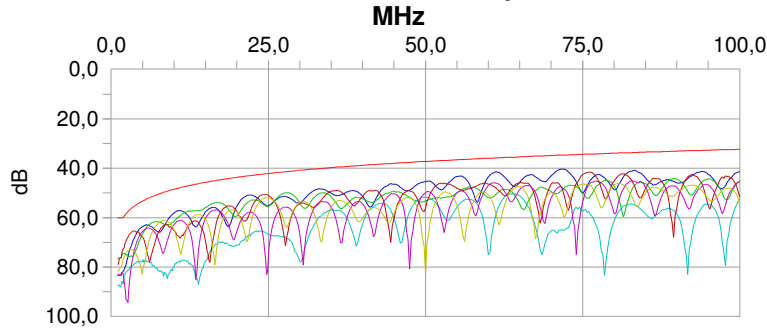
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

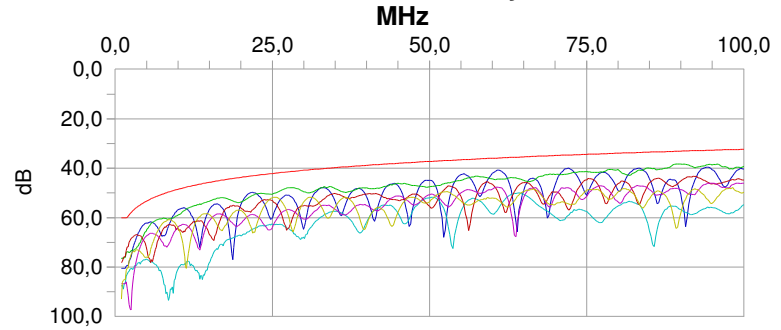
Attenuation Summary



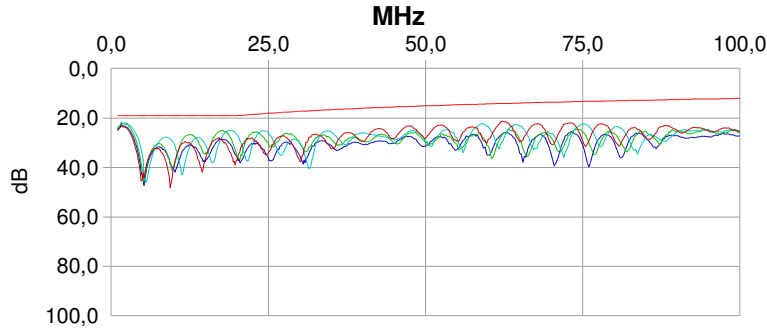
NEXT DH Summary



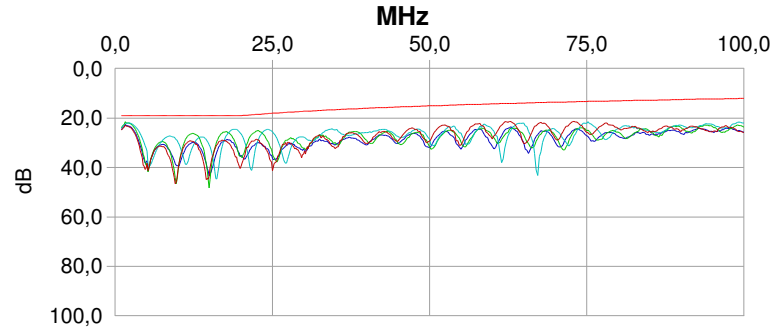
NEXT RH Summary



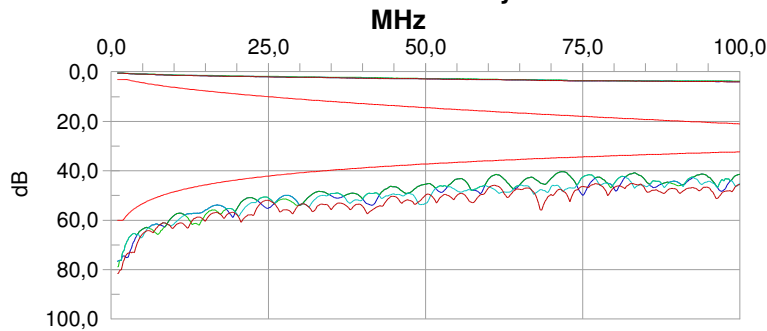
Return Loss DH Summary



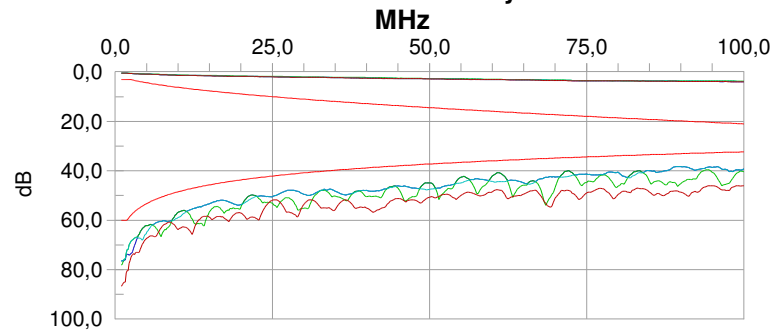
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

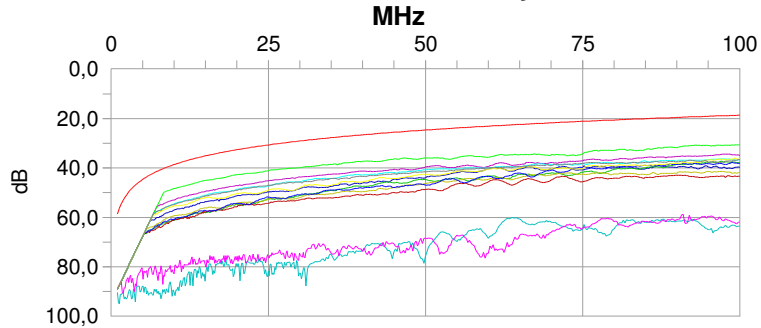
Cable ID 1: 3/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:15:15
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

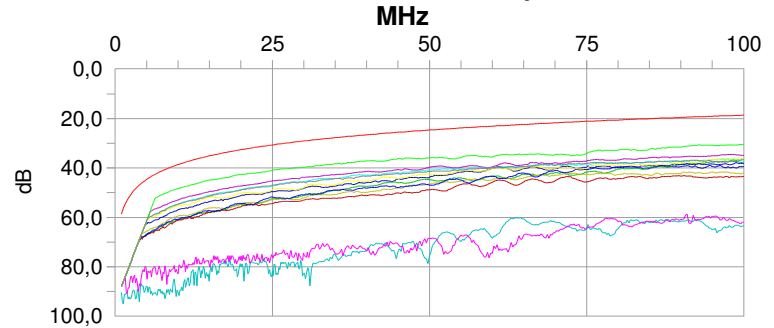
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

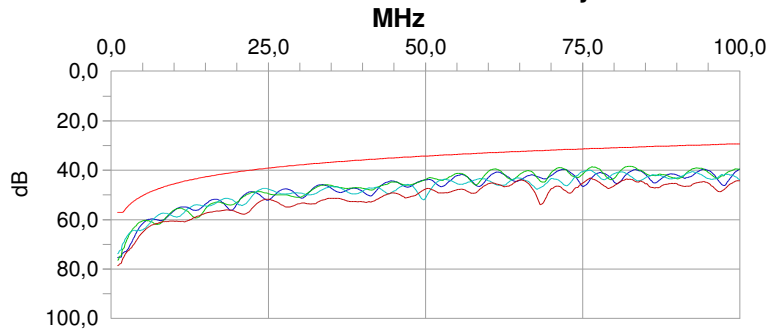
ELFEXT DH Summary



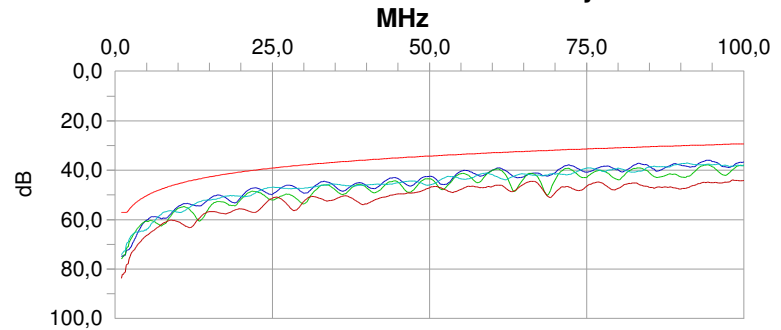
ELFEXT RH Summary



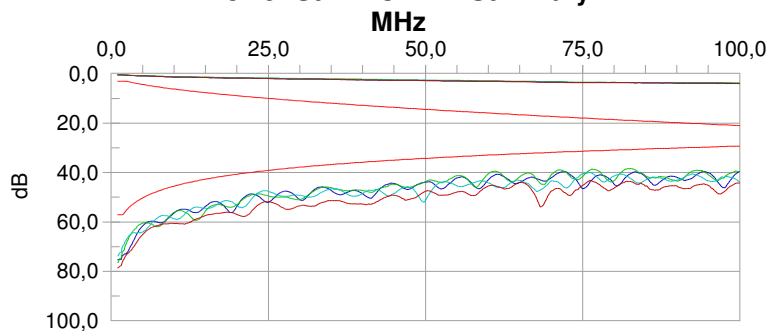
Power Sum NEXT DH Summary



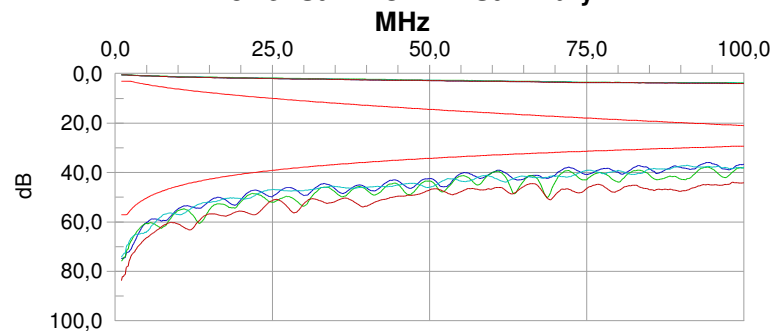
Power Sum NEXT RH Summary



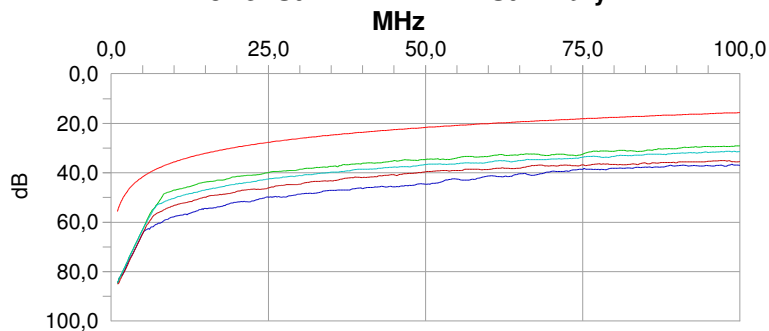
Power Sum ACR DH Summary



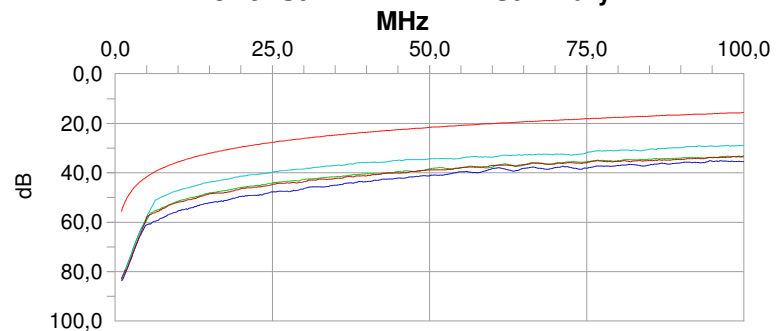
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

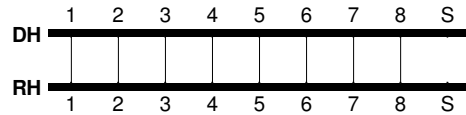
Cable ID 1: 3/8
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:10:24
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	16.2m	16.5m	16.6m	16.4m	< 90.0m	Pass
Prop. Delay	94.7ns	96.1ns	97.1ns	94.4ns	< 498.0ns	Pass
Delay Skew		2.7ns (Pairs 5,4 vs. 1,2)			< 44.0 ns	Pass
Headroom		18.7 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	45.2 dB @ 71.25MHz	44.5 dB	> 34.7 dB	10.5 dB
7,8-5,4	DH	Pass	52.4 dB @ 58.00MHz	51.5 dB	> 36.2 dB	16.2 dB
7,8-1,2	DH	Pass	51.9 dB @ 40.25MHz	47.7 dB	> 38.8 dB	13.1 dB
3,6-5,4	DH	Pass	44.2 dB @ 35.25MHz	39.4 dB	> 39.7 dB	4.5 dB
3,6-1,2	DH	Pass	41.8 dB @ 76.75MHz	41.8 dB	> 34.2 dB	7.6 dB
5,4-1,2	DH	Pass	62.0 dB @ 9.70MHz	48.1 dB	> 48.7 dB	13.3 dB
7,8-3,6	RH	Pass	44.6 dB @ 70.50MHz	44.6 dB	> 34.8 dB	9.8 dB
7,8-5,4	RH	Pass	50.1 dB @ 64.75MHz	49.8 dB	> 35.4 dB	14.7 dB
7,8-1,2	RH	Pass	52.6 dB @ 40.50MHz	48.7 dB	> 38.7 dB	13.9 dB
3,6-5,4	RH	Pass	50.6 dB @ 15.70MHz	41.1 dB	> 45.4 dB	5.2 dB
3,6-1,2	RH	Pass	44.3 dB @ 76.50MHz	44.3 dB	> 34.2 dB	10.1 dB
5,4-1,2	RH	Pass	62.1 dB @ 10.30MHz	46.2 dB	> 48.3 dB	13.8 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	19.5 dB @ 2.50MHz	18.4 dB	> 19.0 dB	0.5 dB
3,6	DH	Pass	20.8 dB @ 2.50MHz	20.8 dB	> 19.0 dB	1.8 dB
5,4	DH	Pass	20.3 dB @ 22.15MHz	19.7 dB	> 18.6 dB	1.7 dB
1,2	DH	Pass	21.2 dB @ 1.60MHz	16.5 dB	> 19.0 dB	2.2 dB
7,8	RH	Pass	20.7 dB @ 2.35MHz	19.2 dB	> 19.0 dB	1.7 dB
3,6	RH	Pass	20.6 dB @ 2.20MHz	20.6 dB	> 19.0 dB	1.6 dB
5,4	RH	Pass	20.4 dB @ 21.55MHz	19.3 dB	> 18.7 dB	1.7 dB
1,2	RH	Pass	20.8 dB @ 2.50MHz	17.8 dB	> 19.0 dB	1.8 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 2.50MHz	3.4 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.5 dB @ 2.50MHz	3.2 dB	< 3.1 dB	2.6 dB
5,4	Pass	0.5 dB @ 2.50MHz	3.4 dB	< 3.1 dB	2.6 dB
1,2	Pass	0.5 dB @ 2.50MHz	3.4 dB	< 3.1 dB	2.6 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	41.2 dB @ 89.50MHz	N/A	>= 13.4 dB	27.8 dB
3,6	DH	Pass	36.2 dB @ 94.25MHz	N/A	>= 12.4 dB	23.8 dB
5,4	DH	Pass	36.1 dB @ 88.00MHz	N/A	>= 13.6 dB	22.5 dB
1,2	DH	Pass	38.8 dB @ 76.75MHz	N/A	>= 16.0 dB	22.8 dB
7,8	RH	Pass	41.3 dB @ 96.00MHz	N/A	>= 12.1 dB	29.2 dB
3,6	RH	Pass	38.1 dB @ 81.00MHz	N/A	>= 15.1 dB	23.0 dB
5,4	RH	Pass	37.9 dB @ 81.00MHz	N/A	>= 15.1 dB	22.8 dB
1,2	RH	Pass	41.3 dB @ 76.50MHz	N/A	>= 16.1 dB	25.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 3/8
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:10:24
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	41.8 dB @ 94.75MHz	41.7 dB	> 19.1 dB	22.7 dB
7,8-5,4	DH	Pass	54.5 dB @ 8.95MHz	36.3 dB	> 39.6 dB	14.9 dB
7,8-1,2	DH	Pass	68.1 dB @ 18.40MHz	55.4 dB	> 33.3 dB	34.8 dB
3,6-7,8	DH	Pass	47.8 dB @ 98.00MHz	47.8 dB	> 18.8 dB	29.0 dB
3,6-5,4	DH	Pass	55.2 dB @ 7.45MHz	34.5 dB	> 41.2 dB	14.0 dB
3,6-1,2	DH	Pass	59.2 dB @ 6.70MHz	38.1 dB	> 42.1 dB	17.1 dB
5,4-7,8	DH	Pass	56.2 dB @ 7.15MHz	36.4 dB	> 41.5 dB	14.7 dB
5,4-3,6	DH	Pass	48.4 dB @ 9.70MHz	28.8 dB	> 38.9 dB	9.5 dB
5,4-1,2	DH	Pass	65.3 dB @ 6.25MHz	44.0 dB	> 42.7 dB	22.6 dB
1,2-7,8	DH	Pass	51.8 dB @ 96.75MHz	51.8 dB	> 18.9 dB	32.9 dB
1,2-3,6	DH	Pass	49.1 dB @ 13.00MHz	33.8 dB	> 36.3 dB	12.8 dB
1,2-5,4	DH	Pass	66.0 dB @ 5.80MHz	43.0 dB	> 43.3 dB	22.7 dB
7,8-3,6	RH	Pass	41.6 dB @ 94.75MHz	41.6 dB	> 19.1 dB	22.5 dB
7,8-5,4	RH	Pass	54.5 dB @ 8.95MHz	36.4 dB	> 39.6 dB	14.9 dB
7,8-1,2	RH	Pass	68.0 dB @ 18.40MHz	55.5 dB	> 33.3 dB	34.7 dB
3,6-7,8	RH	Pass	48.0 dB @ 98.00MHz	48.0 dB	> 18.8 dB	29.2 dB
3,6-5,4	RH	Pass	57.4 dB @ 5.65MHz	34.6 dB	> 43.6 dB	13.8 dB
3,6-1,2	RH	Pass	61.1 dB @ 5.05MHz	38.3 dB	> 44.5 dB	16.6 dB
5,4-7,8	RH	Pass	57.1 dB @ 6.40MHz	36.4 dB	> 42.5 dB	14.6 dB
5,4-3,6	RH	Pass	51.2 dB @ 6.85MHz	28.6 dB	> 41.9 dB	9.3 dB
5,4-1,2	RH	Pass	68.6 dB @ 4.15MHz	44.1 dB	> 46.3 dB	22.3 dB
1,2-7,8	RH	Pass	51.8 dB @ 96.75MHz	51.8 dB	> 18.9 dB	32.9 dB
1,2-3,6	RH	Pass	55.4 dB @ 5.95MHz	33.5 dB	> 43.1 dB	12.3 dB
1,2-5,4	RH	Pass	68.2 dB @ 4.45MHz	42.9 dB	> 45.6 dB	22.6 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	48.0 dB @ 42.00MHz	43.0 dB	> 35.5 dB	12.5 dB
3,6	DH	Pass	40.1 dB @ 54.75MHz	37.4 dB	> 33.6 dB	6.5 dB
5,4	DH	Pass	43.8 dB @ 35.25MHz	38.8 dB	> 36.7 dB	7.1 dB
1,2	DH	Pass	41.1 dB @ 76.75MHz	40.8 dB	> 31.2 dB	9.9 dB
7,8	RH	Pass	46.7 dB @ 48.75MHz	43.1 dB	> 34.4 dB	12.3 dB
3,6	RH	Pass	40.6 dB @ 55.25MHz	39.6 dB	> 33.5 dB	7.1 dB
5,4	RH	Pass	44.2 dB @ 35.75MHz	40.1 dB	> 36.6 dB	7.6 dB
1,2	RH	Pass	43.4 dB @ 76.00MHz	43.1 dB	> 31.3 dB	12.1 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	39.7 dB @ 96.25MHz	N/A	>= 9.1 dB	30.6 dB
3,6	DH	Pass	34.3 dB @ 94.75MHz	N/A	>= 9.3 dB	25.0 dB
5,4	DH	Pass	35.5 dB @ 88.00MHz	N/A	>= 10.6 dB	24.9 dB
1,2	DH	Pass	37.6 dB @ 94.50MHz	N/A	>= 9.4 dB	28.2 dB
7,8	RH	Pass	39.8 dB @ 96.00MHz	N/A	>= 9.1 dB	30.7 dB
3,6	RH	Pass	36.5 dB @ 95.25MHz	N/A	>= 9.3 dB	27.2 dB
5,4	RH	Pass	36.8 dB @ 87.75MHz	N/A	>= 10.7 dB	26.1 dB
1,2	RH	Pass	39.7 dB @ 99.25MHz	N/A	>= 8.5 dB	31.2 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	43.8 dB @ 32.25MHz	36.0 dB	>= 25.4 dB	18.4 dB
3,6	DH	Pass	46.8 dB @ 9.70MHz	27.4 dB	>= 35.9 dB	10.9 dB
5,4	DH	Pass	52.4 dB @ 7.45MHz	32.0 dB	>= 38.2 dB	14.2 dB
1,2	DH	Pass	40.3 dB @ 54.00MHz	37.0 dB	>= 21.0 dB	19.3 dB
7,8	RH	Pass	48.2 dB @ 18.40MHz	35.2 dB	>= 30.3 dB	17.9 dB
3,6	RH	Pass	37.2 dB @ 53.00MHz	32.9 dB	>= 21.1 dB	16.1 dB
5,4	RH	Pass	49.9 dB @ 6.85MHz	27.8 dB	>= 38.9 dB	11.0 dB
1,2	RH	Pass	39.1 dB @ 42.75MHz	32.9 dB	>= 23.0 dB	16.1 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

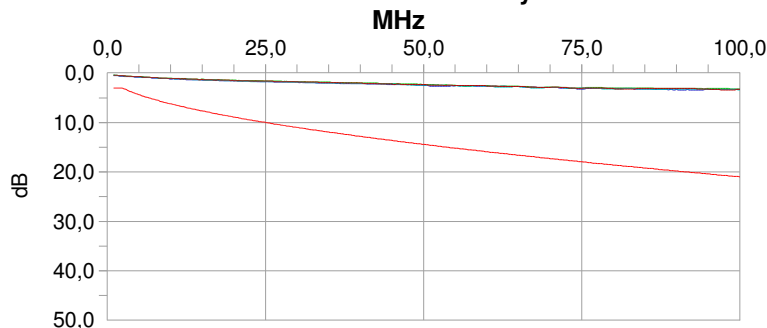
Cable ID 1: 3/8
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:10:24
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

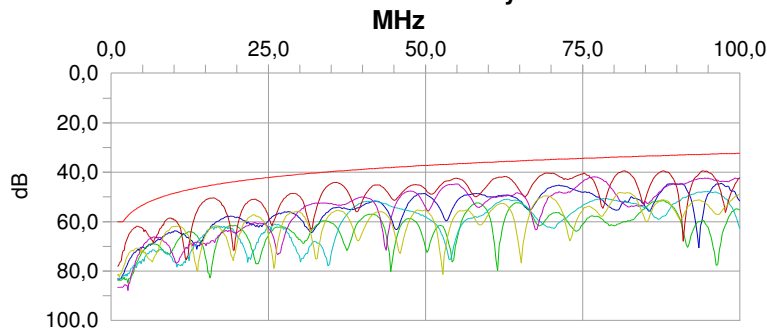
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

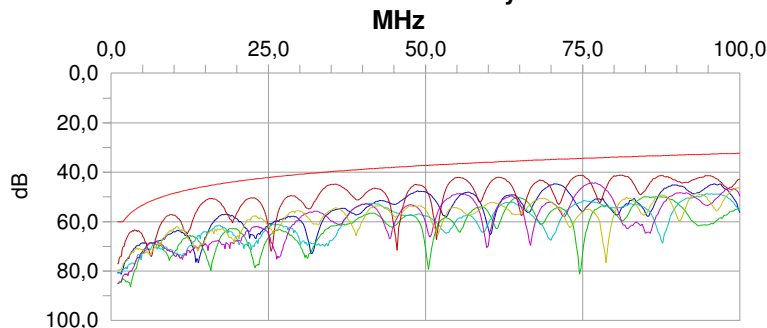
Attenuation Summary



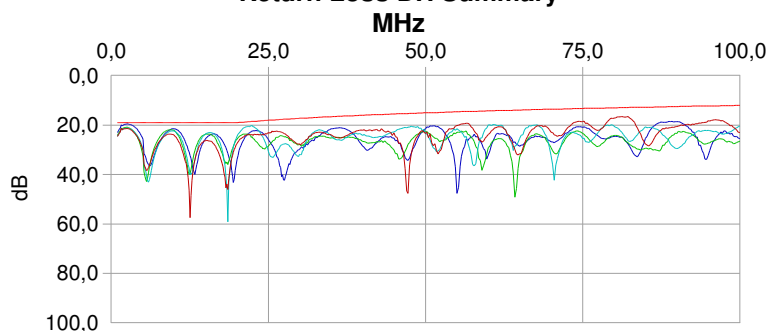
NEXT DH Summary



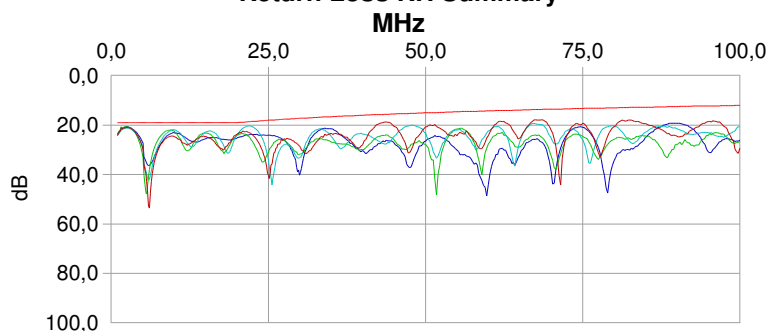
NEXT RH Summary



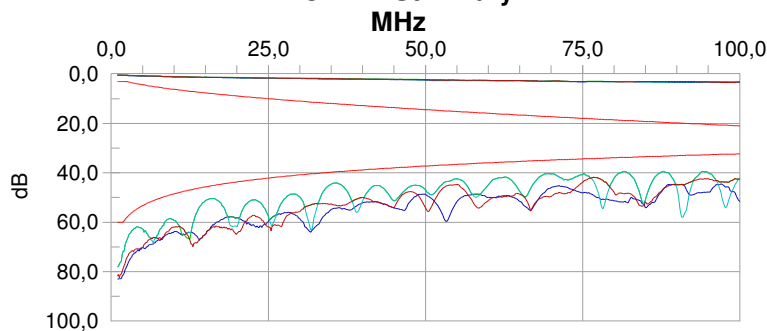
Return Loss DH Summary



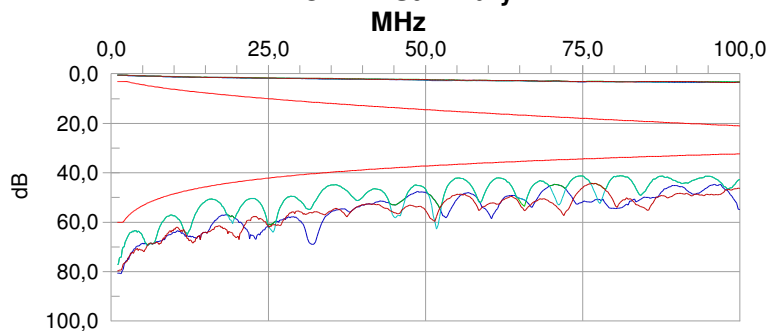
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

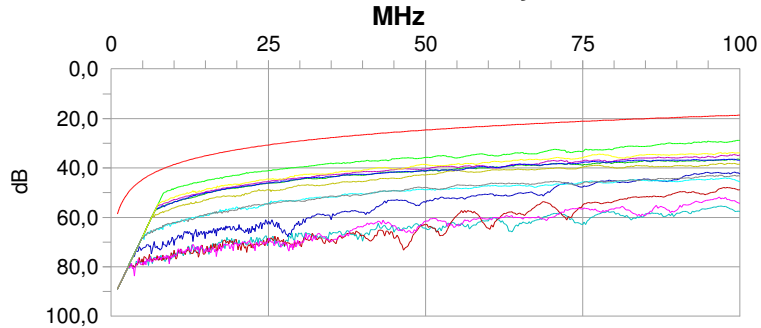
Cable ID 1: 3/8
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:10:24
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

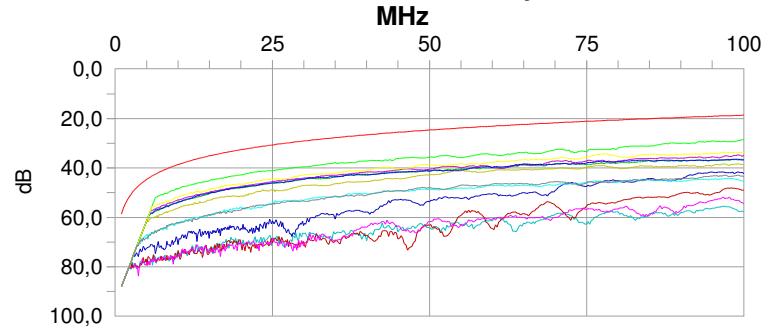
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

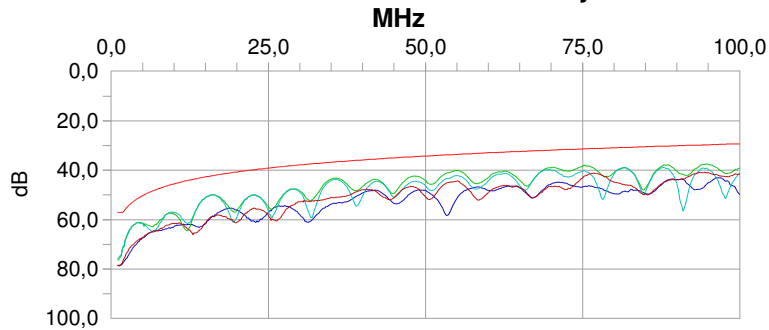
ELFEXT DH Summary



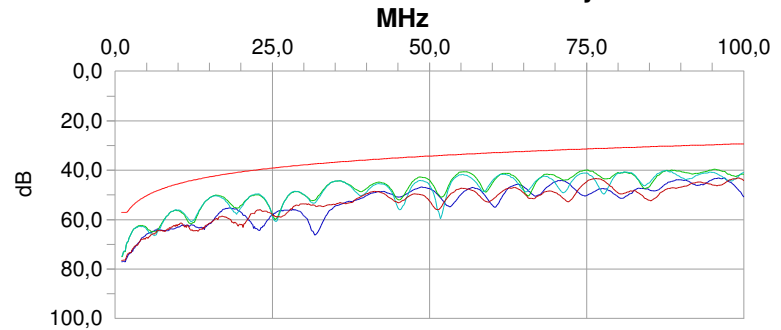
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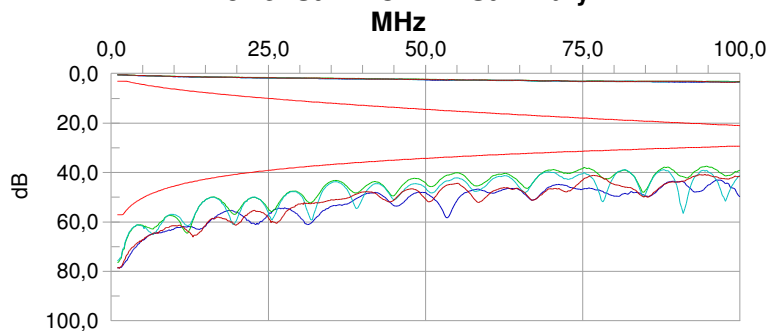
Power Sum NEXT DH Summary



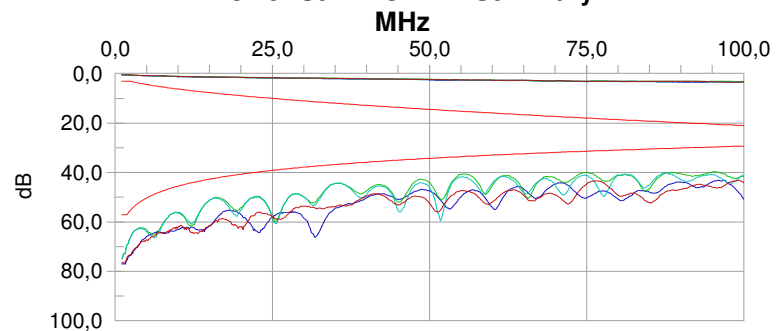
Power Sum NEXT RH Summary



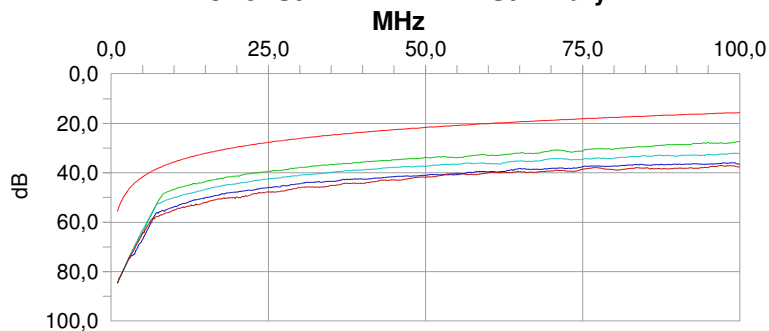
Power Sum ACR DH Summary



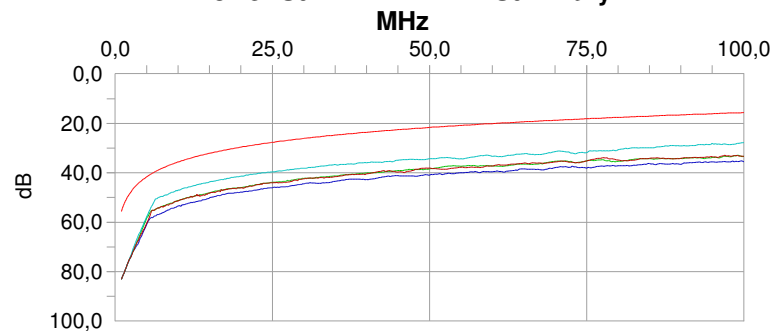
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

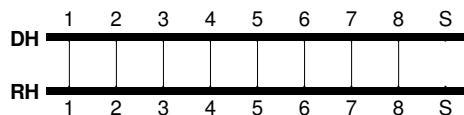
Cable ID 1: 3/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:01:21
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	21.0m	20.8m	20.6m	21.3m	< 90.0m	Pass
Prop. Delay	117.7ns	116.6ns	116.0ns	117.5ns	< 498.0ns	Pass
Delay Skew	1.7ns (Pairs 7,8 vs. 5,4)				< 44.0 ns	Pass
Headroom	17.4 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	45.3 dB @ 48.75MHz	41.9 dB	> 37.4 dB	7.9 dB
7,8-5,4	DH	Pass	45.2 dB @ 80.25MHz	45.2 dB	> 33.9 dB	11.3 dB
7,8-1,2	DH	Pass	46.4 dB @ 86.25MHz	46.4 dB	> 33.4 dB	13.0 dB
3,6-5,4	DH	Pass	53.7 dB @ 7.75MHz	37.3 dB	> 50.3 dB	3.4 dB
3,6-1,2	DH	Pass	46.4 dB @ 38.00MHz	40.8 dB	> 39.2 dB	7.2 dB
5,4-1,2	DH	Pass	52.8 dB @ 17.95MHz	41.9 dB	> 44.4 dB	8.4 dB
7,8-3,6	RH	Pass	45.5 dB @ 48.25MHz	42.7 dB	> 37.5 dB	8.0 dB
7,8-5,4	RH	Pass	62.6 dB @ 7.60MHz	48.5 dB	> 50.4 dB	12.2 dB
7,8-1,2	RH	Pass	47.8 dB @ 86.00MHz	47.8 dB	> 33.4 dB	14.4 dB
3,6-5,4	RH	Pass	56.0 dB @ 7.75MHz	40.3 dB	> 50.3 dB	5.7 dB
3,6-1,2	RH	Pass	51.3 dB @ 38.00MHz	49.1 dB	> 39.2 dB	12.1 dB
5,4-1,2	RH	Pass	53.1 dB @ 18.25MHz	45.9 dB	> 44.3 dB	8.8 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.3 dB @ 1.60MHz	22.3 dB	> 19.0 dB	3.3 dB
3,6	DH	Pass	22.1 dB @ 1.60MHz	22.1 dB	> 19.0 dB	3.1 dB
5,4	DH	Pass	21.3 dB @ 1.60MHz	21.3 dB	> 19.0 dB	2.3 dB
1,2	DH	Pass	22.8 dB @ 1.60MHz	21.4 dB	> 19.0 dB	3.8 dB
7,8	RH	Pass	22.0 dB @ 1.60MHz	22.0 dB	> 19.0 dB	3.0 dB
3,6	RH	Pass	21.4 dB @ 1.60MHz	21.4 dB	> 19.0 dB	2.4 dB
5,4	RH	Pass	21.7 dB @ 1.90MHz	20.4 dB	> 19.0 dB	2.7 dB
1,2	RH	Pass	22.7 dB @ 1.60MHz	20.0 dB	> 19.0 dB	3.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.50MHz	4.2 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.50MHz	4.0 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.7 dB @ 2.50MHz	4.1 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.50MHz	4.2 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	37.7 dB @ 99.75MHz	N/A	>= 11.4 dB	26.3 dB
3,6	DH	Pass	33.5 dB @ 80.75MHz	N/A	>= 15.1 dB	18.4 dB
5,4	DH	Pass	33.5 dB @ 80.75MHz	N/A	>= 15.1 dB	18.4 dB
1,2	DH	Pass	36.6 dB @ 99.75MHz	N/A	>= 11.4 dB	25.2 dB
7,8	RH	Pass	38.5 dB @ 99.75MHz	N/A	>= 11.4 dB	27.1 dB
3,6	RH	Pass	36.6 dB @ 80.25MHz	N/A	>= 15.3 dB	21.3 dB
5,4	RH	Pass	36.5 dB @ 80.25MHz	N/A	>= 15.3 dB	21.2 dB
1,2	RH	Pass	42.0 dB @ 80.50MHz	N/A	>= 15.3 dB	26.7 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 3/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:01:21
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	50.5 dB @ 23.35MHz	39.8 dB	> 31.2 dB	19.3 dB
7,8-5,4	DH	Pass	50.2 dB @ 23.50MHz	40.9 dB	> 31.2 dB	19.0 dB
7,8-1,2	DH	Pass	52.2 dB @ 65.00MHz	51.7 dB	> 22.4 dB	29.8 dB
3,6-7,8	DH	Pass	47.3 dB @ 47.75MHz	42.8 dB	> 25.0 dB	22.3 dB
3,6-5,4	DH	Pass	53.8 dB @ 13.00MHz	38.7 dB	> 36.3 dB	17.5 dB
3,6-1,2	DH	Pass	44.5 dB @ 71.25MHz	43.2 dB	> 21.6 dB	22.9 dB
5,4-7,8	DH	Pass	61.7 dB @ 6.25MHz	41.5 dB	> 42.7 dB	19.0 dB
5,4-3,6	DH	Pass	52.8 dB @ 8.65MHz	35.6 dB	> 39.9 dB	12.9 dB
5,4-1,2	DH	Pass	42.7 dB @ 93.25MHz	42.6 dB	> 19.2 dB	23.5 dB
1,2-7,8	DH	Pass	67.0 dB @ 12.25MHz	51.4 dB	> 36.9 dB	30.1 dB
1,2-3,6	DH	Pass	38.2 dB @ 96.00MHz	37.9 dB	> 19.0 dB	19.2 dB
1,2-5,4	DH	Pass	43.4 dB @ 80.75MHz	41.9 dB	> 20.5 dB	22.9 dB
7,8-3,6	RH	Pass	50.4 dB @ 23.35MHz	39.6 dB	> 31.2 dB	19.2 dB
7,8-5,4	RH	Pass	50.3 dB @ 23.35MHz	41.0 dB	> 31.2 dB	19.1 dB
7,8-1,2	RH	Pass	52.2 dB @ 65.00MHz	51.7 dB	> 22.4 dB	29.8 dB
3,6-7,8	RH	Pass	47.4 dB @ 47.75MHz	42.9 dB	> 25.0 dB	22.4 dB
3,6-5,4	RH	Pass	60.7 dB @ 5.80MHz	38.8 dB	> 43.3 dB	17.4 dB
3,6-1,2	RH	Pass	44.7 dB @ 71.25MHz	43.4 dB	> 21.6 dB	23.1 dB
5,4-7,8	RH	Pass	63.9 dB @ 4.75MHz	41.6 dB	> 45.1 dB	18.8 dB
5,4-3,6	RH	Pass	52.7 dB @ 8.65MHz	35.5 dB	> 39.9 dB	12.8 dB
5,4-1,2	RH	Pass	42.8 dB @ 93.25MHz	42.7 dB	> 19.2 dB	23.6 dB
1,2-7,8	RH	Pass	67.0 dB @ 12.25MHz	51.3 dB	> 36.9 dB	30.1 dB
1,2-3,6	RH	Pass	38.2 dB @ 95.00MHz	37.7 dB	> 19.1 dB	19.1 dB
1,2-5,4	RH	Pass	43.3 dB @ 80.75MHz	41.8 dB	> 20.5 dB	22.8 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.0 dB @ 79.75MHz	40.0 dB	> 30.9 dB	9.1 dB
3,6	DH	Pass	35.6 dB @ 80.25MHz	35.6 dB	> 30.9 dB	4.7 dB
5,4	DH	Pass	35.8 dB @ 80.50MHz	35.7 dB	> 30.9 dB	4.9 dB
1,2	DH	Pass	39.3 dB @ 80.25MHz	39.1 dB	> 30.9 dB	8.4 dB
7,8	RH	Pass	44.3 dB @ 48.25MHz	41.6 dB	> 34.5 dB	9.8 dB
3,6	RH	Pass	41.6 dB @ 49.00MHz	39.0 dB	> 34.4 dB	7.2 dB
5,4	RH	Pass	54.0 dB @ 7.75MHz	38.8 dB	> 47.3 dB	6.7 dB
1,2	RH	Pass	52.3 dB @ 18.25MHz	43.6 dB	> 41.3 dB	11.0 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	36.2 dB @ 79.75MHz	N/A	>= 12.4 dB	23.8 dB
3,6	DH	Pass	31.8 dB @ 80.75MHz	N/A	>= 12.1 dB	19.7 dB
5,4	DH	Pass	31.9 dB @ 80.75MHz	N/A	>= 12.1 dB	19.8 dB
1,2	DH	Pass	35.0 dB @ 95.50MHz	N/A	>= 9.1 dB	25.9 dB
7,8	RH	Pass	37.4 dB @ 100.00MHz	N/A	>= 8.3 dB	29.1 dB
3,6	RH	Pass	35.3 dB @ 80.25MHz	N/A	>= 12.3 dB	23.0 dB
5,4	RH	Pass	35.0 dB @ 80.25MHz	N/A	>= 12.3 dB	22.7 dB
1,2	RH	Pass	39.7 dB @ 80.50MHz	N/A	>= 12.3 dB	27.4 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	48.6 dB @ 25.30MHz	38.9 dB	>= 27.6 dB	21.0 dB
3,6	DH	Pass	51.6 dB @ 8.65MHz	32.8 dB	>= 36.9 dB	14.7 dB
5,4	DH	Pass	51.4 dB @ 13.00MHz	36.2 dB	>= 33.3 dB	18.1 dB
1,2	DH	Pass	41.3 dB @ 77.25MHz	39.7 dB	>= 17.9 dB	23.4 dB
7,8	RH	Pass	47.2 dB @ 23.35MHz	37.3 dB	>= 28.2 dB	19.0 dB
3,6	RH	Pass	59.3 dB @ 5.95MHz	36.5 dB	>= 40.1 dB	19.2 dB
5,4	RH	Pass	51.8 dB @ 8.65MHz	33.9 dB	>= 36.9 dB	14.9 dB
1,2	RH	Pass	36.5 dB @ 97.00MHz	36.4 dB	>= 15.9 dB	20.6 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

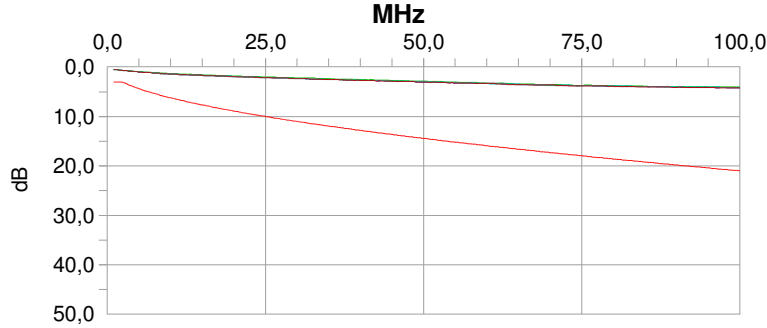
Cable ID 1: 3/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:01:21
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

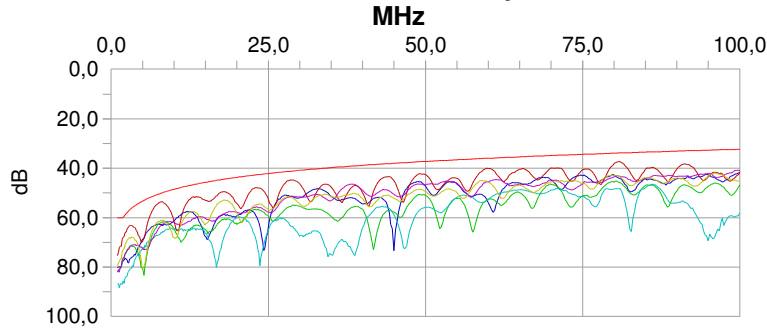
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

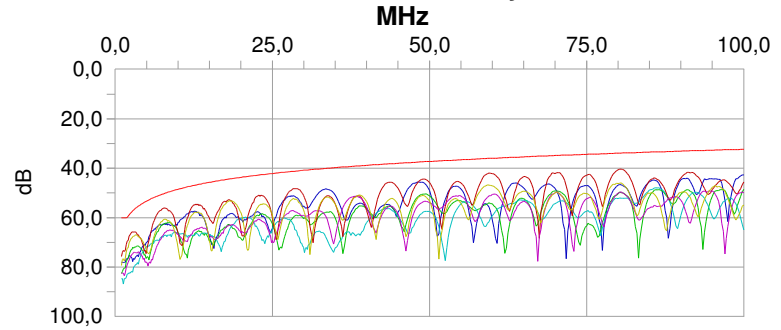
Attenuation Summary



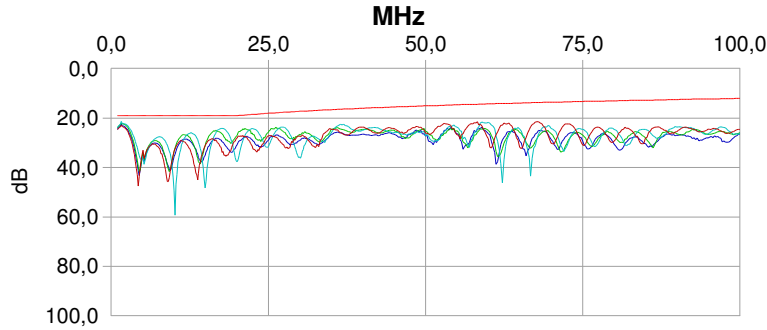
NEXT DH Summary



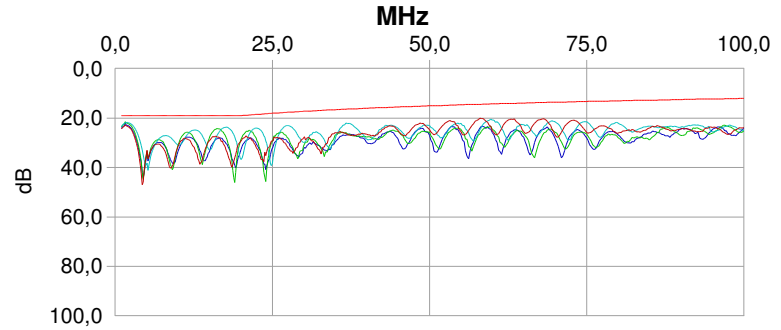
NEXT RH Summary



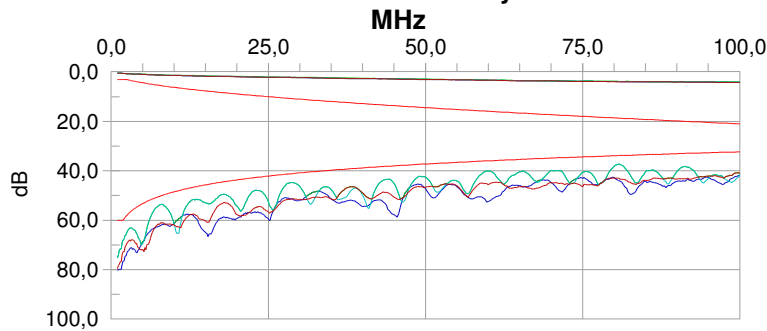
Return Loss DH Summary



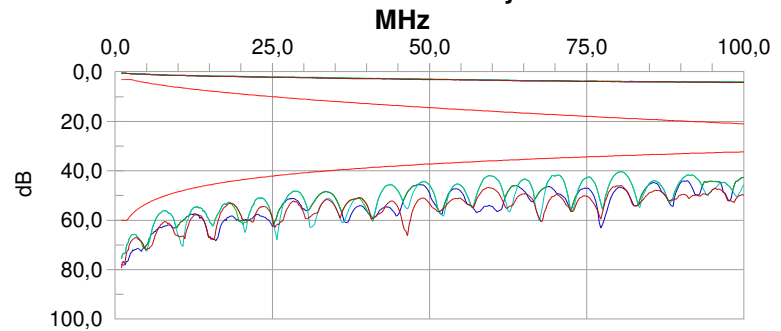
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

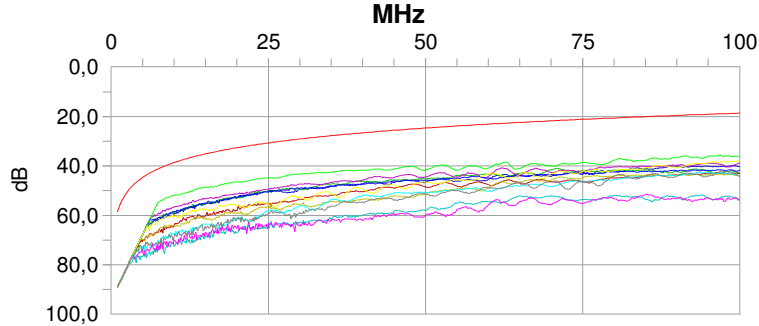
Cable ID 1: 3/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:01:21
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

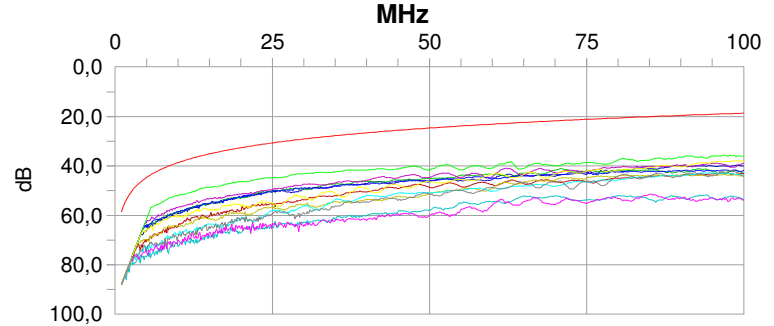
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

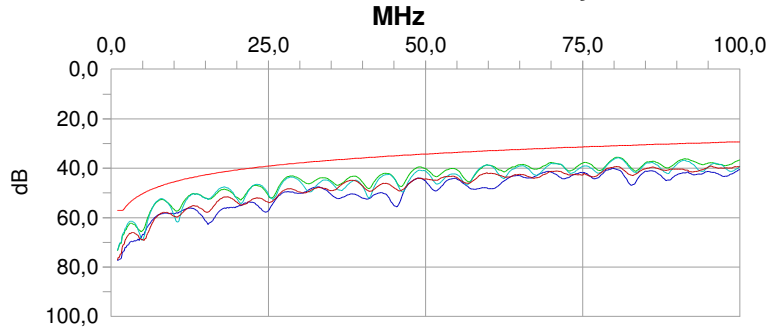
ELFEXT DH Summary



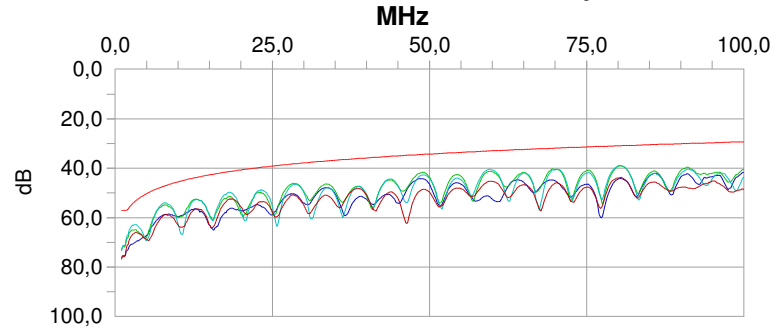
ELFEXT RH Summary



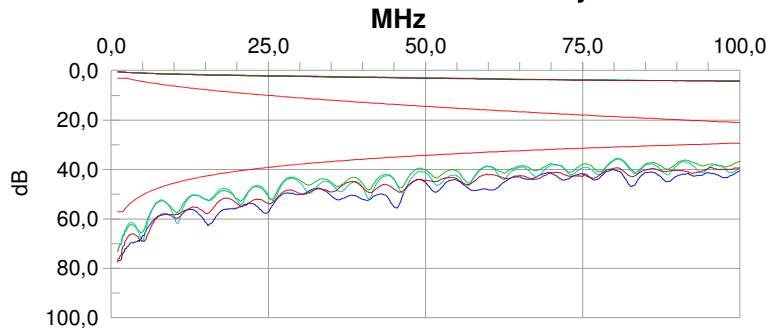
Power Sum NEXT DH Summary



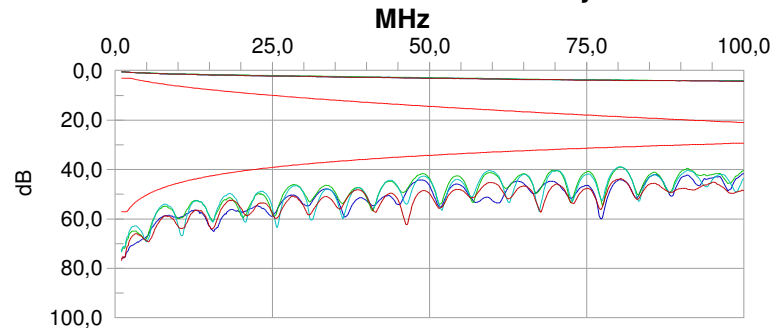
Power Sum NEXT RH Summary



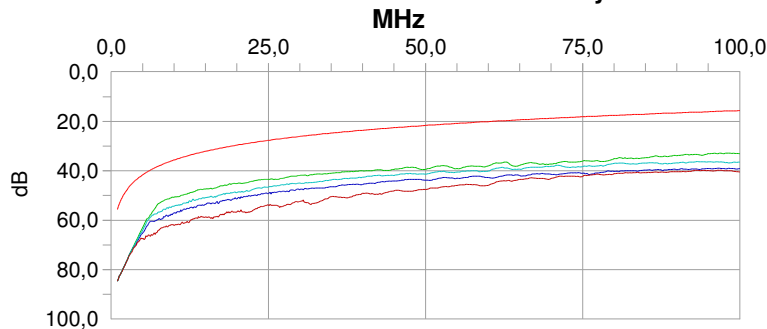
Power Sum ACR DH Summary



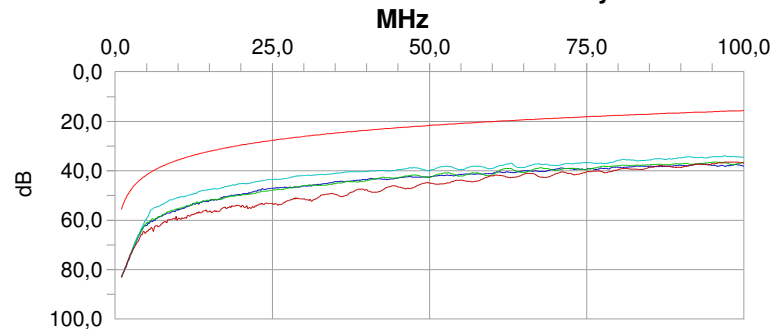
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

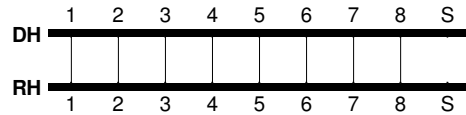
Cable ID 1: 4/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:46:25
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	58.1m	57.3m	56.7m	58.6m	< 90.0m	Pass
Prop. Delay	293.3ns	289.6ns	287.3ns	294.3ns	< 498.0ns	Pass
Delay Skew	7.0ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
Headroom	18.9 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	42.8 dB @ 66.75MHz	41.8 dB	> 35.2 dB	7.6 dB
7,8-5,4	DH	Pass	63.1 dB @ 8.95MHz	48.9 dB	> 49.3 dB	13.8 dB
7,8-1,2	DH	Pass	63.3 dB @ 10.30MHz	51.4 dB	> 48.3 dB	15.0 dB
3,6-5,4	DH	Pass	60.1 dB @ 4.45MHz	43.4 dB	> 54.1 dB	6.0 dB
3,6-1,2	DH	Pass	43.0 dB @ 69.50MHz	42.0 dB	> 34.9 dB	8.1 dB
5,4-1,2	DH	Pass	61.8 dB @ 4.30MHz	43.9 dB	> 54.3 dB	7.5 dB
7,8-3,6	RH	Pass	45.2 dB @ 67.00MHz	44.8 dB	> 35.2 dB	10.0 dB
7,8-5,4	RH	Pass	49.2 dB @ 51.00MHz	49.2 dB	> 37.1 dB	12.1 dB
7,8-1,2	RH	Pass	61.1 dB @ 14.65MHz	50.6 dB	> 45.8 dB	15.3 dB
3,6-5,4	RH	Pass	41.1 dB @ 84.00MHz	40.1 dB	> 33.5 dB	7.6 dB
3,6-1,2	RH	Pass	48.3 dB @ 78.75MHz	48.3 dB	> 34.0 dB	14.3 dB
5,4-1,2	RH	Pass	62.6 dB @ 4.45MHz	43.7 dB	> 54.1 dB	8.5 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.5 dB @ 2.50MHz	24.5 dB	> 19.0 dB	5.5 dB
3,6	DH	Pass	23.1 dB @ 19.15MHz	23.1 dB	> 19.0 dB	4.1 dB
5,4	DH	Pass	20.4 dB @ 23.50MHz	20.4 dB	> 18.3 dB	2.1 dB
1,2	DH	Pass	25.2 dB @ 2.50MHz	24.4 dB	> 19.0 dB	6.2 dB
7,8	RH	Pass	24.5 dB @ 2.50MHz	23.1 dB	> 19.0 dB	5.5 dB
3,6	RH	Pass	22.4 dB @ 19.15MHz	21.6 dB	> 19.0 dB	3.4 dB
5,4	RH	Pass	20.1 dB @ 23.35MHz	20.1 dB	> 18.3 dB	1.8 dB
1,2	RH	Pass	24.6 dB @ 2.50MHz	22.9 dB	> 19.0 dB	5.6 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.7 dB @ 2.50MHz	11.8 dB	< 3.1 dB	1.4 dB
3,6	Pass	1.6 dB @ 2.50MHz	11.8 dB	< 3.1 dB	1.5 dB
5,4	Pass	1.6 dB @ 2.50MHz	11.4 dB	< 3.1 dB	1.5 dB
1,2	Pass	1.7 dB @ 2.50MHz	11.9 dB	< 3.1 dB	1.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	31.5 dB @ 78.00MHz	N/A	>= 15.8 dB	15.7 dB
3,6	DH	Pass	31.3 dB @ 83.25MHz	N/A	>= 14.6 dB	16.7 dB
5,4	DH	Pass	33.0 dB @ 85.00MHz	N/A	>= 14.3 dB	18.7 dB
1,2	DH	Pass	31.2 dB @ 83.25MHz	N/A	>= 14.6 dB	16.6 dB
7,8	RH	Pass	33.6 dB @ 92.00MHz	N/A	>= 12.9 dB	20.7 dB
3,6	RH	Pass	28.4 dB @ 99.75MHz	N/A	>= 11.4 dB	17.0 dB
5,4	RH	Pass	28.8 dB @ 98.50MHz	N/A	>= 11.6 dB	17.2 dB
1,2	RH	Pass	33.0 dB @ 82.50MHz	N/A	>= 14.8 dB	18.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 4/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:46:25
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	55.8 dB @ 24.25MHz	44.0 dB	> 30.9 dB	24.9 dB
7,8-5,4	DH	Pass	51.7 dB @ 8.35MHz	39.1 dB	> 40.2 dB	11.5 dB
7,8-1,2	DH	Pass	58.3 dB @ 13.45MHz	43.9 dB	> 36.0 dB	22.3 dB
3,6-7,8	DH	Pass	53.0 dB @ 41.25MHz	45.4 dB	> 26.3 dB	26.7 dB
3,6-5,4	DH	Pass	54.3 dB @ 9.10MHz	35.6 dB	> 39.4 dB	14.9 dB
3,6-1,2	DH	Pass	38.8 dB @ 82.50MHz	38.0 dB	> 20.3 dB	18.5 dB
5,4-7,8	DH	Pass	51.2 dB @ 8.50MHz	38.7 dB	> 40.0 dB	11.2 dB
5,4-3,6	DH	Pass	50.7 dB @ 8.65MHz	30.8 dB	> 39.9 dB	10.8 dB
5,4-1,2	DH	Pass	40.5 dB @ 90.25MHz	40.2 dB	> 19.5 dB	21.0 dB
1,2-7,8	DH	Pass	65.4 dB @ 5.80MHz	43.3 dB	> 43.3 dB	22.1 dB
1,2-3,6	DH	Pass	38.3 dB @ 50.75MHz	32.7 dB	> 24.5 dB	13.8 dB
1,2-5,4	DH	Pass	40.3 dB @ 88.75MHz	40.0 dB	> 19.7 dB	20.6 dB
7,8-3,6	RH	Pass	55.7 dB @ 24.25MHz	43.9 dB	> 30.9 dB	24.8 dB
7,8-5,4	RH	Pass	54.3 dB @ 6.10MHz	38.9 dB	> 42.9 dB	11.4 dB
7,8-1,2	RH	Pass	58.3 dB @ 13.45MHz	44.0 dB	> 36.0 dB	22.3 dB
3,6-7,8	RH	Pass	53.0 dB @ 41.25MHz	45.4 dB	> 26.3 dB	26.7 dB
3,6-5,4	RH	Pass	56.6 dB @ 7.00MHz	35.3 dB	> 41.7 dB	14.9 dB
3,6-1,2	RH	Pass	63.4 dB @ 4.75MHz	38.2 dB	> 45.1 dB	18.3 dB
5,4-7,8	RH	Pass	53.2 dB @ 6.85MHz	38.9 dB	> 41.9 dB	11.3 dB
5,4-3,6	RH	Pass	50.6 dB @ 8.65MHz	31.1 dB	> 39.9 dB	10.7 dB
5,4-1,2	RH	Pass	41.1 dB @ 89.75MHz	40.7 dB	> 19.6 dB	21.5 dB
1,2-7,8	RH	Pass	66.2 dB @ 4.75MHz	43.2 dB	> 45.1 dB	21.1 dB
1,2-3,6	RH	Pass	38.3 dB @ 50.75MHz	32.5 dB	> 24.5 dB	13.8 dB
1,2-5,4	RH	Pass	39.9 dB @ 88.75MHz	39.5 dB	> 19.7 dB	20.2 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	42.3 dB @ 67.00MHz	41.7 dB	> 32.2 dB	10.1 dB
3,6	DH	Pass	39.3 dB @ 67.25MHz	39.3 dB	> 32.1 dB	7.2 dB
5,4	DH	Pass	57.8 dB @ 4.45MHz	41.4 dB	> 51.1 dB	6.7 dB
1,2	DH	Pass	60.2 dB @ 4.30MHz	40.5 dB	> 51.3 dB	8.9 dB
7,8	RH	Pass	43.5 dB @ 67.00MHz	43.4 dB	> 32.2 dB	11.3 dB
3,6	RH	Pass	40.2 dB @ 84.00MHz	39.4 dB	> 30.5 dB	9.7 dB
5,4	RH	Pass	59.6 dB @ 4.45MHz	39.0 dB	> 51.1 dB	8.5 dB
1,2	RH	Pass	61.8 dB @ 4.45MHz	42.8 dB	> 51.1 dB	10.7 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	31.4 dB @ 78.00MHz	N/A	>= 12.8 dB	18.6 dB
3,6	DH	Pass	28.7 dB @ 84.75MHz	N/A	>= 11.3 dB	17.4 dB
5,4	DH	Pass	30.8 dB @ 86.25MHz	N/A	>= 11.1 dB	19.7 dB
1,2	DH	Pass	29.6 dB @ 99.75MHz	N/A	>= 8.4 dB	21.2 dB
7,8	RH	Pass	32.2 dB @ 92.00MHz	N/A	>= 9.9 dB	22.3 dB
3,6	RH	Pass	27.6 dB @ 99.75MHz	N/A	>= 8.4 dB	19.2 dB
5,4	RH	Pass	27.8 dB @ 98.50MHz	N/A	>= 8.6 dB	19.2 dB
1,2	RH	Pass	32.1 dB @ 82.75MHz	N/A	>= 11.8 dB	20.3 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	45.1 dB @ 17.05MHz	38.0 dB	>= 31.0 dB	14.1 dB
3,6	DH	Pass	49.1 dB @ 8.65MHz	28.5 dB	>= 36.9 dB	12.2 dB
5,4	DH	Pass	49.2 dB @ 9.10MHz	34.3 dB	>= 36.4 dB	12.8 dB
1,2	DH	Pass	36.1 dB @ 84.50MHz	35.3 dB	>= 17.1 dB	19.0 dB
7,8	RH	Pass	50.8 dB @ 8.65MHz	37.8 dB	>= 36.9 dB	13.9 dB
3,6	RH	Pass	35.0 dB @ 77.25MHz	33.3 dB	>= 17.9 dB	17.1 dB
5,4	RH	Pass	47.8 dB @ 8.65MHz	30.5 dB	>= 36.9 dB	10.9 dB
1,2	RH	Pass	31.9 dB @ 92.75MHz	31.5 dB	>= 16.3 dB	15.6 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

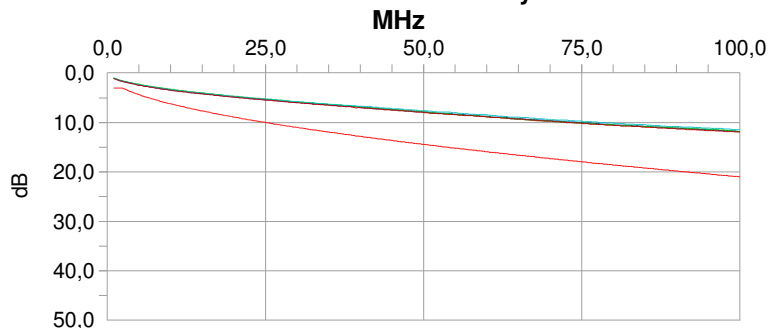
Cable ID 1: 4/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:46:25
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

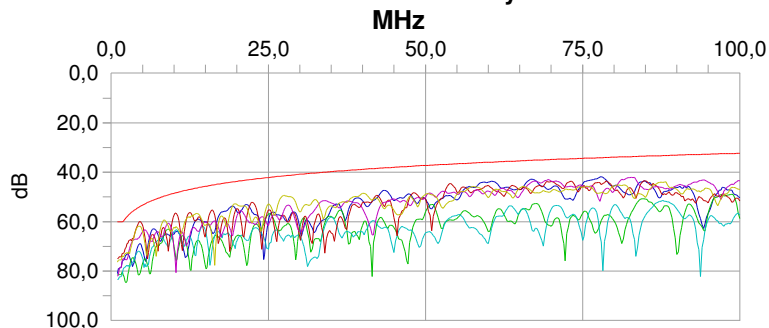
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

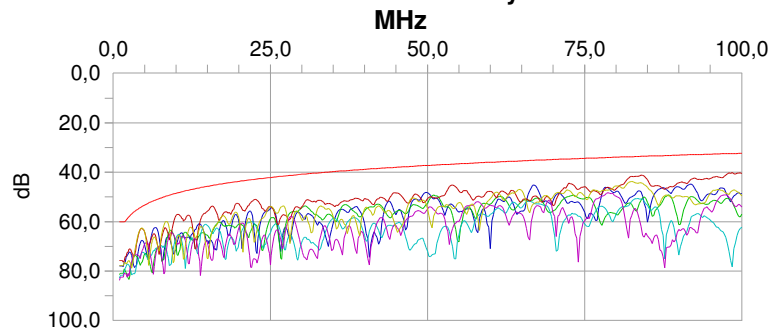
Attenuation Summary



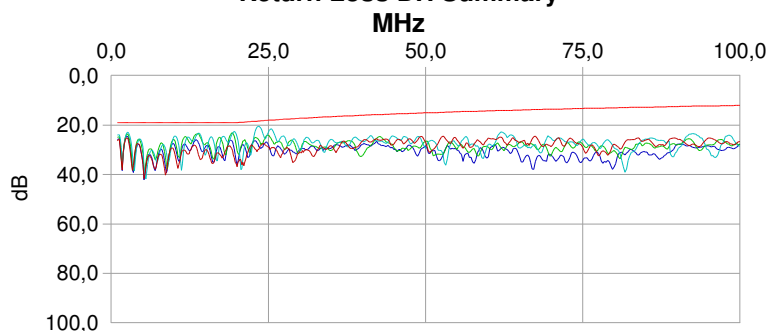
NEXT DH Summary



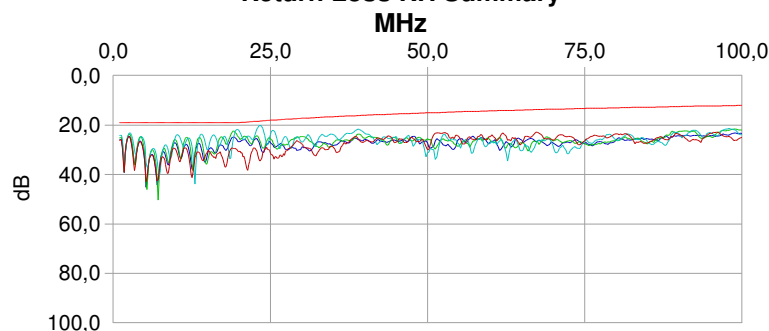
NEXT RH Summary



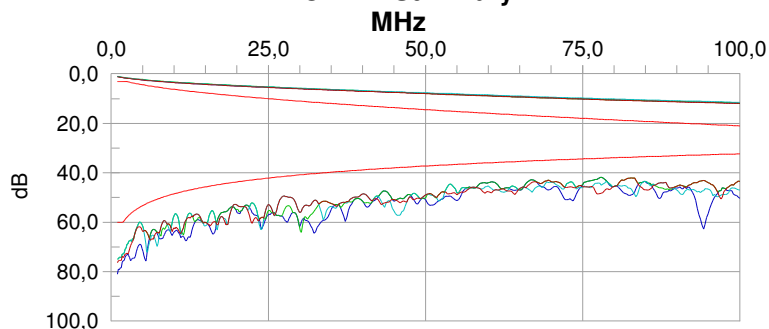
Return Loss DH Summary



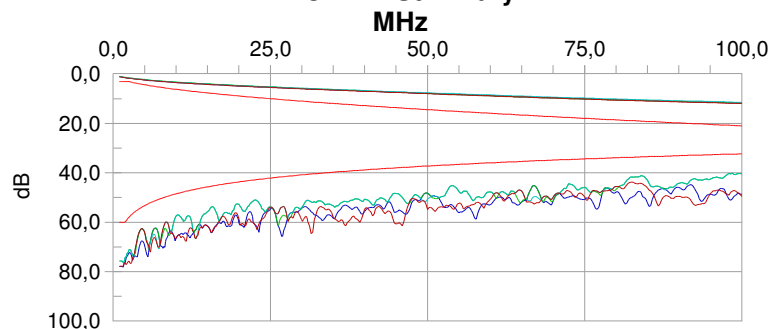
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

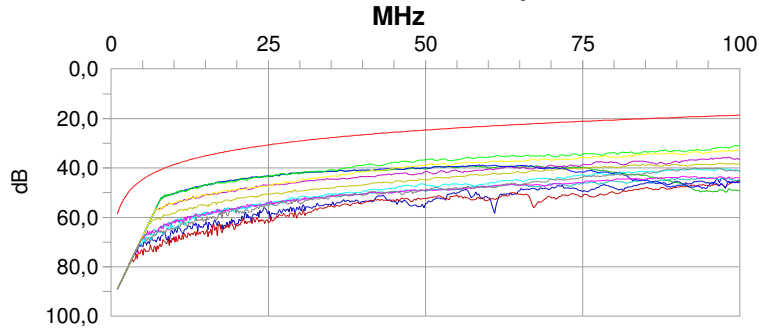
Cable ID 1: 4/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:46:25
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

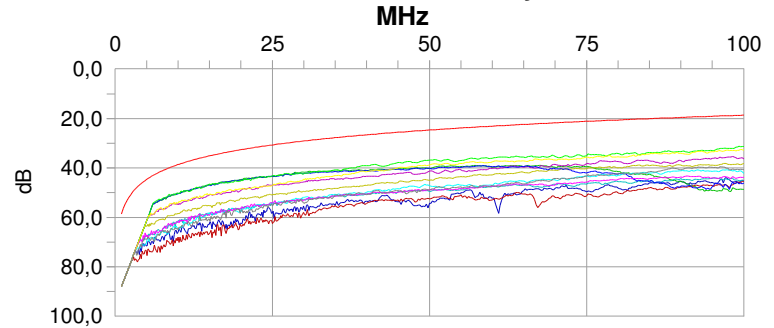
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

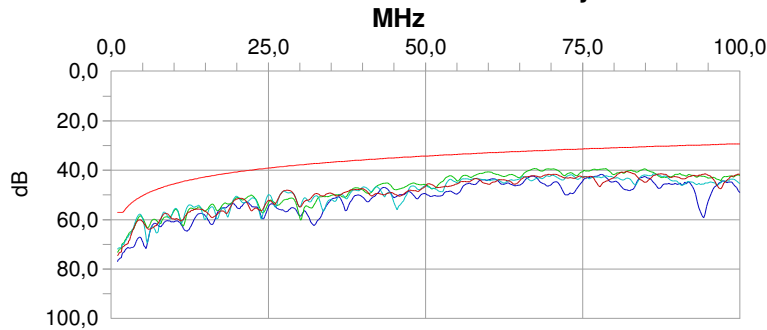
ELFEXT DH Summary



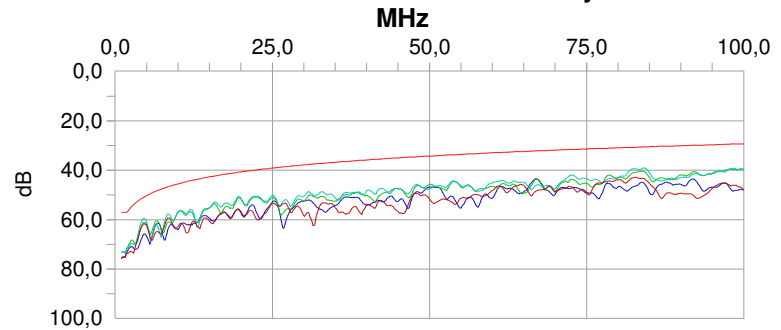
ELFEXT RH Summary



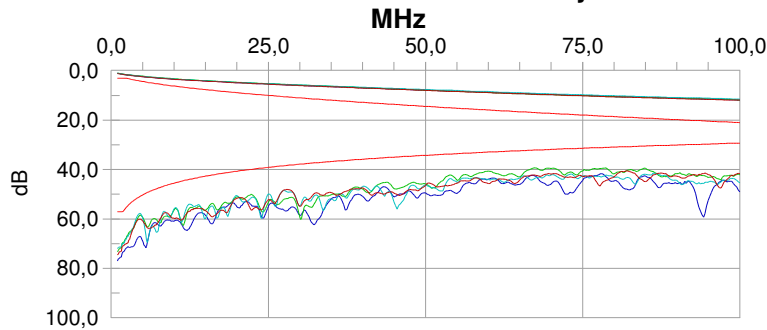
Power Sum NEXT DH Summary



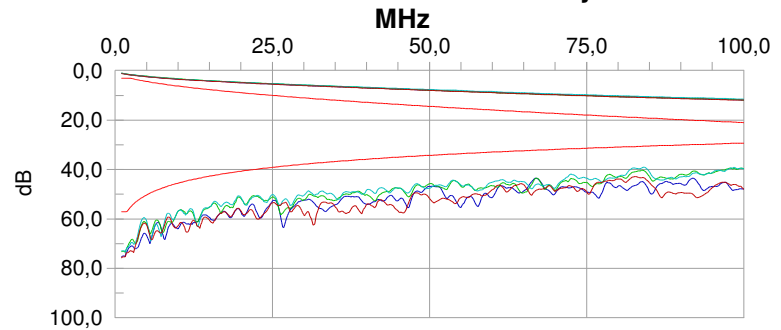
Power Sum NEXT RH Summary



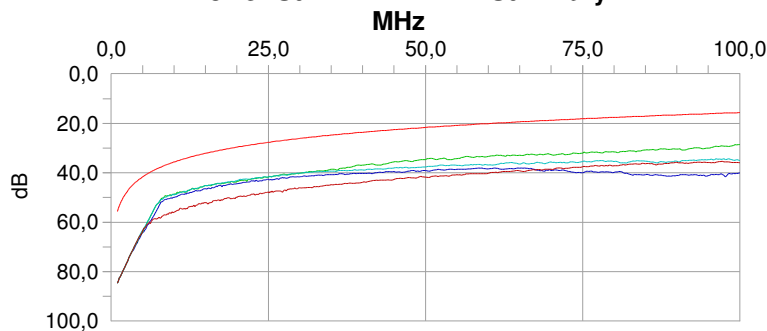
Power Sum ACR DH Summary



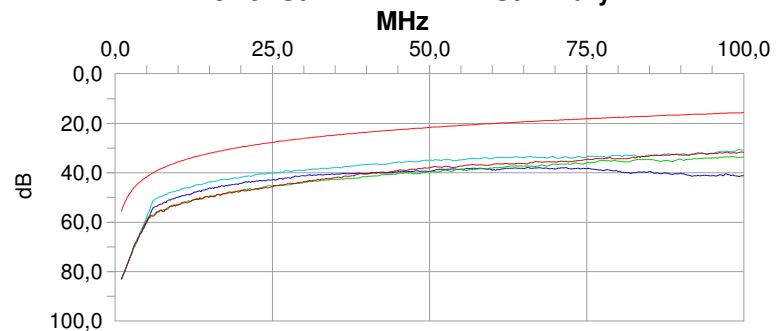
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

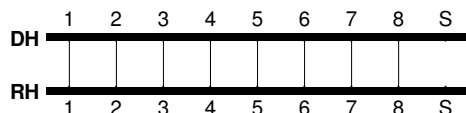
Cable ID 1: 4/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:51:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	58.6m	57.7m	57.1m	59.0m	< 90.0m	Pass
Prop. Delay	296.0ns	291.6ns	289.1ns	296.2ns	< 498.0ns	Pass
Delay Skew	7.1ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
Headroom	20.5 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	41.0 dB @ 64.00MHz	41.0 dB	> 35.5 dB	5.5 dB
7,8-5,4	DH	Pass	48.4 dB @ 75.75MHz	48.3 dB	> 34.3 dB	14.1 dB
7,8-1,2	DH	Pass	56.6 dB @ 18.40MHz	48.9 dB	> 44.3 dB	12.3 dB
3,6-5,4	DH	Pass	53.2 dB @ 10.00MHz	41.6 dB	> 48.5 dB	4.7 dB
3,6-1,2	DH	Pass	45.3 dB @ 74.25MHz	45.3 dB	> 34.4 dB	10.9 dB
5,4-1,2	DH	Pass	68.3 dB @ 3.25MHz	46.7 dB	> 56.2 dB	12.1 dB
7,8-3,6	RH	Pass	56.5 dB @ 8.95MHz	41.4 dB	> 49.3 dB	7.2 dB
7,8-5,4	RH	Pass	60.7 dB @ 16.75MHz	50.2 dB	> 44.9 dB	15.8 dB
7,8-1,2	RH	Pass	57.3 dB @ 18.70MHz	51.1 dB	> 44.1 dB	13.2 dB
3,6-5,4	RH	Pass	57.4 dB @ 10.15MHz	45.0 dB	> 48.4 dB	9.0 dB
3,6-1,2	RH	Pass	49.1 dB @ 88.75MHz	49.1 dB	> 33.2 dB	15.9 dB
5,4-1,2	RH	Pass	57.0 dB @ 13.15MHz	46.3 dB	> 46.6 dB	10.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	25.4 dB @ 2.50MHz	25.0 dB	> 19.0 dB	6.4 dB
3,6	DH	Pass	23.8 dB @ 2.50MHz	23.8 dB	> 19.0 dB	4.8 dB
5,4	DH	Pass	22.4 dB @ 14.05MHz	22.4 dB	> 19.0 dB	3.4 dB
1,2	DH	Pass	25.8 dB @ 2.35MHz	24.8 dB	> 19.0 dB	6.8 dB
7,8	RH	Pass	24.9 dB @ 2.50MHz	24.9 dB	> 19.0 dB	5.9 dB
3,6	RH	Pass	23.4 dB @ 2.50MHz	23.4 dB	> 19.0 dB	4.4 dB
5,4	RH	Pass	21.6 dB @ 21.55MHz	21.6 dB	> 18.7 dB	2.9 dB
1,2	RH	Pass	25.5 dB @ 2.50MHz	21.7 dB	> 19.0 dB	6.5 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.7 dB @ 2.50MHz	12.0 dB	< 3.1 dB	1.4 dB
3,6	Pass	1.6 dB @ 2.50MHz	11.8 dB	< 3.1 dB	1.5 dB
5,4	Pass	1.7 dB @ 2.50MHz	11.6 dB	< 3.1 dB	1.4 dB
1,2	Pass	1.8 dB @ 2.50MHz	12.2 dB	< 3.1 dB	1.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	30.2 dB @ 82.75MHz	N/A	>= 14.8 dB	15.4 dB
3,6	DH	Pass	30.3 dB @ 82.75MHz	N/A	>= 14.8 dB	15.5 dB
5,4	DH	Pass	32.3 dB @ 67.00MHz	N/A	>= 18.3 dB	14.0 dB
1,2	DH	Pass	34.0 dB @ 92.00MHz	N/A	>= 12.9 dB	21.1 dB
7,8	RH	Pass	29.6 dB @ 97.50MHz	N/A	>= 11.8 dB	17.8 dB
3,6	RH	Pass	29.8 dB @ 97.50MHz	N/A	>= 11.8 dB	18.0 dB
5,4	RH	Pass	34.1 dB @ 100.00MHz	N/A	>= 11.3 dB	22.8 dB
1,2	RH	Pass	34.2 dB @ 98.00MHz	N/A	>= 11.7 dB	22.5 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 4/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:51:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	39.6 dB @ 99.00MHz	39.5 dB	> 18.7 dB	20.9 dB
7,8-5,4	DH	Pass	58.8 dB @ 7.60MHz	39.1 dB	> 41.0 dB	17.8 dB
7,8-1,2	DH	Pass	50.2 dB @ 12.10MHz	33.5 dB	> 37.0 dB	13.2 dB
3,6-7,8	DH	Pass	45.4 dB @ 88.75MHz	44.6 dB	> 19.7 dB	25.7 dB
3,6-5,4	DH	Pass	58.1 dB @ 6.85MHz	38.1 dB	> 41.9 dB	16.2 dB
3,6-1,2	DH	Pass	39.2 dB @ 92.50MHz	39.2 dB	> 19.3 dB	19.9 dB
5,4-7,8	DH	Pass	56.0 dB @ 10.45MHz	38.8 dB	> 38.2 dB	17.8 dB
5,4-3,6	DH	Pass	51.9 dB @ 8.95MHz	33.4 dB	> 39.6 dB	12.3 dB
5,4-1,2	DH	Pass	56.5 dB @ 7.15MHz	43.6 dB	> 41.5 dB	15.0 dB
1,2-7,8	DH	Pass	54.3 dB @ 8.05MHz	33.5 dB	> 40.5 dB	13.8 dB
1,2-3,6	DH	Pass	34.4 dB @ 97.25MHz	34.3 dB	> 18.9 dB	15.5 dB
1,2-5,4	DH	Pass	54.3 dB @ 9.70MHz	44.9 dB	> 38.9 dB	15.4 dB
7,8-3,6	RH	Pass	39.3 dB @ 99.00MHz	39.3 dB	> 18.7 dB	20.6 dB
7,8-5,4	RH	Pass	58.7 dB @ 7.60MHz	38.7 dB	> 41.0 dB	17.7 dB
7,8-1,2	RH	Pass	50.3 dB @ 12.10MHz	33.7 dB	> 37.0 dB	13.3 dB
3,6-7,8	RH	Pass	45.4 dB @ 89.50MHz	44.8 dB	> 19.6 dB	25.8 dB
3,6-5,4	RH	Pass	58.3 dB @ 6.85MHz	38.0 dB	> 41.9 dB	16.4 dB
3,6-1,2	RH	Pass	40.0 dB @ 88.75MHz	39.6 dB	> 19.7 dB	20.3 dB
5,4-7,8	RH	Pass	56.0 dB @ 10.45MHz	39.3 dB	> 38.2 dB	17.8 dB
5,4-3,6	RH	Pass	53.9 dB @ 6.70MHz	33.6 dB	> 42.1 dB	11.8 dB
5,4-1,2	RH	Pass	57.6 dB @ 6.40MHz	44.0 dB	> 42.5 dB	15.1 dB
1,2-7,8	RH	Pass	54.2 dB @ 8.05MHz	33.3 dB	> 40.5 dB	13.7 dB
1,2-3,6	RH	Pass	34.0 dB @ 97.25MHz	33.9 dB	> 18.9 dB	15.1 dB
1,2-5,4	RH	Pass	57.5 dB @ 6.55MHz	44.5 dB	> 42.3 dB	15.2 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.3 dB @ 64.00MHz	40.1 dB	> 32.5 dB	7.8 dB
3,6	DH	Pass	38.6 dB @ 63.75MHz	38.1 dB	> 32.5 dB	6.1 dB
5,4	DH	Pass	57.8 dB @ 4.90MHz	40.9 dB	> 50.4 dB	7.4 dB
1,2	DH	Pass	65.6 dB @ 3.25MHz	42.7 dB	> 53.2 dB	12.4 dB
7,8	RH	Pass	56.1 dB @ 8.95MHz	40.7 dB	> 46.3 dB	9.8 dB
3,6	RH	Pass	40.8 dB @ 74.50MHz	40.4 dB	> 31.4 dB	9.4 dB
5,4	RH	Pass	45.8 dB @ 48.25MHz	42.8 dB	> 34.5 dB	11.3 dB
1,2	RH	Pass	54.1 dB @ 18.55MHz	44.0 dB	> 41.2 dB	12.9 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	29.4 dB @ 80.75MHz	N/A	>= 12.1 dB	17.3 dB
3,6	DH	Pass	27.9 dB @ 75.25MHz	N/A	>= 13.3 dB	14.6 dB
5,4	DH	Pass	31.5 dB @ 75.50MHz	N/A	>= 13.3 dB	18.2 dB
1,2	DH	Pass	30.6 dB @ 99.00MHz	N/A	>= 8.5 dB	22.1 dB
7,8	RH	Pass	28.9 dB @ 97.50MHz	N/A	>= 8.8 dB	20.1 dB
3,6	RH	Pass	28.8 dB @ 97.50MHz	N/A	>= 8.8 dB	20.0 dB
5,4	RH	Pass	31.9 dB @ 89.50MHz	N/A	>= 10.4 dB	21.5 dB
1,2	RH	Pass	31.9 dB @ 98.25MHz	N/A	>= 8.6 dB	23.3 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	47.0 dB @ 16.45MHz	32.3 dB	>= 31.3 dB	15.7 dB
3,6	DH	Pass	30.8 dB @ 97.25MHz	30.5 dB	>= 15.9 dB	14.9 dB
5,4	DH	Pass	53.8 dB @ 6.85MHz	35.3 dB	>= 38.9 dB	14.9 dB
1,2	DH	Pass	47.9 dB @ 12.10MHz	32.4 dB	>= 34.0 dB	13.9 dB
7,8	RH	Pass	44.1 dB @ 23.50MHz	31.7 dB	>= 28.2 dB	15.9 dB
3,6	RH	Pass	49.9 dB @ 18.25MHz	35.3 dB	>= 30.4 dB	19.5 dB
5,4	RH	Pass	51.6 dB @ 6.70MHz	32.5 dB	>= 39.1 dB	12.5 dB
1,2	RH	Pass	52.9 dB @ 6.40MHz	30.4 dB	>= 39.5 dB	13.4 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

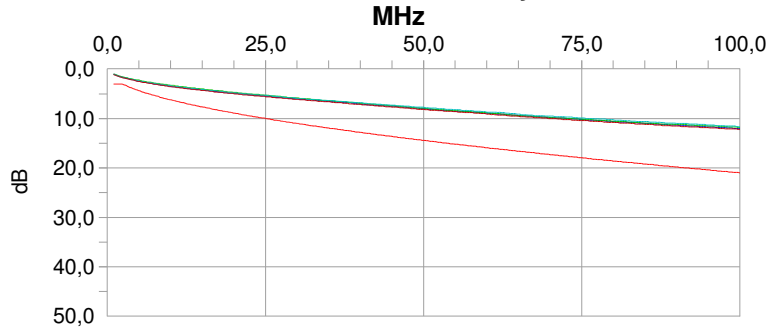
Cable ID 1: 4/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:51:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

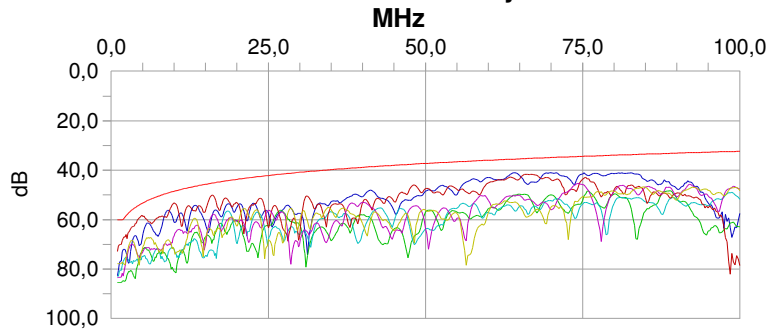
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

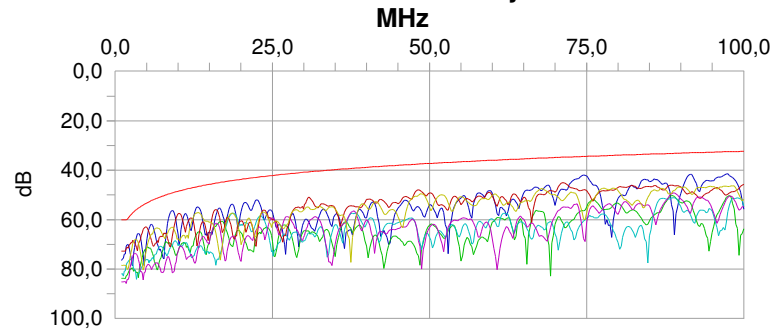
Attenuation Summary



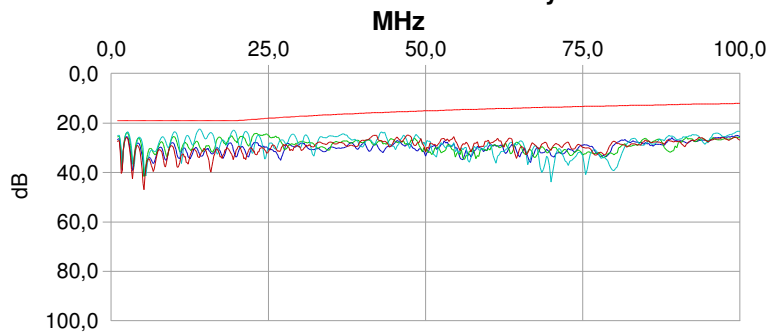
NEXT DH Summary



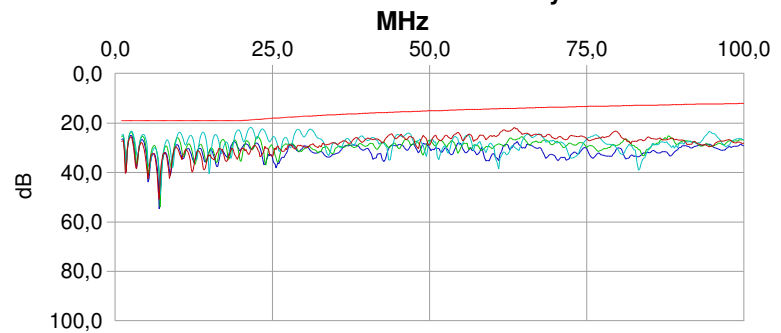
NEXT RH Summary



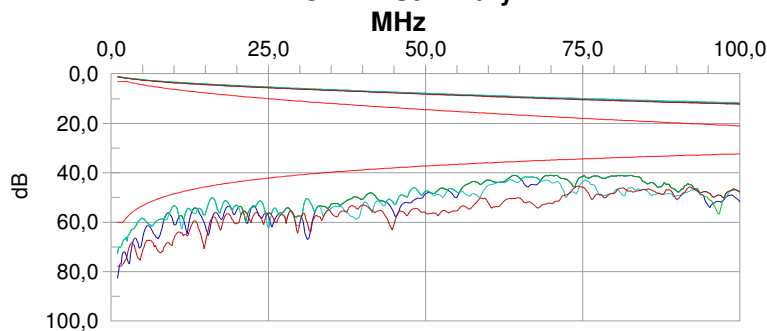
Return Loss DH Summary



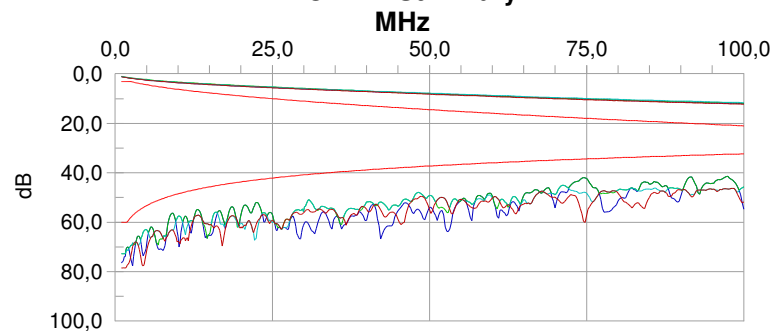
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 4/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:51:23
Adapter ID: 6014

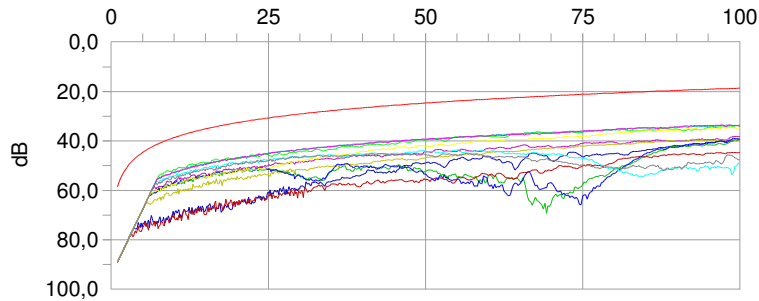
Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

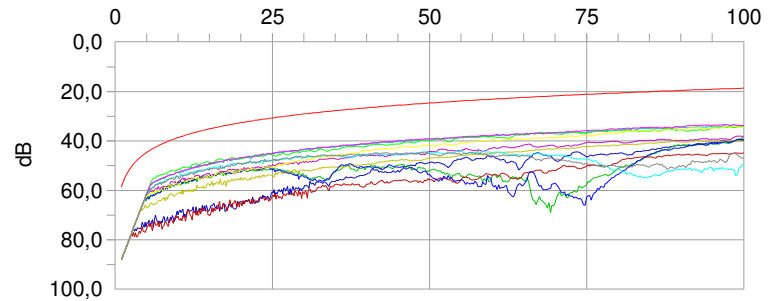
ELFEXT DH Summary

MHz



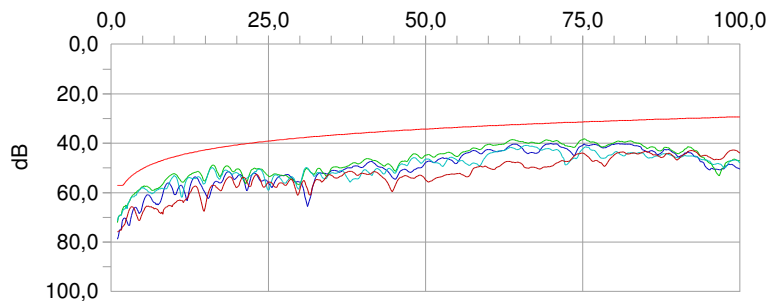
ELFEXT RH Summary

MHz



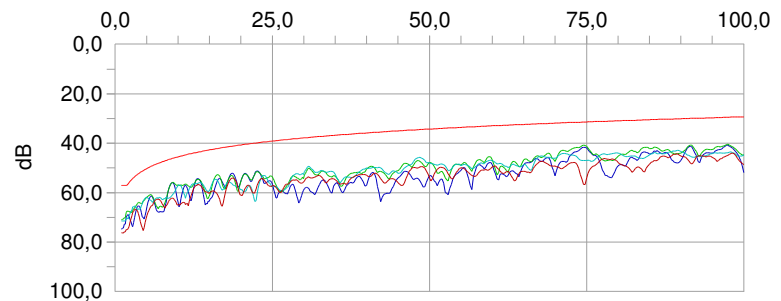
Power Sum NEXT DH Summary

MHz



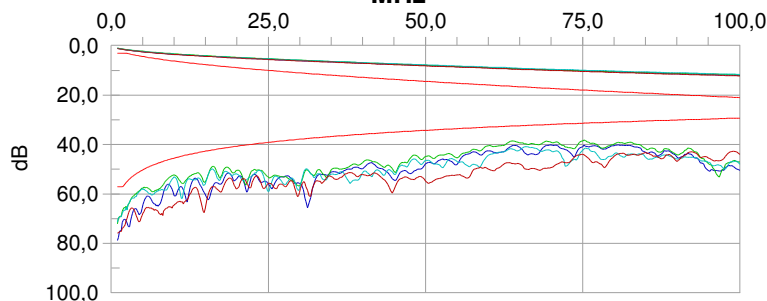
Power Sum NEXT RH Summary

MHz



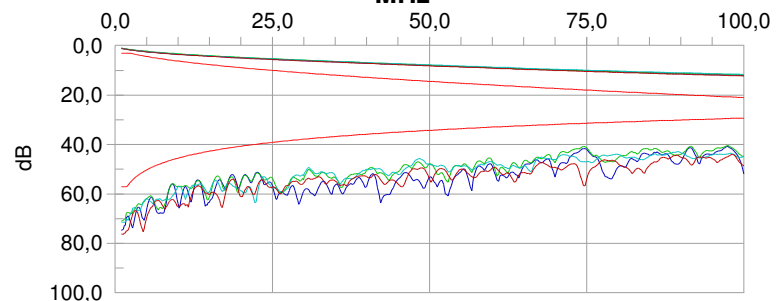
Power Sum ACR DH Summary

MHz



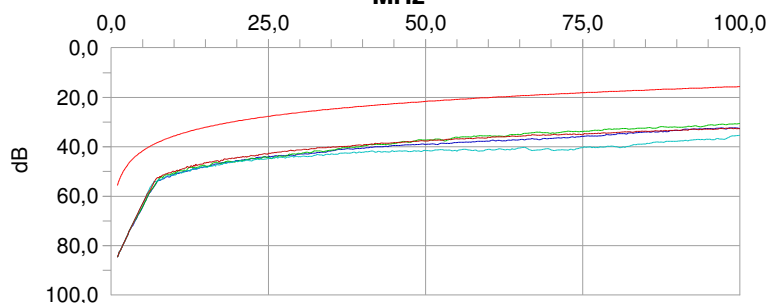
Power Sum ACR RH Summary

MHz



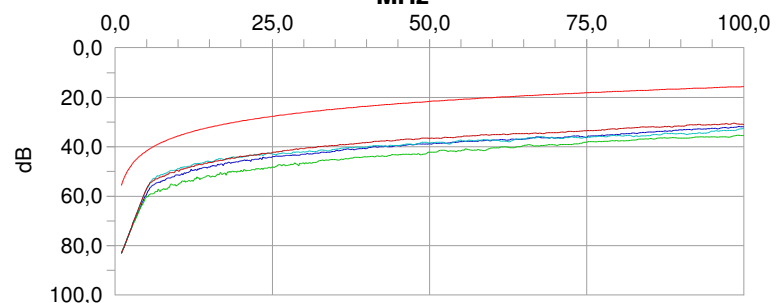
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

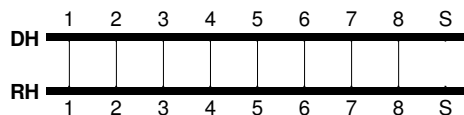
Cable ID 1: 4/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:53:00
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	65.8m	66.8m	67.7m	66.0m	< 90.0m	Pass
Prop. Delay	329.8ns	334.7ns	339.3ns	329.3ns	< 498.0ns	Pass
Delay Skew	10.0ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	18.2 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	44.8 dB @ 57.75MHz	43.7 dB	> 36.2 dB	8.6 dB
7,8-5,4	DH	Pass	65.9 dB @ 7.90MHz	53.5 dB	> 50.1 dB	15.8 dB
7,8-1,2	DH	Pass	48.1 dB @ 84.75MHz	47.6 dB	> 33.5 dB	14.6 dB
3,6-5,4	DH	Pass	36.7 dB @ 79.25MHz	36.7 dB	> 34.0 dB	2.7 dB
3,6-1,2	DH	Pass	47.9 dB @ 57.75MHz	45.4 dB	> 36.2 dB	11.7 dB
5,4-1,2	DH	Pass	55.0 dB @ 27.25MHz	46.8 dB	> 41.5 dB	13.5 dB
7,8-3,6	RH	Pass	60.1 dB @ 7.90MHz	44.8 dB	> 50.1 dB	10.0 dB
7,8-5,4	RH	Pass	46.6 dB @ 99.50MHz	46.6 dB	> 32.3 dB	14.3 dB
7,8-1,2	RH	Pass	66.2 dB @ 8.05MHz	50.3 dB	> 50.0 dB	16.2 dB
3,6-5,4	RH	Pass	57.5 dB @ 5.95MHz	45.0 dB	> 52.1 dB	5.4 dB
3,6-1,2	RH	Pass	47.4 dB @ 64.75MHz	47.4 dB	> 35.4 dB	12.0 dB
5,4-1,2	RH	Pass	59.5 dB @ 16.30MHz	49.8 dB	> 45.1 dB	14.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	21.8 dB @ 2.20MHz	21.8 dB	> 19.0 dB	2.8 dB
3,6	DH	Pass	20.6 dB @ 2.20MHz	20.6 dB	> 19.0 dB	1.6 dB
5,4	DH	Pass	24.5 dB @ 2.20MHz	24.1 dB	> 19.0 dB	5.5 dB
1,2	DH	Pass	21.6 dB @ 2.20MHz	20.5 dB	> 19.0 dB	2.6 dB
7,8	RH	Pass	21.3 dB @ 2.20MHz	21.3 dB	> 19.0 dB	2.3 dB
3,6	RH	Pass	20.7 dB @ 2.20MHz	20.7 dB	> 19.0 dB	1.7 dB
5,4	RH	Pass	23.3 dB @ 2.20MHz	23.2 dB	> 19.0 dB	4.3 dB
1,2	RH	Pass	21.1 dB @ 2.20MHz	19.6 dB	> 19.0 dB	2.1 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.8 dB @ 2.50MHz	13.3 dB	< 3.1 dB	1.3 dB
3,6	Pass	1.8 dB @ 2.50MHz	13.5 dB	< 3.1 dB	1.3 dB
5,4	Pass	2.1 dB @ 2.80MHz	13.9 dB	< 3.2 dB	1.1 dB
1,2	Pass	1.9 dB @ 2.50MHz	13.4 dB	< 3.1 dB	1.2 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	31.3 dB @ 99.00MHz	N/A	>= 11.5 dB	19.8 dB
3,6	DH	Pass	24.7 dB @ 79.25MHz	N/A	>= 15.5 dB	9.2 dB
5,4	DH	Pass	24.4 dB @ 79.25MHz	N/A	>= 15.5 dB	8.9 dB
1,2	DH	Pass	32.2 dB @ 98.75MHz	N/A	>= 11.6 dB	20.6 dB
7,8	RH	Pass	32.2 dB @ 91.25MHz	N/A	>= 13.0 dB	19.2 dB
3,6	RH	Pass	32.0 dB @ 91.25MHz	N/A	>= 13.0 dB	19.0 dB
5,4	RH	Pass	32.1 dB @ 86.75MHz	N/A	>= 13.9 dB	18.2 dB
1,2	RH	Pass	34.9 dB @ 87.75MHz	N/A	>= 13.7 dB	21.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 4/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:53:00
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	37.4 dB @ 96.75MHz	37.4 dB	> 18.9 dB	18.5 dB
7,8-5,4	DH	Pass	35.4 dB @ 96.75MHz	35.2 dB	> 18.9 dB	16.5 dB
7,8-1,2	DH	Pass	64.1 dB @ 8.50MHz	48.6 dB	> 40.0 dB	24.1 dB
3,6-7,8	DH	Pass	41.4 dB @ 94.75MHz	41.4 dB	> 19.1 dB	22.3 dB
3,6-5,4	DH	Pass	52.4 dB @ 7.90MHz	34.4 dB	> 40.7 dB	11.7 dB
3,6-1,2	DH	Pass	52.6 dB @ 14.20MHz	41.6 dB	> 35.6 dB	17.0 dB
5,4-7,8	DH	Pass	58.2 dB @ 7.90MHz	36.1 dB	> 40.7 dB	17.5 dB
5,4-3,6	DH	Pass	46.5 dB @ 9.40MHz	30.0 dB	> 39.2 dB	7.3 dB
5,4-1,2	DH	Pass	58.8 dB @ 7.15MHz	39.3 dB	> 41.5 dB	17.3 dB
1,2-7,8	DH	Pass	66.3 dB @ 9.25MHz	48.7 dB	> 39.3 dB	27.0 dB
1,2-3,6	DH	Pass	54.4 dB @ 8.50MHz	37.1 dB	> 40.0 dB	14.4 dB
1,2-5,4	DH	Pass	59.1 dB @ 7.30MHz	39.1 dB	> 41.3 dB	17.8 dB
7,8-3,6	RH	Pass	37.6 dB @ 96.75MHz	37.6 dB	> 18.9 dB	18.7 dB
7,8-5,4	RH	Pass	36.0 dB @ 96.75MHz	35.8 dB	> 18.9 dB	17.1 dB
7,8-1,2	RH	Pass	64.2 dB @ 8.50MHz	48.7 dB	> 40.0 dB	24.2 dB
3,6-7,8	RH	Pass	41.8 dB @ 88.50MHz	41.3 dB	> 19.7 dB	22.1 dB
3,6-5,4	RH	Pass	54.6 dB @ 6.25MHz	34.7 dB	> 42.7 dB	11.9 dB
3,6-1,2	RH	Pass	52.7 dB @ 14.20MHz	41.5 dB	> 35.6 dB	17.1 dB
5,4-7,8	RH	Pass	35.5 dB @ 100.00MHz	35.5 dB	> 18.6 dB	16.9 dB
5,4-3,6	RH	Pass	47.6 dB @ 8.05MHz	29.6 dB	> 40.5 dB	7.1 dB
5,4-1,2	RH	Pass	60.5 dB @ 5.50MHz	38.8 dB	> 43.8 dB	16.7 dB
1,2-7,8	RH	Pass	66.3 dB @ 9.25MHz	48.6 dB	> 39.3 dB	27.0 dB
1,2-3,6	RH	Pass	57.0 dB @ 6.10MHz	37.2 dB	> 42.9 dB	14.1 dB
1,2-5,4	RH	Pass	59.3 dB @ 7.30MHz	39.6 dB	> 41.3 dB	18.0 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	44.1 dB @ 57.50MHz	42.8 dB	> 33.2 dB	10.9 dB
3,6	DH	Pass	36.1 dB @ 79.00MHz	36.1 dB	> 31.0 dB	5.1 dB
5,4	DH	Pass	36.4 dB @ 79.25MHz	36.4 dB	> 31.0 dB	5.4 dB
1,2	DH	Pass	42.6 dB @ 84.75MHz	42.6 dB	> 30.5 dB	12.1 dB
7,8	RH	Pass	58.3 dB @ 7.90MHz	43.2 dB	> 47.1 dB	11.2 dB
3,6	RH	Pass	57.0 dB @ 5.95MHz	41.4 dB	> 49.1 dB	7.9 dB
5,4	RH	Pass	56.9 dB @ 5.95MHz	44.2 dB	> 49.1 dB	7.8 dB
1,2	RH	Pass	56.9 dB @ 13.90MHz	46.4 dB	> 43.2 dB	13.7 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	30.1 dB @ 99.00MHz	N/A	>= 8.5 dB	21.6 dB
3,6	DH	Pass	24.1 dB @ 79.00MHz	N/A	>= 12.6 dB	11.5 dB
5,4	DH	Pass	24.1 dB @ 79.25MHz	N/A	>= 12.5 dB	11.6 dB
1,2	DH	Pass	29.4 dB @ 99.25MHz	N/A	>= 8.5 dB	20.9 dB
7,8	RH	Pass	29.9 dB @ 99.75MHz	N/A	>= 8.4 dB	21.5 dB
3,6	RH	Pass	28.8 dB @ 87.00MHz	N/A	>= 10.9 dB	17.9 dB
5,4	RH	Pass	31.2 dB @ 99.75MHz	N/A	>= 8.4 dB	22.8 dB
1,2	RH	Pass	33.5 dB @ 96.00MHz	N/A	>= 9.1 dB	24.4 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	35.2 dB @ 97.00MHz	35.0 dB	>= 15.9 dB	19.3 dB
3,6	DH	Pass	45.7 dB @ 9.40MHz	28.8 dB	>= 36.2 dB	9.5 dB
5,4	DH	Pass	50.6 dB @ 7.90MHz	31.2 dB	>= 37.7 dB	12.9 dB
1,2	DH	Pass	55.0 dB @ 8.05MHz	37.3 dB	>= 37.5 dB	17.5 dB
7,8	RH	Pass	33.6 dB @ 96.75MHz	33.6 dB	>= 15.9 dB	17.7 dB
3,6	RH	Pass	47.0 dB @ 14.05MHz	33.4 dB	>= 32.7 dB	14.3 dB
5,4	RH	Pass	46.8 dB @ 8.05MHz	28.3 dB	>= 37.5 dB	9.3 dB
1,2	RH	Pass	49.9 dB @ 12.10MHz	36.1 dB	>= 34.0 dB	15.9 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

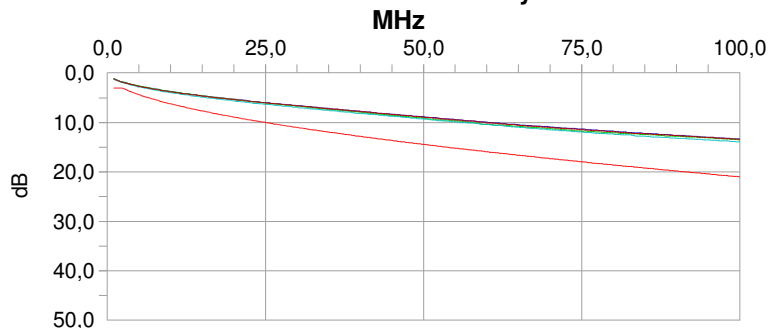
Cable ID 1: 4/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:53:00
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

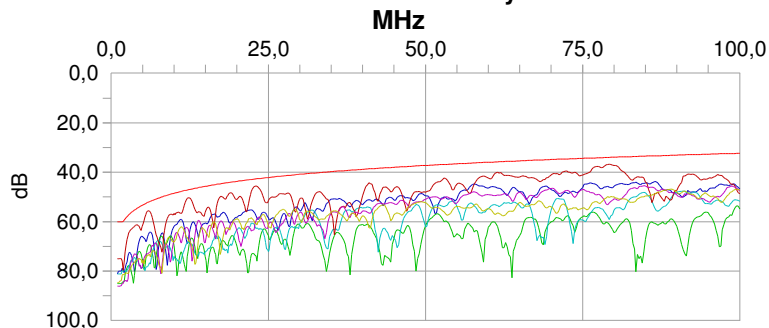
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

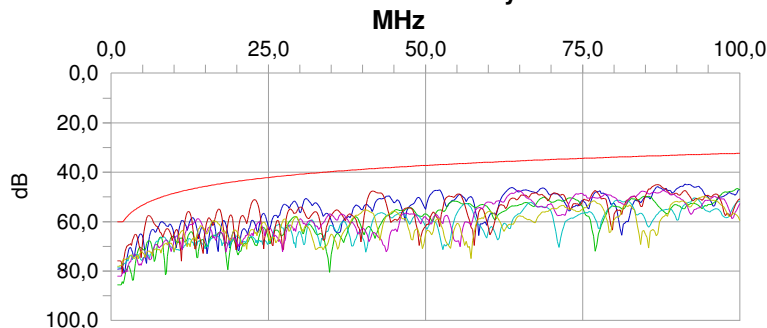
Attenuation Summary



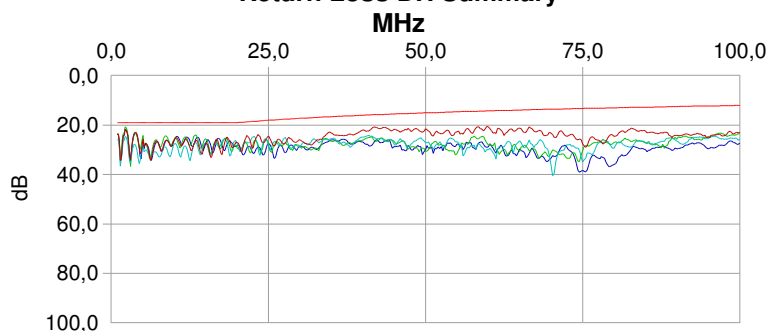
NEXT DH Summary



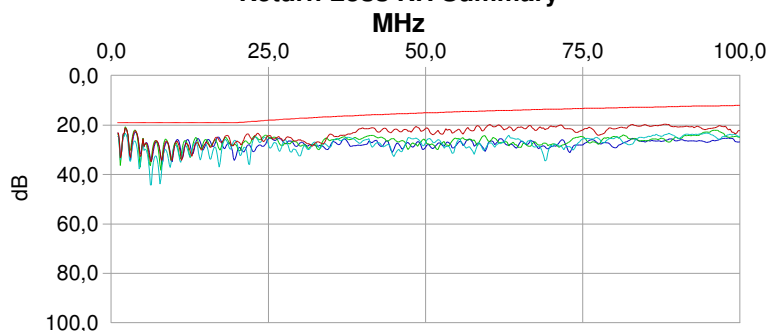
NEXT RH Summary



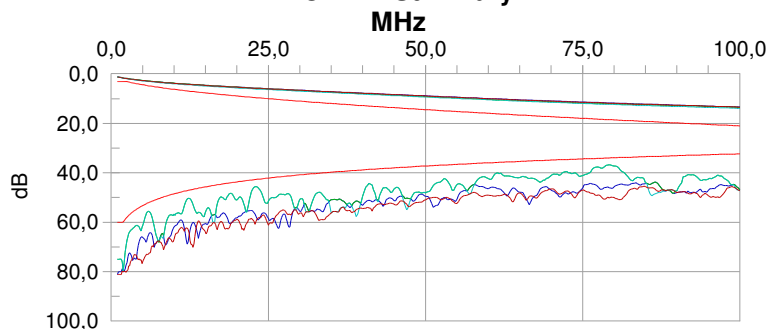
Return Loss DH Summary



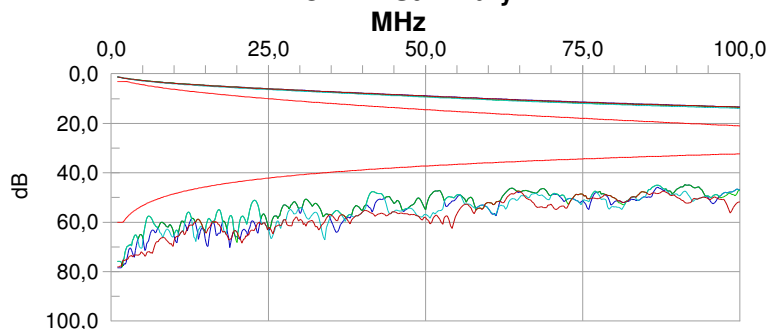
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

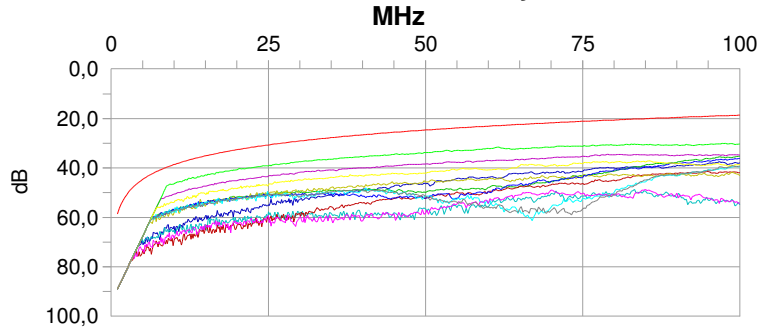
Cable ID 1: 4/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:53:00
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

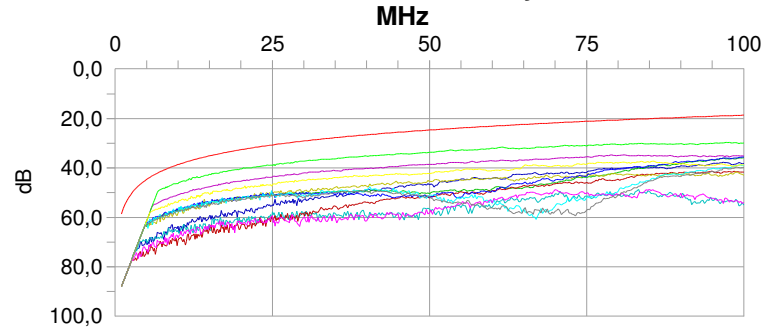
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

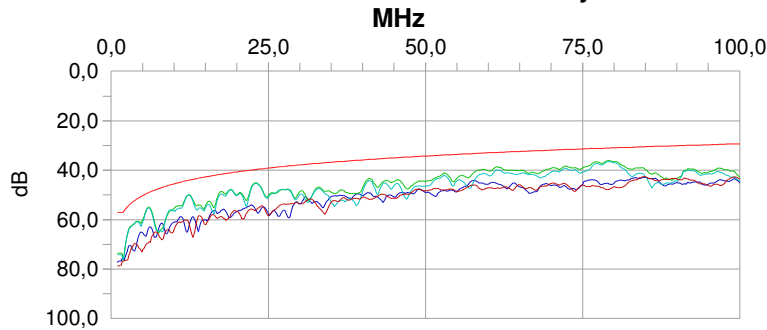
ELFEXT DH Summary



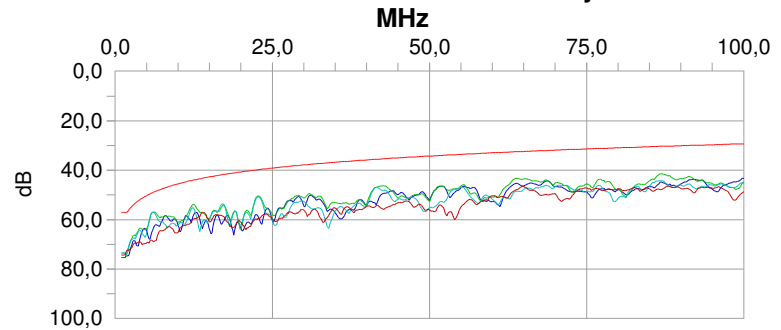
ELFEXT RH Summary



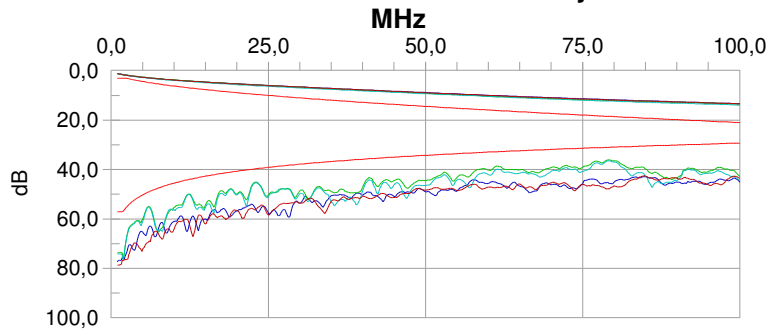
Power Sum NEXT DH Summary



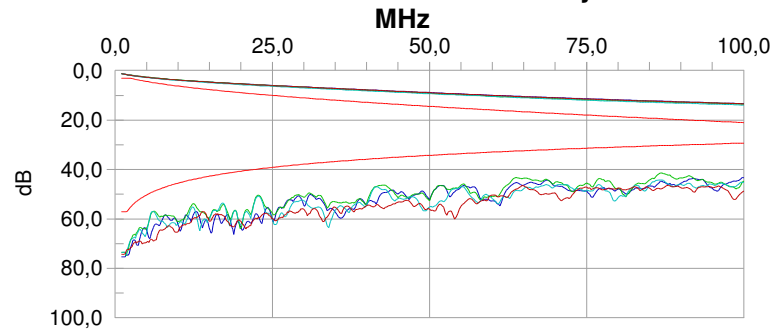
Power Sum NEXT RH Summary



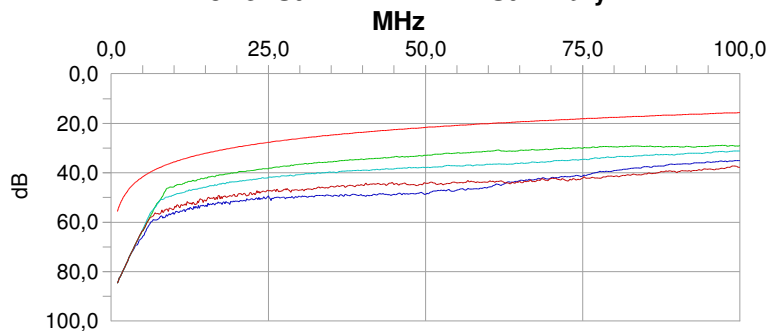
Power Sum ACR DH Summary



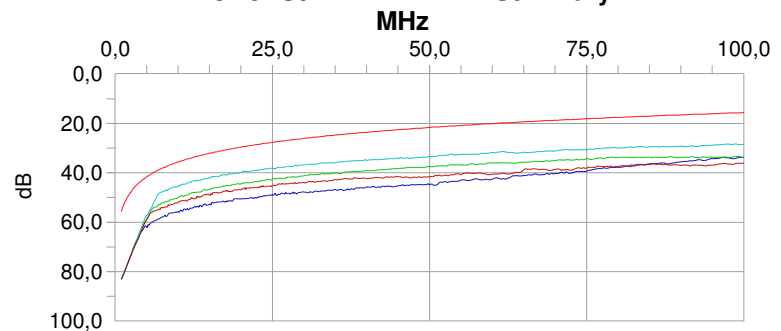
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

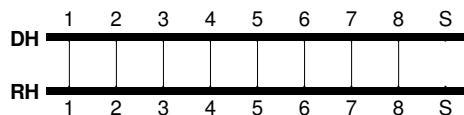
Cable ID 1: 4/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:55:40
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	76.4m	77.9m	78.6m	76.7m	< 90.0m	Pass
Prop. Delay	380.3ns	387.1ns	390.9ns	380.3ns	< 498.0ns	Pass
Delay Skew	10.6ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	20.2 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	55.0 dB @ 14.05MHz	41.9 dB	> 46.1 dB	8.9 dB
7,8-5,4	DH	Pass	73.9 dB @ 2.80MHz	55.5 dB	> 57.2 dB	16.7 dB
7,8-1,2	DH	Pass	61.5 dB @ 14.95MHz	52.3 dB	> 45.7 dB	15.8 dB
3,6-5,4	DH	Pass	53.6 dB @ 9.55MHz	41.7 dB	> 48.8 dB	4.8 dB
3,6-1,2	DH	Pass	48.1 dB @ 54.25MHz	45.8 dB	> 36.7 dB	11.4 dB
5,4-1,2	DH	Pass	55.9 dB @ 19.00MHz	45.4 dB	> 44.0 dB	11.9 dB
7,8-3,6	RH	Pass	50.5 dB @ 18.55MHz	41.9 dB	> 44.2 dB	6.3 dB
7,8-5,4	RH	Pass	58.9 dB @ 13.75MHz	50.2 dB	> 46.3 dB	12.6 dB
7,8-1,2	RH	Pass	47.5 dB @ 94.25MHz	47.5 dB	> 32.7 dB	14.8 dB
3,6-5,4	RH	Pass	51.2 dB @ 29.50MHz	44.7 dB	> 40.9 dB	10.3 dB
3,6-1,2	RH	Pass	46.4 dB @ 88.75MHz	46.3 dB	> 33.2 dB	13.2 dB
5,4-1,2	RH	Pass	45.6 dB @ 66.50MHz	44.7 dB	> 35.2 dB	10.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.3 dB @ 2.20MHz	23.3 dB	> 19.0 dB	4.3 dB
3,6	DH	Pass	23.2 dB @ 11.05MHz	23.2 dB	> 19.0 dB	4.2 dB
5,4	DH	Pass	26.2 dB @ 1.00MHz	22.6 dB	> 19.0 dB	7.2 dB
1,2	DH	Pass	23.4 dB @ 14.20MHz	22.6 dB	> 19.0 dB	4.4 dB
7,8	RH	Pass	22.3 dB @ 2.20MHz	22.3 dB	> 19.0 dB	3.3 dB
3,6	RH	Pass	22.5 dB @ 2.05MHz	22.2 dB	> 19.0 dB	3.5 dB
5,4	RH	Pass	23.6 dB @ 1.90MHz	22.7 dB	> 19.0 dB	4.6 dB
1,2	RH	Pass	22.1 dB @ 2.20MHz	22.1 dB	> 19.0 dB	3.1 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	2.3 dB @ 2.80MHz	15.6 dB	< 3.2 dB	0.9 dB
3,6	Pass	2.1 dB @ 2.50MHz	15.8 dB	< 3.1 dB	1.0 dB
5,4	Pass	2.4 dB @ 2.80MHz	16.2 dB	< 3.2 dB	0.8 dB
1,2	Pass	2.2 dB @ 2.50MHz	15.6 dB	< 3.1 dB	0.9 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	26.4 dB @ 99.00MHz	N/A	>= 11.5 dB	14.9 dB
3,6	DH	Pass	26.1 dB @ 99.00MHz	N/A	>= 11.5 dB	14.6 dB
5,4	DH	Pass	28.1 dB @ 72.50MHz	N/A	>= 17.0 dB	11.1 dB
1,2	DH	Pass	29.8 dB @ 100.00MHz	N/A	>= 11.3 dB	18.5 dB
7,8	RH	Pass	26.8 dB @ 95.25MHz	N/A	>= 12.3 dB	14.5 dB
3,6	RH	Pass	26.5 dB @ 95.25MHz	N/A	>= 12.3 dB	14.2 dB
5,4	RH	Pass	30.2 dB @ 80.75MHz	N/A	>= 15.1 dB	15.1 dB
1,2	RH	Pass	31.0 dB @ 78.75MHz	N/A	>= 15.6 dB	15.4 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 4/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:55:40
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	32.5 dB @ 96.75MHz	32.5 dB	> 18.9 dB	13.6 dB
7,8-5,4	DH	Pass	39.3 dB @ 82.75MHz	39.2 dB	> 20.3 dB	19.0 dB
7,8-1,2	DH	Pass	57.6 dB @ 11.50MHz	40.4 dB	> 37.4 dB	20.2 dB
3,6-7,8	DH	Pass	37.1 dB @ 95.00MHz	37.1 dB	> 19.1 dB	18.0 dB
3,6-5,4	DH	Pass	61.8 dB @ 6.10MHz	38.9 dB	> 42.9 dB	18.9 dB
3,6-1,2	DH	Pass	51.4 dB @ 10.90MHz	34.2 dB	> 37.9 dB	13.5 dB
5,4-7,8	DH	Pass	40.1 dB @ 86.50MHz	40.0 dB	> 19.9 dB	20.2 dB
5,4-3,6	DH	Pass	36.2 dB @ 67.00MHz	32.8 dB	> 22.1 dB	14.1 dB
5,4-1,2	DH	Pass	36.3 dB @ 92.75MHz	36.1 dB	> 19.3 dB	17.0 dB
1,2-7,8	DH	Pass	59.5 dB @ 7.90MHz	40.5 dB	> 40.7 dB	18.8 dB
1,2-3,6	DH	Pass	47.7 dB @ 9.85MHz	30.0 dB	> 38.7 dB	9.0 dB
1,2-5,4	DH	Pass	35.3 dB @ 95.00MHz	35.3 dB	> 19.1 dB	16.2 dB
7,8-3,6	RH	Pass	32.8 dB @ 96.75MHz	32.8 dB	> 18.9 dB	13.9 dB
7,8-5,4	RH	Pass	40.2 dB @ 80.75MHz	39.9 dB	> 20.5 dB	19.7 dB
7,8-1,2	RH	Pass	64.0 dB @ 5.35MHz	40.4 dB	> 44.0 dB	20.0 dB
3,6-7,8	RH	Pass	37.4 dB @ 88.00MHz	36.7 dB	> 19.7 dB	17.7 dB
3,6-5,4	RH	Pass	61.7 dB @ 5.80MHz	39.2 dB	> 43.3 dB	18.4 dB
3,6-1,2	RH	Pass	36.3 dB @ 61.00MHz	33.9 dB	> 22.9 dB	13.4 dB
5,4-7,8	RH	Pass	39.3 dB @ 87.00MHz	39.3 dB	> 19.8 dB	19.5 dB
5,4-3,6	RH	Pass	32.5 dB @ 99.50MHz	32.5 dB	> 18.7 dB	13.8 dB
5,4-1,2	RH	Pass	35.7 dB @ 92.75MHz	35.5 dB	> 19.3 dB	16.4 dB
1,2-7,8	RH	Pass	59.5 dB @ 7.90MHz	40.5 dB	> 40.7 dB	18.8 dB
1,2-3,6	RH	Pass	50.4 dB @ 7.15MHz	30.3 dB	> 41.5 dB	8.9 dB
1,2-5,4	RH	Pass	36.0 dB @ 95.00MHz	35.8 dB	> 19.1 dB	16.9 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	54.2 dB @ 14.05MHz	41.6 dB	> 43.1 dB	11.1 dB
3,6	DH	Pass	49.3 dB @ 15.70MHz	39.3 dB	> 42.4 dB	6.9 dB
5,4	DH	Pass	53.3 dB @ 9.55MHz	41.1 dB	> 45.8 dB	7.5 dB
1,2	DH	Pass	46.5 dB @ 55.25MHz	42.4 dB	> 33.5 dB	13.0 dB
7,8	RH	Pass	50.0 dB @ 18.55MHz	40.5 dB	> 41.2 dB	8.8 dB
3,6	RH	Pass	52.8 dB @ 12.40MHz	40.7 dB	> 44.0 dB	8.8 dB
5,4	RH	Pass	59.4 dB @ 6.40MHz	42.4 dB	> 48.6 dB	10.8 dB
1,2	RH	Pass	44.1 dB @ 66.50MHz	43.3 dB	> 32.2 dB	11.9 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	26.1 dB @ 99.00MHz	N/A	>= 8.5 dB	17.6 dB
3,6	DH	Pass	24.6 dB @ 99.25MHz	N/A	>= 8.5 dB	16.1 dB
5,4	DH	Pass	26.8 dB @ 94.00MHz	N/A	>= 9.4 dB	17.4 dB
1,2	DH	Pass	26.8 dB @ 99.50MHz	N/A	>= 8.4 dB	18.4 dB
7,8	RH	Pass	25.5 dB @ 94.50MHz	N/A	>= 9.4 dB	16.1 dB
3,6	RH	Pass	25.3 dB @ 94.50MHz	N/A	>= 9.4 dB	15.9 dB
5,4	RH	Pass	28.0 dB @ 79.50MHz	N/A	>= 12.4 dB	15.6 dB
1,2	RH	Pass	28.5 dB @ 89.50MHz	N/A	>= 10.4 dB	18.1 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	35.2 dB @ 86.50MHz	34.5 dB	>= 16.9 dB	18.3 dB
3,6	DH	Pass	28.4 dB @ 77.00MHz	27.0 dB	>= 17.9 dB	10.5 dB
5,4	DH	Pass	32.8 dB @ 95.00MHz	32.8 dB	>= 16.1 dB	16.7 dB
1,2	DH	Pass	49.8 dB @ 10.90MHz	31.5 dB	>= 34.9 dB	14.9 dB
7,8	RH	Pass	31.6 dB @ 96.75MHz	31.6 dB	>= 15.9 dB	15.7 dB
3,6	RH	Pass	33.0 dB @ 75.25MHz	31.3 dB	>= 18.1 dB	14.9 dB
5,4	RH	Pass	30.9 dB @ 92.75MHz	30.4 dB	>= 16.3 dB	14.6 dB
1,2	RH	Pass	49.8 dB @ 7.15MHz	28.9 dB	>= 38.5 dB	11.3 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

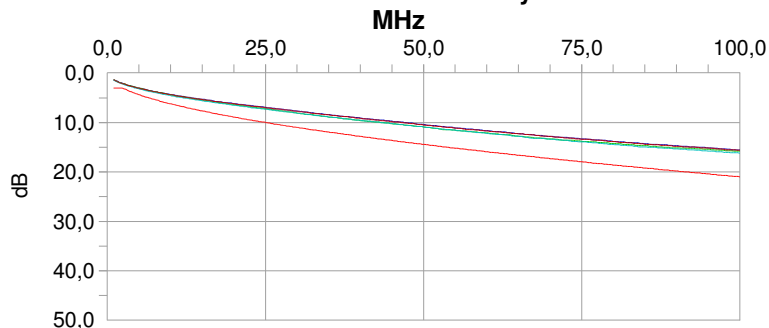
Cable ID 1: 4/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:55:40
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

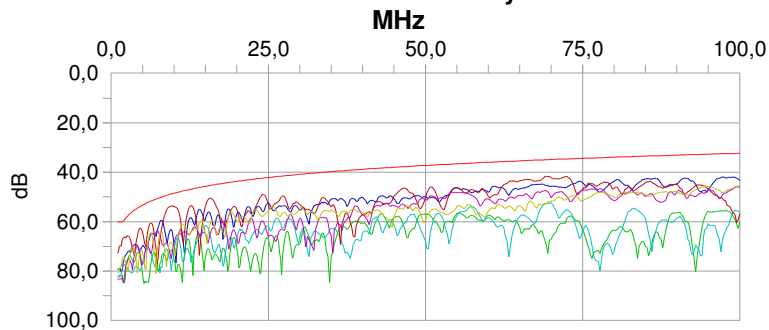
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

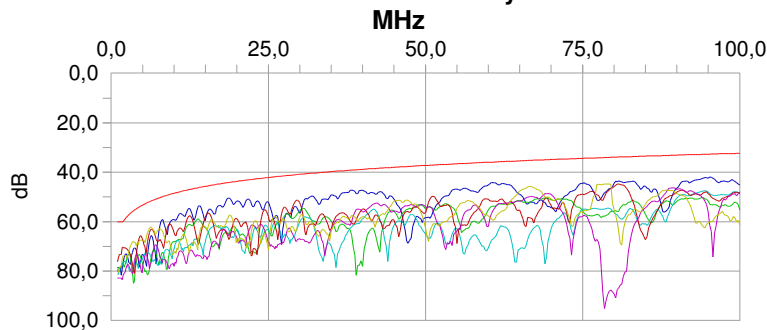
Attenuation Summary



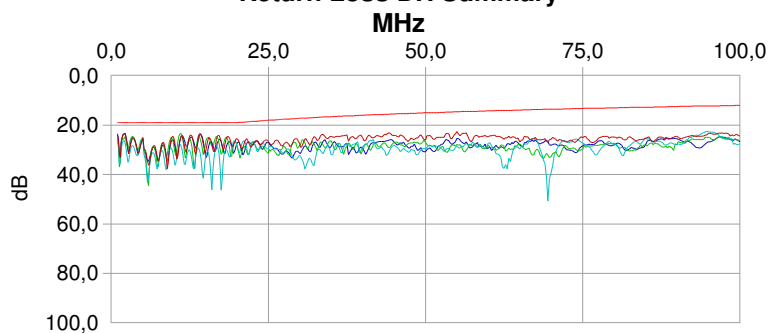
NEXT DH Summary



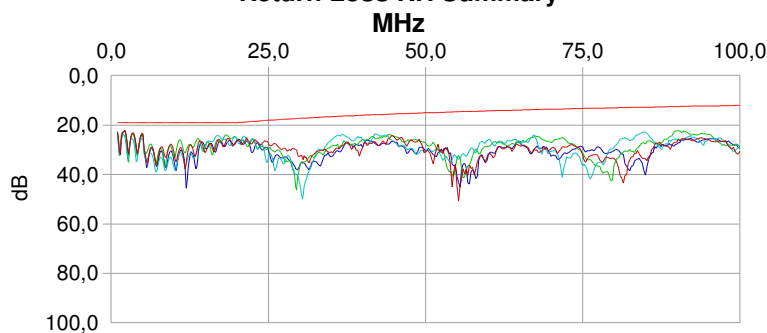
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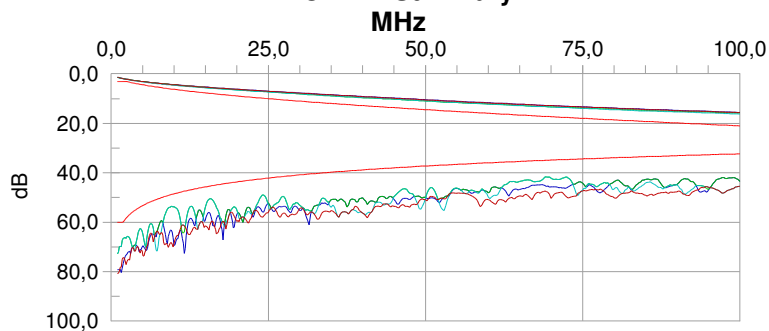
Return Loss DH Summary



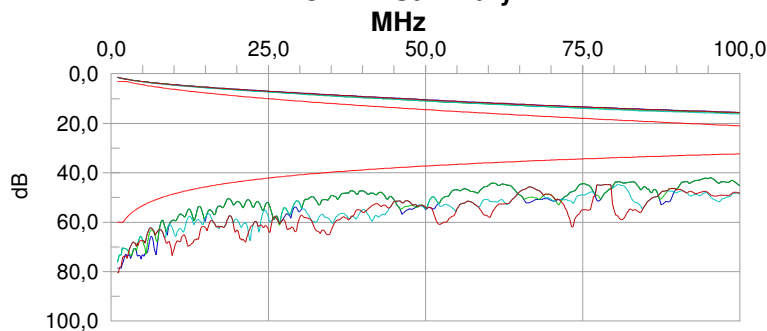
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

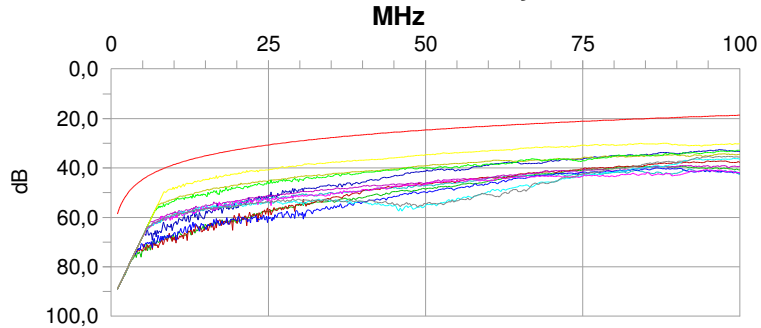
Cable ID 1: 4/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:55:40
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

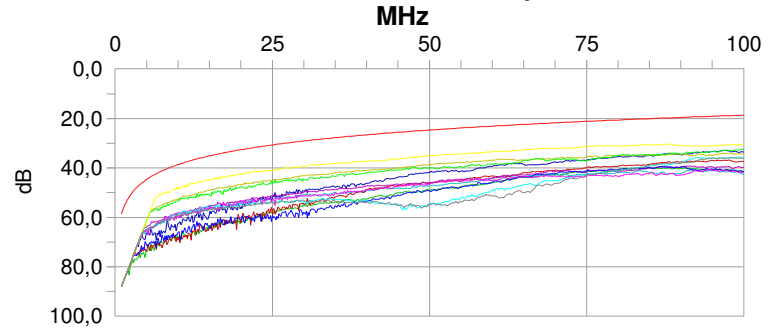
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

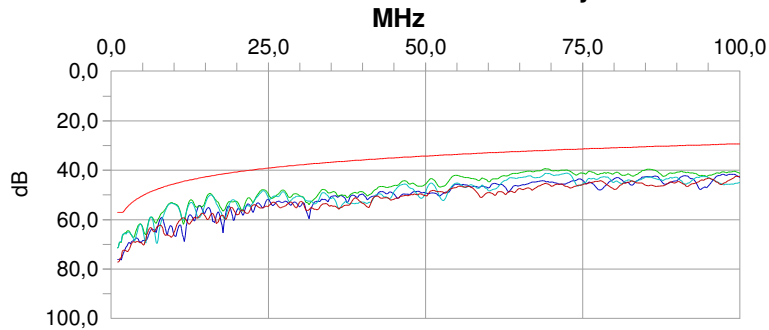
ELFEXT DH Summary



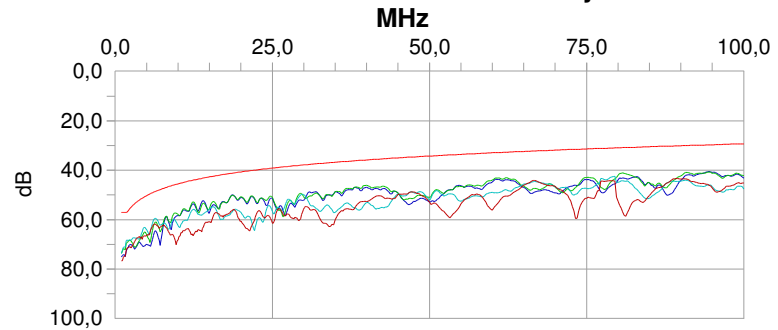
ELFEXT RH Summary



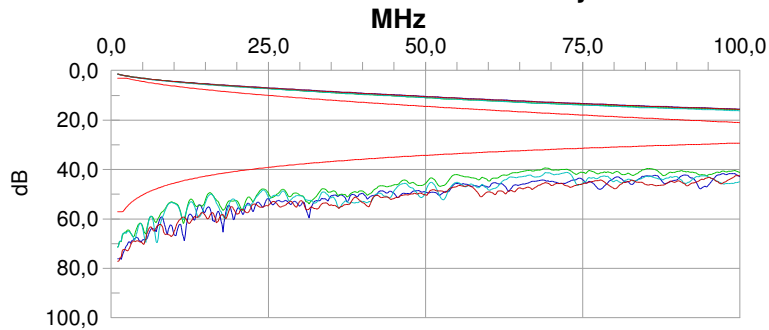
Power Sum NEXT DH Summary



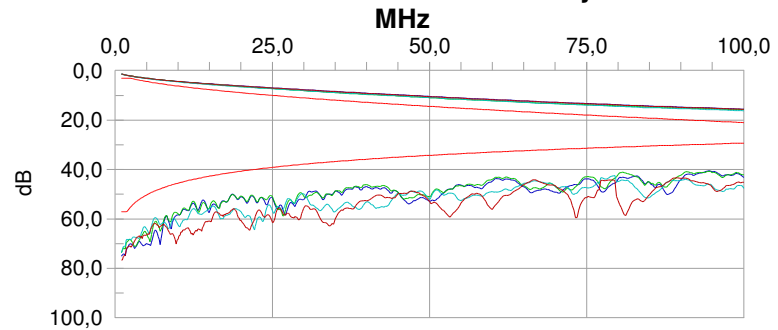
Power Sum NEXT RH Summary



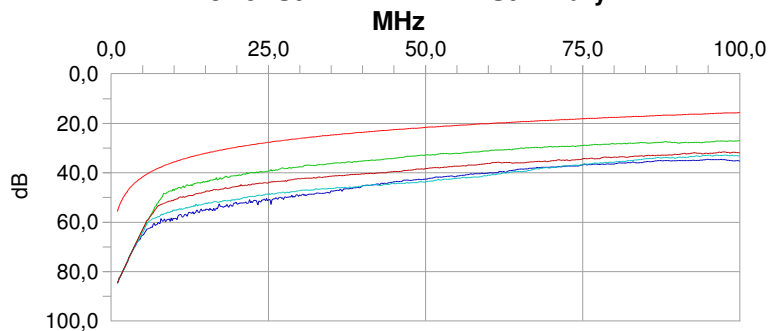
Power Sum ACR DH Summary



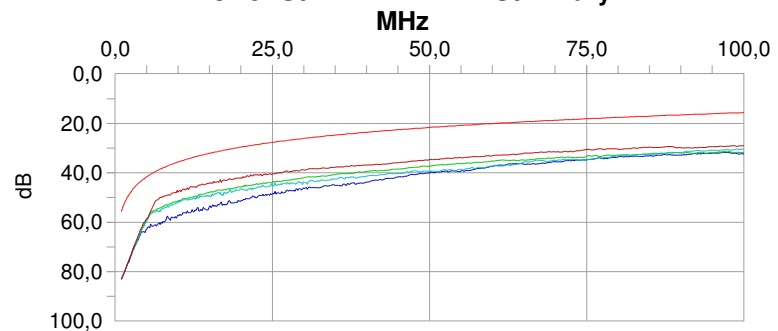
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

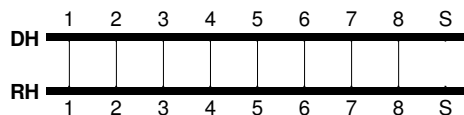
Cable ID 1: 4/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:58:08
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	76.4m	75.5m	74.9m	76.9m	< 90.0m	Pass
Prop. Delay	380.1ns	375.9ns	373.6ns	381.3ns	< 498.0ns	Pass
Delay Skew	7.7ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
Headroom	13.9 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	40.3 dB @ 46.25MHz	35.0 dB	> 37.8 dB	2.5 dB
7,8-5,4	DH	Pass	57.8 dB @ 26.65MHz	52.4 dB	> 41.7 dB	16.1 dB
7,8-1,2	DH	Pass	57.7 dB @ 16.60MHz	52.7 dB	> 45.0 dB	12.7 dB
3,6-5,4	DH	Pass	45.5 dB @ 28.15MHz	40.6 dB	> 41.3 dB	4.2 dB
3,6-1,2	DH	Pass	42.4 dB @ 90.75MHz	42.3 dB	> 33.0 dB	9.4 dB
5,4-1,2	DH	Pass	49.0 dB @ 70.50MHz	48.3 dB	> 34.8 dB	14.2 dB
7,8-3,6	RH	Pass	60.7 dB @ 5.35MHz	44.8 dB	> 52.8 dB	7.9 dB
7,8-5,4	RH	Pass	56.7 dB @ 27.10MHz	51.5 dB	> 41.5 dB	15.2 dB
7,8-1,2	RH	Pass	51.4 dB @ 43.25MHz	49.7 dB	> 38.3 dB	13.1 dB
3,6-5,4	RH	Pass	53.1 dB @ 20.65MHz	43.5 dB	> 43.4 dB	9.7 dB
3,6-1,2	RH	Pass	50.2 dB @ 55.75MHz	48.3 dB	> 36.5 dB	13.7 dB
5,4-1,2	RH	Pass	53.9 dB @ 19.30MHz	43.9 dB	> 43.9 dB	10.0 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	25.1 dB @ 1.00MHz	25.1 dB	> 19.0 dB	6.1 dB
3,6	DH	Pass	23.0 dB @ 11.35MHz	23.0 dB	> 19.0 dB	4.0 dB
5,4	DH	Pass	22.7 dB @ 17.65MHz	22.2 dB	> 19.0 dB	3.7 dB
1,2	DH	Pass	25.7 dB @ 2.05MHz	23.0 dB	> 19.0 dB	6.7 dB
7,8	RH	Pass	24.7 dB @ 2.05MHz	23.4 dB	> 19.0 dB	5.7 dB
3,6	RH	Pass	23.4 dB @ 2.20MHz	22.0 dB	> 19.0 dB	4.4 dB
5,4	RH	Pass	21.6 dB @ 20.65MHz	19.1 dB	> 18.9 dB	2.7 dB
1,2	RH	Pass	24.8 dB @ 2.05MHz	21.2 dB	> 19.0 dB	5.8 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	2.2 dB @ 2.50MHz	15.6 dB	< 3.1 dB	0.9 dB
3,6	Pass	2.1 dB @ 2.50MHz	15.3 dB	< 3.1 dB	1.0 dB
5,4	Pass	2.3 dB @ 2.80MHz	15.2 dB	< 3.2 dB	0.9 dB
1,2	Pass	2.2 dB @ 2.50MHz	15.7 dB	< 3.1 dB	0.9 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	19.5 dB @ 99.25MHz	N/A	>= 11.5 dB	8.0 dB
3,6	DH	Pass	19.8 dB @ 99.25MHz	N/A	>= 11.5 dB	8.3 dB
5,4	DH	Pass	26.4 dB @ 92.25MHz	N/A	>= 12.8 dB	13.6 dB
1,2	DH	Pass	26.8 dB @ 100.00MHz	N/A	>= 11.3 dB	15.5 dB
7,8	RH	Pass	30.7 dB @ 82.75MHz	N/A	>= 14.8 dB	15.9 dB
3,6	RH	Pass	28.8 dB @ 92.75MHz	N/A	>= 12.7 dB	16.1 dB
5,4	RH	Pass	28.8 dB @ 92.75MHz	N/A	>= 12.7 dB	16.1 dB
1,2	RH	Pass	28.8 dB @ 92.50MHz	N/A	>= 12.8 dB	16.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 4/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:58:08
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	34.6 dB @ 85.75MHz	34.5 dB	> 19.9 dB	14.7 dB
7,8-5,4	DH	Pass	54.9 dB @ 9.25MHz	39.5 dB	> 39.3 dB	15.6 dB
7,8-1,2	DH	Pass	57.0 dB @ 14.35MHz	42.2 dB	> 35.5 dB	21.5 dB
3,6-7,8	DH	Pass	40.2 dB @ 80.50MHz	39.5 dB	> 20.5 dB	19.7 dB
3,6-5,4	DH	Pass	52.9 dB @ 9.25MHz	34.1 dB	> 39.3 dB	13.6 dB
3,6-1,2	DH	Pass	40.9 dB @ 75.75MHz	38.5 dB	> 21.0 dB	19.9 dB
5,4-7,8	DH	Pass	55.4 dB @ 8.95MHz	41.1 dB	> 39.6 dB	15.8 dB
5,4-3,6	DH	Pass	49.0 dB @ 8.95MHz	29.4 dB	> 39.6 dB	9.4 dB
5,4-1,2	DH	Pass	38.0 dB @ 96.50MHz	37.8 dB	> 18.9 dB	19.1 dB
1,2-7,8	DH	Pass	55.0 dB @ 17.20MHz	42.2 dB	> 33.9 dB	21.1 dB
1,2-3,6	DH	Pass	35.7 dB @ 75.25MHz	34.9 dB	> 21.1 dB	14.6 dB
1,2-5,4	DH	Pass	39.2 dB @ 92.75MHz	38.9 dB	> 19.3 dB	19.9 dB
7,8-3,6	RH	Pass	34.5 dB @ 85.75MHz	34.4 dB	> 19.9 dB	14.6 dB
7,8-5,4	RH	Pass	51.3 dB @ 13.90MHz	39.1 dB	> 35.8 dB	15.5 dB
7,8-1,2	RH	Pass	57.0 dB @ 14.35MHz	42.3 dB	> 35.5 dB	21.5 dB
3,6-7,8	RH	Pass	40.3 dB @ 80.50MHz	39.8 dB	> 20.5 dB	19.8 dB
3,6-5,4	RH	Pass	56.5 dB @ 6.10MHz	34.1 dB	> 42.9 dB	13.6 dB
3,6-1,2	RH	Pass	65.3 dB @ 4.60MHz	38.9 dB	> 45.4 dB	19.9 dB
5,4-7,8	RH	Pass	55.5 dB @ 8.95MHz	41.4 dB	> 39.6 dB	15.9 dB
5,4-3,6	RH	Pass	51.0 dB @ 6.85MHz	29.5 dB	> 41.9 dB	9.1 dB
5,4-1,2	RH	Pass	38.9 dB @ 92.75MHz	38.3 dB	> 19.3 dB	19.6 dB
1,2-7,8	RH	Pass	54.9 dB @ 17.20MHz	42.1 dB	> 33.9 dB	21.0 dB
1,2-3,6	RH	Pass	35.7 dB @ 73.50MHz	34.6 dB	> 21.3 dB	14.4 dB
1,2-5,4	RH	Pass	38.8 dB @ 92.75MHz	38.4 dB	> 19.3 dB	19.5 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.1 dB @ 46.25MHz	34.9 dB	> 34.8 dB	5.3 dB
3,6	DH	Pass	39.2 dB @ 47.00MHz	34.0 dB	> 34.7 dB	4.5 dB
5,4	DH	Pass	45.3 dB @ 28.15MHz	40.4 dB	> 38.3 dB	7.0 dB
1,2	DH	Pass	52.5 dB @ 19.15MHz	41.4 dB	> 41.0 dB	11.5 dB
7,8	RH	Pass	60.5 dB @ 5.35MHz	43.8 dB	> 49.8 dB	10.7 dB
3,6	RH	Pass	59.7 dB @ 5.35MHz	41.5 dB	> 49.8 dB	9.9 dB
5,4	RH	Pass	41.0 dB @ 77.50MHz	40.5 dB	> 31.1 dB	9.9 dB
1,2	RH	Pass	52.8 dB @ 20.80MHz	42.8 dB	> 40.4 dB	12.4 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	19.4 dB @ 99.25MHz	N/A	>= 8.5 dB	10.9 dB
3,6	DH	Pass	18.8 dB @ 99.25MHz	N/A	>= 8.5 dB	10.3 dB
5,4	DH	Pass	25.9 dB @ 92.25MHz	N/A	>= 9.8 dB	16.1 dB
1,2	DH	Pass	25.7 dB @ 100.00MHz	N/A	>= 8.3 dB	17.4 dB
7,8	RH	Pass	29.5 dB @ 90.25MHz	N/A	>= 10.2 dB	19.3 dB
3,6	RH	Pass	26.5 dB @ 97.25MHz	N/A	>= 8.8 dB	17.7 dB
5,4	RH	Pass	25.8 dB @ 92.75MHz	N/A	>= 9.7 dB	16.1 dB
1,2	RH	Pass	27.7 dB @ 92.75MHz	N/A	>= 9.7 dB	18.0 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	54.4 dB @ 8.05MHz	36.2 dB	>= 37.5 dB	16.9 dB
3,6	DH	Pass	47.6 dB @ 8.95MHz	27.7 dB	>= 36.6 dB	11.0 dB
5,4	DH	Pass	50.4 dB @ 9.25MHz	32.0 dB	>= 36.3 dB	14.1 dB
1,2	DH	Pass	34.5 dB @ 99.25MHz	34.5 dB	>= 15.7 dB	18.8 dB
7,8	RH	Pass	49.1 dB @ 12.10MHz	33.2 dB	>= 34.0 dB	15.1 dB
3,6	RH	Pass	55.2 dB @ 6.10MHz	32.2 dB	>= 39.9 dB	15.3 dB
5,4	RH	Pass	50.0 dB @ 6.85MHz	28.7 dB	>= 38.9 dB	11.1 dB
1,2	RH	Pass	33.2 dB @ 82.75MHz	33.0 dB	>= 17.3 dB	15.9 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

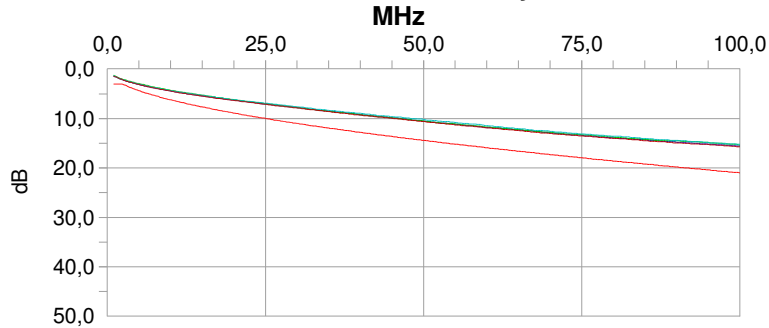
Cable ID 1: 4/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:58:08
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

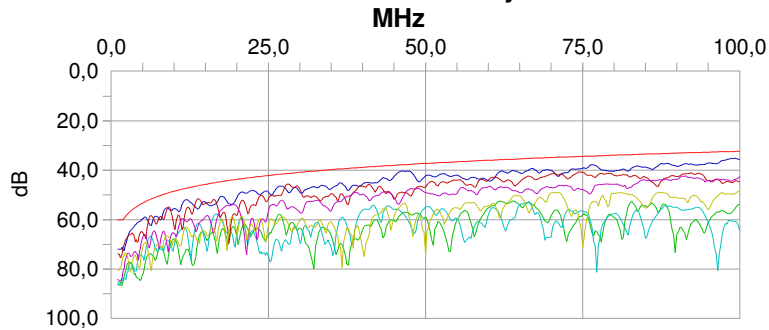
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

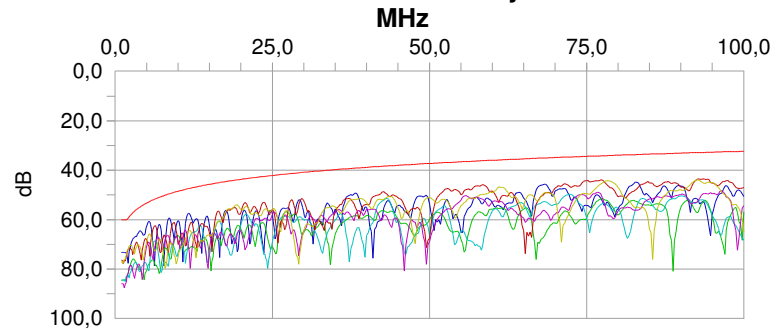
Attenuation Summary



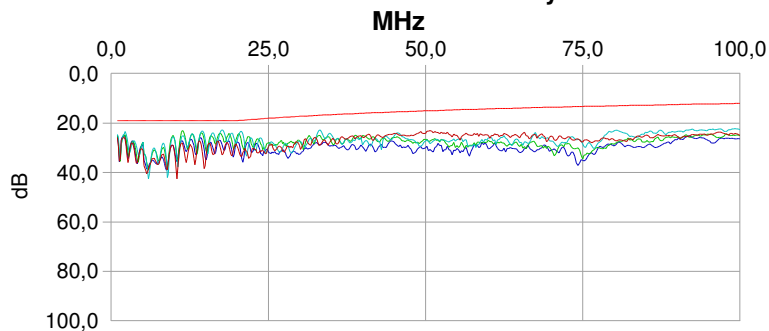
NEXT DH Summary



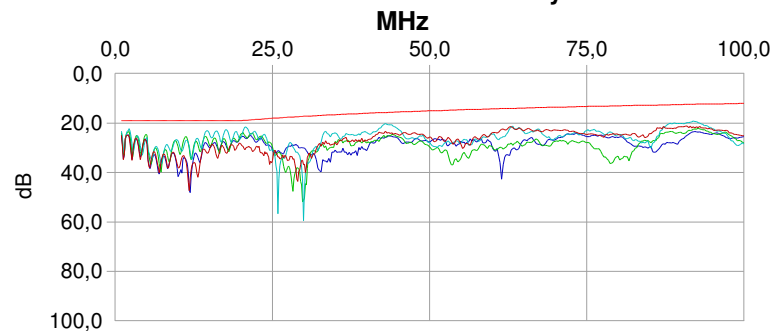
NEXT RH Summary



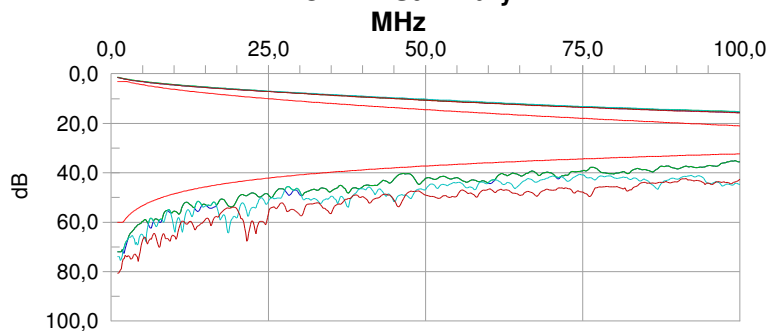
Return Loss DH Summary



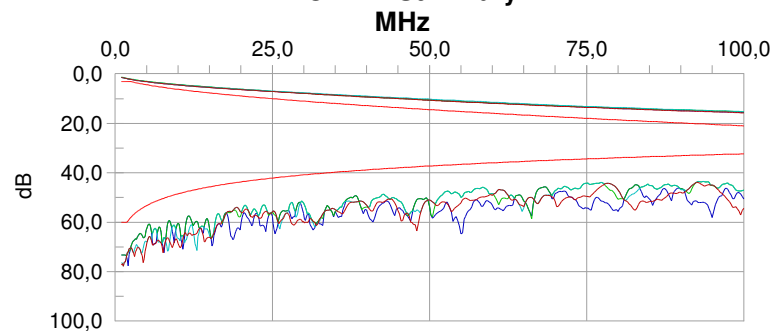
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 4/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:58:08
Adapter ID: 6014

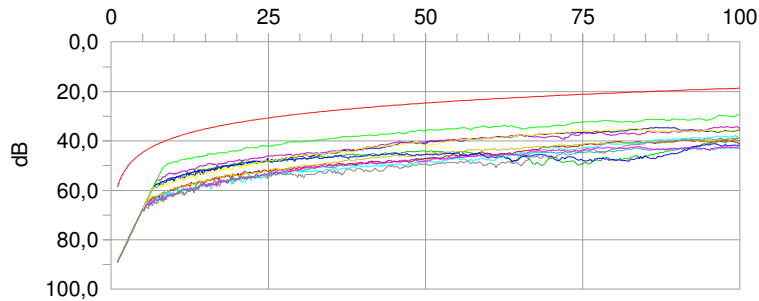
Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

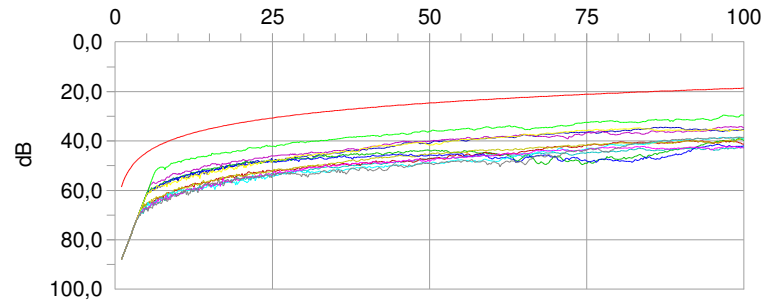
ELFEXT DH Summary

MHz



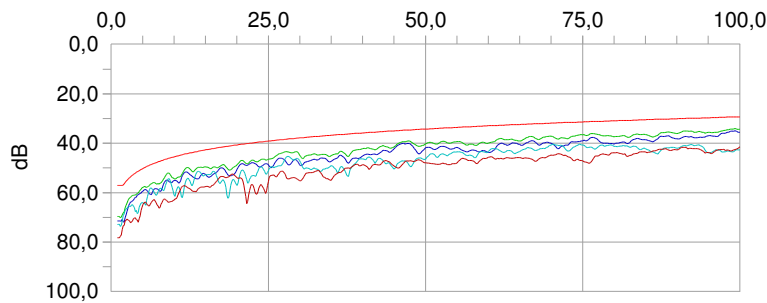
ELFEXT RH Summary

MHz



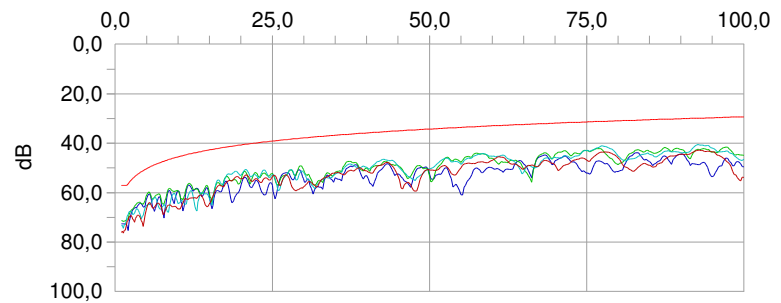
Power Sum NEXT DH Summary

MHz



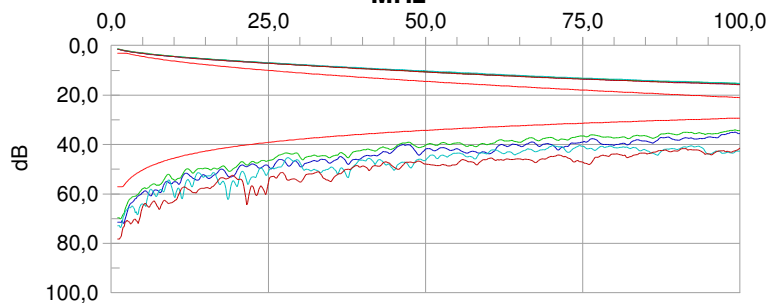
Power Sum NEXT RH Summary

MHz



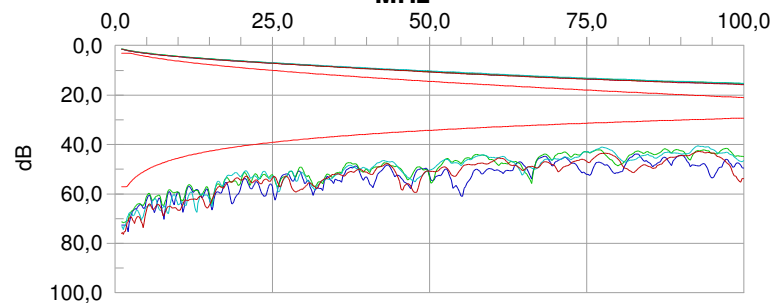
Power Sum ACR DH Summary

MHz



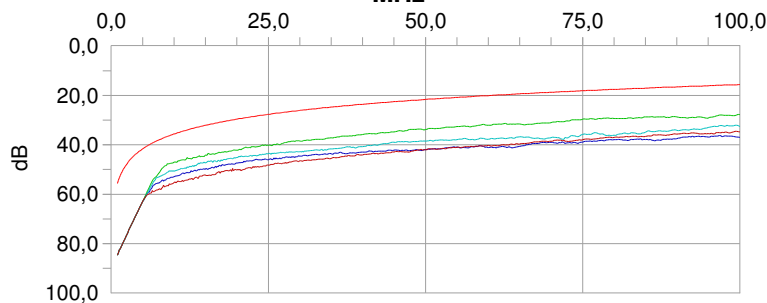
Power Sum ACR RH Summary

MHz



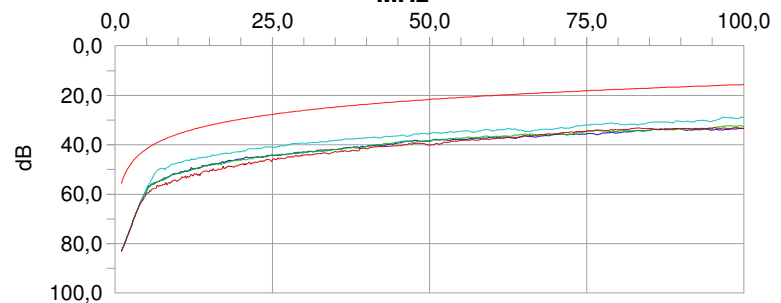
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

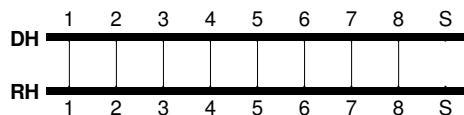
Cable ID 1: 4/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:01:02
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	71.1m	70.2m	69.5m	71.8m	< 90.0m	Pass
Prop. Delay	355.3ns	350.9ns	348.2ns	356.8ns	< 498.0ns	Pass
Delay Skew	8.6ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
Headroom	19.2 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	55.8 dB @ 16.15MHz	46.3 dB	> 45.2 dB	10.6 dB
7,8-5,4	DH	Pass	63.9 dB @ 10.15MHz	51.9 dB	> 48.4 dB	15.5 dB
7,8-1,2	DH	Pass	66.4 dB @ 5.20MHz	49.6 dB	> 53.0 dB	13.4 dB
3,6-5,4	DH	Pass	41.0 dB @ 70.75MHz	40.4 dB	> 34.8 dB	6.2 dB
3,6-1,2	DH	Pass	47.6 dB @ 51.75MHz	43.8 dB	> 37.0 dB	10.6 dB
5,4-1,2	DH	Pass	60.7 dB @ 10.75MHz	48.7 dB	> 48.0 dB	12.7 dB
7,8-3,6	RH	Pass	40.8 dB @ 88.75MHz	40.7 dB	> 33.2 dB	7.6 dB
7,8-5,4	RH	Pass	47.6 dB @ 45.00MHz	47.3 dB	> 38.0 dB	9.6 dB
7,8-1,2	RH	Pass	54.1 dB @ 29.50MHz	48.9 dB	> 40.9 dB	13.2 dB
3,6-5,4	RH	Pass	46.3 dB @ 61.50MHz	45.9 dB	> 35.8 dB	10.5 dB
3,6-1,2	RH	Pass	52.0 dB @ 52.00MHz	50.3 dB	> 37.0 dB	15.0 dB
5,4-1,2	RH	Pass	60.7 dB @ 8.65MHz	49.9 dB	> 49.5 dB	11.2 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.6 dB @ 2.20MHz	24.6 dB	> 19.0 dB	5.6 dB
3,6	DH	Pass	23.4 dB @ 2.20MHz	23.4 dB	> 19.0 dB	4.4 dB
5,4	DH	Pass	22.6 dB @ 20.80MHz	22.2 dB	> 18.8 dB	3.8 dB
1,2	DH	Pass	25.3 dB @ 2.20MHz	23.5 dB	> 19.0 dB	6.3 dB
7,8	RH	Pass	24.3 dB @ 2.20MHz	24.3 dB	> 19.0 dB	5.3 dB
3,6	RH	Pass	22.4 dB @ 17.20MHz	22.3 dB	> 19.0 dB	3.4 dB
5,4	RH	Pass	22.7 dB @ 2.20MHz	20.8 dB	> 19.0 dB	3.7 dB
1,2	RH	Pass	25.4 dB @ 2.20MHz	24.3 dB	> 19.0 dB	6.4 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	2.2 dB @ 2.80MHz	14.5 dB	< 3.2 dB	1.0 dB
3,6	Pass	1.9 dB @ 2.50MHz	14.2 dB	< 3.1 dB	1.2 dB
5,4	Pass	2.0 dB @ 2.50MHz	14.0 dB	< 3.1 dB	1.1 dB
1,2	Pass	2.1 dB @ 2.50MHz	14.7 dB	< 3.1 dB	1.0 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	32.3 dB @ 94.25MHz	N/A	>= 12.4 dB	19.9 dB
3,6	DH	Pass	26.9 dB @ 97.00MHz	N/A	>= 11.9 dB	15.0 dB
5,4	DH	Pass	27.1 dB @ 97.00MHz	N/A	>= 11.9 dB	15.2 dB
1,2	DH	Pass	29.1 dB @ 100.00MHz	N/A	>= 11.3 dB	17.8 dB
7,8	RH	Pass	27.1 dB @ 88.75MHz	N/A	>= 13.6 dB	13.5 dB
3,6	RH	Pass	27.2 dB @ 89.00MHz	N/A	>= 13.4 dB	13.8 dB
5,4	RH	Pass	31.9 dB @ 99.50MHz	N/A	>= 11.4 dB	20.5 dB
1,2	RH	Pass	35.3 dB @ 86.25MHz	N/A	>= 14.1 dB	21.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 4/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:01:02
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	52.0 dB @ 11.50MHz	36.7 dB	> 37.4 dB	14.6 dB
7,8-5,4	DH	Pass	52.8 dB @ 12.10MHz	42.5 dB	> 37.0 dB	15.8 dB
7,8-1,2	DH	Pass	65.7 dB @ 5.95MHz	42.8 dB	> 43.1 dB	22.6 dB
3,6-7,8	DH	Pass	58.7 dB @ 8.50MHz	41.6 dB	> 40.0 dB	18.7 dB
3,6-5,4	DH	Pass	53.1 dB @ 16.90MHz	40.2 dB	> 34.1 dB	19.0 dB
3,6-1,2	DH	Pass	47.0 dB @ 89.25MHz	46.5 dB	> 19.6 dB	27.4 dB
5,4-7,8	DH	Pass	54.3 dB @ 9.70MHz	41.9 dB	> 38.9 dB	15.4 dB
5,4-3,6	DH	Pass	55.1 dB @ 7.45MHz	37.5 dB	> 41.2 dB	13.9 dB
5,4-1,2	DH	Pass	38.8 dB @ 99.00MHz	38.8 dB	> 18.7 dB	20.1 dB
1,2-7,8	DH	Pass	66.9 dB @ 5.20MHz	42.9 dB	> 44.3 dB	22.6 dB
1,2-3,6	DH	Pass	58.8 dB @ 16.75MHz	45.9 dB	> 34.1 dB	24.7 dB
1,2-5,4	DH	Pass	38.8 dB @ 100.00MHz	38.8 dB	> 18.6 dB	20.2 dB
7,8-3,6	RH	Pass	51.8 dB @ 11.50MHz	36.7 dB	> 37.4 dB	14.4 dB
7,8-5,4	RH	Pass	52.7 dB @ 12.10MHz	42.0 dB	> 37.0 dB	15.7 dB
7,8-1,2	RH	Pass	65.7 dB @ 5.95MHz	43.0 dB	> 43.1 dB	22.6 dB
3,6-7,8	RH	Pass	58.9 dB @ 8.50MHz	41.6 dB	> 40.0 dB	18.9 dB
3,6-5,4	RH	Pass	62.3 dB @ 5.65MHz	40.0 dB	> 43.6 dB	18.7 dB
3,6-1,2	RH	Pass	47.4 dB @ 89.25MHz	46.9 dB	> 19.6 dB	27.8 dB
5,4-7,8	RH	Pass	54.4 dB @ 9.70MHz	42.2 dB	> 38.9 dB	15.5 dB
5,4-3,6	RH	Pass	55.1 dB @ 7.45MHz	37.7 dB	> 41.2 dB	13.9 dB
5,4-1,2	RH	Pass	39.5 dB @ 99.00MHz	39.5 dB	> 18.7 dB	20.8 dB
1,2-7,8	RH	Pass	66.9 dB @ 5.20MHz	42.7 dB	> 44.3 dB	22.6 dB
1,2-3,6	RH	Pass	61.2 dB @ 12.40MHz	45.4 dB	> 36.7 dB	24.5 dB
1,2-5,4	RH	Pass	38.1 dB @ 100.00MHz	38.1 dB	> 18.6 dB	19.5 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	59.2 dB @ 8.20MHz	45.0 dB	> 46.9 dB	12.3 dB
3,6	DH	Pass	39.4 dB @ 75.00MHz	38.8 dB	> 31.4 dB	8.0 dB
5,4	DH	Pass	55.7 dB @ 8.20MHz	40.1 dB	> 46.9 dB	8.8 dB
1,2	DH	Pass	44.4 dB @ 63.50MHz	42.5 dB	> 32.5 dB	11.9 dB
7,8	RH	Pass	39.9 dB @ 88.75MHz	39.9 dB	> 30.2 dB	9.7 dB
3,6	RH	Pass	40.0 dB @ 88.75MHz	40.0 dB	> 30.2 dB	9.8 dB
5,4	RH	Pass	46.7 dB @ 45.00MHz	43.5 dB	> 35.0 dB	11.7 dB
1,2	RH	Pass	59.3 dB @ 8.50MHz	45.9 dB	> 46.6 dB	12.7 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	31.1 dB @ 94.25MHz	N/A	>= 9.4 dB	21.7 dB
3,6	DH	Pass	25.1 dB @ 98.50MHz	N/A	>= 8.6 dB	16.5 dB
5,4	DH	Pass	26.7 dB @ 96.00MHz	N/A	>= 9.1 dB	17.6 dB
1,2	DH	Pass	27.8 dB @ 100.00MHz	N/A	>= 8.3 dB	19.5 dB
7,8	RH	Pass	26.2 dB @ 88.75MHz	N/A	>= 10.6 dB	15.6 dB
3,6	RH	Pass	26.5 dB @ 88.75MHz	N/A	>= 10.6 dB	15.9 dB
5,4	RH	Pass	30.3 dB @ 99.50MHz	N/A	>= 8.4 dB	21.9 dB
1,2	RH	Pass	32.2 dB @ 87.25MHz	N/A	>= 10.8 dB	21.4 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	51.3 dB @ 10.90MHz	37.8 dB	>= 34.9 dB	16.4 dB
3,6	DH	Pass	51.6 dB @ 8.65MHz	34.5 dB	>= 36.9 dB	14.7 dB
5,4	DH	Pass	54.8 dB @ 7.60MHz	35.7 dB	>= 38.0 dB	16.8 dB
1,2	DH	Pass	36.9 dB @ 99.00MHz	36.9 dB	>= 15.7 dB	21.2 dB
7,8	RH	Pass	49.3 dB @ 11.50MHz	35.1 dB	>= 34.4 dB	14.9 dB
3,6	RH	Pass	40.6 dB @ 65.00MHz	37.8 dB	>= 19.4 dB	21.2 dB
5,4	RH	Pass	52.6 dB @ 7.45MHz	35.0 dB	>= 38.2 dB	14.4 dB
1,2	RH	Pass	37.0 dB @ 96.75MHz	36.7 dB	>= 15.9 dB	21.1 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

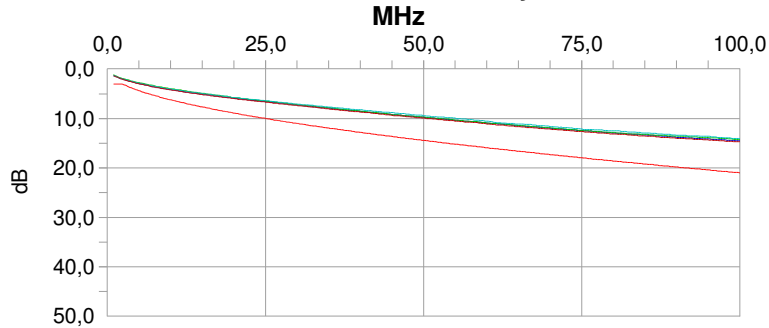
Cable ID 1: 4/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:01:02
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

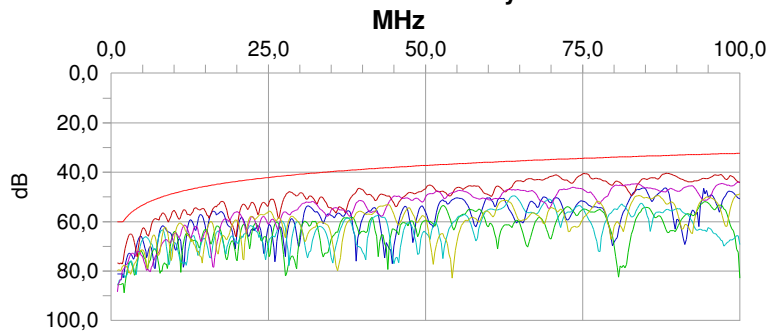
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

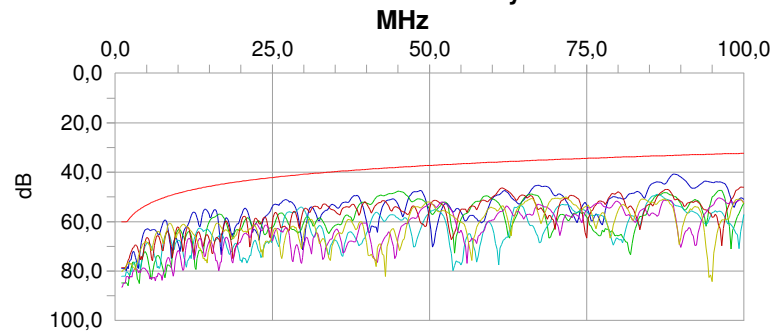
Attenuation Summary



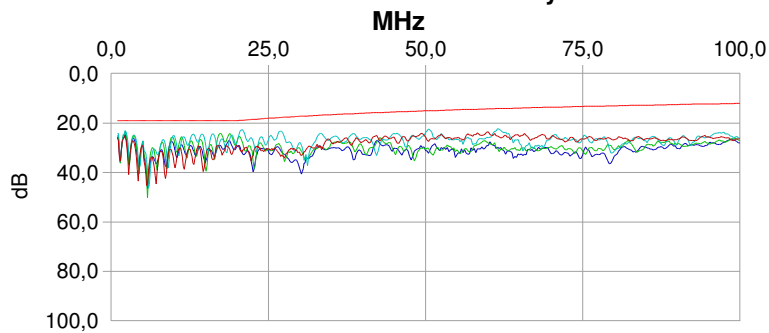
NEXT DH Summary



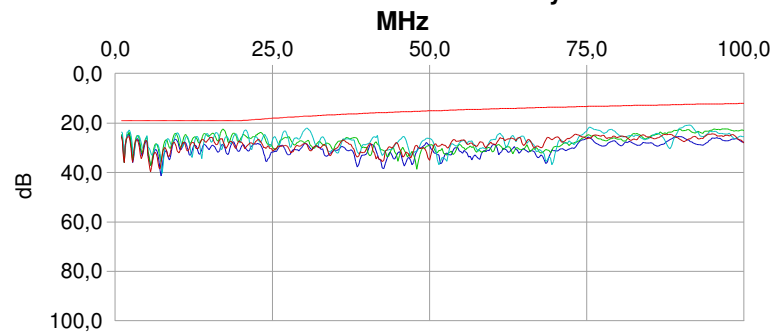
NEXT RH Summary



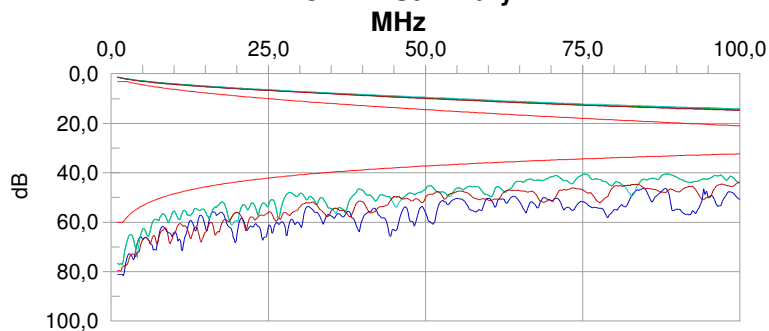
Return Loss DH Summary



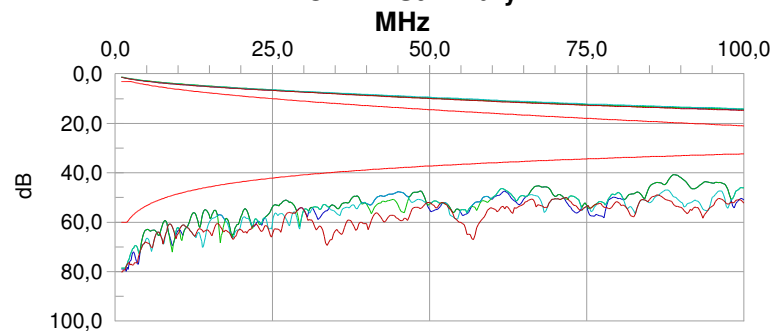
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

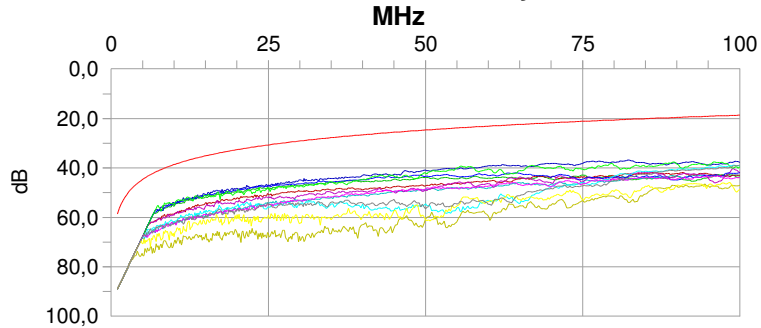
Cable ID 1: 4/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:01:02
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

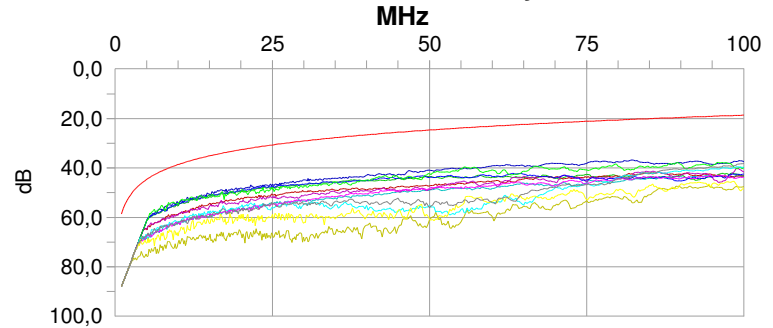
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

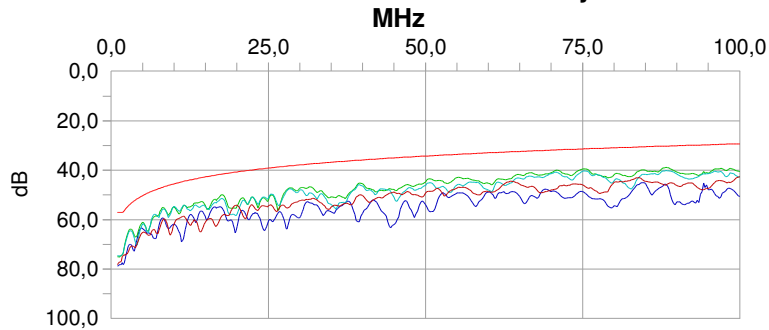
ELFEXT DH Summary



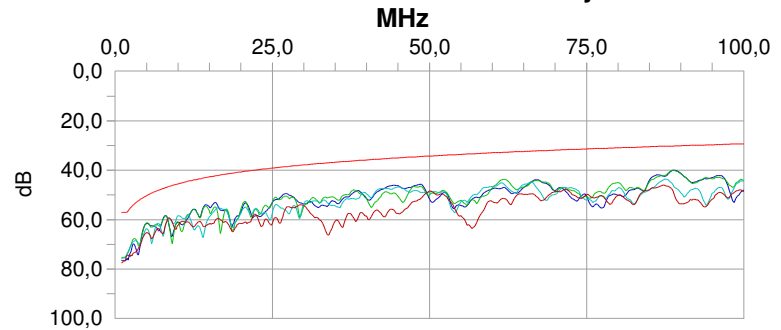
ELFEXT RH Summary



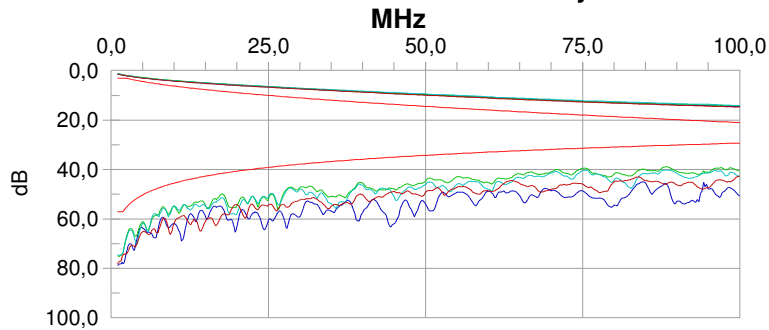
Power Sum NEXT DH Summary



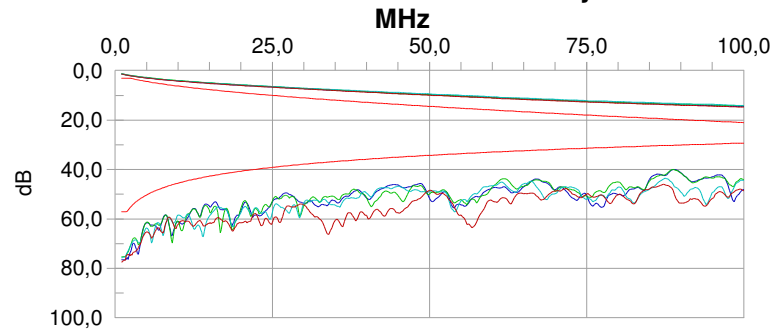
Power Sum NEXT RH Summary



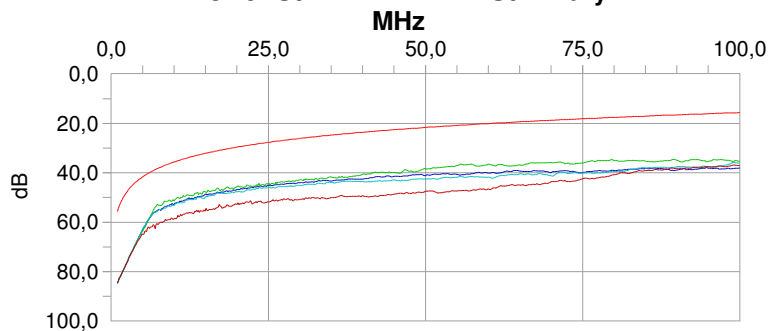
Power Sum ACR DH Summary



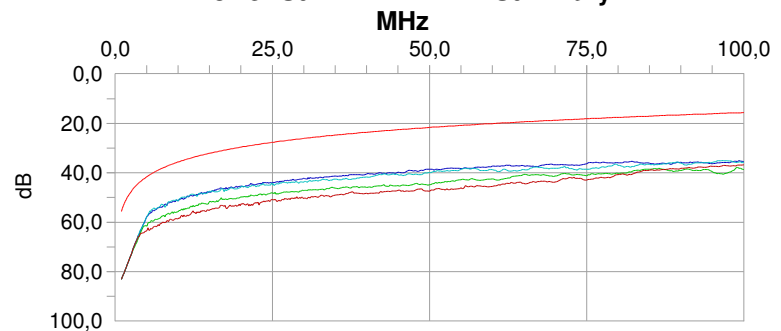
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

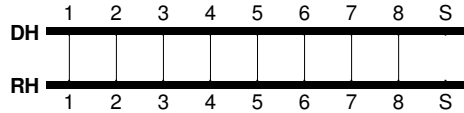
Cable ID 1: 4/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:42:15
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	70.2m	71.2m	72.1m	70.4m	< 90.0m	Pass
Prop. Delay	350.7ns	355.7ns	360.5ns	350.5ns	< 498.0ns	Pass
Delay Skew	10.0ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	14.9 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	51.1 dB @ 15.85MHz	41.4 dB	> 45.3 dB	5.8 dB
7,8-5,4	DH	Pass	61.3 dB @ 17.50MHz	52.5 dB	> 44.6 dB	16.7 dB
7,8-1,2	DH	Pass	48.8 dB @ 37.50MHz	45.6 dB	> 39.3 dB	9.5 dB
3,6-5,4	DH	Pass	46.4 dB @ 20.20MHz	39.7 dB	> 43.6 dB	2.8 dB
3,6-1,2	DH	Pass	43.1 dB @ 84.00MHz	43.1 dB	> 33.5 dB	9.6 dB
5,4-1,2	DH	Pass	61.5 dB @ 6.70MHz	45.0 dB	> 51.3 dB	10.2 dB
7,8-3,6	RH	Pass	39.3 dB @ 91.25MHz	39.3 dB	> 33.0 dB	6.3 dB
7,8-5,4	RH	Pass	59.6 dB @ 21.10MHz	49.7 dB	> 43.3 dB	16.3 dB
7,8-1,2	RH	Pass	45.9 dB @ 53.25MHz	45.0 dB	> 36.8 dB	9.1 dB
3,6-5,4	RH	Pass	56.7 dB @ 6.55MHz	38.8 dB	> 51.4 dB	5.3 dB
3,6-1,2	RH	Pass	51.9 dB @ 32.50MHz	46.3 dB	> 40.3 dB	11.6 dB
5,4-1,2	RH	Pass	55.8 dB @ 11.95MHz	45.8 dB	> 47.3 dB	8.5 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.5 dB @ 2.20MHz	20.5 dB	> 19.0 dB	3.5 dB
3,6	DH	Pass	22.1 dB @ 2.20MHz	19.1 dB	> 19.0 dB	3.1 dB
5,4	DH	Pass	17.6 dB @ 35.50MHz	16.7 dB	> 16.5 dB	1.1 dB
1,2	DH	Pass	22.9 dB @ 2.20MHz	16.8 dB	> 19.0 dB	3.9 dB
7,8	RH	Pass	22.0 dB @ 2.20MHz	18.1 dB	> 19.0 dB	3.0 dB
3,6	RH	Pass	19.1 dB @ 16.90MHz	16.7 dB	> 19.0 dB	0.1 dB
5,4	RH	Pass	21.6 dB @ 21.40MHz	17.7 dB	> 18.7 dB	2.9 dB
1,2	RH	Pass	22.4 dB @ 2.20MHz	17.9 dB	> 19.0 dB	3.4 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	2.0 dB @ 2.50MHz	14.6 dB	< 3.1 dB	1.1 dB
3,6	Pass	2.0 dB @ 2.50MHz	15.2 dB	< 3.1 dB	1.1 dB
5,4	Pass	2.1 dB @ 2.50MHz	15.6 dB	< 3.1 dB	1.0 dB
1,2	Pass	2.0 dB @ 2.50MHz	14.7 dB	< 3.1 dB	1.1 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	27.6 dB @ 89.75MHz	N/A	>= 13.3 dB	14.3 dB
3,6	DH	Pass	26.2 dB @ 88.50MHz	N/A	>= 13.6 dB	12.6 dB
5,4	DH	Pass	26.0 dB @ 88.50MHz	N/A	>= 13.6 dB	12.4 dB
1,2	DH	Pass	29.9 dB @ 84.00MHz	N/A	>= 14.4 dB	15.5 dB
7,8	RH	Pass	25.4 dB @ 91.75MHz	N/A	>= 12.9 dB	12.5 dB
3,6	RH	Pass	23.7 dB @ 97.50MHz	N/A	>= 11.8 dB	11.9 dB
5,4	RH	Pass	23.3 dB @ 97.50MHz	N/A	>= 11.8 dB	11.5 dB
1,2	RH	Pass	31.0 dB @ 94.00MHz	N/A	>= 12.4 dB	18.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 4/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:42:15
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	31.7 dB @ 90.25MHz	31.7 dB	> 19.5 dB	12.2 dB
7,8-5,4	DH	Pass	32.7 dB @ 91.75MHz	32.7 dB	> 19.4 dB	13.3 dB
7,8-1,2	DH	Pass	48.0 dB @ 10.30MHz	30.8 dB	> 38.4 dB	9.6 dB
3,6-7,8	DH	Pass	37.1 dB @ 100.00MHz	37.1 dB	> 18.6 dB	18.5 dB
3,6-5,4	DH	Pass	41.5 dB @ 98.00MHz	41.5 dB	> 18.8 dB	22.7 dB
3,6-1,2	DH	Pass	42.9 dB @ 92.25MHz	42.9 dB	> 19.3 dB	23.6 dB
5,4-7,8	DH	Pass	34.1 dB @ 93.50MHz	34.1 dB	> 19.2 dB	14.9 dB
5,4-3,6	DH	Pass	37.2 dB @ 98.75MHz	37.2 dB	> 18.7 dB	18.5 dB
5,4-1,2	DH	Pass	63.9 dB @ 7.90MHz	44.8 dB	> 40.7 dB	23.2 dB
1,2-7,8	DH	Pass	47.0 dB @ 11.95MHz	31.5 dB	> 37.1 dB	9.9 dB
1,2-3,6	DH	Pass	36.8 dB @ 84.25MHz	36.8 dB	> 20.1 dB	16.7 dB
1,2-5,4	DH	Pass	67.0 dB @ 5.20MHz	46.7 dB	> 44.3 dB	22.7 dB
7,8-3,6	RH	Pass	33.1 dB @ 90.25MHz	32.4 dB	> 19.5 dB	13.6 dB
7,8-5,4	RH	Pass	34.2 dB @ 89.50MHz	33.5 dB	> 19.6 dB	14.6 dB
7,8-1,2	RH	Pass	48.0 dB @ 10.30MHz	30.6 dB	> 38.4 dB	9.6 dB
3,6-7,8	RH	Pass	36.9 dB @ 92.50MHz	36.8 dB	> 19.3 dB	17.6 dB
3,6-5,4	RH	Pass	41.6 dB @ 98.25MHz	41.6 dB	> 18.8 dB	22.8 dB
3,6-1,2	RH	Pass	41.8 dB @ 92.25MHz	41.8 dB	> 19.3 dB	22.5 dB
5,4-7,8	RH	Pass	33.3 dB @ 92.50MHz	33.0 dB	> 19.3 dB	14.0 dB
5,4-3,6	RH	Pass	36.9 dB @ 99.50MHz	36.9 dB	> 18.7 dB	18.2 dB
5,4-1,2	RH	Pass	63.7 dB @ 7.90MHz	44.1 dB	> 40.7 dB	23.0 dB
1,2-7,8	RH	Pass	46.9 dB @ 11.95MHz	31.6 dB	> 37.1 dB	9.8 dB
1,2-3,6	RH	Pass	37.7 dB @ 84.75MHz	37.7 dB	> 20.1 dB	17.6 dB
1,2-5,4	RH	Pass	66.8 dB @ 5.20MHz	47.9 dB	> 44.3 dB	22.5 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	50.7 dB @ 15.85MHz	40.7 dB	> 42.3 dB	8.4 dB
3,6	DH	Pass	45.8 dB @ 20.20MHz	37.7 dB	> 40.6 dB	5.2 dB
5,4	DH	Pass	53.6 dB @ 6.55MHz	39.3 dB	> 48.4 dB	5.2 dB
1,2	DH	Pass	46.5 dB @ 37.25MHz	40.8 dB	> 36.3 dB	10.2 dB
7,8	RH	Pass	38.4 dB @ 91.25MHz	38.3 dB	> 30.0 dB	8.4 dB
3,6	RH	Pass	36.2 dB @ 98.00MHz	36.2 dB	> 29.4 dB	6.8 dB
5,4	RH	Pass	55.2 dB @ 6.55MHz	37.8 dB	> 48.4 dB	6.8 dB
1,2	RH	Pass	54.4 dB @ 11.80MHz	41.8 dB	> 44.3 dB	10.1 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	26.9 dB @ 89.75MHz	N/A	>= 10.3 dB	16.6 dB
3,6	DH	Pass	23.3 dB @ 84.00MHz	N/A	>= 11.4 dB	11.9 dB
5,4	DH	Pass	24.8 dB @ 100.00MHz	N/A	>= 8.3 dB	16.5 dB
1,2	DH	Pass	27.6 dB @ 83.75MHz	N/A	>= 11.6 dB	16.0 dB
7,8	RH	Pass	24.4 dB @ 91.75MHz	N/A	>= 9.9 dB	14.5 dB
3,6	RH	Pass	21.0 dB @ 98.00MHz	N/A	>= 8.7 dB	12.3 dB
5,4	RH	Pass	22.3 dB @ 97.50MHz	N/A	>= 8.8 dB	13.5 dB
1,2	RH	Pass	27.8 dB @ 93.75MHz	N/A	>= 9.6 dB	18.2 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	47.6 dB @ 10.30MHz	29.5 dB	>= 35.4 dB	12.2 dB
3,6	DH	Pass	30.2 dB @ 90.25MHz	29.8 dB	>= 16.5 dB	13.7 dB
5,4	DH	Pass	32.4 dB @ 91.75MHz	32.3 dB	>= 16.4 dB	16.0 dB
1,2	DH	Pass	43.5 dB @ 18.25MHz	30.6 dB	>= 30.4 dB	13.1 dB
7,8	RH	Pass	28.4 dB @ 83.75MHz	27.6 dB	>= 17.2 dB	11.2 dB
3,6	RH	Pass	35.5 dB @ 91.25MHz	35.4 dB	>= 16.4 dB	19.1 dB
5,4	RH	Pass	32.0 dB @ 91.50MHz	31.6 dB	>= 16.4 dB	15.6 dB
1,2	RH	Pass	43.9 dB @ 17.05MHz	31.1 dB	>= 31.0 dB	12.9 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

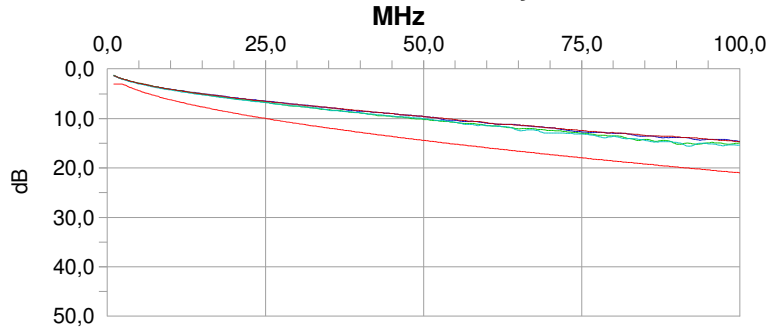
Cable ID 1: 4/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:42:15
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

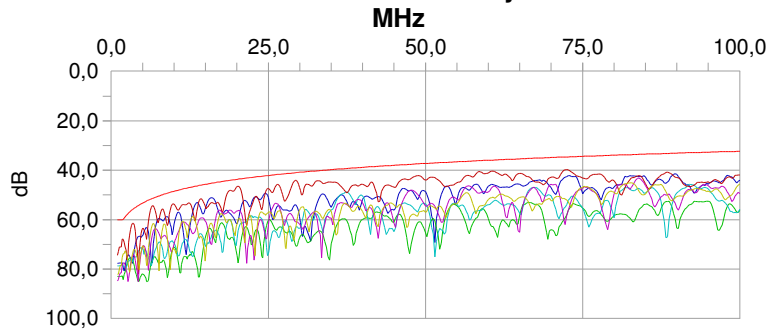
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

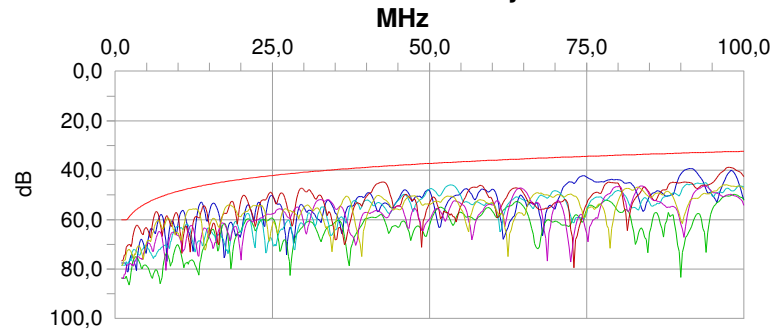
Attenuation Summary



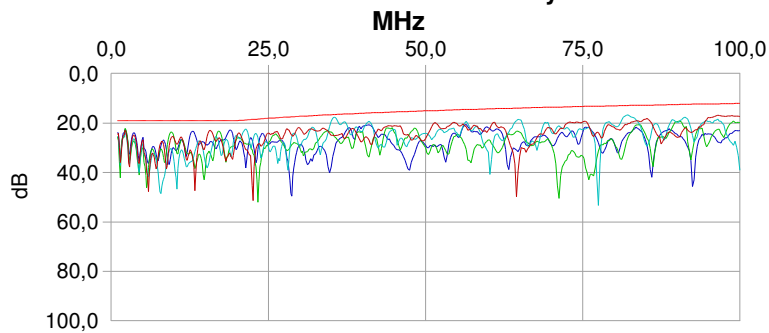
NEXT DH Summary



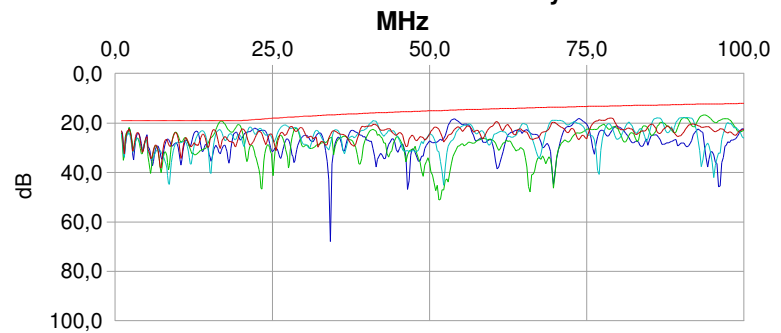
NEXT RH Summary



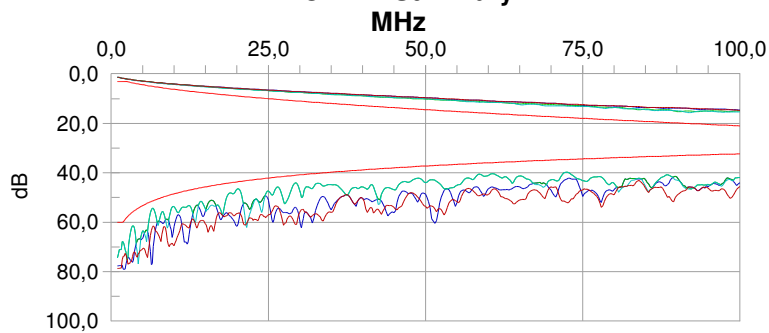
Return Loss DH Summary



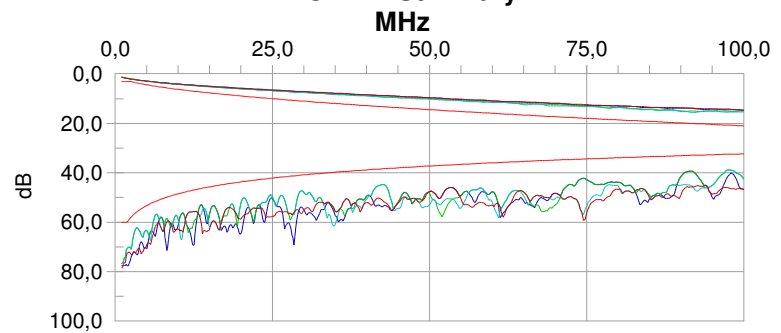
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 4/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:42:15
Adapter ID: 6014

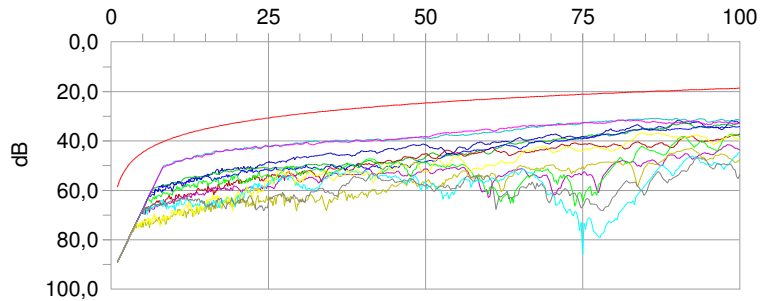
Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

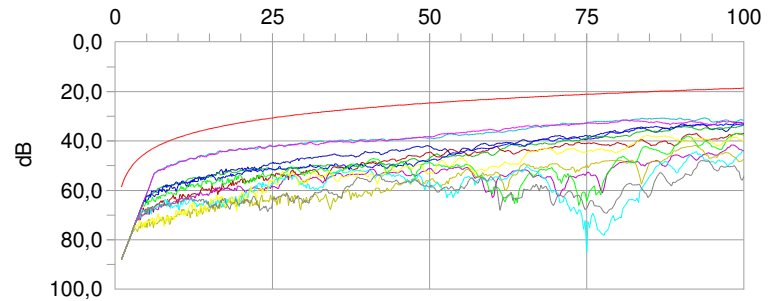
ELFEXT DH Summary

MHz



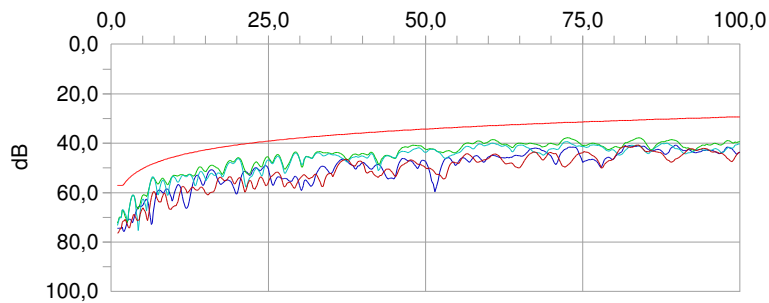
ELFEXT RH Summary

MHz



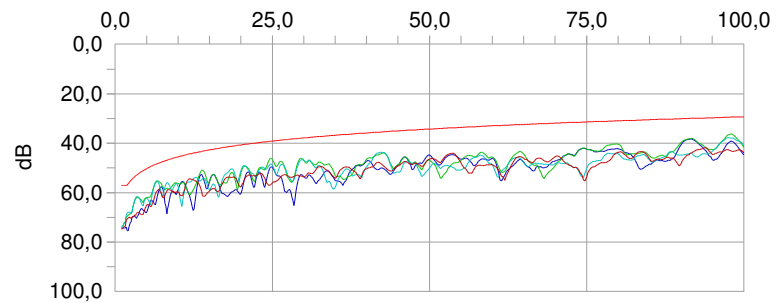
Power Sum NEXT DH Summary

MHz



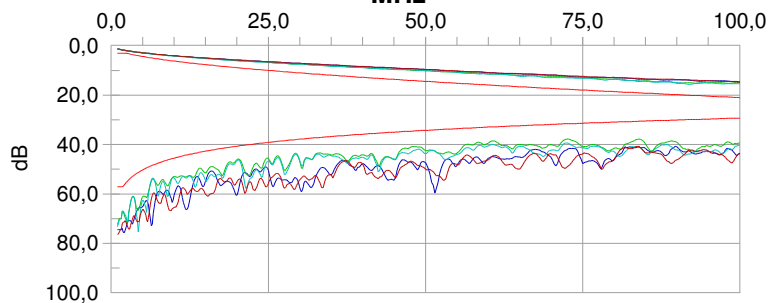
Power Sum NEXT RH Summary

MHz



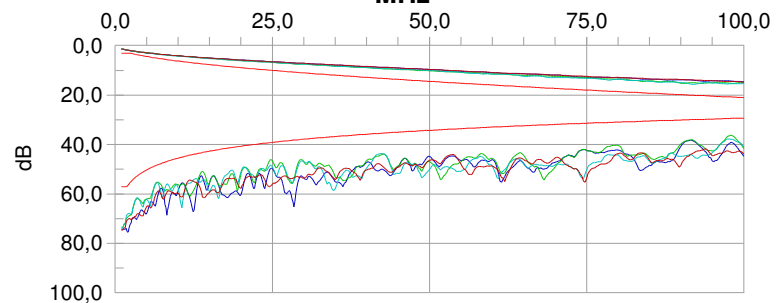
Power Sum ACR DH Summary

MHz



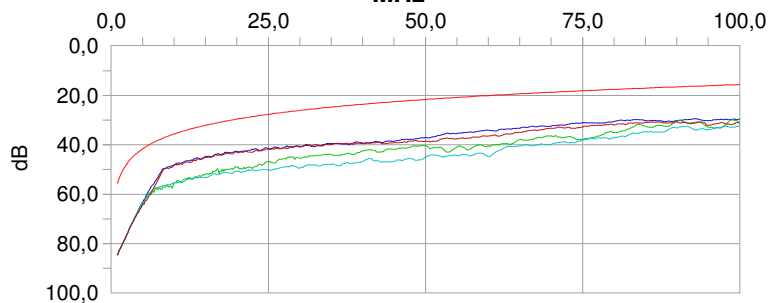
Power Sum ACR RH Summary

MHz



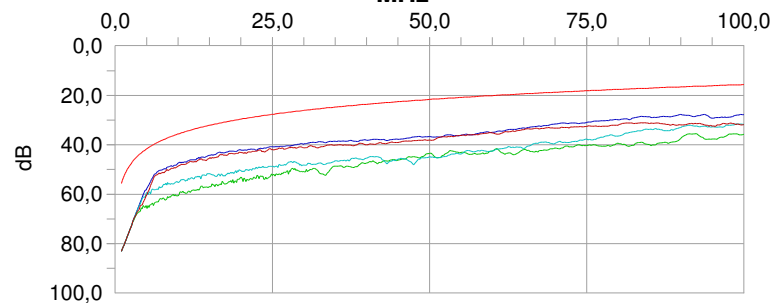
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

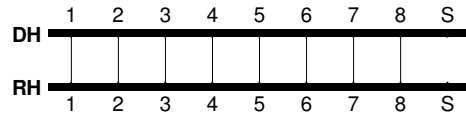
Cable ID 1: 4/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:44:38
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	58.9m	59.9m	60.6m	59.1m	< 90.0m	Pass
Prop. Delay	297.4ns	302.0ns	305.9ns	296.8ns	< 498.0ns	Pass
Delay Skew	9.1ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	16.4 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	41.1 dB @ 65.00MHz	40.3 dB	> 35.4 dB	5.7 dB
7,8-5,4	DH	Pass	70.7 dB @ 3.40MHz	51.7 dB	> 55.9 dB	14.8 dB
7,8-1,2	DH	Pass	47.9 dB @ 51.50MHz	45.4 dB	> 37.0 dB	10.9 dB
3,6-5,4	DH	Pass	60.8 dB @ 2.80MHz	38.6 dB	> 57.2 dB	3.6 dB
3,6-1,2	DH	Pass	41.8 dB @ 60.75MHz	40.0 dB	> 35.9 dB	5.9 dB
5,4-1,2	DH	Pass	61.9 dB @ 8.35MHz	47.6 dB	> 49.7 dB	12.2 dB
7,8-3,6	RH	Pass	47.4 dB @ 50.25MHz	47.4 dB	> 37.2 dB	10.2 dB
7,8-5,4	RH	Pass	70.1 dB @ 3.40MHz	50.7 dB	> 55.9 dB	14.2 dB
7,8-1,2	RH	Pass	57.0 dB @ 14.50MHz	49.3 dB	> 45.9 dB	11.1 dB
3,6-5,4	RH	Pass	63.9 dB @ 2.65MHz	42.7 dB	> 57.6 dB	6.3 dB
3,6-1,2	RH	Pass	64.3 dB @ 5.35MHz	48.3 dB	> 52.8 dB	11.5 dB
5,4-1,2	RH	Pass	59.3 dB @ 8.20MHz	45.4 dB	> 49.9 dB	9.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.3 dB @ 2.50MHz	22.3 dB	> 19.0 dB	3.3 dB
3,6	DH	Pass	22.3 dB @ 2.50MHz	22.3 dB	> 19.0 dB	3.3 dB
5,4	DH	Pass	24.0 dB @ 21.70MHz	23.6 dB	> 18.6 dB	5.4 dB
1,2	DH	Pass	22.2 dB @ 2.50MHz	21.1 dB	> 19.0 dB	3.2 dB
7,8	RH	Pass	21.9 dB @ 2.50MHz	21.9 dB	> 19.0 dB	2.9 dB
3,6	RH	Pass	22.0 dB @ 2.50MHz	22.0 dB	> 19.0 dB	3.0 dB
5,4	RH	Pass	24.7 dB @ 22.00MHz	22.7 dB	> 18.6 dB	6.1 dB
1,2	RH	Pass	21.7 dB @ 2.50MHz	20.7 dB	> 19.0 dB	2.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.7 dB @ 2.50MHz	12.0 dB	< 3.1 dB	1.4 dB
3,6	Pass	1.7 dB @ 2.50MHz	12.3 dB	< 3.1 dB	1.4 dB
5,4	Pass	1.7 dB @ 2.50MHz	12.4 dB	< 3.1 dB	1.4 dB
1,2	Pass	1.7 dB @ 2.50MHz	12.0 dB	< 3.1 dB	1.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	28.7 dB @ 94.75MHz	N/A	>= 12.3 dB	16.4 dB
3,6	DH	Pass	28.2 dB @ 74.50MHz	N/A	>= 16.5 dB	11.7 dB
5,4	DH	Pass	28.2 dB @ 74.50MHz	N/A	>= 16.5 dB	11.7 dB
1,2	DH	Pass	29.0 dB @ 89.75MHz	N/A	>= 13.3 dB	15.7 dB
7,8	RH	Pass	36.1 dB @ 94.25MHz	N/A	>= 12.4 dB	23.7 dB
3,6	RH	Pass	30.9 dB @ 92.25MHz	N/A	>= 12.8 dB	18.1 dB
5,4	RH	Pass	30.8 dB @ 92.25MHz	N/A	>= 12.8 dB	18.0 dB
1,2	RH	Pass	33.6 dB @ 98.00MHz	N/A	>= 11.7 dB	21.9 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 4/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:44:38
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	36.0 dB @ 90.75MHz	35.6 dB	> 19.5 dB	16.5 dB
7,8-5,4	DH	Pass	54.9 dB @ 8.35MHz	36.0 dB	> 40.2 dB	14.7 dB
7,8-1,2	DH	Pass	53.4 dB @ 13.00MHz	36.8 dB	> 36.3 dB	17.1 dB
3,6-7,8	DH	Pass	39.8 dB @ 97.75MHz	39.8 dB	> 18.8 dB	21.0 dB
3,6-5,4	DH	Pass	35.5 dB @ 99.50MHz	35.5 dB	> 18.7 dB	16.8 dB
3,6-1,2	DH	Pass	55.0 dB @ 8.35MHz	37.4 dB	> 40.2 dB	14.8 dB
5,4-7,8	DH	Pass	54.7 dB @ 8.35MHz	35.8 dB	> 40.2 dB	14.5 dB
5,4-3,6	DH	Pass	32.8 dB @ 90.50MHz	32.2 dB	> 19.5 dB	13.3 dB
5,4-1,2	DH	Pass	61.7 dB @ 6.85MHz	39.7 dB	> 41.9 dB	19.8 dB
1,2-7,8	DH	Pass	56.9 dB @ 8.95MHz	36.5 dB	> 39.6 dB	17.3 dB
1,2-3,6	DH	Pass	50.7 dB @ 8.35MHz	32.6 dB	> 40.2 dB	10.5 dB
1,2-5,4	DH	Pass	62.7 dB @ 6.25MHz	40.0 dB	> 42.7 dB	20.0 dB
7,8-3,6	RH	Pass	36.5 dB @ 89.50MHz	35.8 dB	> 19.6 dB	16.9 dB
7,8-5,4	RH	Pass	55.0 dB @ 8.35MHz	36.4 dB	> 40.2 dB	14.8 dB
7,8-1,2	RH	Pass	61.0 dB @ 5.20MHz	36.8 dB	> 44.3 dB	16.7 dB
3,6-7,8	RH	Pass	39.5 dB @ 97.75MHz	39.5 dB	> 18.8 dB	20.7 dB
3,6-5,4	RH	Pass	35.7 dB @ 99.50MHz	35.7 dB	> 18.7 dB	17.0 dB
3,6-1,2	RH	Pass	55.0 dB @ 8.35MHz	37.0 dB	> 40.2 dB	14.8 dB
5,4-7,8	RH	Pass	54.6 dB @ 8.35MHz	35.3 dB	> 40.2 dB	14.4 dB
5,4-3,6	RH	Pass	32.7 dB @ 90.50MHz	32.1 dB	> 19.5 dB	13.2 dB
5,4-1,2	RH	Pass	64.4 dB @ 4.75MHz	39.2 dB	> 45.1 dB	19.3 dB
1,2-7,8	RH	Pass	60.9 dB @ 5.50MHz	36.5 dB	> 43.8 dB	17.1 dB
1,2-3,6	RH	Pass	52.6 dB @ 6.70MHz	32.9 dB	> 42.1 dB	10.5 dB
1,2-5,4	RH	Pass	64.5 dB @ 4.75MHz	40.5 dB	> 45.1 dB	19.4 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.8 dB @ 64.25MHz	39.2 dB	> 32.5 dB	8.3 dB
3,6	DH	Pass	36.2 dB @ 69.50MHz	36.1 dB	> 31.9 dB	4.3 dB
5,4	DH	Pass	38.0 dB @ 69.75MHz	38.0 dB	> 31.9 dB	6.1 dB
1,2	DH	Pass	38.7 dB @ 84.50MHz	38.7 dB	> 30.5 dB	8.2 dB
7,8	RH	Pass	45.9 dB @ 50.25MHz	45.9 dB	> 34.2 dB	11.7 dB
3,6	RH	Pass	47.3 dB @ 24.25MHz	41.5 dB	> 39.3 dB	8.0 dB
5,4	RH	Pass	47.4 dB @ 24.10MHz	41.0 dB	> 39.4 dB	8.0 dB
1,2	RH	Pass	59.8 dB @ 5.20MHz	43.9 dB	> 50.0 dB	9.8 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	27.6 dB @ 94.75MHz	N/A	>= 9.3 dB	18.3 dB
3,6	DH	Pass	24.3 dB @ 95.00MHz	N/A	>= 9.3 dB	15.0 dB
5,4	DH	Pass	27.6 dB @ 74.50MHz	N/A	>= 13.5 dB	14.1 dB
1,2	DH	Pass	27.7 dB @ 89.75MHz	N/A	>= 10.3 dB	17.4 dB
7,8	RH	Pass	34.9 dB @ 98.25MHz	N/A	>= 8.6 dB	26.3 dB
3,6	RH	Pass	29.7 dB @ 93.00MHz	N/A	>= 9.6 dB	20.1 dB
5,4	RH	Pass	29.1 dB @ 97.75MHz	N/A	>= 8.8 dB	20.3 dB
1,2	RH	Pass	32.5 dB @ 98.75MHz	N/A	>= 8.6 dB	23.9 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	47.8 dB @ 16.30MHz	32.3 dB	>= 31.4 dB	16.4 dB
3,6	DH	Pass	30.0 dB @ 79.75MHz	28.6 dB	>= 17.6 dB	12.4 dB
5,4	DH	Pass	32.1 dB @ 99.25MHz	32.1 dB	>= 15.7 dB	16.4 dB
1,2	DH	Pass	52.5 dB @ 8.35MHz	33.0 dB	>= 37.2 dB	15.3 dB
7,8	RH	Pass	57.0 dB @ 5.20MHz	31.6 dB	>= 41.3 dB	15.7 dB
3,6	RH	Pass	32.7 dB @ 97.25MHz	32.4 dB	>= 15.9 dB	16.8 dB
5,4	RH	Pass	30.0 dB @ 98.25MHz	29.9 dB	>= 15.8 dB	14.2 dB
1,2	RH	Pass	51.5 dB @ 6.70MHz	31.0 dB	>= 39.1 dB	12.4 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

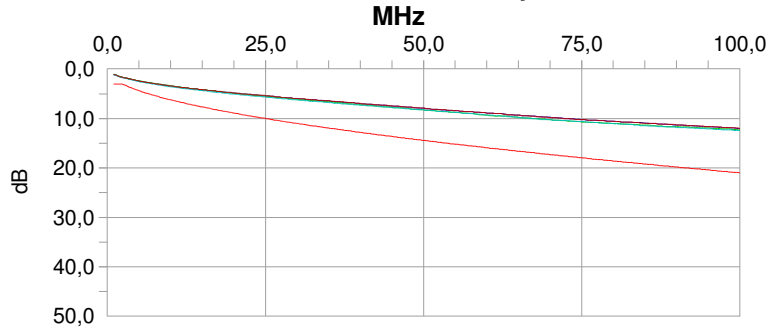
Cable ID 1: 4/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:44:38
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

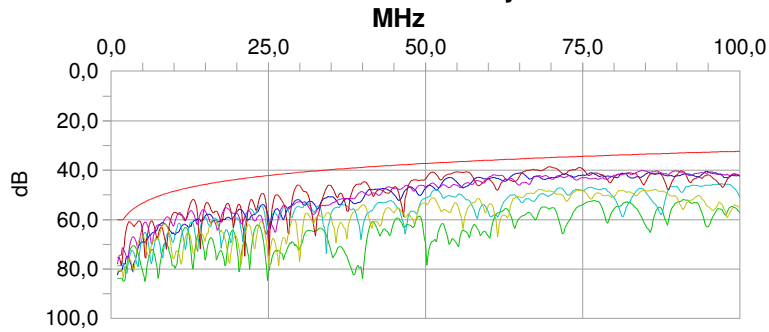
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

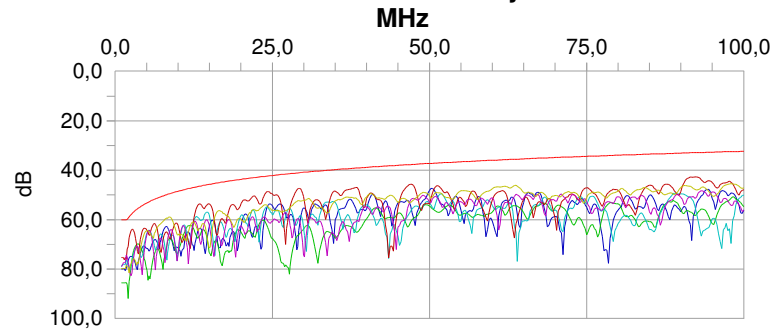
Attenuation Summary



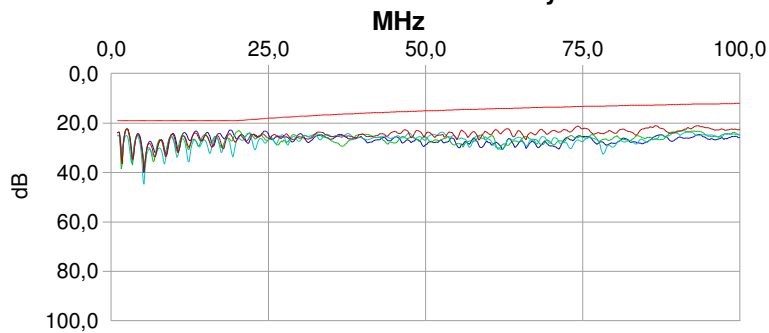
NEXT DH Summary



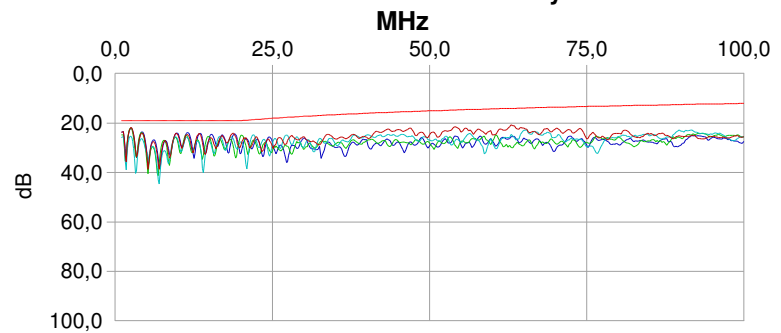
NEXT RH Summary



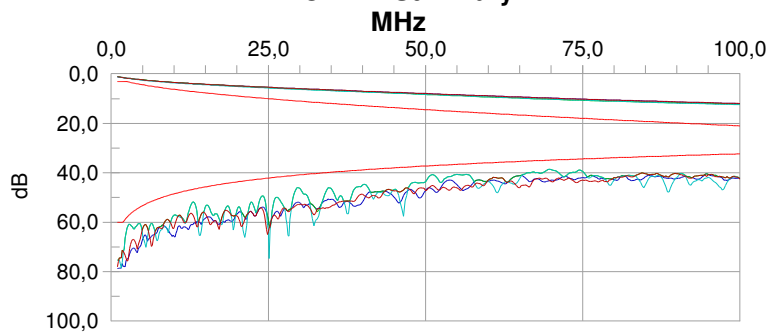
Return Loss DH Summary



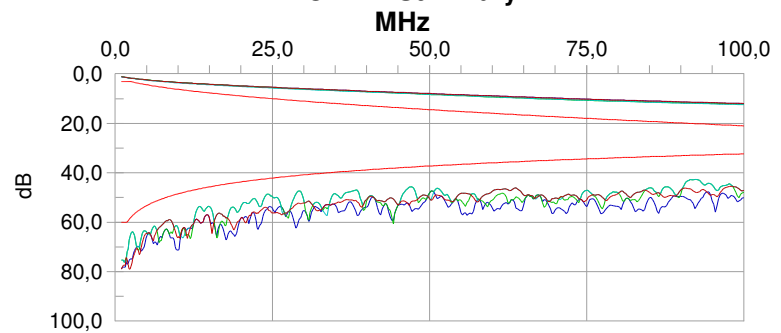
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

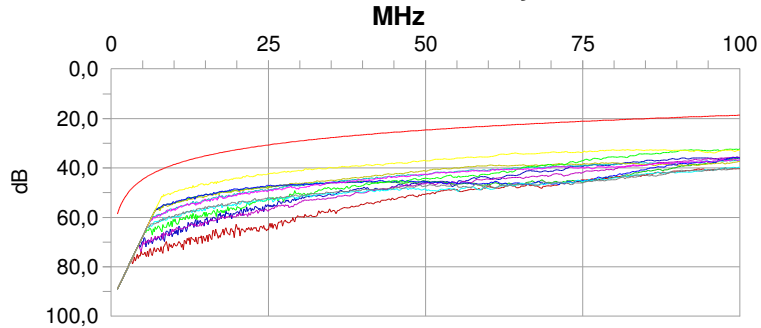
Cable ID 1: 4/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:44:38
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

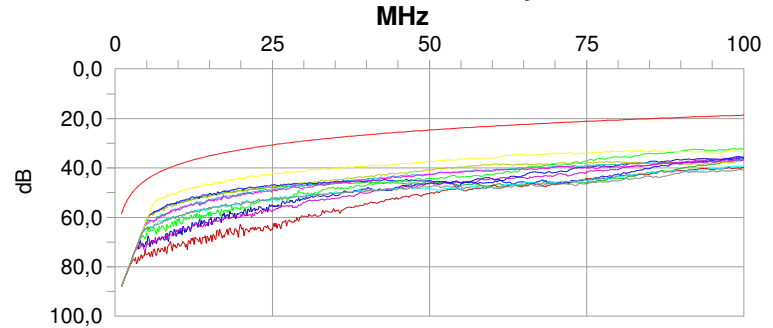
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

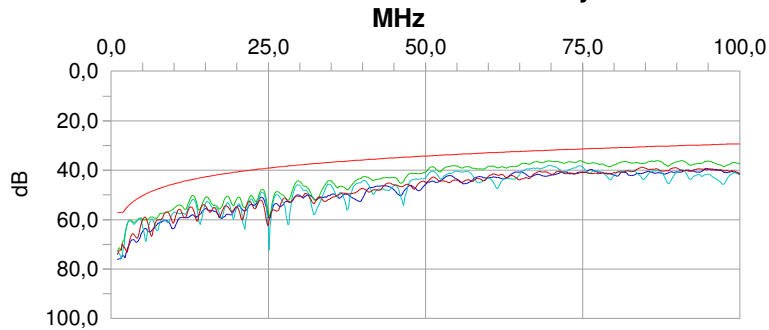
ELFEXT DH Summary



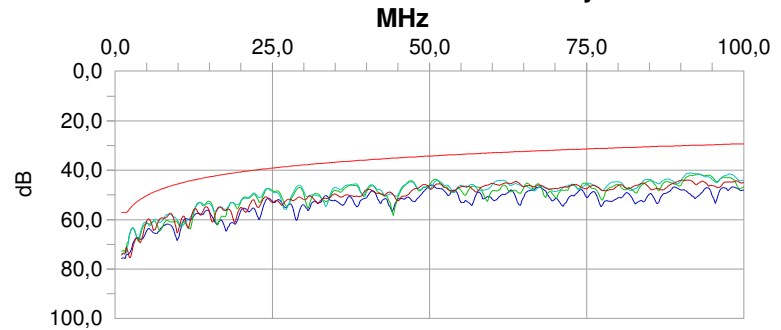
ELFEXT RH Summary



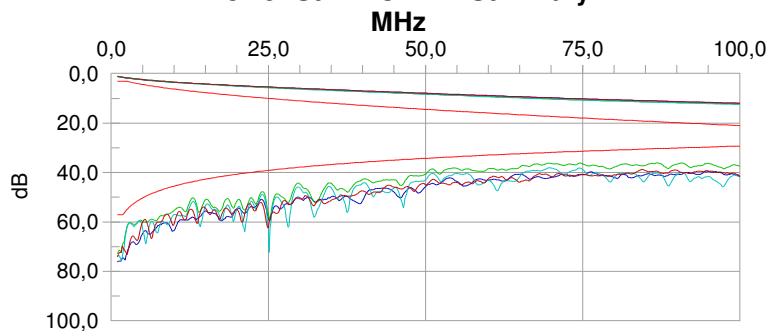
Power Sum NEXT DH Summary



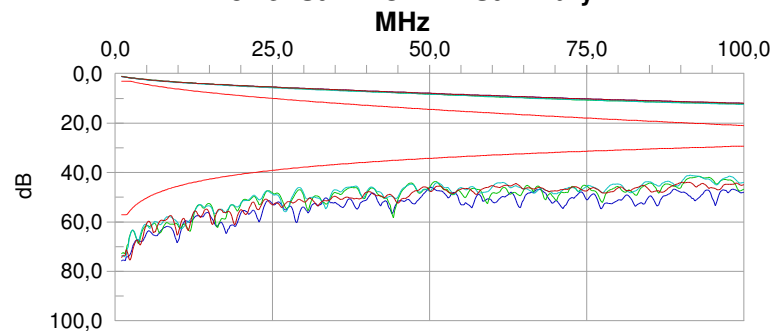
Power Sum NEXT RH Summary



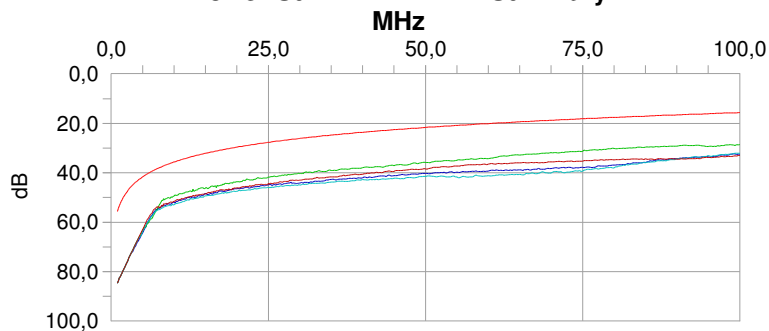
Power Sum ACR DH Summary



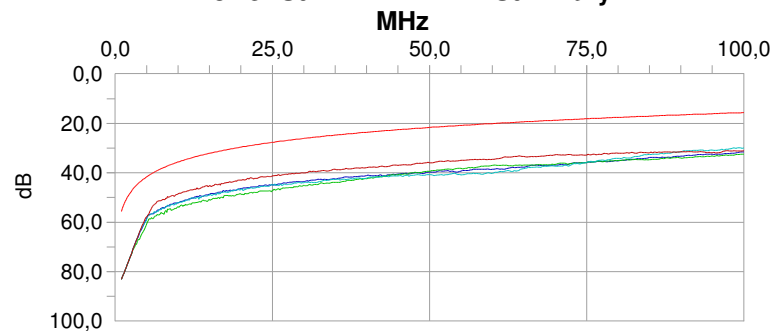
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

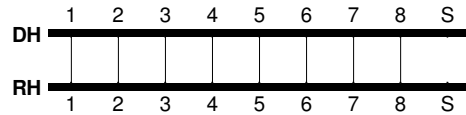
Cable ID 1: 5/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:50:59
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	17.9m	18.9m	18.5m	18.2m	< 90.0m	Pass
Prop. Delay	102.8ns	107.5ns	106.3ns	102.8ns	< 498.0ns	Pass
Delay Skew		4.7ns (Pairs 3,6 vs. 1,2)			< 44.0 ns	Pass
DC Resistance	5.9 Ohm	5.7 Ohm	6.0 Ohm	6.2 Ohm	< 20.0 Ohm	Pass
Headroom		0.0 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	39.4 dB @ 301.00MHz	33.7 dB	> 34.0 dB	5.4 dB
7,8-5,4	DH	Pass	49.8 dB @ 243.00MHz	44.4 dB	> 35.5 dB	14.3 dB
7,8-1,2	DH	Pass	47.0 dB @ 343.00MHz	42.9 dB	> 32.1 dB	14.9 dB
3,6-5,4	DH	Pass	34.0 dB @ 406.00MHz	34.0 dB	> 29.6 dB	4.4 dB
3,6-1,2	DH	Pass	30.7 dB @ 486.00MHz	30.7 dB	> 27.1 dB	3.6 dB
5,4-1,2	DH	Pass	40.0 dB @ 382.00MHz	37.5 dB	> 30.5 dB	9.5 dB
7,8-3,6	RH	Pass	38.9 dB @ 342.00MHz	35.5 dB	> 32.1 dB	6.8 dB
7,8-5,4	RH	Pass	50.4 dB @ 209.50MHz	43.7 dB	> 36.6 dB	13.8 dB
7,8-1,2	RH	Pass	40.5 dB @ 496.00MHz	40.5 dB	> 26.8 dB	13.7 dB
3,6-5,4	RH	Pass	34.1 dB @ 491.00MHz	34.1 dB	> 26.9 dB	7.2 dB
3,6-1,2	RH	Pass	32.6 dB @ 446.00MHz	32.6 dB	> 28.3 dB	4.3 dB
5,4-1,2	RH	Pass	37.6 dB @ 456.00MHz	37.6 dB	> 28.0 dB	9.6 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.9 dB @ 1.60MHz	18.2 dB	> 19.9 dB	5.0 dB
3,6	DH	Pass	27.0 dB @ 1.60MHz	18.7 dB	> 19.9 dB	7.1 dB
5,4	DH	Pass	25.6 dB @ 1.60MHz	21.2 dB	> 19.9 dB	5.7 dB
1,2	DH	Pass	24.7 dB @ 1.60MHz	18.6 dB	> 19.9 dB	4.8 dB
7,8	RH	Pass	24.0 dB @ 1.60MHz	18.3 dB	> 19.9 dB	4.1 dB
3,6	RH	Pass	25.8 dB @ 1.60MHz	19.3 dB	> 19.9 dB	5.9 dB
5,4	RH	Pass	26.4 dB @ 1.90MHz	21.6 dB	> 20.2 dB	6.2 dB
1,2	RH	Pass	25.2 dB @ 2.50MHz	19.9 dB	> 20.7 dB	4.5 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.5 dB @ 2.95MHz	9.3 dB	< 3.1 dB	2.6 dB
3,6	Pass	0.5 dB @ 2.95MHz	10.4 dB	< 3.1 dB	2.6 dB
5,4	Pass	0.6 dB @ 2.95MHz	9.6 dB	< 3.1 dB	2.5 dB
1,2	Pass	0.6 dB @ 3.10MHz	9.5 dB	< 3.1 dB	2.5 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.4 dB @ 495.00MHz	N/A	>= -16.7 dB	41.1 dB
3,6	DH	Pass	21.1 dB @ 486.00MHz	N/A	>= -15.9 dB	37.0 dB
5,4	DH	Pass	24.9 dB @ 491.00MHz	N/A	>= -16.4 dB	41.3 dB
1,2	DH	Pass	21.4 dB @ 486.00MHz	N/A	>= -15.9 dB	37.3 dB
7,8	RH	Pass	26.2 dB @ 500.00MHz	N/A	>= -17.1 dB	43.3 dB
3,6	RH	Pass	22.9 dB @ 446.00MHz	N/A	>= -12.6 dB	35.5 dB
5,4	RH	Pass	24.9 dB @ 491.00MHz	N/A	>= -16.4 dB	41.3 dB
1,2	RH	Pass	23.8 dB @ 487.00MHz	N/A	>= -16.1 dB	39.9 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:50:59
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	34.1 dB @ 372.00MHz	33.8 dB	> 12.8 dB	21.3 dB
7,8-5,4	DH	Pass	60.1 dB @ 8.95MHz	30.4 dB	> 45.2 dB	14.9 dB
7,8-1,2	DH	Pass	43.4 dB @ 249.00MHz	39.7 dB	> 16.3 dB	27.1 dB
3,6-7,8	DH	Pass	35.1 dB @ 404.00MHz	35.1 dB	> 12.1 dB	23.0 dB
3,6-5,4	DH	Pass	59.3 dB @ 8.20MHz	29.1 dB	> 45.9 dB	13.4 dB
3,6-1,2	DH	Pass	36.5 dB @ 240.00MHz	34.1 dB	> 16.6 dB	19.9 dB
5,4-7,8	DH	Pass	63.8 dB @ 5.80MHz	31.0 dB	> 48.9 dB	14.9 dB
5,4-3,6	DH	Pass	55.4 dB @ 7.75MHz	23.8 dB	> 46.4 dB	9.0 dB
5,4-1,2	DH	Pass	64.5 dB @ 8.05MHz	33.3 dB	> 46.1 dB	18.4 dB
1,2-7,8	DH	Pass	38.1 dB @ 410.00MHz	38.1 dB	> 11.9 dB	26.2 dB
1,2-3,6	DH	Pass	31.2 dB @ 245.00MHz	29.0 dB	> 16.4 dB	14.8 dB
1,2-5,4	DH	Pass	66.9 dB @ 6.10MHz	33.5 dB	> 48.5 dB	18.4 dB
7,8-3,6	RH	Pass	34.0 dB @ 389.00MHz	34.0 dB	> 12.4 dB	21.6 dB
7,8-5,4	RH	Pass	60.1 dB @ 8.95MHz	30.6 dB	> 45.2 dB	14.9 dB
7,8-1,2	RH	Pass	43.5 dB @ 249.00MHz	39.8 dB	> 16.3 dB	27.2 dB
3,6-7,8	RH	Pass	34.0 dB @ 404.00MHz	34.0 dB	> 12.1 dB	21.9 dB
3,6-5,4	RH	Pass	64.2 dB @ 4.60MHz	28.0 dB	> 50.9 dB	13.3 dB
3,6-1,2	RH	Pass	36.1 dB @ 240.00MHz	33.5 dB	> 16.6 dB	19.5 dB
5,4-7,8	RH	Pass	64.6 dB @ 5.20MHz	30.9 dB	> 49.9 dB	14.7 dB
5,4-3,6	RH	Pass	58.1 dB @ 5.50MHz	24.7 dB	> 49.4 dB	8.7 dB
5,4-1,2	RH	Pass	64.5 dB @ 8.05MHz	33.6 dB	> 46.1 dB	18.4 dB
1,2-7,8	RH	Pass	37.8 dB @ 410.00MHz	37.8 dB	> 11.9 dB	25.9 dB
1,2-3,6	RH	Pass	31.6 dB @ 245.00MHz	29.6 dB	> 16.4 dB	15.2 dB
1,2-5,4	RH	Pass	66.9 dB @ 6.10MHz	33.7 dB	> 48.5 dB	18.4 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	39.1 dB @ 301.00MHz	33.0 dB	> 31.0 dB	8.1 dB
3,6	DH	Pass	28.2 dB @ 486.00MHz	28.2 dB	> 24.1 dB	4.1 dB
5,4	DH	Pass	33.2 dB @ 406.00MHz	32.9 dB	> 26.6 dB	6.6 dB
1,2	DH	Pass	30.1 dB @ 486.00MHz	30.1 dB	> 24.1 dB	6.0 dB
7,8	RH	Pass	38.3 dB @ 342.00MHz	34.1 dB	> 29.1 dB	9.2 dB
3,6	RH	Pass	30.9 dB @ 446.00MHz	30.2 dB	> 25.3 dB	5.6 dB
5,4	RH	Pass	33.9 dB @ 456.00MHz	33.0 dB	> 25.0 dB	8.9 dB
1,2	RH	Pass	31.9 dB @ 446.00MHz	31.9 dB	> 25.3 dB	6.6 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	23.7 dB @ 495.00MHz	N/A	>= -19.7 dB	43.4 dB
3,6	DH	Pass	18.4 dB @ 495.00MHz	N/A	>= -19.7 dB	38.1 dB
5,4	DH	Pass	23.7 dB @ 491.00MHz	N/A	>= -19.4 dB	43.1 dB
1,2	DH	Pass	20.8 dB @ 486.00MHz	N/A	>= -18.9 dB	39.7 dB
7,8	RH	Pass	24.8 dB @ 500.00MHz	N/A	>= -20.1 dB	44.9 dB
3,6	RH	Pass	20.3 dB @ 495.00MHz	N/A	>= -19.7 dB	40.0 dB
5,4	RH	Pass	23.8 dB @ 491.00MHz	N/A	>= -19.4 dB	43.2 dB
1,2	RH	Pass	22.8 dB @ 487.00MHz	N/A	>= -19.1 dB	41.9 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	45.5 dB @ 54.50MHz	30.2 dB	>= 26.5 dB	19.0 dB
3,6	DH	Pass	45.4 dB @ 25.45MHz	23.1 dB	>= 33.1 dB	12.3 dB
5,4	DH	Pass	59.0 dB @ 6.10MHz	27.4 dB	>= 45.5 dB	13.5 dB
1,2	DH	Pass	53.2 dB @ 24.85MHz	30.8 dB	>= 33.3 dB	19.9 dB
7,8	RH	Pass	50.2 dB @ 28.60MHz	29.0 dB	>= 32.1 dB	18.1 dB
3,6	RH	Pass	43.3 dB @ 59.00MHz	26.9 dB	>= 25.8 dB	17.5 dB
5,4	RH	Pass	56.8 dB @ 5.50MHz	23.9 dB	>= 46.4 dB	10.4 dB
1,2	RH	Pass	31.4 dB @ 245.00MHz	29.0 dB	>= 13.4 dB	18.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

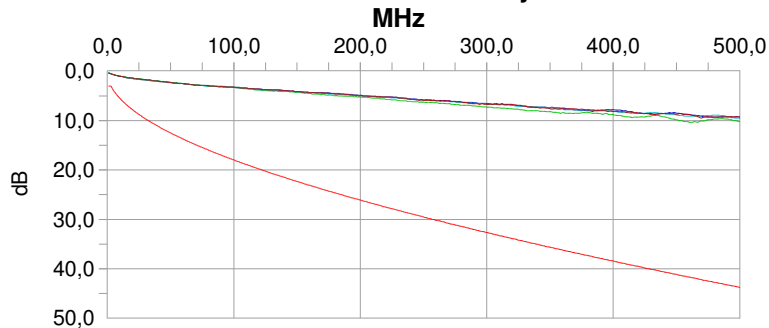
Cable ID 1: 5/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:50:59
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

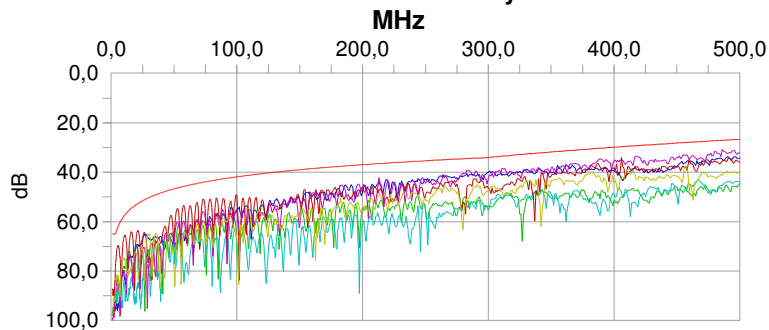
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

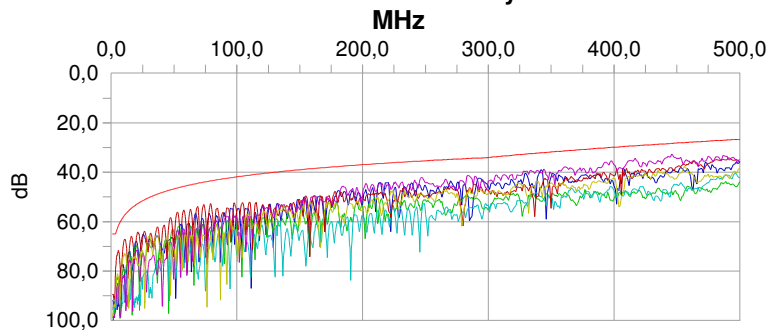
Attenuation Summary



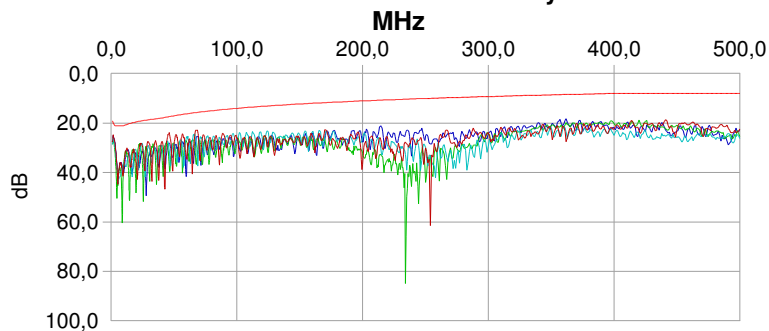
NEXT DH Summary



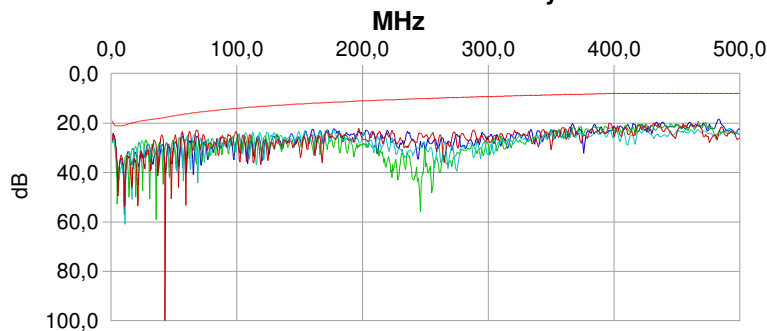
NEXT RH Summary



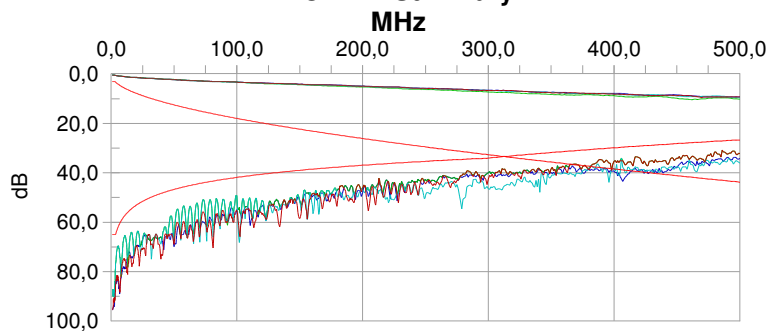
Return Loss DH Summary



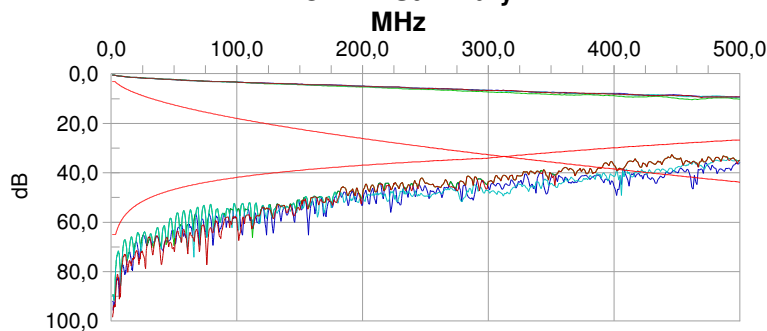
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

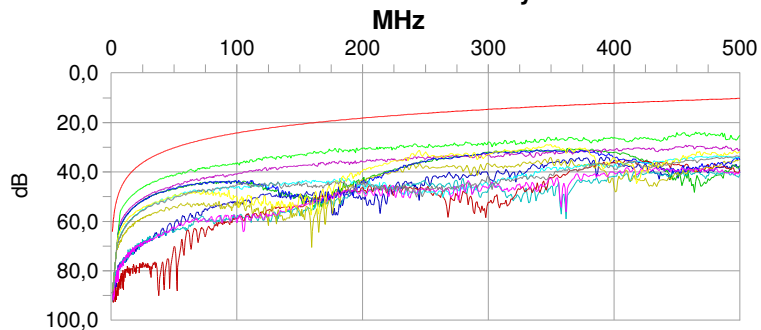
Cable ID 1: 5/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:50:59
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

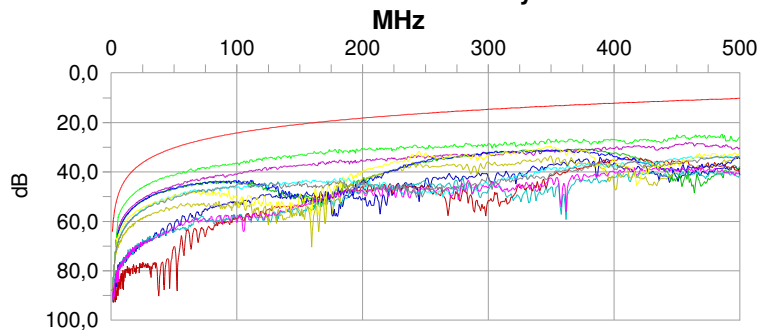
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

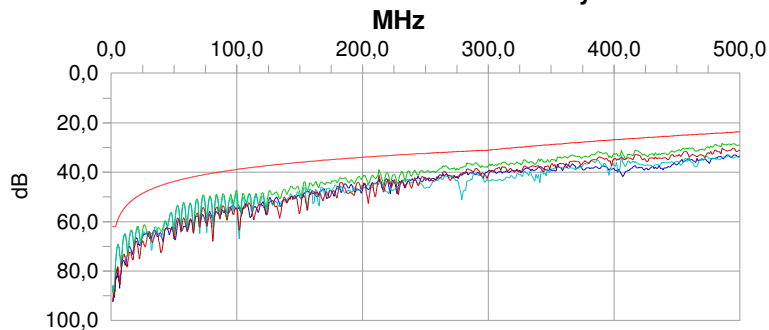
ELFEXT DH Summary



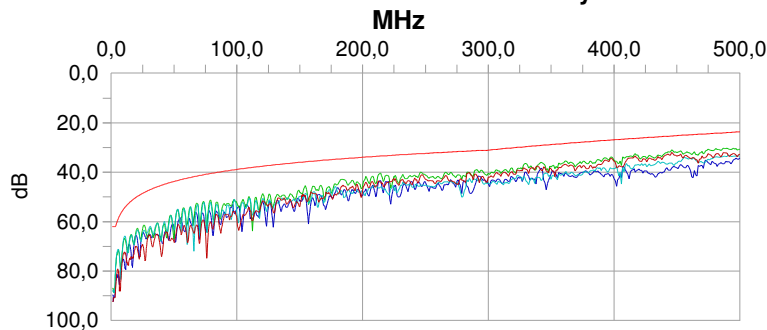
ELFEXT RH Summary



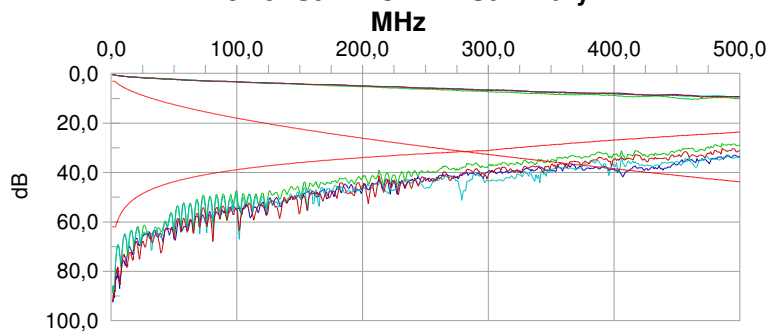
Power Sum NEXT DH Summary



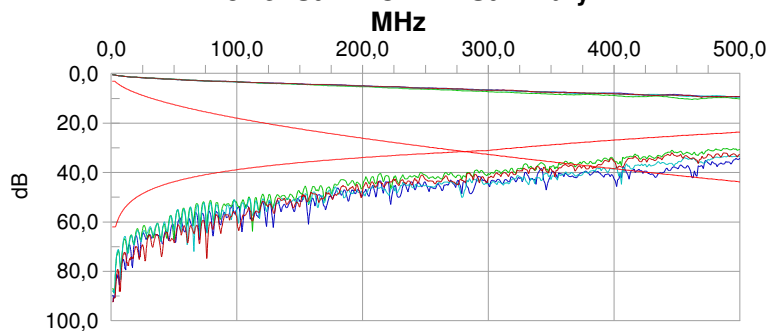
Power Sum NEXT RH Summary



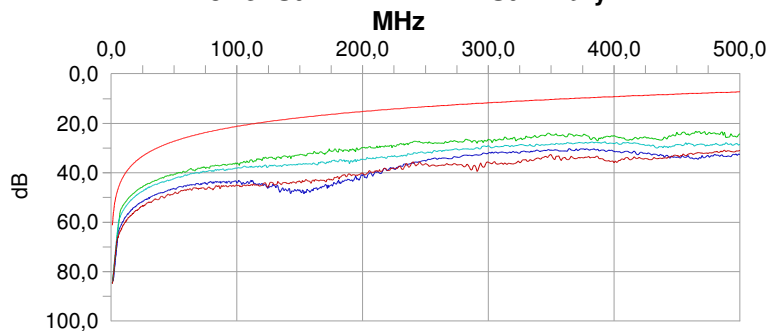
Power Sum ACR DH Summary



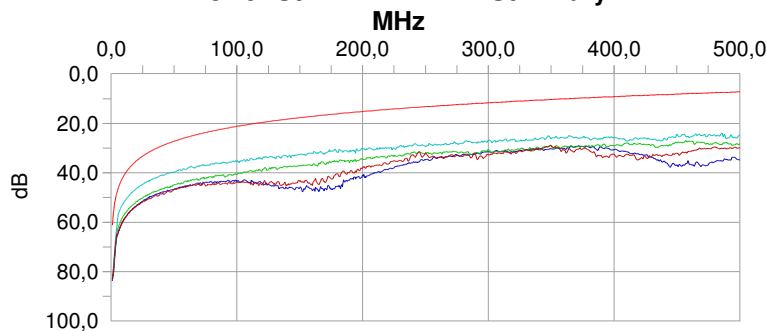
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

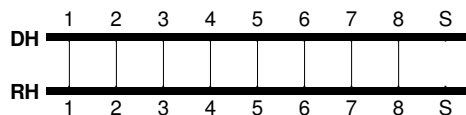
Cable ID 1: 5/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:30:53
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	22.5m	23.5m	23.2m	22.8m	< 90.0m	Pass
Prop. Delay	124.5ns	129.5ns	128.7ns	124.6ns	< 498.0ns	Pass
Delay Skew	5.0ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
DC Resistance	6.2 Ohm	6.3 Ohm	6.5 Ohm	6.7 Ohm	< 20.0 Ohm	Pass
Headroom	0.0 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	36.9 dB @ 463.00MHz	36.3 dB	> 27.8 dB	9.1 dB
7,8-5,4	DH	Pass	51.3 dB @ 225.50MHz	44.7 dB	> 36.1 dB	15.2 dB
7,8-1,2	DH	Pass	47.0 dB @ 342.00MHz	42.5 dB	> 32.1 dB	14.9 dB
3,6-5,4	DH	Pass	33.0 dB @ 409.00MHz	31.8 dB	> 29.5 dB	3.5 dB
3,6-1,2	DH	Pass	33.4 dB @ 390.00MHz	30.5 dB	> 30.2 dB	3.2 dB
5,4-1,2	DH	Pass	44.3 dB @ 271.00MHz	38.1 dB	> 34.8 dB	9.5 dB
7,8-3,6	RH	Pass	40.9 dB @ 329.00MHz	36.2 dB	> 32.7 dB	8.2 dB
7,8-5,4	RH	Pass	50.9 dB @ 255.00MHz	43.5 dB	> 35.2 dB	15.7 dB
7,8-1,2	RH	Pass	40.8 dB @ 490.00MHz	40.7 dB	> 26.9 dB	13.9 dB
3,6-5,4	RH	Pass	33.7 dB @ 490.00MHz	33.7 dB	> 26.9 dB	6.8 dB
3,6-1,2	RH	Pass	32.7 dB @ 444.00MHz	32.2 dB	> 28.4 dB	4.3 dB
5,4-1,2	RH	Pass	36.9 dB @ 496.00MHz	36.9 dB	> 26.8 dB	10.1 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.9 dB @ 1.60MHz	19.3 dB	> 19.9 dB	4.0 dB
3,6	DH	Pass	25.4 dB @ 1.60MHz	19.6 dB	> 19.9 dB	5.5 dB
5,4	DH	Pass	24.7 dB @ 1.60MHz	21.0 dB	> 19.9 dB	4.8 dB
1,2	DH	Pass	24.6 dB @ 1.60MHz	19.0 dB	> 19.9 dB	4.7 dB
7,8	RH	Pass	23.4 dB @ 1.60MHz	20.5 dB	> 19.9 dB	3.5 dB
3,6	RH	Pass	24.5 dB @ 1.60MHz	20.0 dB	> 19.9 dB	4.6 dB
5,4	RH	Pass	25.6 dB @ 1.75MHz	22.4 dB	> 20.1 dB	5.5 dB
1,2	RH	Pass	24.4 dB @ 1.60MHz	22.4 dB	> 19.9 dB	4.5 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 3.10MHz	11.2 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 3.10MHz	12.2 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.7 dB @ 2.95MHz	11.6 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 3.10MHz	11.3 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	25.1 dB @ 487.00MHz	N/A	>= -16.1 dB	41.2 dB
3,6	DH	Pass	18.9 dB @ 492.00MHz	N/A	>= -16.4 dB	35.3 dB
5,4	DH	Pass	20.9 dB @ 463.00MHz	N/A	>= -14.0 dB	34.9 dB
1,2	DH	Pass	19.4 dB @ 492.00MHz	N/A	>= -16.4 dB	35.8 dB
7,8	RH	Pass	25.0 dB @ 500.00MHz	N/A	>= -17.1 dB	42.1 dB
3,6	RH	Pass	20.5 dB @ 499.00MHz	N/A	>= -17.0 dB	37.5 dB
5,4	RH	Pass	22.5 dB @ 490.00MHz	N/A	>= -16.3 dB	38.8 dB
1,2	RH	Pass	21.0 dB @ 489.00MHz	N/A	>= -16.2 dB	37.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:30:53
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	33.2 dB @ 429.00MHz	32.7 dB	> 11.5 dB	21.7 dB
7,8-5,4	DH	Pass	58.8 dB @ 12.70MHz	28.0 dB	> 42.1 dB	16.7 dB
7,8-1,2	DH	Pass	42.2 dB @ 331.00MHz	42.0 dB	> 13.8 dB	28.4 dB
3,6-7,8	DH	Pass	39.6 dB @ 303.00MHz	36.5 dB	> 14.6 dB	25.0 dB
3,6-5,4	DH	Pass	57.1 dB @ 8.20MHz	26.0 dB	> 45.9 dB	11.2 dB
3,6-1,2	DH	Pass	34.1 dB @ 298.00MHz	31.0 dB	> 14.7 dB	19.4 dB
5,4-7,8	DH	Pass	64.2 dB @ 6.70MHz	28.5 dB	> 47.7 dB	16.5 dB
5,4-3,6	DH	Pass	53.4 dB @ 7.75MHz	21.5 dB	> 46.4 dB	7.0 dB
5,4-1,2	DH	Pass	40.6 dB @ 352.00MHz	39.7 dB	> 13.3 dB	27.3 dB
1,2-7,8	DH	Pass	36.8 dB @ 413.00MHz	36.6 dB	> 11.9 dB	24.9 dB
1,2-3,6	DH	Pass	29.6 dB @ 293.00MHz	26.6 dB	> 14.9 dB	14.7 dB
1,2-5,4	DH	Pass	42.2 dB @ 352.00MHz	41.7 dB	> 13.3 dB	28.9 dB
7,8-3,6	RH	Pass	33.4 dB @ 429.00MHz	33.4 dB	> 11.5 dB	21.9 dB
7,8-5,4	RH	Pass	69.0 dB @ 3.85MHz	28.3 dB	> 52.5 dB	16.5 dB
7,8-1,2	RH	Pass	42.2 dB @ 331.00MHz	42.0 dB	> 13.8 dB	28.4 dB
3,6-7,8	RH	Pass	38.8 dB @ 304.00MHz	36.3 dB	> 14.5 dB	24.3 dB
3,6-5,4	RH	Pass	59.0 dB @ 6.70MHz	25.6 dB	> 47.7 dB	11.3 dB
3,6-1,2	RH	Pass	33.6 dB @ 298.00MHz	30.1 dB	> 14.7 dB	18.9 dB
5,4-7,8	RH	Pass	65.9 dB @ 5.20MHz	28.2 dB	> 49.9 dB	16.0 dB
5,4-3,6	RH	Pass	55.3 dB @ 6.10MHz	22.4 dB	> 48.5 dB	6.8 dB
5,4-1,2	RH	Pass	40.6 dB @ 352.00MHz	39.5 dB	> 13.3 dB	27.3 dB
1,2-7,8	RH	Pass	36.4 dB @ 413.00MHz	36.4 dB	> 11.9 dB	24.5 dB
1,2-3,6	RH	Pass	30.0 dB @ 299.00MHz	27.4 dB	> 14.7 dB	15.3 dB
1,2-5,4	RH	Pass	42.3 dB @ 347.00MHz	41.8 dB	> 13.4 dB	28.9 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	35.1 dB @ 487.00MHz	35.1 dB	> 24.0 dB	11.1 dB
3,6	DH	Pass	29.9 dB @ 409.00MHz	28.4 dB	> 26.5 dB	3.4 dB
5,4	DH	Pass	32.4 dB @ 409.00MHz	31.5 dB	> 26.5 dB	5.9 dB
1,2	DH	Pass	32.7 dB @ 390.00MHz	29.8 dB	> 27.2 dB	5.5 dB
7,8	RH	Pass	39.9 dB @ 329.00MHz	34.4 dB	> 29.7 dB	10.2 dB
3,6	RH	Pass	30.4 dB @ 456.00MHz	29.6 dB	> 25.0 dB	5.4 dB
5,4	RH	Pass	35.2 dB @ 407.00MHz	32.6 dB	> 26.6 dB	8.6 dB
1,2	RH	Pass	31.4 dB @ 449.00MHz	30.8 dB	> 25.2 dB	6.2 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	23.9 dB @ 487.00MHz	N/A	>= -19.1 dB	43.0 dB
3,6	DH	Pass	16.8 dB @ 492.00MHz	N/A	>= -19.4 dB	36.2 dB
5,4	DH	Pass	20.6 dB @ 463.00MHz	N/A	>= -17.0 dB	37.6 dB
1,2	DH	Pass	18.7 dB @ 492.00MHz	N/A	>= -19.4 dB	38.1 dB
7,8	RH	Pass	23.2 dB @ 500.00MHz	N/A	>= -20.1 dB	43.3 dB
3,6	RH	Pass	17.7 dB @ 500.00MHz	N/A	>= -20.1 dB	37.8 dB
5,4	RH	Pass	21.4 dB @ 490.00MHz	N/A	>= -19.3 dB	40.7 dB
1,2	RH	Pass	19.6 dB @ 497.00MHz	N/A	>= -19.9 dB	39.5 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	31.3 dB @ 293.00MHz	27.7 dB	>= 11.9 dB	19.4 dB
3,6	DH	Pass	40.6 dB @ 36.75MHz	20.4 dB	>= 29.9 dB	10.7 dB
5,4	DH	Pass	45.9 dB @ 28.60MHz	23.8 dB	>= 32.1 dB	13.8 dB
1,2	DH	Pass	33.5 dB @ 298.00MHz	30.3 dB	>= 11.7 dB	21.8 dB
7,8	RH	Pass	32.3 dB @ 273.00MHz	27.8 dB	>= 12.5 dB	19.8 dB
3,6	RH	Pass	44.7 dB @ 37.00MHz	24.2 dB	>= 29.8 dB	14.9 dB
5,4	RH	Pass	46.5 dB @ 16.90MHz	21.5 dB	>= 36.6 dB	9.9 dB
1,2	RH	Pass	29.5 dB @ 299.00MHz	27.0 dB	>= 11.7 dB	17.8 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

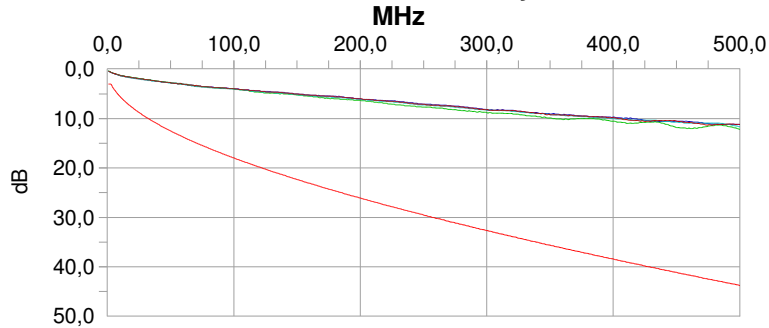
Cable ID 1: 5/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:30:53
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

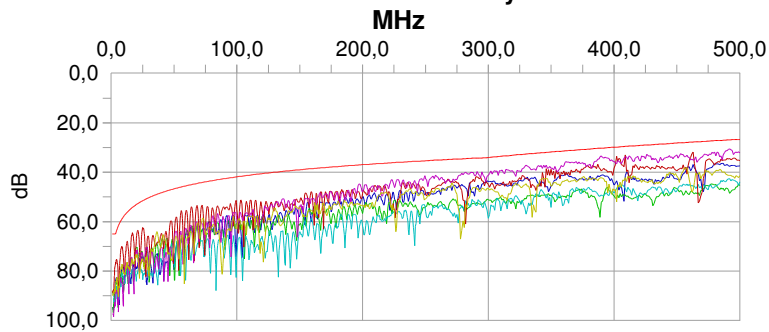
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

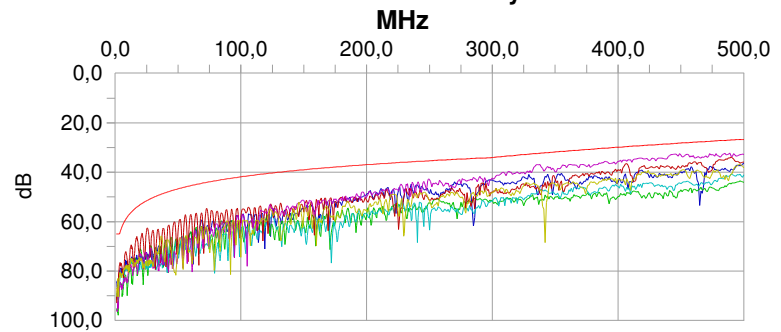
Attenuation Summary



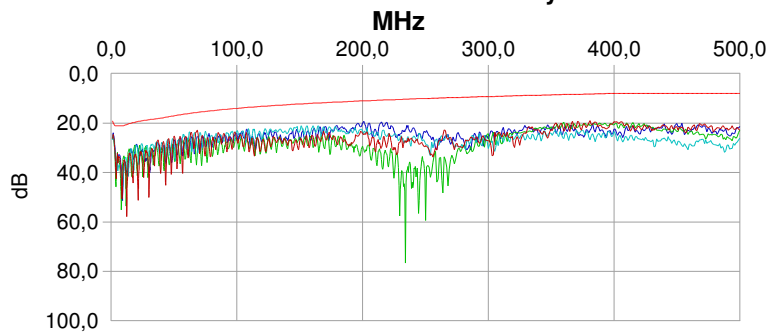
NEXT DH Summary



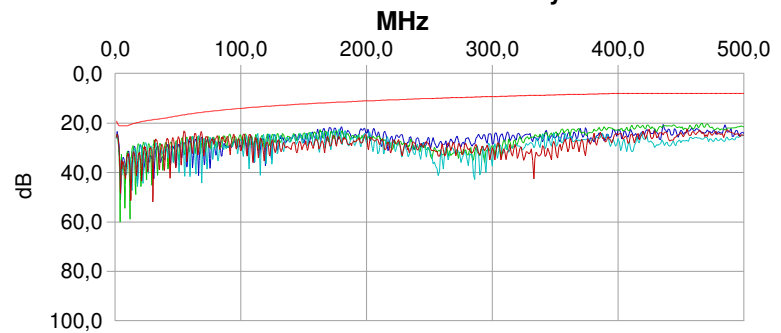
NEXT RH Summary



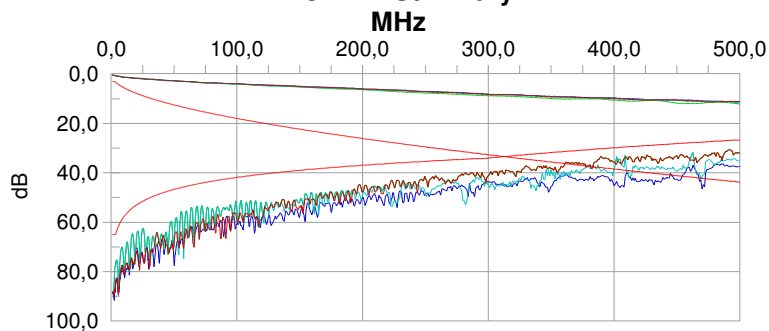
Return Loss DH Summary



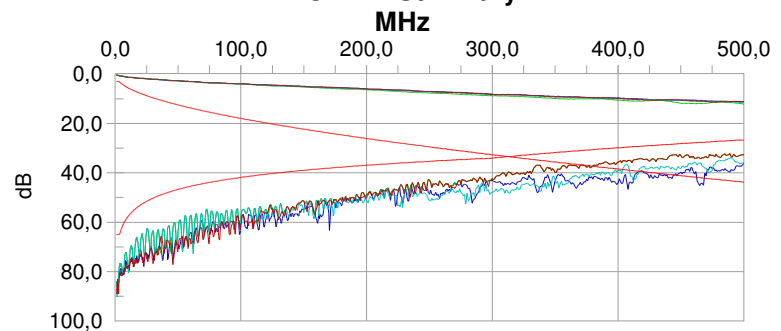
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

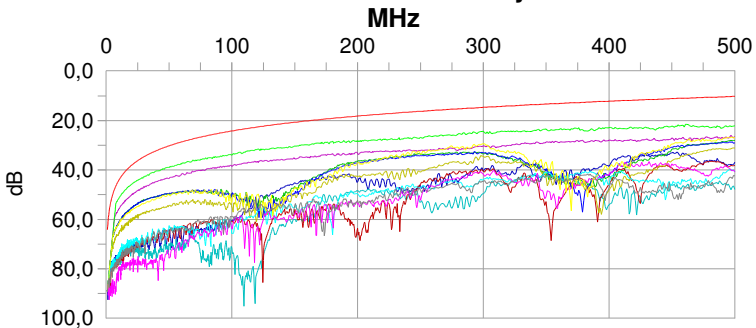
Cable ID 1: 5/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:30:53
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

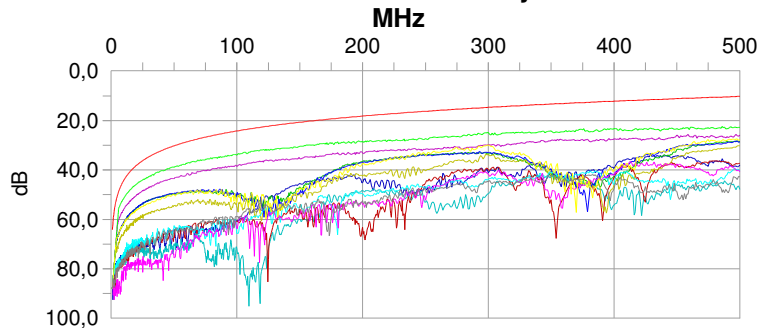
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

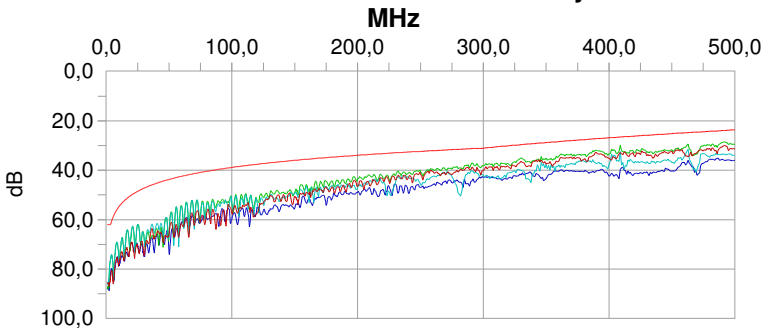
ELFEXT DH Summary



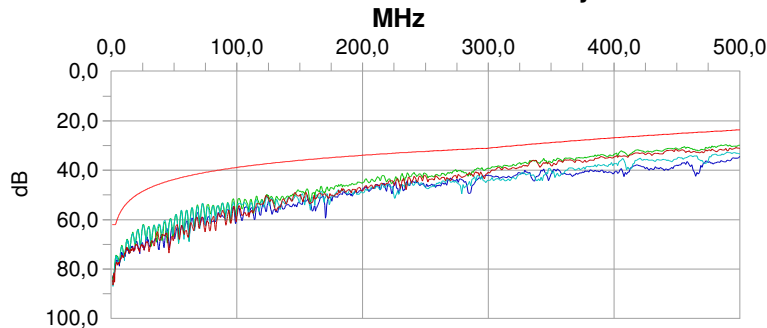
ELFEXT RH Summary



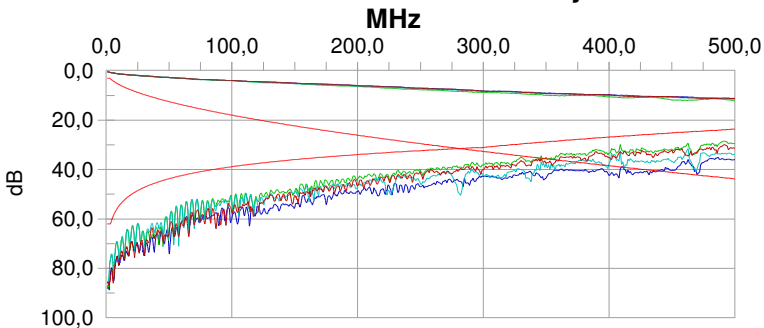
Power Sum NEXT DH Summary



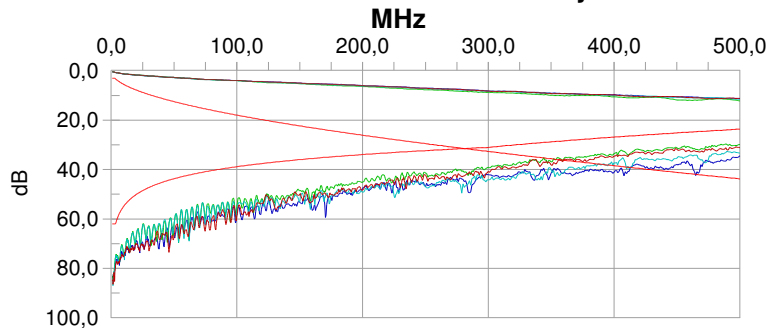
Power Sum NEXT RH Summary



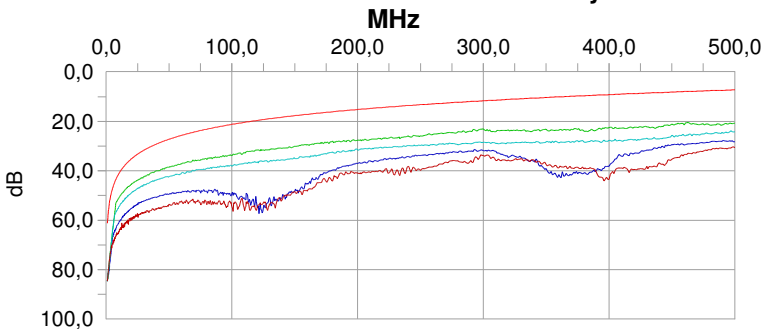
Power Sum ACR DH Summary



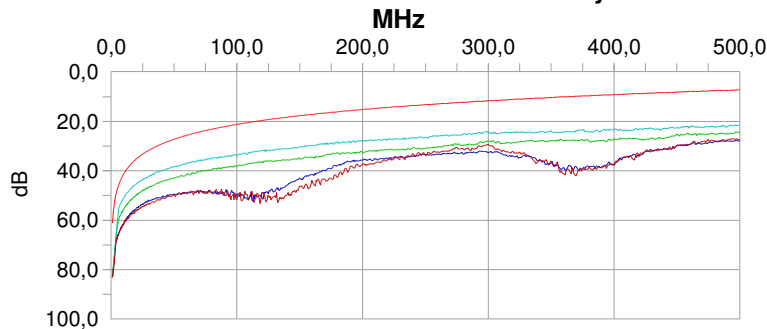
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

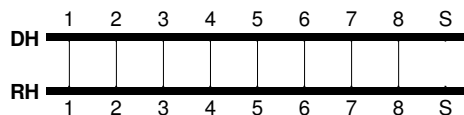
Cable ID 1: 5/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:30:08
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	22.4m	23.5m	23.2m	22.8m	< 90.0m	Pass
Prop. Delay	124.3ns	129.3ns	128.3ns	124.5ns	< 498.0ns	Pass
Delay Skew	5.0ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
DC Resistance	6.1 Ohm	6.4 Ohm	6.6 Ohm	6.8 Ohm	< 20.0 Ohm	Pass
Headroom	0.0 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	41.1 dB @ 305.00MHz	35.9 dB	> 33.8 dB	7.3 dB
7,8-5,4	DH	Pass	51.4 dB @ 221.50MHz	43.7 dB	> 36.2 dB	15.2 dB
7,8-1,2	DH	Pass	45.3 dB @ 433.00MHz	44.6 dB	> 28.7 dB	16.6 dB
3,6-5,4	DH	Pass	31.6 dB @ 468.00MHz	31.6 dB	> 27.6 dB	4.0 dB
3,6-1,2	DH	Pass	33.6 dB @ 400.00MHz	31.3 dB	> 29.9 dB	3.7 dB
5,4-1,2	DH	Pass	44.7 dB @ 285.00MHz	38.4 dB	> 34.4 dB	10.3 dB
7,8-3,6	RH	Pass	37.7 dB @ 406.00MHz	35.9 dB	> 29.6 dB	8.1 dB
7,8-5,4	RH	Pass	50.2 dB @ 283.00MHz	43.7 dB	> 34.4 dB	15.8 dB
7,8-1,2	RH	Pass	42.4 dB @ 482.00MHz	41.9 dB	> 27.2 dB	15.2 dB
3,6-5,4	RH	Pass	36.5 dB @ 406.00MHz	34.9 dB	> 29.6 dB	6.9 dB
3,6-1,2	RH	Pass	34.8 dB @ 451.00MHz	34.2 dB	> 28.1 dB	6.7 dB
5,4-1,2	RH	Pass	36.9 dB @ 455.00MHz	36.9 dB	> 28.0 dB	8.9 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.9 dB @ 1.60MHz	17.3 dB	> 19.9 dB	4.0 dB
3,6	DH	Pass	25.4 dB @ 1.60MHz	19.9 dB	> 19.9 dB	5.5 dB
5,4	DH	Pass	24.6 dB @ 1.60MHz	20.7 dB	> 19.9 dB	4.7 dB
1,2	DH	Pass	24.5 dB @ 1.60MHz	18.8 dB	> 19.9 dB	4.6 dB
7,8	RH	Pass	23.4 dB @ 1.60MHz	20.7 dB	> 19.9 dB	3.5 dB
3,6	RH	Pass	24.4 dB @ 1.60MHz	21.4 dB	> 19.9 dB	4.5 dB
5,4	RH	Pass	25.6 dB @ 1.75MHz	23.0 dB	> 20.1 dB	5.5 dB
1,2	RH	Pass	24.4 dB @ 1.60MHz	23.2 dB	> 19.9 dB	4.5 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.95MHz	11.2 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 3.10MHz	12.1 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.7 dB @ 2.95MHz	11.6 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.95MHz	11.2 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.8 dB @ 486.00MHz	N/A	>= -15.9 dB	40.7 dB
3,6	DH	Pass	19.5 dB @ 495.00MHz	N/A	>= -16.7 dB	36.2 dB
5,4	DH	Pass	20.7 dB @ 468.00MHz	N/A	>= -14.5 dB	35.2 dB
1,2	DH	Pass	20.2 dB @ 495.00MHz	N/A	>= -16.7 dB	36.9 dB
7,8	RH	Pass	24.7 dB @ 498.00MHz	N/A	>= -16.9 dB	41.6 dB
3,6	RH	Pass	22.6 dB @ 494.00MHz	N/A	>= -16.6 dB	39.2 dB
5,4	RH	Pass	23.7 dB @ 491.00MHz	N/A	>= -16.4 dB	40.1 dB
1,2	RH	Pass	23.0 dB @ 479.00MHz	N/A	>= -15.4 dB	38.4 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:30:08
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	34.6 dB @ 463.00MHz	34.6 dB	> 10.9 dB	23.7 dB
7,8-5,4	DH	Pass	64.1 dB @ 6.55MHz	28.4 dB	> 47.9 dB	16.2 dB
7,8-1,2	DH	Pass	69.1 dB @ 4.75MHz	31.5 dB	> 50.7 dB	18.4 dB
3,6-7,8	DH	Pass	35.5 dB @ 446.00MHz	35.2 dB	> 11.2 dB	24.3 dB
3,6-5,4	DH	Pass	60.7 dB @ 7.15MHz	27.6 dB	> 47.1 dB	13.6 dB
3,6-1,2	DH	Pass	32.3 dB @ 299.00MHz	31.6 dB	> 14.7 dB	17.6 dB
5,4-7,8	DH	Pass	57.7 dB @ 13.45MHz	29.2 dB	> 41.6 dB	16.1 dB
5,4-3,6	DH	Pass	55.8 dB @ 7.60MHz	24.1 dB	> 46.6 dB	9.2 dB
5,4-1,2	DH	Pass	34.0 dB @ 353.00MHz	33.8 dB	> 13.2 dB	20.8 dB
1,2-7,8	DH	Pass	32.8 dB @ 310.00MHz	30.9 dB	> 14.4 dB	18.4 dB
1,2-3,6	DH	Pass	27.7 dB @ 294.00MHz	27.6 dB	> 14.8 dB	12.9 dB
1,2-5,4	DH	Pass	35.1 dB @ 362.00MHz	34.9 dB	> 13.0 dB	22.1 dB
7,8-3,6	RH	Pass	35.3 dB @ 427.00MHz	35.3 dB	> 11.6 dB	23.7 dB
7,8-5,4	RH	Pass	64.1 dB @ 6.55MHz	28.7 dB	> 47.9 dB	16.2 dB
7,8-1,2	RH	Pass	69.1 dB @ 4.75MHz	31.5 dB	> 50.7 dB	18.4 dB
3,6-7,8	RH	Pass	34.1 dB @ 455.00MHz	34.0 dB	> 11.0 dB	23.1 dB
3,6-5,4	RH	Pass	64.0 dB @ 4.90MHz	27.3 dB	> 50.4 dB	13.6 dB
3,6-1,2	RH	Pass	32.0 dB @ 295.00MHz	30.8 dB	> 14.8 dB	17.2 dB
5,4-7,8	RH	Pass	57.7 dB @ 13.45MHz	28.9 dB	> 41.6 dB	16.1 dB
5,4-3,6	RH	Pass	57.1 dB @ 6.40MHz	24.4 dB	> 48.1 dB	9.0 dB
5,4-1,2	RH	Pass	34.1 dB @ 353.00MHz	33.7 dB	> 13.2 dB	20.9 dB
1,2-7,8	RH	Pass	32.7 dB @ 310.00MHz	30.7 dB	> 14.4 dB	18.3 dB
1,2-3,6	RH	Pass	28.2 dB @ 294.00MHz	28.1 dB	> 14.8 dB	13.4 dB
1,2-5,4	RH	Pass	35.3 dB @ 353.00MHz	35.0 dB	> 13.2 dB	22.1 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.6 dB @ 305.00MHz	35.1 dB	> 30.8 dB	9.8 dB
3,6	DH	Pass	31.5 dB @ 397.00MHz	28.9 dB	> 27.0 dB	4.5 dB
5,4	DH	Pass	30.8 dB @ 468.00MHz	30.8 dB	> 24.6 dB	6.2 dB
1,2	DH	Pass	33.0 dB @ 395.00MHz	30.4 dB	> 27.0 dB	6.0 dB
7,8	RH	Pass	36.9 dB @ 406.00MHz	34.5 dB	> 26.6 dB	10.3 dB
3,6	RH	Pass	32.7 dB @ 406.00MHz	30.8 dB	> 26.6 dB	6.1 dB
5,4	RH	Pass	35.0 dB @ 405.00MHz	32.7 dB	> 26.7 dB	8.3 dB
1,2	RH	Pass	32.8 dB @ 455.00MHz	32.2 dB	> 25.0 dB	7.8 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	23.9 dB @ 500.00MHz	N/A	>= -20.1 dB	44.0 dB
3,6	DH	Pass	17.1 dB @ 497.00MHz	N/A	>= -19.9 dB	37.0 dB
5,4	DH	Pass	19.9 dB @ 468.00MHz	N/A	>= -17.5 dB	37.4 dB
1,2	DH	Pass	19.3 dB @ 495.00MHz	N/A	>= -19.7 dB	39.0 dB
7,8	RH	Pass	23.3 dB @ 498.00MHz	N/A	>= -19.9 dB	43.2 dB
3,6	RH	Pass	19.0 dB @ 495.00MHz	N/A	>= -19.7 dB	38.7 dB
5,4	RH	Pass	21.5 dB @ 491.00MHz	N/A	>= -19.4 dB	40.9 dB
1,2	RH	Pass	21.1 dB @ 490.00MHz	N/A	>= -19.3 dB	40.4 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	30.2 dB @ 288.00MHz	26.8 dB	>= 12.0 dB	18.2 dB
3,6	DH	Pass	43.5 dB @ 32.25MHz	22.4 dB	>= 31.0 dB	12.5 dB
5,4	DH	Pass	55.6 dB @ 10.30MHz	25.0 dB	>= 40.9 dB	14.7 dB
1,2	DH	Pass	29.4 dB @ 299.00MHz	27.9 dB	>= 11.7 dB	17.7 dB
7,8	RH	Pass	48.8 dB @ 32.75MHz	26.7 dB	>= 30.9 dB	17.9 dB
3,6	RH	Pass	28.2 dB @ 301.00MHz	25.6 dB	>= 11.6 dB	16.6 dB
5,4	RH	Pass	52.9 dB @ 9.70MHz	22.9 dB	>= 41.5 dB	11.4 dB
1,2	RH	Pass	26.8 dB @ 294.00MHz	26.7 dB	>= 11.8 dB	15.0 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

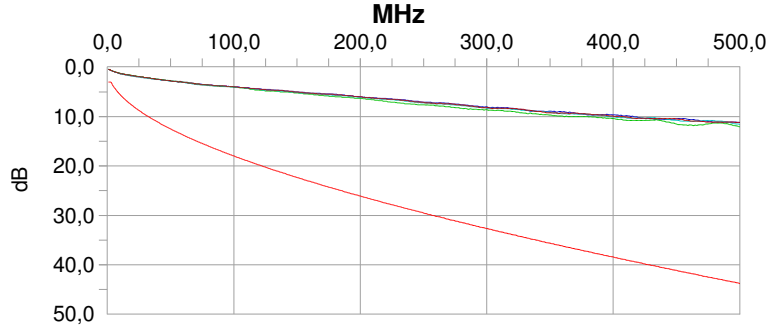
Cable ID 1: 5/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:30:08
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

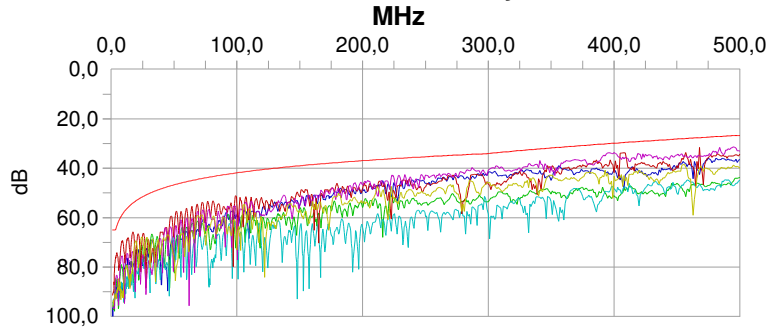
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

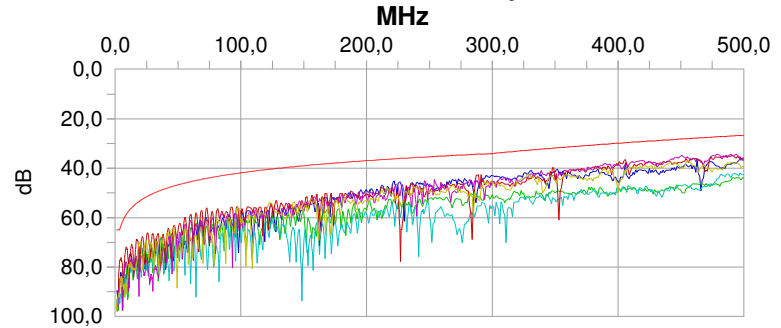
Attenuation Summary



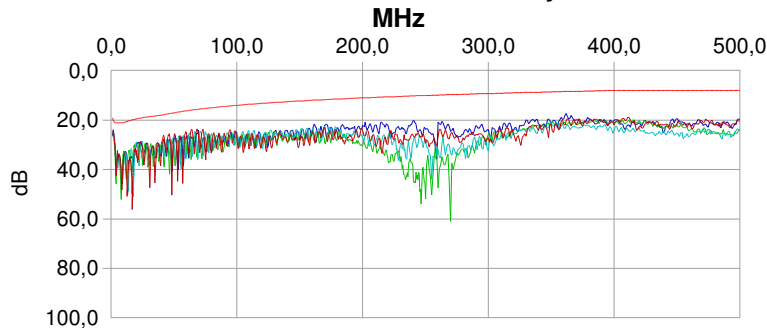
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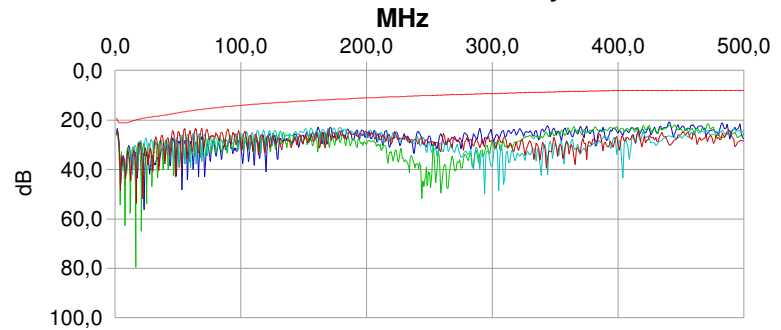
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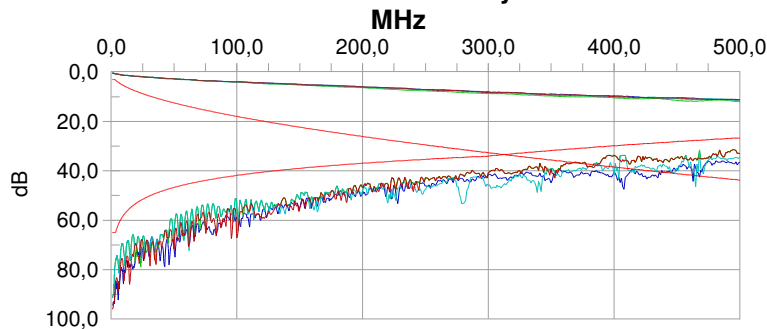
Return Loss DH Summary



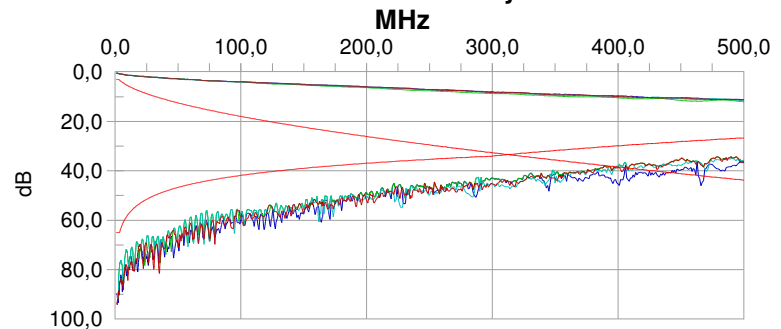
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

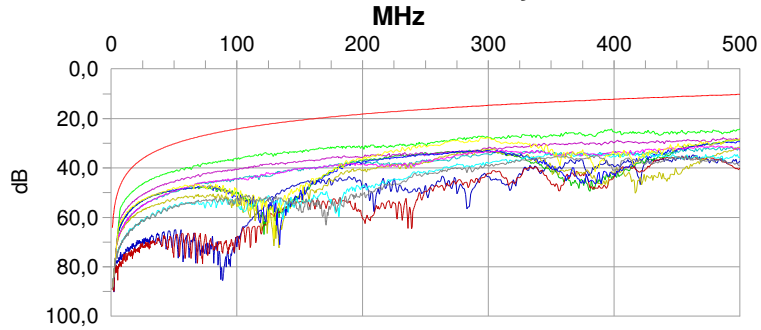
Cable ID 1: 5/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:30:08
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

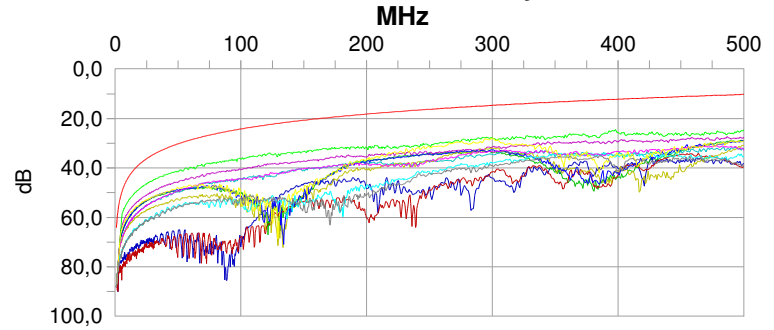
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

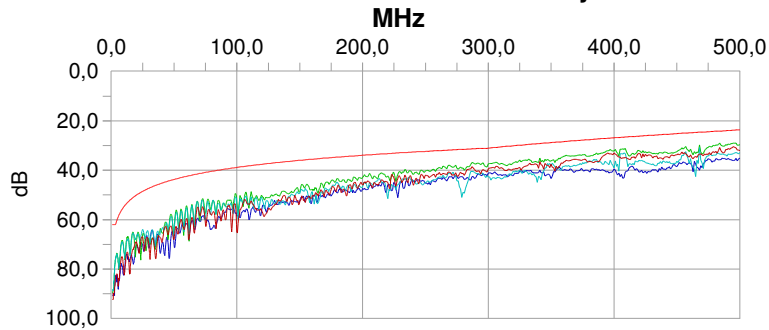
ELFEXT DH Summary



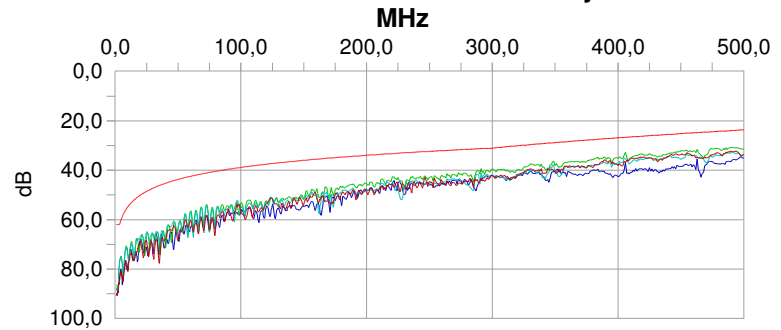
ELFEXT RH Summary



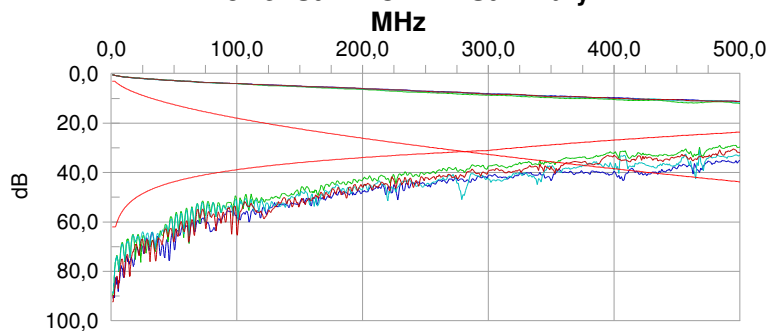
Power Sum NEXT DH Summary



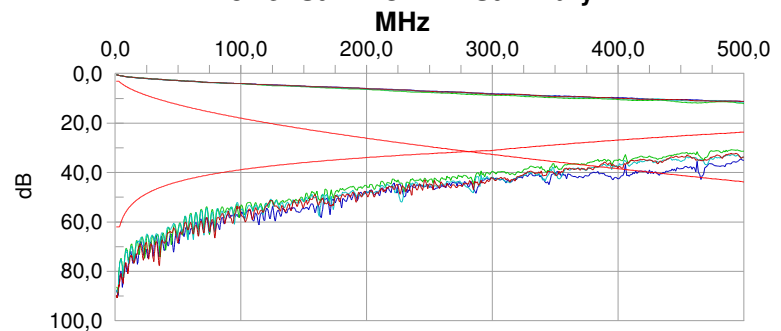
Power Sum NEXT RH Summary



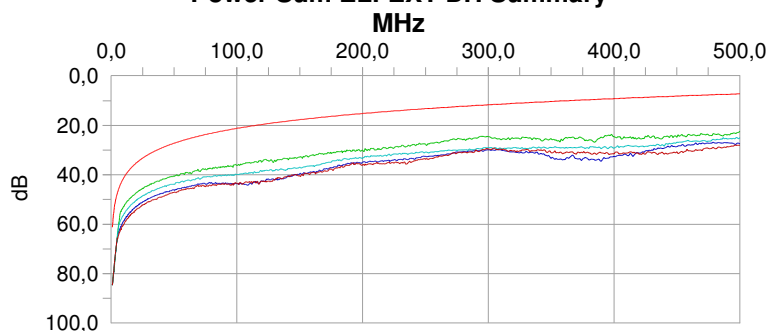
Power Sum ACR DH Summary



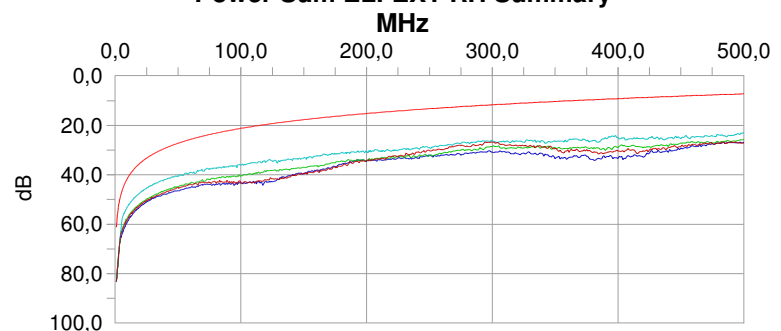
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

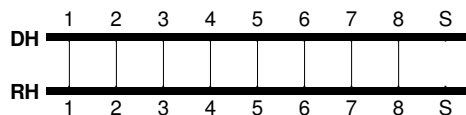
Cable ID 1: 5/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:31:42
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	22.4m	23.5m	23.2m	22.8m	< 90.0m	Pass
Prop. Delay	124.1ns	129.3ns	128.3ns	124.5ns	< 498.0ns	Pass
Delay Skew	5.2ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
DC Resistance	6.2 Ohm	6.3 Ohm	6.5 Ohm	6.7 Ohm	< 20.0 Ohm	Pass
Headroom	0.0 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	42.5 dB @ 334.00MHz	37.9 dB	> 32.5 dB	10.0 dB
7,8-5,4	DH	Pass	50.8 dB @ 234.50MHz	44.2 dB	> 35.8 dB	15.0 dB
7,8-1,2	DH	Pass	46.7 dB @ 372.00MHz	42.8 dB	> 30.9 dB	15.8 dB
3,6-5,4	DH	Pass	34.9 dB @ 405.00MHz	33.6 dB	> 29.7 dB	5.2 dB
3,6-1,2	DH	Pass	33.6 dB @ 414.00MHz	31.2 dB	> 29.4 dB	4.2 dB
5,4-1,2	DH	Pass	37.7 dB @ 455.00MHz	37.7 dB	> 28.0 dB	9.7 dB
7,8-3,6	RH	Pass	42.3 dB @ 305.00MHz	36.5 dB	> 33.8 dB	8.5 dB
7,8-5,4	RH	Pass	50.6 dB @ 234.50MHz	42.8 dB	> 35.8 dB	14.8 dB
7,8-1,2	RH	Pass	39.5 dB @ 496.00MHz	39.4 dB	> 26.8 dB	12.7 dB
3,6-5,4	RH	Pass	38.3 dB @ 384.00MHz	35.1 dB	> 30.4 dB	7.9 dB
3,6-1,2	RH	Pass	33.2 dB @ 480.00MHz	33.2 dB	> 27.2 dB	6.0 dB
5,4-1,2	RH	Pass	36.3 dB @ 499.00MHz	36.3 dB	> 26.7 dB	9.6 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.9 dB @ 1.60MHz	18.0 dB	> 19.9 dB	4.0 dB
3,6	DH	Pass	25.3 dB @ 1.60MHz	19.8 dB	> 19.9 dB	5.4 dB
5,4	DH	Pass	24.7 dB @ 1.60MHz	20.9 dB	> 19.9 dB	4.8 dB
1,2	DH	Pass	24.6 dB @ 1.60MHz	19.1 dB	> 19.9 dB	4.7 dB
7,8	RH	Pass	23.4 dB @ 1.60MHz	21.4 dB	> 19.9 dB	3.5 dB
3,6	RH	Pass	24.4 dB @ 1.60MHz	22.0 dB	> 19.9 dB	4.5 dB
5,4	RH	Pass	25.7 dB @ 1.75MHz	22.0 dB	> 20.1 dB	5.6 dB
1,2	RH	Pass	24.4 dB @ 1.60MHz	21.9 dB	> 19.9 dB	4.5 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.95MHz	11.2 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 3.10MHz	12.1 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.7 dB @ 2.95MHz	11.6 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.95MHz	11.2 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	26.8 dB @ 496.00MHz	N/A	>= -16.7 dB	43.5 dB
3,6	DH	Pass	19.2 dB @ 499.00MHz	N/A	>= -17.0 dB	36.2 dB
5,4	DH	Pass	22.5 dB @ 491.00MHz	N/A	>= -16.4 dB	38.9 dB
1,2	DH	Pass	20.0 dB @ 499.00MHz	N/A	>= -17.0 dB	37.0 dB
7,8	RH	Pass	25.5 dB @ 500.00MHz	N/A	>= -17.1 dB	42.6 dB
3,6	RH	Pass	21.8 dB @ 480.00MHz	N/A	>= -15.5 dB	37.3 dB
5,4	RH	Pass	23.6 dB @ 496.00MHz	N/A	>= -16.7 dB	40.3 dB
1,2	RH	Pass	22.0 dB @ 480.00MHz	N/A	>= -15.5 dB	37.5 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:31:42
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	35.3 dB @ 500.00MHz	35.3 dB	> 10.2 dB	25.1 dB
7,8-5,4	DH	Pass	33.5 dB @ 245.50MHz	28.3 dB	> 16.4 dB	17.1 dB
7,8-1,2	DH	Pass	40.7 dB @ 309.00MHz	40.7 dB	> 14.4 dB	26.3 dB
3,6-7,8	DH	Pass	38.0 dB @ 334.00MHz	35.3 dB	> 13.7 dB	24.3 dB
3,6-5,4	DH	Pass	60.4 dB @ 6.70MHz	28.2 dB	> 47.7 dB	12.7 dB
3,6-1,2	DH	Pass	65.8 dB @ 6.25MHz	30.9 dB	> 48.3 dB	17.5 dB
5,4-7,8	DH	Pass	33.6 dB @ 252.00MHz	28.9 dB	> 16.2 dB	17.4 dB
5,4-3,6	DH	Pass	54.9 dB @ 7.60MHz	23.1 dB	> 46.6 dB	8.3 dB
5,4-1,2	DH	Pass	60.3 dB @ 11.80MHz	40.3 dB	> 42.8 dB	17.5 dB
1,2-7,8	DH	Pass	40.0 dB @ 313.00MHz	40.0 dB	> 14.3 dB	25.7 dB
1,2-3,6	DH	Pass	27.4 dB @ 300.00MHz	26.2 dB	> 14.6 dB	12.6 dB
1,2-5,4	DH	Pass	65.8 dB @ 6.25MHz	35.8 dB	> 48.3 dB	17.5 dB
7,8-3,6	RH	Pass	36.5 dB @ 478.00MHz	36.3 dB	> 10.6 dB	25.9 dB
7,8-5,4	RH	Pass	33.7 dB @ 245.50MHz	28.8 dB	> 16.4 dB	17.3 dB
7,8-1,2	RH	Pass	40.7 dB @ 309.00MHz	40.7 dB	> 14.4 dB	26.3 dB
3,6-7,8	RH	Pass	34.6 dB @ 450.00MHz	34.4 dB	> 11.1 dB	23.5 dB
3,6-5,4	RH	Pass	63.3 dB @ 4.75MHz	27.5 dB	> 50.7 dB	12.6 dB
3,6-1,2	RH	Pass	65.8 dB @ 6.25MHz	30.0 dB	> 48.3 dB	17.5 dB
5,4-7,8	RH	Pass	33.5 dB @ 252.00MHz	28.5 dB	> 16.2 dB	17.3 dB
5,4-3,6	RH	Pass	56.9 dB @ 5.95MHz	23.7 dB	> 48.7 dB	8.2 dB
5,4-1,2	RH	Pass	66.4 dB @ 5.80MHz	40.5 dB	> 48.9 dB	17.5 dB
1,2-7,8	RH	Pass	40.0 dB @ 313.00MHz	40.0 dB	> 14.3 dB	25.7 dB
1,2-3,6	RH	Pass	27.8 dB @ 300.00MHz	27.1 dB	> 14.6 dB	13.2 dB
1,2-5,4	RH	Pass	65.8 dB @ 6.25MHz	36.2 dB	> 48.3 dB	17.5 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	41.5 dB @ 334.00MHz	36.1 dB	> 29.5 dB	12.0 dB
3,6	DH	Pass	31.8 dB @ 405.00MHz	29.0 dB	> 26.7 dB	5.1 dB
5,4	DH	Pass	33.8 dB @ 405.00MHz	32.0 dB	> 26.7 dB	7.1 dB
1,2	DH	Pass	32.8 dB @ 416.00MHz	30.3 dB	> 26.3 dB	6.5 dB
7,8	RH	Pass	39.3 dB @ 343.00MHz	34.4 dB	> 29.1 dB	10.2 dB
3,6	RH	Pass	30.5 dB @ 480.00MHz	30.5 dB	> 24.2 dB	6.3 dB
5,4	RH	Pass	32.5 dB @ 496.00MHz	32.5 dB	> 23.8 dB	8.7 dB
1,2	RH	Pass	31.2 dB @ 500.00MHz	31.2 dB	> 23.7 dB	7.5 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	25.0 dB @ 496.00MHz	N/A	>= -19.7 dB	44.7 dB
3,6	DH	Pass	17.0 dB @ 499.00MHz	N/A	>= -20.0 dB	37.0 dB
5,4	DH	Pass	21.0 dB @ 498.00MHz	N/A	>= -19.9 dB	40.9 dB
1,2	DH	Pass	19.1 dB @ 499.00MHz	N/A	>= -20.0 dB	39.1 dB
7,8	RH	Pass	23.3 dB @ 500.00MHz	N/A	>= -20.1 dB	43.4 dB
3,6	RH	Pass	18.8 dB @ 500.00MHz	N/A	>= -20.1 dB	38.9 dB
5,4	RH	Pass	21.0 dB @ 496.00MHz	N/A	>= -19.7 dB	40.7 dB
1,2	RH	Pass	20.0 dB @ 500.00MHz	N/A	>= -20.1 dB	40.1 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	32.5 dB @ 273.00MHz	28.1 dB	>= 12.5 dB	20.0 dB
3,6	DH	Pass	43.9 dB @ 27.10MHz	21.8 dB	>= 32.5 dB	11.4 dB
5,4	DH	Pass	59.0 dB @ 6.25MHz	25.1 dB	>= 45.3 dB	13.7 dB
1,2	DH	Pass	51.3 dB @ 24.85MHz	30.4 dB	>= 33.3 dB	18.0 dB
7,8	RH	Pass	32.8 dB @ 264.00MHz	28.0 dB	>= 12.8 dB	20.0 dB
3,6	RH	Pass	29.1 dB @ 294.00MHz	25.7 dB	>= 11.8 dB	17.3 dB
5,4	RH	Pass	56.0 dB @ 5.95MHz	22.8 dB	>= 45.7 dB	10.3 dB
1,2	RH	Pass	27.6 dB @ 300.00MHz	26.5 dB	>= 11.6 dB	16.0 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

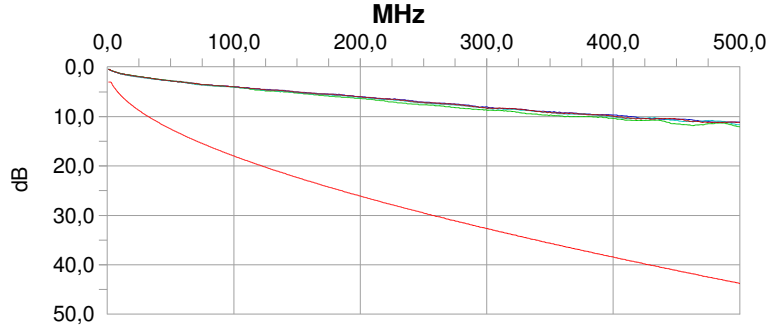
Cable ID 1: 5/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:31:42
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

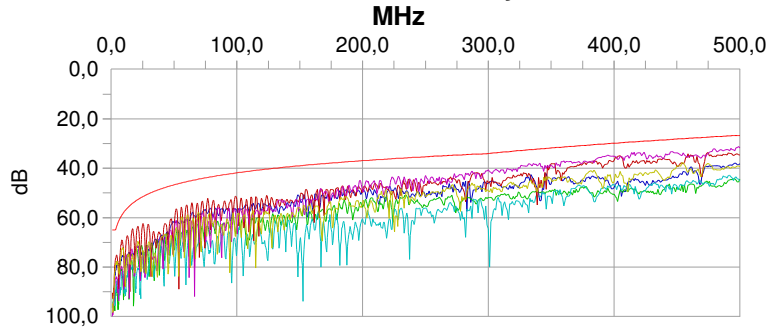
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

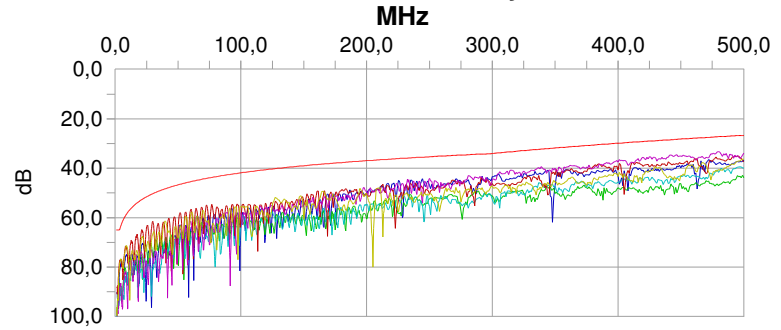
Attenuation Summary



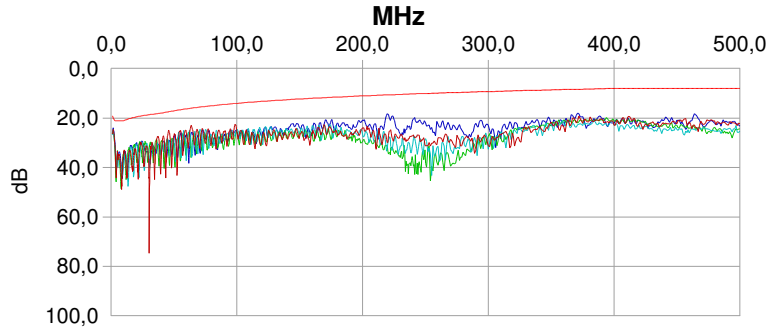
NEXT DH Summary



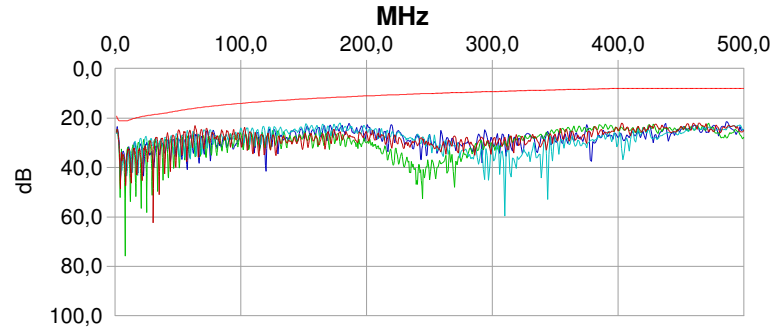
NEXT RH Summary



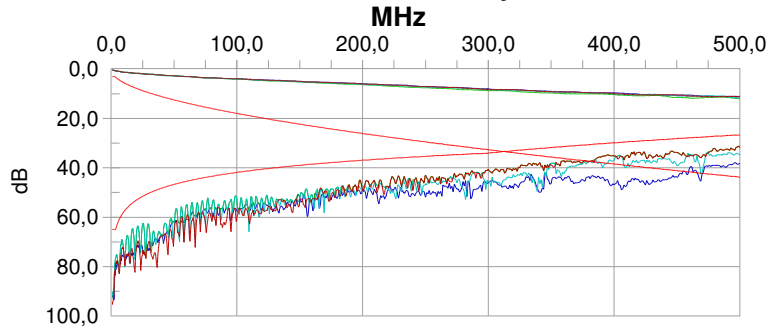
Return Loss DH Summary



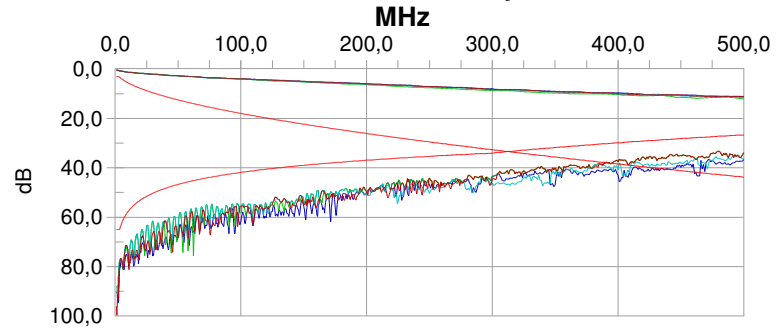
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

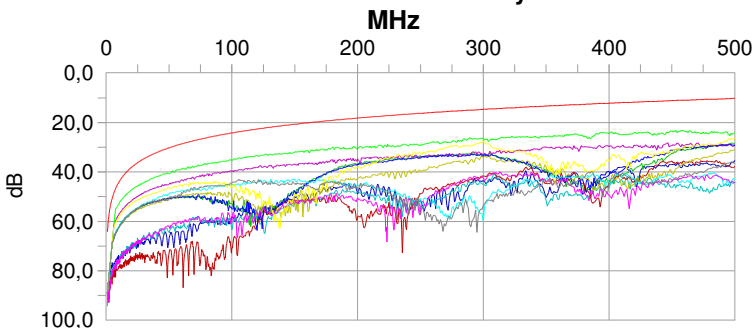
Cable ID 1: 5/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:31:42
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

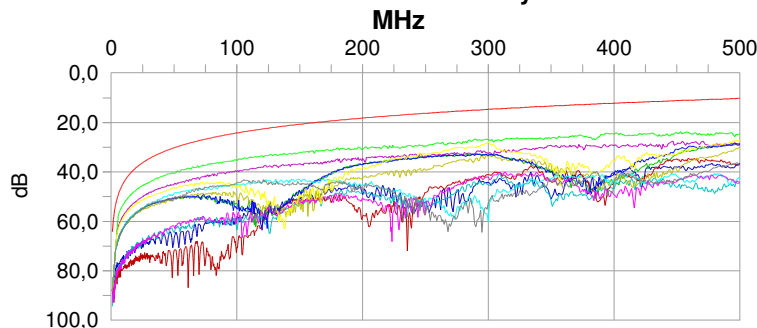
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

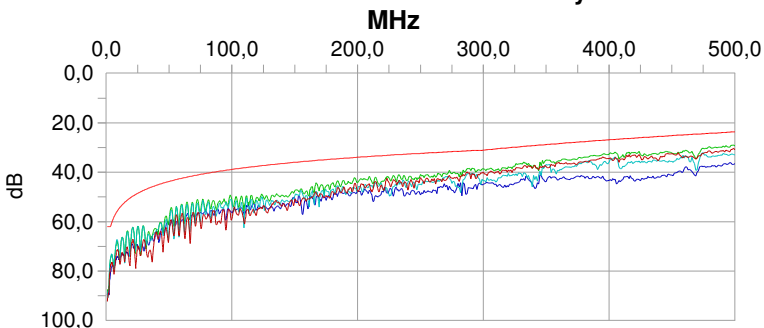
ELFEXT DH Summary



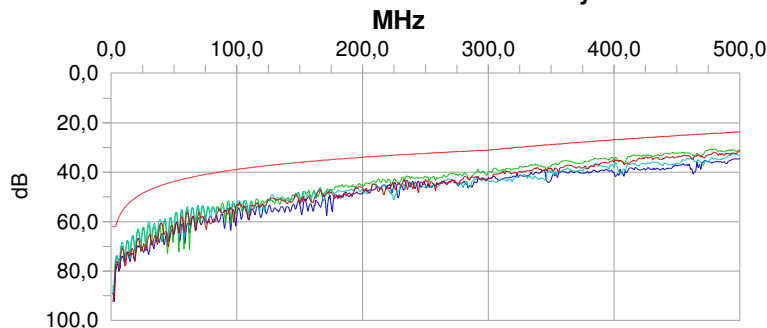
ELFEXT RH Summary



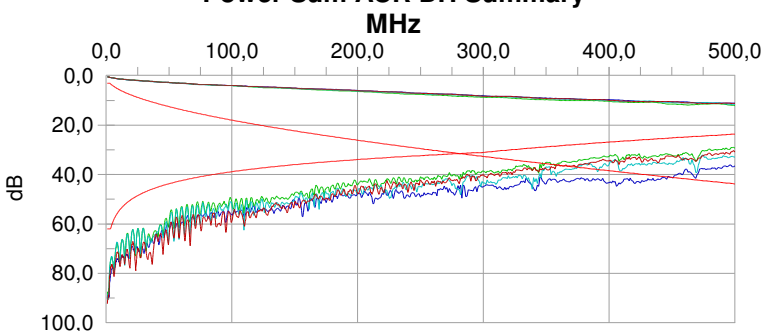
Power Sum NEXT DH Summary



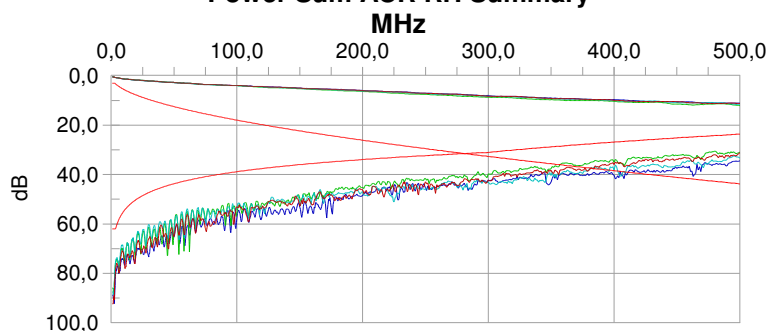
Power Sum NEXT RH Summary



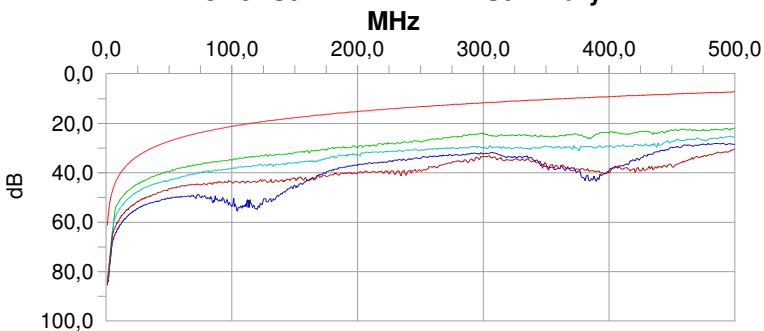
Power Sum ACR DH Summary



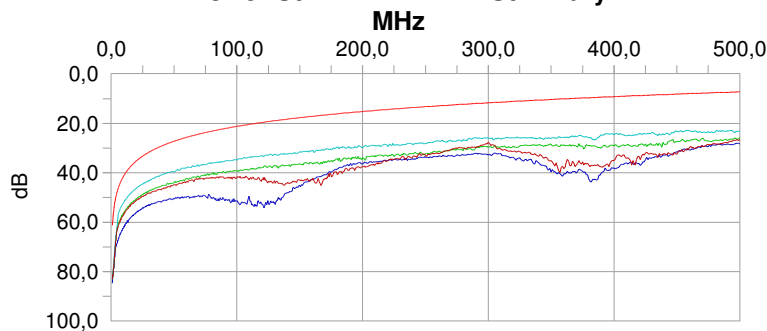
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

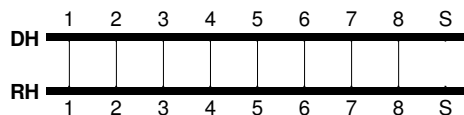
Cable ID 1: 5/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:33:43
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	25.4m	26.6m	26.3m	25.8m	< 90.0m	Pass
Prop. Delay	138.6ns	144.2ns	143.2ns	139.0ns	< 498.0ns	Pass
Delay Skew		5.6ns (Pairs 3,6 vs. 7,8)			< 44.0 ns	Pass
DC Resistance	7.8 Ohm	6.8 Ohm	7.1 Ohm	7.2 Ohm	< 20.0 Ohm	Pass
Headroom		0.0 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	42.9 dB @ 302.00MHz	36.4 dB	> 33.9 dB	9.0 dB
7,8-5,4	DH	Pass	51.0 dB @ 210.00MHz	43.8 dB	> 36.6 dB	14.4 dB
7,8-1,2	DH	Pass	44.8 dB @ 343.00MHz	42.0 dB	> 32.1 dB	12.7 dB
3,6-5,4	DH	Pass	33.7 dB @ 410.00MHz	33.6 dB	> 29.5 dB	4.2 dB
3,6-1,2	DH	Pass	33.8 dB @ 392.00MHz	31.0 dB	> 30.2 dB	3.6 dB
5,4-1,2	DH	Pass	37.6 dB @ 458.00MHz	37.6 dB	> 27.9 dB	9.7 dB
7,8-3,6	RH	Pass	42.7 dB @ 297.00MHz	36.7 dB	> 34.1 dB	8.6 dB
7,8-5,4	RH	Pass	50.3 dB @ 295.00MHz	43.5 dB	> 34.2 dB	16.1 dB
7,8-1,2	RH	Pass	41.6 dB @ 486.00MHz	41.4 dB	> 27.1 dB	14.5 dB
3,6-5,4	RH	Pass	35.0 dB @ 492.00MHz	35.0 dB	> 26.9 dB	8.1 dB
3,6-1,2	RH	Pass	35.1 dB @ 444.00MHz	34.3 dB	> 28.4 dB	6.7 dB
5,4-1,2	RH	Pass	38.2 dB @ 461.00MHz	37.5 dB	> 27.8 dB	10.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.3 dB @ 1.60MHz	18.0 dB	> 19.9 dB	4.4 dB
3,6	DH	Pass	25.3 dB @ 1.45MHz	19.5 dB	> 19.7 dB	5.6 dB
5,4	DH	Pass	24.8 dB @ 1.60MHz	21.7 dB	> 19.9 dB	4.9 dB
1,2	DH	Pass	24.6 dB @ 1.60MHz	19.6 dB	> 19.9 dB	4.7 dB
7,8	RH	Pass	22.5 dB @ 1.60MHz	20.7 dB	> 19.9 dB	2.6 dB
3,6	RH	Pass	24.3 dB @ 1.60MHz	21.5 dB	> 19.9 dB	4.4 dB
5,4	RH	Pass	25.1 dB @ 1.60MHz	23.0 dB	> 19.9 dB	5.2 dB
1,2	RH	Pass	24.3 dB @ 1.60MHz	22.9 dB	> 19.9 dB	4.4 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.8 dB @ 3.10MHz	12.7 dB	< 3.1 dB	2.3 dB
3,6	Pass	0.7 dB @ 2.95MHz	13.3 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.8 dB @ 2.95MHz	12.8 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.7 dB @ 2.95MHz	12.6 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.9 dB @ 485.00MHz	N/A	>= -15.9 dB	39.8 dB
3,6	DH	Pass	18.2 dB @ 485.00MHz	N/A	>= -15.9 dB	34.1 dB
5,4	DH	Pass	21.3 dB @ 465.00MHz	N/A	>= -14.2 dB	35.5 dB
1,2	DH	Pass	18.4 dB @ 485.00MHz	N/A	>= -15.9 dB	34.3 dB
7,8	RH	Pass	24.0 dB @ 500.00MHz	N/A	>= -17.1 dB	41.1 dB
3,6	RH	Pass	21.5 dB @ 479.00MHz	N/A	>= -15.4 dB	36.9 dB
5,4	RH	Pass	22.4 dB @ 492.00MHz	N/A	>= -16.4 dB	38.8 dB
1,2	RH	Pass	21.7 dB @ 482.00MHz	N/A	>= -15.6 dB	37.3 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:33:43
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	35.6 dB @ 394.00MHz	34.3 dB	> 12.3 dB	23.3 dB
7,8-5,4	DH	Pass	26.8 dB @ 457.00MHz	26.5 dB	> 11.0 dB	15.8 dB
7,8-1,2	DH	Pass	37.6 dB @ 251.00MHz	34.6 dB	> 16.2 dB	21.4 dB
3,6-7,8	DH	Pass	40.3 dB @ 282.00MHz	37.1 dB	> 15.2 dB	25.1 dB
3,6-5,4	DH	Pass	59.5 dB @ 6.55MHz	27.8 dB	> 47.9 dB	11.6 dB
3,6-1,2	DH	Pass	35.1 dB @ 243.00MHz	30.0 dB	> 16.5 dB	18.6 dB
5,4-7,8	DH	Pass	26.5 dB @ 474.00MHz	26.4 dB	> 10.7 dB	15.8 dB
5,4-3,6	DH	Pass	53.0 dB @ 8.35MHz	23.4 dB	> 45.8 dB	7.2 dB
5,4-1,2	DH	Pass	66.0 dB @ 9.70MHz	32.6 dB	> 44.5 dB	21.5 dB
1,2-7,8	DH	Pass	35.8 dB @ 293.00MHz	35.6 dB	> 14.9 dB	20.9 dB
1,2-3,6	DH	Pass	29.4 dB @ 243.50MHz	24.1 dB	> 16.5 dB	12.9 dB
1,2-5,4	DH	Pass	60.8 dB @ 17.65MHz	36.7 dB	> 39.3 dB	21.5 dB
7,8-3,6	RH	Pass	36.5 dB @ 385.00MHz	34.6 dB	> 12.5 dB	24.0 dB
7,8-5,4	RH	Pass	26.5 dB @ 478.00MHz	26.4 dB	> 10.6 dB	15.9 dB
7,8-1,2	RH	Pass	37.7 dB @ 251.00MHz	34.7 dB	> 16.2 dB	21.5 dB
3,6-7,8	RH	Pass	36.1 dB @ 409.00MHz	36.0 dB	> 12.0 dB	24.1 dB
3,6-5,4	RH	Pass	59.6 dB @ 6.55MHz	26.9 dB	> 47.9 dB	11.7 dB
3,6-1,2	RH	Pass	34.4 dB @ 243.00MHz	29.5 dB	> 16.5 dB	17.9 dB
5,4-7,8	RH	Pass	64.1 dB @ 6.25MHz	26.2 dB	> 48.3 dB	15.8 dB
5,4-3,6	RH	Pass	55.2 dB @ 6.25MHz	24.4 dB	> 48.3 dB	6.9 dB
5,4-1,2	RH	Pass	66.9 dB @ 8.65MHz	32.4 dB	> 45.4 dB	21.5 dB
1,2-7,8	RH	Pass	35.6 dB @ 293.00MHz	35.4 dB	> 14.9 dB	20.7 dB
1,2-3,6	RH	Pass	30.1 dB @ 243.50MHz	25.0 dB	> 16.5 dB	13.6 dB
1,2-5,4	RH	Pass	60.9 dB @ 17.65MHz	36.7 dB	> 39.3 dB	21.6 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	39.9 dB @ 336.00MHz	35.2 dB	> 29.4 dB	10.5 dB
3,6	DH	Pass	30.3 dB @ 410.00MHz	28.4 dB	> 26.5 dB	3.8 dB
5,4	DH	Pass	33.2 dB @ 410.00MHz	32.5 dB	> 26.5 dB	6.7 dB
1,2	DH	Pass	32.1 dB @ 416.00MHz	30.1 dB	> 26.3 dB	5.8 dB
7,8	RH	Pass	41.6 dB @ 297.00MHz	34.8 dB	> 31.1 dB	10.5 dB
3,6	RH	Pass	31.1 dB @ 479.00MHz	30.9 dB	> 24.3 dB	6.8 dB
5,4	RH	Pass	33.3 dB @ 492.00MHz	33.3 dB	> 23.9 dB	9.4 dB
1,2	RH	Pass	34.5 dB @ 421.00MHz	32.6 dB	> 26.1 dB	8.4 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	22.7 dB @ 485.00MHz	N/A	>= -18.9 dB	41.6 dB
3,6	DH	Pass	15.6 dB @ 485.00MHz	N/A	>= -18.9 dB	34.5 dB
5,4	DH	Pass	20.2 dB @ 485.00MHz	N/A	>= -18.9 dB	39.1 dB
1,2	DH	Pass	17.5 dB @ 485.00MHz	N/A	>= -18.9 dB	36.4 dB
7,8	RH	Pass	22.1 dB @ 500.00MHz	N/A	>= -20.1 dB	42.2 dB
3,6	RH	Pass	18.0 dB @ 492.00MHz	N/A	>= -19.4 dB	37.4 dB
5,4	RH	Pass	20.6 dB @ 494.00MHz	N/A	>= -19.6 dB	40.2 dB
1,2	RH	Pass	20.1 dB @ 496.00MHz	N/A	>= -19.7 dB	39.8 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	26.1 dB @ 474.00MHz	26.0 dB	>= 7.7 dB	18.4 dB
3,6	DH	Pass	40.8 dB @ 36.75MHz	20.7 dB	>= 29.9 dB	10.9 dB
5,4	DH	Pass	55.4 dB @ 8.95MHz	24.1 dB	>= 42.2 dB	13.2 dB
1,2	DH	Pass	60.9 dB @ 9.70MHz	27.5 dB	>= 41.5 dB	19.4 dB
7,8	RH	Pass	25.3 dB @ 482.00MHz	25.3 dB	>= 7.5 dB	17.8 dB
3,6	RH	Pass	41.2 dB @ 64.00MHz	24.8 dB	>= 25.1 dB	16.1 dB
5,4	RH	Pass	52.3 dB @ 8.35MHz	22.1 dB	>= 42.8 dB	9.5 dB
1,2	RH	Pass	29.6 dB @ 243.50MHz	24.8 dB	>= 13.5 dB	16.1 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

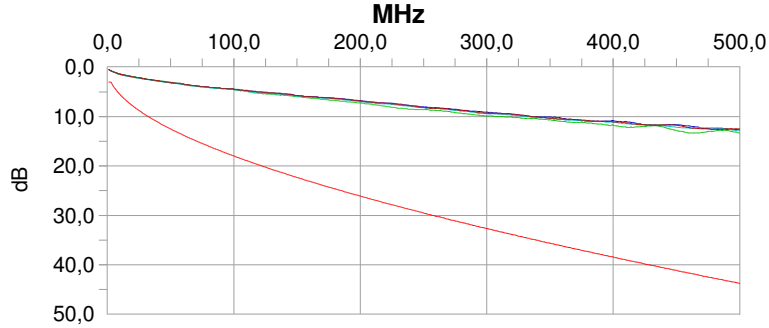
Cable ID 1: 5/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:33:43
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

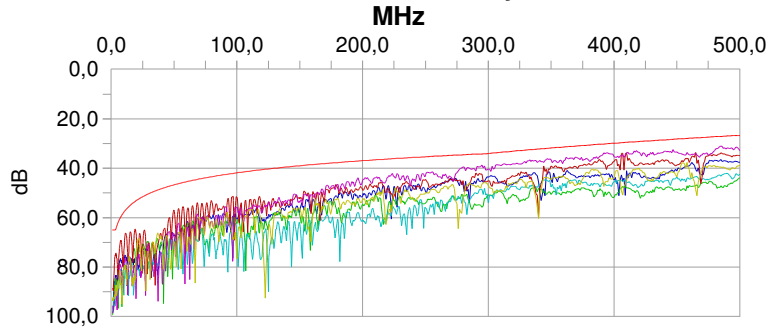
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

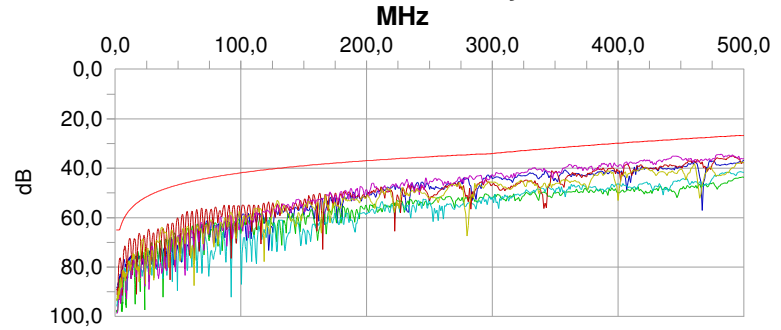
Attenuation Summary



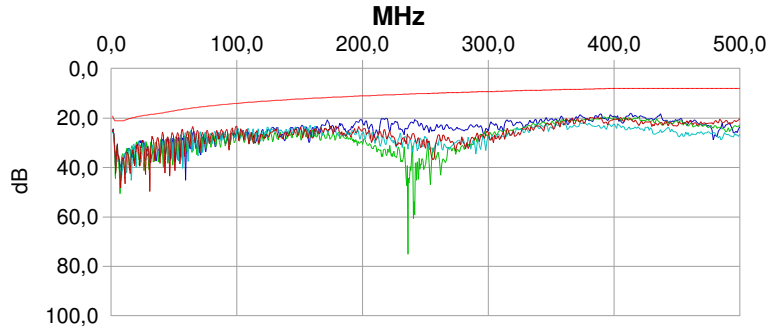
NEXT DH Summary



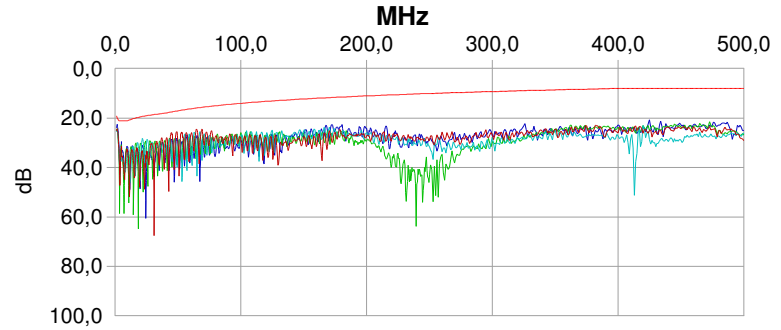
NEXT RH Summary



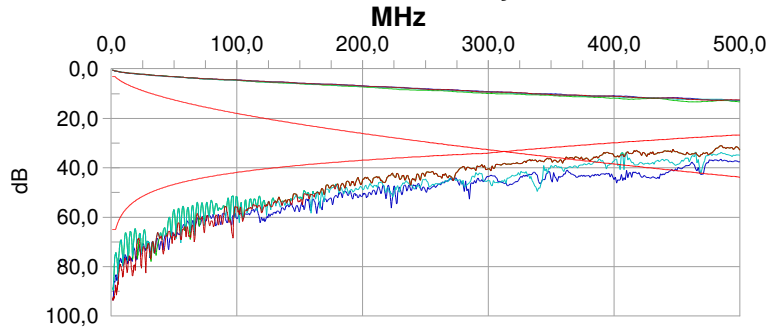
Return Loss DH Summary



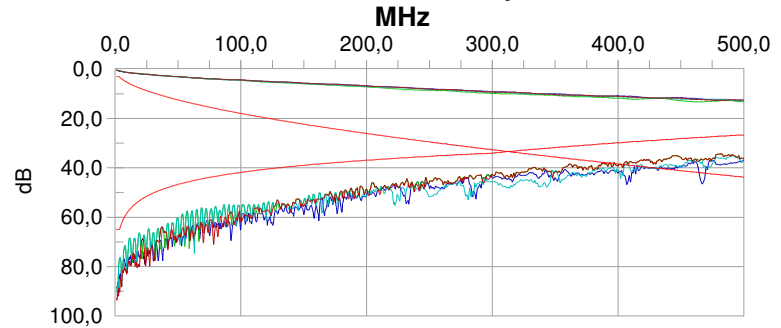
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

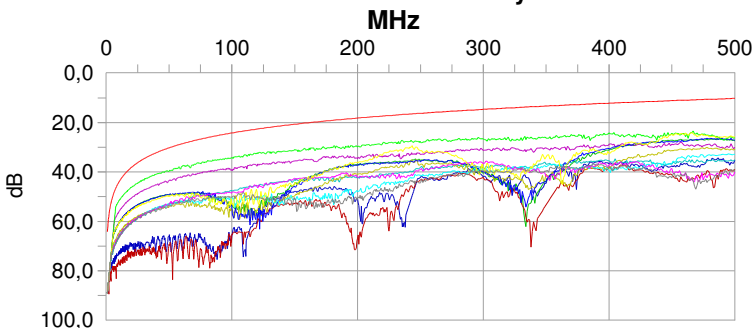
Cable ID 1: 5/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:33:43
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

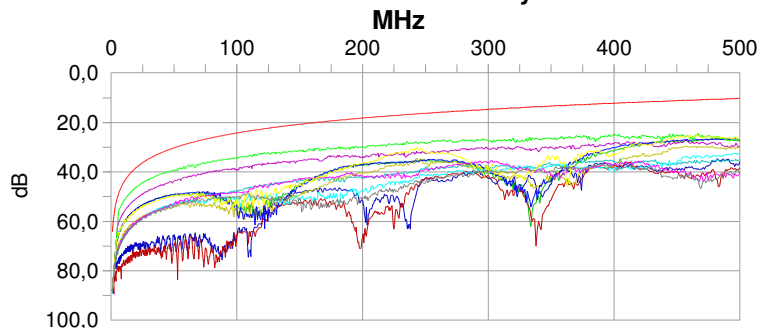
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

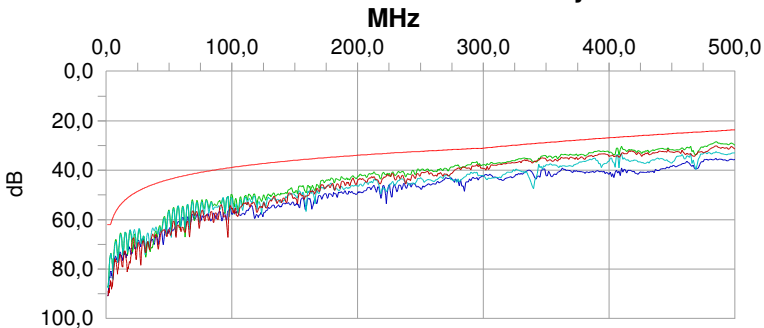
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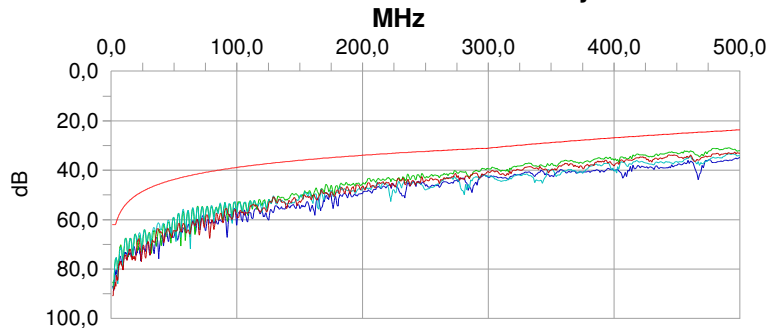
ELFEXT RH Summary



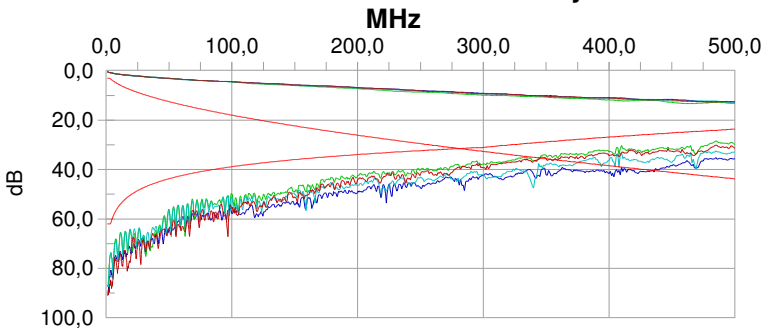
Power Sum NEXT DH Summary



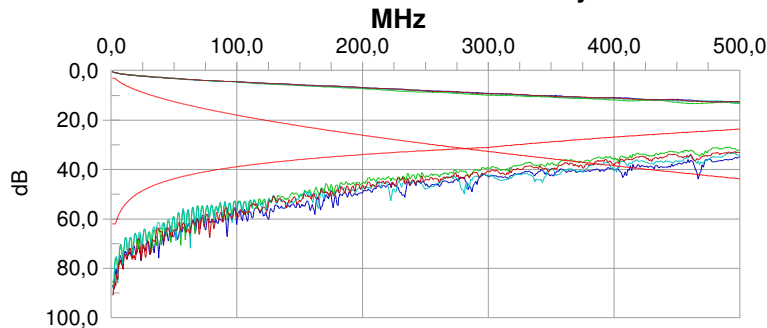
Power Sum NEXT RH Summary



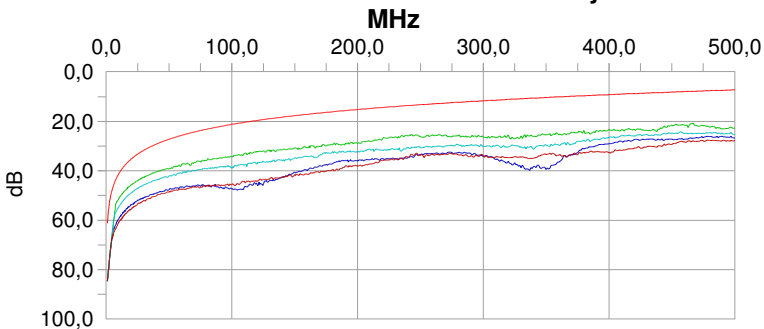
Power Sum ACR DH Summary



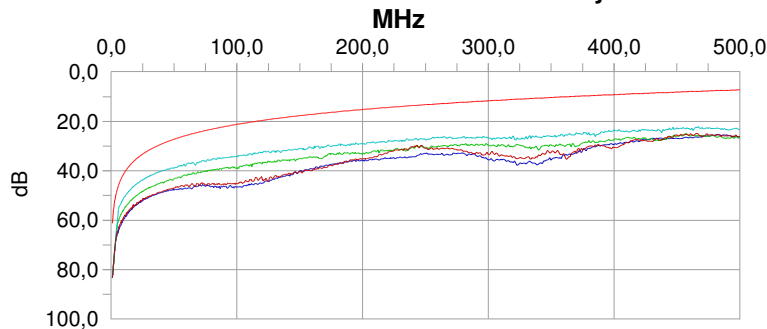
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

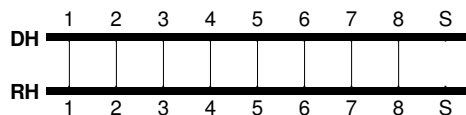
Cable ID 1: 5/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:34:30
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	25.5m	26.7m	26.4m	25.9m	< 90.0m	Pass
Prop. Delay	139.0ns	144.6ns	143.6ns	139.2ns	< 498.0ns	Pass
Delay Skew	5.6ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
DC Resistance	6.9 Ohm	6.7 Ohm	7.0 Ohm	7.1 Ohm	< 20.0 Ohm	Pass
Headroom	0.0 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	42.5 dB @ 304.00MHz	36.3 dB	> 33.8 dB	8.7 dB
7,8-5,4	DH	Pass	51.1 dB @ 216.50MHz	44.2 dB	> 36.4 dB	14.7 dB
7,8-1,2	DH	Pass	45.9 dB @ 307.00MHz	42.0 dB	> 33.7 dB	12.2 dB
3,6-5,4	DH	Pass	33.3 dB @ 405.00MHz	33.3 dB	> 29.7 dB	3.6 dB
3,6-1,2	DH	Pass	38.9 dB @ 289.00MHz	31.4 dB	> 34.3 dB	4.6 dB
5,4-1,2	DH	Pass	36.9 dB @ 458.00MHz	36.9 dB	> 27.9 dB	9.0 dB
7,8-3,6	RH	Pass	42.4 dB @ 292.00MHz	36.7 dB	> 34.2 dB	8.2 dB
7,8-5,4	RH	Pass	50.1 dB @ 266.00MHz	43.8 dB	> 34.9 dB	15.2 dB
7,8-1,2	RH	Pass	40.4 dB @ 481.00MHz	40.2 dB	> 27.2 dB	13.2 dB
3,6-5,4	RH	Pass	34.4 dB @ 491.00MHz	34.4 dB	> 26.9 dB	7.5 dB
3,6-1,2	RH	Pass	32.7 dB @ 447.00MHz	32.4 dB	> 28.3 dB	4.4 dB
5,4-1,2	RH	Pass	36.4 dB @ 463.00MHz	36.1 dB	> 27.8 dB	8.6 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.9 dB @ 1.60MHz	19.6 dB	> 19.9 dB	4.0 dB
3,6	DH	Pass	25.4 dB @ 1.60MHz	19.7 dB	> 19.9 dB	5.5 dB
5,4	DH	Pass	24.6 dB @ 1.60MHz	21.9 dB	> 19.9 dB	4.7 dB
1,2	DH	Pass	24.7 dB @ 1.60MHz	19.2 dB	> 19.9 dB	4.8 dB
7,8	RH	Pass	23.1 dB @ 1.60MHz	21.3 dB	> 19.9 dB	3.2 dB
3,6	RH	Pass	24.4 dB @ 1.60MHz	21.4 dB	> 19.9 dB	4.5 dB
5,4	RH	Pass	25.0 dB @ 1.45MHz	23.2 dB	> 19.7 dB	5.3 dB
1,2	RH	Pass	24.4 dB @ 1.60MHz	21.6 dB	> 19.9 dB	4.5 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.95MHz	12.7 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.95MHz	13.4 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.8 dB @ 2.95MHz	12.9 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.8 dB @ 3.10MHz	12.7 dB	< 3.1 dB	2.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.0 dB @ 474.00MHz	N/A	>= -15.0 dB	39.0 dB
3,6	DH	Pass	18.2 dB @ 497.00MHz	N/A	>= -16.9 dB	35.1 dB
5,4	DH	Pass	20.5 dB @ 497.00MHz	N/A	>= -16.9 dB	37.4 dB
1,2	DH	Pass	18.9 dB @ 497.00MHz	N/A	>= -16.9 dB	35.8 dB
7,8	RH	Pass	24.0 dB @ 497.00MHz	N/A	>= -16.9 dB	40.9 dB
3,6	RH	Pass	19.2 dB @ 500.00MHz	N/A	>= -17.1 dB	36.3 dB
5,4	RH	Pass	21.9 dB @ 491.00MHz	N/A	>= -16.4 dB	38.3 dB
1,2	RH	Pass	19.8 dB @ 480.00MHz	N/A	>= -15.5 dB	35.3 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:34:30
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	34.1 dB @ 411.00MHz	34.1 dB	> 11.9 dB	22.2 dB
7,8-5,4	DH	Pass	27.9 dB @ 450.00MHz	27.5 dB	> 11.1 dB	16.8 dB
7,8-1,2	DH	Pass	60.1 dB @ 17.65MHz	35.6 dB	> 39.3 dB	20.8 dB
3,6-7,8	DH	Pass	37.1 dB @ 384.00MHz	37.0 dB	> 12.5 dB	24.6 dB
3,6-5,4	DH	Pass	62.1 dB @ 6.25MHz	31.1 dB	> 48.3 dB	13.8 dB
3,6-1,2	DH	Pass	35.3 dB @ 246.50MHz	29.8 dB	> 16.4 dB	18.9 dB
5,4-7,8	DH	Pass	28.2 dB @ 433.00MHz	27.3 dB	> 11.5 dB	16.7 dB
5,4-3,6	DH	Pass	56.6 dB @ 7.15MHz	27.4 dB	> 47.1 dB	9.5 dB
5,4-1,2	DH	Pass	65.7 dB @ 8.35MHz	31.1 dB	> 45.8 dB	19.9 dB
1,2-7,8	DH	Pass	37.8 dB @ 258.00MHz	35.3 dB	> 16.0 dB	21.8 dB
1,2-3,6	DH	Pass	30.0 dB @ 238.00MHz	24.5 dB	> 16.7 dB	13.3 dB
1,2-5,4	DH	Pass	65.8 dB @ 9.70MHz	34.0 dB	> 44.5 dB	21.3 dB
7,8-3,6	RH	Pass	35.4 dB @ 385.00MHz	35.1 dB	> 12.5 dB	22.9 dB
7,8-5,4	RH	Pass	27.3 dB @ 486.00MHz	27.3 dB	> 10.5 dB	16.8 dB
7,8-1,2	RH	Pass	60.1 dB @ 17.65MHz	35.5 dB	> 39.3 dB	20.8 dB
3,6-7,8	RH	Pass	36.0 dB @ 404.00MHz	36.0 dB	> 12.1 dB	23.9 dB
3,6-5,4	RH	Pass	63.7 dB @ 5.20MHz	30.4 dB	> 49.9 dB	13.8 dB
3,6-1,2	RH	Pass	34.8 dB @ 246.50MHz	29.6 dB	> 16.4 dB	18.4 dB
5,4-7,8	RH	Pass	27.6 dB @ 450.00MHz	27.4 dB	> 11.1 dB	16.5 dB
5,4-3,6	RH	Pass	56.5 dB @ 7.15MHz	27.9 dB	> 47.1 dB	9.4 dB
5,4-1,2	RH	Pass	61.4 dB @ 13.45MHz	30.8 dB	> 41.6 dB	19.8 dB
1,2-7,8	RH	Pass	37.7 dB @ 258.00MHz	35.1 dB	> 16.0 dB	21.7 dB
1,2-3,6	RH	Pass	30.2 dB @ 246.00MHz	25.1 dB	> 16.4 dB	13.8 dB
1,2-5,4	RH	Pass	65.8 dB @ 9.70MHz	34.0 dB	> 44.5 dB	21.3 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.9 dB @ 304.00MHz	35.3 dB	> 30.8 dB	10.1 dB
3,6	DH	Pass	30.8 dB @ 408.00MHz	28.6 dB	> 26.6 dB	4.2 dB
5,4	DH	Pass	32.7 dB @ 408.00MHz	31.7 dB	> 26.6 dB	6.1 dB
1,2	DH	Pass	37.6 dB @ 295.00MHz	30.5 dB	> 31.2 dB	6.4 dB
7,8	RH	Pass	38.9 dB @ 350.00MHz	34.5 dB	> 28.8 dB	10.1 dB
3,6	RH	Pass	31.2 dB @ 447.00MHz	30.1 dB	> 25.3 dB	5.9 dB
5,4	RH	Pass	31.9 dB @ 491.00MHz	31.9 dB	> 23.9 dB	8.0 dB
1,2	RH	Pass	31.7 dB @ 447.00MHz	30.6 dB	> 25.3 dB	6.4 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	22.7 dB @ 500.00MHz	N/A	>= -20.1 dB	42.8 dB
3,6	DH	Pass	15.4 dB @ 497.00MHz	N/A	>= -19.9 dB	35.3 dB
5,4	DH	Pass	19.3 dB @ 461.00MHz	N/A	>= -16.9 dB	36.2 dB
1,2	DH	Pass	18.0 dB @ 497.00MHz	N/A	>= -19.9 dB	37.9 dB
7,8	RH	Pass	21.8 dB @ 497.00MHz	N/A	>= -19.9 dB	41.7 dB
3,6	RH	Pass	16.8 dB @ 500.00MHz	N/A	>= -20.1 dB	36.9 dB
5,4	RH	Pass	19.4 dB @ 491.00MHz	N/A	>= -19.4 dB	38.8 dB
1,2	RH	Pass	18.0 dB @ 500.00MHz	N/A	>= -20.1 dB	38.1 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	31.9 dB @ 258.00MHz	26.6 dB	>= 13.0 dB	18.9 dB
3,6	DH	Pass	48.9 dB @ 18.25MHz	22.6 dB	>= 36.0 dB	12.9 dB
5,4	DH	Pass	57.7 dB @ 8.50MHz	25.9 dB	>= 42.6 dB	15.1 dB
1,2	DH	Pass	62.0 dB @ 8.35MHz	27.1 dB	>= 42.8 dB	19.2 dB
7,8	RH	Pass	26.4 dB @ 482.00MHz	26.4 dB	>= 7.5 dB	18.9 dB
3,6	RH	Pass	49.9 dB @ 27.40MHz	27.1 dB	>= 32.4 dB	17.5 dB
5,4	RH	Pass	55.7 dB @ 7.15MHz	24.0 dB	>= 44.1 dB	11.6 dB
1,2	RH	Pass	29.4 dB @ 246.00MHz	24.8 dB	>= 13.4 dB	16.0 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

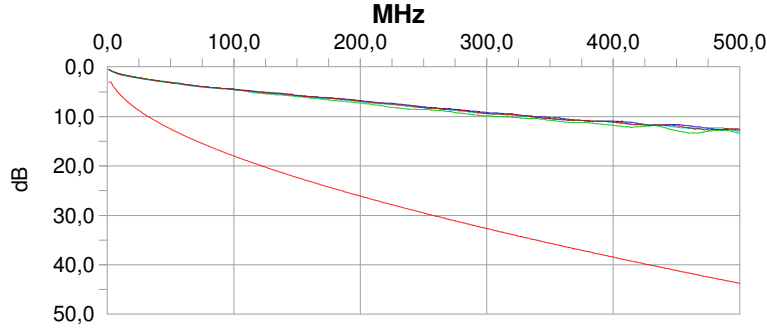
Cable ID 1: 5/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:34:30
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

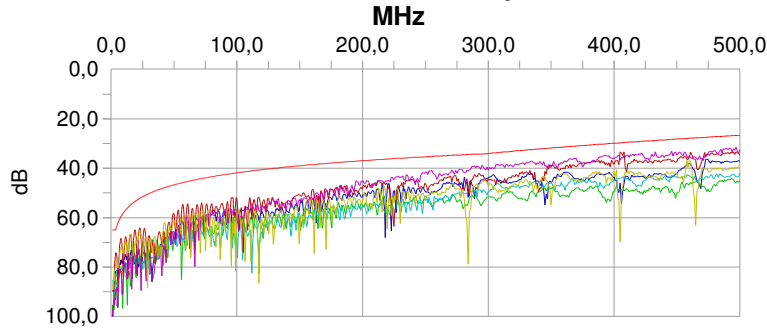
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

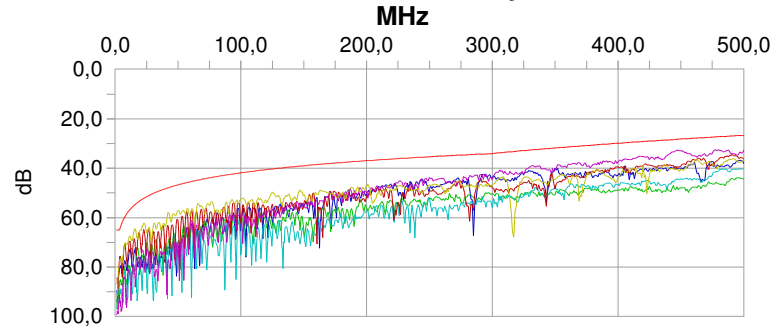
Attenuation Summary



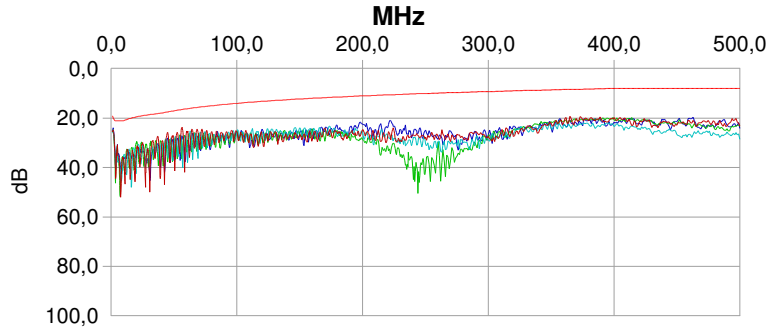
NEXT DH Summary



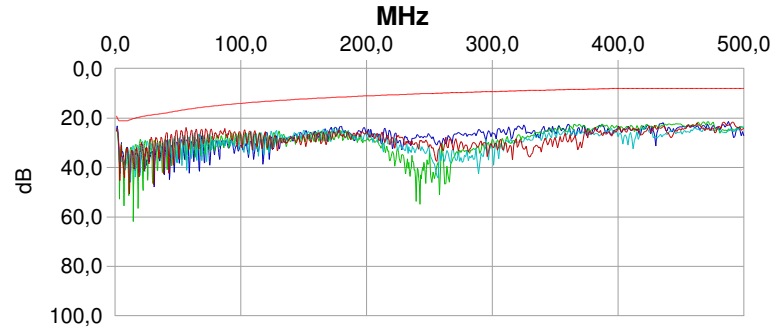
NEXT RH Summary



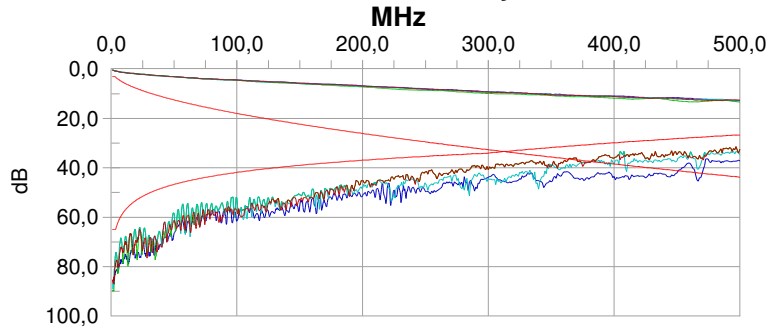
Return Loss DH Summary



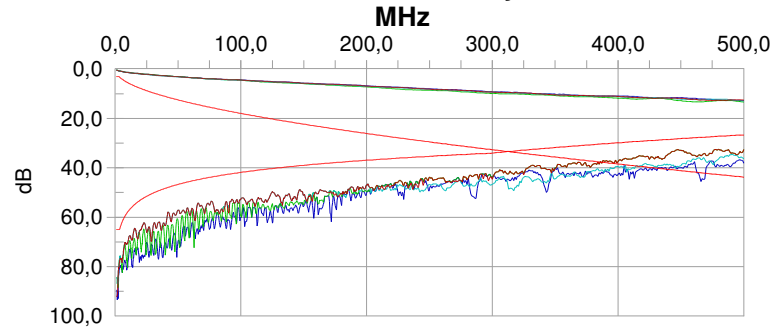
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

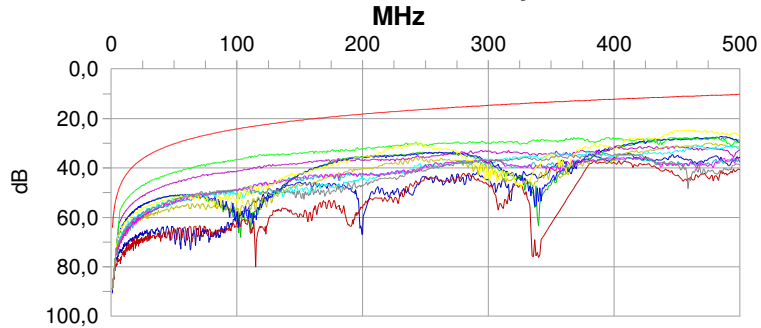
Cable ID 1: 5/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:34:30
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

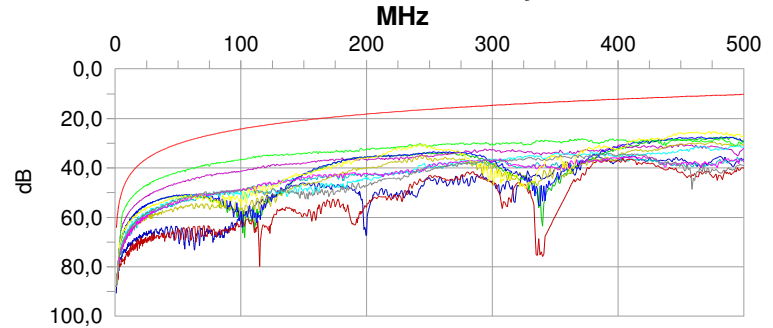
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

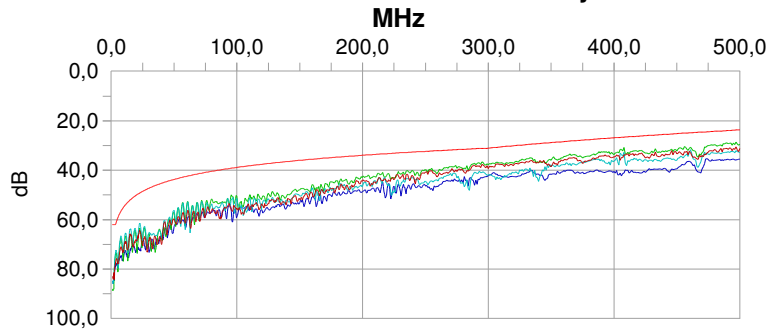
ELFEXT DH Summary



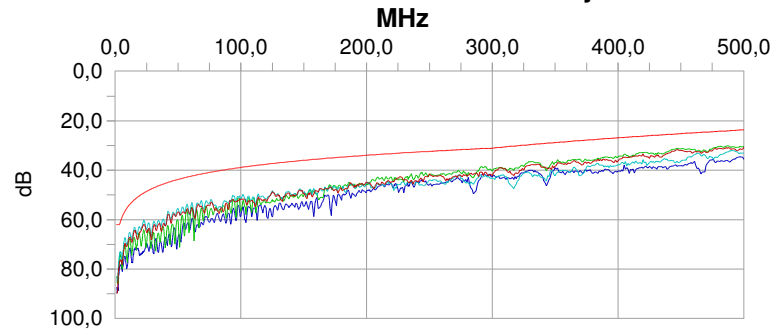
ELFEXT RH Summary



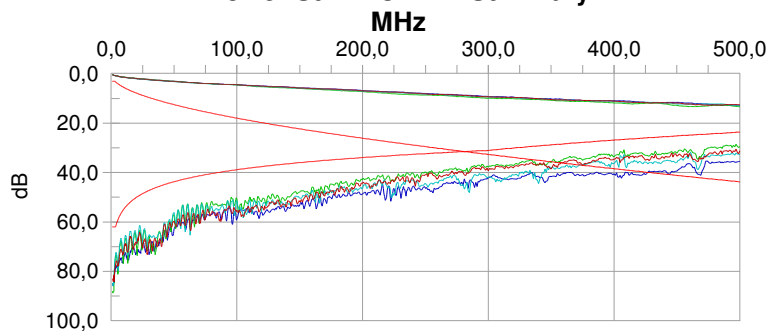
Power Sum NEXT DH Summary



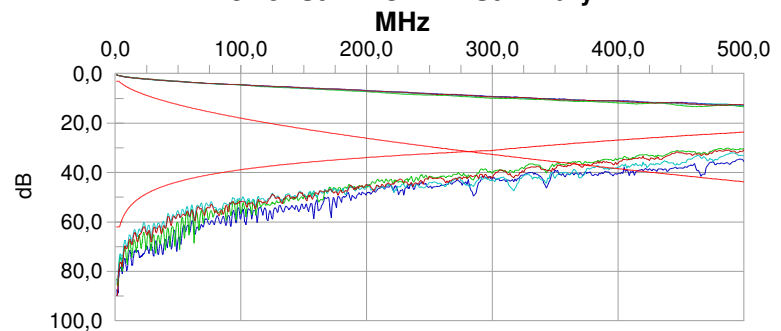
Power Sum NEXT RH Summary



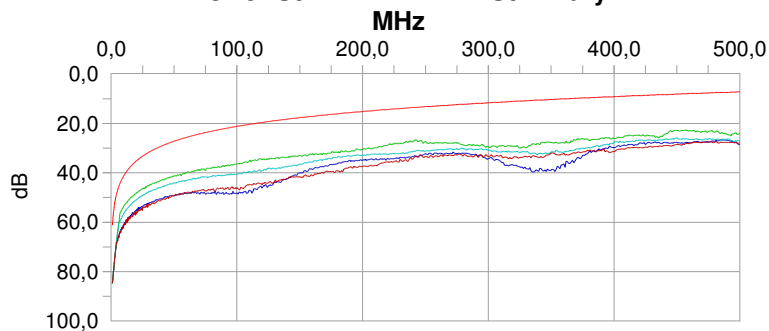
Power Sum ACR DH Summary



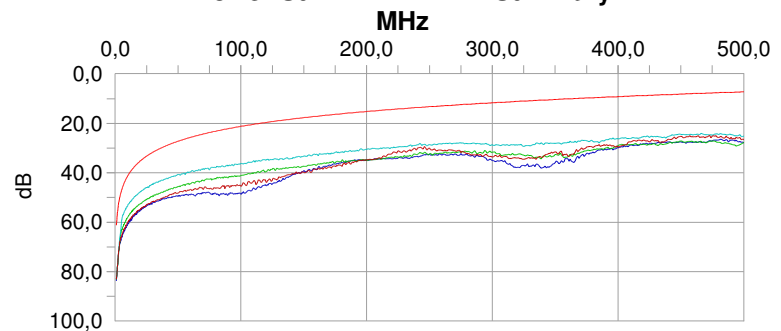
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

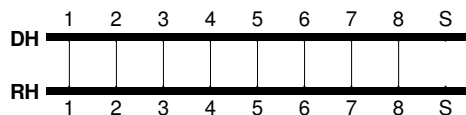
Cable ID 1: 5/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:35:18
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	25.5m	26.7m	26.3m	25.9m	< 90.0m	Pass
Prop. Delay	138.8ns	144.6ns	143.4ns	139.2ns	< 498.0ns	Pass
Delay Skew	5.8ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
DC Resistance	6.8 Ohm	6.7 Ohm	7.0 Ohm	7.2 Ohm	< 20.0 Ohm	Pass
Headroom	0.0 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	40.2 dB @ 275.00MHz	34.1 dB	> 34.7 dB	5.5 dB
7,8-5,4	DH	Pass	49.1 dB @ 225.00MHz	44.7 dB	> 36.1 dB	13.0 dB
7,8-1,2	DH	Pass	47.3 dB @ 354.00MHz	45.4 dB	> 31.6 dB	15.7 dB
3,6-5,4	DH	Pass	34.1 dB @ 405.00MHz	33.9 dB	> 29.7 dB	4.4 dB
3,6-1,2	DH	Pass	32.8 dB @ 420.00MHz	31.0 dB	> 29.2 dB	3.6 dB
5,4-1,2	DH	Pass	40.3 dB @ 388.00MHz	39.6 dB	> 30.3 dB	10.0 dB
7,8-3,6	RH	Pass	40.2 dB @ 344.00MHz	36.5 dB	> 32.0 dB	8.2 dB
7,8-5,4	RH	Pass	50.7 dB @ 263.00MHz	43.8 dB	> 35.0 dB	15.7 dB
7,8-1,2	RH	Pass	40.6 dB @ 485.00MHz	40.4 dB	> 27.1 dB	13.5 dB
3,6-5,4	RH	Pass	35.0 dB @ 459.00MHz	34.3 dB	> 27.9 dB	7.1 dB
3,6-1,2	RH	Pass	33.3 dB @ 446.00MHz	33.0 dB	> 28.3 dB	5.0 dB
5,4-1,2	RH	Pass	36.0 dB @ 493.00MHz	36.0 dB	> 26.9 dB	9.1 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.8 dB @ 1.60MHz	16.5 dB	> 19.9 dB	3.9 dB
3,6	DH	Pass	25.4 dB @ 1.60MHz	19.4 dB	> 19.9 dB	5.5 dB
5,4	DH	Pass	24.6 dB @ 1.60MHz	20.9 dB	> 19.9 dB	4.7 dB
1,2	DH	Pass	24.5 dB @ 1.60MHz	18.9 dB	> 19.9 dB	4.6 dB
7,8	RH	Pass	23.1 dB @ 1.60MHz	19.5 dB	> 19.9 dB	3.2 dB
3,6	RH	Pass	24.3 dB @ 1.60MHz	22.3 dB	> 19.9 dB	4.4 dB
5,4	RH	Pass	25.1 dB @ 1.60MHz	22.8 dB	> 19.9 dB	5.2 dB
1,2	RH	Pass	24.2 dB @ 1.60MHz	22.4 dB	> 19.9 dB	4.3 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.95MHz	12.8 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.95MHz	13.3 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.8 dB @ 2.95MHz	12.8 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.7 dB @ 2.95MHz	12.7 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	21.5 dB @ 484.00MHz	N/A	>= -15.8 dB	37.3 dB
3,6	DH	Pass	18.0 dB @ 496.00MHz	N/A	>= -16.7 dB	34.7 dB
5,4	DH	Pass	21.2 dB @ 494.00MHz	N/A	>= -16.6 dB	37.8 dB
1,2	DH	Pass	18.4 dB @ 485.00MHz	N/A	>= -15.9 dB	34.3 dB
7,8	RH	Pass	23.9 dB @ 497.00MHz	N/A	>= -16.9 dB	40.8 dB
3,6	RH	Pass	20.2 dB @ 482.00MHz	N/A	>= -15.6 dB	35.8 dB
5,4	RH	Pass	21.6 dB @ 494.00MHz	N/A	>= -16.6 dB	38.2 dB
1,2	RH	Pass	20.4 dB @ 482.00MHz	N/A	>= -15.6 dB	36.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:35:18
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	33.0 dB @ 449.00MHz	33.0 dB	> 11.1 dB	21.9 dB
7,8-5,4	DH	Pass	61.9 dB @ 7.60MHz	27.3 dB	> 46.6 dB	15.3 dB
7,8-1,2	DH	Pass	40.4 dB @ 305.00MHz	38.0 dB	> 14.5 dB	25.9 dB
3,6-7,8	DH	Pass	35.2 dB @ 413.00MHz	35.2 dB	> 11.9 dB	23.3 dB
3,6-5,4	DH	Pass	57.9 dB @ 7.30MHz	27.3 dB	> 46.9 dB	11.0 dB
3,6-1,2	DH	Pass	66.5 dB @ 5.80MHz	29.0 dB	> 48.9 dB	17.6 dB
5,4-7,8	DH	Pass	60.6 dB @ 8.35MHz	26.9 dB	> 45.8 dB	14.8 dB
5,4-3,6	DH	Pass	53.2 dB @ 7.75MHz	21.7 dB	> 46.4 dB	6.8 dB
5,4-1,2	DH	Pass	35.2 dB @ 298.00MHz	33.8 dB	> 14.7 dB	20.5 dB
1,2-7,8	DH	Pass	33.6 dB @ 496.00MHz	33.6 dB	> 10.3 dB	23.3 dB
1,2-3,6	DH	Pass	29.2 dB @ 242.00MHz	24.6 dB	> 16.5 dB	12.7 dB
1,2-5,4	DH	Pass	31.5 dB @ 466.00MHz	31.5 dB	> 10.8 dB	20.7 dB
7,8-3,6	RH	Pass	34.0 dB @ 441.00MHz	33.5 dB	> 11.3 dB	22.7 dB
7,8-5,4	RH	Pass	62.0 dB @ 7.60MHz	27.0 dB	> 46.6 dB	15.4 dB
7,8-1,2	RH	Pass	40.5 dB @ 305.00MHz	38.3 dB	> 14.5 dB	26.0 dB
3,6-7,8	RH	Pass	34.2 dB @ 413.00MHz	34.2 dB	> 11.9 dB	22.3 dB
3,6-5,4	RH	Pass	60.8 dB @ 5.20MHz	26.4 dB	> 49.9 dB	10.9 dB
3,6-1,2	RH	Pass	33.6 dB @ 246.50MHz	28.5 dB	> 16.4 dB	17.2 dB
5,4-7,8	RH	Pass	60.6 dB @ 8.35MHz	26.9 dB	> 45.8 dB	14.8 dB
5,4-3,6	RH	Pass	54.1 dB @ 6.70MHz	22.6 dB	> 47.7 dB	6.4 dB
5,4-1,2	RH	Pass	35.2 dB @ 297.00MHz	34.0 dB	> 14.7 dB	20.5 dB
1,2-7,8	RH	Pass	33.8 dB @ 496.00MHz	33.8 dB	> 10.3 dB	23.5 dB
1,2-3,6	RH	Pass	29.8 dB @ 242.00MHz	25.3 dB	> 16.5 dB	13.3 dB
1,2-5,4	RH	Pass	31.1 dB @ 466.00MHz	31.1 dB	> 10.8 dB	20.3 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	39.8 dB @ 274.00MHz	33.6 dB	> 31.7 dB	8.1 dB
3,6	DH	Pass	30.5 dB @ 405.00MHz	28.3 dB	> 26.7 dB	3.8 dB
5,4	DH	Pass	33.2 dB @ 405.00MHz	32.7 dB	> 26.7 dB	6.5 dB
1,2	DH	Pass	32.5 dB @ 409.00MHz	30.4 dB	> 26.5 dB	6.0 dB
7,8	RH	Pass	39.3 dB @ 344.00MHz	34.6 dB	> 29.0 dB	10.3 dB
3,6	RH	Pass	30.9 dB @ 444.00MHz	30.4 dB	> 25.4 dB	5.5 dB
5,4	RH	Pass	32.9 dB @ 459.00MHz	31.8 dB	> 24.9 dB	8.0 dB
1,2	RH	Pass	32.4 dB @ 446.00MHz	31.6 dB	> 25.3 dB	7.1 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	21.0 dB @ 484.00MHz	N/A	>= -18.8 dB	39.8 dB
3,6	DH	Pass	15.3 dB @ 494.00MHz	N/A	>= -19.6 dB	34.9 dB
5,4	DH	Pass	20.0 dB @ 494.00MHz	N/A	>= -19.6 dB	39.6 dB
1,2	DH	Pass	17.8 dB @ 485.00MHz	N/A	>= -18.9 dB	36.7 dB
7,8	RH	Pass	21.8 dB @ 497.00MHz	N/A	>= -19.9 dB	41.7 dB
3,6	RH	Pass	17.5 dB @ 494.00MHz	N/A	>= -19.6 dB	37.1 dB
5,4	RH	Pass	19.1 dB @ 495.00MHz	N/A	>= -19.7 dB	38.8 dB
1,2	RH	Pass	19.0 dB @ 482.00MHz	N/A	>= -18.6 dB	37.6 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	26.4 dB @ 474.00MHz	26.2 dB	>= 7.7 dB	18.7 dB
3,6	DH	Pass	43.4 dB @ 23.80MHz	20.0 dB	>= 33.7 dB	9.7 dB
5,4	DH	Pass	52.5 dB @ 11.80MHz	23.7 dB	>= 39.8 dB	12.7 dB
1,2	DH	Pass	32.7 dB @ 246.50MHz	28.5 dB	>= 13.4 dB	19.3 dB
7,8	RH	Pass	26.8 dB @ 441.00MHz	26.1 dB	>= 8.3 dB	18.5 dB
3,6	RH	Pass	42.2 dB @ 49.25MHz	24.3 dB	>= 27.3 dB	14.9 dB
5,4	RH	Pass	50.0 dB @ 10.45MHz	21.2 dB	>= 40.8 dB	9.2 dB
1,2	RH	Pass	29.2 dB @ 242.00MHz	24.1 dB	>= 13.5 dB	15.7 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

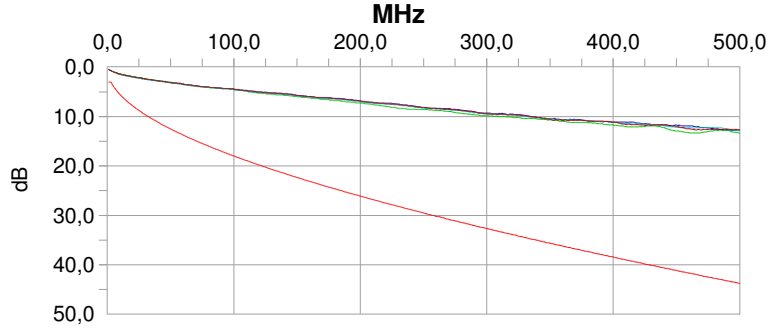
Cable ID 1: 5/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:35:18
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

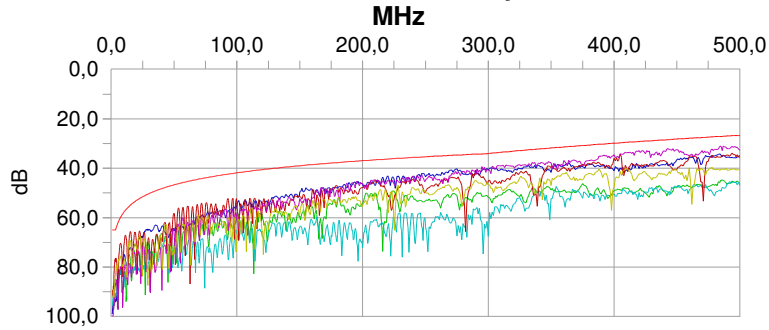
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

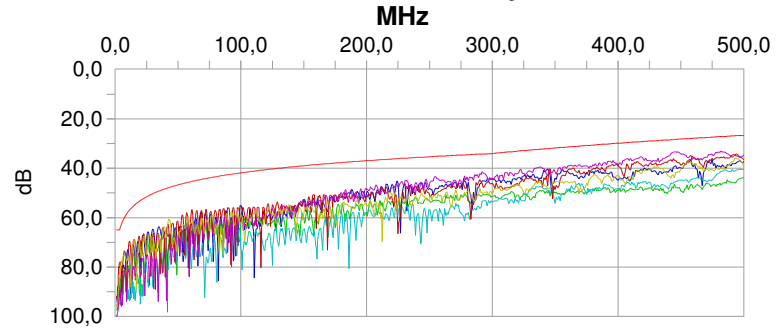
Attenuation Summary



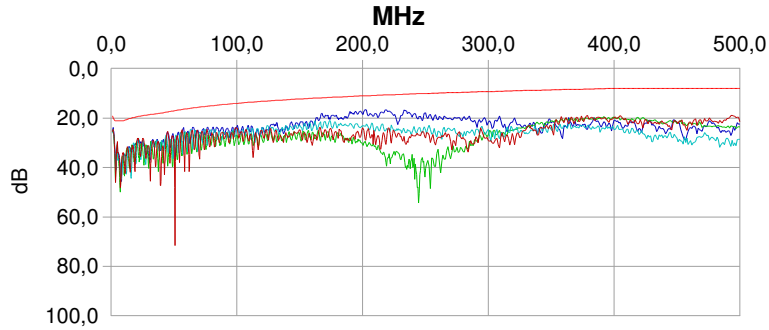
NEXT DH Summary



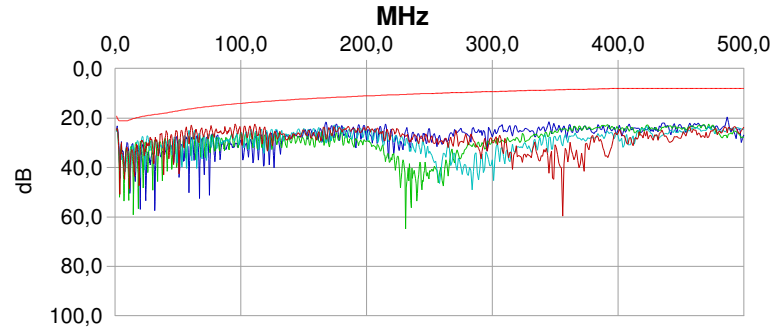
NEXT RH Summary



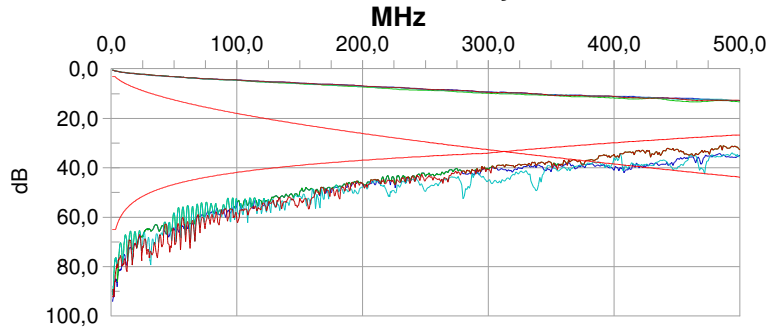
Return Loss DH Summary



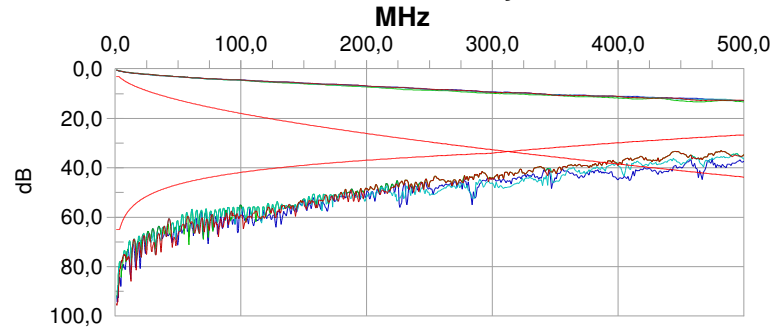
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:35:18
Adapter ID: 6014

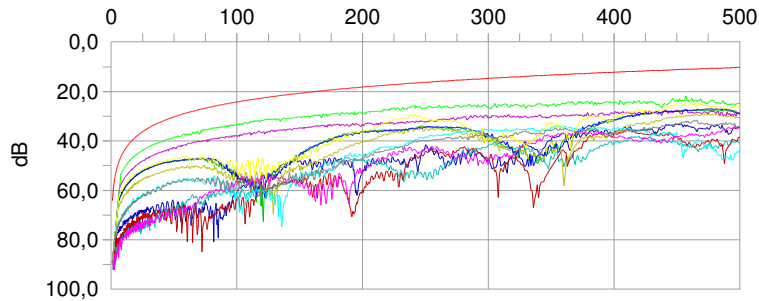
Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

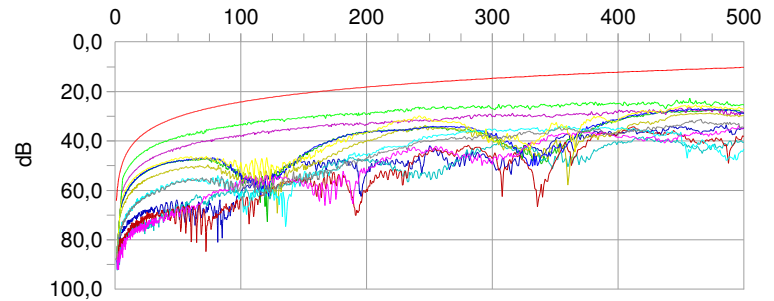
ELFEXT DH Summary

MHz



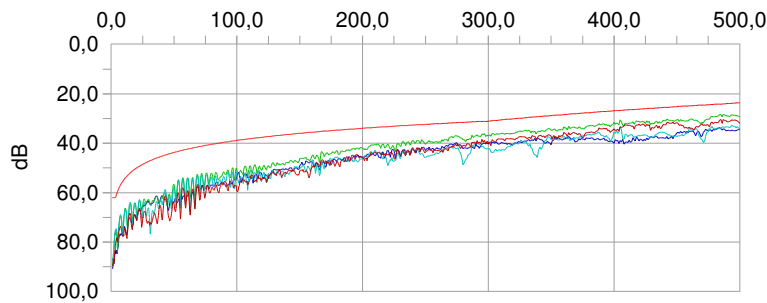
ELFEXT RH Summary

MHz



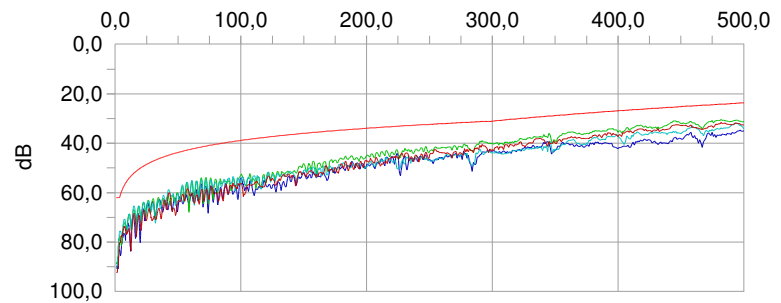
Power Sum NEXT DH Summary

MHz



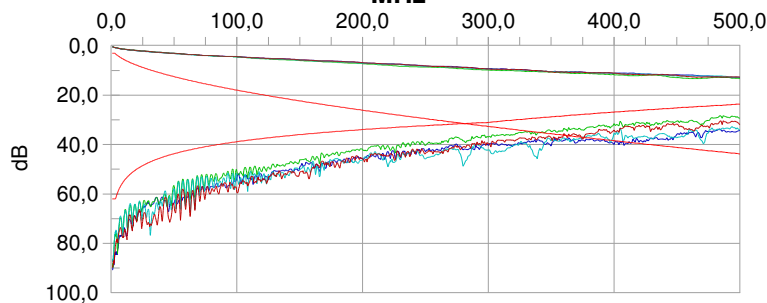
Power Sum NEXT RH Summary

MHz



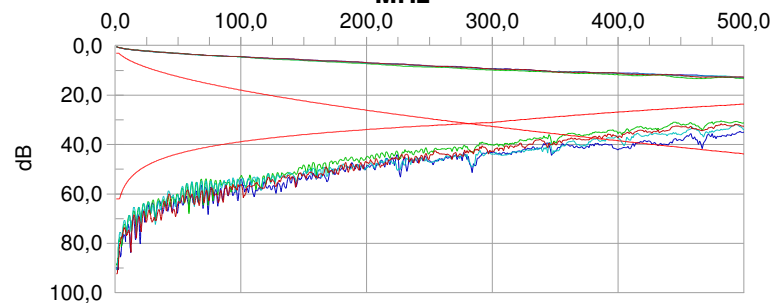
Power Sum ACR DH Summary

MHz



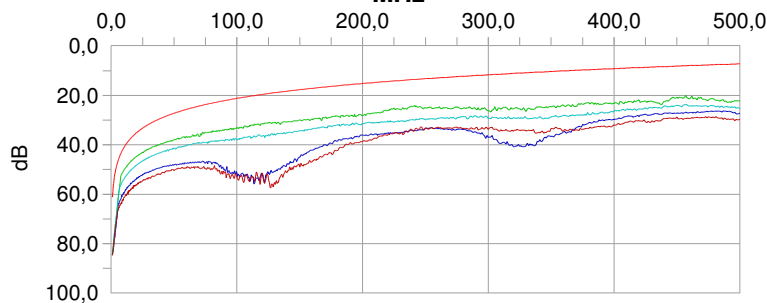
Power Sum ACR RH Summary

MHz



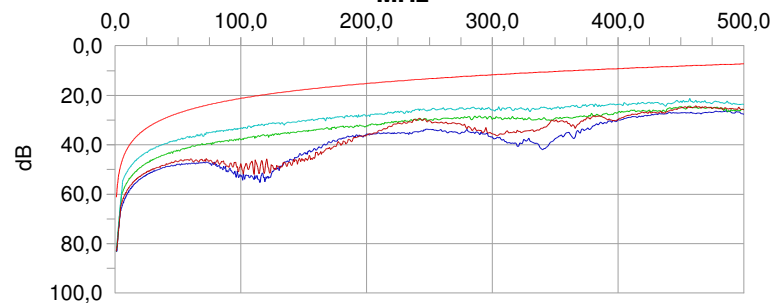
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

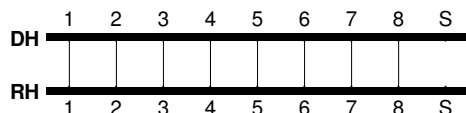
Cable ID 1: 5/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:35:55
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	25.5m	26.7m	26.3m	25.9m	< 90.0m	Pass
Prop. Delay	139.0ns	144.6ns	143.4ns	139.2ns	< 498.0ns	Pass
Delay Skew		5.6ns (Pairs 3,6 vs. 7,8)			< 44.0 ns	Pass
DC Resistance	6.8 Ohm	6.7 Ohm	7.0 Ohm	7.1 Ohm	< 20.0 Ohm	Pass
Headroom		0.0 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	43.6 dB @ 298.00MHz	37.0 dB	> 34.1 dB	9.5 dB
7,8-5,4	DH	Pass	53.1 dB @ 177.00MHz	44.1 dB	> 37.8 dB	15.3 dB
7,8-1,2	DH	Pass	47.1 dB @ 346.00MHz	44.1 dB	> 31.9 dB	15.2 dB
3,6-5,4	DH	Pass	34.1 dB @ 403.00MHz	34.0 dB	> 29.8 dB	4.3 dB
3,6-1,2	DH	Pass	33.3 dB @ 422.00MHz	32.4 dB	> 29.1 dB	4.2 dB
5,4-1,2	DH	Pass	36.7 dB @ 463.00MHz	36.7 dB	> 27.8 dB	8.9 dB
7,8-3,6	RH	Pass	42.2 dB @ 301.00MHz	36.6 dB	> 34.0 dB	8.2 dB
7,8-5,4	RH	Pass	49.1 dB @ 273.00MHz	43.2 dB	> 34.7 dB	14.4 dB
7,8-1,2	RH	Pass	40.6 dB @ 496.00MHz	40.5 dB	> 26.8 dB	13.8 dB
3,6-5,4	RH	Pass	37.4 dB @ 395.00MHz	34.5 dB	> 30.0 dB	7.4 dB
3,6-1,2	RH	Pass	37.4 dB @ 341.00MHz	33.3 dB	> 32.2 dB	5.2 dB
5,4-1,2	RH	Pass	38.1 dB @ 455.00MHz	38.1 dB	> 28.0 dB	10.1 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.8 dB @ 1.60MHz	19.7 dB	> 19.9 dB	3.9 dB
3,6	DH	Pass	25.4 dB @ 1.60MHz	20.2 dB	> 19.9 dB	5.5 dB
5,4	DH	Pass	24.5 dB @ 1.60MHz	21.3 dB	> 19.9 dB	4.6 dB
1,2	DH	Pass	24.7 dB @ 1.60MHz	19.0 dB	> 19.9 dB	4.8 dB
7,8	RH	Pass	23.1 dB @ 1.60MHz	20.7 dB	> 19.9 dB	3.2 dB
3,6	RH	Pass	24.4 dB @ 1.60MHz	22.0 dB	> 19.9 dB	4.5 dB
5,4	RH	Pass	25.0 dB @ 1.45MHz	22.1 dB	> 19.7 dB	5.3 dB
1,2	RH	Pass	24.2 dB @ 1.60MHz	22.7 dB	> 19.9 dB	4.3 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.95MHz	12.7 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.95MHz	13.4 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.8 dB @ 2.95MHz	13.0 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.8 dB @ 3.10MHz	12.6 dB	< 3.1 dB	2.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.5 dB @ 491.00MHz	N/A	>= -16.4 dB	40.9 dB
3,6	DH	Pass	19.3 dB @ 497.00MHz	N/A	>= -16.9 dB	36.2 dB
5,4	DH	Pass	21.2 dB @ 499.00MHz	N/A	>= -17.0 dB	38.2 dB
1,2	DH	Pass	19.9 dB @ 488.00MHz	N/A	>= -16.1 dB	36.0 dB
7,8	RH	Pass	24.1 dB @ 499.00MHz	N/A	>= -17.0 dB	41.1 dB
3,6	RH	Pass	20.5 dB @ 483.00MHz	N/A	>= -15.8 dB	36.3 dB
5,4	RH	Pass	21.7 dB @ 495.00MHz	N/A	>= -16.7 dB	38.4 dB
1,2	RH	Pass	20.7 dB @ 483.00MHz	N/A	>= -15.8 dB	36.5 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:35:55
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	35.5 dB @ 360.00MHz	34.7 dB	> 13.1 dB	22.4 dB
7,8-5,4	DH	Pass	26.9 dB @ 450.00MHz	26.7 dB	> 11.1 dB	15.8 dB
7,8-1,2	DH	Pass	37.6 dB @ 402.00MHz	37.6 dB	> 12.1 dB	25.5 dB
3,6-7,8	DH	Pass	36.9 dB @ 388.00MHz	36.9 dB	> 12.4 dB	24.5 dB
3,6-5,4	DH	Pass	61.4 dB @ 7.30MHz	30.7 dB	> 46.9 dB	14.5 dB
3,6-1,2	DH	Pass	28.2 dB @ 476.00MHz	28.2 dB	> 10.6 dB	17.6 dB
5,4-7,8	DH	Pass	26.7 dB @ 473.00MHz	26.7 dB	> 10.7 dB	16.0 dB
5,4-3,6	DH	Pass	57.5 dB @ 7.00MHz	26.2 dB	> 47.3 dB	10.2 dB
5,4-1,2	DH	Pass	35.5 dB @ 292.00MHz	33.4 dB	> 14.9 dB	20.6 dB
1,2-7,8	DH	Pass	36.1 dB @ 402.00MHz	36.1 dB	> 12.1 dB	24.0 dB
1,2-3,6	DH	Pass	29.4 dB @ 237.50MHz	23.6 dB	> 16.7 dB	12.7 dB
1,2-5,4	DH	Pass	35.5 dB @ 298.00MHz	34.7 dB	> 14.7 dB	20.8 dB
7,8-3,6	RH	Pass	36.0 dB @ 360.00MHz	34.8 dB	> 13.1 dB	22.9 dB
7,8-5,4	RH	Pass	27.0 dB @ 466.00MHz	26.9 dB	> 10.8 dB	16.2 dB
7,8-1,2	RH	Pass	37.7 dB @ 402.00MHz	37.7 dB	> 12.1 dB	25.6 dB
3,6-7,8	RH	Pass	36.3 dB @ 388.00MHz	36.3 dB	> 12.4 dB	23.9 dB
3,6-5,4	RH	Pass	65.8 dB @ 4.45MHz	30.0 dB	> 51.2 dB	14.6 dB
3,6-1,2	RH	Pass	28.1 dB @ 458.00MHz	27.9 dB	> 11.0 dB	17.1 dB
5,4-7,8	RH	Pass	26.6 dB @ 457.00MHz	26.6 dB	> 11.0 dB	15.6 dB
5,4-3,6	RH	Pass	60.0 dB @ 5.20MHz	27.0 dB	> 49.9 dB	10.1 dB
5,4-1,2	RH	Pass	35.1 dB @ 303.00MHz	33.1 dB	> 14.6 dB	20.5 dB
1,2-7,8	RH	Pass	36.0 dB @ 402.00MHz	36.0 dB	> 12.1 dB	23.9 dB
1,2-3,6	RH	Pass	30.0 dB @ 237.50MHz	24.3 dB	> 16.7 dB	13.3 dB
1,2-5,4	RH	Pass	35.8 dB @ 293.00MHz	35.0 dB	> 14.9 dB	20.9 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.0 dB @ 348.00MHz	35.8 dB	> 28.9 dB	11.1 dB
3,6	DH	Pass	31.4 dB @ 401.00MHz	29.5 dB	> 26.8 dB	4.6 dB
5,4	DH	Pass	33.2 dB @ 403.00MHz	32.1 dB	> 26.8 dB	6.4 dB
1,2	DH	Pass	33.4 dB @ 400.00MHz	31.2 dB	> 26.9 dB	6.5 dB
7,8	RH	Pass	41.3 dB @ 301.00MHz	34.8 dB	> 31.0 dB	10.3 dB
3,6	RH	Pass	31.0 dB @ 449.00MHz	30.4 dB	> 25.2 dB	5.8 dB
5,4	RH	Pass	34.6 dB @ 433.00MHz	32.8 dB	> 25.7 dB	8.9 dB
1,2	RH	Pass	32.5 dB @ 446.00MHz	31.6 dB	> 25.3 dB	7.2 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	23.2 dB @ 491.00MHz	N/A	>= -19.4 dB	42.6 dB
3,6	DH	Pass	16.3 dB @ 497.00MHz	N/A	>= -19.9 dB	36.2 dB
5,4	DH	Pass	19.5 dB @ 499.00MHz	N/A	>= -20.0 dB	39.5 dB
1,2	DH	Pass	18.6 dB @ 497.00MHz	N/A	>= -19.9 dB	38.5 dB
7,8	RH	Pass	22.1 dB @ 499.00MHz	N/A	>= -20.0 dB	42.1 dB
3,6	RH	Pass	17.3 dB @ 495.00MHz	N/A	>= -19.7 dB	37.0 dB
5,4	RH	Pass	19.9 dB @ 497.00MHz	N/A	>= -19.9 dB	39.8 dB
1,2	RH	Pass	19.0 dB @ 483.00MHz	N/A	>= -18.8 dB	37.8 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	27.3 dB @ 424.00MHz	26.4 dB	>= 8.6 dB	18.7 dB
3,6	DH	Pass	49.2 dB @ 16.75MHz	21.7 dB	>= 36.7 dB	12.5 dB
5,4	DH	Pass	46.8 dB @ 37.50MHz	25.3 dB	>= 29.7 dB	17.1 dB
1,2	DH	Pass	32.4 dB @ 242.00MHz	27.1 dB	>= 13.5 dB	18.9 dB
7,8	RH	Pass	27.2 dB @ 432.00MHz	26.2 dB	>= 8.5 dB	18.7 dB
3,6	RH	Pass	48.8 dB @ 30.55MHz	26.0 dB	>= 31.5 dB	17.3 dB
5,4	RH	Pass	44.3 dB @ 33.00MHz	23.4 dB	>= 30.8 dB	13.5 dB
1,2	RH	Pass	29.0 dB @ 242.00MHz	24.1 dB	>= 13.5 dB	15.5 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

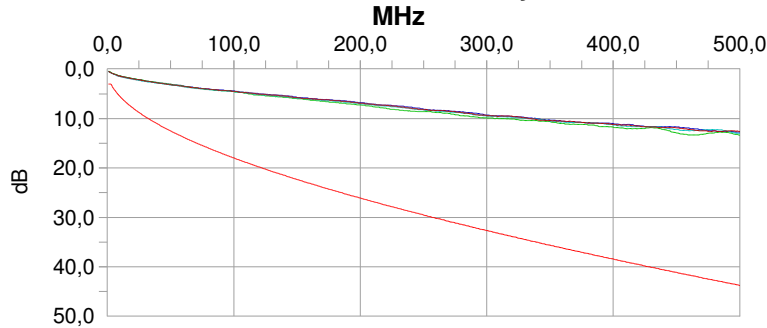
Cable ID 1: 5/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:35:55
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

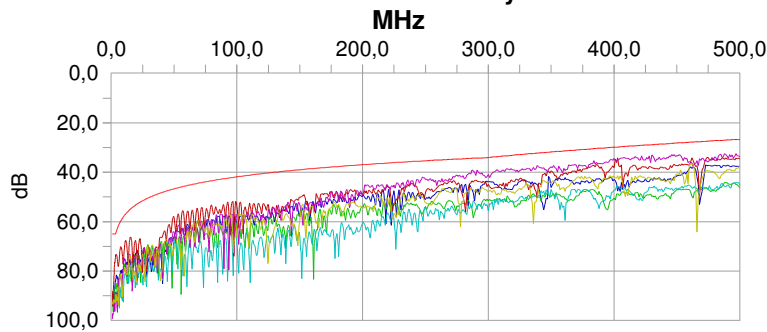
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

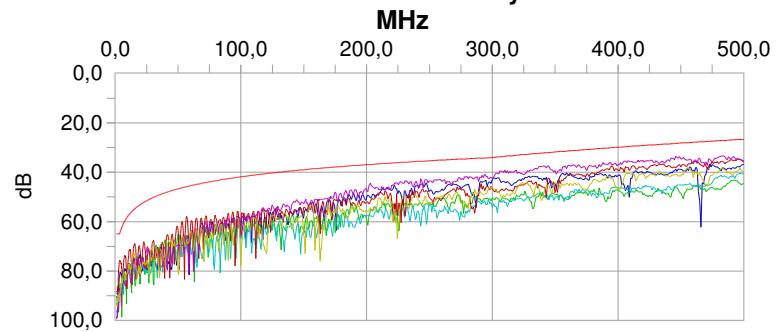
Attenuation Summary



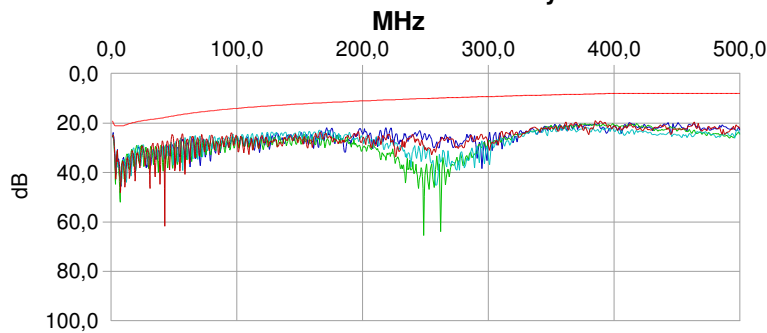
NEXT DH Summary



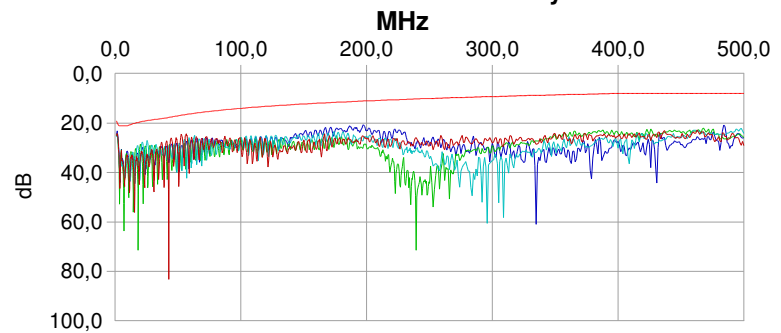
NEXT RH Summary



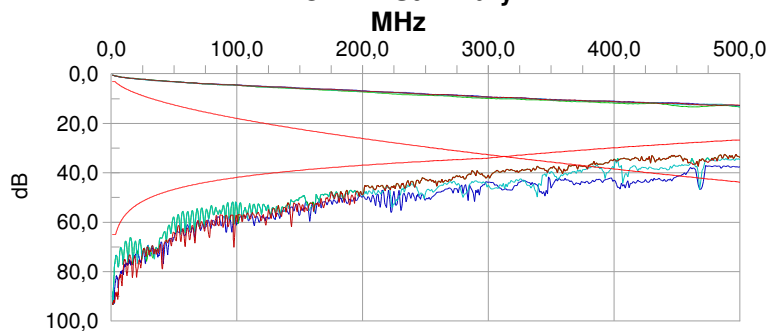
Return Loss DH Summary



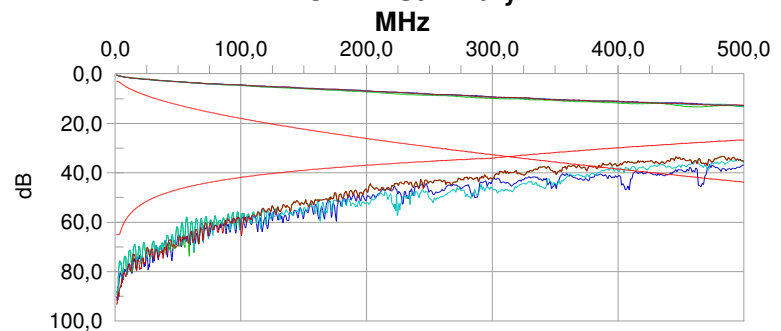
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:35:55
Adapter ID: 6014

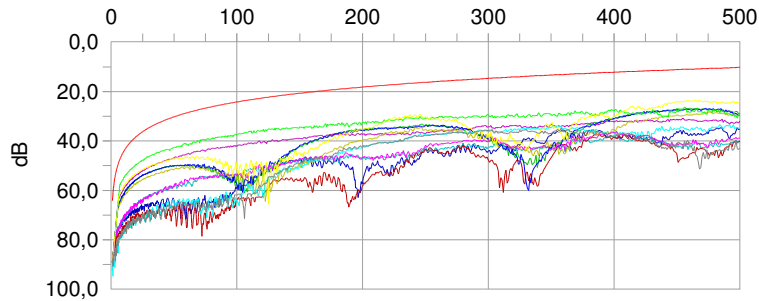
Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

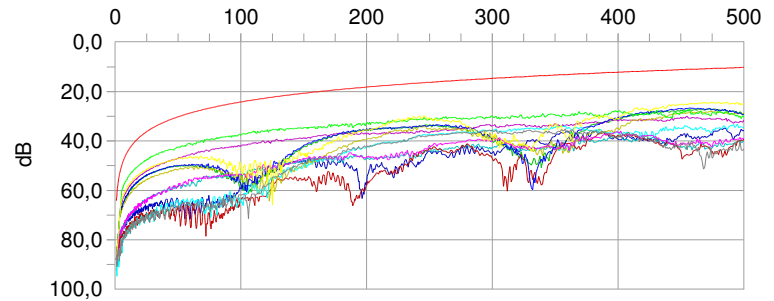
ELFEXT DH Summary

MHz



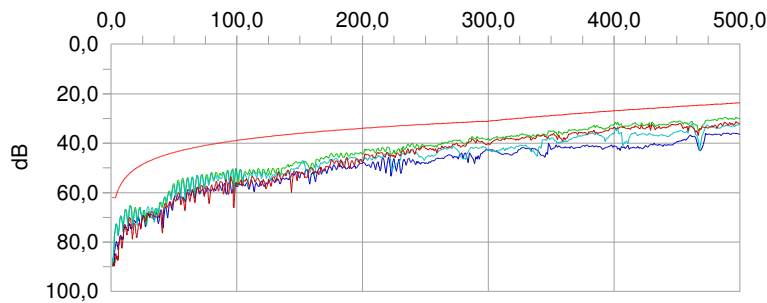
ELFEXT RH Summary

MHz



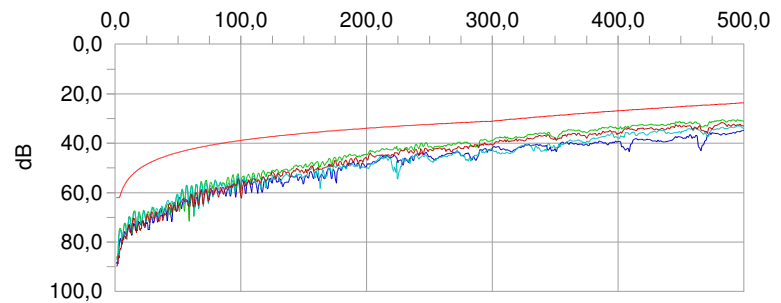
Power Sum NEXT DH Summary

MHz



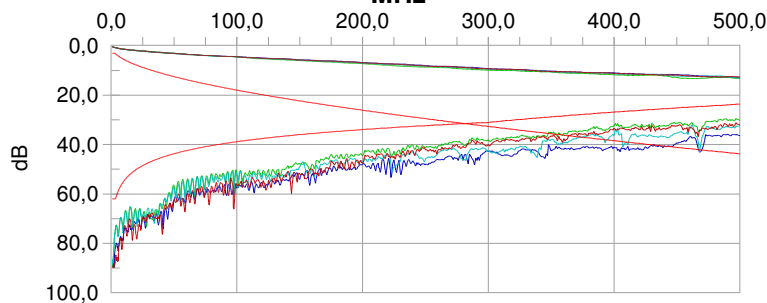
Power Sum NEXT RH Summary

MHz



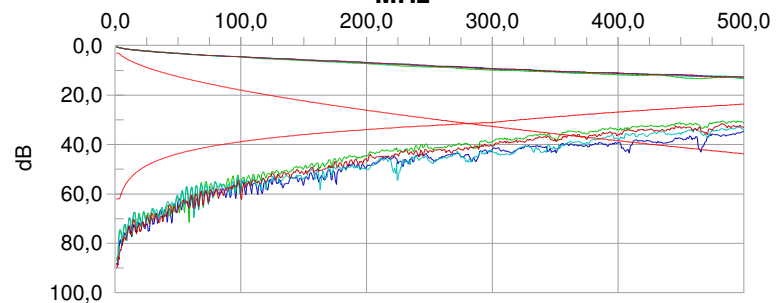
Power Sum ACR DH Summary

MHz



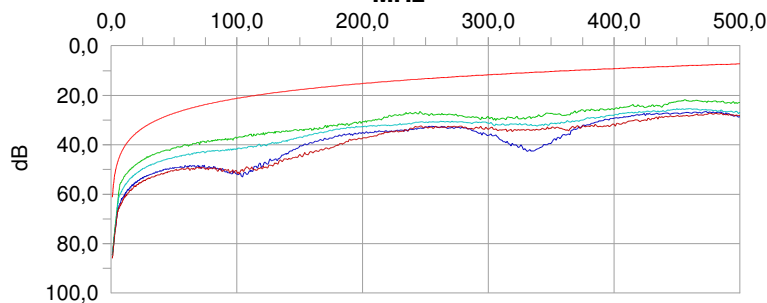
Power Sum ACR RH Summary

MHz



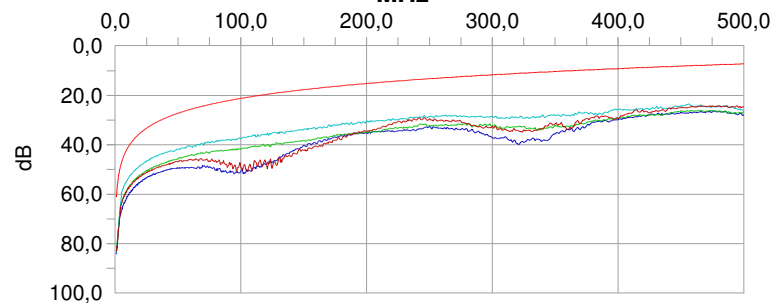
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

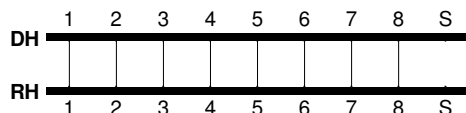
Cable ID 1: 5/18
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:37:47
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	25.7m	26.9m	26.6m	26.1m	< 90.0m	Pass
Prop. Delay	139.7ns	145.6ns	144.4ns	140.1ns	< 498.0ns	Pass
Delay Skew	5.9ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
DC Resistance	6.8 Ohm	6.8 Ohm	7.0 Ohm	7.2 Ohm	< 20.0 Ohm	Pass
Headroom	0.0 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	53.5 dB @ 68.75MHz	37.2 dB	> 44.5 dB	9.0 dB
7,8-5,4	DH	Pass	50.7 dB @ 222.50MHz	44.2 dB	> 36.2 dB	14.5 dB
7,8-1,2	DH	Pass	45.5 dB @ 345.00MHz	42.5 dB	> 32.0 dB	13.5 dB
3,6-5,4	DH	Pass	33.3 dB @ 407.00MHz	33.3 dB	> 29.6 dB	3.7 dB
3,6-1,2	DH	Pass	38.6 dB @ 285.00MHz	32.3 dB	> 34.4 dB	4.2 dB
5,4-1,2	DH	Pass	36.7 dB @ 466.00MHz	36.7 dB	> 27.7 dB	9.0 dB
7,8-3,6	RH	Pass	40.4 dB @ 328.00MHz	35.5 dB	> 32.7 dB	7.7 dB
7,8-5,4	RH	Pass	51.3 dB @ 218.50MHz	43.1 dB	> 36.3 dB	15.0 dB
7,8-1,2	RH	Pass	40.5 dB @ 491.00MHz	40.3 dB	> 26.9 dB	13.6 dB
3,6-5,4	RH	Pass	38.0 dB @ 408.00MHz	35.7 dB	> 29.6 dB	8.4 dB
3,6-1,2	RH	Pass	34.3 dB @ 448.00MHz	33.6 dB	> 28.2 dB	6.1 dB
5,4-1,2	RH	Pass	38.7 dB @ 405.00MHz	36.0 dB	> 29.7 dB	9.0 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.9 dB @ 1.60MHz	18.4 dB	> 19.9 dB	4.0 dB
3,6	DH	Pass	25.4 dB @ 1.60MHz	20.3 dB	> 19.9 dB	5.5 dB
5,4	DH	Pass	24.7 dB @ 1.60MHz	22.0 dB	> 19.9 dB	4.8 dB
1,2	DH	Pass	24.7 dB @ 1.60MHz	19.6 dB	> 19.9 dB	4.8 dB
7,8	RH	Pass	23.1 dB @ 1.60MHz	21.7 dB	> 19.9 dB	3.2 dB
3,6	RH	Pass	24.3 dB @ 1.60MHz	21.1 dB	> 19.9 dB	4.4 dB
5,4	RH	Pass	25.2 dB @ 1.60MHz	22.9 dB	> 19.9 dB	5.3 dB
1,2	RH	Pass	24.5 dB @ 1.60MHz	20.7 dB	> 19.9 dB	4.6 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.8 dB @ 3.10MHz	12.7 dB	< 3.1 dB	2.3 dB
3,6	Pass	0.7 dB @ 2.95MHz	13.4 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.8 dB @ 2.95MHz	13.1 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.7 dB @ 2.95MHz	12.8 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.5 dB @ 488.00MHz	N/A	>= -16.1 dB	40.6 dB
3,6	DH	Pass	19.2 dB @ 494.00MHz	N/A	>= -16.6 dB	35.8 dB
5,4	DH	Pass	21.2 dB @ 498.00MHz	N/A	>= -16.9 dB	38.1 dB
1,2	DH	Pass	19.7 dB @ 493.00MHz	N/A	>= -16.5 dB	36.2 dB
7,8	RH	Pass	23.1 dB @ 473.00MHz	N/A	>= -14.9 dB	38.0 dB
3,6	RH	Pass	20.7 dB @ 483.00MHz	N/A	>= -15.8 dB	36.5 dB
5,4	RH	Pass	22.8 dB @ 499.00MHz	N/A	>= -17.0 dB	39.8 dB
1,2	RH	Pass	20.9 dB @ 483.00MHz	N/A	>= -15.8 dB	36.7 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/18
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:37:47
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	33.9 dB @ 410.00MHz	32.6 dB	> 11.9 dB	22.0 dB
7,8-5,4	DH	Pass	34.1 dB @ 201.50MHz	27.5 dB	> 18.1 dB	16.0 dB
7,8-1,2	DH	Pass	37.3 dB @ 304.00MHz	35.4 dB	> 14.5 dB	22.8 dB
3,6-7,8	DH	Pass	37.0 dB @ 409.00MHz	36.9 dB	> 12.0 dB	25.0 dB
3,6-5,4	DH	Pass	59.7 dB @ 6.55MHz	28.4 dB	> 47.9 dB	11.8 dB
3,6-1,2	DH	Pass	35.3 dB @ 245.00MHz	30.1 dB	> 16.4 dB	18.9 dB
5,4-7,8	DH	Pass	62.8 dB @ 7.30MHz	27.6 dB	> 46.9 dB	15.9 dB
5,4-3,6	DH	Pass	54.1 dB @ 7.60MHz	24.1 dB	> 46.6 dB	7.5 dB
5,4-1,2	DH	Pass	34.3 dB @ 281.00MHz	33.5 dB	> 15.2 dB	19.1 dB
1,2-7,8	DH	Pass	33.7 dB @ 378.00MHz	32.3 dB	> 12.6 dB	21.1 dB
1,2-3,6	DH	Pass	29.9 dB @ 244.50MHz	24.5 dB	> 16.4 dB	13.5 dB
1,2-5,4	DH	Pass	36.5 dB @ 276.00MHz	32.5 dB	> 15.4 dB	21.1 dB
7,8-3,6	RH	Pass	32.8 dB @ 483.00MHz	32.8 dB	> 10.5 dB	22.3 dB
7,8-5,4	RH	Pass	34.2 dB @ 201.50MHz	27.5 dB	> 18.1 dB	16.1 dB
7,8-1,2	RH	Pass	37.5 dB @ 304.00MHz	35.7 dB	> 14.5 dB	23.0 dB
3,6-7,8	RH	Pass	36.1 dB @ 409.00MHz	36.1 dB	> 12.0 dB	24.1 dB
3,6-5,4	RH	Pass	62.3 dB @ 4.90MHz	27.8 dB	> 50.4 dB	11.9 dB
3,6-1,2	RH	Pass	34.8 dB @ 245.00MHz	29.6 dB	> 16.4 dB	18.4 dB
5,4-7,8	RH	Pass	65.5 dB @ 5.20MHz	27.6 dB	> 49.9 dB	15.6 dB
5,4-3,6	RH	Pass	55.8 dB @ 6.10MHz	24.8 dB	> 48.5 dB	7.3 dB
5,4-1,2	RH	Pass	34.2 dB @ 281.00MHz	33.1 dB	> 15.2 dB	19.0 dB
1,2-7,8	RH	Pass	34.2 dB @ 361.00MHz	32.4 dB	> 13.0 dB	21.2 dB
1,2-3,6	RH	Pass	30.5 dB @ 244.50MHz	25.5 dB	> 16.4 dB	14.1 dB
1,2-5,4	RH	Pass	36.7 dB @ 276.00MHz	32.5 dB	> 15.4 dB	21.3 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	45.5 dB @ 193.00MHz	35.6 dB	> 34.2 dB	11.3 dB
3,6	DH	Pass	31.2 dB @ 407.00MHz	29.6 dB	> 26.6 dB	4.6 dB
5,4	DH	Pass	32.8 dB @ 407.00MHz	32.3 dB	> 26.6 dB	6.2 dB
1,2	DH	Pass	38.0 dB @ 285.00MHz	30.8 dB	> 31.4 dB	6.6 dB
7,8	RH	Pass	41.2 dB @ 295.00MHz	34.3 dB	> 31.2 dB	10.0 dB
3,6	RH	Pass	30.9 dB @ 473.00MHz	30.8 dB	> 24.5 dB	6.4 dB
5,4	RH	Pass	35.5 dB @ 408.00MHz	32.8 dB	> 26.6 dB	8.9 dB
1,2	RH	Pass	33.4 dB @ 419.00MHz	31.8 dB	> 26.2 dB	7.2 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	22.9 dB @ 488.00MHz	N/A	>= -19.1 dB	42.0 dB
3,6	DH	Pass	16.6 dB @ 492.00MHz	N/A	>= -19.4 dB	36.0 dB
5,4	DH	Pass	19.7 dB @ 491.00MHz	N/A	>= -19.4 dB	39.1 dB
1,2	DH	Pass	18.2 dB @ 493.00MHz	N/A	>= -19.5 dB	37.7 dB
7,8	RH	Pass	21.6 dB @ 497.00MHz	N/A	>= -19.9 dB	41.5 dB
3,6	RH	Pass	17.7 dB @ 473.00MHz	N/A	>= -17.9 dB	35.6 dB
5,4	RH	Pass	19.7 dB @ 500.00MHz	N/A	>= -20.1 dB	39.8 dB
1,2	RH	Pass	19.2 dB @ 498.00MHz	N/A	>= -19.9 dB	39.1 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	31.6 dB @ 248.50MHz	26.4 dB	>= 13.3 dB	18.3 dB
3,6	DH	Pass	48.5 dB @ 14.20MHz	21.2 dB	>= 38.1 dB	10.4 dB
5,4	DH	Pass	48.5 dB @ 21.70MHz	24.7 dB	>= 34.5 dB	14.0 dB
1,2	DH	Pass	32.6 dB @ 245.00MHz	28.5 dB	>= 13.4 dB	19.2 dB
7,8	RH	Pass	33.7 dB @ 201.50MHz	26.1 dB	>= 15.1 dB	18.6 dB
3,6	RH	Pass	48.7 dB @ 24.85MHz	25.7 dB	>= 33.3 dB	15.4 dB
5,4	RH	Pass	45.4 dB @ 20.35MHz	22.9 dB	>= 35.0 dB	10.4 dB
1,2	RH	Pass	29.4 dB @ 244.50MHz	24.3 dB	>= 13.4 dB	16.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

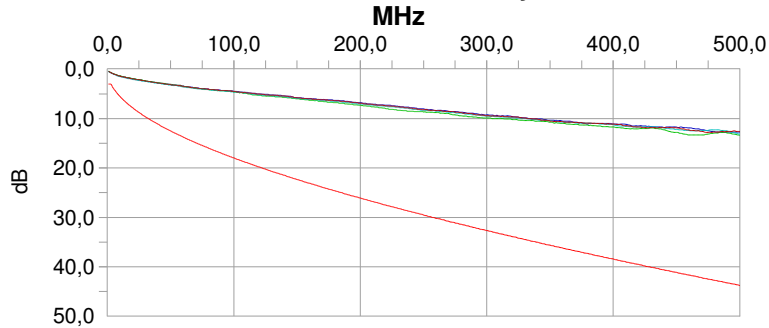
Cable ID 1: 5/18
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:37:47
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

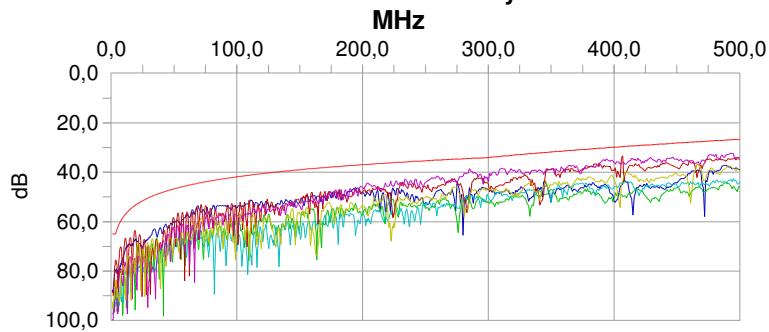
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

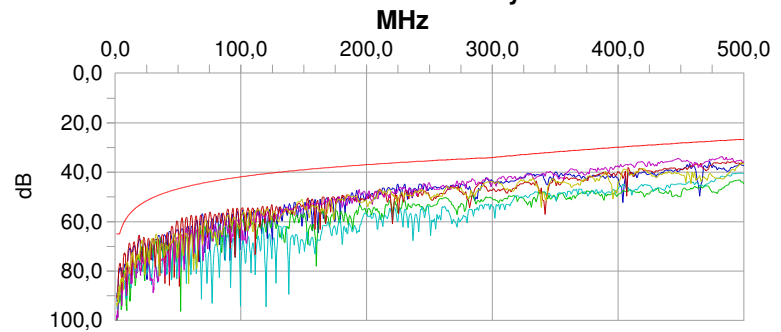
Attenuation Summary



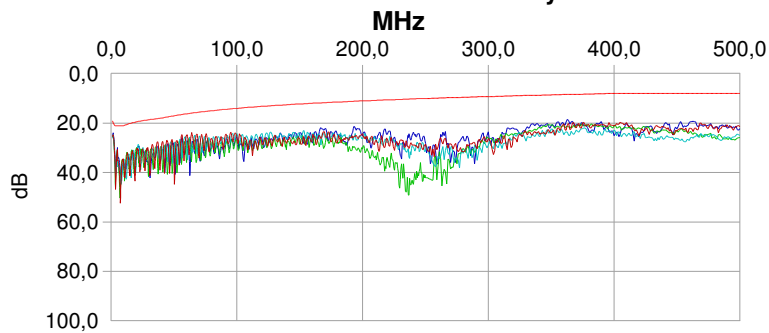
NEXT DH Summary



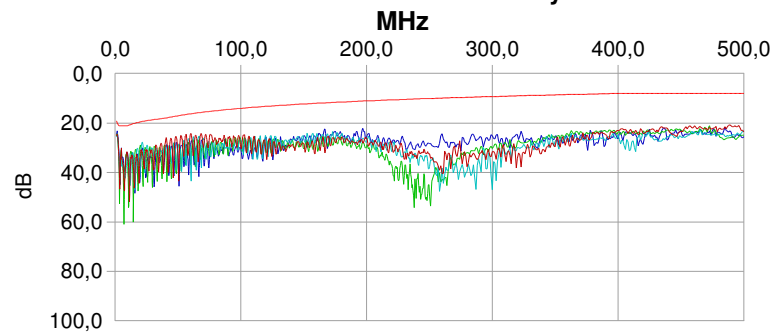
NEXT RH Summary



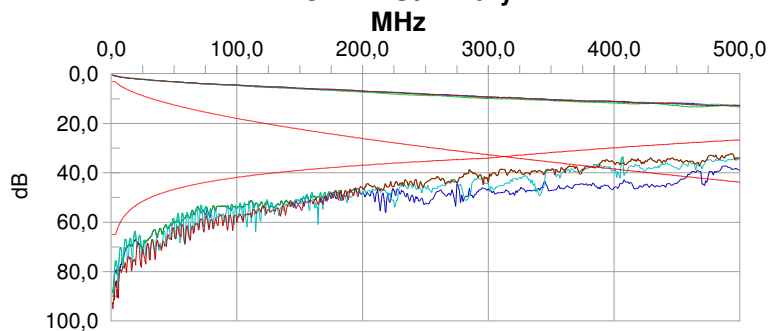
Return Loss DH Summary



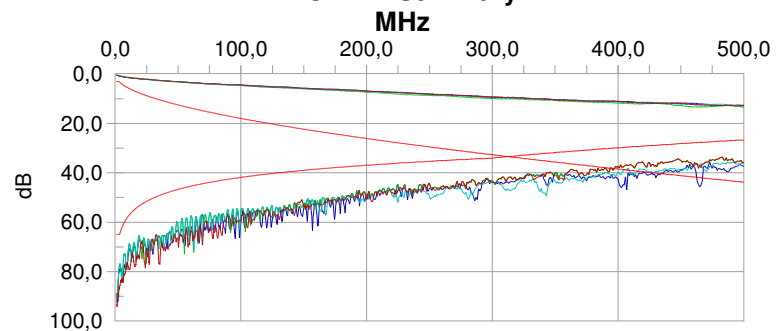
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

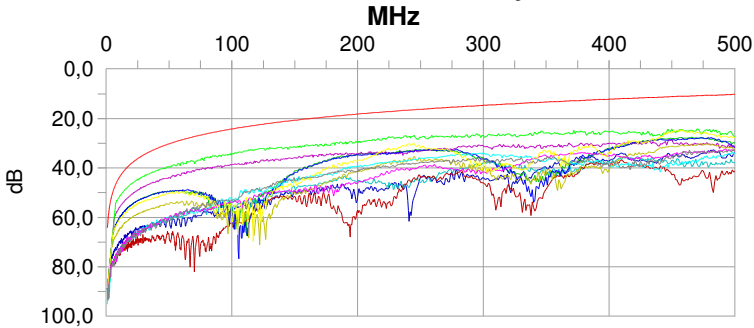
Cable ID 1: 5/18
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:37:47
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

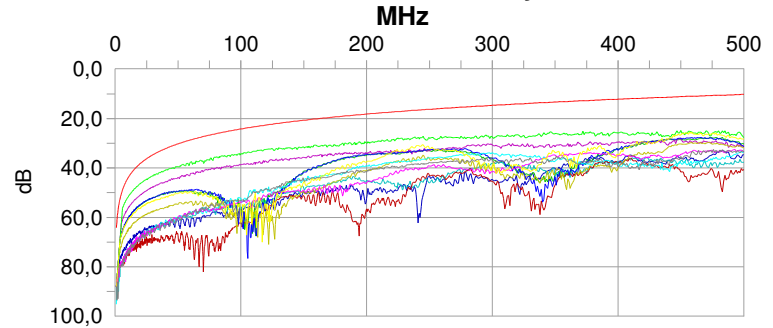
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

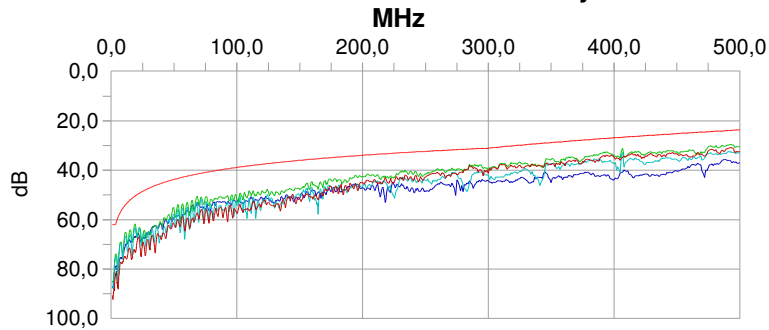
ELFEXT DH Summary



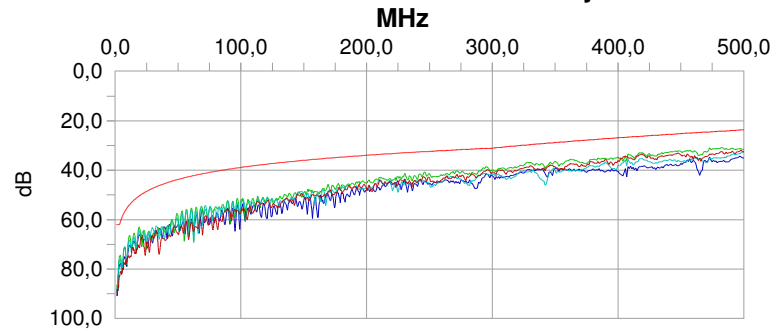
ELFEXT RH Summary



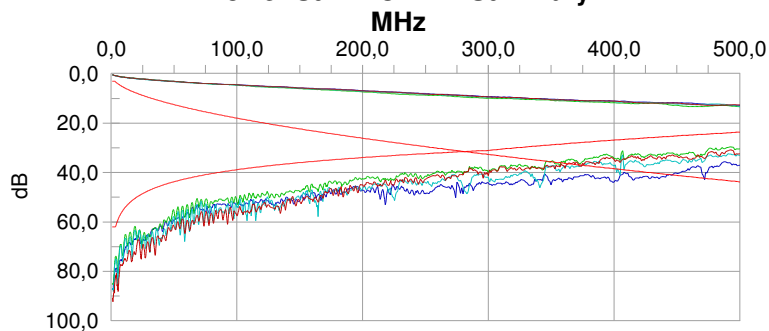
Power Sum NEXT DH Summary



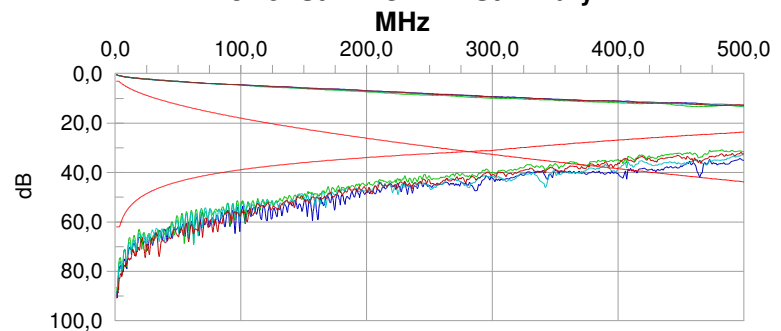
Power Sum NEXT RH Summary



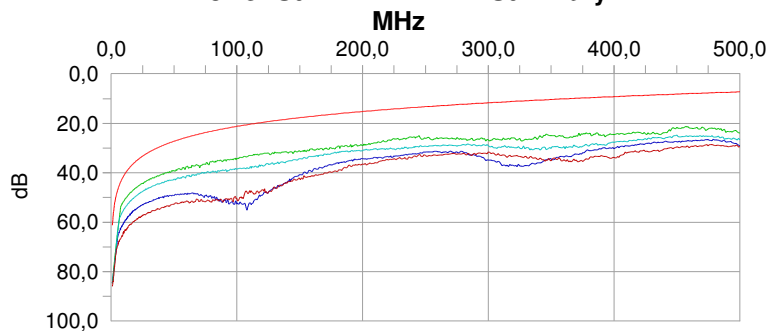
Power Sum ACR DH Summary



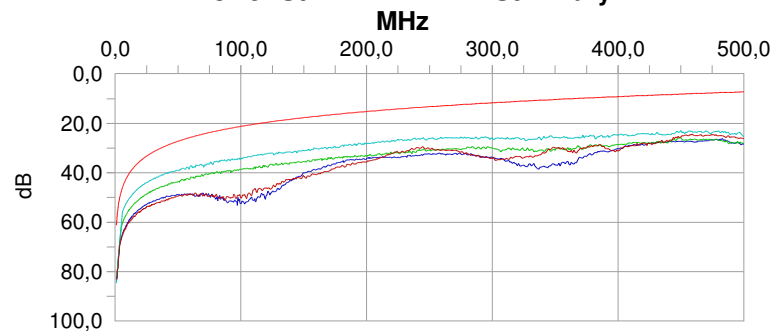
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

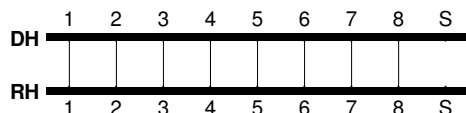
Cable ID 1: 5/19
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:38:49
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	25.6m	26.8m	26.5m	26.0m	< 90.0m	Pass
Prop. Delay	139.6ns	145.2ns	144.0ns	139.7ns	< 498.0ns	Pass
Delay Skew	5.6ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
DC Resistance	6.7 Ohm	6.9 Ohm	7.0 Ohm	7.2 Ohm	< 20.0 Ohm	Pass
Headroom	0.0 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	35.9 dB @ 486.00MHz	35.9 dB	> 27.1 dB	8.8 dB
7,8-5,4	DH	Pass	50.7 dB @ 230.00MHz	45.2 dB	> 35.9 dB	14.8 dB
7,8-1,2	DH	Pass	46.9 dB @ 353.00MHz	43.7 dB	> 31.7 dB	15.2 dB
3,6-5,4	DH	Pass	34.0 dB @ 401.00MHz	33.5 dB	> 29.8 dB	4.2 dB
3,6-1,2	DH	Pass	32.2 dB @ 447.00MHz	32.0 dB	> 28.3 dB	3.9 dB
5,4-1,2	DH	Pass	40.1 dB @ 403.00MHz	38.7 dB	> 29.8 dB	10.3 dB
7,8-3,6	RH	Pass	39.8 dB @ 337.00MHz	35.9 dB	> 32.3 dB	7.5 dB
7,8-5,4	RH	Pass	50.5 dB @ 213.00MHz	43.4 dB	> 36.5 dB	14.0 dB
7,8-1,2	RH	Pass	40.8 dB @ 336.00MHz	35.8 dB	> 32.4 dB	8.4 dB
3,6-5,4	RH	Pass	37.2 dB @ 405.00MHz	35.0 dB	> 29.7 dB	7.5 dB
3,6-1,2	RH	Pass	30.3 dB @ 447.00MHz	30.2 dB	> 28.3 dB	2.0 dB
5,4-1,2	RH	Pass	37.7 dB @ 495.00MHz	37.7 dB	> 26.8 dB	10.9 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.9 dB @ 1.60MHz	19.9 dB	> 19.9 dB	4.0 dB
3,6	DH	Pass	25.4 dB @ 1.60MHz	20.2 dB	> 19.9 dB	5.5 dB
5,4	DH	Pass	24.6 dB @ 1.60MHz	21.7 dB	> 19.9 dB	4.7 dB
1,2	DH	Pass	24.7 dB @ 1.60MHz	20.2 dB	> 19.9 dB	4.8 dB
7,8	RH	Pass	23.2 dB @ 1.60MHz	20.5 dB	> 19.9 dB	3.3 dB
3,6	RH	Pass	24.4 dB @ 1.60MHz	21.3 dB	> 19.9 dB	4.5 dB
5,4	RH	Pass	25.1 dB @ 1.45MHz	21.0 dB	> 19.7 dB	5.4 dB
1,2	RH	Pass	24.4 dB @ 1.60MHz	21.8 dB	> 19.9 dB	4.5 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.95MHz	12.7 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.95MHz	13.5 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.8 dB @ 2.95MHz	13.0 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.7 dB @ 2.95MHz	12.7 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.3 dB @ 486.00MHz	N/A	>= -15.9 dB	39.2 dB
3,6	DH	Pass	18.8 dB @ 495.00MHz	N/A	>= -16.7 dB	35.5 dB
5,4	DH	Pass	20.5 dB @ 500.00MHz	N/A	>= -17.1 dB	37.6 dB
1,2	DH	Pass	19.5 dB @ 494.00MHz	N/A	>= -16.6 dB	36.1 dB
7,8	RH	Pass	23.1 dB @ 498.00MHz	N/A	>= -16.9 dB	40.0 dB
3,6	RH	Pass	17.1 dB @ 495.00MHz	N/A	>= -16.7 dB	33.8 dB
5,4	RH	Pass	22.4 dB @ 492.00MHz	N/A	>= -16.4 dB	38.8 dB
1,2	RH	Pass	17.6 dB @ 483.00MHz	N/A	>= -15.8 dB	33.4 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/19
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:38:49
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	44.8 dB @ 150.00MHz	34.9 dB	> 20.7 dB	24.1 dB
7,8-5,4	DH	Pass	27.0 dB @ 455.00MHz	27.0 dB	> 11.0 dB	16.0 dB
7,8-1,2	DH	Pass	40.3 dB @ 283.00MHz	39.2 dB	> 15.2 dB	25.1 dB
3,6-7,8	DH	Pass	36.6 dB @ 392.00MHz	36.6 dB	> 12.3 dB	24.3 dB
3,6-5,4	DH	Pass	60.9 dB @ 7.30MHz	29.6 dB	> 46.9 dB	14.0 dB
3,6-1,2	DH	Pass	29.4 dB @ 475.00MHz	29.4 dB	> 10.7 dB	18.7 dB
5,4-7,8	DH	Pass	26.6 dB @ 482.00MHz	26.6 dB	> 10.5 dB	16.1 dB
5,4-3,6	DH	Pass	57.2 dB @ 7.00MHz	26.2 dB	> 47.3 dB	9.9 dB
5,4-1,2	DH	Pass	37.3 dB @ 240.00MHz	33.2 dB	> 16.6 dB	20.7 dB
1,2-7,8	DH	Pass	39.5 dB @ 283.00MHz	37.6 dB	> 15.2 dB	24.3 dB
1,2-3,6	DH	Pass	24.4 dB @ 459.00MHz	24.4 dB	> 11.0 dB	13.4 dB
1,2-5,4	DH	Pass	34.8 dB @ 298.00MHz	34.8 dB	> 14.7 dB	20.1 dB
7,8-3,6	RH	Pass	45.1 dB @ 150.00MHz	35.4 dB	> 20.7 dB	24.4 dB
7,8-5,4	RH	Pass	27.1 dB @ 475.00MHz	26.9 dB	> 10.7 dB	16.4 dB
7,8-1,2	RH	Pass	45.4 dB @ 157.50MHz	39.6 dB	> 20.2 dB	25.2 dB
3,6-7,8	RH	Pass	35.9 dB @ 392.00MHz	35.9 dB	> 12.3 dB	23.6 dB
3,6-5,4	RH	Pass	64.9 dB @ 4.60MHz	28.9 dB	> 50.9 dB	14.0 dB
3,6-1,2	RH	Pass	28.8 dB @ 458.00MHz	28.8 dB	> 11.0 dB	17.8 dB
5,4-7,8	RH	Pass	26.6 dB @ 457.00MHz	26.5 dB	> 11.0 dB	15.6 dB
5,4-3,6	RH	Pass	58.1 dB @ 6.10MHz	26.9 dB	> 48.5 dB	9.6 dB
5,4-1,2	RH	Pass	37.2 dB @ 240.00MHz	32.8 dB	> 16.6 dB	20.6 dB
1,2-7,8	RH	Pass	39.3 dB @ 283.00MHz	37.4 dB	> 15.2 dB	24.1 dB
1,2-3,6	RH	Pass	25.5 dB @ 459.00MHz	25.1 dB	> 11.0 dB	14.5 dB
1,2-5,4	RH	Pass	34.9 dB @ 298.00MHz	34.9 dB	> 14.7 dB	20.2 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	34.9 dB @ 486.00MHz	34.9 dB	> 24.1 dB	10.8 dB
3,6	DH	Pass	31.5 dB @ 401.00MHz	29.1 dB	> 26.8 dB	4.7 dB
5,4	DH	Pass	33.1 dB @ 401.00MHz	32.4 dB	> 26.8 dB	6.3 dB
1,2	DH	Pass	31.6 dB @ 447.00MHz	31.1 dB	> 25.3 dB	6.3 dB
7,8	RH	Pass	36.9 dB @ 337.00MHz	32.5 dB	> 29.3 dB	7.6 dB
3,6	RH	Pass	29.3 dB @ 447.00MHz	28.4 dB	> 25.3 dB	4.0 dB
5,4	RH	Pass	33.9 dB @ 463.00MHz	33.0 dB	> 24.8 dB	9.1 dB
1,2	RH	Pass	32.6 dB @ 363.00MHz	28.7 dB	> 28.3 dB	4.3 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	22.3 dB @ 486.00MHz	N/A	>= -18.9 dB	41.2 dB
3,6	DH	Pass	15.6 dB @ 500.00MHz	N/A	>= -20.1 dB	35.7 dB
5,4	DH	Pass	19.4 dB @ 500.00MHz	N/A	>= -20.1 dB	39.5 dB
1,2	DH	Pass	18.6 dB @ 494.00MHz	N/A	>= -19.6 dB	38.2 dB
7,8	RH	Pass	19.8 dB @ 497.00MHz	N/A	>= -19.9 dB	39.7 dB
3,6	RH	Pass	15.2 dB @ 496.00MHz	N/A	>= -19.7 dB	34.9 dB
5,4	RH	Pass	20.1 dB @ 496.00MHz	N/A	>= -19.7 dB	39.8 dB
1,2	RH	Pass	16.2 dB @ 495.00MHz	N/A	>= -19.7 dB	35.9 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	26.2 dB @ 482.00MHz	26.2 dB	>= 7.5 dB	18.7 dB
3,6	DH	Pass	45.2 dB @ 28.30MHz	22.2 dB	>= 32.2 dB	13.0 dB
5,4	DH	Pass	47.8 dB @ 31.00MHz	24.8 dB	>= 31.4 dB	16.4 dB
1,2	DH	Pass	27.8 dB @ 479.00MHz	27.8 dB	>= 7.6 dB	20.2 dB
7,8	RH	Pass	26.2 dB @ 484.00MHz	26.2 dB	>= 7.5 dB	18.7 dB
3,6	RH	Pass	46.7 dB @ 40.75MHz	26.0 dB	>= 29.0 dB	17.7 dB
5,4	RH	Pass	45.5 dB @ 27.25MHz	23.6 dB	>= 32.5 dB	13.0 dB
1,2	RH	Pass	24.9 dB @ 463.00MHz	24.7 dB	>= 7.9 dB	17.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

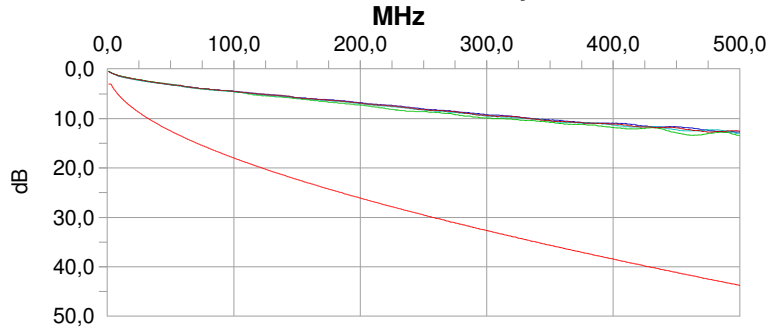
Cable ID 1: 5/19
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:38:49
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

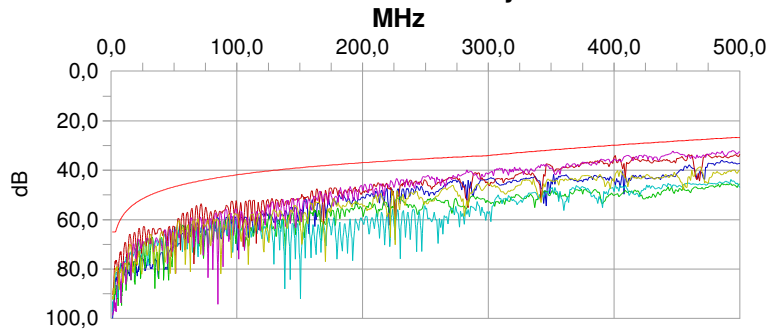
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

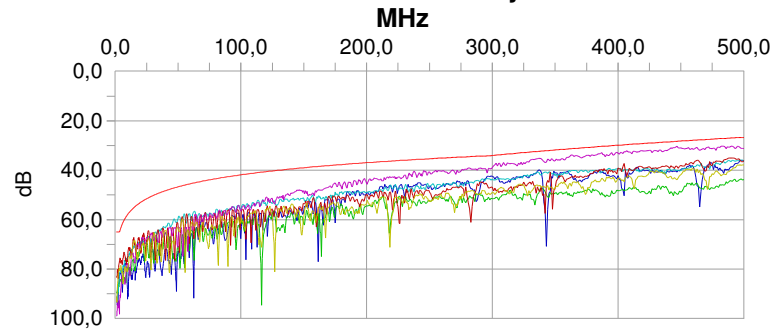
Attenuation Summary



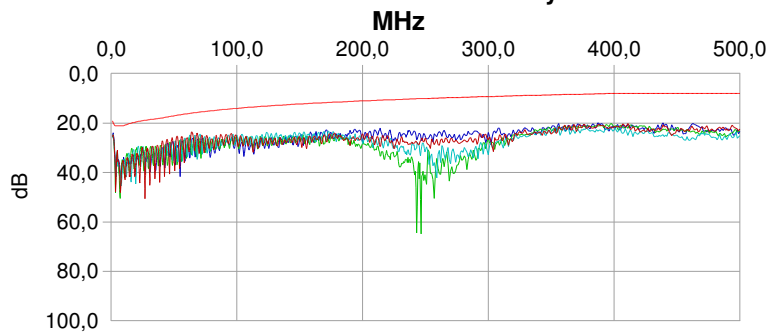
NEXT DH Summary



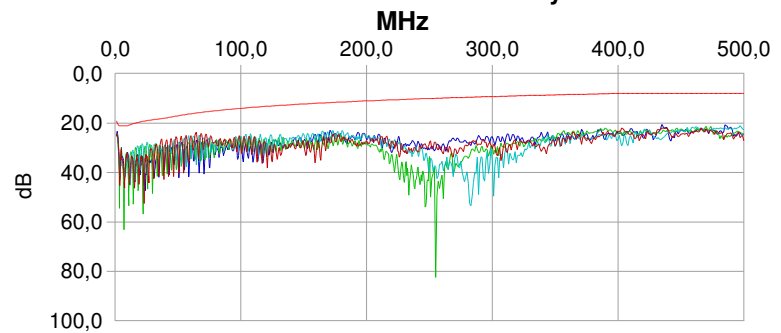
NEXT RH Summary



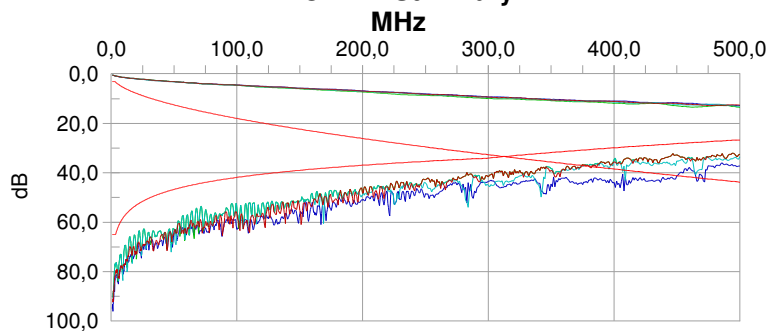
Return Loss DH Summary



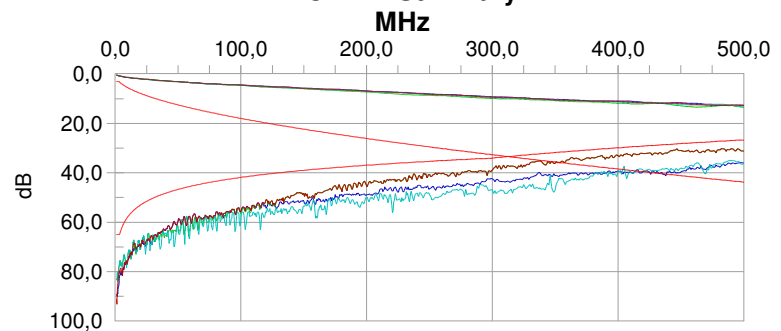
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/19
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:38:49
Adapter ID: 6014

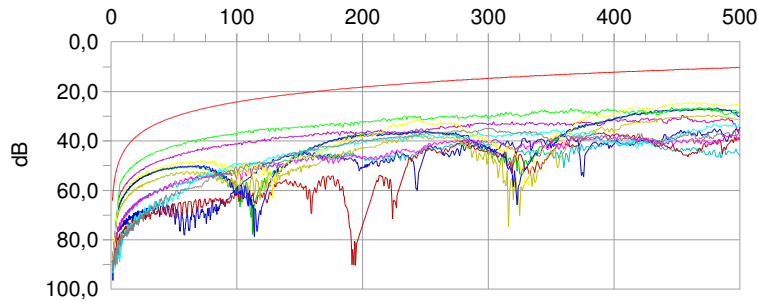
Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

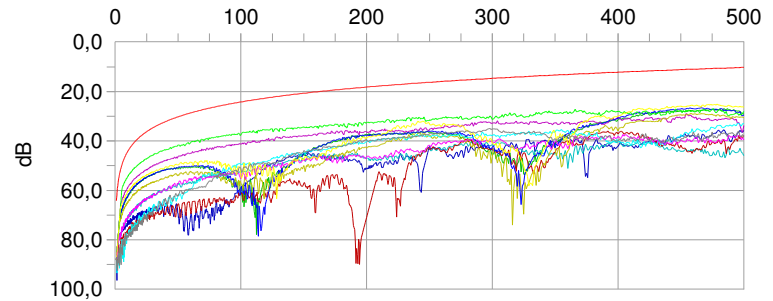
ELFEXT DH Summary

MHz



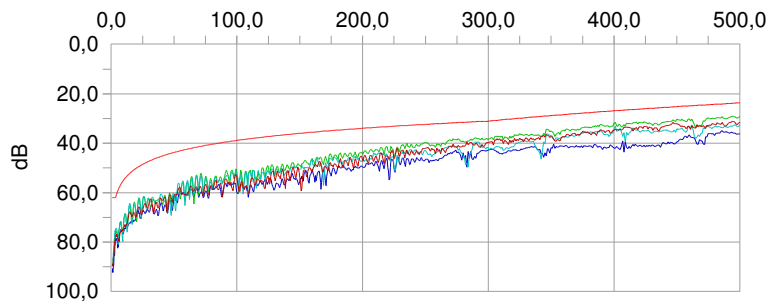
ELFEXT RH Summary

MHz



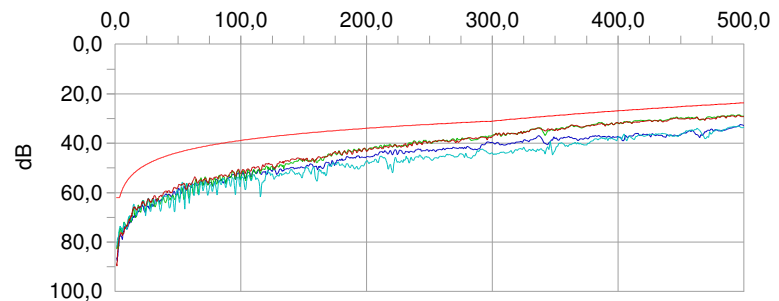
Power Sum NEXT DH Summary

MHz



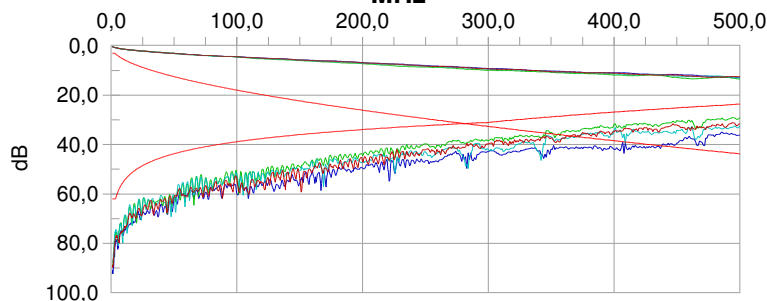
Power Sum NEXT RH Summary

MHz



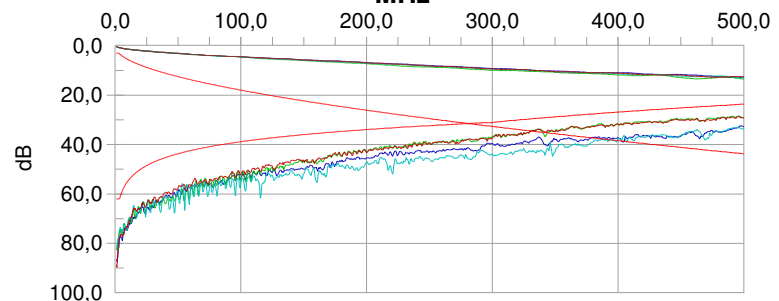
Power Sum ACR DH Summary

MHz



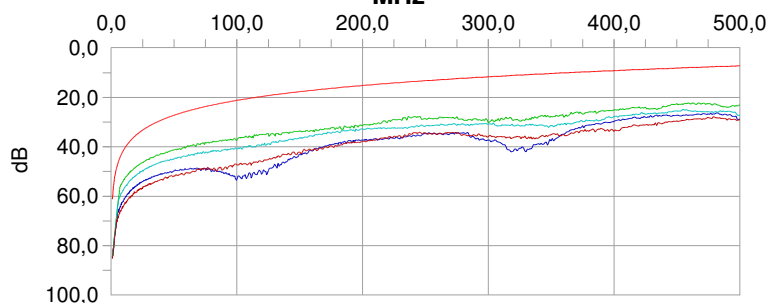
Power Sum ACR RH Summary

MHz



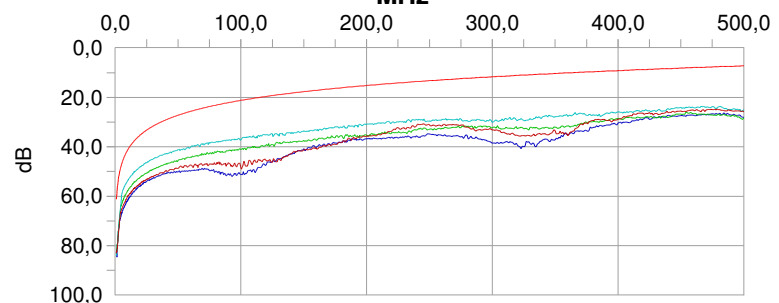
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

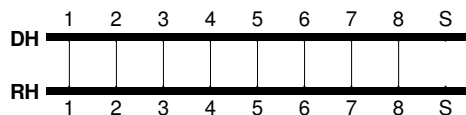
Cable ID 1: 5/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:50:21
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	17.8m	18.8m	18.4m	18.1m	< 90.0m	Pass
Prop. Delay	102.6ns	107.1ns	105.9ns	102.4ns	< 498.0ns	Pass
Delay Skew		4.7ns (Pairs 3,6 vs. 1,2)			< 44.0 ns	Pass
DC Resistance	6.8 Ohm	5.8 Ohm	5.9 Ohm	6.2 Ohm	< 20.0 Ohm	Pass
Headroom		0.0 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	42.1 dB @ 305.00MHz	36.4 dB	> 33.8 dB	8.3 dB
7,8-5,4	DH	Pass	57.1 dB @ 73.00MHz	43.7 dB	> 44.1 dB	13.0 dB
7,8-1,2	DH	Pass	44.2 dB @ 430.00MHz	43.9 dB	> 28.8 dB	15.4 dB
3,6-5,4	DH	Pass	35.6 dB @ 399.00MHz	34.4 dB	> 29.9 dB	5.7 dB
3,6-1,2	DH	Pass	31.8 dB @ 453.00MHz	31.2 dB	> 28.1 dB	3.7 dB
5,4-1,2	DH	Pass	41.8 dB @ 345.00MHz	38.5 dB	> 32.0 dB	9.8 dB
7,8-3,6	RH	Pass	40.7 dB @ 349.00MHz	36.3 dB	> 31.8 dB	8.9 dB
7,8-5,4	RH	Pass	57.2 dB @ 73.50MHz	43.7 dB	> 44.0 dB	13.2 dB
7,8-1,2	RH	Pass	77.3 dB @ 3.55MHz	40.4 dB	> 64.9 dB	12.4 dB
3,6-5,4	RH	Pass	37.4 dB @ 405.00MHz	34.7 dB	> 29.7 dB	7.7 dB
3,6-1,2	RH	Pass	32.7 dB @ 445.00MHz	32.7 dB	> 28.3 dB	4.4 dB
5,4-1,2	RH	Pass	37.0 dB @ 498.00MHz	37.0 dB	> 26.7 dB	10.3 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.9 dB @ 1.60MHz	19.2 dB	> 19.9 dB	5.0 dB
3,6	DH	Pass	27.0 dB @ 1.60MHz	19.8 dB	> 19.9 dB	7.1 dB
5,4	DH	Pass	25.6 dB @ 1.60MHz	21.8 dB	> 19.9 dB	5.7 dB
1,2	DH	Pass	24.6 dB @ 1.60MHz	17.4 dB	> 19.9 dB	4.7 dB
7,8	RH	Pass	23.4 dB @ 1.60MHz	19.4 dB	> 19.9 dB	3.5 dB
3,6	RH	Pass	25.6 dB @ 1.60MHz	20.6 dB	> 19.9 dB	5.7 dB
5,4	RH	Pass	26.3 dB @ 1.90MHz	22.7 dB	> 20.2 dB	6.1 dB
1,2	RH	Pass	24.5 dB @ 1.60MHz	20.5 dB	> 19.9 dB	4.6 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 2.95MHz	9.4 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.5 dB @ 2.95MHz	10.3 dB	< 3.1 dB	2.6 dB
5,4	Pass	0.6 dB @ 2.95MHz	9.6 dB	< 3.1 dB	2.5 dB
1,2	Pass	0.6 dB @ 3.10MHz	9.4 dB	< 3.1 dB	2.5 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	27.1 dB @ 497.00MHz	N/A	>= -16.9 dB	44.0 dB
3,6	DH	Pass	21.4 dB @ 491.00MHz	N/A	>= -16.4 dB	37.8 dB
5,4	DH	Pass	24.9 dB @ 499.00MHz	N/A	>= -17.0 dB	41.9 dB
1,2	DH	Pass	22.1 dB @ 489.00MHz	N/A	>= -16.2 dB	38.3 dB
7,8	RH	Pass	27.0 dB @ 475.00MHz	N/A	>= -15.1 dB	42.1 dB
3,6	RH	Pass	22.9 dB @ 449.00MHz	N/A	>= -12.9 dB	35.8 dB
5,4	RH	Pass	25.4 dB @ 493.00MHz	N/A	>= -16.5 dB	41.9 dB
1,2	RH	Pass	23.5 dB @ 489.00MHz	N/A	>= -16.2 dB	39.7 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:50:21
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	37.5 dB @ 217.50MHz	36.7 dB	> 17.4 dB	20.1 dB
7,8-5,4	DH	Pass	66.6 dB @ 5.20MHz	31.0 dB	> 49.9 dB	16.7 dB
7,8-1,2	DH	Pass	40.7 dB @ 455.00MHz	40.7 dB	> 11.0 dB	29.7 dB
3,6-7,8	DH	Pass	36.8 dB @ 411.00MHz	36.8 dB	> 11.9 dB	24.9 dB
3,6-5,4	DH	Pass	60.1 dB @ 7.00MHz	29.5 dB	> 47.3 dB	12.8 dB
3,6-1,2	DH	Pass	67.4 dB @ 5.05MHz	33.7 dB	> 50.1 dB	17.3 dB
5,4-7,8	DH	Pass	64.2 dB @ 6.40MHz	31.6 dB	> 48.1 dB	16.1 dB
5,4-3,6	DH	Pass	55.4 dB @ 7.30MHz	24.2 dB	> 46.9 dB	8.5 dB
5,4-1,2	DH	Pass	69.1 dB @ 6.40MHz	34.6 dB	> 48.1 dB	21.0 dB
1,2-7,8	DH	Pass	39.6 dB @ 405.00MHz	39.2 dB	> 12.0 dB	27.6 dB
1,2-3,6	DH	Pass	60.6 dB @ 7.00MHz	27.4 dB	> 47.3 dB	13.3 dB
1,2-5,4	DH	Pass	64.9 dB @ 11.05MHz	34.2 dB	> 43.3 dB	21.6 dB
7,8-3,6	RH	Pass	37.9 dB @ 217.50MHz	36.9 dB	> 17.4 dB	20.5 dB
7,8-5,4	RH	Pass	66.1 dB @ 5.20MHz	31.2 dB	> 49.9 dB	16.2 dB
7,8-1,2	RH	Pass	44.6 dB @ 280.00MHz	41.2 dB	> 15.2 dB	29.4 dB
3,6-7,8	RH	Pass	35.7 dB @ 411.00MHz	35.7 dB	> 11.9 dB	23.8 dB
3,6-5,4	RH	Pass	63.3 dB @ 4.90MHz	28.3 dB	> 50.4 dB	12.9 dB
3,6-1,2	RH	Pass	68.0 dB @ 4.45MHz	32.9 dB	> 51.2 dB	16.8 dB
5,4-7,8	RH	Pass	64.3 dB @ 6.40MHz	31.6 dB	> 48.1 dB	16.2 dB
5,4-3,6	RH	Pass	57.4 dB @ 5.65MHz	25.3 dB	> 49.1 dB	8.3 dB
5,4-1,2	RH	Pass	69.1 dB @ 6.40MHz	34.5 dB	> 48.1 dB	21.0 dB
1,2-7,8	RH	Pass	39.3 dB @ 406.00MHz	39.0 dB	> 12.0 dB	27.3 dB
1,2-3,6	RH	Pass	60.5 dB @ 7.00MHz	28.0 dB	> 47.3 dB	13.2 dB
1,2-5,4	RH	Pass	64.9 dB @ 11.05MHz	34.5 dB	> 43.3 dB	21.6 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	41.0 dB @ 306.00MHz	35.3 dB	> 30.7 dB	10.3 dB
3,6	DH	Pass	29.0 dB @ 491.00MHz	29.0 dB	> 23.9 dB	5.1 dB
5,4	DH	Pass	34.8 dB @ 382.00MHz	33.1 dB	> 27.5 dB	7.3 dB
1,2	DH	Pass	30.8 dB @ 453.00MHz	30.5 dB	> 25.1 dB	5.7 dB
7,8	RH	Pass	39.7 dB @ 349.00MHz	35.1 dB	> 28.8 dB	10.9 dB
3,6	RH	Pass	31.2 dB @ 443.00MHz	30.0 dB	> 25.4 dB	5.8 dB
5,4	RH	Pass	32.6 dB @ 498.00MHz	32.6 dB	> 23.7 dB	8.9 dB
1,2	RH	Pass	31.8 dB @ 449.00MHz	31.5 dB	> 25.2 dB	6.6 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	26.0 dB @ 497.00MHz	N/A	>= -19.9 dB	45.9 dB
3,6	DH	Pass	19.2 dB @ 491.00MHz	N/A	>= -19.4 dB	38.6 dB
5,4	DH	Pass	23.6 dB @ 499.00MHz	N/A	>= -20.0 dB	43.6 dB
1,2	DH	Pass	21.4 dB @ 489.00MHz	N/A	>= -19.2 dB	40.6 dB
7,8	RH	Pass	25.9 dB @ 491.00MHz	N/A	>= -19.4 dB	45.3 dB
3,6	RH	Pass	20.4 dB @ 489.00MHz	N/A	>= -19.2 dB	39.6 dB
5,4	RH	Pass	23.1 dB @ 498.00MHz	N/A	>= -19.9 dB	43.0 dB
1,2	RH	Pass	22.3 dB @ 489.00MHz	N/A	>= -19.2 dB	41.5 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	31.8 dB @ 320.00MHz	30.8 dB	>= 11.1 dB	20.7 dB
3,6	DH	Pass	45.5 dB @ 22.30MHz	23.3 dB	>= 34.2 dB	11.3 dB
5,4	DH	Pass	56.3 dB @ 8.95MHz	26.7 dB	>= 42.2 dB	14.1 dB
1,2	DH	Pass	46.3 dB @ 67.25MHz	31.3 dB	>= 24.6 dB	21.7 dB
7,8	RH	Pass	31.2 dB @ 334.00MHz	30.3 dB	>= 10.7 dB	20.5 dB
3,6	RH	Pass	45.5 dB @ 38.75MHz	27.5 dB	>= 29.4 dB	16.1 dB
5,4	RH	Pass	55.8 dB @ 6.40MHz	24.5 dB	>= 45.1 dB	10.7 dB
1,2	RH	Pass	27.6 dB @ 348.00MHz	27.6 dB	>= 10.4 dB	17.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

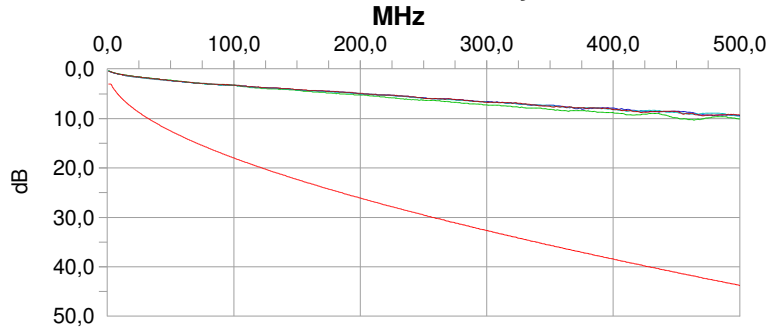
Cable ID 1: 5/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:50:21
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

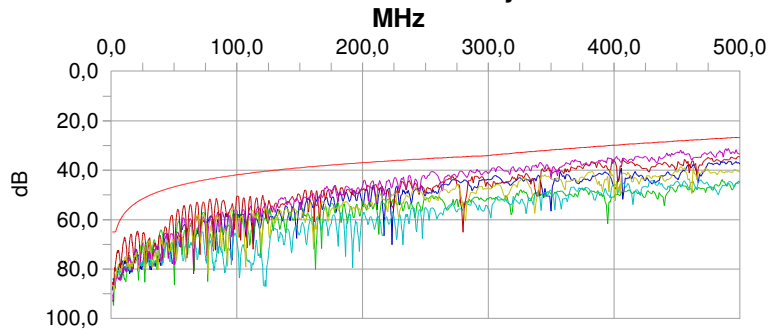
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

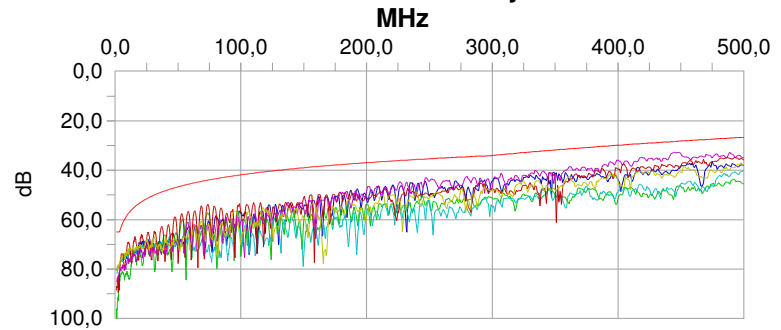
Attenuation Summary



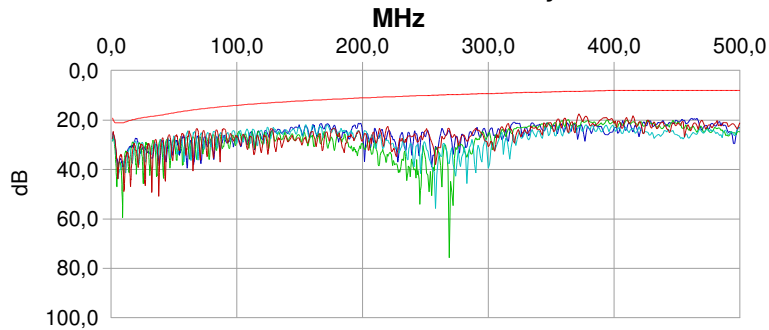
NEXT DH Summary



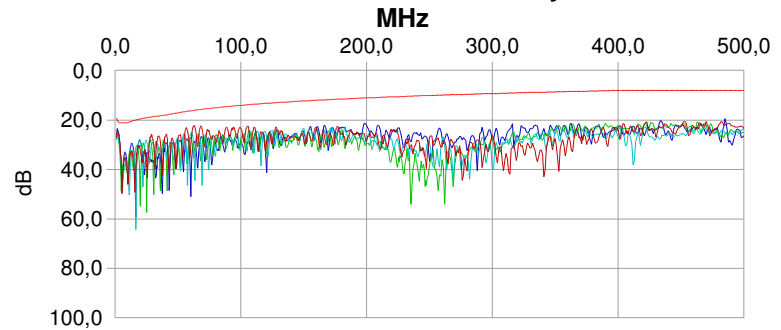
NEXT RH Summary



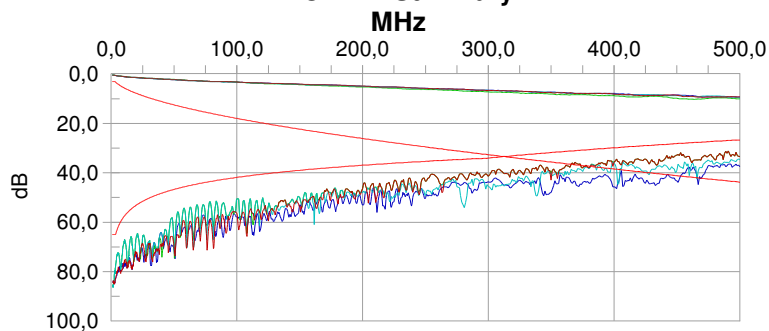
Return Loss DH Summary



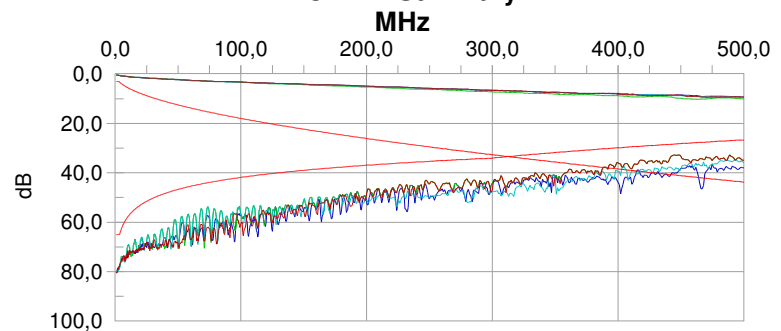
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

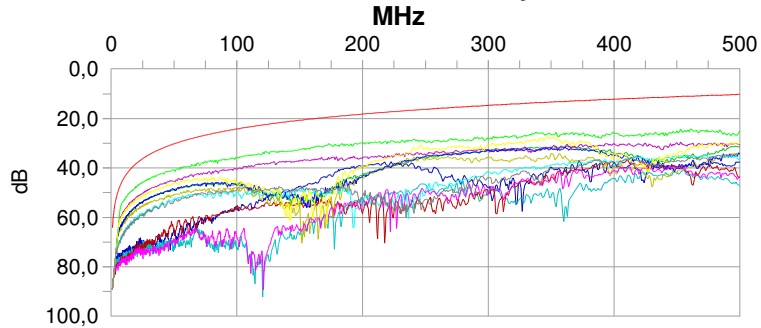
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Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:50:21
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

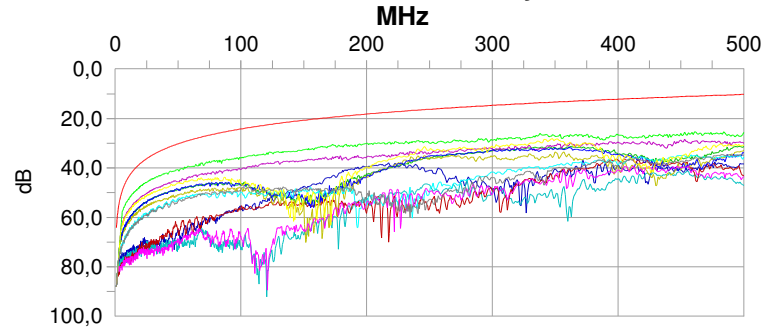
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

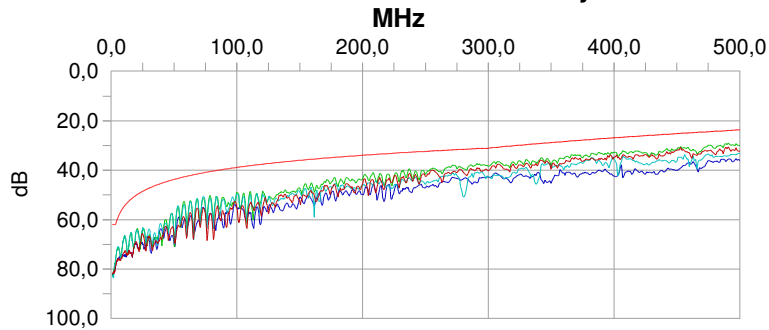
ELFEXT DH Summary



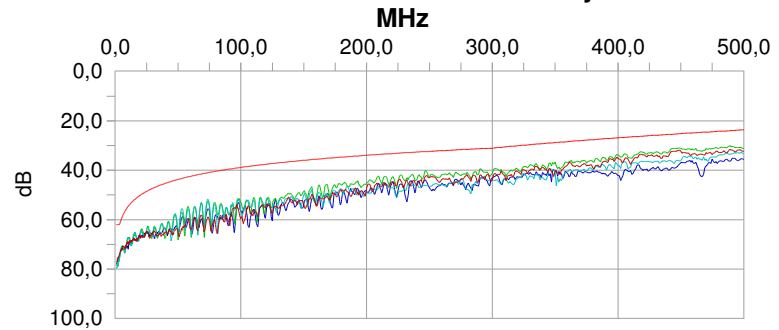
ELFEXT RH Summary



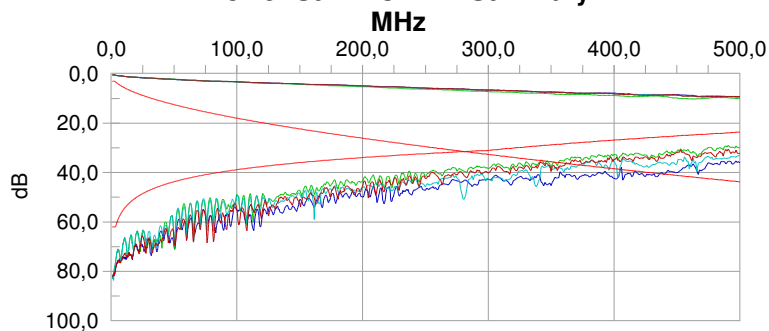
Power Sum NEXT DH Summary



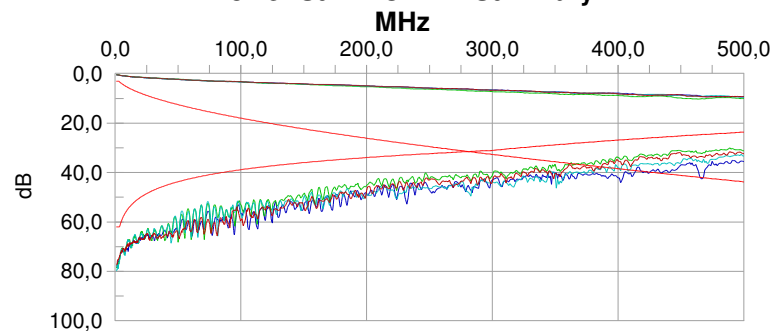
Power Sum NEXT RH Summary



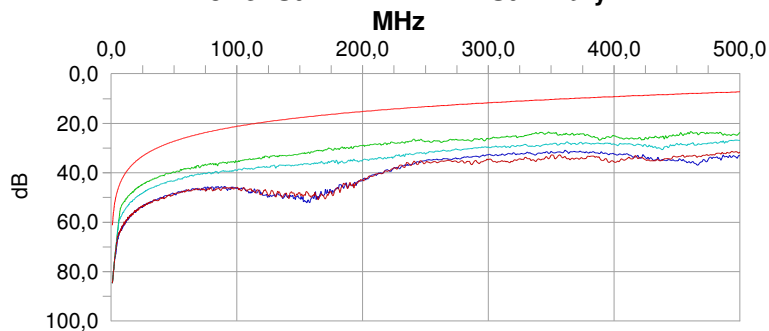
Power Sum ACR DH Summary



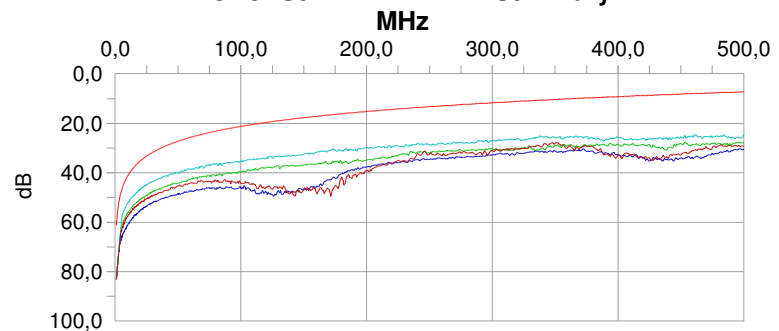
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

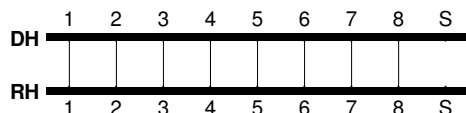
Cable ID 1: 5/20
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:39:46
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	25.6m	26.8m	26.5m	26.0m	< 90.0m	Pass
Prop. Delay	139.6ns	145.2ns	144.0ns	139.7ns	< 498.0ns	Pass
Delay Skew		5.6ns (Pairs 3,6 vs. 7,8)			< 44.0 ns	Pass
DC Resistance	6.6 Ohm	6.7 Ohm	6.9 Ohm	7.2 Ohm	< 20.0 Ohm	Pass
Headroom		0.0 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	43.1 dB @ 302.00MHz	36.5 dB	> 33.9 dB	9.2 dB
7,8-5,4	DH	Pass	51.2 dB @ 239.00MHz	44.0 dB	> 35.7 dB	15.5 dB
7,8-1,2	DH	Pass	48.7 dB @ 369.00MHz	44.7 dB	> 31.0 dB	17.7 dB
3,6-5,4	DH	Pass	34.1 dB @ 405.00MHz	33.7 dB	> 29.7 dB	4.4 dB
3,6-1,2	DH	Pass	34.2 dB @ 403.00MHz	31.3 dB	> 29.8 dB	4.4 dB
5,4-1,2	DH	Pass	34.2 dB @ 464.00MHz	34.2 dB	> 27.7 dB	6.5 dB
7,8-3,6	RH	Pass	38.8 dB @ 350.00MHz	37.1 dB	> 31.8 dB	7.0 dB
7,8-5,4	RH	Pass	49.1 dB @ 295.00MHz	43.1 dB	> 34.2 dB	14.9 dB
7,8-1,2	RH	Pass	40.9 dB @ 493.00MHz	40.7 dB	> 26.9 dB	14.0 dB
3,6-5,4	RH	Pass	34.8 dB @ 481.00MHz	34.8 dB	> 27.2 dB	7.6 dB
3,6-1,2	RH	Pass	33.9 dB @ 445.00MHz	32.9 dB	> 28.3 dB	5.6 dB
5,4-1,2	RH	Pass	35.9 dB @ 491.00MHz	35.9 dB	> 26.9 dB	9.0 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.8 dB @ 1.60MHz	19.4 dB	> 19.9 dB	3.9 dB
3,6	DH	Pass	25.4 dB @ 1.60MHz	19.8 dB	> 19.9 dB	5.5 dB
5,4	DH	Pass	24.5 dB @ 1.60MHz	22.0 dB	> 19.9 dB	4.6 dB
1,2	DH	Pass	24.6 dB @ 1.60MHz	19.5 dB	> 19.9 dB	4.7 dB
7,8	RH	Pass	23.4 dB @ 1.60MHz	20.7 dB	> 19.9 dB	3.5 dB
3,6	RH	Pass	24.4 dB @ 1.60MHz	21.4 dB	> 19.9 dB	4.5 dB
5,4	RH	Pass	25.1 dB @ 1.45MHz	21.8 dB	> 19.7 dB	5.4 dB
1,2	RH	Pass	24.4 dB @ 1.60MHz	22.6 dB	> 19.9 dB	4.5 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.95MHz	12.7 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.95MHz	13.4 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.8 dB @ 2.95MHz	13.0 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.7 dB @ 2.95MHz	12.8 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.9 dB @ 480.00MHz	N/A	>= -15.5 dB	39.4 dB
3,6	DH	Pass	18.0 dB @ 496.00MHz	N/A	>= -16.7 dB	34.7 dB
5,4	DH	Pass	21.4 dB @ 476.00MHz	N/A	>= -15.1 dB	36.5 dB
1,2	DH	Pass	18.7 dB @ 496.00MHz	N/A	>= -16.7 dB	35.4 dB
7,8	RH	Pass	24.4 dB @ 498.00MHz	N/A	>= -16.9 dB	41.3 dB
3,6	RH	Pass	20.0 dB @ 490.00MHz	N/A	>= -16.3 dB	36.3 dB
5,4	RH	Pass	22.5 dB @ 481.00MHz	N/A	>= -15.6 dB	38.1 dB
1,2	RH	Pass	20.3 dB @ 490.00MHz	N/A	>= -16.3 dB	36.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/20
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:39:46
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	33.0 dB @ 410.00MHz	31.8 dB	> 11.9 dB	21.1 dB
7,8-5,4	DH	Pass	27.5 dB @ 457.00MHz	27.5 dB	> 11.0 dB	16.5 dB
7,8-1,2	DH	Pass	36.1 dB @ 462.00MHz	35.9 dB	> 10.9 dB	25.2 dB
3,6-7,8	DH	Pass	36.6 dB @ 406.00MHz	36.6 dB	> 12.0 dB	24.6 dB
3,6-5,4	DH	Pass	60.7 dB @ 7.45MHz	30.4 dB	> 46.7 dB	14.0 dB
3,6-1,2	DH	Pass	35.1 dB @ 241.50MHz	30.0 dB	> 16.5 dB	18.6 dB
5,4-7,8	DH	Pass	26.7 dB @ 483.00MHz	26.7 dB	> 10.5 dB	16.2 dB
5,4-3,6	DH	Pass	55.8 dB @ 8.05MHz	27.2 dB	> 46.1 dB	9.7 dB
5,4-1,2	DH	Pass	62.5 dB @ 10.15MHz	35.3 dB	> 44.1 dB	18.4 dB
1,2-7,8	DH	Pass	38.1 dB @ 288.00MHz	36.0 dB	> 15.0 dB	23.1 dB
1,2-3,6	DH	Pass	29.6 dB @ 241.00MHz	24.9 dB	> 16.5 dB	13.1 dB
1,2-5,4	DH	Pass	68.1 dB @ 5.20MHz	36.9 dB	> 49.9 dB	18.2 dB
7,8-3,6	RH	Pass	32.3 dB @ 480.00MHz	32.3 dB	> 10.6 dB	21.7 dB
7,8-5,4	RH	Pass	27.2 dB @ 485.00MHz	27.2 dB	> 10.5 dB	16.7 dB
7,8-1,2	RH	Pass	35.8 dB @ 491.00MHz	35.8 dB	> 10.4 dB	25.4 dB
3,6-7,8	RH	Pass	35.7 dB @ 406.00MHz	35.7 dB	> 12.0 dB	23.7 dB
3,6-5,4	RH	Pass	63.9 dB @ 5.20MHz	29.9 dB	> 49.9 dB	14.0 dB
3,6-1,2	RH	Pass	34.6 dB @ 241.00MHz	29.3 dB	> 16.5 dB	18.1 dB
5,4-7,8	RH	Pass	26.7 dB @ 457.00MHz	26.7 dB	> 11.0 dB	15.7 dB
5,4-3,6	RH	Pass	58.4 dB @ 5.80MHz	27.7 dB	> 48.9 dB	9.5 dB
5,4-1,2	RH	Pass	62.4 dB @ 10.15MHz	35.2 dB	> 44.1 dB	18.3 dB
1,2-7,8	RH	Pass	37.3 dB @ 304.00MHz	35.7 dB	> 14.5 dB	22.8 dB
1,2-3,6	RH	Pass	30.3 dB @ 241.00MHz	25.7 dB	> 16.5 dB	13.8 dB
1,2-5,4	RH	Pass	68.2 dB @ 5.20MHz	37.1 dB	> 49.9 dB	18.3 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	42.3 dB @ 302.00MHz	35.8 dB	> 30.9 dB	11.4 dB
3,6	DH	Pass	31.2 dB @ 403.00MHz	28.9 dB	> 26.8 dB	4.4 dB
5,4	DH	Pass	32.5 dB @ 405.00MHz	31.7 dB	> 26.7 dB	5.8 dB
1,2	DH	Pass	29.8 dB @ 496.00MHz	29.8 dB	> 23.8 dB	6.0 dB
7,8	RH	Pass	37.9 dB @ 350.00MHz	34.9 dB	> 28.8 dB	9.1 dB
3,6	RH	Pass	31.1 dB @ 449.00MHz	30.3 dB	> 25.2 dB	5.9 dB
5,4	RH	Pass	32.1 dB @ 491.00MHz	32.1 dB	> 23.9 dB	8.2 dB
1,2	RH	Pass	30.9 dB @ 490.00MHz	30.9 dB	> 23.9 dB	7.0 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	23.1 dB @ 485.00MHz	N/A	>= -18.9 dB	42.0 dB
3,6	DH	Pass	15.6 dB @ 496.00MHz	N/A	>= -19.7 dB	35.3 dB
5,4	DH	Pass	18.8 dB @ 495.00MHz	N/A	>= -19.7 dB	38.5 dB
1,2	DH	Pass	17.2 dB @ 496.00MHz	N/A	>= -19.7 dB	36.9 dB
7,8	RH	Pass	22.2 dB @ 493.00MHz	N/A	>= -19.5 dB	41.7 dB
3,6	RH	Pass	17.4 dB @ 490.00MHz	N/A	>= -19.3 dB	36.7 dB
5,4	RH	Pass	19.5 dB @ 491.00MHz	N/A	>= -19.4 dB	38.9 dB
1,2	RH	Pass	18.3 dB @ 490.00MHz	N/A	>= -19.3 dB	37.6 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	26.3 dB @ 483.00MHz	26.3 dB	>= 7.5 dB	18.8 dB
3,6	DH	Pass	26.7 dB @ 241.00MHz	22.7 dB	>= 13.5 dB	13.2 dB
5,4	DH	Pass	58.0 dB @ 7.60MHz	25.7 dB	>= 43.6 dB	14.4 dB
1,2	DH	Pass	54.9 dB @ 21.70MHz	28.8 dB	>= 34.5 dB	20.4 dB
7,8	RH	Pass	25.9 dB @ 479.00MHz	25.9 dB	>= 7.6 dB	18.3 dB
3,6	RH	Pass	31.2 dB @ 242.00MHz	26.9 dB	>= 13.5 dB	17.7 dB
5,4	RH	Pass	57.2 dB @ 5.80MHz	24.4 dB	>= 45.9 dB	11.3 dB
1,2	RH	Pass	29.9 dB @ 241.00MHz	25.3 dB	>= 13.5 dB	16.4 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

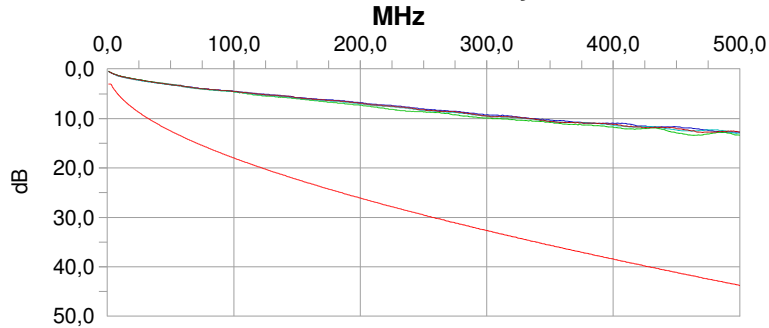
Cable ID 1: 5/20
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:39:46
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

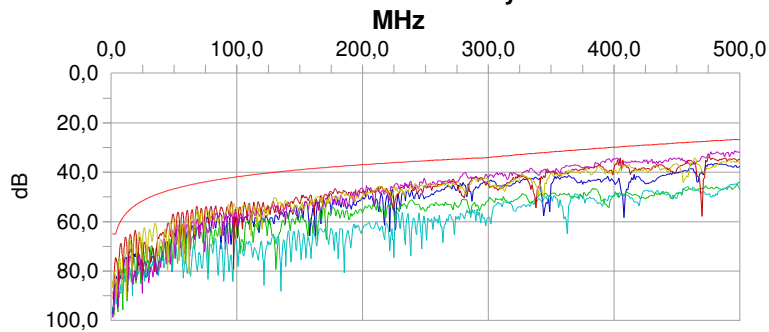
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

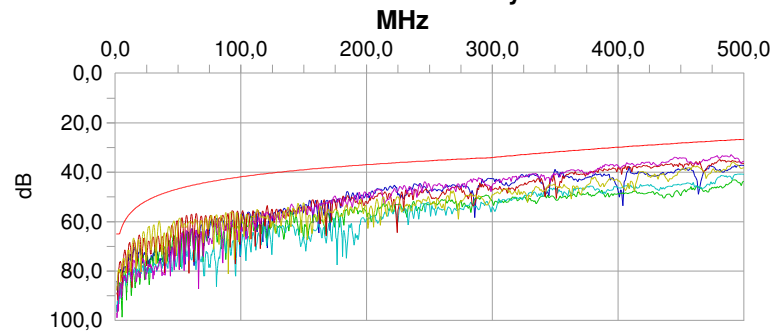
Attenuation Summary



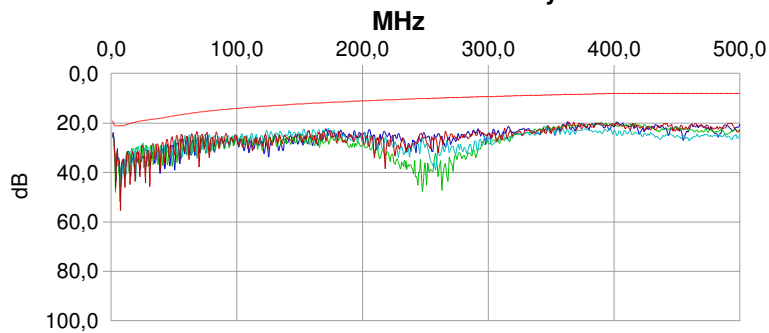
NEXT DH Summary



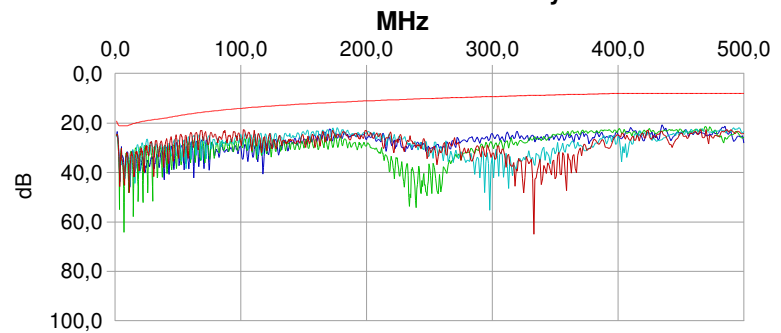
NEXT RH Summary



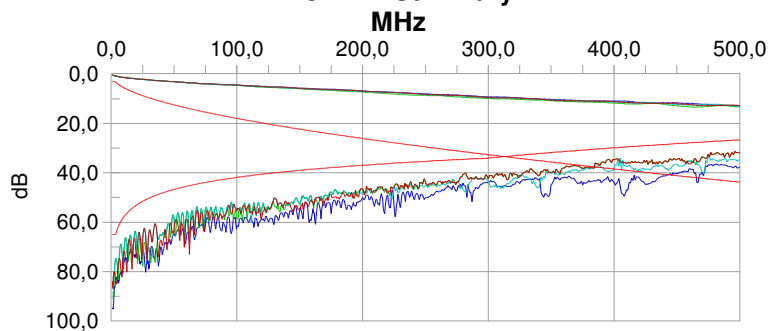
Return Loss DH Summary



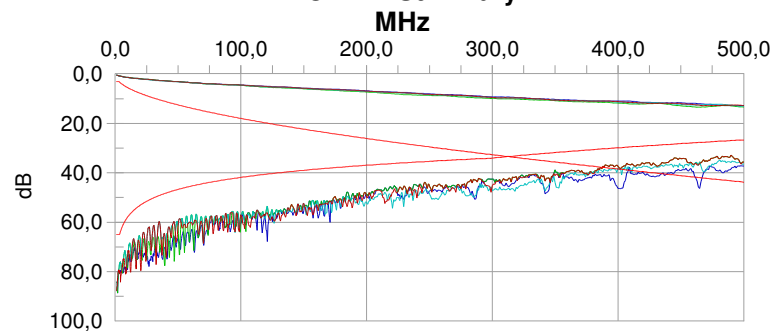
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/20
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:39:46
Adapter ID: 6014

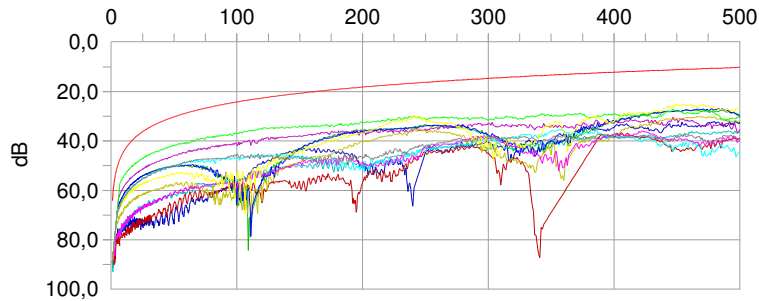
Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

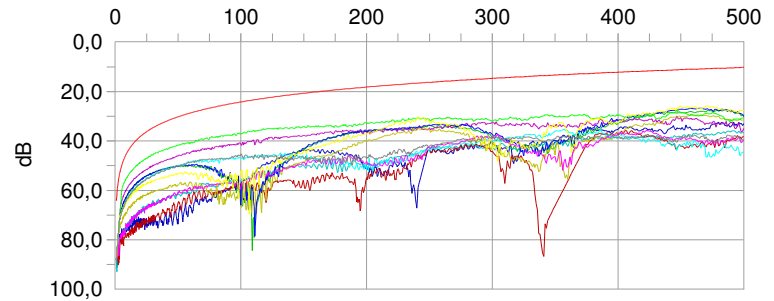
ELFEXT DH Summary

MHz



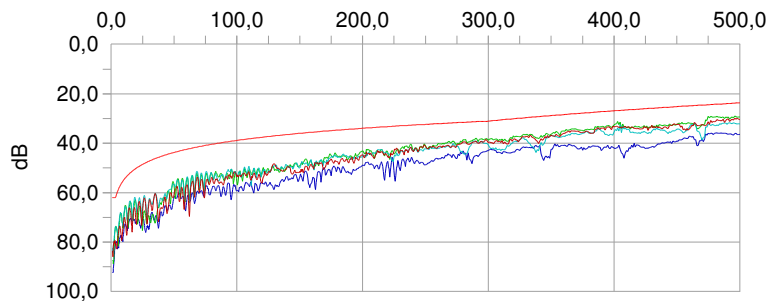
ELFEXT RH Summary

MHz



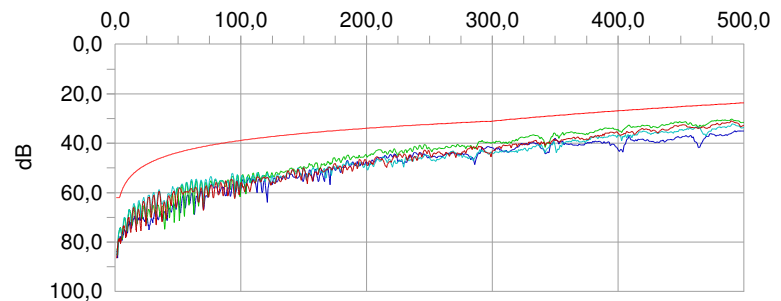
Power Sum NEXT DH Summary

MHz



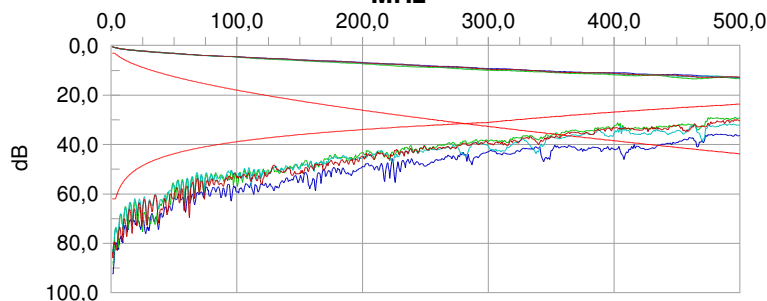
Power Sum NEXT RH Summary

MHz



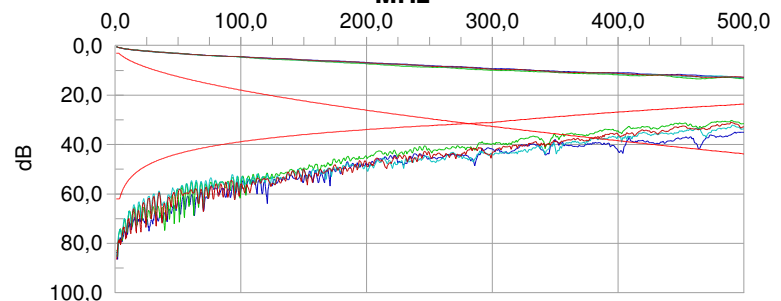
Power Sum ACR DH Summary

MHz



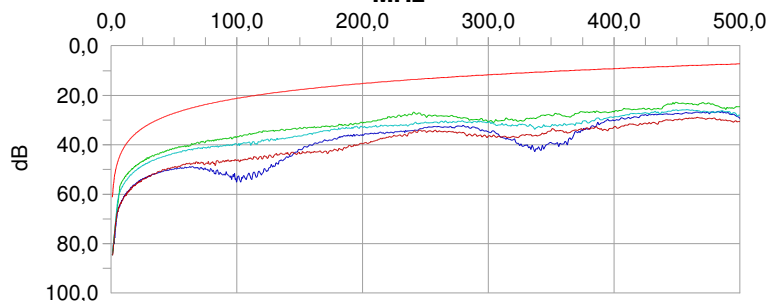
Power Sum ACR RH Summary

MHz



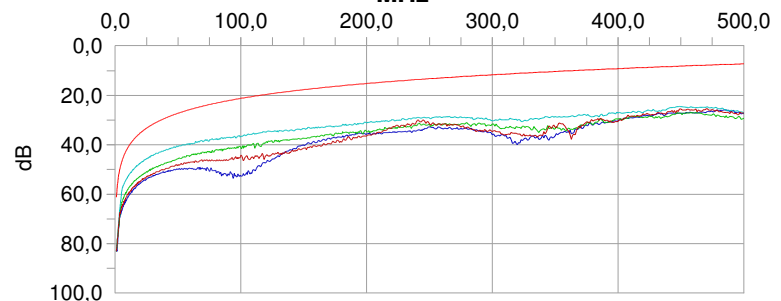
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

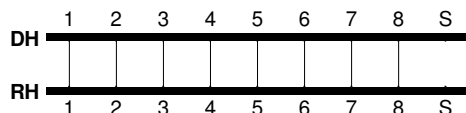
Cable ID 1: 5/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:49:31
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	17.8m	18.7m	18.5m	18.1m	< 90.0m	Pass
Prop. Delay	102.6ns	106.9ns	106.1ns	102.2ns	< 498.0ns	Pass
Delay Skew		4.7ns (Pairs 3,6 vs. 1,2)			< 44.0 ns	Pass
DC Resistance	5.9 Ohm	5.9 Ohm	5.9 Ohm	6.1 Ohm	< 20.0 Ohm	Pass
Headroom		0.0 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	46.0 dB @ 215.00MHz	38.2 dB	> 36.4 dB	9.6 dB
7,8-5,4	DH	Pass	50.0 dB @ 219.50MHz	43.8 dB	> 36.3 dB	13.7 dB
7,8-1,2	DH	Pass	44.4 dB @ 368.00MHz	42.4 dB	> 31.1 dB	13.3 dB
3,6-5,4	DH	Pass	34.4 dB @ 407.00MHz	32.9 dB	> 29.6 dB	4.8 dB
3,6-1,2	DH	Pass	30.6 dB @ 491.00MHz	30.5 dB	> 26.9 dB	3.7 dB
5,4-1,2	DH	Pass	41.0 dB @ 383.00MHz	38.7 dB	> 30.5 dB	10.5 dB
7,8-3,6	RH	Pass	39.1 dB @ 345.00MHz	36.7 dB	> 32.0 dB	7.1 dB
7,8-5,4	RH	Pass	58.1 dB @ 77.25MHz	43.8 dB	> 43.7 dB	14.4 dB
7,8-1,2	RH	Pass	41.3 dB @ 489.00MHz	41.2 dB	> 27.0 dB	14.3 dB
3,6-5,4	RH	Pass	34.3 dB @ 495.00MHz	34.3 dB	> 26.8 dB	7.5 dB
3,6-1,2	RH	Pass	34.0 dB @ 442.00MHz	33.0 dB	> 28.4 dB	5.6 dB
5,4-1,2	RH	Pass	34.8 dB @ 496.00MHz	34.8 dB	> 26.8 dB	8.0 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.5 dB @ 1.60MHz	18.9 dB	> 19.9 dB	4.6 dB
3,6	DH	Pass	26.8 dB @ 1.60MHz	18.9 dB	> 19.9 dB	6.9 dB
5,4	DH	Pass	25.6 dB @ 1.60MHz	21.3 dB	> 19.9 dB	5.7 dB
1,2	DH	Pass	24.6 dB @ 1.60MHz	18.7 dB	> 19.9 dB	4.7 dB
7,8	RH	Pass	23.8 dB @ 1.60MHz	18.1 dB	> 19.9 dB	3.9 dB
3,6	RH	Pass	25.6 dB @ 1.60MHz	18.9 dB	> 19.9 dB	5.7 dB
5,4	RH	Pass	26.3 dB @ 1.90MHz	22.1 dB	> 20.2 dB	6.1 dB
1,2	RH	Pass	24.5 dB @ 1.60MHz	20.3 dB	> 19.9 dB	4.6 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.5 dB @ 2.95MHz	9.4 dB	< 3.1 dB	2.6 dB
3,6	Pass	0.5 dB @ 2.95MHz	10.3 dB	< 3.1 dB	2.6 dB
5,4	Pass	0.6 dB @ 2.95MHz	9.6 dB	< 3.1 dB	2.5 dB
1,2	Pass	0.5 dB @ 2.95MHz	9.4 dB	< 3.1 dB	2.6 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	28.9 dB @ 486.00MHz	N/A	>= -15.9 dB	44.8 dB
3,6	DH	Pass	20.4 dB @ 496.00MHz	N/A	>= -16.7 dB	37.1 dB
5,4	DH	Pass	23.7 dB @ 492.00MHz	N/A	>= -16.4 dB	40.1 dB
1,2	DH	Pass	21.3 dB @ 496.00MHz	N/A	>= -16.7 dB	38.0 dB
7,8	RH	Pass	27.6 dB @ 470.00MHz	N/A	>= -14.7 dB	42.3 dB
3,6	RH	Pass	23.3 dB @ 489.00MHz	N/A	>= -16.2 dB	39.5 dB
5,4	RH	Pass	24.9 dB @ 495.00MHz	N/A	>= -16.7 dB	41.6 dB
1,2	RH	Pass	23.8 dB @ 489.00MHz	N/A	>= -16.2 dB	40.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:49:31
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	37.8 dB @ 202.00MHz	32.6 dB	> 18.1 dB	19.7 dB
7,8-5,4	DH	Pass	30.8 dB @ 301.00MHz	30.4 dB	> 14.6 dB	16.2 dB
7,8-1,2	DH	Pass	68.6 dB @ 5.65MHz	31.2 dB	> 49.1 dB	19.5 dB
3,6-7,8	DH	Pass	36.2 dB @ 475.00MHz	36.2 dB	> 10.7 dB	25.5 dB
3,6-5,4	DH	Pass	57.8 dB @ 8.80MHz	28.7 dB	> 45.3 dB	12.5 dB
3,6-1,2	DH	Pass	67.2 dB @ 5.20MHz	32.0 dB	> 49.9 dB	17.3 dB
5,4-7,8	DH	Pass	32.2 dB @ 258.00MHz	30.8 dB	> 16.0 dB	16.2 dB
5,4-3,6	DH	Pass	55.0 dB @ 7.45MHz	22.8 dB	> 46.7 dB	8.3 dB
5,4-1,2	DH	Pass	33.4 dB @ 355.00MHz	31.1 dB	> 13.2 dB	20.2 dB
1,2-7,8	DH	Pass	31.2 dB @ 426.00MHz	30.7 dB	> 11.6 dB	19.6 dB
1,2-3,6	DH	Pass	29.4 dB @ 246.00MHz	26.7 dB	> 16.4 dB	13.0 dB
1,2-5,4	DH	Pass	30.8 dB @ 497.00MHz	30.8 dB	> 10.3 dB	20.5 dB
7,8-3,6	RH	Pass	38.1 dB @ 202.00MHz	33.2 dB	> 18.1 dB	20.0 dB
7,8-5,4	RH	Pass	30.7 dB @ 305.00MHz	30.3 dB	> 14.5 dB	16.2 dB
7,8-1,2	RH	Pass	68.6 dB @ 5.65MHz	31.2 dB	> 49.1 dB	19.5 dB
3,6-7,8	RH	Pass	35.6 dB @ 475.00MHz	35.6 dB	> 10.7 dB	24.9 dB
3,6-5,4	RH	Pass	63.1 dB @ 4.75MHz	27.5 dB	> 50.7 dB	12.4 dB
3,6-1,2	RH	Pass	67.2 dB @ 5.20MHz	30.9 dB	> 49.9 dB	17.3 dB
5,4-7,8	RH	Pass	32.1 dB @ 258.00MHz	30.8 dB	> 16.0 dB	16.1 dB
5,4-3,6	RH	Pass	57.2 dB @ 5.65MHz	23.9 dB	> 49.1 dB	8.1 dB
5,4-1,2	RH	Pass	33.4 dB @ 355.00MHz	31.4 dB	> 13.2 dB	20.2 dB
1,2-7,8	RH	Pass	31.3 dB @ 417.00MHz	30.6 dB	> 11.8 dB	19.5 dB
1,2-3,6	RH	Pass	61.7 dB @ 5.80MHz	27.8 dB	> 48.9 dB	12.8 dB
1,2-5,4	RH	Pass	32.1 dB @ 417.00MHz	31.1 dB	> 11.8 dB	20.3 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.0 dB @ 344.00MHz	36.4 dB	> 29.0 dB	11.0 dB
3,6	DH	Pass	28.4 dB @ 492.00MHz	28.4 dB	> 23.9 dB	4.5 dB
5,4	DH	Pass	33.7 dB @ 407.00MHz	31.8 dB	> 26.6 dB	7.1 dB
1,2	DH	Pass	29.7 dB @ 491.00MHz	29.7 dB	> 23.9 dB	5.8 dB
7,8	RH	Pass	38.3 dB @ 345.00MHz	35.3 dB	> 29.0 dB	9.3 dB
3,6	RH	Pass	30.7 dB @ 459.00MHz	30.1 dB	> 24.9 dB	5.8 dB
5,4	RH	Pass	31.6 dB @ 496.00MHz	31.6 dB	> 23.8 dB	7.8 dB
1,2	RH	Pass	32.9 dB @ 418.00MHz	30.9 dB	> 26.2 dB	6.7 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	27.1 dB @ 486.00MHz	N/A	>= -18.9 dB	46.0 dB
3,6	DH	Pass	18.4 dB @ 498.00MHz	N/A	>= -19.9 dB	38.3 dB
5,4	DH	Pass	22.6 dB @ 492.00MHz	N/A	>= -19.4 dB	42.0 dB
1,2	DH	Pass	20.5 dB @ 491.00MHz	N/A	>= -19.4 dB	39.9 dB
7,8	RH	Pass	26.1 dB @ 491.00MHz	N/A	>= -19.4 dB	45.5 dB
3,6	RH	Pass	20.4 dB @ 459.00MHz	N/A	>= -16.7 dB	37.1 dB
5,4	RH	Pass	22.1 dB @ 496.00MHz	N/A	>= -19.7 dB	41.8 dB
1,2	RH	Pass	21.7 dB @ 491.00MHz	N/A	>= -19.4 dB	41.1 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	31.0 dB @ 257.00MHz	28.3 dB	>= 13.0 dB	18.0 dB
3,6	DH	Pass	38.1 dB @ 54.75MHz	21.6 dB	>= 26.4 dB	11.7 dB
5,4	DH	Pass	56.7 dB @ 8.80MHz	25.7 dB	>= 42.3 dB	14.4 dB
1,2	DH	Pass	59.5 dB @ 9.40MHz	27.1 dB	>= 41.7 dB	17.8 dB
7,8	RH	Pass	31.1 dB @ 247.00MHz	27.5 dB	>= 13.3 dB	17.8 dB
3,6	RH	Pass	47.2 dB @ 29.95MHz	25.9 dB	>= 31.7 dB	15.5 dB
5,4	RH	Pass	53.6 dB @ 8.20MHz	22.9 dB	>= 42.9 dB	10.7 dB
1,2	RH	Pass	57.8 dB @ 8.50MHz	25.1 dB	>= 42.6 dB	15.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

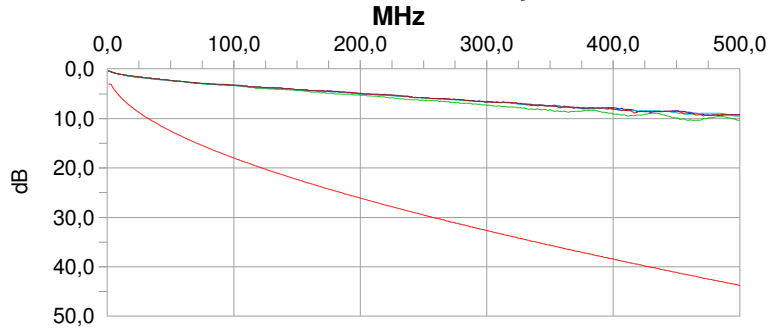
Cable ID 1: 5/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:49:31
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

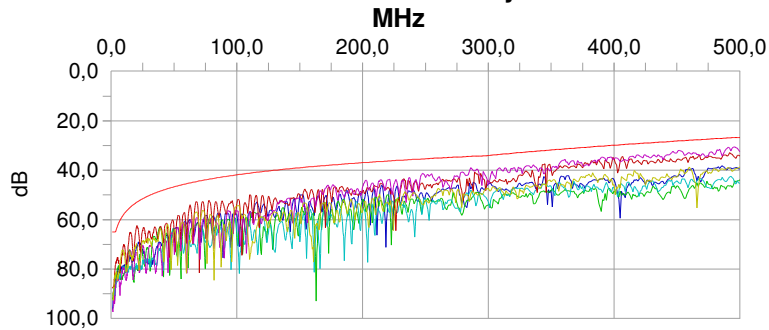
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

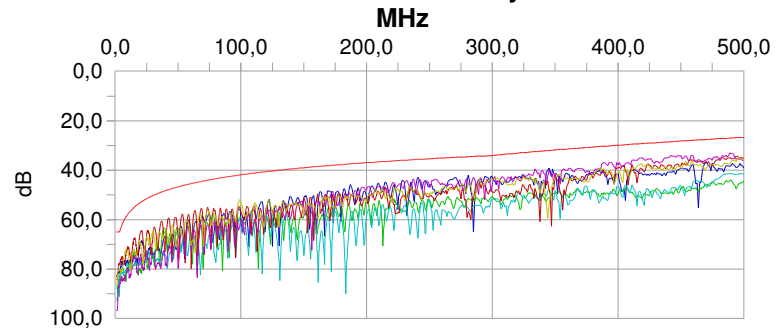
Attenuation Summary



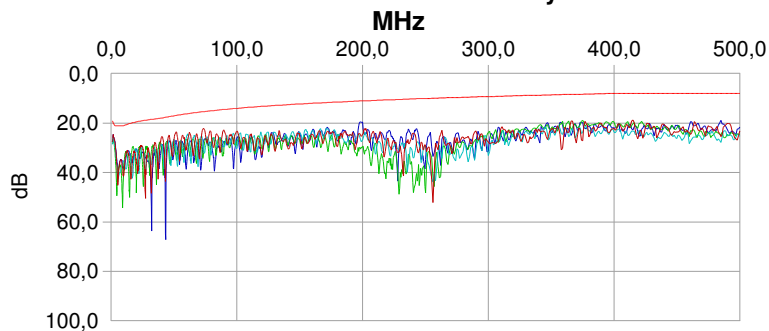
NEXT DH Summary



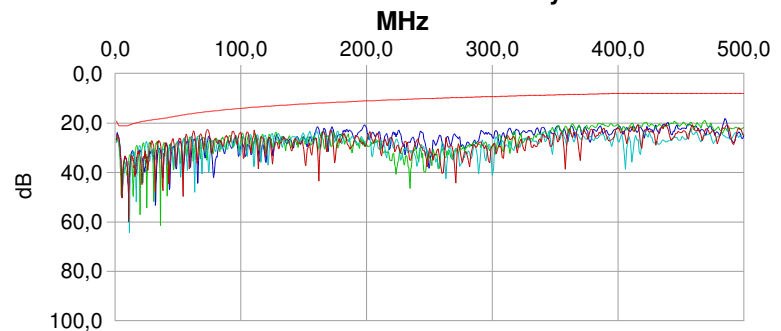
NEXT RH Summary



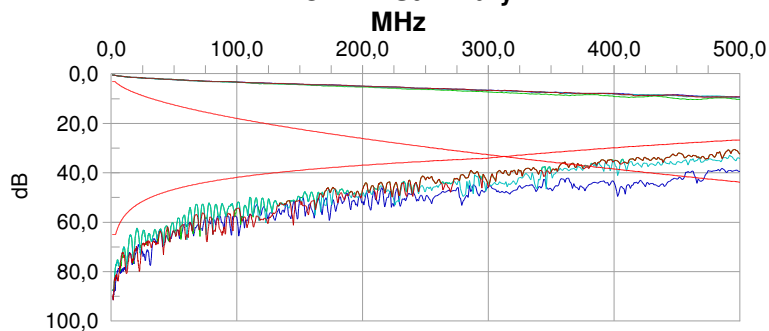
Return Loss DH Summary



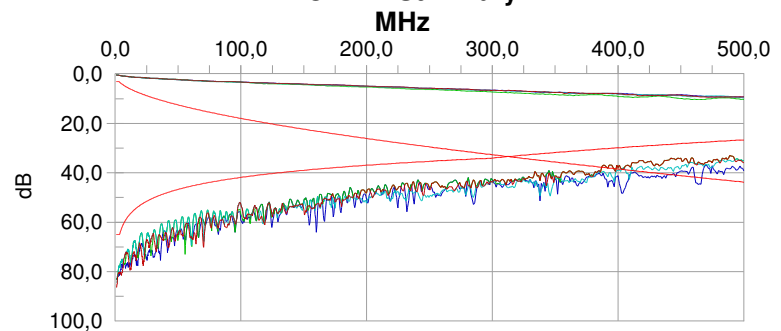
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

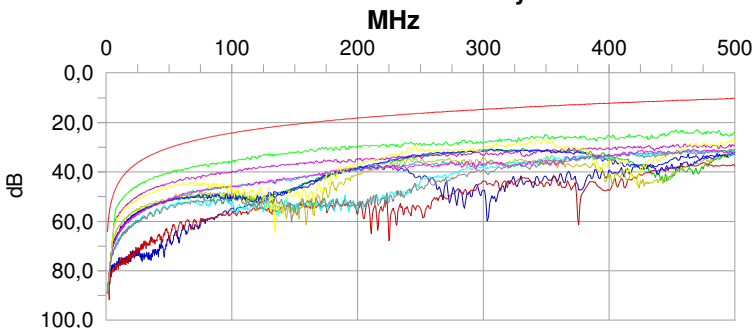
Cable ID 1: 5/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:49:31
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

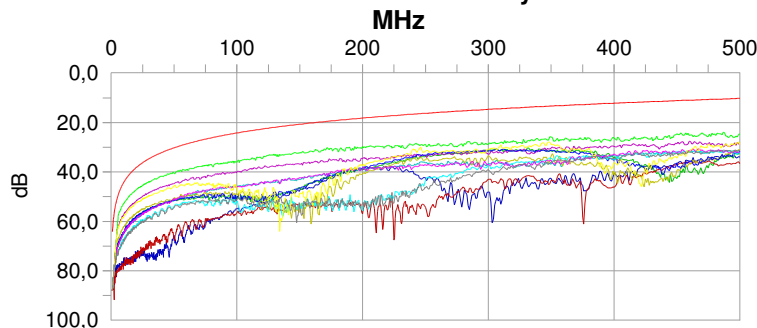
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

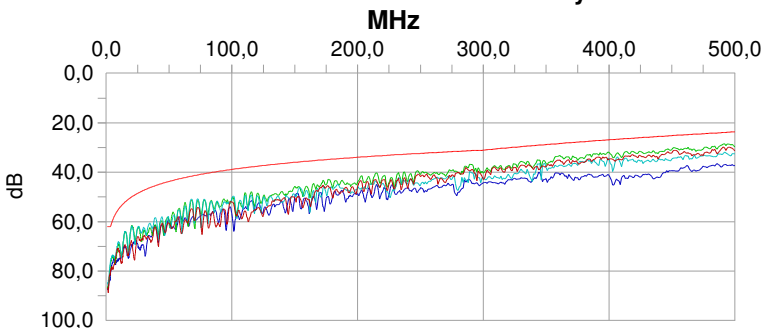
ELFEXT DH Summary



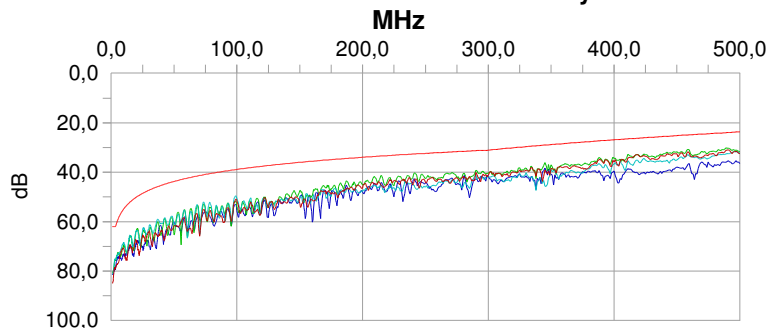
ELFEXT RH Summary



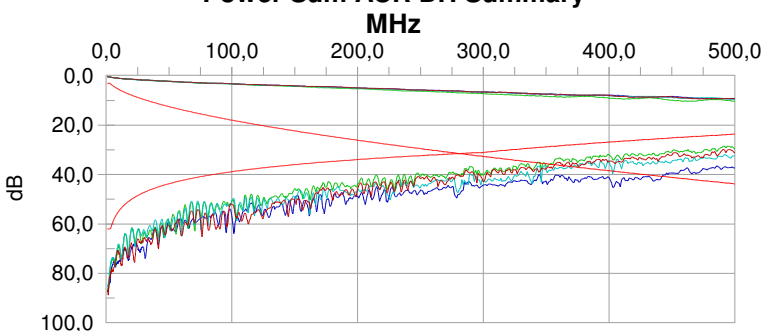
Power Sum NEXT DH Summary



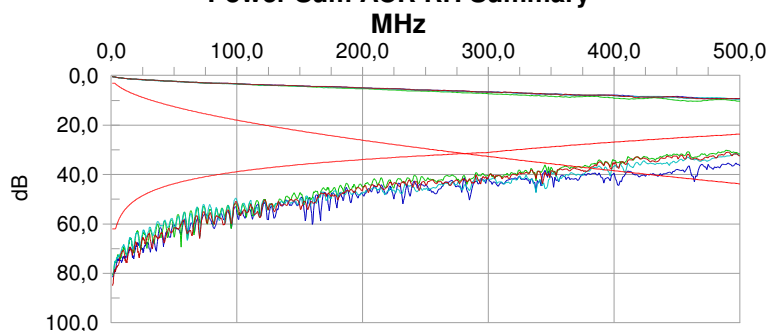
Power Sum NEXT RH Summary



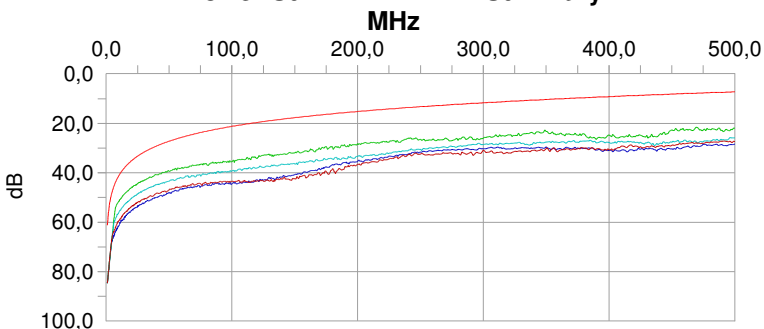
Power Sum ACR DH Summary



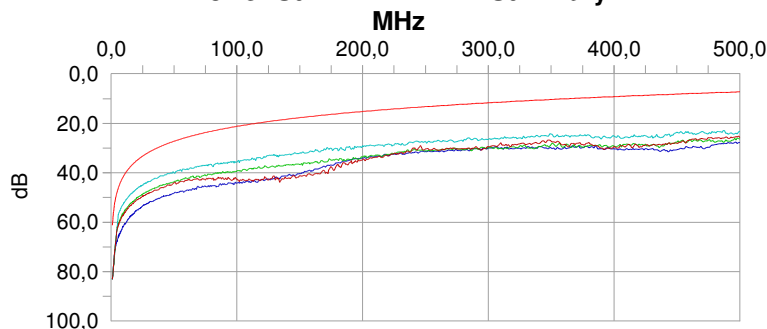
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

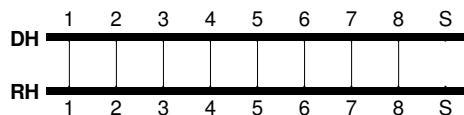
Cable ID 1: 5/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:48:55
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	17.7m	18.6m	18.3m	18.0m	< 90.0m	Pass
Prop. Delay	101.9ns	106.1ns	105.3ns	101.9ns	< 498.0ns	Pass
Delay Skew		4.2ns (Pairs 3,6 vs. 1,2)			< 44.0 ns	Pass
DC Resistance	5.9 Ohm	5.8 Ohm	5.9 Ohm	6.2 Ohm	< 20.0 Ohm	Pass
Headroom		0.0 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	42.8 dB @ 301.00MHz	36.3 dB	> 34.0 dB	8.8 dB
7,8-5,4	DH	Pass	51.1 dB @ 181.50MHz	44.8 dB	> 37.6 dB	13.5 dB
7,8-1,2	DH	Pass	46.2 dB @ 353.00MHz	41.8 dB	> 31.7 dB	14.5 dB
3,6-5,4	DH	Pass	34.0 dB @ 406.00MHz	34.0 dB	> 29.6 dB	4.4 dB
3,6-1,2	DH	Pass	32.5 dB @ 447.00MHz	31.3 dB	> 28.3 dB	4.2 dB
5,4-1,2	DH	Pass	38.2 dB @ 454.00MHz	38.2 dB	> 28.0 dB	10.2 dB
7,8-3,6	RH	Pass	44.1 dB @ 223.00MHz	35.8 dB	> 36.2 dB	7.9 dB
7,8-5,4	RH	Pass	50.3 dB @ 201.50MHz	43.4 dB	> 36.9 dB	13.4 dB
7,8-1,2	RH	Pass	40.3 dB @ 500.00MHz	40.3 dB	> 26.7 dB	13.6 dB
3,6-5,4	RH	Pass	35.3 dB @ 468.00MHz	34.6 dB	> 27.6 dB	7.7 dB
3,6-1,2	RH	Pass	32.5 dB @ 446.00MHz	31.6 dB	> 28.3 dB	4.2 dB
5,4-1,2	RH	Pass	37.5 dB @ 463.00MHz	36.5 dB	> 27.8 dB	9.7 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.8 dB @ 1.60MHz	19.1 dB	> 19.9 dB	4.9 dB
3,6	DH	Pass	26.9 dB @ 1.60MHz	18.7 dB	> 19.9 dB	7.0 dB
5,4	DH	Pass	25.5 dB @ 1.60MHz	21.1 dB	> 19.9 dB	5.6 dB
1,2	DH	Pass	24.9 dB @ 1.60MHz	19.0 dB	> 19.9 dB	5.0 dB
7,8	RH	Pass	23.9 dB @ 1.60MHz	19.3 dB	> 19.9 dB	4.0 dB
3,6	RH	Pass	25.7 dB @ 1.60MHz	20.5 dB	> 19.9 dB	5.8 dB
5,4	RH	Pass	26.6 dB @ 2.20MHz	21.8 dB	> 20.5 dB	6.1 dB
1,2	RH	Pass	24.6 dB @ 1.60MHz	20.3 dB	> 19.9 dB	4.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 3.10MHz	9.2 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.5 dB @ 2.95MHz	10.3 dB	< 3.1 dB	2.6 dB
5,4	Pass	0.6 dB @ 2.95MHz	9.5 dB	< 3.1 dB	2.5 dB
1,2	Pass	0.5 dB @ 2.95MHz	9.5 dB	< 3.1 dB	2.6 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	27.2 dB @ 480.00MHz	N/A	>= -15.5 dB	42.7 dB
3,6	DH	Pass	21.2 dB @ 499.00MHz	N/A	>= -17.0 dB	38.2 dB
5,4	DH	Pass	24.8 dB @ 497.00MHz	N/A	>= -16.9 dB	41.7 dB
1,2	DH	Pass	22.2 dB @ 495.00MHz	N/A	>= -16.7 dB	38.9 dB
7,8	RH	Pass	26.7 dB @ 473.00MHz	N/A	>= -14.9 dB	41.6 dB
3,6	RH	Pass	21.8 dB @ 462.00MHz	N/A	>= -14.0 dB	35.8 dB
5,4	RH	Pass	25.3 dB @ 496.00MHz	N/A	>= -16.7 dB	42.0 dB
1,2	RH	Pass	22.5 dB @ 492.00MHz	N/A	>= -16.4 dB	38.9 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:48:55
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	41.4 dB @ 213.50MHz	36.6 dB	> 17.6 dB	23.8 dB
7,8-5,4	DH	Pass	29.2 dB @ 306.00MHz	28.1 dB	> 14.5 dB	14.7 dB
7,8-1,2	DH	Pass	61.8 dB @ 10.15MHz	29.7 dB	> 44.1 dB	17.7 dB
3,6-7,8	DH	Pass	36.3 dB @ 408.00MHz	36.3 dB	> 12.0 dB	24.3 dB
3,6-5,4	DH	Pass	62.2 dB @ 6.10MHz	28.3 dB	> 48.5 dB	13.7 dB
3,6-1,2	DH	Pass	64.0 dB @ 10.75MHz	34.3 dB	> 43.6 dB	20.4 dB
5,4-7,8	DH	Pass	29.1 dB @ 320.00MHz	28.4 dB	> 14.1 dB	15.0 dB
5,4-3,6	DH	Pass	56.1 dB @ 7.30MHz	23.0 dB	> 46.9 dB	9.2 dB
5,4-1,2	DH	Pass	35.3 dB @ 362.00MHz	33.5 dB	> 13.0 dB	22.3 dB
1,2-7,8	DH	Pass	65.6 dB @ 6.70MHz	30.2 dB	> 47.7 dB	17.9 dB
1,2-3,6	DH	Pass	27.2 dB @ 353.00MHz	27.2 dB	> 13.2 dB	14.0 dB
1,2-5,4	DH	Pass	36.1 dB @ 384.00MHz	34.9 dB	> 12.5 dB	23.6 dB
7,8-3,6	RH	Pass	41.8 dB @ 213.50MHz	37.0 dB	> 17.6 dB	24.2 dB
7,8-5,4	RH	Pass	29.3 dB @ 306.00MHz	28.3 dB	> 14.5 dB	14.8 dB
7,8-1,2	RH	Pass	65.0 dB @ 7.00MHz	30.1 dB	> 47.3 dB	17.7 dB
3,6-7,8	RH	Pass	35.2 dB @ 408.00MHz	35.2 dB	> 12.0 dB	23.2 dB
3,6-5,4	RH	Pass	63.4 dB @ 5.20MHz	27.5 dB	> 49.9 dB	13.5 dB
3,6-1,2	RH	Pass	36.8 dB @ 242.50MHz	33.7 dB	> 16.5 dB	20.3 dB
5,4-7,8	RH	Pass	28.9 dB @ 320.00MHz	28.4 dB	> 14.1 dB	14.8 dB
5,4-3,6	RH	Pass	58.1 dB @ 5.65MHz	23.8 dB	> 49.1 dB	9.0 dB
5,4-1,2	RH	Pass	35.1 dB @ 362.00MHz	33.3 dB	> 13.0 dB	22.1 dB
1,2-7,8	RH	Pass	68.7 dB @ 4.75MHz	29.8 dB	> 50.7 dB	18.0 dB
1,2-3,6	RH	Pass	27.9 dB @ 353.00MHz	27.9 dB	> 13.2 dB	14.7 dB
1,2-5,4	RH	Pass	36.0 dB @ 382.00MHz	34.9 dB	> 12.5 dB	23.5 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	39.2 dB @ 354.00MHz	35.3 dB	> 28.6 dB	10.6 dB
3,6	DH	Pass	31.4 dB @ 406.00MHz	28.9 dB	> 26.6 dB	4.8 dB
5,4	DH	Pass	33.0 dB @ 406.00MHz	32.7 dB	> 26.6 dB	6.4 dB
1,2	DH	Pass	32.6 dB @ 420.00MHz	30.3 dB	> 26.2 dB	6.4 dB
7,8	RH	Pass	43.0 dB @ 223.00MHz	34.4 dB	> 33.2 dB	9.8 dB
3,6	RH	Pass	30.1 dB @ 458.00MHz	29.4 dB	> 24.9 dB	5.2 dB
5,4	RH	Pass	32.3 dB @ 496.00MHz	32.3 dB	> 23.8 dB	8.5 dB
1,2	RH	Pass	31.6 dB @ 446.00MHz	30.3 dB	> 25.3 dB	6.3 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	26.1 dB @ 483.00MHz	N/A	>= -18.8 dB	44.9 dB
3,6	DH	Pass	19.0 dB @ 499.00MHz	N/A	>= -20.0 dB	39.0 dB
5,4	DH	Pass	23.3 dB @ 497.00MHz	N/A	>= -19.9 dB	43.2 dB
1,2	DH	Pass	21.2 dB @ 493.00MHz	N/A	>= -19.5 dB	40.7 dB
7,8	RH	Pass	25.3 dB @ 500.00MHz	N/A	>= -20.1 dB	45.4 dB
3,6	RH	Pass	19.4 dB @ 496.00MHz	N/A	>= -19.7 dB	39.1 dB
5,4	RH	Pass	22.9 dB @ 496.00MHz	N/A	>= -19.7 dB	42.6 dB
1,2	RH	Pass	21.1 dB @ 499.00MHz	N/A	>= -20.0 dB	41.1 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	28.4 dB @ 304.00MHz	26.8 dB	>= 11.5 dB	16.9 dB
3,6	DH	Pass	42.0 dB @ 41.25MHz	22.5 dB	>= 28.9 dB	13.1 dB
5,4	DH	Pass	52.1 dB @ 15.25MHz	26.0 dB	>= 37.5 dB	14.6 dB
1,2	DH	Pass	57.3 dB @ 13.45MHz	28.2 dB	>= 38.6 dB	18.7 dB
7,8	RH	Pass	28.1 dB @ 306.00MHz	26.7 dB	>= 11.5 dB	16.6 dB
3,6	RH	Pass	43.5 dB @ 59.75MHz	26.8 dB	>= 25.7 dB	17.8 dB
5,4	RH	Pass	51.9 dB @ 10.90MHz	23.4 dB	>= 40.4 dB	11.5 dB
1,2	RH	Pass	26.5 dB @ 353.00MHz	26.5 dB	>= 10.2 dB	16.3 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

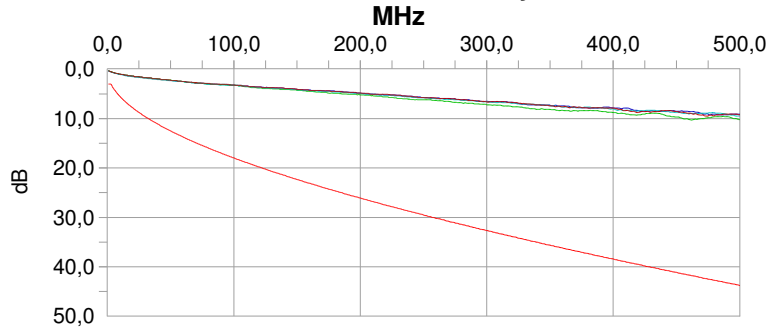
Cable ID 1: 5/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:48:55
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

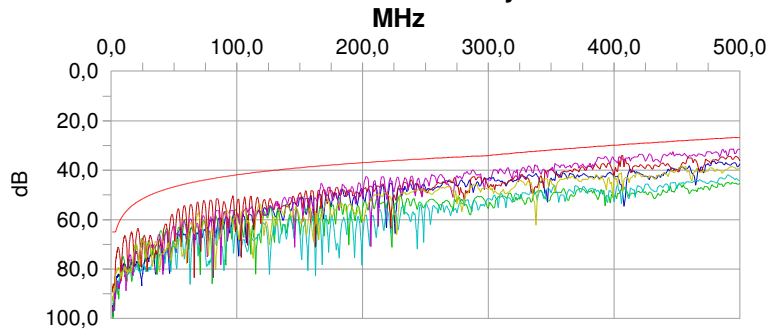
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

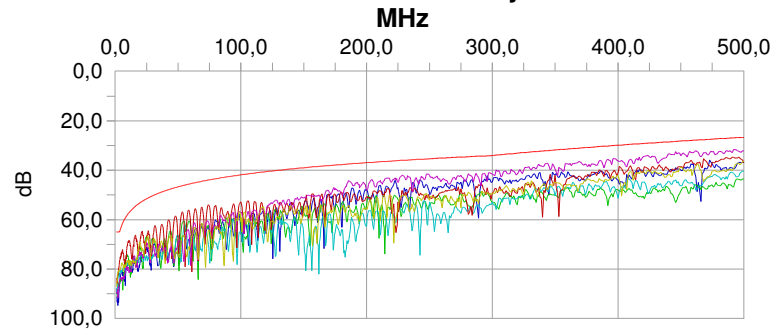
Attenuation Summary



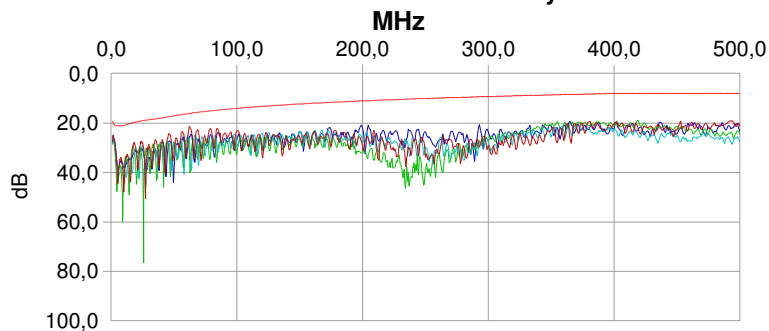
NEXT DH Summary



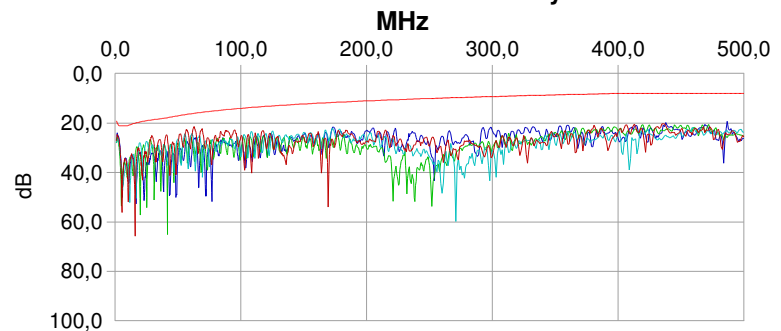
NEXT RH Summary



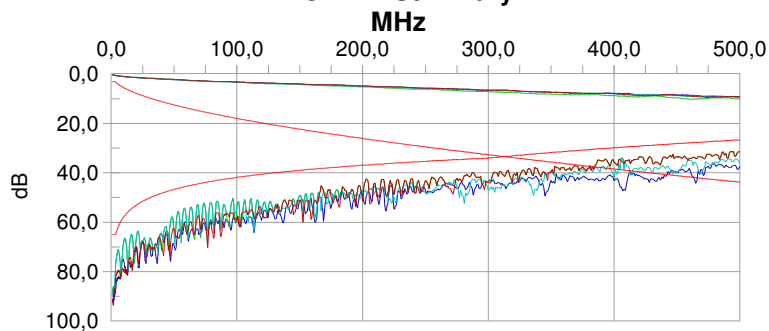
Return Loss DH Summary



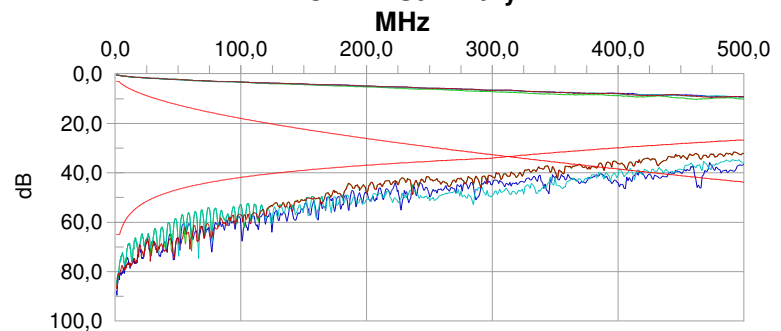
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

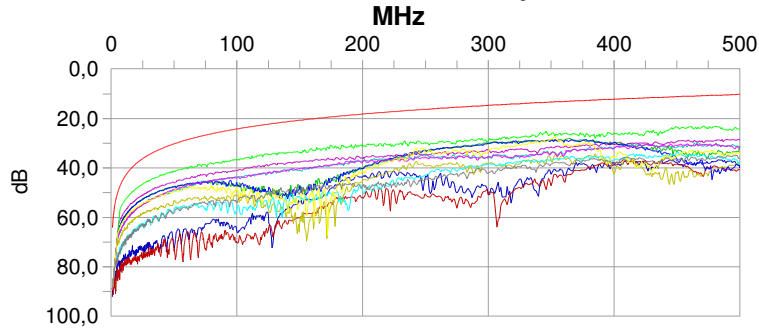
Cable ID 1: 5/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:48:55
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

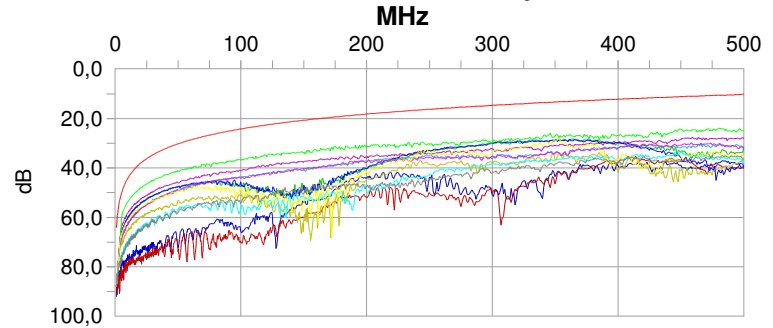
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

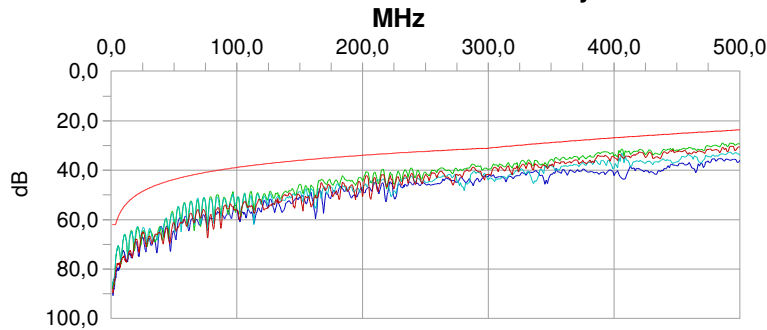
ELFEXT DH Summary



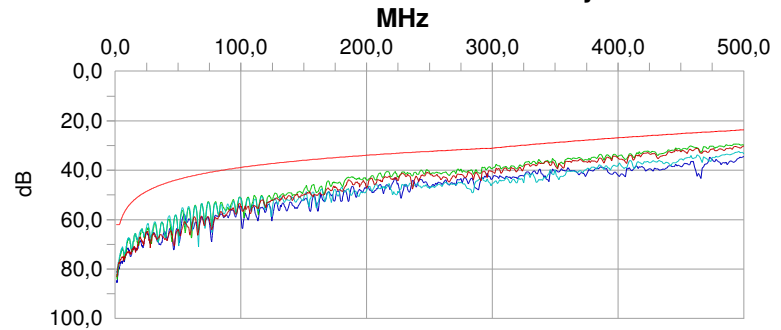
ELFEXT RH Summary



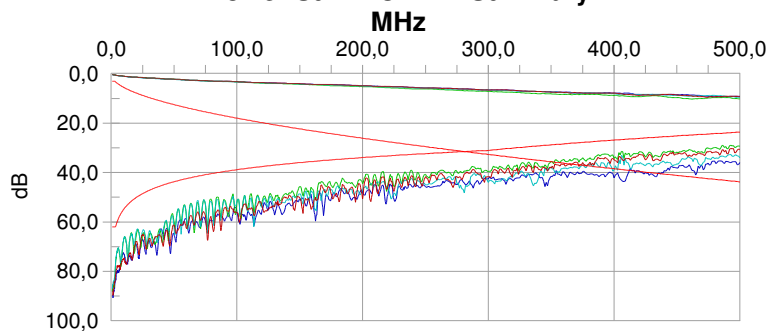
Power Sum NEXT DH Summary



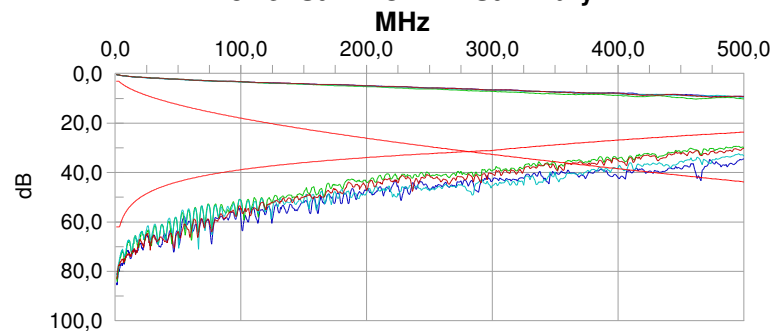
Power Sum NEXT RH Summary



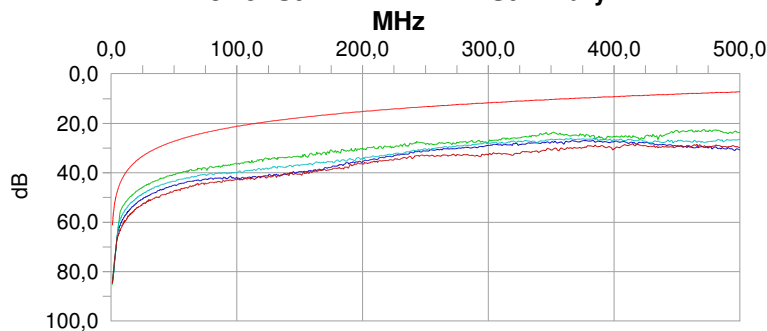
Power Sum ACR DH Summary



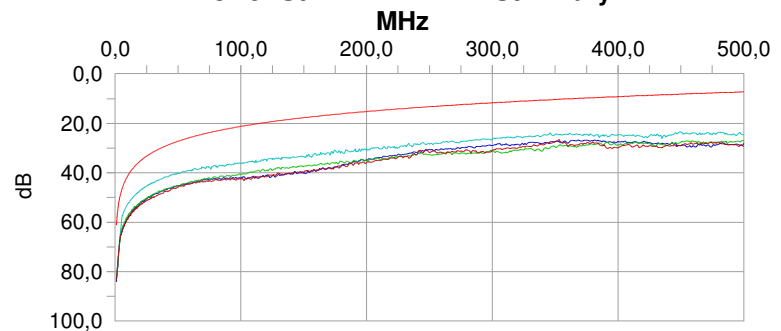
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

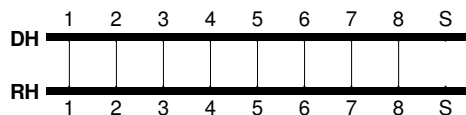
Cable ID 1: 5/5
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:28:46
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	17.4m	18.4m	18.0m	17.7m	< 90.0m	Pass
Prop. Delay	100.7ns	105.2ns	104.0ns	100.5ns	< 498.0ns	Pass
Delay Skew		4.7ns (Pairs 3,6 vs. 1,2)			< 44.0 ns	Pass
DC Resistance	5.7 Ohm	5.6 Ohm	5.9 Ohm	6.1 Ohm	< 20.0 Ohm	Pass
Headroom		0.0 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	36.8 dB @ 489.00MHz	36.8 dB	> 27.0 dB	9.8 dB
7,8-5,4	DH	Pass	51.9 dB @ 184.00MHz	43.4 dB	> 37.5 dB	14.4 dB
7,8-1,2	DH	Pass	41.9 dB @ 368.00MHz	40.6 dB	> 31.1 dB	10.8 dB
3,6-5,4	DH	Pass	33.9 dB @ 406.00MHz	33.5 dB	> 29.6 dB	4.3 dB
3,6-1,2	DH	Pass	32.0 dB @ 417.00MHz	30.9 dB	> 29.3 dB	2.7 dB
5,4-1,2	DH	Pass	41.3 dB @ 385.00MHz	38.0 dB	> 30.4 dB	10.9 dB
7,8-3,6	RH	Pass	35.0 dB @ 474.00MHz	35.0 dB	> 27.4 dB	7.6 dB
7,8-5,4	RH	Pass	59.7 dB @ 64.75MHz	43.5 dB	> 44.9 dB	14.8 dB
7,8-1,2	RH	Pass	41.5 dB @ 489.00MHz	41.5 dB	> 27.0 dB	14.5 dB
3,6-5,4	RH	Pass	35.9 dB @ 408.00MHz	35.0 dB	> 29.6 dB	6.3 dB
3,6-1,2	RH	Pass	34.3 dB @ 441.00MHz	33.6 dB	> 28.5 dB	5.8 dB
5,4-1,2	RH	Pass	38.4 dB @ 462.00MHz	37.5 dB	> 27.8 dB	10.6 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.5 dB @ 1.60MHz	19.1 dB	> 19.9 dB	4.6 dB
3,6	DH	Pass	26.8 dB @ 1.60MHz	20.1 dB	> 19.9 dB	6.9 dB
5,4	DH	Pass	25.3 dB @ 1.60MHz	20.9 dB	> 19.9 dB	5.4 dB
1,2	DH	Pass	24.7 dB @ 1.60MHz	17.5 dB	> 19.9 dB	4.8 dB
7,8	RH	Pass	23.9 dB @ 1.60MHz	20.7 dB	> 19.9 dB	4.0 dB
3,6	RH	Pass	25.7 dB @ 1.60MHz	22.2 dB	> 19.9 dB	5.8 dB
5,4	RH	Pass	26.3 dB @ 2.20MHz	22.3 dB	> 20.5 dB	5.8 dB
1,2	RH	Pass	25.3 dB @ 2.50MHz	21.4 dB	> 20.7 dB	4.6 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.5 dB @ 2.95MHz	9.0 dB	< 3.1 dB	2.6 dB
3,6	Pass	0.5 dB @ 2.95MHz	10.1 dB	< 3.1 dB	2.6 dB
5,4	Pass	0.6 dB @ 2.95MHz	9.4 dB	< 3.1 dB	2.5 dB
1,2	Pass	0.5 dB @ 2.95MHz	9.2 dB	< 3.1 dB	2.6 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	27.8 dB @ 489.00MHz	N/A	>= -16.2 dB	44.0 dB
3,6	DH	Pass	21.3 dB @ 494.00MHz	N/A	>= -16.6 dB	37.9 dB
5,4	DH	Pass	24.1 dB @ 498.00MHz	N/A	>= -16.9 dB	41.0 dB
1,2	DH	Pass	21.8 dB @ 488.00MHz	N/A	>= -16.1 dB	37.9 dB
7,8	RH	Pass	26.2 dB @ 474.00MHz	N/A	>= -15.0 dB	41.2 dB
3,6	RH	Pass	24.0 dB @ 476.00MHz	N/A	>= -15.1 dB	39.1 dB
5,4	RH	Pass	26.0 dB @ 492.00MHz	N/A	>= -16.4 dB	42.4 dB
1,2	RH	Pass	24.4 dB @ 481.00MHz	N/A	>= -15.6 dB	40.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/5
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:28:46
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	36.1 dB @ 375.00MHz	35.1 dB	> 12.7 dB	23.4 dB
7,8-5,4	DH	Pass	61.9 dB @ 8.20MHz	31.6 dB	> 45.9 dB	16.0 dB
7,8-1,2	DH	Pass	44.1 dB @ 274.00MHz	44.0 dB	> 15.4 dB	28.7 dB
3,6-7,8	DH	Pass	36.9 dB @ 456.00MHz	36.9 dB	> 11.0 dB	25.9 dB
3,6-5,4	DH	Pass	58.4 dB @ 7.75MHz	27.4 dB	> 46.4 dB	12.0 dB
3,6-1,2	DH	Pass	67.2 dB @ 5.20MHz	34.5 dB	> 49.9 dB	17.3 dB
5,4-7,8	DH	Pass	63.7 dB @ 6.55MHz	31.9 dB	> 47.9 dB	15.8 dB
5,4-3,6	DH	Pass	54.3 dB @ 7.60MHz	21.7 dB	> 46.6 dB	7.7 dB
5,4-1,2	DH	Pass	29.8 dB @ 412.00MHz	29.0 dB	> 11.9 dB	17.9 dB
1,2-7,8	DH	Pass	39.5 dB @ 369.00MHz	38.5 dB	> 12.8 dB	26.7 dB
1,2-3,6	DH	Pass	61.8 dB @ 6.10MHz	27.2 dB	> 48.5 dB	13.3 dB
1,2-5,4	DH	Pass	29.7 dB @ 417.00MHz	29.3 dB	> 11.8 dB	17.9 dB
7,8-3,6	RH	Pass	36.7 dB @ 375.00MHz	36.3 dB	> 12.7 dB	24.0 dB
7,8-5,4	RH	Pass	66.7 dB @ 4.75MHz	31.6 dB	> 50.7 dB	16.0 dB
7,8-1,2	RH	Pass	43.6 dB @ 274.00MHz	43.6 dB	> 15.4 dB	28.2 dB
3,6-7,8	RH	Pass	35.7 dB @ 456.00MHz	35.7 dB	> 11.0 dB	24.7 dB
3,6-5,4	RH	Pass	60.2 dB @ 6.25MHz	26.4 dB	> 48.3 dB	11.9 dB
3,6-1,2	RH	Pass	68.5 dB @ 4.30MHz	33.6 dB	> 51.5 dB	17.0 dB
5,4-7,8	RH	Pass	67.0 dB @ 4.45MHz	31.8 dB	> 51.2 dB	15.8 dB
5,4-3,6	RH	Pass	55.9 dB @ 6.10MHz	22.9 dB	> 48.5 dB	7.4 dB
5,4-1,2	RH	Pass	28.9 dB @ 450.00MHz	28.8 dB	> 11.1 dB	17.8 dB
1,2-7,8	RH	Pass	38.2 dB @ 410.00MHz	38.2 dB	> 11.9 dB	26.3 dB
1,2-3,6	RH	Pass	63.8 dB @ 4.75MHz	27.9 dB	> 50.7 dB	13.1 dB
1,2-5,4	RH	Pass	30.5 dB @ 383.00MHz	29.5 dB	> 12.5 dB	18.0 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	38.7 dB @ 370.00MHz	35.0 dB	> 28.0 dB	10.7 dB
3,6	DH	Pass	30.9 dB @ 406.00MHz	28.7 dB	> 26.6 dB	4.3 dB
5,4	DH	Pass	33.5 dB @ 406.00MHz	32.1 dB	> 26.6 dB	6.9 dB
1,2	DH	Pass	31.5 dB @ 417.00MHz	29.9 dB	> 26.3 dB	5.2 dB
7,8	RH	Pass	34.2 dB @ 474.00MHz	34.2 dB	> 24.4 dB	9.8 dB
3,6	RH	Pass	32.4 dB @ 411.00MHz	30.3 dB	> 26.5 dB	5.9 dB
5,4	RH	Pass	34.8 dB @ 409.00MHz	32.9 dB	> 26.5 dB	8.3 dB
1,2	RH	Pass	35.1 dB @ 391.00MHz	32.2 dB	> 27.2 dB	7.9 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	26.0 dB @ 495.00MHz	N/A	>= -19.7 dB	45.7 dB
3,6	DH	Pass	19.0 dB @ 494.00MHz	N/A	>= -19.6 dB	38.6 dB
5,4	DH	Pass	22.7 dB @ 498.00MHz	N/A	>= -19.9 dB	42.6 dB
1,2	DH	Pass	20.8 dB @ 488.00MHz	N/A	>= -19.1 dB	39.9 dB
7,8	RH	Pass	25.4 dB @ 474.00MHz	N/A	>= -18.0 dB	43.4 dB
3,6	RH	Pass	20.6 dB @ 476.00MHz	N/A	>= -18.1 dB	38.7 dB
5,4	RH	Pass	23.7 dB @ 494.00MHz	N/A	>= -19.6 dB	43.3 dB
1,2	RH	Pass	23.1 dB @ 481.00MHz	N/A	>= -18.6 dB	41.7 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	31.7 dB @ 325.00MHz	31.0 dB	>= 11.0 dB	20.7 dB
3,6	DH	Pass	47.9 dB @ 14.65MHz	21.3 dB	>= 37.9 dB	10.0 dB
5,4	DH	Pass	55.3 dB @ 9.25MHz	25.2 dB	>= 41.9 dB	13.4 dB
1,2	DH	Pass	30.0 dB @ 352.00MHz	28.6 dB	>= 10.3 dB	19.7 dB
7,8	RH	Pass	31.5 dB @ 312.00MHz	30.9 dB	>= 11.3 dB	20.2 dB
3,6	RH	Pass	47.0 dB @ 28.75MHz	25.8 dB	>= 32.0 dB	15.0 dB
5,4	RH	Pass	52.5 dB @ 8.50MHz	22.0 dB	>= 42.6 dB	9.9 dB
1,2	RH	Pass	26.5 dB @ 348.00MHz	26.5 dB	>= 10.4 dB	16.1 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

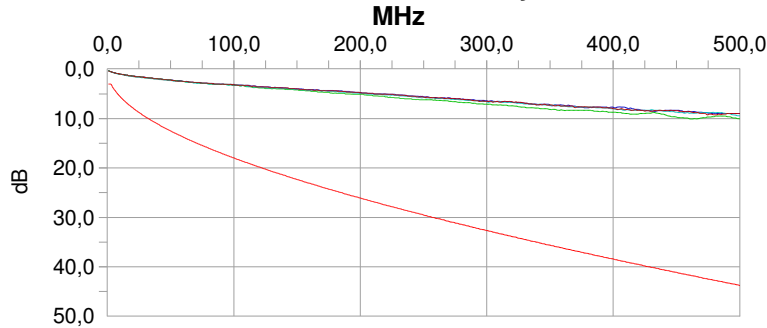
Cable ID 1: 5/5
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:28:46
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

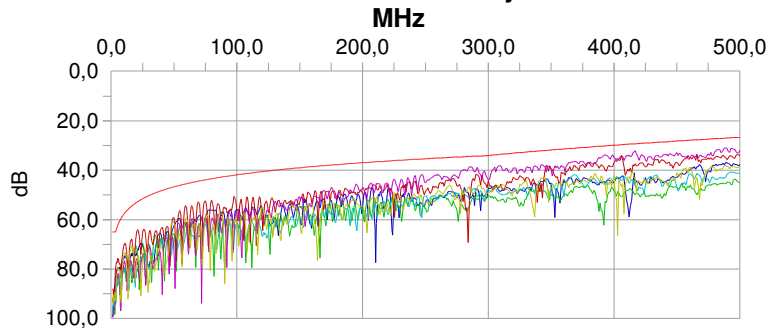
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

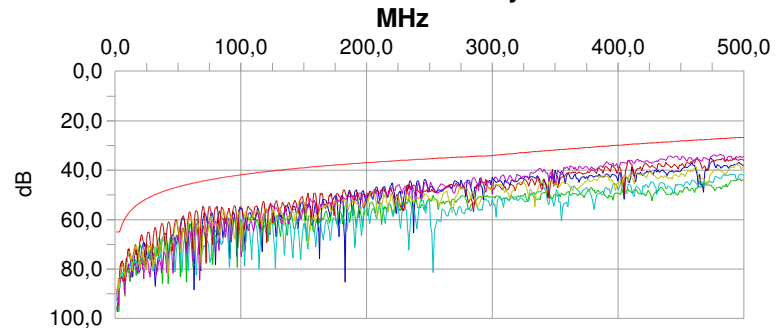
Attenuation Summary



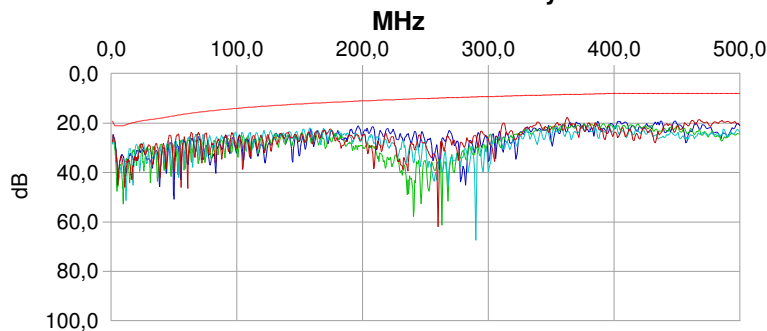
NEXT DH Summary



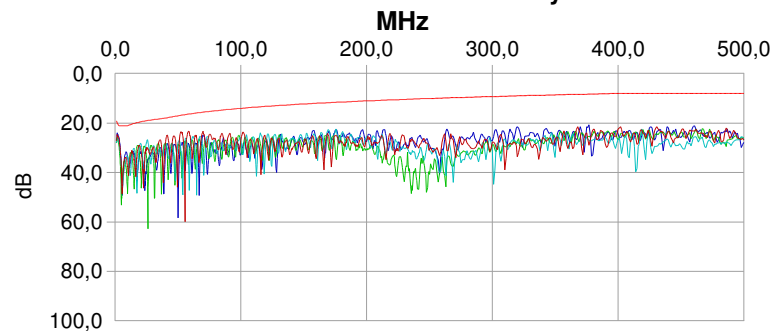
NEXT RH Summary



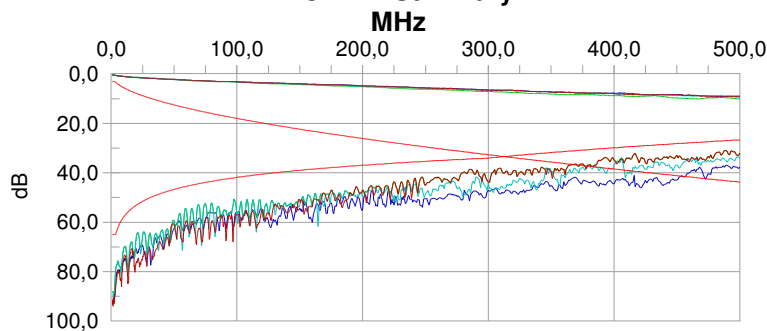
Return Loss DH Summary



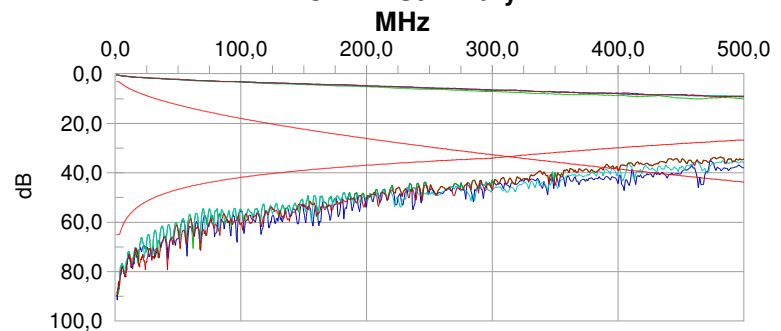
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

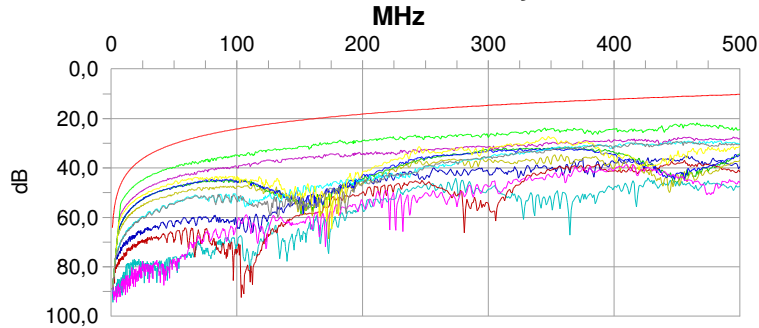
Cable ID 1: 5/5
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:28:46
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

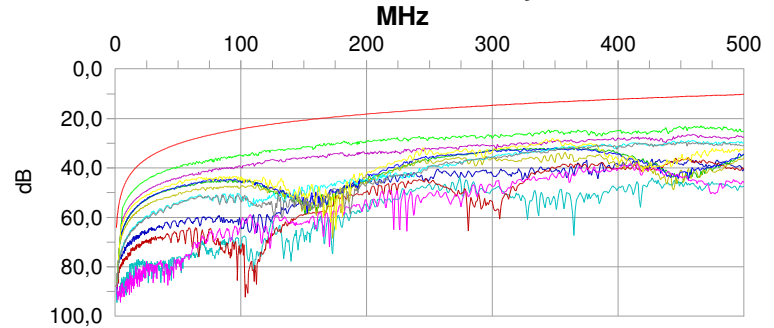
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

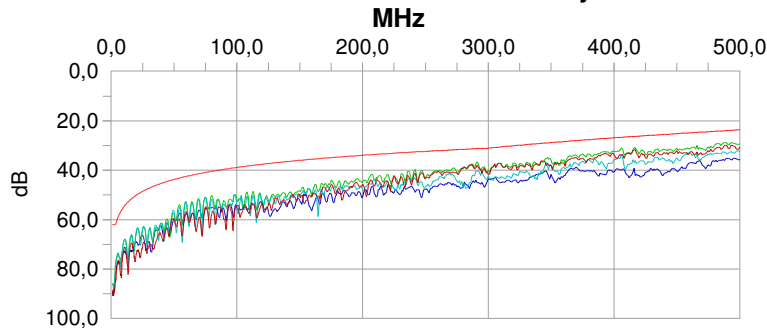
ELFEXT DH Summary



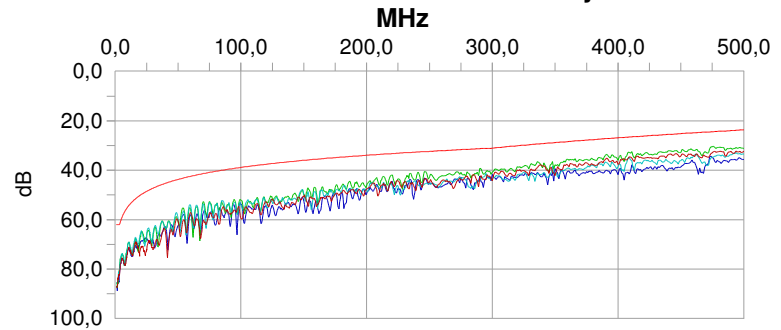
ELFEXT RH Summary



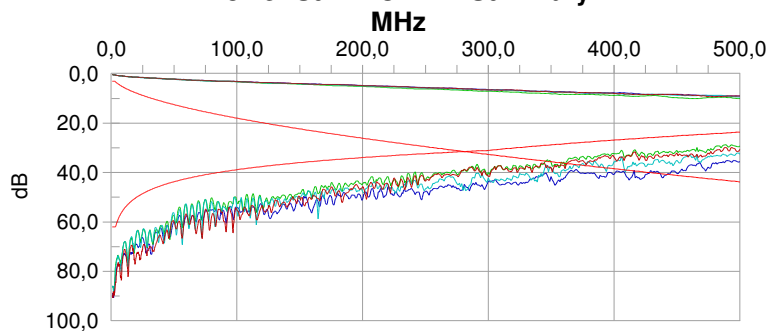
Power Sum NEXT DH Summary



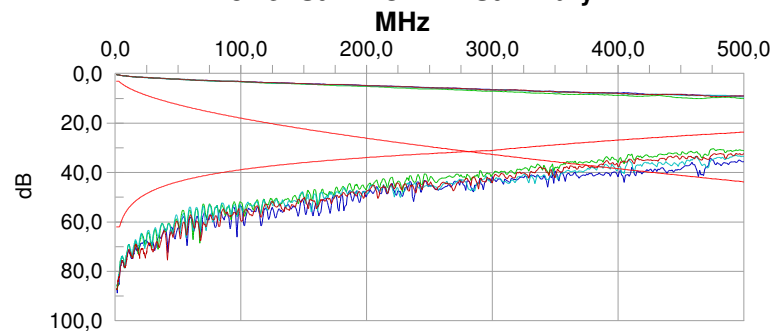
Power Sum NEXT RH Summary



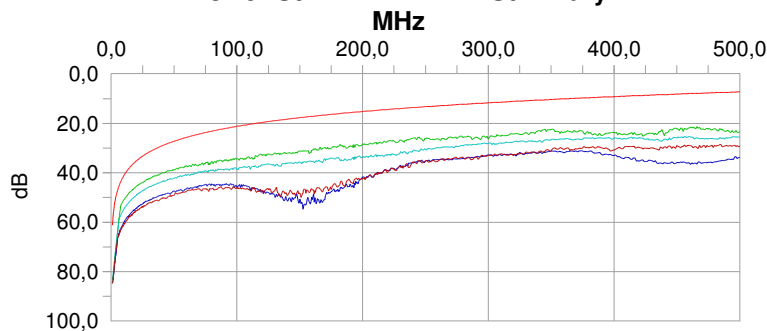
Power Sum ACR DH Summary



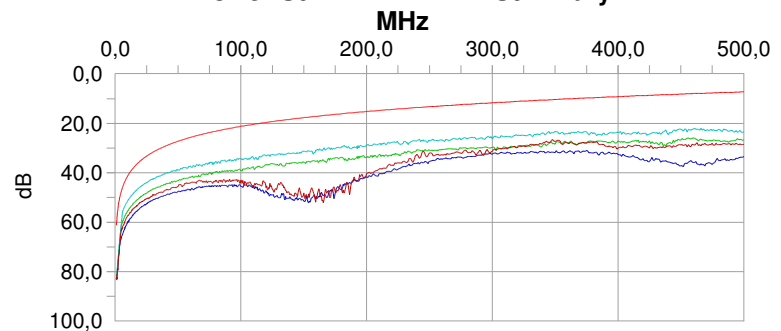
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

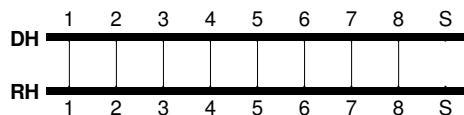
Cable ID 1: 5/6
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:27:44
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	17.5m	18.4m	18.1m	17.7m	< 90.0m	Pass
Prop. Delay	100.9ns	105.2ns	104.2ns	100.7ns	< 498.0ns	Pass
Delay Skew		4.5ns (Pairs 3,6 vs. 1,2)			< 44.0 ns	Pass
DC Resistance	5.7 Ohm	5.6 Ohm	5.9 Ohm	6.1 Ohm	< 20.0 Ohm	Pass
Headroom		0.0 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	42.3 dB @ 302.00MHz	35.7 dB	> 33.9 dB	8.4 dB
7,8-5,4	DH	Pass	57.9 dB @ 64.00MHz	42.9 dB	> 45.0 dB	12.9 dB
7,8-1,2	DH	Pass	48.6 dB @ 308.00MHz	43.3 dB	> 33.6 dB	15.0 dB
3,6-5,4	DH	Pass	33.6 dB @ 405.00MHz	32.4 dB	> 29.7 dB	3.9 dB
3,6-1,2	DH	Pass	34.2 dB @ 392.00MHz	31.6 dB	> 30.2 dB	4.0 dB
5,4-1,2	DH	Pass	38.4 dB @ 457.00MHz	38.4 dB	> 27.9 dB	10.5 dB
7,8-3,6	RH	Pass	43.6 dB @ 219.50MHz	37.1 dB	> 36.3 dB	7.3 dB
7,8-5,4	RH	Pass	58.4 dB @ 64.25MHz	43.7 dB	> 44.9 dB	13.5 dB
7,8-1,2	RH	Pass	39.8 dB @ 489.00MHz	39.7 dB	> 27.0 dB	12.8 dB
3,6-5,4	RH	Pass	35.5 dB @ 466.00MHz	35.2 dB	> 27.7 dB	7.8 dB
3,6-1,2	RH	Pass	33.8 dB @ 445.00MHz	33.6 dB	> 28.3 dB	5.5 dB
5,4-1,2	RH	Pass	38.8 dB @ 455.00MHz	37.7 dB	> 28.0 dB	10.8 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.5 dB @ 1.60MHz	19.7 dB	> 19.9 dB	4.6 dB
3,6	DH	Pass	26.8 dB @ 1.60MHz	19.6 dB	> 19.9 dB	6.9 dB
5,4	DH	Pass	25.5 dB @ 1.60MHz	21.3 dB	> 19.9 dB	5.6 dB
1,2	DH	Pass	24.7 dB @ 1.60MHz	18.5 dB	> 19.9 dB	4.8 dB
7,8	RH	Pass	23.9 dB @ 1.60MHz	19.3 dB	> 19.9 dB	4.0 dB
3,6	RH	Pass	25.7 dB @ 1.60MHz	21.3 dB	> 19.9 dB	5.8 dB
5,4	RH	Pass	26.4 dB @ 2.20MHz	21.9 dB	> 20.5 dB	5.9 dB
1,2	RH	Pass	25.2 dB @ 2.50MHz	21.4 dB	> 20.7 dB	4.5 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.5 dB @ 2.95MHz	9.1 dB	< 3.1 dB	2.6 dB
3,6	Pass	0.5 dB @ 2.95MHz	10.1 dB	< 3.1 dB	2.6 dB
5,4	Pass	0.6 dB @ 2.95MHz	9.4 dB	< 3.1 dB	2.5 dB
1,2	Pass	0.5 dB @ 2.95MHz	9.1 dB	< 3.1 dB	2.6 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	26.6 dB @ 484.00MHz	N/A	>= -15.8 dB	42.4 dB
3,6	DH	Pass	22.0 dB @ 492.00MHz	N/A	>= -16.4 dB	38.4 dB
5,4	DH	Pass	23.5 dB @ 463.00MHz	N/A	>= -14.0 dB	37.5 dB
1,2	DH	Pass	22.6 dB @ 492.00MHz	N/A	>= -16.4 dB	39.0 dB
7,8	RH	Pass	28.1 dB @ 497.00MHz	N/A	>= -16.9 dB	45.0 dB
3,6	RH	Pass	24.1 dB @ 480.00MHz	N/A	>= -15.5 dB	39.6 dB
5,4	RH	Pass	26.3 dB @ 497.00MHz	N/A	>= -16.9 dB	43.2 dB
1,2	RH	Pass	24.5 dB @ 481.00MHz	N/A	>= -15.6 dB	40.1 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/6
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:27:44
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	38.2 dB @ 233.50MHz	36.2 dB	> 16.8 dB	21.4 dB
7,8-5,4	DH	Pass	29.1 dB @ 308.00MHz	28.4 dB	> 14.4 dB	14.7 dB
7,8-1,2	DH	Pass	37.7 dB @ 420.00MHz	37.4 dB	> 11.7 dB	26.0 dB
3,6-7,8	DH	Pass	37.8 dB @ 384.00MHz	37.8 dB	> 12.5 dB	25.3 dB
3,6-5,4	DH	Pass	62.4 dB @ 6.55MHz	29.8 dB	> 47.9 dB	14.5 dB
3,6-1,2	DH	Pass	69.2 dB @ 5.05MHz	34.4 dB	> 50.1 dB	19.1 dB
5,4-7,8	DH	Pass	29.5 dB @ 308.00MHz	28.8 dB	> 14.4 dB	15.1 dB
5,4-3,6	DH	Pass	56.6 dB @ 7.60MHz	24.4 dB	> 46.6 dB	10.0 dB
5,4-1,2	DH	Pass	69.0 dB @ 4.75MHz	30.7 dB	> 50.7 dB	18.3 dB
1,2-7,8	DH	Pass	37.4 dB @ 407.00MHz	37.2 dB	> 12.0 dB	25.4 dB
1,2-3,6	DH	Pass	63.1 dB @ 6.70MHz	28.8 dB	> 47.7 dB	15.4 dB
1,2-5,4	DH	Pass	66.7 dB @ 6.25MHz	30.7 dB	> 48.3 dB	18.4 dB
7,8-3,6	RH	Pass	39.5 dB @ 215.50MHz	36.8 dB	> 17.5 dB	22.0 dB
7,8-5,4	RH	Pass	29.2 dB @ 308.00MHz	28.5 dB	> 14.4 dB	14.8 dB
7,8-1,2	RH	Pass	37.8 dB @ 420.00MHz	37.6 dB	> 11.7 dB	26.1 dB
3,6-7,8	RH	Pass	36.6 dB @ 407.00MHz	36.6 dB	> 12.0 dB	24.6 dB
3,6-5,4	RH	Pass	65.2 dB @ 4.60MHz	29.1 dB	> 50.9 dB	14.3 dB
3,6-1,2	RH	Pass	69.2 dB @ 5.05MHz	33.8 dB	> 50.1 dB	19.1 dB
5,4-7,8	RH	Pass	29.5 dB @ 304.00MHz	28.7 dB	> 14.5 dB	15.0 dB
5,4-3,6	RH	Pass	59.3 dB @ 5.50MHz	25.3 dB	> 49.4 dB	9.9 dB
5,4-1,2	RH	Pass	68.7 dB @ 4.75MHz	30.4 dB	> 50.7 dB	18.0 dB
1,2-7,8	RH	Pass	37.1 dB @ 407.00MHz	37.0 dB	> 12.0 dB	25.1 dB
1,2-3,6	RH	Pass	65.8 dB @ 4.75MHz	29.3 dB	> 50.7 dB	15.1 dB
1,2-5,4	RH	Pass	69.2 dB @ 4.60MHz	31.1 dB	> 50.9 dB	18.3 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	41.2 dB @ 305.00MHz	34.6 dB	> 30.8 dB	10.4 dB
3,6	DH	Pass	30.7 dB @ 405.00MHz	29.1 dB	> 26.7 dB	4.0 dB
5,4	DH	Pass	33.3 dB @ 405.00MHz	31.9 dB	> 26.7 dB	6.6 dB
1,2	DH	Pass	33.5 dB @ 392.00MHz	30.7 dB	> 27.2 dB	6.3 dB
7,8	RH	Pass	43.1 dB @ 219.50MHz	34.6 dB	> 33.3 dB	9.8 dB
3,6	RH	Pass	31.6 dB @ 443.00MHz	30.7 dB	> 25.4 dB	6.2 dB
5,4	RH	Pass	33.4 dB @ 481.00MHz	33.2 dB	> 24.2 dB	9.2 dB
1,2	RH	Pass	33.0 dB @ 445.00MHz	31.9 dB	> 25.3 dB	7.7 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	25.5 dB @ 484.00MHz	N/A	>= -18.8 dB	44.3 dB
3,6	DH	Pass	19.5 dB @ 492.00MHz	N/A	>= -19.4 dB	38.9 dB
5,4	DH	Pass	23.0 dB @ 463.00MHz	N/A	>= -17.0 dB	40.0 dB
1,2	DH	Pass	21.7 dB @ 488.00MHz	N/A	>= -19.1 dB	40.8 dB
7,8	RH	Pass	25.6 dB @ 497.00MHz	N/A	>= -19.9 dB	45.5 dB
3,6	RH	Pass	21.2 dB @ 481.00MHz	N/A	>= -18.6 dB	39.8 dB
5,4	RH	Pass	24.1 dB @ 493.00MHz	N/A	>= -19.5 dB	43.6 dB
1,2	RH	Pass	22.8 dB @ 481.00MHz	N/A	>= -18.6 dB	41.4 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	29.3 dB @ 308.00MHz	28.1 dB	>= 11.4 dB	17.9 dB
3,6	DH	Pass	42.4 dB @ 42.75MHz	23.8 dB	>= 28.6 dB	13.8 dB
5,4	DH	Pass	60.3 dB @ 6.25MHz	26.1 dB	>= 45.3 dB	15.0 dB
1,2	DH	Pass	53.1 dB @ 23.95MHz	29.2 dB	>= 33.6 dB	19.5 dB
7,8	RH	Pass	28.8 dB @ 308.00MHz	28.0 dB	>= 11.4 dB	17.4 dB
3,6	RH	Pass	45.5 dB @ 49.75MHz	27.9 dB	>= 27.3 dB	18.2 dB
5,4	RH	Pass	58.2 dB @ 5.50MHz	24.0 dB	>= 46.4 dB	11.8 dB
1,2	RH	Pass	51.4 dB @ 23.50MHz	28.3 dB	>= 33.8 dB	17.6 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

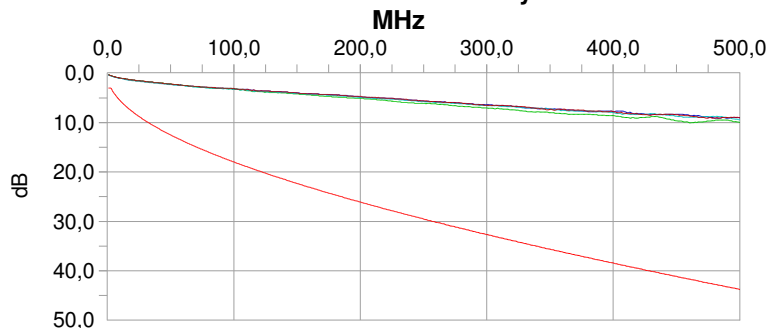
Cable ID 1: 5/6
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:27:44
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

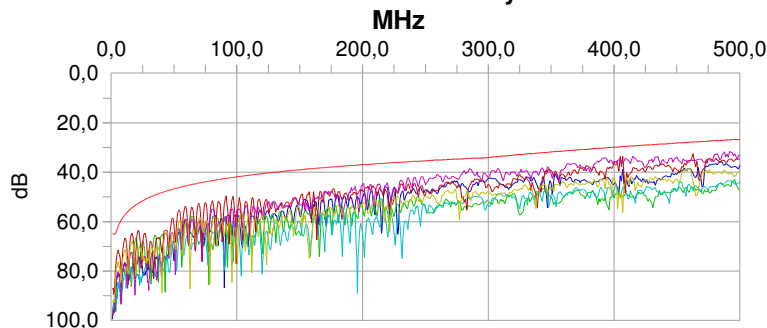
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

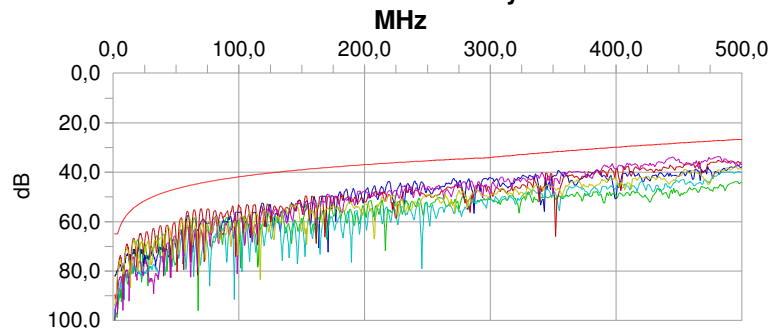
Attenuation Summary



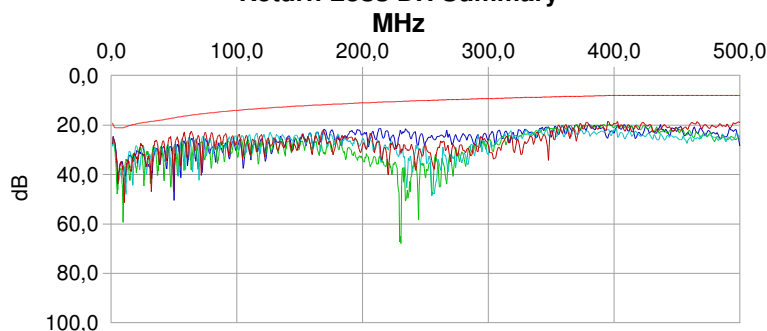
NEXT DH Summary



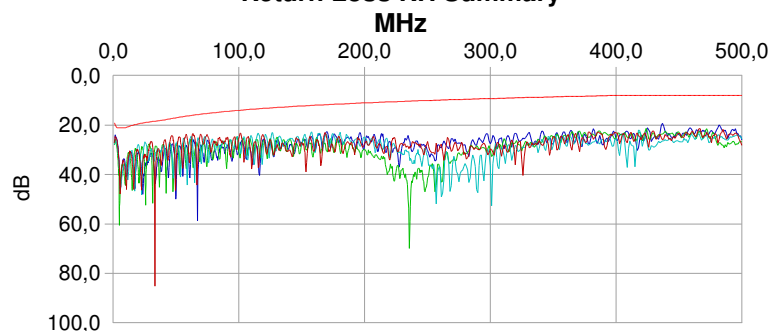
NEXT RH Summary



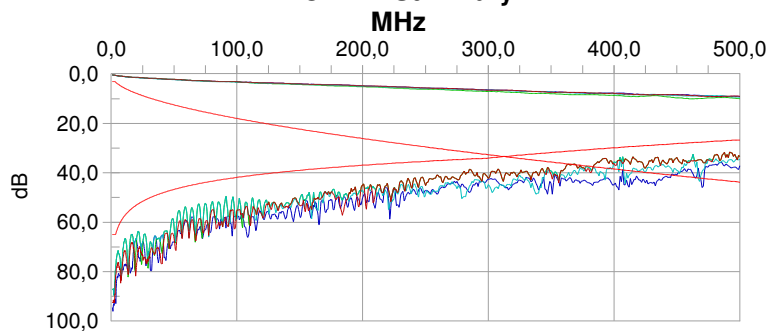
Return Loss DH Summary



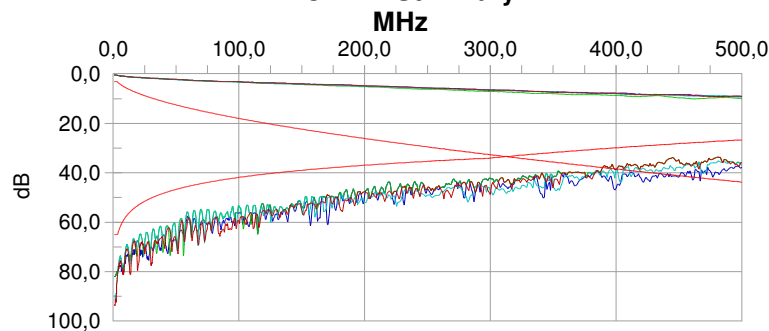
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

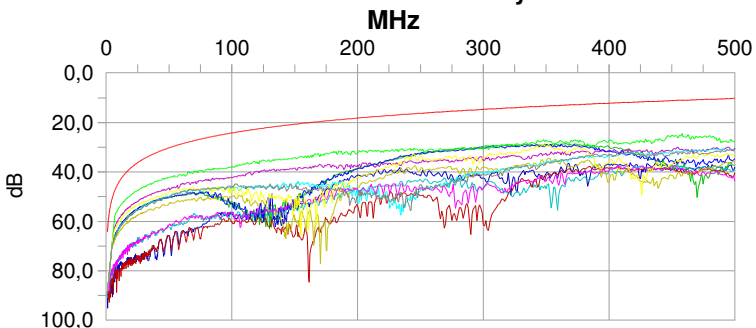
Cable ID 1: 5/6
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:27:44
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

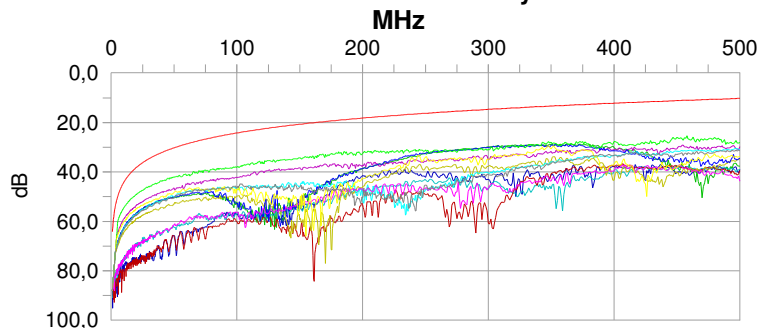
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

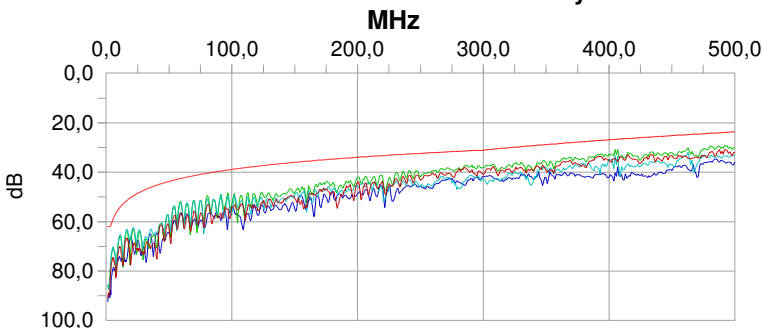
ELFEXT DH Summary



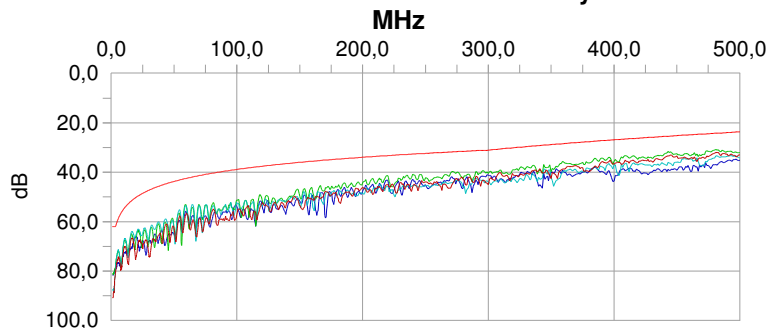
ELFEXT RH Summary



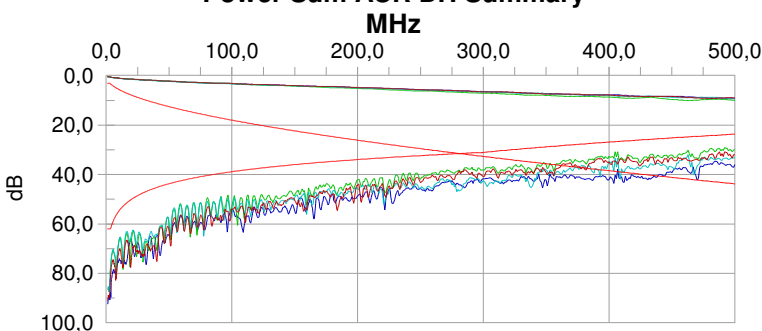
Power Sum NEXT DH Summary



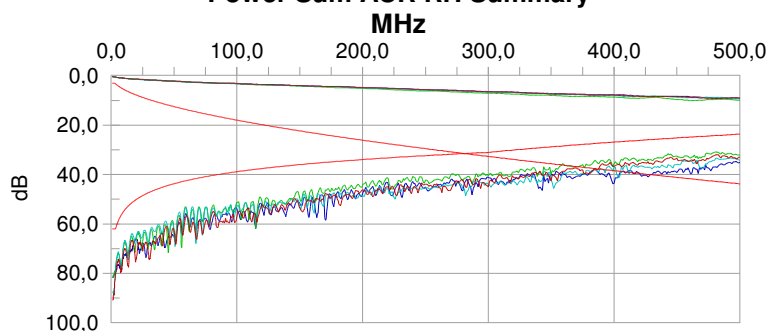
Power Sum NEXT RH Summary



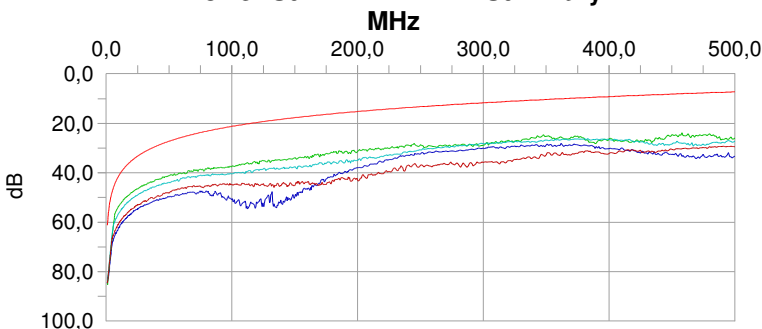
Power Sum ACR DH Summary



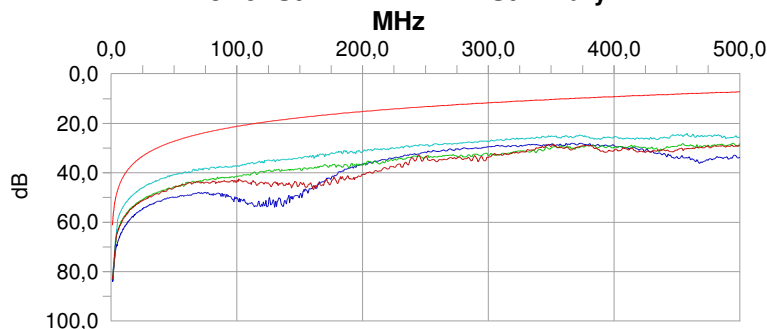
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

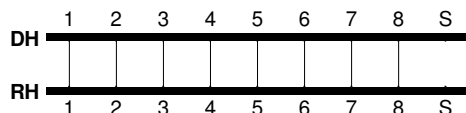
Cable ID 1: 5/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:26:44
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	17.5m	18.4m	18.1m	17.8m	< 90.0m	Pass
Prop. Delay	100.9ns	105.3ns	104.2ns	101.1ns	< 498.0ns	Pass
Delay Skew	4.4ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
DC Resistance	5.8 Ohm	5.7 Ohm	5.9 Ohm	6.2 Ohm	< 20.0 Ohm	Pass
Headroom	0.0 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	42.9 dB @ 293.00MHz	36.4 dB	> 34.2 dB	8.7 dB
7,8-5,4	DH	Pass	59.1 dB @ 60.00MHz	44.9 dB	> 45.4 dB	13.7 dB
7,8-1,2	DH	Pass	44.9 dB @ 375.00MHz	42.2 dB	> 30.8 dB	14.1 dB
3,6-5,4	DH	Pass	34.1 dB @ 404.00MHz	34.1 dB	> 29.7 dB	4.4 dB
3,6-1,2	DH	Pass	32.0 dB @ 386.00MHz	29.8 dB	> 30.4 dB	1.6 dB
5,4-1,2	DH	Pass	39.4 dB @ 401.00MHz	38.9 dB	> 29.8 dB	9.6 dB
7,8-3,6	RH	Pass	43.8 dB @ 233.50MHz	36.6 dB	> 35.8 dB	8.0 dB
7,8-5,4	RH	Pass	47.9 dB @ 292.00MHz	41.9 dB	> 34.2 dB	13.7 dB
7,8-1,2	RH	Pass	40.1 dB @ 496.00MHz	40.0 dB	> 26.8 dB	13.3 dB
3,6-5,4	RH	Pass	35.9 dB @ 401.00MHz	34.3 dB	> 29.8 dB	6.1 dB
3,6-1,2	RH	Pass	33.3 dB @ 450.00MHz	32.9 dB	> 28.2 dB	5.1 dB
5,4-1,2	RH	Pass	37.4 dB @ 459.00MHz	36.3 dB	> 27.9 dB	9.5 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.3 dB @ 1.60MHz	16.6 dB	> 19.9 dB	4.4 dB
3,6	DH	Pass	26.8 dB @ 1.60MHz	19.7 dB	> 19.9 dB	6.9 dB
5,4	DH	Pass	25.5 dB @ 1.60MHz	20.7 dB	> 19.9 dB	5.6 dB
1,2	DH	Pass	24.6 dB @ 1.60MHz	19.4 dB	> 19.9 dB	4.7 dB
7,8	RH	Pass	23.9 dB @ 1.60MHz	19.3 dB	> 19.9 dB	4.0 dB
3,6	RH	Pass	25.7 dB @ 1.60MHz	21.6 dB	> 19.9 dB	5.8 dB
5,4	RH	Pass	26.4 dB @ 2.20MHz	19.7 dB	> 20.5 dB	5.9 dB
1,2	RH	Pass	25.2 dB @ 2.50MHz	20.7 dB	> 20.7 dB	4.5 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.5 dB @ 2.95MHz	9.3 dB	< 3.1 dB	2.6 dB
3,6	Pass	0.5 dB @ 2.95MHz	10.1 dB	< 3.1 dB	2.6 dB
5,4	Pass	0.6 dB @ 2.95MHz	9.6 dB	< 3.1 dB	2.5 dB
1,2	Pass	0.6 dB @ 3.10MHz	9.2 dB	< 3.1 dB	2.5 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	27.3 dB @ 484.00MHz	N/A	>= -15.8 dB	43.1 dB
3,6	DH	Pass	20.0 dB @ 495.00MHz	N/A	>= -16.7 dB	36.7 dB
5,4	DH	Pass	25.3 dB @ 492.00MHz	N/A	>= -16.4 dB	41.7 dB
1,2	DH	Pass	20.8 dB @ 495.00MHz	N/A	>= -16.7 dB	37.5 dB
7,8	RH	Pass	27.3 dB @ 500.00MHz	N/A	>= -17.1 dB	44.4 dB
3,6	RH	Pass	23.3 dB @ 481.00MHz	N/A	>= -15.6 dB	38.9 dB
5,4	RH	Pass	25.3 dB @ 491.00MHz	N/A	>= -16.4 dB	41.7 dB
1,2	RH	Pass	23.8 dB @ 481.00MHz	N/A	>= -15.6 dB	39.4 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:26:44
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	34.4 dB @ 397.00MHz	34.4 dB	> 12.2 dB	22.2 dB
7,8-5,4	DH	Pass	63.2 dB @ 6.25MHz	29.1 dB	> 48.3 dB	14.9 dB
7,8-1,2	DH	Pass	63.2 dB @ 12.40MHz	36.9 dB	> 42.3 dB	20.9 dB
3,6-7,8	DH	Pass	35.2 dB @ 406.00MHz	35.2 dB	> 12.0 dB	23.2 dB
3,6-5,4	DH	Pass	62.7 dB @ 6.25MHz	31.4 dB	> 48.3 dB	14.4 dB
3,6-1,2	DH	Pass	66.3 dB @ 5.50MHz	33.9 dB	> 49.4 dB	16.9 dB
5,4-7,8	DH	Pass	63.1 dB @ 6.25MHz	29.8 dB	> 48.3 dB	14.8 dB
5,4-3,6	DH	Pass	56.5 dB @ 7.60MHz	26.5 dB	> 46.6 dB	9.9 dB
5,4-1,2	DH	Pass	30.6 dB @ 441.00MHz	30.1 dB	> 11.3 dB	19.3 dB
1,2-7,8	DH	Pass	39.0 dB @ 302.00MHz	35.4 dB	> 14.6 dB	24.4 dB
1,2-3,6	DH	Pass	27.2 dB @ 347.00MHz	27.2 dB	> 13.4 dB	13.8 dB
1,2-5,4	DH	Pass	30.2 dB @ 451.00MHz	30.2 dB	> 11.1 dB	19.1 dB
7,8-3,6	RH	Pass	35.5 dB @ 379.00MHz	35.2 dB	> 12.6 dB	22.9 dB
7,8-5,4	RH	Pass	63.3 dB @ 6.25MHz	29.1 dB	> 48.3 dB	15.0 dB
7,8-1,2	RH	Pass	62.9 dB @ 12.40MHz	37.0 dB	> 42.3 dB	20.6 dB
3,6-7,8	RH	Pass	34.2 dB @ 407.00MHz	34.2 dB	> 12.0 dB	22.2 dB
3,6-5,4	RH	Pass	64.3 dB @ 5.05MHz	30.4 dB	> 50.1 dB	14.2 dB
3,6-1,2	RH	Pass	67.1 dB @ 4.90MHz	33.3 dB	> 50.4 dB	16.7 dB
5,4-7,8	RH	Pass	63.0 dB @ 6.25MHz	29.8 dB	> 48.3 dB	14.7 dB
5,4-3,6	RH	Pass	59.3 dB @ 5.35MHz	27.4 dB	> 49.6 dB	9.7 dB
5,4-1,2	RH	Pass	30.1 dB @ 449.00MHz	29.9 dB	> 11.1 dB	19.0 dB
1,2-7,8	RH	Pass	38.2 dB @ 332.00MHz	35.5 dB	> 13.8 dB	24.4 dB
1,2-3,6	RH	Pass	63.1 dB @ 5.20MHz	27.8 dB	> 49.9 dB	13.2 dB
1,2-5,4	RH	Pass	31.3 dB @ 415.00MHz	30.6 dB	> 11.8 dB	19.5 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	41.5 dB @ 293.00MHz	35.4 dB	> 31.2 dB	10.3 dB
3,6	DH	Pass	30.8 dB @ 386.00MHz	28.2 dB	> 27.4 dB	3.4 dB
5,4	DH	Pass	33.4 dB @ 405.00MHz	33.3 dB	> 26.7 dB	6.7 dB
1,2	DH	Pass	31.5 dB @ 386.00MHz	29.2 dB	> 27.4 dB	4.1 dB
7,8	RH	Pass	42.9 dB @ 232.50MHz	34.4 dB	> 32.9 dB	10.0 dB
3,6	RH	Pass	31.0 dB @ 450.00MHz	30.2 dB	> 25.2 dB	5.8 dB
5,4	RH	Pass	34.8 dB @ 401.00MHz	32.1 dB	> 26.8 dB	8.0 dB
1,2	RH	Pass	32.1 dB @ 450.00MHz	31.2 dB	> 25.2 dB	6.9 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	26.3 dB @ 484.00MHz	N/A	>= -18.8 dB	45.1 dB
3,6	DH	Pass	18.5 dB @ 493.00MHz	N/A	>= -19.5 dB	38.0 dB
5,4	DH	Pass	24.0 dB @ 492.00MHz	N/A	>= -19.4 dB	43.4 dB
1,2	DH	Pass	20.2 dB @ 492.00MHz	N/A	>= -19.4 dB	39.6 dB
7,8	RH	Pass	25.1 dB @ 500.00MHz	N/A	>= -20.1 dB	45.2 dB
3,6	RH	Pass	20.5 dB @ 495.00MHz	N/A	>= -19.7 dB	40.2 dB
5,4	RH	Pass	22.7 dB @ 495.00MHz	N/A	>= -19.7 dB	42.4 dB
1,2	RH	Pass	22.2 dB @ 481.00MHz	N/A	>= -18.6 dB	40.8 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	48.3 dB @ 37.50MHz	29.1 dB	>= 29.7 dB	18.6 dB
3,6	DH	Pass	46.8 dB @ 21.55MHz	24.5 dB	>= 34.5 dB	12.3 dB
5,4	DH	Pass	52.8 dB @ 14.50MHz	26.4 dB	>= 38.0 dB	14.8 dB
1,2	DH	Pass	57.4 dB @ 12.25MHz	28.4 dB	>= 39.4 dB	18.0 dB
7,8	RH	Pass	52.2 dB @ 22.00MHz	27.9 dB	>= 34.3 dB	17.9 dB
3,6	RH	Pass	46.0 dB @ 42.75MHz	28.5 dB	>= 28.6 dB	17.4 dB
5,4	RH	Pass	55.4 dB @ 7.30MHz	25.1 dB	>= 43.9 dB	11.5 dB
1,2	RH	Pass	26.7 dB @ 347.00MHz	26.7 dB	>= 10.4 dB	16.3 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

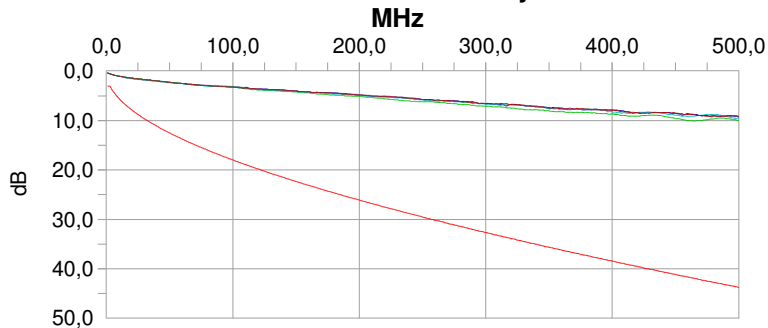
Cable ID 1: 5/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:26:44
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

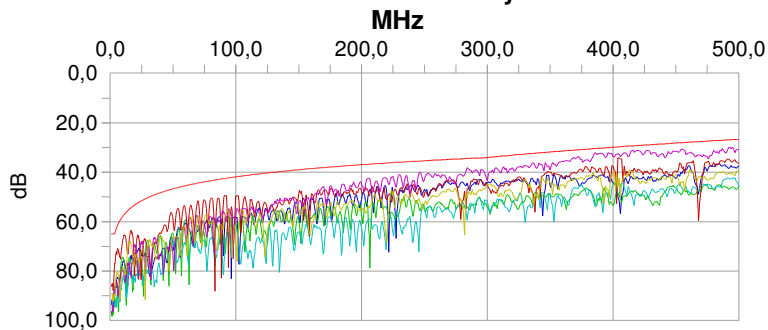
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

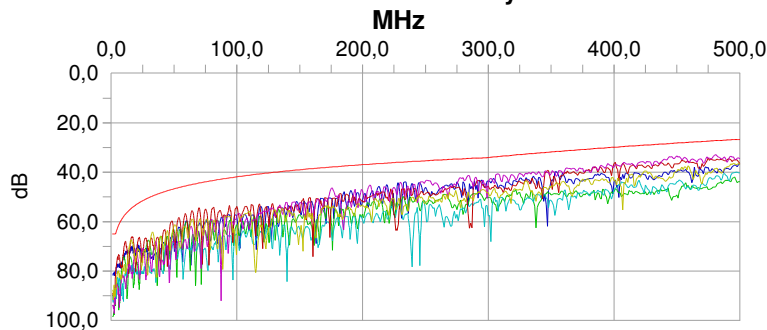
Attenuation Summary



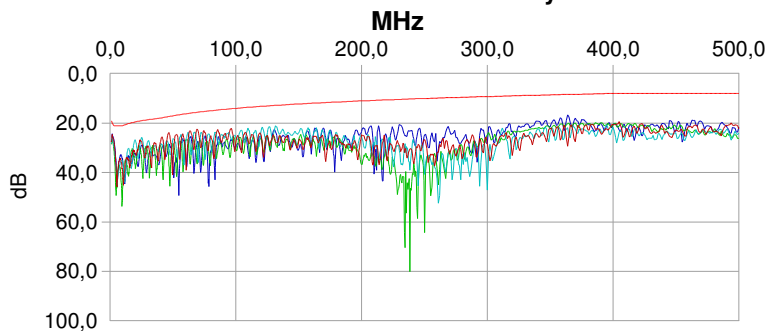
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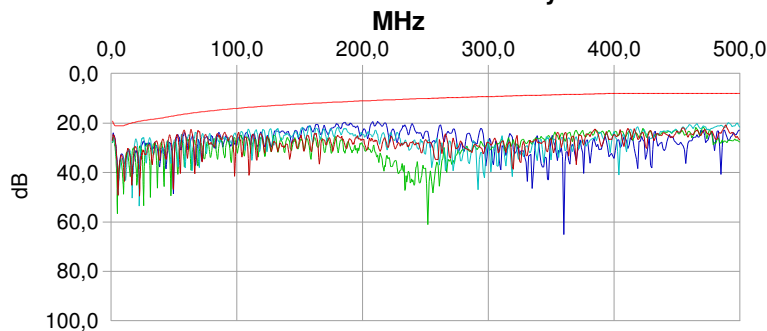
NEXT RH Summary



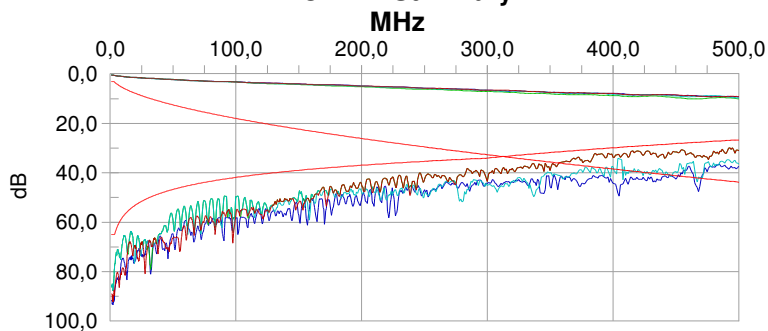
Return Loss DH Summary



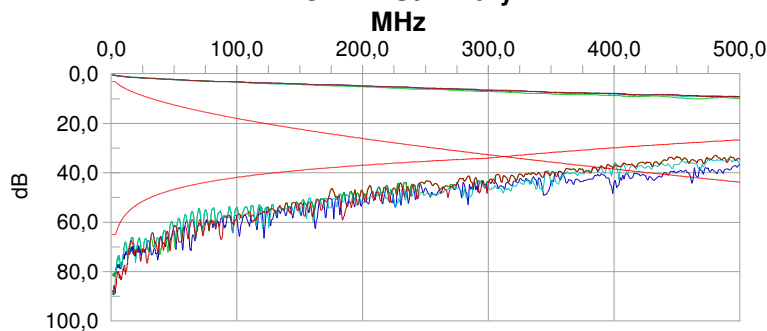
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

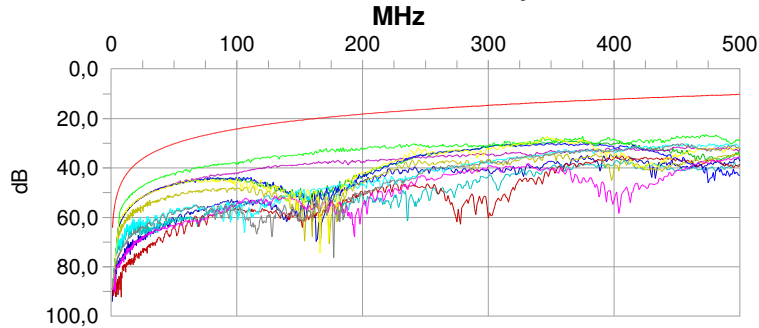
Cable ID 1: 5/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:26:44
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

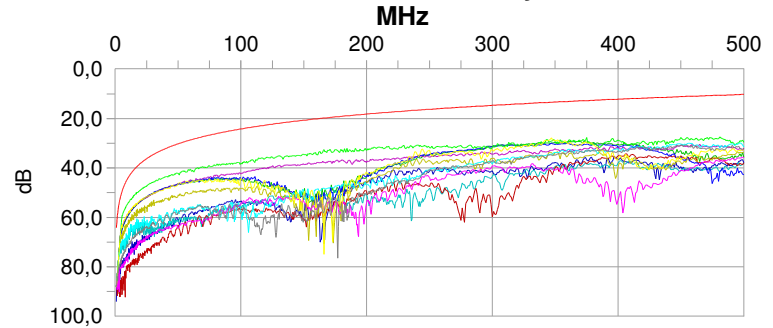
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

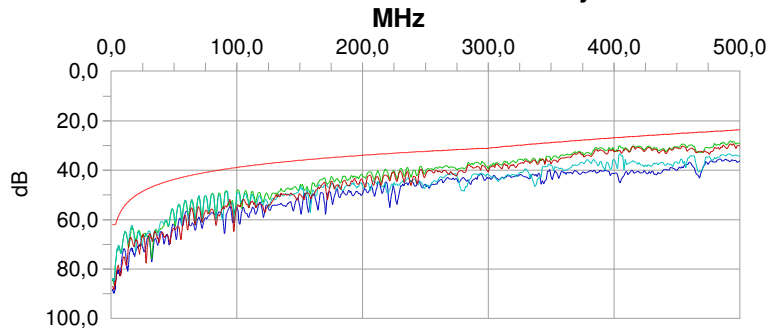
ELFEXT DH Summary



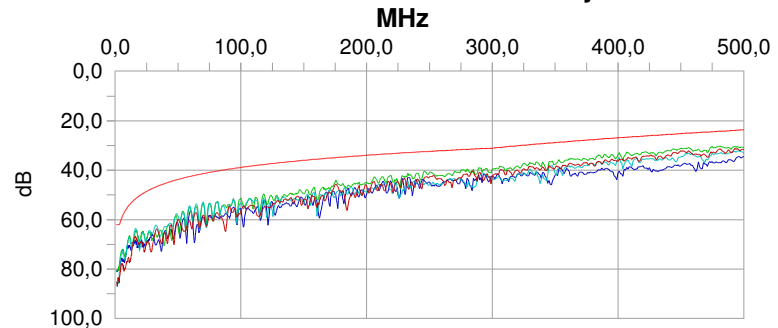
ELFEXT RH Summary



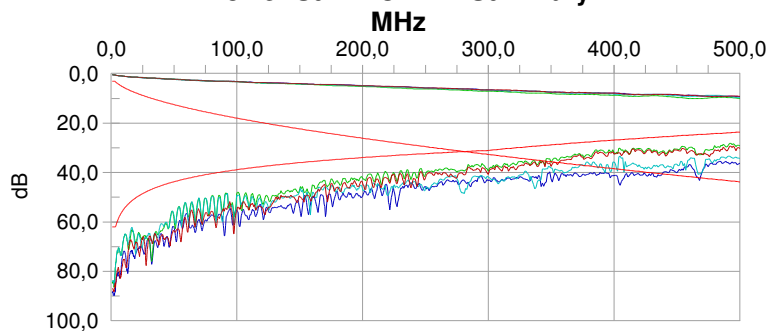
Power Sum NEXT DH Summary



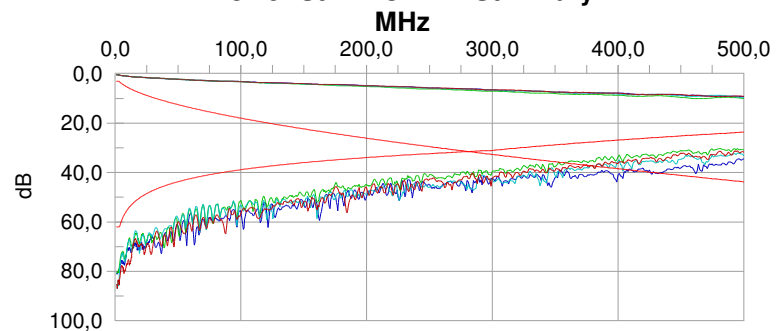
Power Sum NEXT RH Summary



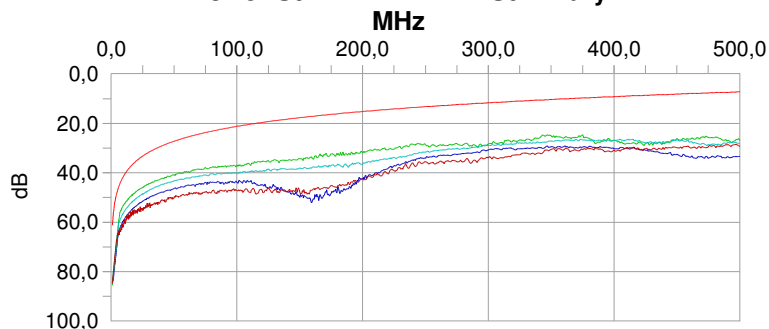
Power Sum ACR DH Summary



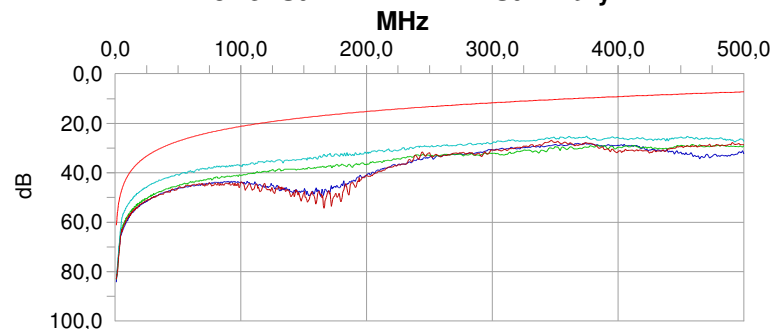
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

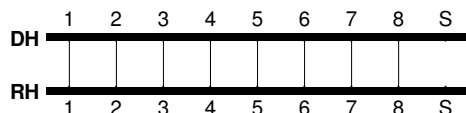
Cable ID 1: 5/8
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:24:54
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	17.4m	18.3m	18.0m	17.7m	< 90.0m	Pass
Prop. Delay	100.7ns	105.0ns	104.0ns	100.7ns	< 498.0ns	Pass
Delay Skew		4.3ns (Pairs 3,6 vs. 1,2)			< 44.0 ns	Pass
DC Resistance	5.8 Ohm	5.6 Ohm	5.9 Ohm	6.1 Ohm	< 20.0 Ohm	Pass
Headroom		0.0 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	36.3 dB @ 410.00MHz	35.7 dB	> 29.5 dB	6.8 dB
7,8-5,4	DH	Pass	58.2 dB @ 64.50MHz	44.8 dB	> 44.9 dB	13.3 dB
7,8-1,2	DH	Pass	45.2 dB @ 352.00MHz	42.7 dB	> 31.7 dB	13.5 dB
3,6-5,4	DH	Pass	30.8 dB @ 464.00MHz	30.8 dB	> 27.7 dB	3.1 dB
3,6-1,2	DH	Pass	33.3 dB @ 398.00MHz	31.7 dB	> 29.9 dB	3.4 dB
5,4-1,2	DH	Pass	38.8 dB @ 458.00MHz	38.8 dB	> 27.9 dB	10.9 dB
7,8-3,6	RH	Pass	40.0 dB @ 354.00MHz	36.2 dB	> 31.6 dB	8.4 dB
7,8-5,4	RH	Pass	58.9 dB @ 64.50MHz	42.8 dB	> 44.9 dB	14.0 dB
7,8-1,2	RH	Pass	40.1 dB @ 496.00MHz	40.0 dB	> 26.8 dB	13.3 dB
3,6-5,4	RH	Pass	37.1 dB @ 396.00MHz	35.2 dB	> 30.0 dB	7.1 dB
3,6-1,2	RH	Pass	34.5 dB @ 446.00MHz	33.9 dB	> 28.3 dB	6.2 dB
5,4-1,2	RH	Pass	36.1 dB @ 456.00MHz	36.0 dB	> 28.0 dB	8.1 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.5 dB @ 1.60MHz	17.6 dB	> 19.9 dB	4.6 dB
3,6	DH	Pass	26.8 dB @ 1.60MHz	19.8 dB	> 19.9 dB	6.9 dB
5,4	DH	Pass	25.4 dB @ 1.60MHz	20.1 dB	> 19.9 dB	5.5 dB
1,2	DH	Pass	24.6 dB @ 1.60MHz	18.5 dB	> 19.9 dB	4.7 dB
7,8	RH	Pass	24.0 dB @ 1.60MHz	19.7 dB	> 19.9 dB	4.1 dB
3,6	RH	Pass	25.7 dB @ 1.60MHz	22.4 dB	> 19.9 dB	5.8 dB
5,4	RH	Pass	26.5 dB @ 2.20MHz	20.3 dB	> 20.5 dB	6.0 dB
1,2	RH	Pass	24.6 dB @ 1.60MHz	21.3 dB	> 19.9 dB	4.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.5 dB @ 2.95MHz	9.0 dB	< 3.1 dB	2.6 dB
3,6	Pass	0.5 dB @ 2.95MHz	10.0 dB	< 3.1 dB	2.6 dB
5,4	Pass	0.6 dB @ 2.95MHz	9.7 dB	< 3.1 dB	2.5 dB
1,2	Pass	0.5 dB @ 2.95MHz	9.1 dB	< 3.1 dB	2.6 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	26.7 dB @ 496.00MHz	N/A	>= -16.7 dB	43.4 dB
3,6	DH	Pass	20.9 dB @ 464.00MHz	N/A	>= -14.2 dB	35.1 dB
5,4	DH	Pass	21.8 dB @ 464.00MHz	N/A	>= -14.2 dB	36.0 dB
1,2	DH	Pass	22.7 dB @ 489.00MHz	N/A	>= -16.2 dB	38.9 dB
7,8	RH	Pass	27.2 dB @ 496.00MHz	N/A	>= -16.7 dB	43.9 dB
3,6	RH	Pass	24.3 dB @ 476.00MHz	N/A	>= -15.1 dB	39.4 dB
5,4	RH	Pass	25.9 dB @ 498.00MHz	N/A	>= -16.9 dB	42.8 dB
1,2	RH	Pass	24.9 dB @ 481.00MHz	N/A	>= -15.6 dB	40.5 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/8
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:24:54
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	41.1 dB @ 191.00MHz	36.2 dB	> 18.6 dB	22.5 dB
7,8-5,4	DH	Pass	67.4 dB @ 5.50MHz	31.8 dB	> 49.4 dB	18.0 dB
7,8-1,2	DH	Pass	36.5 dB @ 415.00MHz	36.3 dB	> 11.8 dB	24.7 dB
3,6-7,8	DH	Pass	38.1 dB @ 387.00MHz	38.1 dB	> 12.4 dB	25.7 dB
3,6-5,4	DH	Pass	62.3 dB @ 6.55MHz	29.6 dB	> 47.9 dB	14.4 dB
3,6-1,2	DH	Pass	63.4 dB @ 8.05MHz	34.9 dB	> 46.1 dB	17.3 dB
5,4-7,8	DH	Pass	67.9 dB @ 5.05MHz	33.2 dB	> 50.1 dB	17.8 dB
5,4-3,6	DH	Pass	56.9 dB @ 7.30MHz	24.5 dB	> 46.9 dB	10.0 dB
5,4-1,2	DH	Pass	30.2 dB @ 459.00MHz	30.0 dB	> 11.0 dB	19.2 dB
1,2-7,8	DH	Pass	35.3 dB @ 494.00MHz	35.3 dB	> 10.3 dB	25.0 dB
1,2-3,6	DH	Pass	61.5 dB @ 6.25MHz	28.0 dB	> 48.3 dB	13.2 dB
1,2-5,4	DH	Pass	29.8 dB @ 497.00MHz	29.8 dB	> 10.3 dB	19.5 dB
7,8-3,6	RH	Pass	41.5 dB @ 191.00MHz	36.8 dB	> 18.6 dB	22.9 dB
7,8-5,4	RH	Pass	69.0 dB @ 4.60MHz	32.4 dB	> 50.9 dB	18.1 dB
7,8-1,2	RH	Pass	37.6 dB @ 395.00MHz	36.8 dB	> 12.3 dB	25.3 dB
3,6-7,8	RH	Pass	37.9 dB @ 368.00MHz	37.3 dB	> 12.9 dB	25.0 dB
3,6-5,4	RH	Pass	64.8 dB @ 4.75MHz	28.7 dB	> 50.7 dB	14.1 dB
3,6-1,2	RH	Pass	68.2 dB @ 4.45MHz	34.4 dB	> 51.2 dB	17.0 dB
5,4-7,8	RH	Pass	67.9 dB @ 5.05MHz	32.7 dB	> 50.1 dB	17.8 dB
5,4-3,6	RH	Pass	59.2 dB @ 5.50MHz	25.2 dB	> 49.4 dB	9.8 dB
5,4-1,2	RH	Pass	30.1 dB @ 451.00MHz	29.6 dB	> 11.1 dB	19.0 dB
1,2-7,8	RH	Pass	36.0 dB @ 459.00MHz	35.3 dB	> 11.0 dB	25.0 dB
1,2-3,6	RH	Pass	64.0 dB @ 4.60MHz	28.4 dB	> 50.9 dB	13.1 dB
1,2-5,4	RH	Pass	68.1 dB @ 6.25MHz	30.2 dB	> 48.3 dB	19.8 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	38.1 dB @ 342.00MHz	34.6 dB	> 29.1 dB	9.0 dB
3,6	DH	Pass	30.2 dB @ 405.00MHz	29.0 dB	> 26.7 dB	3.5 dB
5,4	DH	Pass	30.5 dB @ 464.00MHz	30.5 dB	> 24.7 dB	5.8 dB
1,2	DH	Pass	37.3 dB @ 285.00MHz	30.9 dB	> 31.4 dB	5.9 dB
7,8	RH	Pass	34.1 dB @ 496.00MHz	34.1 dB	> 23.8 dB	10.3 dB
3,6	RH	Pass	33.1 dB @ 396.00MHz	30.8 dB	> 27.0 dB	6.1 dB
5,4	RH	Pass	33.0 dB @ 456.00MHz	32.6 dB	> 25.0 dB	8.0 dB
1,2	RH	Pass	32.8 dB @ 446.00MHz	31.9 dB	> 25.3 dB	7.5 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	25.6 dB @ 496.00MHz	N/A	>= -19.7 dB	45.3 dB
3,6	DH	Pass	19.1 dB @ 464.00MHz	N/A	>= -17.2 dB	36.3 dB
5,4	DH	Pass	21.5 dB @ 464.00MHz	N/A	>= -17.2 dB	38.7 dB
1,2	DH	Pass	21.9 dB @ 489.00MHz	N/A	>= -19.2 dB	41.1 dB
7,8	RH	Pass	25.1 dB @ 496.00MHz	N/A	>= -19.7 dB	44.8 dB
3,6	RH	Pass	21.2 dB @ 475.00MHz	N/A	>= -18.1 dB	39.3 dB
5,4	RH	Pass	23.0 dB @ 498.00MHz	N/A	>= -19.9 dB	42.9 dB
1,2	RH	Pass	22.9 dB @ 495.00MHz	N/A	>= -19.7 dB	42.6 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	52.2 dB @ 32.50MHz	30.9 dB	>= 31.0 dB	21.2 dB
3,6	DH	Pass	54.1 dB @ 8.35MHz	23.8 dB	>= 42.8 dB	11.3 dB
5,4	DH	Pass	60.0 dB @ 6.55MHz	25.7 dB	>= 44.9 dB	15.1 dB
1,2	DH	Pass	52.2 dB @ 26.35MHz	28.5 dB	>= 32.8 dB	19.4 dB
7,8	RH	Pass	53.6 dB @ 26.35MHz	30.6 dB	>= 32.8 dB	20.8 dB
3,6	RH	Pass	51.2 dB @ 21.25MHz	27.9 dB	>= 34.6 dB	16.6 dB
5,4	RH	Pass	57.8 dB @ 5.80MHz	24.0 dB	>= 45.9 dB	11.9 dB
1,2	RH	Pass	49.0 dB @ 28.15MHz	27.5 dB	>= 32.2 dB	16.8 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

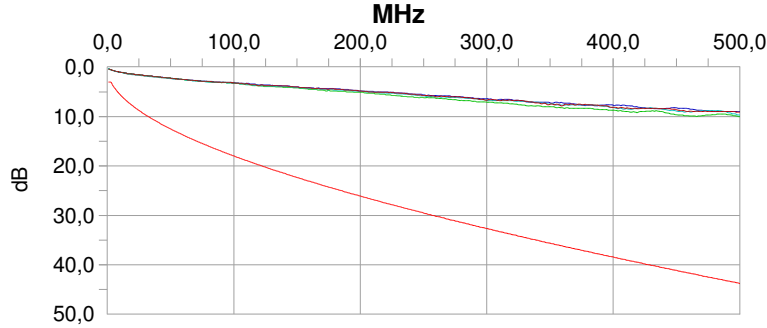
Cable ID 1: 5/8
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:24:54
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

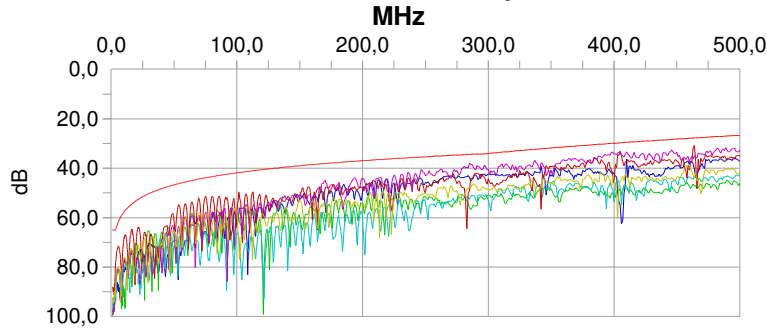
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

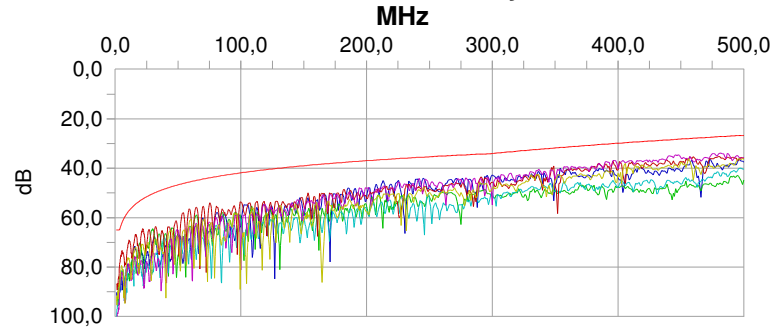
Attenuation Summary



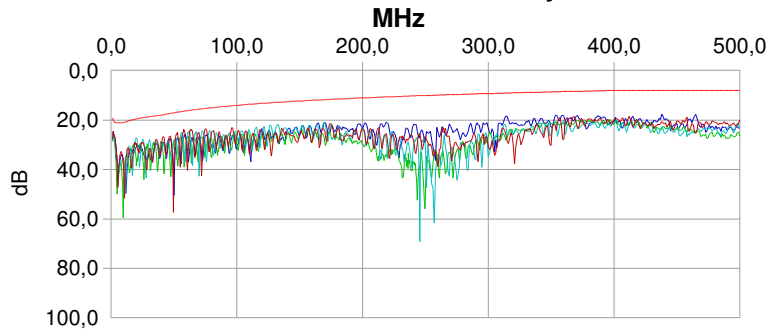
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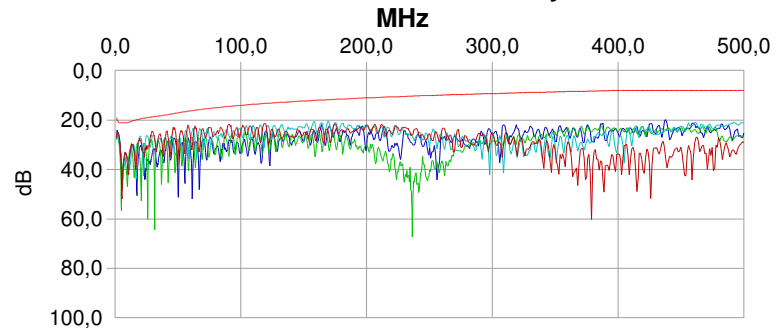
NEXT RH Summary



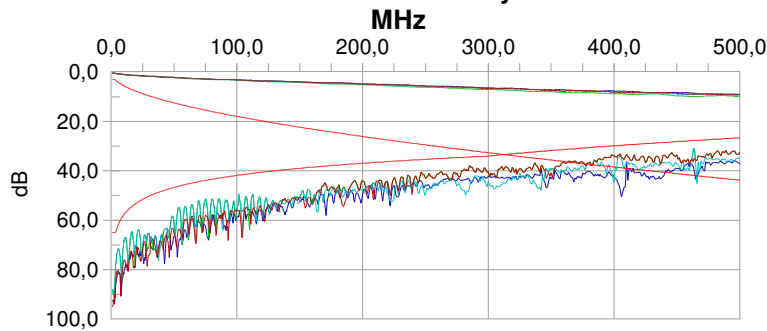
Return Loss DH Summary



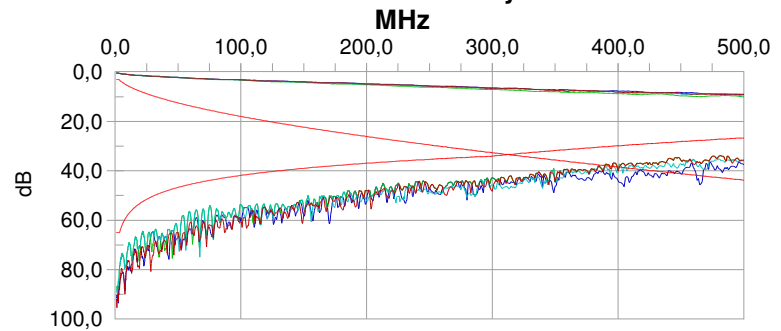
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

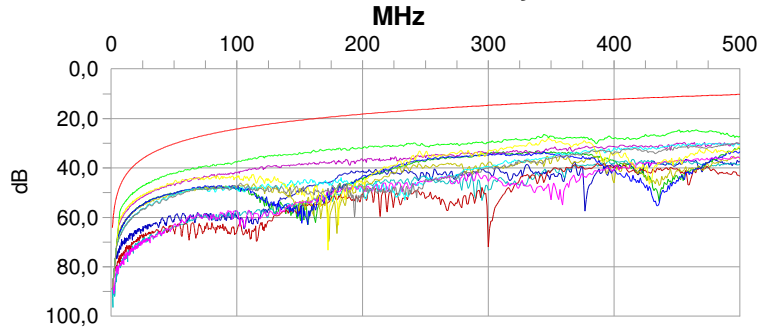
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Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:24:54
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

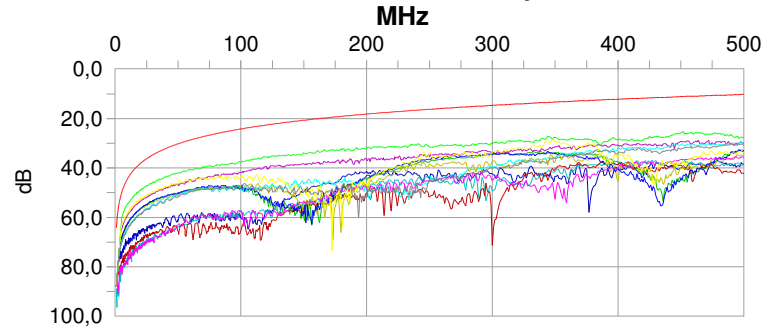
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

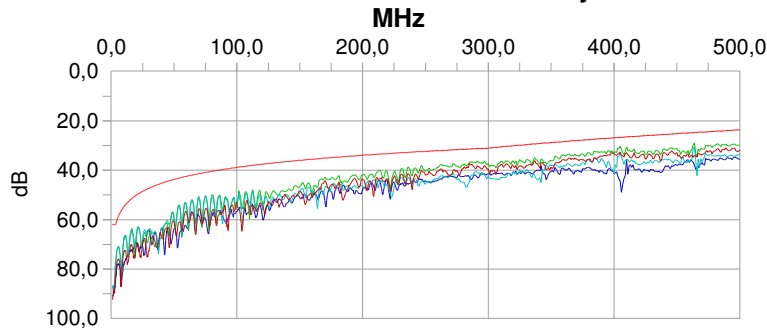
ELFEXT DH Summary



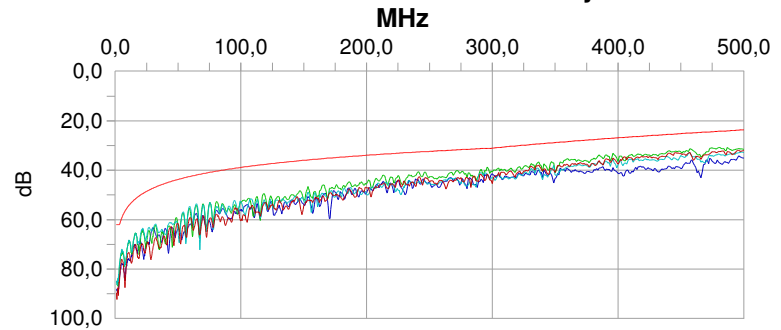
ELFEXT RH Summary



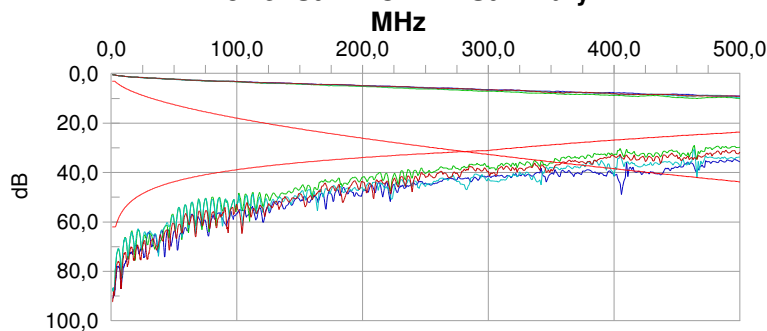
Power Sum NEXT DH Summary



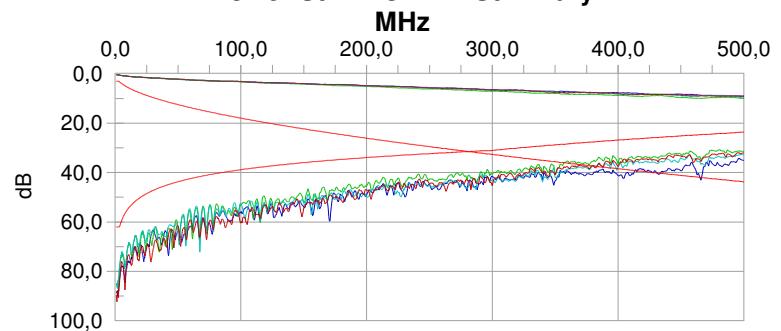
Power Sum NEXT RH Summary



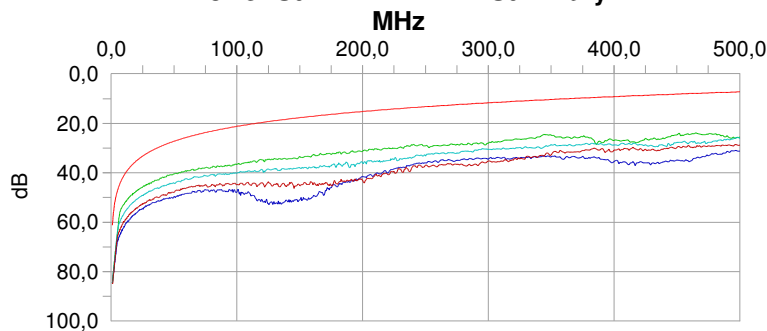
Power Sum ACR DH Summary



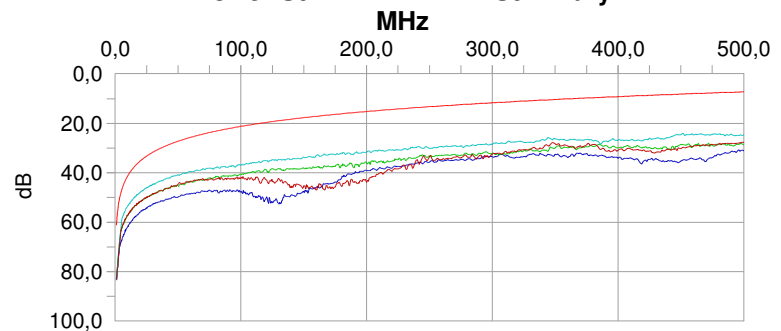
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

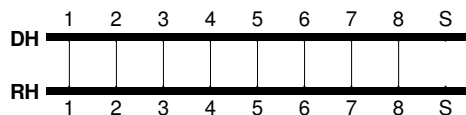
Cable ID 1: 5/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:32:39
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	22.5m	23.6m	23.2m	22.8m	< 90.0m	Pass
Prop. Delay	124.5ns	129.9ns	128.7ns	124.6ns	< 498.0ns	Pass
Delay Skew		5.4ns (Pairs 3,6 vs. 7,8)			< 44.0 ns	Pass
DC Resistance	6.2 Ohm	6.3 Ohm	6.5 Ohm	6.8 Ohm	< 20.0 Ohm	Pass
Headroom		0.0 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	41.3 dB @ 346.00MHz	37.2 dB	> 31.9 dB	9.4 dB
7,8-5,4	DH	Pass	64.9 dB @ 24.10MHz	43.9 dB	> 51.8 dB	13.1 dB
7,8-1,2	DH	Pass	49.2 dB @ 292.00MHz	43.1 dB	> 34.2 dB	15.0 dB
3,6-5,4	DH	Pass	33.4 dB @ 404.00MHz	32.0 dB	> 29.7 dB	3.7 dB
3,6-1,2	DH	Pass	34.5 dB @ 395.00MHz	31.2 dB	> 30.0 dB	4.5 dB
5,4-1,2	DH	Pass	40.6 dB @ 399.00MHz	39.2 dB	> 29.9 dB	10.7 dB
7,8-3,6	RH	Pass	42.1 dB @ 302.00MHz	36.2 dB	> 33.9 dB	8.2 dB
7,8-5,4	RH	Pass	67.3 dB @ 23.50MHz	43.7 dB	> 52.0 dB	15.3 dB
7,8-1,2	RH	Pass	41.0 dB @ 487.00MHz	40.8 dB	> 27.0 dB	14.0 dB
3,6-5,4	RH	Pass	34.4 dB @ 481.00MHz	34.4 dB	> 27.2 dB	7.2 dB
3,6-1,2	RH	Pass	34.6 dB @ 444.00MHz	33.9 dB	> 28.4 dB	6.2 dB
5,4-1,2	RH	Pass	38.5 dB @ 420.00MHz	37.1 dB	> 29.2 dB	9.3 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.8 dB @ 1.60MHz	18.9 dB	> 19.9 dB	3.9 dB
3,6	DH	Pass	26.5 dB @ 1.60MHz	19.9 dB	> 19.9 dB	6.6 dB
5,4	DH	Pass	24.7 dB @ 1.60MHz	21.4 dB	> 19.9 dB	4.8 dB
1,2	DH	Pass	24.3 dB @ 1.60MHz	18.5 dB	> 19.9 dB	4.4 dB
7,8	RH	Pass	23.3 dB @ 1.60MHz	21.6 dB	> 19.9 dB	3.4 dB
3,6	RH	Pass	25.3 dB @ 1.60MHz	20.4 dB	> 19.9 dB	5.4 dB
5,4	RH	Pass	25.5 dB @ 1.75MHz	22.5 dB	> 20.1 dB	5.4 dB
1,2	RH	Pass	23.9 dB @ 1.60MHz	20.9 dB	> 19.9 dB	4.0 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 2.95MHz	11.5 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.7 dB @ 2.95MHz	12.6 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.7 dB @ 2.95MHz	11.8 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.95MHz	11.5 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	25.8 dB @ 475.00MHz	N/A	>= -15.1 dB	40.9 dB
3,6	DH	Pass	18.7 dB @ 498.00MHz	N/A	>= -16.9 dB	35.6 dB
5,4	DH	Pass	20.8 dB @ 464.00MHz	N/A	>= -14.2 dB	35.0 dB
1,2	DH	Pass	19.8 dB @ 498.00MHz	N/A	>= -16.9 dB	36.7 dB
7,8	RH	Pass	24.7 dB @ 500.00MHz	N/A	>= -17.1 dB	41.8 dB
3,6	RH	Pass	21.8 dB @ 493.00MHz	N/A	>= -16.5 dB	38.3 dB
5,4	RH	Pass	23.0 dB @ 495.00MHz	N/A	>= -16.7 dB	39.7 dB
1,2	RH	Pass	22.5 dB @ 489.00MHz	N/A	>= -16.2 dB	38.7 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 5/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:32:39
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	31.9 dB @ 473.00MHz	31.5 dB	> 10.7 dB	21.2 dB
7,8-5,4	DH	Pass	62.7 dB @ 5.95MHz	26.6 dB	> 48.7 dB	14.0 dB
7,8-1,2	DH	Pass	32.4 dB @ 369.00MHz	30.7 dB	> 12.8 dB	19.6 dB
3,6-7,8	DH	Pass	32.7 dB @ 481.00MHz	32.7 dB	> 10.5 dB	22.2 dB
3,6-5,4	DH	Pass	61.3 dB @ 6.55MHz	31.3 dB	> 47.9 dB	13.4 dB
3,6-1,2	DH	Pass	33.7 dB @ 274.00MHz	29.3 dB	> 15.4 dB	18.3 dB
5,4-7,8	DH	Pass	61.0 dB @ 7.15MHz	27.1 dB	> 47.1 dB	13.9 dB
5,4-3,6	DH	Pass	55.4 dB @ 7.75MHz	27.0 dB	> 46.4 dB	9.0 dB
5,4-1,2	DH	Pass	33.8 dB @ 328.00MHz	33.6 dB	> 13.9 dB	19.9 dB
1,2-7,8	DH	Pass	32.6 dB @ 338.00MHz	31.5 dB	> 13.6 dB	19.0 dB
1,2-3,6	DH	Pass	29.3 dB @ 240.50MHz	24.3 dB	> 16.6 dB	12.7 dB
1,2-5,4	DH	Pass	68.8 dB @ 6.55MHz	34.3 dB	> 47.9 dB	20.9 dB
7,8-3,6	RH	Pass	32.6 dB @ 473.00MHz	32.5 dB	> 10.7 dB	21.9 dB
7,8-5,4	RH	Pass	62.8 dB @ 5.95MHz	26.9 dB	> 48.7 dB	14.1 dB
7,8-1,2	RH	Pass	32.3 dB @ 369.00MHz	30.7 dB	> 12.8 dB	19.5 dB
3,6-7,8	RH	Pass	32.2 dB @ 463.00MHz	32.2 dB	> 10.9 dB	21.3 dB
3,6-5,4	RH	Pass	63.9 dB @ 4.90MHz	30.6 dB	> 50.4 dB	13.5 dB
3,6-1,2	RH	Pass	32.9 dB @ 274.00MHz	28.8 dB	> 15.4 dB	17.5 dB
5,4-7,8	RH	Pass	60.9 dB @ 7.15MHz	26.8 dB	> 47.1 dB	13.8 dB
5,4-3,6	RH	Pass	57.7 dB @ 5.95MHz	27.7 dB	> 48.7 dB	9.0 dB
5,4-1,2	RH	Pass	33.7 dB @ 328.00MHz	33.6 dB	> 13.9 dB	19.8 dB
1,2-7,8	RH	Pass	32.5 dB @ 338.00MHz	31.5 dB	> 13.6 dB	18.9 dB
1,2-3,6	RH	Pass	30.0 dB @ 240.50MHz	25.3 dB	> 16.6 dB	13.4 dB
1,2-5,4	RH	Pass	68.9 dB @ 6.55MHz	34.4 dB	> 47.9 dB	21.0 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.3 dB @ 346.00MHz	35.9 dB	> 28.9 dB	11.4 dB
3,6	DH	Pass	31.1 dB @ 404.00MHz	29.0 dB	> 26.7 dB	4.4 dB
5,4	DH	Pass	33.3 dB @ 401.00MHz	31.2 dB	> 26.8 dB	6.5 dB
1,2	DH	Pass	33.7 dB @ 395.00MHz	30.5 dB	> 27.0 dB	6.7 dB
7,8	RH	Pass	41.3 dB @ 302.00MHz	34.5 dB	> 30.9 dB	10.4 dB
3,6	RH	Pass	30.6 dB @ 478.00MHz	30.4 dB	> 24.3 dB	6.3 dB
5,4	RH	Pass	37.1 dB @ 348.00MHz	32.5 dB	> 28.9 dB	8.2 dB
1,2	RH	Pass	33.9 dB @ 417.00MHz	32.0 dB	> 26.3 dB	7.6 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	24.5 dB @ 476.00MHz	N/A	>= -18.1 dB	42.6 dB
3,6	DH	Pass	16.5 dB @ 498.00MHz	N/A	>= -19.9 dB	36.4 dB
5,4	DH	Pass	20.0 dB @ 464.00MHz	N/A	>= -17.2 dB	37.2 dB
1,2	DH	Pass	19.1 dB @ 498.00MHz	N/A	>= -19.9 dB	39.0 dB
7,8	RH	Pass	23.0 dB @ 500.00MHz	N/A	>= -20.1 dB	43.1 dB
3,6	RH	Pass	18.1 dB @ 498.00MHz	N/A	>= -19.9 dB	38.0 dB
5,4	RH	Pass	20.9 dB @ 495.00MHz	N/A	>= -19.7 dB	40.6 dB
1,2	RH	Pass	20.6 dB @ 496.00MHz	N/A	>= -19.7 dB	40.3 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	45.4 dB @ 44.00MHz	25.1 dB	>= 28.3 dB	17.1 dB
3,6	DH	Pass	46.5 dB @ 21.70MHz	22.4 dB	>= 34.5 dB	12.0 dB
5,4	DH	Pass	58.2 dB @ 6.55MHz	25.4 dB	>= 44.9 dB	13.3 dB
1,2	DH	Pass	33.4 dB @ 195.50MHz	26.9 dB	>= 15.4 dB	18.0 dB
7,8	RH	Pass	50.6 dB @ 22.45MHz	24.7 dB	>= 34.2 dB	16.4 dB
3,6	RH	Pass	45.9 dB @ 43.25MHz	26.0 dB	>= 28.5 dB	17.4 dB
5,4	RH	Pass	55.1 dB @ 6.85MHz	24.8 dB	>= 44.5 dB	10.6 dB
1,2	RH	Pass	29.2 dB @ 240.00MHz	24.3 dB	>= 13.6 dB	15.6 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

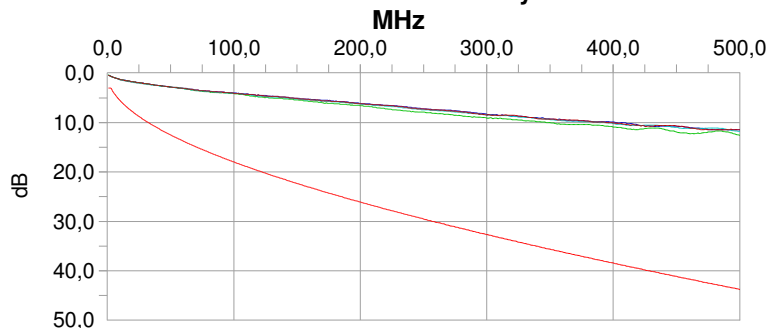
Cable ID 1: 5/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:32:39
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

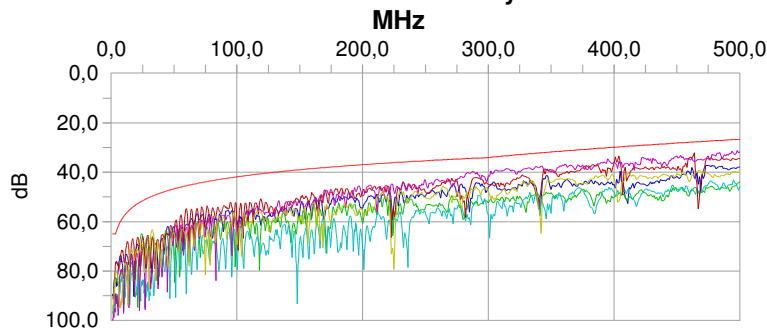
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

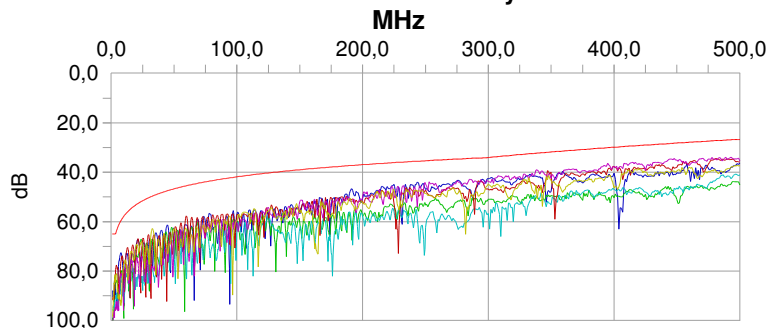
Attenuation Summary



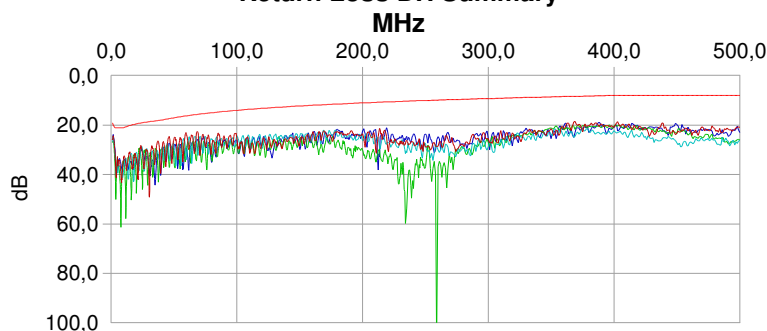
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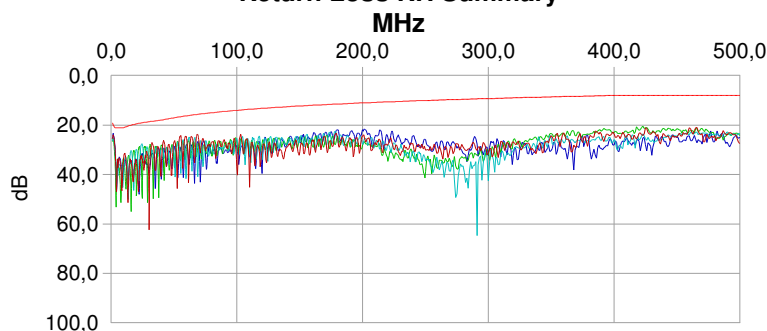
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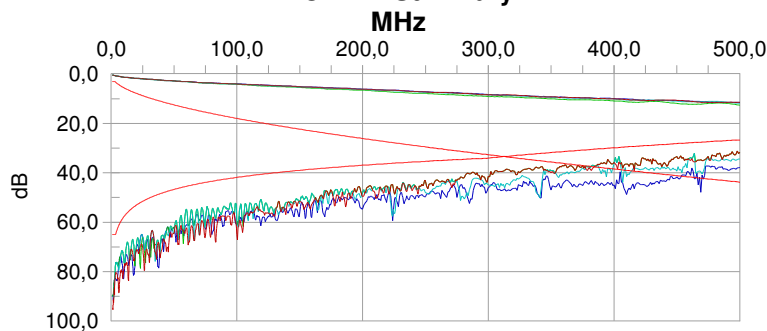
Return Loss DH Summary



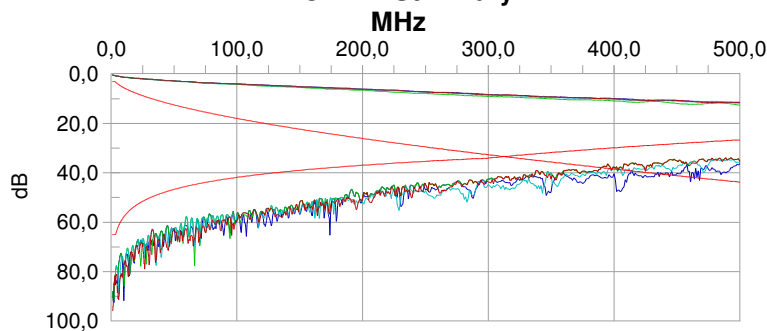
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

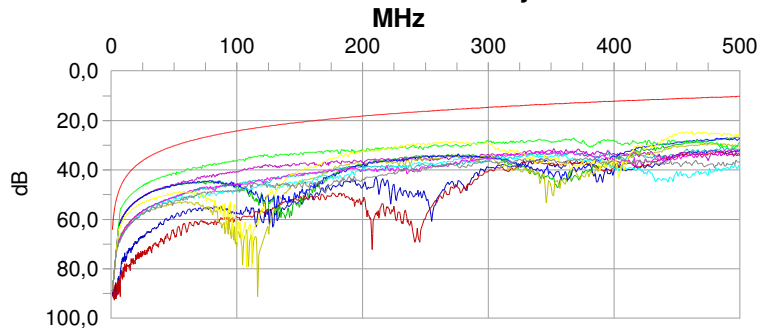
Cable ID 1: 5/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:32:39
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

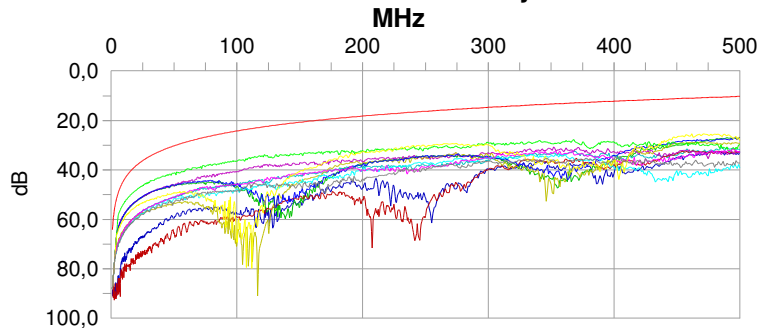
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

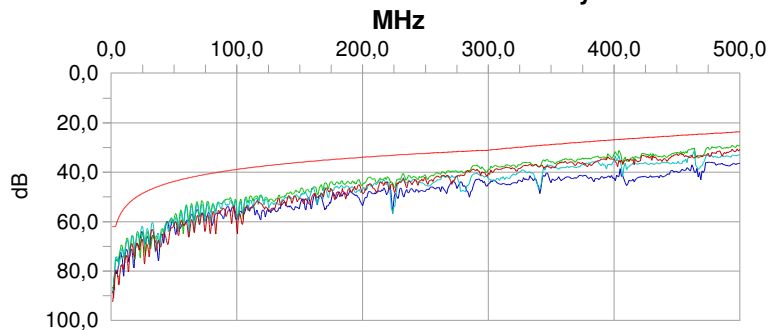
ELFEXT DH Summary



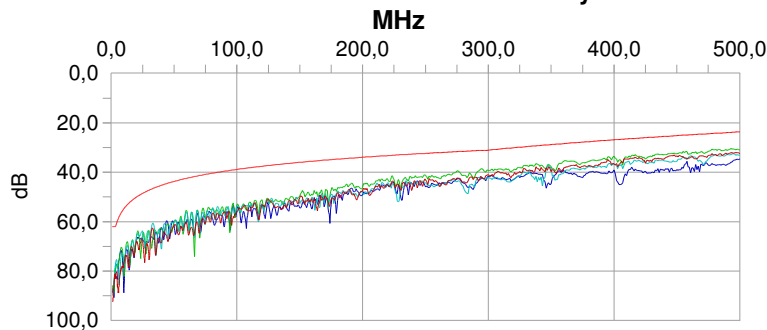
ELFEXT RH Summary



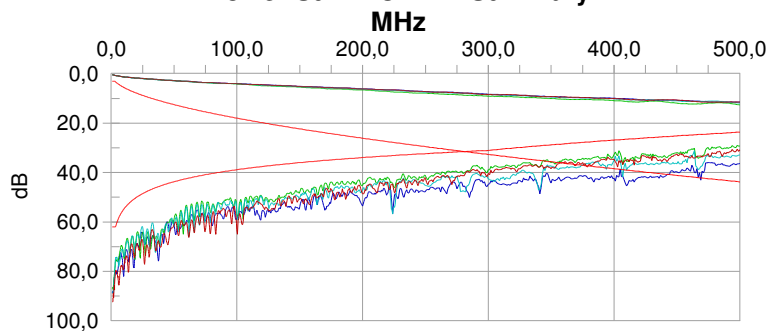
Power Sum NEXT DH Summary



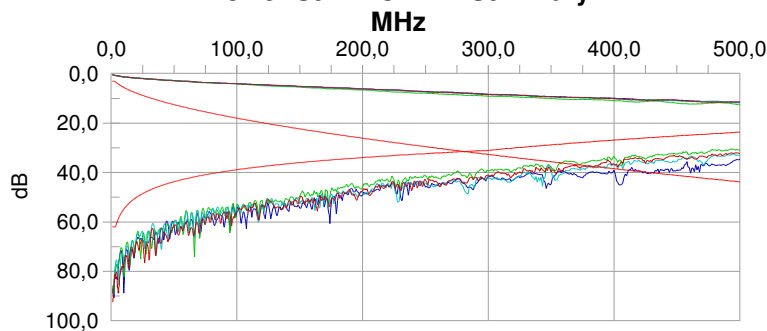
Power Sum NEXT RH Summary



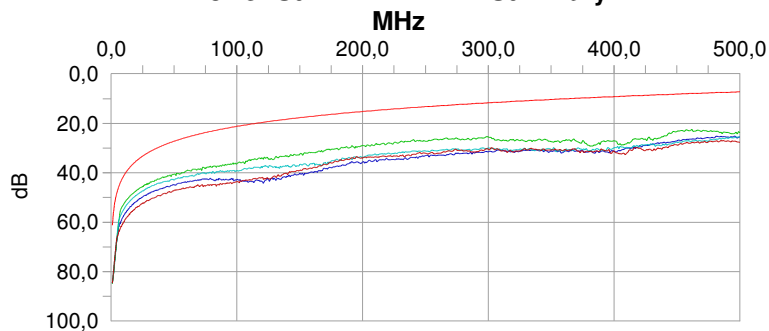
Power Sum ACR DH Summary



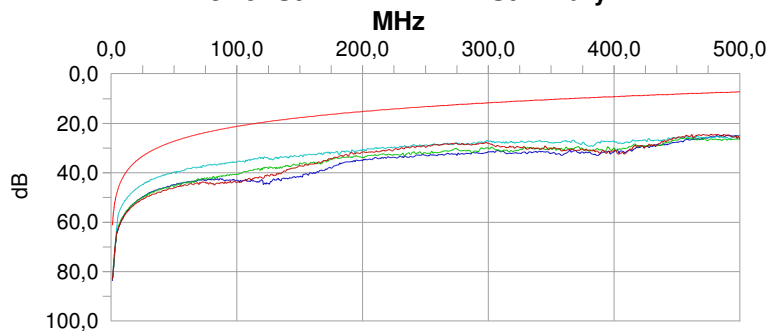
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

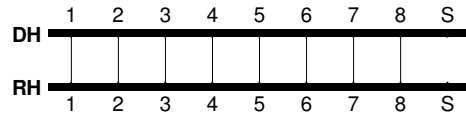
Cable ID 1: 6/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:46:54
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	27.5m	27.3m	27.0m	27.8m	< 90.0m	Pass
Prop. Delay	148.3ns	147.5ns	146.5ns	148.5ns	< 498.0ns	Pass
Delay Skew	2.0ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
DC Resistance	7.2 Ohm	7.4 Ohm	7.3 Ohm	7.8 Ohm	< 20.0 Ohm	Pass
Headroom	0.0 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	36.4 dB @ 485.00MHz	36.4 dB	> 27.1 dB	9.3 dB
7,8-5,4	DH	Pass	52.4 dB @ 204.50MHz	43.5 dB	> 36.8 dB	15.6 dB
7,8-1,2	DH	Pass	47.1 dB @ 368.00MHz	44.5 dB	> 31.1 dB	16.0 dB
3,6-5,4	DH	Pass	34.5 dB @ 405.00MHz	32.7 dB	> 29.7 dB	4.8 dB
3,6-1,2	DH	Pass	32.7 dB @ 395.00MHz	30.4 dB	> 30.0 dB	2.7 dB
5,4-1,2	DH	Pass	39.4 dB @ 464.00MHz	39.4 dB	> 27.7 dB	11.7 dB
7,8-3,6	RH	Pass	41.6 dB @ 291.00MHz	35.5 dB	> 34.2 dB	7.4 dB
7,8-5,4	RH	Pass	51.3 dB @ 257.00MHz	43.4 dB	> 35.1 dB	16.2 dB
7,8-1,2	RH	Pass	39.5 dB @ 494.00MHz	39.5 dB	> 26.8 dB	12.7 dB
3,6-5,4	RH	Pass	36.1 dB @ 410.00MHz	36.1 dB	> 29.5 dB	6.6 dB
3,6-1,2	RH	Pass	34.6 dB @ 447.00MHz	34.1 dB	> 28.3 dB	6.3 dB
5,4-1,2	RH	Pass	38.7 dB @ 493.00MHz	38.7 dB	> 26.9 dB	11.8 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.2 dB @ 1.60MHz	19.3 dB	> 19.9 dB	3.3 dB
3,6	DH	Pass	22.9 dB @ 1.45MHz	19.9 dB	> 19.7 dB	3.2 dB
5,4	DH	Pass	22.2 dB @ 1.60MHz	21.4 dB	> 19.9 dB	2.3 dB
1,2	DH	Pass	23.2 dB @ 1.60MHz	18.9 dB	> 19.9 dB	3.3 dB
7,8	RH	Pass	22.6 dB @ 1.60MHz	20.6 dB	> 19.9 dB	2.7 dB
3,6	RH	Pass	22.5 dB @ 1.60MHz	21.0 dB	> 19.9 dB	2.6 dB
5,4	RH	Pass	22.7 dB @ 1.45MHz	22.7 dB	> 19.7 dB	3.0 dB
1,2	RH	Pass	22.7 dB @ 1.45MHz	21.5 dB	> 19.7 dB	3.0 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.0 dB @ 3.10MHz	12.6 dB	< 3.1 dB	2.1 dB
3,6	Pass	0.9 dB @ 2.95MHz	13.5 dB	< 3.1 dB	2.2 dB
5,4	Pass	0.9 dB @ 2.95MHz	12.7 dB	< 3.1 dB	2.2 dB
1,2	Pass	1.0 dB @ 2.95MHz	12.6 dB	< 3.1 dB	2.1 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.8 dB @ 485.00MHz	N/A	>= -15.9 dB	39.7 dB
3,6	DH	Pass	17.3 dB @ 499.00MHz	N/A	>= -17.0 dB	34.3 dB
5,4	DH	Pass	20.5 dB @ 464.00MHz	N/A	>= -14.2 dB	34.7 dB
1,2	DH	Pass	18.0 dB @ 494.00MHz	N/A	>= -16.6 dB	34.6 dB
7,8	RH	Pass	23.0 dB @ 500.00MHz	N/A	>= -17.1 dB	40.1 dB
3,6	RH	Pass	21.5 dB @ 481.00MHz	N/A	>= -15.6 dB	37.1 dB
5,4	RH	Pass	23.5 dB @ 498.00MHz	N/A	>= -16.9 dB	40.4 dB
1,2	RH	Pass	21.5 dB @ 481.00MHz	N/A	>= -15.6 dB	37.1 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 6/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:46:54
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	36.9 dB @ 306.00MHz	35.8 dB	> 14.5 dB	22.4 dB
7,8-5,4	DH	Pass	58.1 dB @ 13.45MHz	29.8 dB	> 41.6 dB	16.5 dB
7,8-1,2	DH	Pass	52.6 dB @ 70.50MHz	38.6 dB	> 27.2 dB	25.4 dB
3,6-7,8	DH	Pass	40.6 dB @ 330.00MHz	38.2 dB	> 13.8 dB	26.8 dB
3,6-5,4	DH	Pass	61.2 dB @ 6.25MHz	26.2 dB	> 48.3 dB	12.9 dB
3,6-1,2	DH	Pass	28.6 dB @ 467.00MHz	28.4 dB	> 10.8 dB	17.8 dB
5,4-7,8	DH	Pass	62.4 dB @ 8.35MHz	31.2 dB	> 45.8 dB	16.6 dB
5,4-3,6	DH	Pass	55.3 dB @ 7.45MHz	22.2 dB	> 46.7 dB	8.6 dB
5,4-1,2	DH	Pass	65.5 dB @ 9.10MHz	32.9 dB	> 45.0 dB	20.5 dB
1,2-7,8	DH	Pass	54.8 dB @ 64.00MHz	39.8 dB	> 28.1 dB	26.7 dB
1,2-3,6	DH	Pass	24.6 dB @ 499.00MHz	24.6 dB	> 10.2 dB	14.4 dB
1,2-5,4	DH	Pass	68.1 dB @ 6.85MHz	33.2 dB	> 47.5 dB	20.6 dB
7,8-3,6	RH	Pass	35.8 dB @ 330.00MHz	35.8 dB	> 13.8 dB	22.0 dB
7,8-5,4	RH	Pass	69.0 dB @ 3.85MHz	29.8 dB	> 52.5 dB	16.5 dB
7,8-1,2	RH	Pass	52.5 dB @ 70.50MHz	38.4 dB	> 27.2 dB	25.3 dB
3,6-7,8	RH	Pass	40.2 dB @ 326.00MHz	38.0 dB	> 13.9 dB	26.3 dB
3,6-5,4	RH	Pass	63.6 dB @ 4.75MHz	25.8 dB	> 50.7 dB	12.9 dB
3,6-1,2	RH	Pass	27.9 dB @ 467.00MHz	27.6 dB	> 10.8 dB	17.1 dB
5,4-7,8	RH	Pass	62.4 dB @ 8.35MHz	31.1 dB	> 45.8 dB	16.6 dB
5,4-3,6	RH	Pass	56.6 dB @ 6.25MHz	22.9 dB	> 48.3 dB	8.3 dB
5,4-1,2	RH	Pass	65.5 dB @ 9.10MHz	33.1 dB	> 45.0 dB	20.5 dB
1,2-7,8	RH	Pass	54.8 dB @ 64.00MHz	40.0 dB	> 28.1 dB	26.7 dB
1,2-3,6	RH	Pass	65.6 dB @ 4.60MHz	25.6 dB	> 50.9 dB	14.7 dB
1,2-5,4	RH	Pass	68.1 dB @ 6.85MHz	33.0 dB	> 47.5 dB	20.6 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	35.4 dB @ 485.00MHz	35.4 dB	> 24.1 dB	11.3 dB
3,6	DH	Pass	30.3 dB @ 405.00MHz	28.9 dB	> 26.7 dB	3.6 dB
5,4	DH	Pass	31.6 dB @ 464.00MHz	31.6 dB	> 24.7 dB	6.9 dB
1,2	DH	Pass	32.3 dB @ 395.00MHz	29.8 dB	> 27.0 dB	5.3 dB
7,8	RH	Pass	40.6 dB @ 291.00MHz	33.7 dB	> 31.2 dB	9.4 dB
3,6	RH	Pass	33.1 dB @ 406.00MHz	30.8 dB	> 26.6 dB	6.5 dB
5,4	RH	Pass	34.9 dB @ 410.00MHz	33.8 dB	> 26.5 dB	8.4 dB
1,2	RH	Pass	33.4 dB @ 450.00MHz	32.5 dB	> 25.2 dB	8.2 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	22.8 dB @ 485.00MHz	N/A	>= -18.9 dB	41.7 dB
3,6	DH	Pass	15.4 dB @ 500.00MHz	N/A	>= -20.1 dB	35.5 dB
5,4	DH	Pass	19.4 dB @ 464.00MHz	N/A	>= -17.2 dB	36.6 dB
1,2	DH	Pass	17.4 dB @ 490.00MHz	N/A	>= -19.3 dB	36.7 dB
7,8	RH	Pass	21.2 dB @ 500.00MHz	N/A	>= -20.1 dB	41.3 dB
3,6	RH	Pass	18.0 dB @ 477.00MHz	N/A	>= -18.3 dB	36.3 dB
5,4	RH	Pass	21.3 dB @ 496.00MHz	N/A	>= -19.7 dB	41.0 dB
1,2	RH	Pass	19.9 dB @ 482.00MHz	N/A	>= -18.6 dB	38.5 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	51.3 dB @ 28.60MHz	30.3 dB	>= 32.1 dB	19.2 dB
3,6	DH	Pass	49.1 dB @ 14.35MHz	20.6 dB	>= 38.1 dB	11.0 dB
5,4	DH	Pass	58.7 dB @ 6.70MHz	24.4 dB	>= 44.7 dB	14.0 dB
1,2	DH	Pass	28.0 dB @ 418.00MHz	27.3 dB	>= 8.8 dB	19.2 dB
7,8	RH	Pass	53.9 dB @ 20.50MHz	28.9 dB	>= 35.0 dB	18.9 dB
3,6	RH	Pass	23.6 dB @ 469.00MHz	23.5 dB	>= 7.8 dB	15.8 dB
5,4	RH	Pass	54.9 dB @ 7.00MHz	22.2 dB	>= 44.3 dB	10.6 dB
1,2	RH	Pass	53.9 dB @ 17.05MHz	25.2 dB	>= 36.6 dB	17.3 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

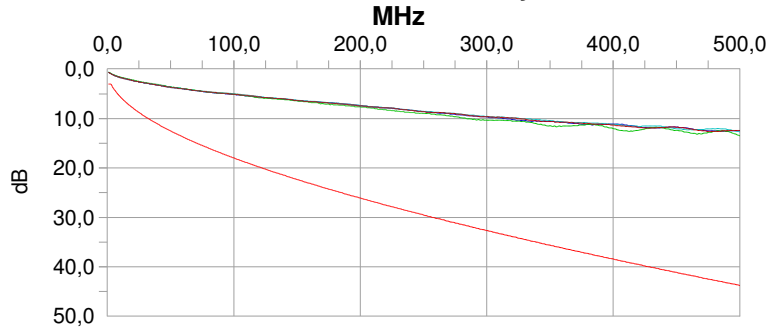
Cable ID 1: 6/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:46:54
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

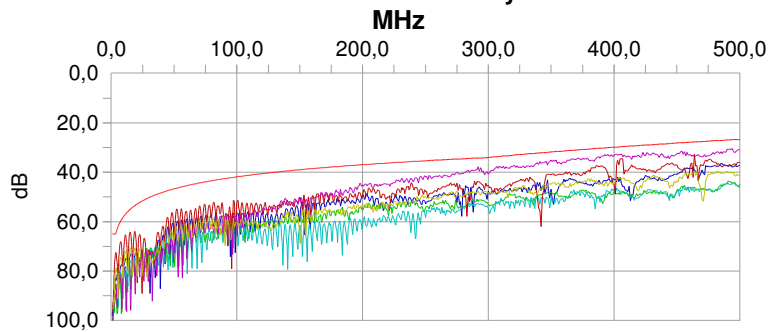
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

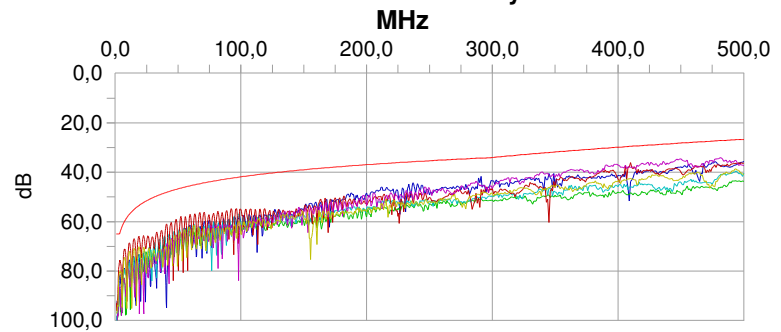
Attenuation Summary



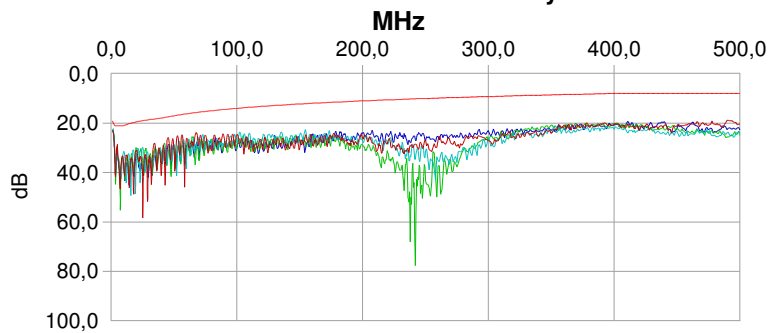
NEXT DH Summary



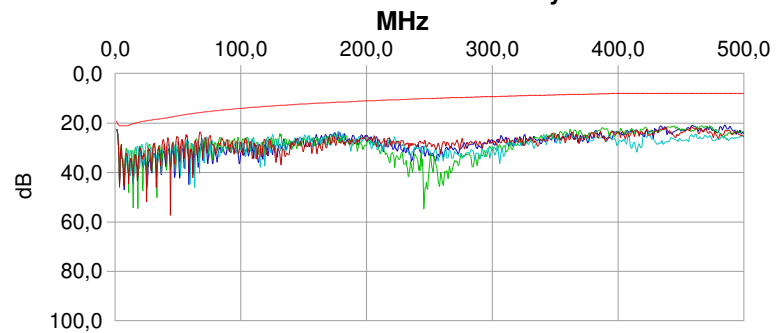
NEXT RH Summary



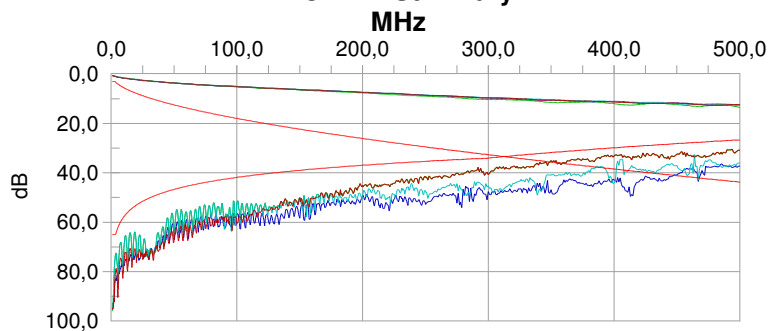
Return Loss DH Summary



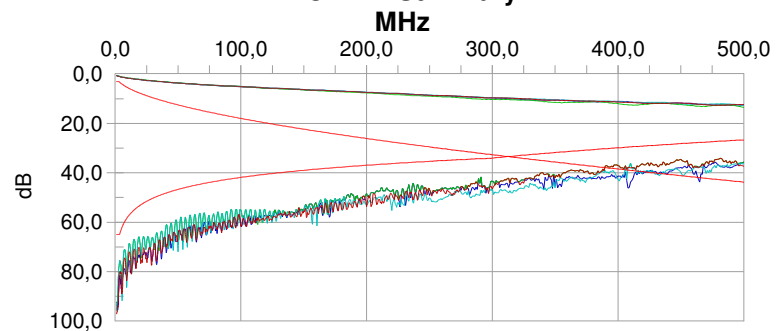
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

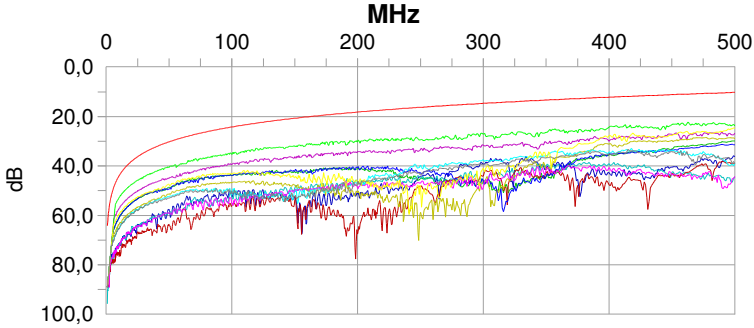
Cable ID 1: 6/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:46:54
Adapter ID: 6014

Cable Type: Cat 6A UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

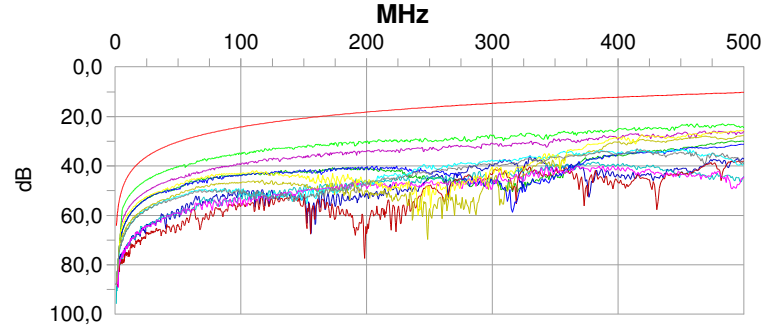
Test Standard: TIA 568-C.2
Frequency Range: 1-500 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

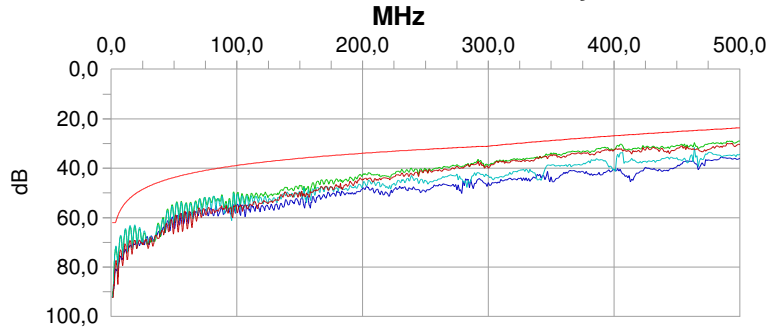
ELFEXT DH Summary



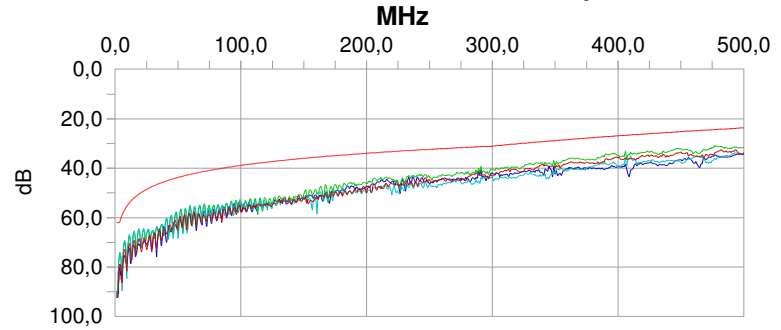
ELFEXT RH Summary



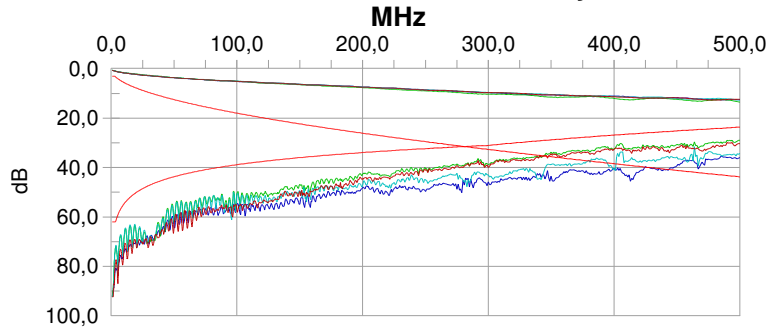
Power Sum NEXT DH Summary



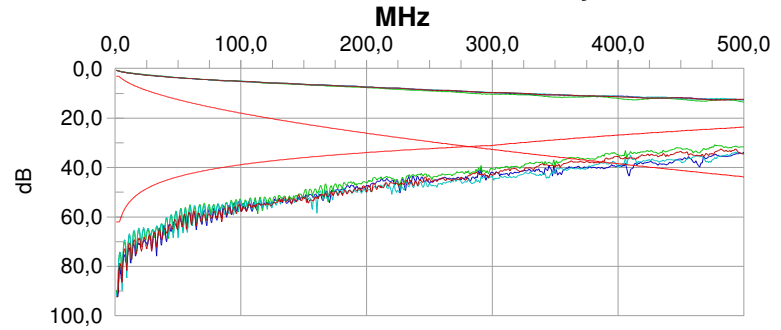
Power Sum NEXT RH Summary



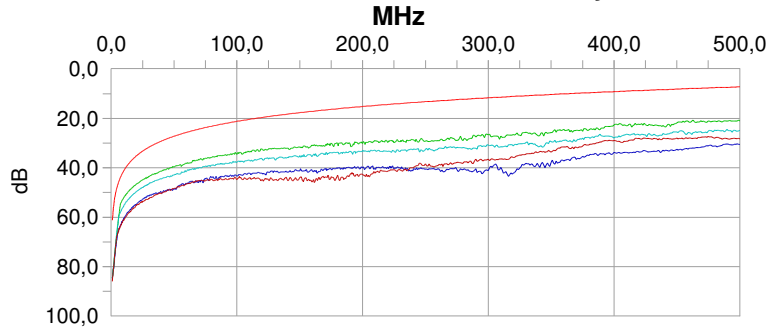
Power Sum ACR DH Summary



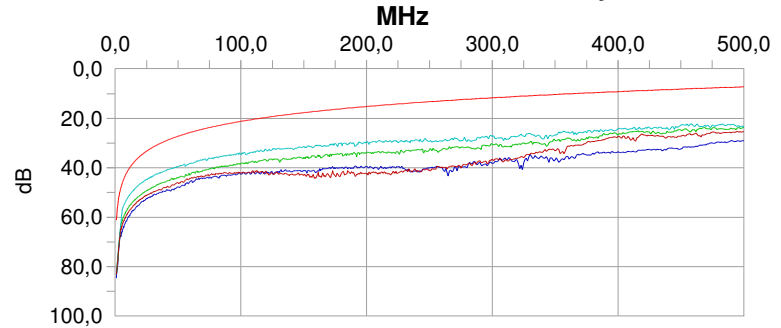
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

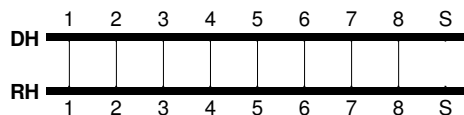
Cable ID 1: 6/19
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:20:06
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	6.6m	6.8m	6.8m	6.9m	< 90.0m	Pass
Prop. Delay	49.5ns	50.4ns	50.8ns	49.1ns	< 498.0ns	Pass
Delay Skew		1.7ns (Pairs 5,4 vs. 1,2)			< 44.0 ns	Pass
Headroom		18.3 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	52.1 dB @ 42.50MHz	47.7 dB	> 38.4 dB	13.7 dB
7,8-5,4	DH	Pass	50.0 dB @ 60.50MHz	49.4 dB	> 35.9 dB	14.1 dB
7,8-1,2	DH	Pass	48.7 dB @ 56.50MHz	48.5 dB	> 36.4 dB	12.3 dB
3,6-5,4	DH	Pass	44.0 dB @ 82.75MHz	44.0 dB	> 33.7 dB	10.3 dB
3,6-1,2	DH	Pass	47.8 dB @ 73.00MHz	47.7 dB	> 34.5 dB	13.3 dB
5,4-1,2	DH	Pass	51.6 dB @ 26.20MHz	47.9 dB	> 41.8 dB	9.8 dB
7,8-3,6	RH	Pass	49.1 dB @ 44.25MHz	48.2 dB	> 38.1 dB	11.0 dB
7,8-5,4	RH	Pass	50.4 dB @ 51.25MHz	50.0 dB	> 37.1 dB	13.3 dB
7,8-1,2	RH	Pass	52.3 dB @ 39.00MHz	48.1 dB	> 39.0 dB	13.3 dB
3,6-5,4	RH	Pass	46.2 dB @ 83.00MHz	46.2 dB	> 33.6 dB	12.6 dB
3,6-1,2	RH	Pass	52.5 dB @ 52.25MHz	48.9 dB	> 36.9 dB	15.6 dB
5,4-1,2	RH	Pass	51.3 dB @ 25.90MHz	41.9 dB	> 41.9 dB	9.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	28.3 dB @ 4.15MHz	24.4 dB	> 19.0 dB	9.3 dB
3,6	DH	Pass	24.0 dB @ 41.00MHz	24.0 dB	> 15.9 dB	8.1 dB
5,4	DH	Pass	24.5 dB @ 42.25MHz	22.9 dB	> 15.8 dB	8.7 dB
1,2	DH	Pass	21.2 dB @ 66.75MHz	21.0 dB	> 13.8 dB	7.4 dB
7,8	RH	Pass	22.8 dB @ 54.75MHz	22.6 dB	> 14.6 dB	8.2 dB
3,6	RH	Pass	24.1 dB @ 41.75MHz	23.8 dB	> 15.8 dB	8.3 dB
5,4	RH	Pass	21.8 dB @ 54.50MHz	21.2 dB	> 14.6 dB	7.2 dB
1,2	RH	Pass	20.7 dB @ 42.00MHz	19.5 dB	> 15.8 dB	4.9 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.2 dB @ 2.50MHz	1.4 dB	< 3.1 dB	2.9 dB
3,6	Pass	0.3 dB @ 2.50MHz	1.4 dB	< 3.1 dB	2.8 dB
5,4	Pass	0.3 dB @ 2.50MHz	1.5 dB	< 3.1 dB	2.8 dB
1,2	Pass	0.2 dB @ 2.50MHz	1.5 dB	< 3.1 dB	2.9 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	46.3 dB @ 100.00MHz	N/A	>= 11.3 dB	35.0 dB
3,6	DH	Pass	42.6 dB @ 82.75MHz	N/A	>= 14.8 dB	27.8 dB
5,4	DH	Pass	42.5 dB @ 82.75MHz	N/A	>= 14.8 dB	27.7 dB
1,2	DH	Pass	46.3 dB @ 74.75MHz	N/A	>= 16.5 dB	29.8 dB
7,8	RH	Pass	46.7 dB @ 87.75MHz	N/A	>= 13.7 dB	33.0 dB
3,6	RH	Pass	44.8 dB @ 83.00MHz	N/A	>= 14.7 dB	30.1 dB
5,4	RH	Pass	40.4 dB @ 99.50MHz	N/A	>= 11.4 dB	29.0 dB
1,2	RH	Pass	40.4 dB @ 99.50MHz	N/A	>= 11.4 dB	29.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 6/19
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:20:06
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	46.4 dB @ 94.75MHz	46.3 dB	> 19.1 dB	27.3 dB
7,8-5,4	DH	Pass	57.6 dB @ 7.45MHz	36.5 dB	> 41.2 dB	16.4 dB
7,8-1,2	DH	Pass	48.4 dB @ 85.25MHz	47.3 dB	> 20.0 dB	28.4 dB
3,6-7,8	DH	Pass	69.3 dB @ 14.20MHz	55.0 dB	> 35.6 dB	33.7 dB
3,6-5,4	DH	Pass	47.2 dB @ 99.25MHz	47.2 dB	> 18.7 dB	28.5 dB
3,6-1,2	DH	Pass	59.4 dB @ 7.90MHz	39.7 dB	> 40.7 dB	18.7 dB
5,4-7,8	DH	Pass	51.6 dB @ 14.50MHz	36.0 dB	> 35.4 dB	16.2 dB
5,4-3,6	DH	Pass	69.5 dB @ 5.35MHz	48.1 dB	> 44.0 dB	25.5 dB
5,4-1,2	DH	Pass	55.3 dB @ 7.60MHz	34.6 dB	> 41.0 dB	14.3 dB
1,2-7,8	DH	Pass	46.7 dB @ 100.00MHz	46.7 dB	> 18.6 dB	28.1 dB
1,2-3,6	DH	Pass	55.2 dB @ 7.75MHz	35.5 dB	> 40.8 dB	14.4 dB
1,2-5,4	DH	Pass	55.6 dB @ 7.45MHz	33.6 dB	> 41.2 dB	14.4 dB
7,8-3,6	RH	Pass	46.3 dB @ 94.75MHz	46.3 dB	> 19.1 dB	27.2 dB
7,8-5,4	RH	Pass	60.0 dB @ 5.65MHz	36.6 dB	> 43.6 dB	16.4 dB
7,8-1,2	RH	Pass	48.4 dB @ 85.25MHz	47.3 dB	> 20.0 dB	28.4 dB
3,6-7,8	RH	Pass	69.3 dB @ 14.20MHz	55.0 dB	> 35.6 dB	33.7 dB
3,6-5,4	RH	Pass	47.3 dB @ 99.25MHz	47.3 dB	> 18.7 dB	28.6 dB
3,6-1,2	RH	Pass	62.7 dB @ 5.35MHz	39.8 dB	> 44.0 dB	18.7 dB
5,4-7,8	RH	Pass	51.0 dB @ 15.40MHz	35.9 dB	> 34.9 dB	16.1 dB
5,4-3,6	RH	Pass	69.5 dB @ 5.35MHz	48.0 dB	> 44.0 dB	25.5 dB
5,4-1,2	RH	Pass	56.5 dB @ 6.55MHz	34.5 dB	> 42.3 dB	14.2 dB
1,2-7,8	RH	Pass	46.6 dB @ 100.00MHz	46.6 dB	> 18.6 dB	28.0 dB
1,2-3,6	RH	Pass	57.5 dB @ 5.95MHz	35.4 dB	> 43.1 dB	14.4 dB
1,2-5,4	RH	Pass	58.0 dB @ 5.65MHz	33.6 dB	> 43.6 dB	14.4 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	46.8 dB @ 56.50MHz	45.2 dB	> 33.4 dB	13.4 dB
3,6	DH	Pass	42.4 dB @ 82.75MHz	42.3 dB	> 30.7 dB	11.7 dB
5,4	DH	Pass	50.5 dB @ 26.20MHz	42.3 dB	> 38.8 dB	11.7 dB
1,2	DH	Pass	45.3 dB @ 58.75MHz	43.8 dB	> 33.1 dB	12.2 dB
7,8	RH	Pass	47.7 dB @ 40.25MHz	44.5 dB	> 35.8 dB	11.9 dB
3,6	RH	Pass	49.1 dB @ 43.25MHz	43.4 dB	> 35.3 dB	13.8 dB
5,4	RH	Pass	40.3 dB @ 99.50MHz	40.3 dB	> 29.3 dB	11.0 dB
1,2	RH	Pass	46.8 dB @ 38.50MHz	40.5 dB	> 36.1 dB	10.7 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	43.8 dB @ 100.00MHz	N/A	>= 8.3 dB	35.5 dB
3,6	DH	Pass	40.9 dB @ 83.00MHz	N/A	>= 11.7 dB	29.2 dB
5,4	DH	Pass	40.8 dB @ 97.50MHz	N/A	>= 8.8 dB	32.0 dB
1,2	DH	Pass	42.5 dB @ 72.50MHz	N/A	>= 14.0 dB	28.5 dB
7,8	RH	Pass	43.1 dB @ 88.25MHz	N/A	>= 10.6 dB	32.5 dB
3,6	RH	Pass	42.0 dB @ 99.50MHz	N/A	>= 8.4 dB	33.6 dB
5,4	RH	Pass	38.8 dB @ 99.50MHz	N/A	>= 8.4 dB	30.4 dB
1,2	RH	Pass	39.0 dB @ 99.50MHz	N/A	>= 8.4 dB	30.6 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	50.8 dB @ 15.55MHz	35.5 dB	>= 31.8 dB	19.0 dB
3,6	DH	Pass	54.6 dB @ 7.90MHz	35.1 dB	>= 37.7 dB	16.9 dB
5,4	DH	Pass	50.8 dB @ 10.15MHz	31.7 dB	>= 35.5 dB	15.3 dB
1,2	DH	Pass	50.0 dB @ 12.10MHz	33.3 dB	>= 34.0 dB	16.0 dB
7,8	RH	Pass	53.3 dB @ 11.80MHz	36.0 dB	>= 34.2 dB	19.1 dB
3,6	RH	Pass	41.9 dB @ 61.25MHz	39.3 dB	>= 19.9 dB	22.0 dB
5,4	RH	Pass	55.7 dB @ 5.50MHz	32.1 dB	>= 40.8 dB	14.9 dB
1,2	RH	Pass	49.1 dB @ 11.35MHz	31.2 dB	>= 34.5 dB	14.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

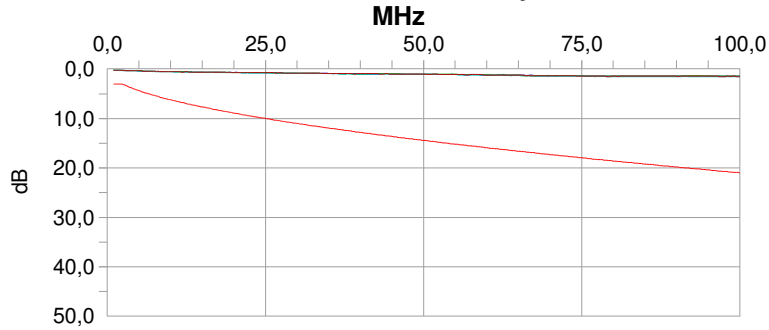
Cable ID 1: 6/19
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:20:06
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

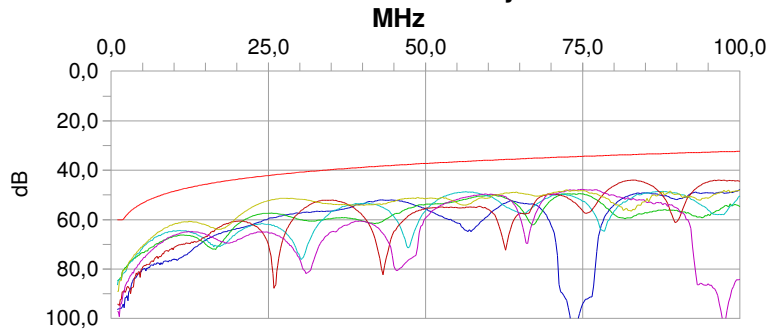
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

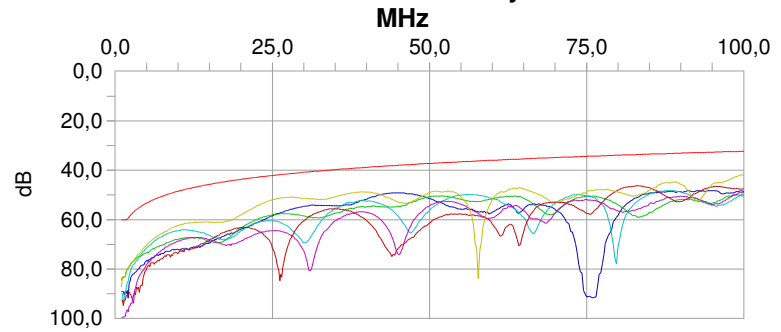
Attenuation Summary



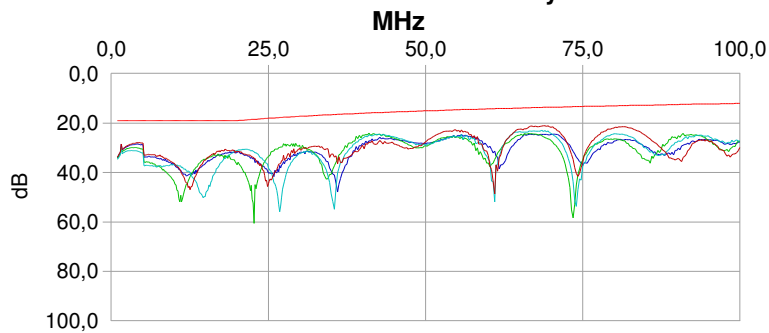
NEXT DH Summary



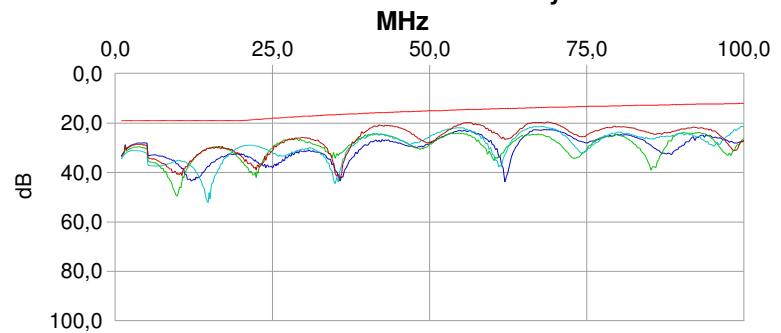
NEXT RH Summary



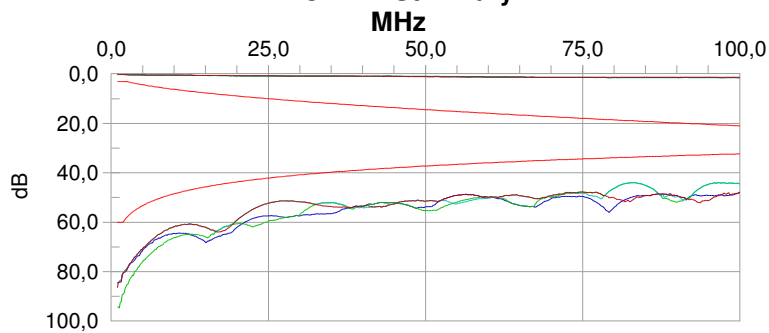
Return Loss DH Summary



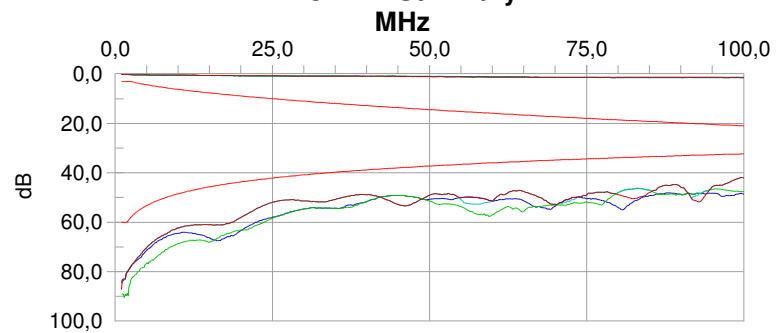
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

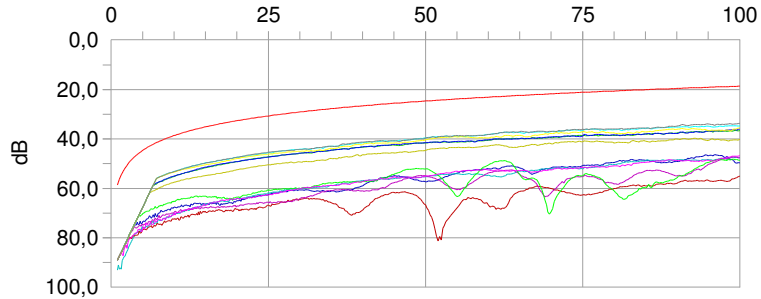
Cable ID 1: 6/19
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:20:06
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

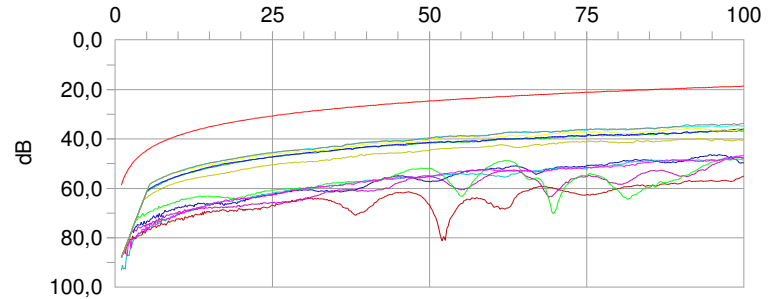
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

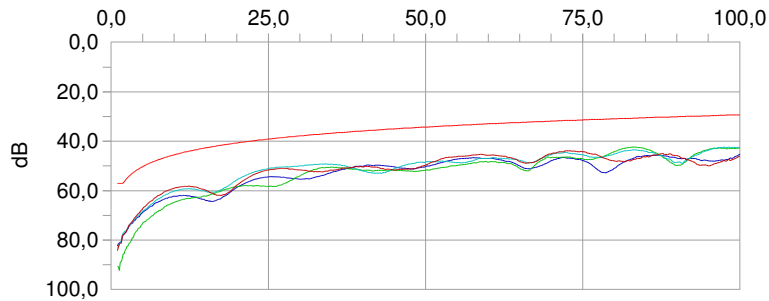
ELFEXT DH Summary
MHz



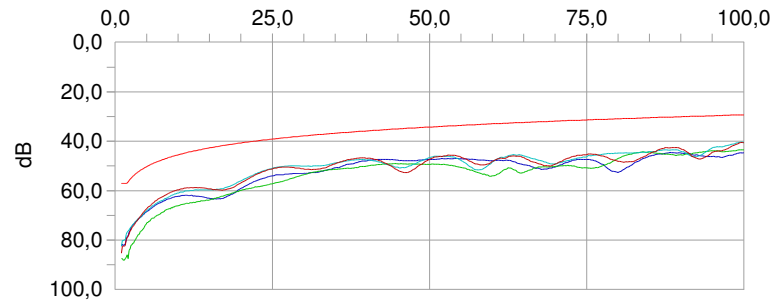
ELFEXT RH Summary
MHz



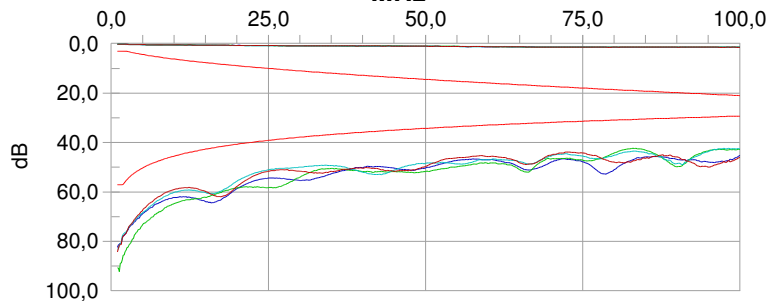
Power Sum NEXT DH Summary
MHz



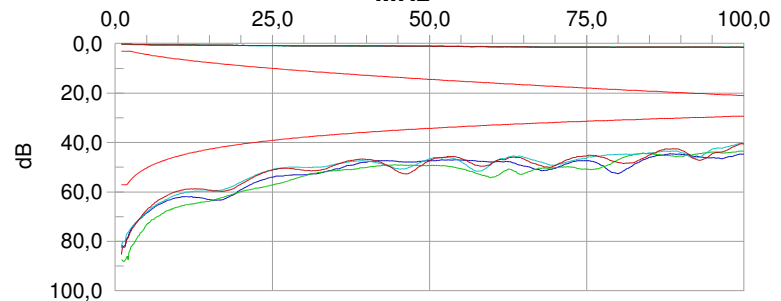
Power Sum NEXT RH Summary
MHz



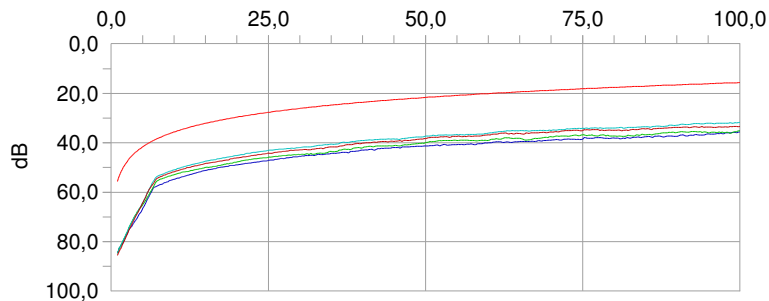
Power Sum ACR DH Summary
MHz



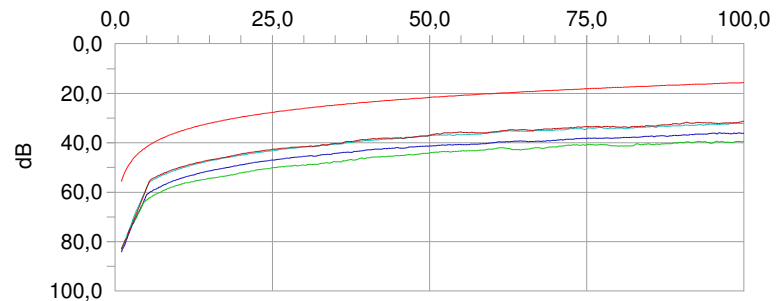
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

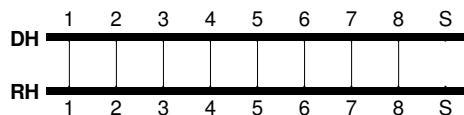
Cable ID 1: 6/20
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:20:47
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	6.3m	6.5m	6.4m	6.4m	< 90.0m	Pass
Prop. Delay	48.1ns	48.7ns	48.9ns	47.1ns	< 498.0ns	Pass
Delay Skew		1.8ns (Pairs 5,4 vs. 1,2)			< 44.0 ns	Pass
Headroom		16.8 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	49.2 dB @ 79.00MHz	48.2 dB	> 34.0 dB	15.2 dB
7,8-5,4	DH	Pass	45.3 dB @ 63.00MHz	44.3 dB	> 35.6 dB	9.7 dB
7,8-1,2	DH	Pass	51.1 dB @ 64.25MHz	51.1 dB	> 35.5 dB	15.6 dB
3,6-5,4	DH	Pass	47.4 dB @ 32.50MHz	40.5 dB	> 40.3 dB	7.1 dB
3,6-1,2	DH	Pass	47.5 dB @ 95.50MHz	47.5 dB	> 32.6 dB	14.9 dB
5,4-1,2	DH	Pass	48.1 dB @ 73.25MHz	48.0 dB	> 34.5 dB	13.6 dB
7,8-3,6	RH	Pass	49.6 dB @ 74.50MHz	47.7 dB	> 34.4 dB	15.2 dB
7,8-5,4	RH	Pass	40.8 dB @ 100.00MHz	40.8 dB	> 32.3 dB	8.5 dB
7,8-1,2	RH	Pass	51.8 dB @ 62.50MHz	51.8 dB	> 35.7 dB	16.1 dB
3,6-5,4	RH	Pass	42.9 dB @ 70.25MHz	41.9 dB	> 34.8 dB	8.1 dB
3,6-1,2	RH	Pass	49.2 dB @ 92.75MHz	49.2 dB	> 32.8 dB	16.4 dB
5,4-1,2	RH	Pass	49.3 dB @ 64.00MHz	49.3 dB	> 35.5 dB	13.8 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	28.7 dB @ 4.15MHz	24.4 dB	> 19.0 dB	9.7 dB
3,6	DH	Pass	26.3 dB @ 30.40MHz	23.3 dB	> 17.2 dB	9.1 dB
5,4	DH	Pass	20.1 dB @ 82.75MHz	20.0 dB	> 12.8 dB	7.3 dB
1,2	DH	Pass	21.3 dB @ 72.00MHz	21.3 dB	> 13.4 dB	7.9 dB
7,8	RH	Pass	22.6 dB @ 58.25MHz	22.6 dB	> 14.4 dB	8.2 dB
3,6	RH	Pass	25.4 dB @ 16.60MHz	22.8 dB	> 19.0 dB	6.4 dB
5,4	RH	Pass	22.2 dB @ 43.25MHz	20.8 dB	> 15.7 dB	6.5 dB
1,2	RH	Pass	22.2 dB @ 45.00MHz	21.2 dB	> 15.5 dB	6.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.2 dB @ 2.50MHz	1.4 dB	< 3.1 dB	2.9 dB
3,6	Pass	0.2 dB @ 2.50MHz	1.4 dB	< 3.1 dB	2.9 dB
5,4	Pass	0.2 dB @ 2.50MHz	1.5 dB	< 3.1 dB	2.9 dB
1,2	Pass	0.2 dB @ 2.50MHz	1.4 dB	< 3.1 dB	2.9 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	42.9 dB @ 100.00MHz	N/A	>= 11.3 dB	31.6 dB
3,6	DH	Pass	39.2 dB @ 86.75MHz	N/A	>= 13.9 dB	25.3 dB
5,4	DH	Pass	39.0 dB @ 87.00MHz	N/A	>= 13.9 dB	25.1 dB
1,2	DH	Pass	46.2 dB @ 95.50MHz	N/A	>= 12.1 dB	34.1 dB
7,8	RH	Pass	39.4 dB @ 100.00MHz	N/A	>= 11.3 dB	28.1 dB
3,6	RH	Pass	40.6 dB @ 86.75MHz	N/A	>= 13.9 dB	26.7 dB
5,4	RH	Pass	39.4 dB @ 100.00MHz	N/A	>= 11.3 dB	28.1 dB
1,2	RH	Pass	47.8 dB @ 92.75MHz	N/A	>= 12.7 dB	35.1 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 6/20
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:20:47
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	46.1 dB @ 99.25MHz	46.0 dB	> 18.7 dB	27.4 dB
7,8-5,4	DH	Pass	50.9 dB @ 8.35MHz	30.2 dB	> 40.2 dB	10.7 dB
7,8-1,2	DH	Pass	63.6 dB @ 20.35MHz	53.9 dB	> 32.4 dB	31.2 dB
3,6-7,8	DH	Pass	55.4 dB @ 64.00MHz	55.4 dB	> 22.5 dB	32.9 dB
3,6-5,4	DH	Pass	63.8 dB @ 5.95MHz	39.5 dB	> 43.1 dB	20.7 dB
3,6-1,2	DH	Pass	60.9 dB @ 8.20MHz	41.9 dB	> 40.3 dB	20.6 dB
5,4-7,8	DH	Pass	50.1 dB @ 8.95MHz	29.7 dB	> 39.6 dB	10.5 dB
5,4-3,6	DH	Pass	57.5 dB @ 7.45MHz	35.9 dB	> 41.2 dB	16.3 dB
5,4-1,2	DH	Pass	58.2 dB @ 8.35MHz	39.0 dB	> 40.2 dB	18.0 dB
1,2-7,8	DH	Pass	69.4 dB @ 10.30MHz	53.2 dB	> 38.4 dB	31.0 dB
1,2-3,6	DH	Pass	57.2 dB @ 7.60MHz	37.3 dB	> 41.0 dB	16.2 dB
1,2-5,4	DH	Pass	60.2 dB @ 6.70MHz	38.7 dB	> 42.1 dB	18.1 dB
7,8-3,6	RH	Pass	46.0 dB @ 99.25MHz	45.9 dB	> 18.7 dB	27.3 dB
7,8-5,4	RH	Pass	51.9 dB @ 7.45MHz	30.2 dB	> 41.2 dB	10.7 dB
7,8-1,2	RH	Pass	63.0 dB @ 21.70MHz	53.9 dB	> 31.9 dB	31.1 dB
3,6-7,8	RH	Pass	55.5 dB @ 64.00MHz	55.5 dB	> 22.5 dB	33.0 dB
3,6-5,4	RH	Pass	65.9 dB @ 4.60MHz	39.6 dB	> 45.4 dB	20.5 dB
3,6-1,2	RH	Pass	64.9 dB @ 5.20MHz	42.0 dB	> 44.3 dB	20.6 dB
5,4-7,8	RH	Pass	51.7 dB @ 7.45MHz	29.7 dB	> 41.2 dB	10.5 dB
5,4-3,6	RH	Pass	59.9 dB @ 5.50MHz	35.8 dB	> 43.8 dB	16.1 dB
5,4-1,2	RH	Pass	62.7 dB @ 4.90MHz	38.9 dB	> 44.8 dB	17.9 dB
1,2-7,8	RH	Pass	69.4 dB @ 10.30MHz	53.1 dB	> 38.4 dB	31.0 dB
1,2-3,6	RH	Pass	55.7 dB @ 8.95MHz	37.2 dB	> 39.6 dB	16.1 dB
1,2-5,4	RH	Pass	63.2 dB @ 4.75MHz	38.7 dB	> 45.1 dB	18.1 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	44.0 dB @ 63.00MHz	42.7 dB	> 32.6 dB	11.4 dB
3,6	DH	Pass	46.8 dB @ 32.50MHz	39.8 dB	> 37.3 dB	9.5 dB
5,4	DH	Pass	41.4 dB @ 64.25MHz	39.3 dB	> 32.5 dB	8.9 dB
1,2	DH	Pass	46.5 dB @ 64.00MHz	46.1 dB	> 32.5 dB	14.0 dB
7,8	RH	Pass	39.8 dB @ 100.00MHz	39.8 dB	> 29.3 dB	10.5 dB
3,6	RH	Pass	42.3 dB @ 70.25MHz	40.8 dB	> 31.8 dB	10.5 dB
5,4	RH	Pass	39.8 dB @ 82.75MHz	38.6 dB	> 30.7 dB	9.1 dB
1,2	RH	Pass	47.2 dB @ 64.00MHz	47.1 dB	> 32.5 dB	14.7 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	41.3 dB @ 99.75MHz	N/A	>= 8.4 dB	32.9 dB
3,6	DH	Pass	38.5 dB @ 97.75MHz	N/A	>= 8.8 dB	29.7 dB
5,4	DH	Pass	37.8 dB @ 86.25MHz	N/A	>= 11.1 dB	26.7 dB
1,2	DH	Pass	44.8 dB @ 77.00MHz	N/A	>= 13.0 dB	31.8 dB
7,8	RH	Pass	38.4 dB @ 100.00MHz	N/A	>= 8.3 dB	30.1 dB
3,6	RH	Pass	39.5 dB @ 98.50MHz	N/A	>= 8.6 dB	30.9 dB
5,4	RH	Pass	37.2 dB @ 100.00MHz	N/A	>= 8.3 dB	28.9 dB
1,2	RH	Pass	46.0 dB @ 64.50MHz	N/A	>= 15.9 dB	30.1 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	32.6 dB @ 66.75MHz	29.6 dB	>= 19.1 dB	13.5 dB
3,6	DH	Pass	49.5 dB @ 14.20MHz	33.4 dB	>= 32.6 dB	16.9 dB
5,4	DH	Pass	49.8 dB @ 8.35MHz	29.2 dB	>= 37.2 dB	12.6 dB
1,2	DH	Pass	53.5 dB @ 11.50MHz	37.2 dB	>= 34.4 dB	19.1 dB
7,8	RH	Pass	46.3 dB @ 14.05MHz	30.0 dB	>= 32.7 dB	13.6 dB
3,6	RH	Pass	43.1 dB @ 50.75MHz	37.9 dB	>= 21.5 dB	21.6 dB
5,4	RH	Pass	49.5 dB @ 7.90MHz	28.3 dB	>= 37.7 dB	11.8 dB
1,2	RH	Pass	52.5 dB @ 10.30MHz	35.0 dB	>= 35.4 dB	17.1 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

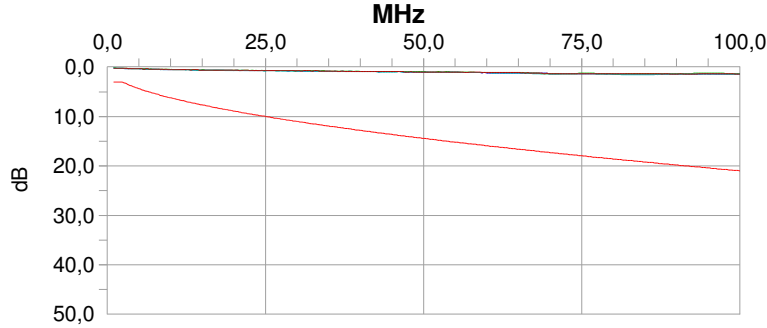
Cable ID 1: 6/20
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:20:47
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

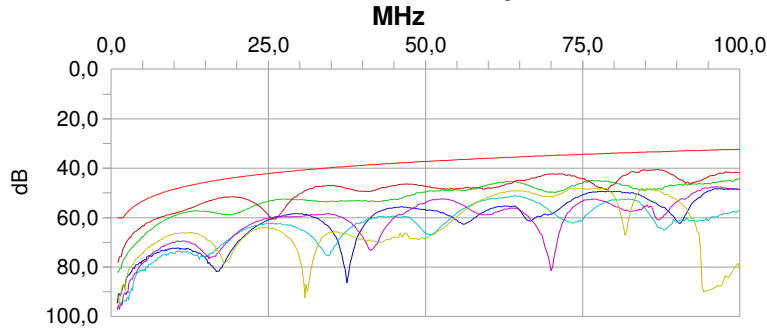
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

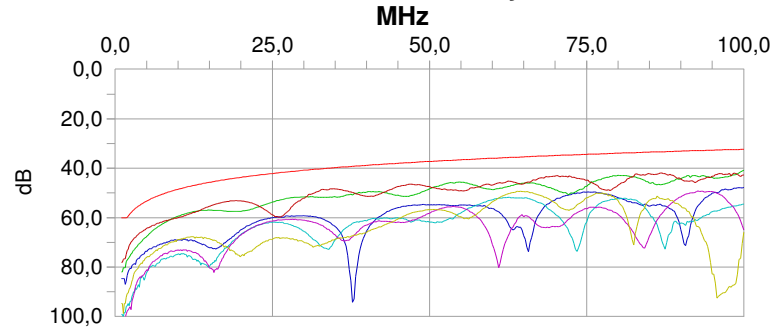
Attenuation Summary



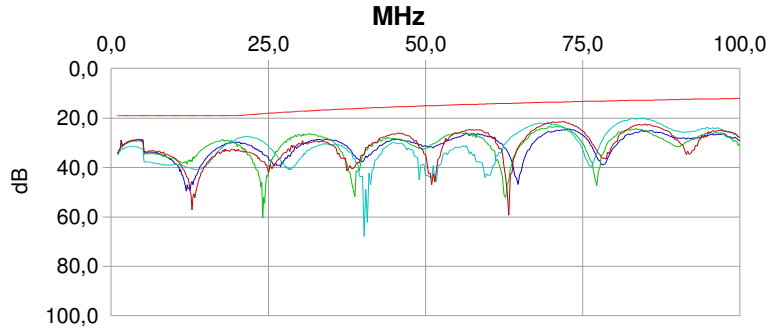
NEXT DH Summary



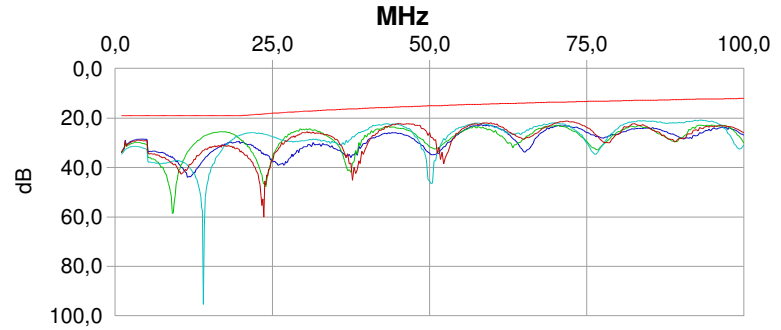
NEXT RH Summary



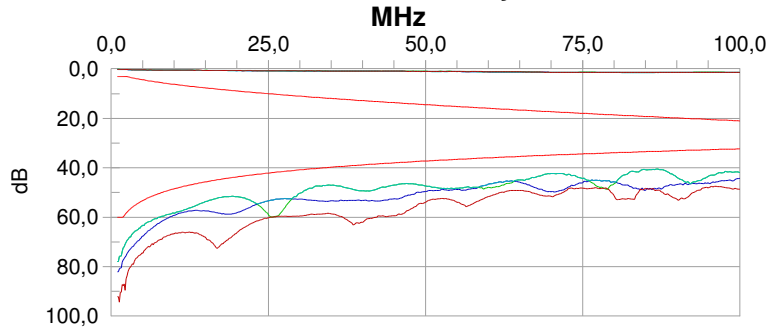
Return Loss DH Summary



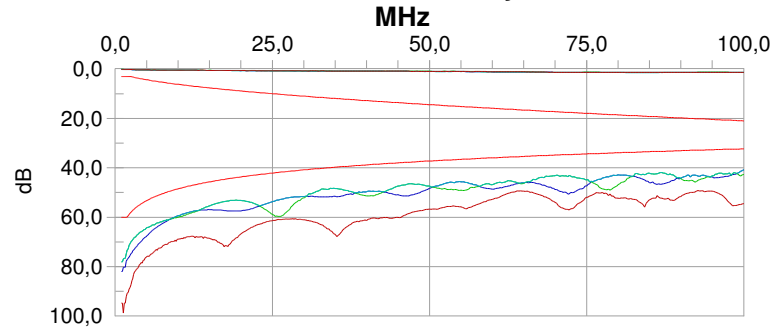
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

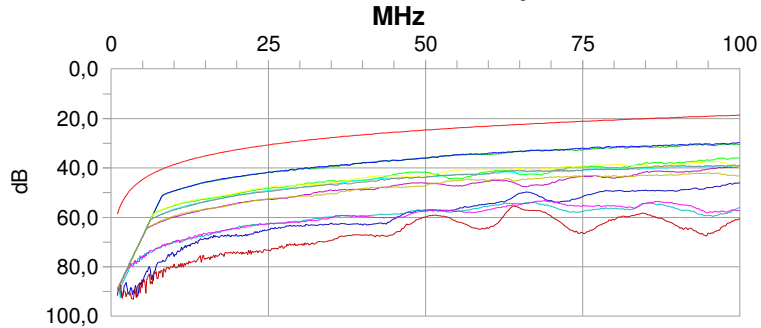
Cable ID 1: 6/20
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:20:47
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

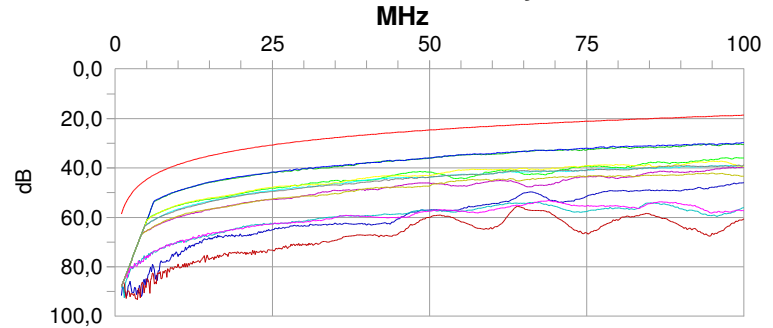
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

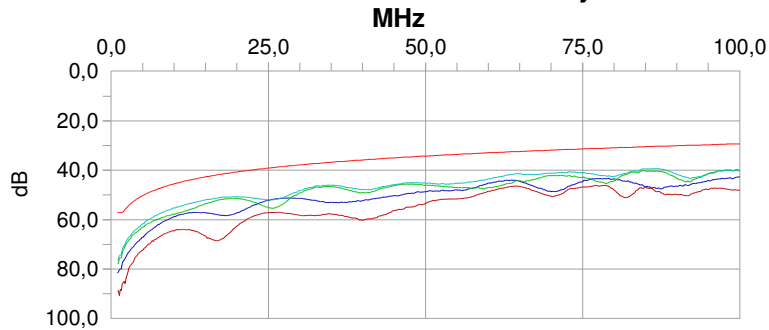
ELFEXT DH Summary



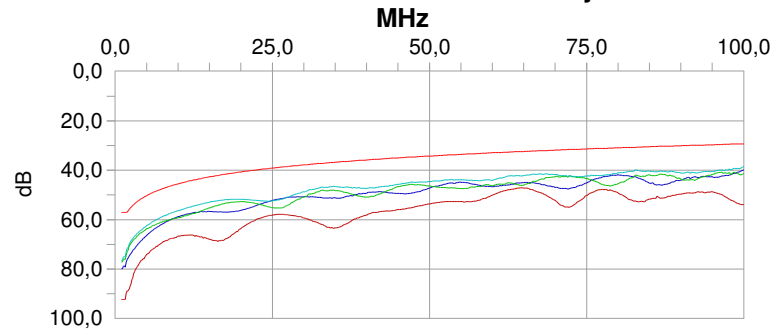
ELFEXT RH Summary



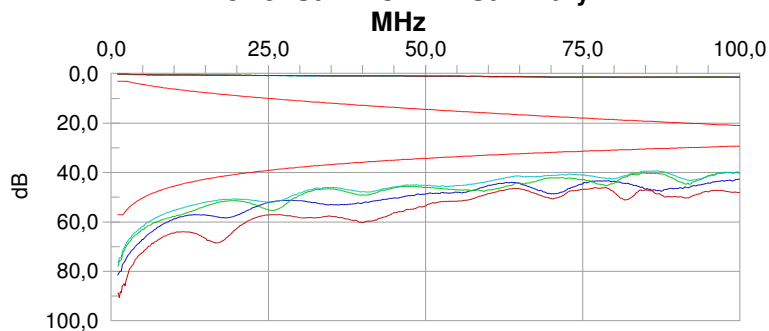
Power Sum NEXT DH Summary



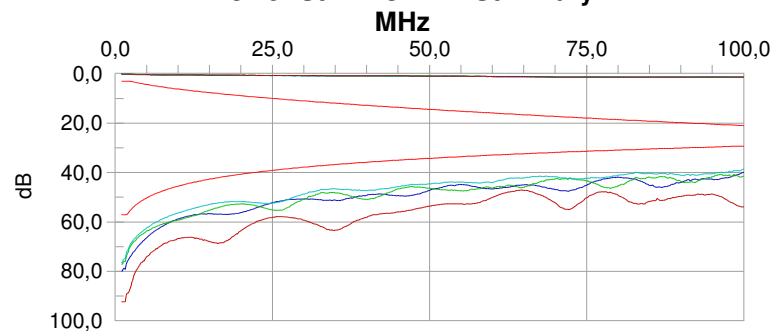
Power Sum NEXT RH Summary



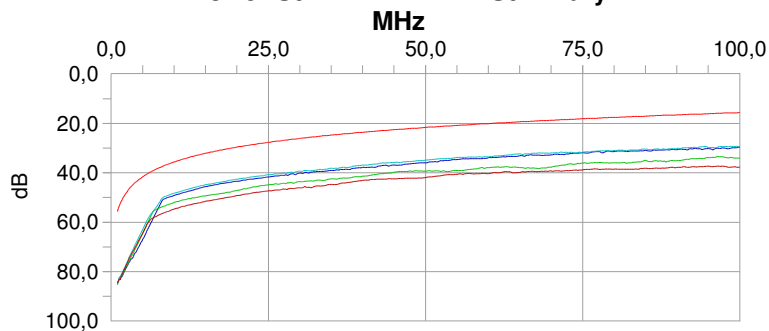
Power Sum ACR DH Summary



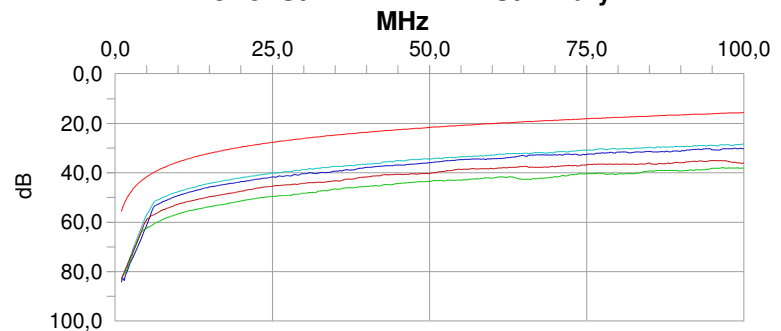
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

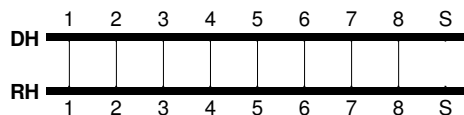
Cable ID 1: 6/21
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:19:33
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	6.6m	6.8m	6.8m	6.8m	< 90.0m	Pass
Prop. Delay	49.5ns	50.2ns	50.6ns	48.7ns	< 498.0ns	Pass
Delay Skew		1.9ns (Pairs 5,4 vs. 1,2)			< 44.0 ns	Pass
Headroom		20.7 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	47.3 dB @ 56.50MHz	47.1 dB	> 36.4 dB	10.9 dB
7,8-5,4	DH	Pass	51.9 dB @ 49.75MHz	50.9 dB	> 37.3 dB	14.6 dB
7,8-1,2	DH	Pass	49.7 dB @ 58.75MHz	47.8 dB	> 36.1 dB	13.6 dB
3,6-5,4	DH	Pass	51.8 dB @ 17.80MHz	40.3 dB	> 44.5 dB	7.3 dB
3,6-1,2	DH	Pass	57.0 dB @ 17.50MHz	48.1 dB	> 44.6 dB	12.4 dB
5,4-1,2	DH	Pass	48.9 dB @ 62.50MHz	48.5 dB	> 35.7 dB	13.2 dB
7,8-3,6	RH	Pass	47.0 dB @ 57.25MHz	46.6 dB	> 36.3 dB	10.7 dB
7,8-5,4	RH	Pass	49.9 dB @ 50.50MHz	48.0 dB	> 37.2 dB	12.7 dB
7,8-1,2	RH	Pass	51.4 dB @ 56.50MHz	50.7 dB	> 36.4 dB	15.0 dB
3,6-5,4	RH	Pass	54.6 dB @ 17.50MHz	42.9 dB	> 44.6 dB	10.0 dB
3,6-1,2	RH	Pass	46.4 dB @ 99.75MHz	46.4 dB	> 32.3 dB	14.1 dB
5,4-1,2	RH	Pass	52.2 dB @ 39.50MHz	48.1 dB	> 38.9 dB	13.3 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	27.5 dB @ 4.15MHz	23.6 dB	> 19.0 dB	8.5 dB
3,6	DH	Pass	20.7 dB @ 79.00MHz	20.7 dB	> 13.0 dB	7.7 dB
5,4	DH	Pass	23.8 dB @ 43.25MHz	22.6 dB	> 15.7 dB	8.1 dB
1,2	DH	Pass	18.8 dB @ 80.75MHz	18.8 dB	> 12.9 dB	5.9 dB
7,8	RH	Pass	25.5 dB @ 29.95MHz	23.1 dB	> 17.2 dB	8.3 dB
3,6	RH	Pass	24.4 dB @ 27.55MHz	21.4 dB	> 17.6 dB	6.8 dB
5,4	RH	Pass	20.4 dB @ 54.00MHz	19.7 dB	> 14.7 dB	5.7 dB
1,2	RH	Pass	18.4 dB @ 55.50MHz	18.4 dB	> 14.6 dB	3.8 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.3 dB @ 2.50MHz	1.5 dB	< 3.1 dB	2.8 dB
3,6	Pass	0.3 dB @ 2.50MHz	1.6 dB	< 3.1 dB	2.8 dB
5,4	Pass	0.2 dB @ 2.50MHz	1.5 dB	< 3.1 dB	2.9 dB
1,2	Pass	0.2 dB @ 2.50MHz	1.5 dB	< 3.1 dB	2.9 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	45.7 dB @ 77.25MHz	N/A	>= 15.9 dB	29.8 dB
3,6	DH	Pass	39.0 dB @ 95.25MHz	N/A	>= 12.3 dB	26.7 dB
5,4	DH	Pass	38.8 dB @ 95.25MHz	N/A	>= 12.3 dB	26.5 dB
1,2	DH	Pass	46.4 dB @ 82.50MHz	N/A	>= 14.8 dB	31.6 dB
7,8	RH	Pass	45.4 dB @ 61.00MHz	N/A	>= 19.8 dB	25.6 dB
3,6	RH	Pass	41.6 dB @ 94.75MHz	N/A	>= 12.3 dB	29.3 dB
5,4	RH	Pass	41.4 dB @ 94.75MHz	N/A	>= 12.3 dB	29.1 dB
1,2	RH	Pass	45.0 dB @ 99.75MHz	N/A	>= 11.4 dB	33.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 6/21
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:19:33
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	41.2 dB @ 94.00MHz	41.1 dB	> 19.2 dB	22.0 dB
7,8-5,4	DH	Pass	40.1 dB @ 62.00MHz	37.2 dB	> 22.8 dB	17.3 dB
7,8-1,2	DH	Pass	44.0 dB @ 82.75MHz	42.7 dB	> 20.3 dB	23.7 dB
3,6-7,8	DH	Pass	47.1 dB @ 99.00MHz	47.1 dB	> 18.7 dB	28.4 dB
3,6-5,4	DH	Pass	63.1 dB @ 6.10MHz	40.6 dB	> 42.9 dB	20.2 dB
3,6-1,2	DH	Pass	63.3 dB @ 6.25MHz	41.7 dB	> 42.7 dB	20.6 dB
5,4-7,8	DH	Pass	58.3 dB @ 7.60MHz	36.6 dB	> 41.0 dB	17.3 dB
5,4-3,6	DH	Pass	57.1 dB @ 7.45MHz	37.6 dB	> 41.2 dB	15.9 dB
5,4-1,2	DH	Pass	55.0 dB @ 10.15MHz	36.6 dB	> 38.5 dB	16.5 dB
1,2-7,8	DH	Pass	49.8 dB @ 41.00MHz	42.8 dB	> 26.4 dB	23.4 dB
1,2-3,6	DH	Pass	56.9 dB @ 7.90MHz	37.7 dB	> 40.7 dB	16.2 dB
1,2-5,4	DH	Pass	57.3 dB @ 7.90MHz	36.5 dB	> 40.7 dB	16.6 dB
7,8-3,6	RH	Pass	41.1 dB @ 94.00MHz	41.0 dB	> 19.2 dB	21.9 dB
7,8-5,4	RH	Pass	39.9 dB @ 63.25MHz	37.3 dB	> 22.6 dB	17.3 dB
7,8-1,2	RH	Pass	44.0 dB @ 82.75MHz	42.7 dB	> 20.3 dB	23.7 dB
3,6-7,8	RH	Pass	47.1 dB @ 99.00MHz	47.1 dB	> 18.7 dB	28.4 dB
3,6-5,4	RH	Pass	65.0 dB @ 4.75MHz	40.8 dB	> 45.1 dB	19.9 dB
3,6-1,2	RH	Pass	63.3 dB @ 6.25MHz	41.7 dB	> 42.7 dB	20.6 dB
5,4-7,8	RH	Pass	57.5 dB @ 8.35MHz	36.6 dB	> 40.2 dB	17.3 dB
5,4-3,6	RH	Pass	59.5 dB @ 5.50MHz	37.4 dB	> 43.8 dB	15.7 dB
5,4-1,2	RH	Pass	59.0 dB @ 6.40MHz	36.5 dB	> 42.5 dB	16.5 dB
1,2-7,8	RH	Pass	49.9 dB @ 41.00MHz	42.9 dB	> 26.4 dB	23.5 dB
1,2-3,6	RH	Pass	56.9 dB @ 7.90MHz	37.7 dB	> 40.7 dB	16.2 dB
1,2-5,4	RH	Pass	59.2 dB @ 6.40MHz	36.6 dB	> 42.5 dB	16.7 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	44.8 dB @ 57.25MHz	44.2 dB	> 33.3 dB	11.5 dB
3,6	DH	Pass	50.5 dB @ 17.80MHz	39.8 dB	> 41.5 dB	9.0 dB
5,4	DH	Pass	40.6 dB @ 82.75MHz	40.0 dB	> 30.7 dB	9.9 dB
1,2	DH	Pass	46.6 dB @ 60.75MHz	45.5 dB	> 32.9 dB	13.7 dB
7,8	RH	Pass	44.6 dB @ 61.25MHz	44.6 dB	> 32.8 dB	11.8 dB
3,6	RH	Pass	52.7 dB @ 18.40MHz	42.2 dB	> 41.3 dB	11.4 dB
5,4	RH	Pass	42.5 dB @ 82.75MHz	42.1 dB	> 30.7 dB	11.8 dB
1,2	RH	Pass	49.6 dB @ 39.50MHz	44.7 dB	> 35.9 dB	13.7 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	42.8 dB @ 81.00MHz	N/A	>= 12.1 dB	30.7 dB
3,6	DH	Pass	38.5 dB @ 95.25MHz	N/A	>= 9.3 dB	29.2 dB
5,4	DH	Pass	38.5 dB @ 95.25MHz	N/A	>= 9.3 dB	29.2 dB
1,2	DH	Pass	44.1 dB @ 82.75MHz	N/A	>= 11.8 dB	32.3 dB
7,8	RH	Pass	43.4 dB @ 61.25MHz	N/A	>= 16.7 dB	26.7 dB
3,6	RH	Pass	40.8 dB @ 83.00MHz	N/A	>= 11.7 dB	29.1 dB
5,4	RH	Pass	40.7 dB @ 93.25MHz	N/A	>= 9.6 dB	31.1 dB
1,2	RH	Pass	43.3 dB @ 99.75MHz	N/A	>= 8.4 dB	34.9 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	42.6 dB @ 41.00MHz	35.3 dB	>= 23.4 dB	19.2 dB
3,6	DH	Pass	54.3 dB @ 7.15MHz	34.2 dB	>= 38.5 dB	15.8 dB
5,4	DH	Pass	54.4 dB @ 7.45MHz	33.0 dB	>= 38.2 dB	16.2 dB
1,2	DH	Pass	55.4 dB @ 7.90MHz	34.8 dB	>= 37.7 dB	17.7 dB
7,8	RH	Pass	41.9 dB @ 42.75MHz	35.1 dB	>= 23.0 dB	18.9 dB
3,6	RH	Pass	57.5 dB @ 8.35MHz	37.9 dB	>= 37.2 dB	20.3 dB
5,4	RH	Pass	54.8 dB @ 5.95MHz	32.3 dB	>= 40.1 dB	14.7 dB
1,2	RH	Pass	53.8 dB @ 7.90MHz	33.6 dB	>= 37.7 dB	16.1 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

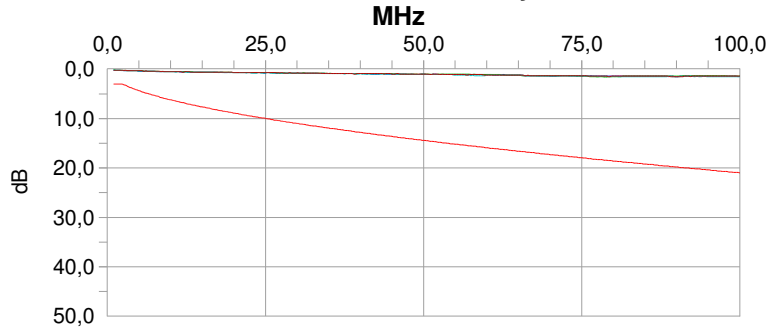
Cable ID 1: 6/21
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:19:33
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

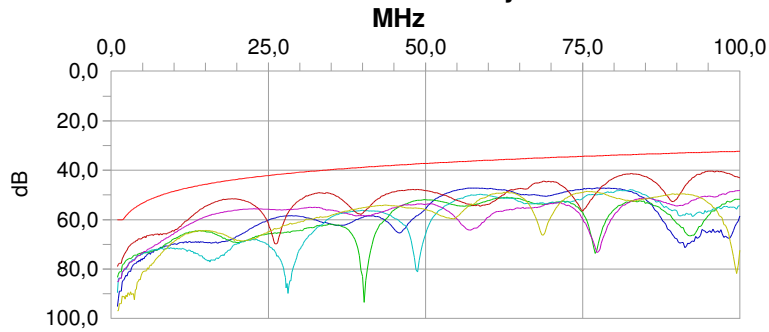
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

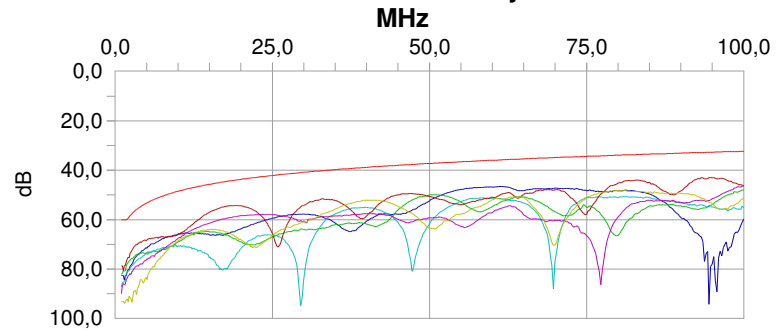
Attenuation Summary



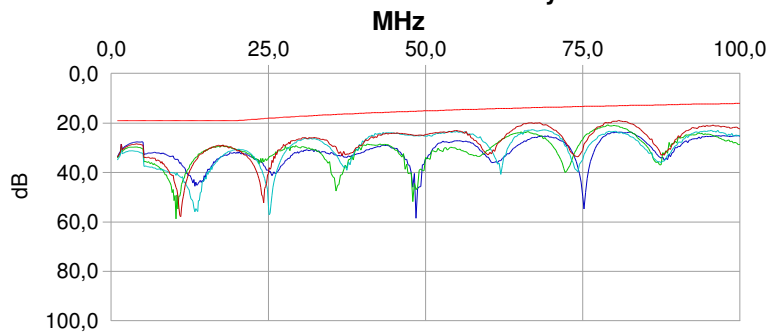
NEXT DH Summary



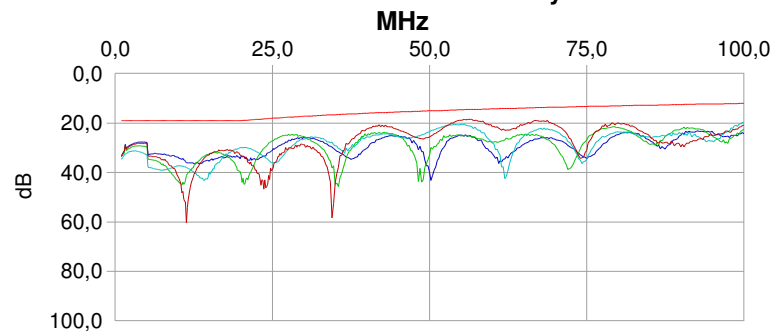
NEXT RH Summary



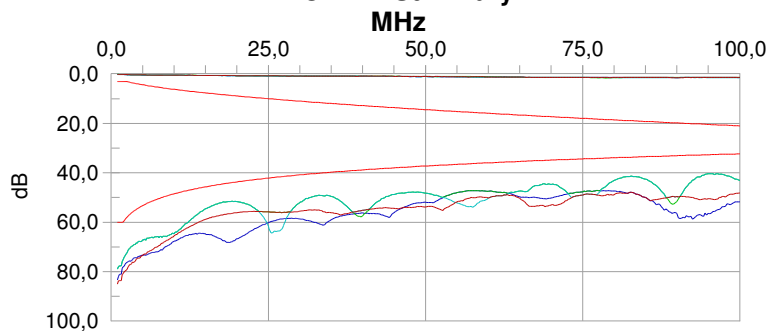
Return Loss DH Summary



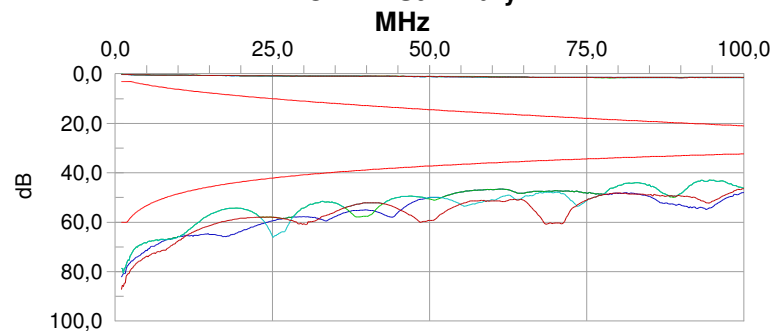
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

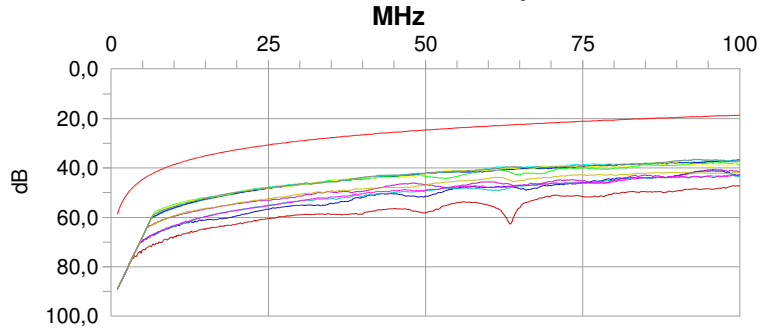
Cable ID 1: 6/21
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:19:33
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

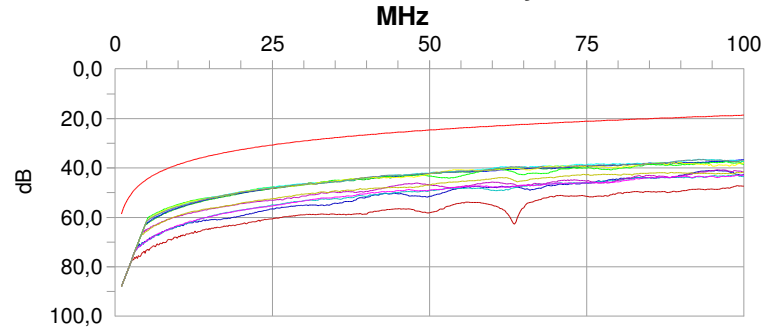
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

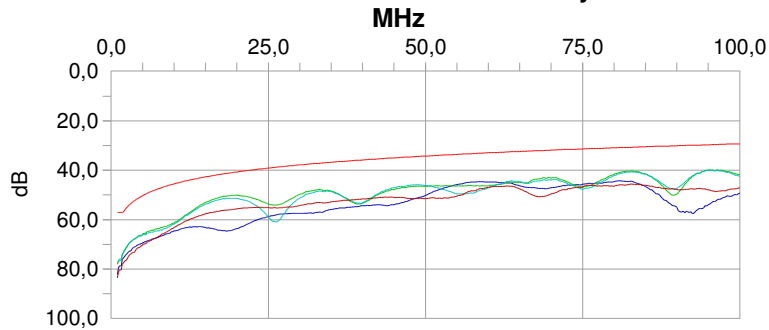
ELFEXT DH Summary



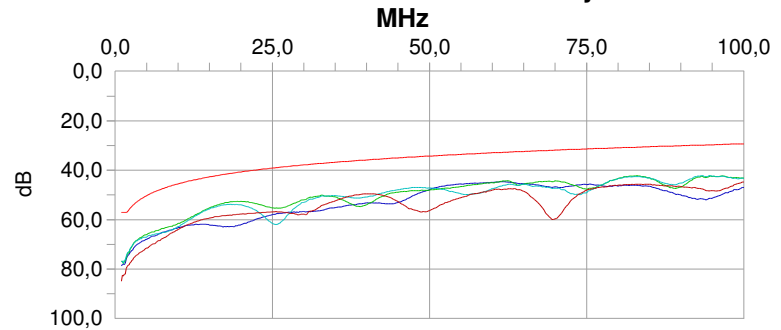
ELFEXT RH Summary



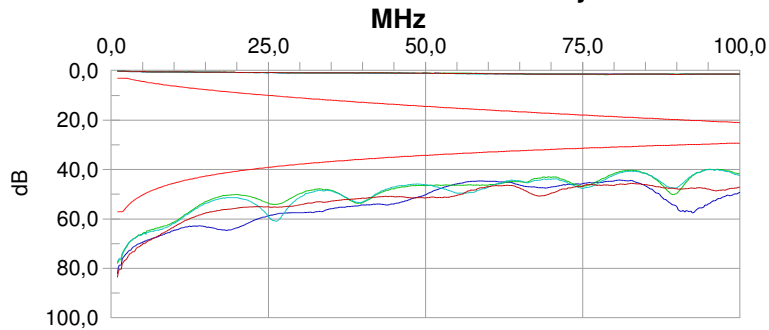
Power Sum NEXT DH Summary



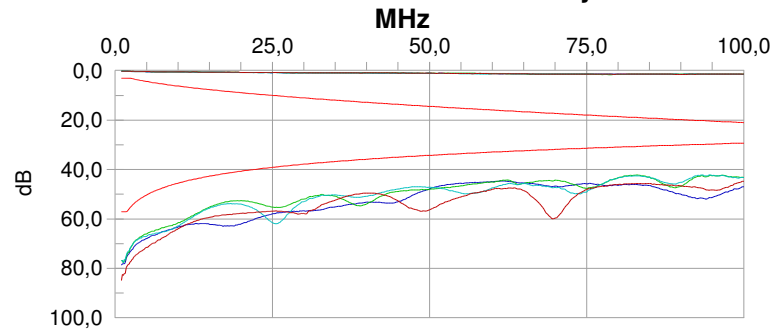
Power Sum NEXT RH Summary



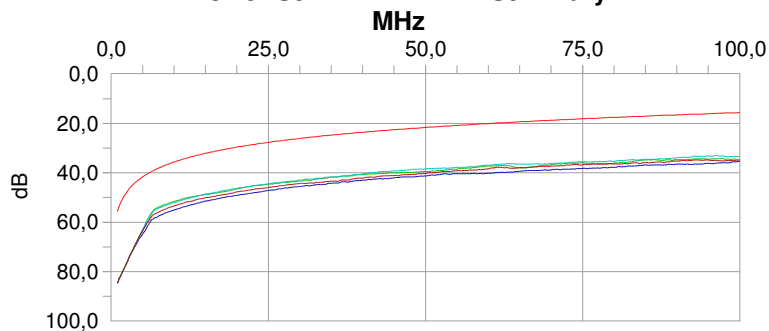
Power Sum ACR DH Summary



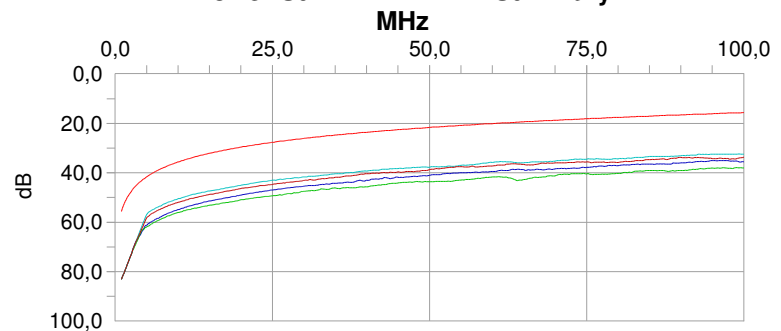
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

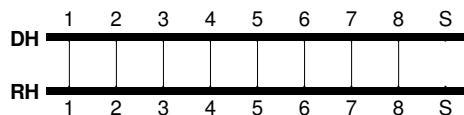
Cable ID 1: 6/22
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:18:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	6.6m	6.7m	6.7m	6.8m	< 90.0m	Pass
Prop. Delay	49.3ns	50.0ns	50.2ns	48.7ns	< 498.0ns	Pass
Delay Skew		1.5ns (Pairs 5,4 vs. 1,2)			< 44.0 ns	Pass
Headroom		16.3 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	75.4 dB @ 2.80MHz	53.1 dB	> 57.2 dB	18.2 dB
7,8-5,4	DH	Pass	51.0 dB @ 70.00MHz	49.8 dB	> 34.8 dB	16.2 dB
7,8-1,2	DH	Pass	48.6 dB @ 68.00MHz	48.6 dB	> 35.1 dB	13.5 dB
3,6-5,4	DH	Pass	46.2 dB @ 32.00MHz	39.2 dB	> 40.4 dB	5.8 dB
3,6-1,2	DH	Pass	45.8 dB @ 72.75MHz	45.6 dB	> 34.6 dB	11.2 dB
5,4-1,2	DH	Pass	55.3 dB @ 22.45MHz	46.0 dB	> 42.9 dB	12.4 dB
7,8-3,6	RH	Pass	49.4 dB @ 93.75MHz	49.4 dB	> 32.8 dB	16.6 dB
7,8-5,4	RH	Pass	55.0 dB @ 40.25MHz	52.7 dB	> 38.8 dB	16.2 dB
7,8-1,2	RH	Pass	49.2 dB @ 75.50MHz	49.1 dB	> 34.3 dB	14.9 dB
3,6-5,4	RH	Pass	48.3 dB @ 32.50MHz	41.8 dB	> 40.3 dB	8.0 dB
3,6-1,2	RH	Pass	48.2 dB @ 64.25MHz	46.0 dB	> 35.5 dB	12.7 dB
5,4-1,2	RH	Pass	54.6 dB @ 23.65MHz	45.3 dB	> 42.5 dB	12.1 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	27.6 dB @ 4.15MHz	22.7 dB	> 19.0 dB	8.6 dB
3,6	DH	Pass	22.0 dB @ 80.50MHz	22.0 dB	> 13.0 dB	9.0 dB
5,4	DH	Pass	22.1 dB @ 80.50MHz	22.1 dB	> 13.0 dB	9.1 dB
1,2	DH	Pass	20.4 dB @ 69.25MHz	20.4 dB	> 13.6 dB	6.8 dB
7,8	RH	Pass	27.3 dB @ 4.15MHz	22.1 dB	> 19.0 dB	8.3 dB
3,6	RH	Pass	22.1 dB @ 41.75MHz	20.6 dB	> 15.8 dB	6.3 dB
5,4	RH	Pass	22.9 dB @ 55.25MHz	22.3 dB	> 14.6 dB	8.3 dB
1,2	RH	Pass	18.6 dB @ 55.50MHz	18.5 dB	> 14.6 dB	4.0 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.2 dB @ 2.50MHz	1.4 dB	< 3.1 dB	2.9 dB
3,6	Pass	0.2 dB @ 2.50MHz	1.5 dB	< 3.1 dB	2.9 dB
5,4	Pass	0.3 dB @ 2.50MHz	1.5 dB	< 3.1 dB	2.8 dB
1,2	Pass	0.3 dB @ 2.50MHz	1.5 dB	< 3.1 dB	2.8 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	47.3 dB @ 68.00MHz	N/A	>= 18.1 dB	29.2 dB
3,6	DH	Pass	37.9 dB @ 94.75MHz	N/A	>= 12.3 dB	25.6 dB
5,4	DH	Pass	37.7 dB @ 94.75MHz	N/A	>= 12.3 dB	25.4 dB
1,2	DH	Pass	44.2 dB @ 74.75MHz	N/A	>= 16.5 dB	27.7 dB
7,8	RH	Pass	47.7 dB @ 77.25MHz	N/A	>= 15.9 dB	31.8 dB
3,6	RH	Pass	40.5 dB @ 95.00MHz	N/A	>= 12.3 dB	28.2 dB
5,4	RH	Pass	40.3 dB @ 95.00MHz	N/A	>= 12.3 dB	28.0 dB
1,2	RH	Pass	43.8 dB @ 100.00MHz	N/A	>= 11.3 dB	32.5 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 6/22
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:18:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	45.3 dB @ 99.00MHz	45.3 dB	> 18.7 dB	26.6 dB
7,8-5,4	DH	Pass	32.7 dB @ 92.75MHz	32.6 dB	> 19.3 dB	13.4 dB
7,8-1,2	DH	Pass	49.4 dB @ 98.75MHz	49.4 dB	> 18.7 dB	30.7 dB
3,6-7,8	DH	Pass	60.1 dB @ 63.00MHz	60.1 dB	> 22.6 dB	37.5 dB
3,6-5,4	DH	Pass	60.2 dB @ 6.55MHz	37.5 dB	> 42.3 dB	17.9 dB
3,6-1,2	DH	Pass	62.7 dB @ 6.25MHz	42.0 dB	> 42.7 dB	20.0 dB
5,4-7,8	DH	Pass	50.6 dB @ 11.65MHz	32.3 dB	> 37.3 dB	13.3 dB
5,4-3,6	DH	Pass	38.5 dB @ 46.50MHz	33.5 dB	> 25.3 dB	13.2 dB
5,4-1,2	DH	Pass	60.8 dB @ 8.95MHz	42.6 dB	> 39.6 dB	21.2 dB
1,2-7,8	DH	Pass	48.0 dB @ 97.25MHz	47.8 dB	> 18.9 dB	29.1 dB
1,2-3,6	DH	Pass	57.2 dB @ 7.00MHz	37.2 dB	> 41.7 dB	15.5 dB
1,2-5,4	DH	Pass	43.4 dB @ 63.75MHz	41.3 dB	> 22.5 dB	20.9 dB
7,8-3,6	RH	Pass	45.3 dB @ 99.00MHz	45.3 dB	> 18.7 dB	26.6 dB
7,8-5,4	RH	Pass	32.8 dB @ 92.75MHz	32.7 dB	> 19.3 dB	13.5 dB
7,8-1,2	RH	Pass	49.4 dB @ 98.75MHz	49.4 dB	> 18.7 dB	30.7 dB
3,6-7,8	RH	Pass	60.1 dB @ 63.00MHz	60.1 dB	> 22.6 dB	37.5 dB
3,6-5,4	RH	Pass	63.1 dB @ 4.75MHz	37.7 dB	> 45.1 dB	18.0 dB
3,6-1,2	RH	Pass	65.6 dB @ 4.45MHz	42.1 dB	> 45.6 dB	20.0 dB
5,4-7,8	RH	Pass	50.5 dB @ 11.65MHz	32.2 dB	> 37.3 dB	13.2 dB
5,4-3,6	RH	Pass	38.4 dB @ 46.50MHz	33.3 dB	> 25.3 dB	13.1 dB
5,4-1,2	RH	Pass	62.7 dB @ 7.15MHz	42.6 dB	> 41.5 dB	21.2 dB
1,2-7,8	RH	Pass	48.0 dB @ 97.25MHz	47.8 dB	> 18.9 dB	29.1 dB
1,2-3,6	RH	Pass	58.2 dB @ 6.25MHz	37.0 dB	> 42.7 dB	15.5 dB
1,2-5,4	RH	Pass	43.5 dB @ 63.75MHz	41.4 dB	> 22.5 dB	21.0 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	46.8 dB @ 68.75MHz	46.6 dB	> 32.0 dB	14.8 dB
3,6	DH	Pass	46.0 dB @ 32.00MHz	38.5 dB	> 37.4 dB	8.6 dB
5,4	DH	Pass	46.0 dB @ 32.00MHz	38.6 dB	> 37.4 dB	8.6 dB
1,2	DH	Pass	42.3 dB @ 72.75MHz	42.3 dB	> 31.6 dB	10.7 dB
7,8	RH	Pass	46.2 dB @ 93.50MHz	46.2 dB	> 29.8 dB	16.4 dB
3,6	RH	Pass	48.0 dB @ 32.50MHz	40.6 dB	> 37.3 dB	10.7 dB
5,4	RH	Pass	48.1 dB @ 32.50MHz	41.0 dB	> 37.3 dB	10.8 dB
1,2	RH	Pass	44.0 dB @ 65.00MHz	42.6 dB	> 32.4 dB	11.6 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	45.2 dB @ 70.00MHz	N/A	>= 14.5 dB	30.7 dB
3,6	DH	Pass	37.2 dB @ 94.50MHz	N/A	>= 9.4 dB	27.8 dB
5,4	DH	Pass	37.1 dB @ 94.75MHz	N/A	>= 9.3 dB	27.8 dB
1,2	DH	Pass	40.9 dB @ 72.75MHz	N/A	>= 14.0 dB	26.9 dB
7,8	RH	Pass	44.8 dB @ 93.50MHz	N/A	>= 9.6 dB	35.2 dB
3,6	RH	Pass	39.3 dB @ 94.50MHz	N/A	>= 9.4 dB	29.9 dB
5,4	RH	Pass	39.5 dB @ 93.00MHz	N/A	>= 9.6 dB	29.9 dB
1,2	RH	Pass	41.1 dB @ 88.50MHz	N/A	>= 10.6 dB	30.5 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	32.1 dB @ 96.75MHz	32.1 dB	>= 15.9 dB	16.2 dB
3,6	DH	Pass	37.0 dB @ 46.50MHz	32.2 dB	>= 22.3 dB	14.7 dB
5,4	DH	Pass	52.9 dB @ 7.45MHz	30.9 dB	>= 38.2 dB	14.7 dB
1,2	DH	Pass	41.8 dB @ 52.75MHz	39.0 dB	>= 21.2 dB	20.6 dB
7,8	RH	Pass	32.5 dB @ 92.75MHz	32.3 dB	>= 16.3 dB	16.2 dB
3,6	RH	Pass	41.4 dB @ 48.75MHz	36.6 dB	>= 21.9 dB	19.5 dB
5,4	RH	Pass	53.6 dB @ 5.65MHz	29.5 dB	>= 40.6 dB	13.0 dB
1,2	RH	Pass	39.1 dB @ 52.50MHz	35.6 dB	>= 21.2 dB	17.9 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

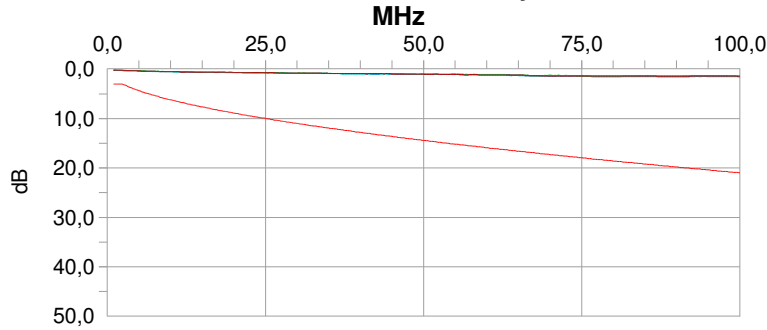
Cable ID 1: 6/22
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:18:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

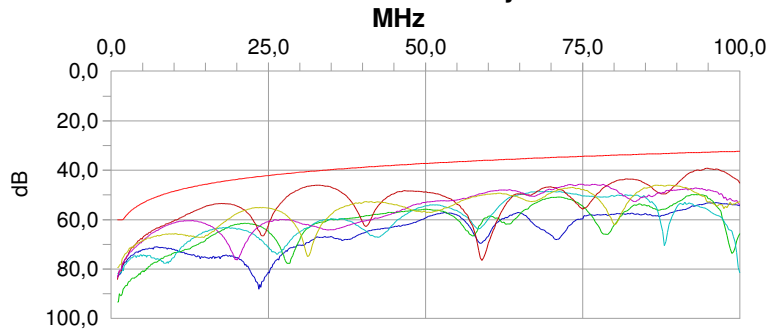
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

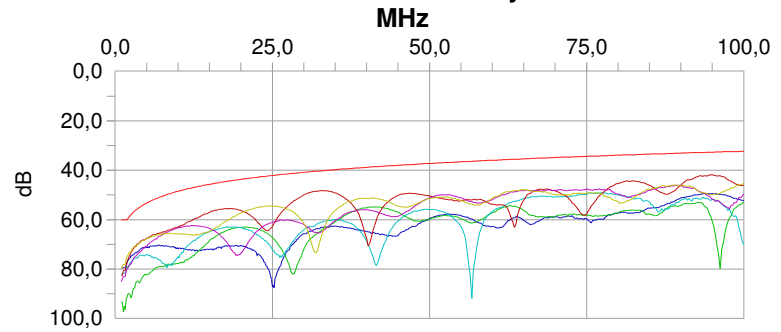
Attenuation Summary



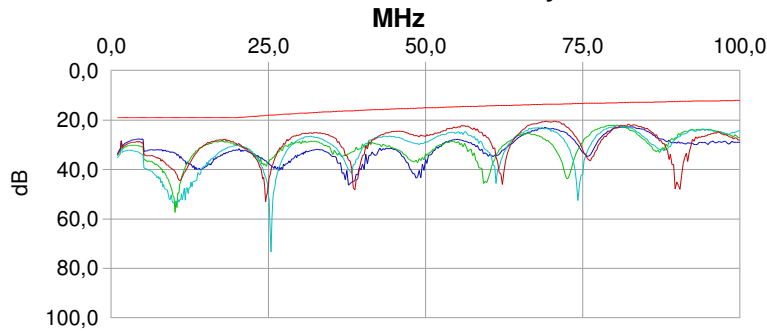
NEXT DH Summary



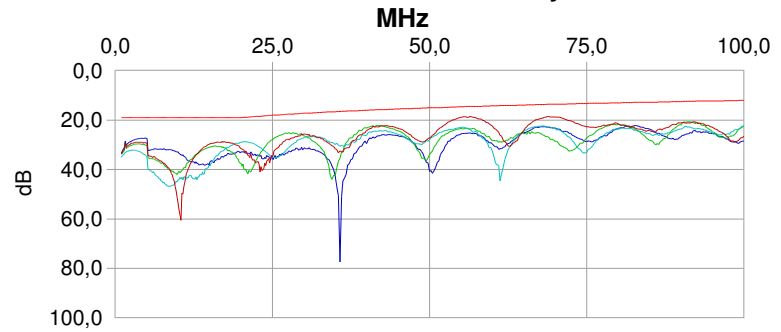
NEXT RH Summary



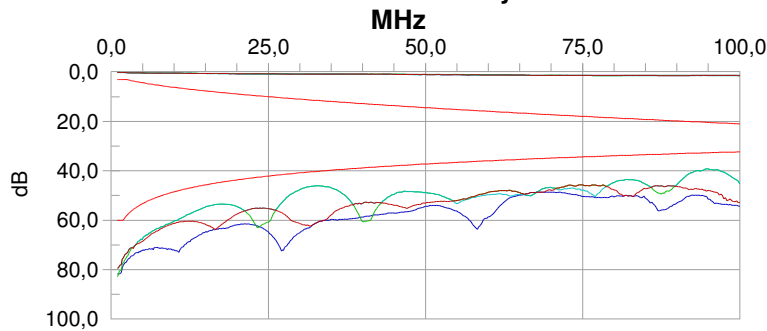
Return Loss DH Summary



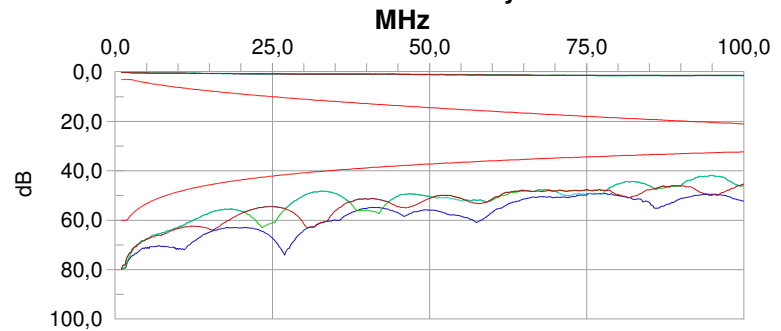
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

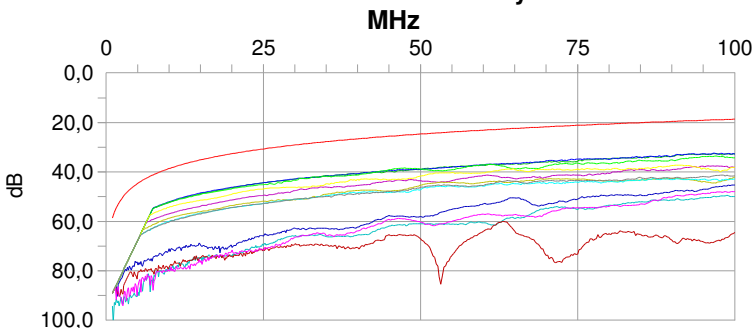
Cable ID 1: 6/22
Cable ID 2:
Test Date: 2017-11-30
Test Time: 18:18:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

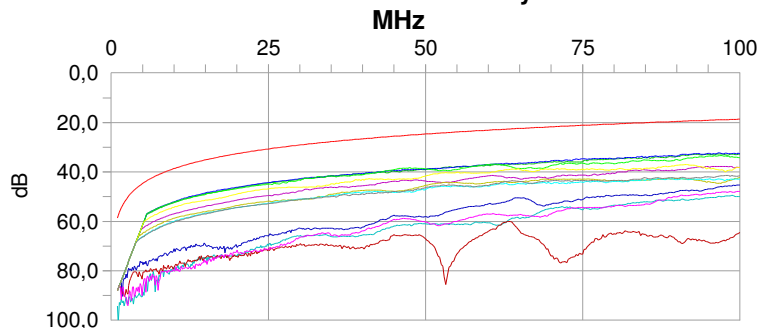
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

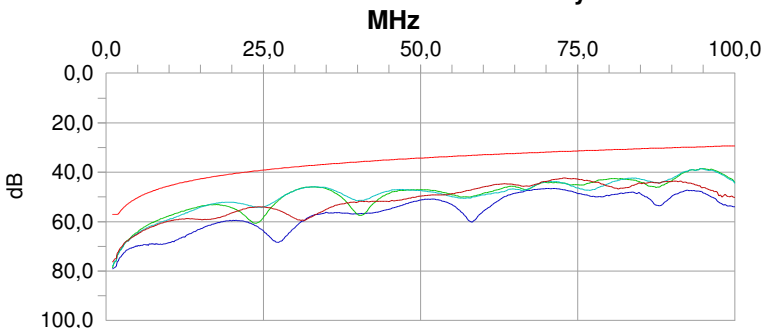
ELFEXT DH Summary



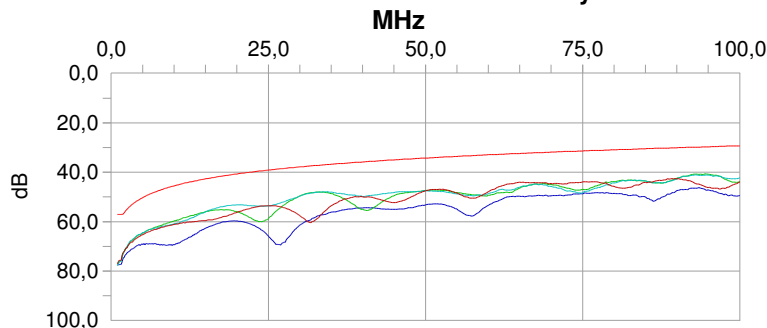
ELFEXT RH Summary



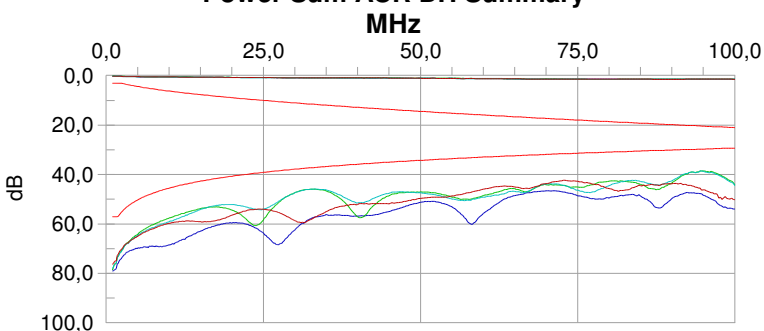
Power Sum NEXT DH Summary



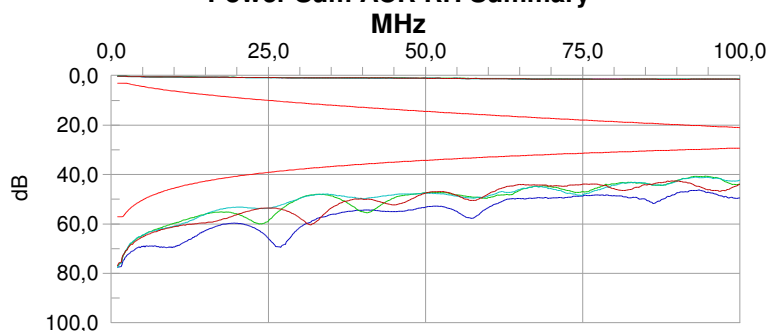
Power Sum NEXT RH Summary



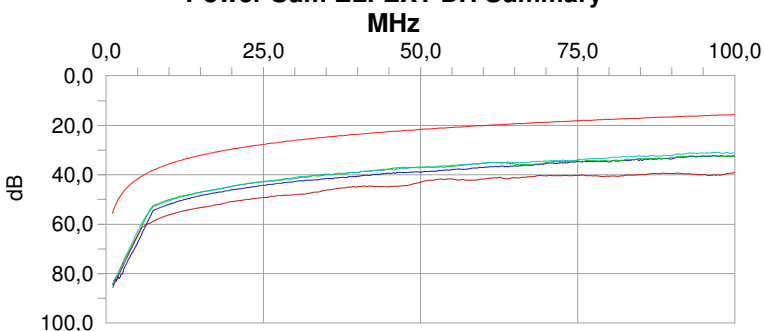
Power Sum ACR DH Summary



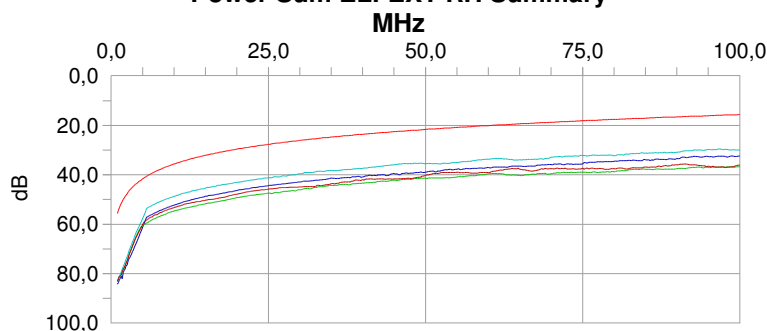
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

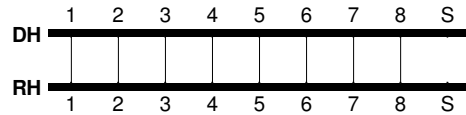
Cable ID 1: 6/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 21:03:57
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	30.8m	32.2m	31.9m	31.2m	< 90.0m	Pass
Prop. Delay	163.9ns	170.8ns	169.7ns	164.6ns	< 498.0ns	Pass
Delay Skew		6.9ns (Pairs 3,6 vs. 7,8)			< 44.0 ns	Pass
DC Resistance	7.7 Ohm	7.5 Ohm	9.3 Ohm	7.8 Ohm	< 20.0 Ohm	Pass
Headroom		4.0 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	46.9 dB @ 225.00MHz	46.8 dB	> 36.1 dB	10.8 dB
7,8-5,4	DH	Pass	51.9 dB @ 211.50MHz	51.4 dB	> 36.5 dB	15.4 dB
7,8-1,2	DH	Pass	60.2 dB @ 49.00MHz	51.6 dB	> 46.8 dB	13.4 dB
3,6-5,4	DH	Pass	67.6 dB @ 7.90MHz	45.0 dB	> 59.4 dB	8.2 dB
3,6-1,2	DH	Pass	41.9 dB @ 247.00MHz	41.9 dB	> 35.4 dB	6.5 dB
5,4-1,2	DH	Pass	48.8 dB @ 243.00MHz	48.8 dB	> 35.5 dB	13.3 dB
7,8-3,6	RH	Pass	41.7 dB @ 246.00MHz	41.7 dB	> 35.5 dB	6.2 dB
7,8-5,4	RH	Pass	48.9 dB @ 249.00MHz	48.9 dB	> 35.4 dB	13.5 dB
7,8-1,2	RH	Pass	42.6 dB @ 249.00MHz	42.6 dB	> 35.4 dB	7.2 dB
3,6-5,4	RH	Pass	38.6 dB @ 250.00MHz	38.6 dB	> 35.3 dB	3.3 dB
3,6-1,2	RH	Pass	41.9 dB @ 248.50MHz	41.9 dB	> 35.4 dB	6.5 dB
5,4-1,2	RH	Pass	46.6 dB @ 214.00MHz	46.6 dB	> 36.4 dB	10.2 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.8 dB @ 1.60MHz	21.3 dB	> 19.9 dB	3.9 dB
3,6	DH	Pass	24.4 dB @ 1.15MHz	24.4 dB	> 19.3 dB	5.1 dB
5,4	DH	Pass	25.6 dB @ 1.60MHz	23.0 dB	> 19.9 dB	5.7 dB
1,2	DH	Pass	24.3 dB @ 1.30MHz	22.1 dB	> 19.5 dB	4.8 dB
7,8	RH	Pass	23.2 dB @ 1.60MHz	23.2 dB	> 19.9 dB	3.3 dB
3,6	RH	Pass	24.2 dB @ 1.30MHz	24.1 dB	> 19.5 dB	4.7 dB
5,4	RH	Pass	23.7 dB @ 1.30MHz	23.6 dB	> 19.5 dB	4.2 dB
1,2	RH	Pass	23.9 dB @ 1.45MHz	23.1 dB	> 19.7 dB	4.2 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.9 dB @ 3.10MHz	9.7 dB	< 3.1 dB	2.2 dB
3,6	Pass	0.9 dB @ 3.10MHz	10.3 dB	< 3.1 dB	2.2 dB
5,4	Pass	1.0 dB @ 3.10MHz	10.0 dB	< 3.1 dB	2.1 dB
1,2	Pass	0.9 dB @ 3.10MHz	9.9 dB	< 3.1 dB	2.2 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	37.5 dB @ 237.50MHz	N/A	>= 5.5 dB	32.0 dB
3,6	DH	Pass	31.6 dB @ 247.00MHz	N/A	>= 4.5 dB	27.1 dB
5,4	DH	Pass	35.4 dB @ 235.00MHz	N/A	>= 5.8 dB	29.6 dB
1,2	DH	Pass	32.1 dB @ 247.00MHz	N/A	>= 4.5 dB	27.6 dB
7,8	RH	Pass	32.1 dB @ 246.00MHz	N/A	>= 4.7 dB	27.4 dB
3,6	RH	Pass	28.3 dB @ 250.00MHz	N/A	>= 4.2 dB	24.1 dB
5,4	RH	Pass	28.6 dB @ 250.00MHz	N/A	>= 4.2 dB	24.4 dB
1,2	RH	Pass	32.1 dB @ 248.50MHz	N/A	>= 4.4 dB	27.7 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 6/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 21:03:57
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	32.1 dB @ 248.50MHz	32.1 dB	> 16.3 dB	15.8 dB
7,8-5,4	DH	Pass	59.6 dB @ 6.55MHz	31.0 dB	> 47.9 dB	11.7 dB
7,8-1,2	DH	Pass	40.7 dB @ 246.50MHz	40.5 dB	> 16.4 dB	24.3 dB
3,6-7,8	DH	Pass	52.1 dB @ 53.00MHz	40.6 dB	> 29.7 dB	22.4 dB
3,6-5,4	DH	Pass	32.8 dB @ 242.50MHz	32.8 dB	> 16.5 dB	16.3 dB
3,6-1,2	DH	Pass	68.0 dB @ 5.05MHz	37.5 dB	> 50.1 dB	17.9 dB
5,4-7,8	DH	Pass	59.6 dB @ 6.55MHz	30.8 dB	> 47.9 dB	11.7 dB
5,4-3,6	DH	Pass	32.4 dB @ 247.50MHz	32.4 dB	> 16.3 dB	16.1 dB
5,4-1,2	DH	Pass	30.4 dB @ 227.00MHz	30.1 dB	> 17.1 dB	13.3 dB
1,2-7,8	DH	Pass	39.8 dB @ 248.00MHz	39.8 dB	> 16.3 dB	23.5 dB
1,2-3,6	DH	Pass	62.0 dB @ 6.25MHz	33.5 dB	> 48.3 dB	13.7 dB
1,2-5,4	DH	Pass	32.1 dB @ 208.00MHz	30.9 dB	> 17.8 dB	14.3 dB
7,8-3,6	RH	Pass	32.8 dB @ 248.00MHz	32.8 dB	> 16.3 dB	16.5 dB
7,8-5,4	RH	Pass	61.3 dB @ 5.35MHz	31.3 dB	> 49.6 dB	11.7 dB
7,8-1,2	RH	Pass	40.9 dB @ 246.50MHz	40.7 dB	> 16.4 dB	24.5 dB
3,6-7,8	RH	Pass	52.0 dB @ 53.00MHz	39.9 dB	> 29.7 dB	22.3 dB
3,6-5,4	RH	Pass	32.5 dB @ 242.00MHz	32.5 dB	> 16.5 dB	16.0 dB
3,6-1,2	RH	Pass	68.8 dB @ 4.45MHz	37.0 dB	> 51.2 dB	17.6 dB
5,4-7,8	RH	Pass	61.6 dB @ 5.05MHz	30.4 dB	> 50.1 dB	11.5 dB
5,4-3,6	RH	Pass	32.6 dB @ 247.50MHz	32.6 dB	> 16.3 dB	16.3 dB
5,4-1,2	RH	Pass	30.2 dB @ 226.00MHz	29.9 dB	> 17.1 dB	13.1 dB
1,2-7,8	RH	Pass	39.6 dB @ 248.00MHz	39.6 dB	> 16.3 dB	23.3 dB
1,2-3,6	RH	Pass	63.0 dB @ 5.50MHz	33.9 dB	> 49.4 dB	13.6 dB
1,2-5,4	RH	Pass	32.3 dB @ 208.00MHz	31.1 dB	> 17.8 dB	14.5 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	46.3 dB @ 210.50MHz	45.4 dB	> 33.6 dB	12.7 dB
3,6	DH	Pass	40.6 dB @ 227.50MHz	40.4 dB	> 33.0 dB	7.6 dB
5,4	DH	Pass	43.5 dB @ 209.50MHz	43.5 dB	> 33.6 dB	9.9 dB
1,2	DH	Pass	41.2 dB @ 247.00MHz	41.2 dB	> 32.4 dB	8.8 dB
7,8	RH	Pass	38.9 dB @ 246.00MHz	38.8 dB	> 32.5 dB	6.4 dB
3,6	RH	Pass	36.0 dB @ 249.50MHz	35.9 dB	> 32.4 dB	3.6 dB
5,4	RH	Pass	37.7 dB @ 250.00MHz	37.7 dB	> 32.3 dB	5.4 dB
1,2	RH	Pass	38.6 dB @ 249.00MHz	38.6 dB	> 32.4 dB	6.2 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	35.9 dB @ 244.50MHz	N/A	>= 1.8 dB	34.1 dB
3,6	DH	Pass	30.1 dB @ 247.00MHz	N/A	>= 1.5 dB	28.6 dB
5,4	DH	Pass	34.1 dB @ 233.50MHz	N/A	>= 2.9 dB	31.2 dB
1,2	DH	Pass	31.4 dB @ 247.00MHz	N/A	>= 1.5 dB	29.9 dB
7,8	RH	Pass	29.2 dB @ 249.00MHz	N/A	>= 1.4 dB	27.8 dB
3,6	RH	Pass	25.6 dB @ 250.00MHz	N/A	>= 1.2 dB	24.4 dB
5,4	RH	Pass	27.7 dB @ 250.00MHz	N/A	>= 1.2 dB	26.5 dB
1,2	RH	Pass	28.8 dB @ 249.00MHz	N/A	>= 1.4 dB	27.4 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	30.5 dB @ 185.00MHz	30.3 dB	>= 15.8 dB	14.7 dB
3,6	DH	Pass	30.7 dB @ 202.50MHz	28.9 dB	>= 15.1 dB	15.6 dB
5,4	DH	Pass	27.9 dB @ 198.00MHz	27.5 dB	>= 15.3 dB	12.6 dB
1,2	DH	Pass	31.0 dB @ 189.00MHz	29.5 dB	>= 15.7 dB	15.3 dB
7,8	RH	Pass	50.4 dB @ 19.00MHz	30.0 dB	>= 35.6 dB	14.8 dB
3,6	RH	Pass	33.0 dB @ 186.00MHz	31.3 dB	>= 15.8 dB	17.2 dB
5,4	RH	Pass	27.6 dB @ 193.00MHz	26.7 dB	>= 15.5 dB	12.1 dB
1,2	RH	Pass	50.4 dB @ 19.15MHz	30.0 dB	>= 35.5 dB	14.9 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

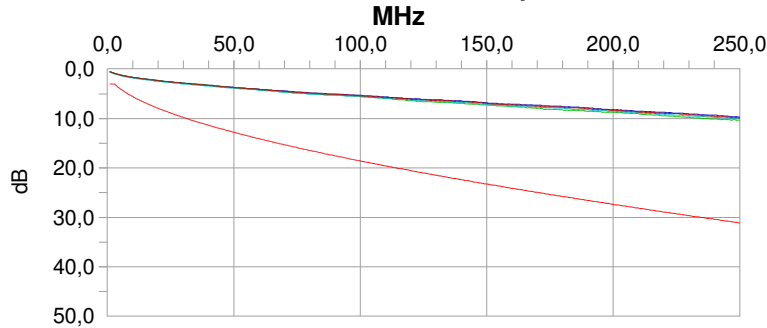
Cable ID 1: 6/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 21:03:57
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

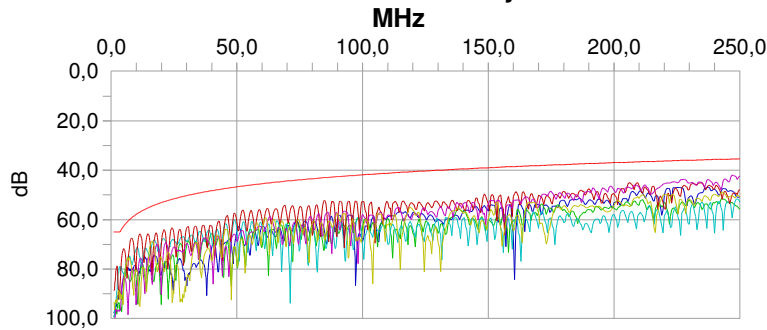
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

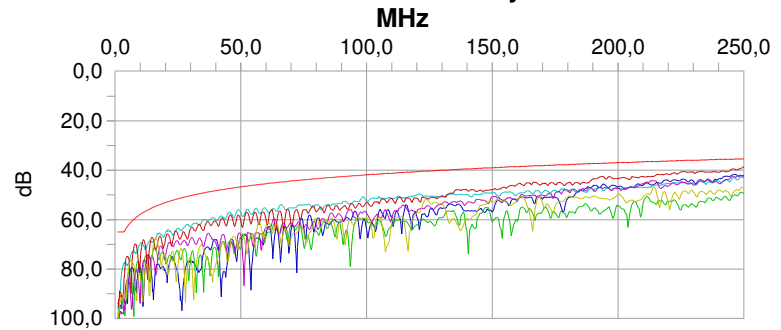
Attenuation Summary



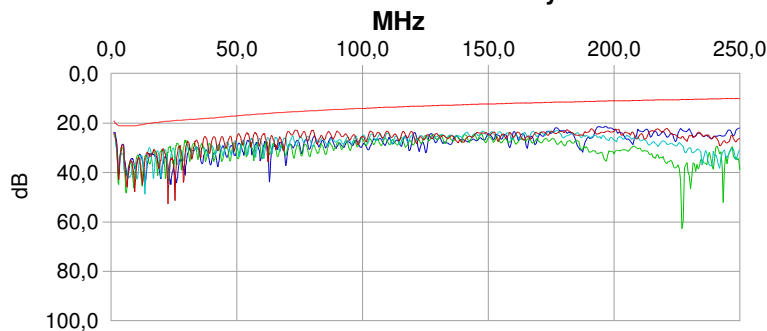
NEXT DH Summary



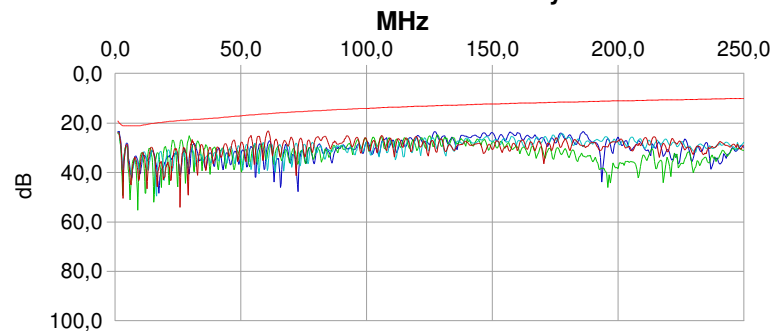
NEXT RH Summary



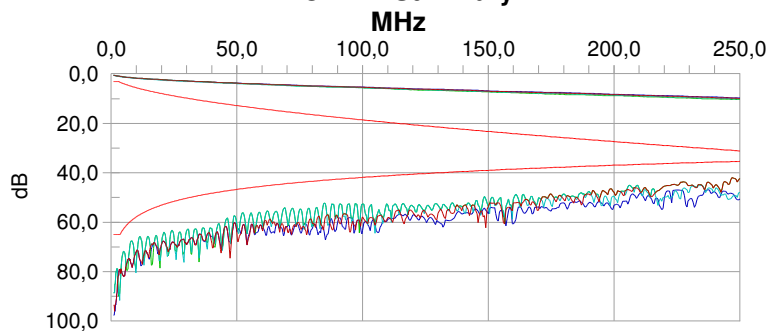
Return Loss DH Summary



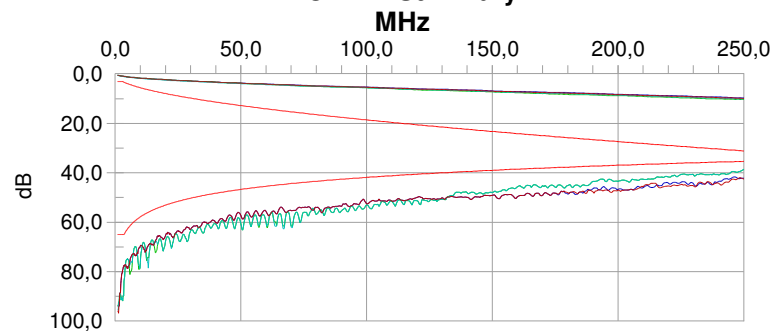
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 6/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 21:03:57
Adapter ID: 6014

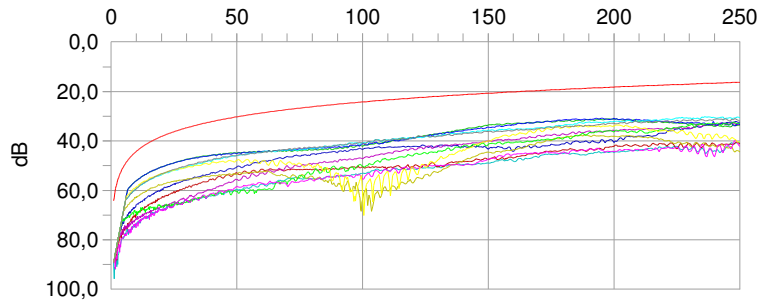
Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

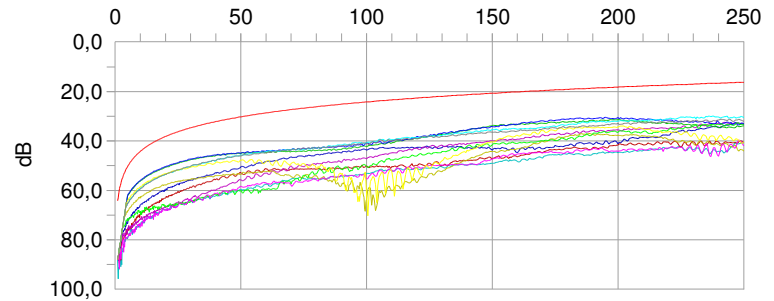
ELFEXT DH Summary

MHz



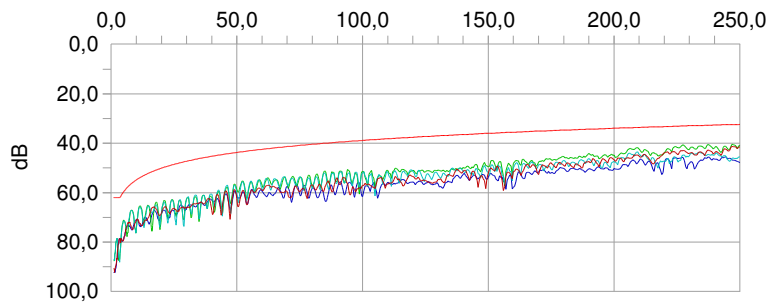
ELFEXT RH Summary

MHz



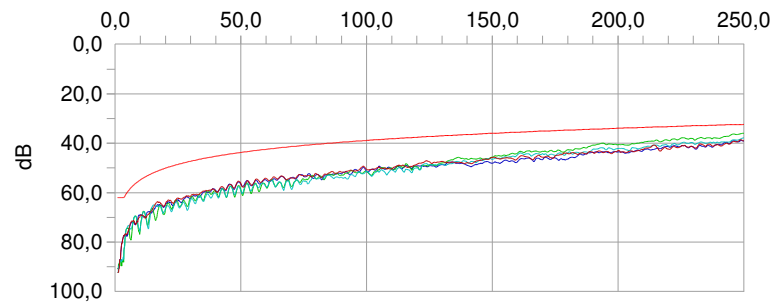
Power Sum NEXT DH Summary

MHz



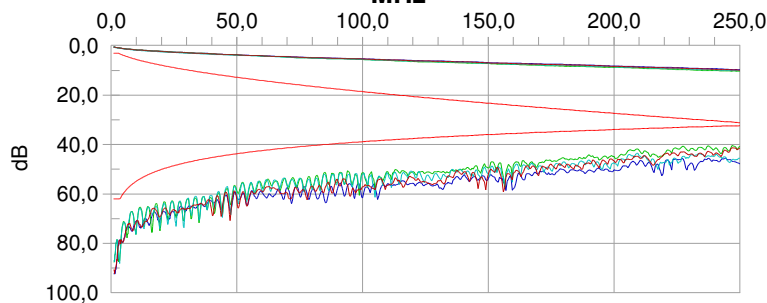
Power Sum NEXT RH Summary

MHz



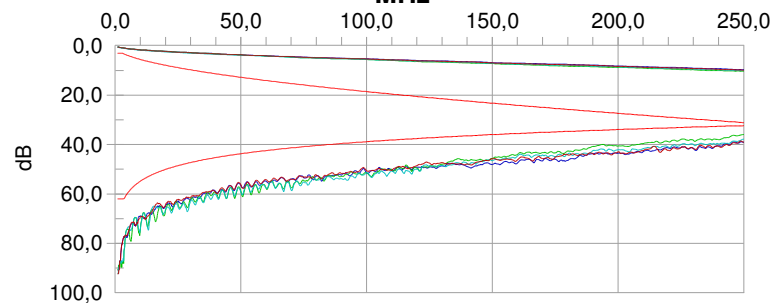
Power Sum ACR DH Summary

MHz



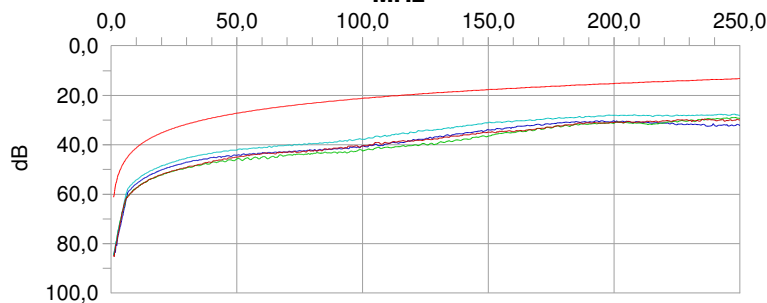
Power Sum ACR RH Summary

MHz



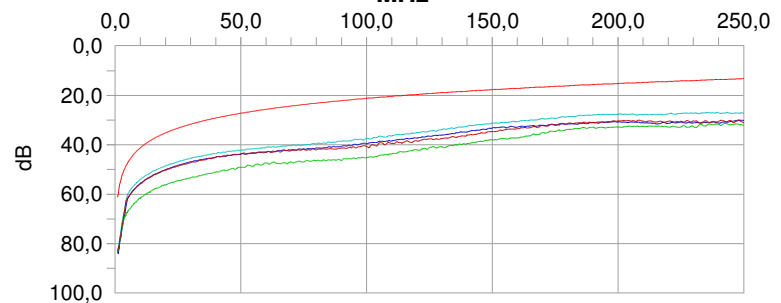
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

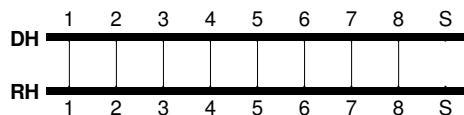
Cable ID 1: 7/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:51:12
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	23.5m	24.7m	24.3m	23.9m	< 90.0m	Pass
Prop. Delay	129.5ns	135.1ns	133.9ns	129.7ns	< 498.0ns	Pass
Delay Skew	5.6ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	31.0 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	48.5 dB @ 57.75MHz	47.1 dB	> 36.2 dB	12.3 dB
7,8-5,4	DH	Pass	52.3 dB @ 92.75MHz	52.3 dB	> 32.8 dB	19.5 dB
7,8-1,2	DH	Pass	65.6 dB @ 50.75MHz	63.4 dB	> 37.1 dB	28.5 dB
3,6-5,4	DH	Pass	48.0 dB @ 57.00MHz	47.4 dB	> 36.3 dB	11.7 dB
3,6-1,2	DH	Pass	53.3 dB @ 69.75MHz	53.3 dB	> 34.9 dB	18.4 dB
5,4-1,2	DH	Pass	52.4 dB @ 62.25MHz	52.2 dB	> 35.7 dB	16.7 dB
7,8-3,6	RH	Pass	49.4 dB @ 58.00MHz	47.7 dB	> 36.2 dB	13.2 dB
7,8-5,4	RH	Pass	61.6 dB @ 43.00MHz	56.3 dB	> 38.3 dB	23.3 dB
7,8-1,2	RH	Pass	65.0 dB @ 50.00MHz	63.2 dB	> 37.2 dB	27.8 dB
3,6-5,4	RH	Pass	70.7 dB @ 3.85MHz	54.7 dB	> 55.1 dB	15.6 dB
3,6-1,2	RH	Pass	57.8 dB @ 61.50MHz	57.8 dB	> 35.8 dB	22.0 dB
5,4-1,2	RH	Pass	53.6 dB @ 62.50MHz	53.6 dB	> 35.7 dB	17.9 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.5 dB @ 1.60MHz	23.5 dB	> 19.0 dB	4.5 dB
3,6	DH	Pass	23.7 dB @ 1.60MHz	23.7 dB	> 19.0 dB	4.7 dB
5,4	DH	Pass	22.1 dB @ 1.60MHz	22.1 dB	> 19.0 dB	3.1 dB
1,2	DH	Pass	24.2 dB @ 1.60MHz	22.3 dB	> 19.0 dB	5.2 dB
7,8	RH	Pass	23.0 dB @ 1.60MHz	23.0 dB	> 19.0 dB	4.0 dB
3,6	RH	Pass	22.8 dB @ 1.60MHz	22.8 dB	> 19.0 dB	3.8 dB
5,4	RH	Pass	22.9 dB @ 1.60MHz	22.9 dB	> 19.0 dB	3.9 dB
1,2	RH	Pass	23.9 dB @ 1.60MHz	23.1 dB	> 19.0 dB	4.9 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 2.50MHz	4.0 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.6 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.5 dB
5,4	Pass	0.6 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.5 dB
1,2	Pass	0.6 dB @ 2.50MHz	4.0 dB	< 3.1 dB	2.5 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	43.2 dB @ 98.50MHz	N/A	>= 11.6 dB	31.6 dB
3,6	DH	Pass	43.2 dB @ 98.50MHz	N/A	>= 11.6 dB	31.6 dB
5,4	DH	Pass	44.0 dB @ 69.75MHz	N/A	>= 17.7 dB	26.3 dB
1,2	DH	Pass	48.7 dB @ 74.75MHz	N/A	>= 16.5 dB	32.2 dB
7,8	RH	Pass	44.0 dB @ 84.25MHz	N/A	>= 14.4 dB	29.6 dB
3,6	RH	Pass	44.0 dB @ 84.25MHz	N/A	>= 14.4 dB	29.6 dB
5,4	RH	Pass	50.0 dB @ 75.75MHz	N/A	>= 16.3 dB	33.7 dB
1,2	RH	Pass	50.1 dB @ 75.75MHz	N/A	>= 16.3 dB	33.8 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:51:12
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	49.3 dB @ 62.75MHz	46.3 dB	> 22.7 dB	26.6 dB
7,8-5,4	DH	Pass	54.3 dB @ 13.00MHz	43.7 dB	> 36.3 dB	18.0 dB
7,8-1,2	DH	Pass	54.6 dB @ 50.75MHz	50.0 dB	> 24.5 dB	30.1 dB
3,6-7,8	DH	Pass	48.6 dB @ 93.25MHz	48.3 dB	> 19.2 dB	29.4 dB
3,6-5,4	DH	Pass	68.8 dB @ 6.85MHz	49.3 dB	> 41.9 dB	26.9 dB
3,6-1,2	DH	Pass	44.5 dB @ 97.75MHz	44.5 dB	> 18.8 dB	25.7 dB
5,4-7,8	DH	Pass	57.8 dB @ 8.80MHz	43.5 dB	> 39.7 dB	18.1 dB
5,4-3,6	DH	Pass	44.6 dB @ 67.50MHz	41.8 dB	> 22.0 dB	22.6 dB
5,4-1,2	DH	Pass	65.3 dB @ 8.05MHz	45.8 dB	> 40.5 dB	24.8 dB
1,2-7,8	DH	Pass	67.4 dB @ 11.50MHz	49.2 dB	> 37.4 dB	30.0 dB
1,2-3,6	DH	Pass	42.5 dB @ 78.75MHz	41.2 dB	> 20.7 dB	21.2 dB
1,2-5,4	DH	Pass	67.2 dB @ 5.95MHz	46.5 dB	> 43.1 dB	24.1 dB
7,8-3,6	RH	Pass	49.2 dB @ 62.75MHz	46.3 dB	> 22.7 dB	26.5 dB
7,8-5,4	RH	Pass	54.4 dB @ 13.00MHz	43.7 dB	> 36.3 dB	18.1 dB
7,8-1,2	RH	Pass	54.6 dB @ 50.75MHz	50.0 dB	> 24.5 dB	30.1 dB
3,6-7,8	RH	Pass	48.7 dB @ 93.25MHz	48.4 dB	> 19.2 dB	29.5 dB
3,6-5,4	RH	Pass	68.9 dB @ 6.85MHz	49.4 dB	> 41.9 dB	27.0 dB
3,6-1,2	RH	Pass	44.6 dB @ 97.75MHz	44.6 dB	> 18.8 dB	25.8 dB
5,4-7,8	RH	Pass	58.8 dB @ 7.90MHz	43.5 dB	> 40.7 dB	18.1 dB
5,4-3,6	RH	Pass	68.4 dB @ 4.00MHz	41.7 dB	> 46.6 dB	21.8 dB
5,4-1,2	RH	Pass	65.3 dB @ 8.05MHz	45.9 dB	> 40.5 dB	24.8 dB
1,2-7,8	RH	Pass	67.4 dB @ 11.50MHz	49.2 dB	> 37.4 dB	30.0 dB
1,2-3,6	RH	Pass	42.7 dB @ 77.00MHz	41.2 dB	> 20.9 dB	21.8 dB
1,2-5,4	RH	Pass	67.2 dB @ 5.95MHz	46.4 dB	> 43.1 dB	24.1 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	48.3 dB @ 57.75MHz	46.5 dB	> 33.2 dB	15.1 dB
3,6	DH	Pass	44.9 dB @ 57.50MHz	44.5 dB	> 33.2 dB	11.7 dB
5,4	DH	Pass	46.4 dB @ 61.25MHz	46.1 dB	> 32.8 dB	13.6 dB
1,2	DH	Pass	50.4 dB @ 61.75MHz	50.0 dB	> 32.7 dB	17.7 dB
7,8	RH	Pass	49.2 dB @ 58.00MHz	47.4 dB	> 33.2 dB	16.0 dB
3,6	RH	Pass	60.8 dB @ 8.80MHz	47.5 dB	> 46.4 dB	14.4 dB
5,4	RH	Pass	69.0 dB @ 3.85MHz	51.1 dB	> 52.1 dB	16.9 dB
1,2	RH	Pass	52.7 dB @ 62.00MHz	52.7 dB	> 32.7 dB	20.0 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	42.6 dB @ 98.25MHz	N/A	>= 8.6 dB	34.0 dB
3,6	DH	Pass	41.3 dB @ 70.00MHz	N/A	>= 14.5 dB	26.8 dB
5,4	DH	Pass	42.7 dB @ 69.75MHz	N/A	>= 14.7 dB	28.0 dB
1,2	DH	Pass	46.5 dB @ 74.75MHz	N/A	>= 13.5 dB	33.0 dB
7,8	RH	Pass	43.6 dB @ 88.50MHz	N/A	>= 10.6 dB	33.0 dB
3,6	RH	Pass	43.7 dB @ 88.50MHz	N/A	>= 10.6 dB	33.1 dB
5,4	RH	Pass	48.0 dB @ 61.75MHz	N/A	>= 16.6 dB	31.4 dB
1,2	RH	Pass	49.3 dB @ 75.00MHz	N/A	>= 13.5 dB	35.8 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	47.0 dB @ 33.25MHz	42.3 dB	>= 25.2 dB	21.8 dB
3,6	DH	Pass	39.7 dB @ 76.00MHz	37.9 dB	>= 18.0 dB	21.7 dB
5,4	DH	Pass	53.3 dB @ 13.00MHz	42.0 dB	>= 33.3 dB	20.0 dB
1,2	DH	Pass	45.2 dB @ 64.75MHz	41.9 dB	>= 19.4 dB	25.8 dB
7,8	RH	Pass	51.8 dB @ 17.20MHz	41.7 dB	>= 30.9 dB	20.9 dB
3,6	RH	Pass	42.2 dB @ 97.50MHz	42.2 dB	>= 15.8 dB	26.4 dB
5,4	RH	Pass	57.0 dB @ 7.90MHz	39.8 dB	>= 37.7 dB	19.3 dB
1,2	RH	Pass	41.2 dB @ 78.75MHz	39.6 dB	>= 17.7 dB	23.5 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

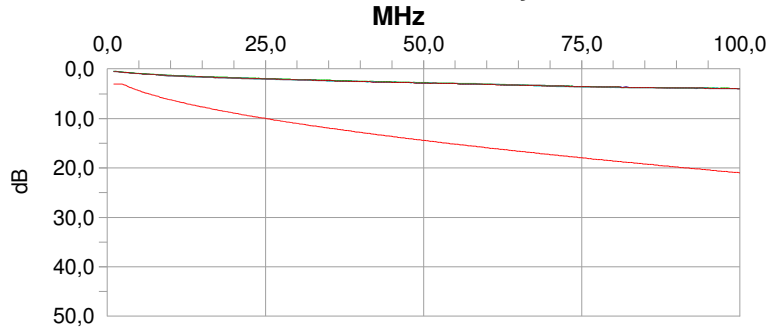
Cable ID 1: 7/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:51:12
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

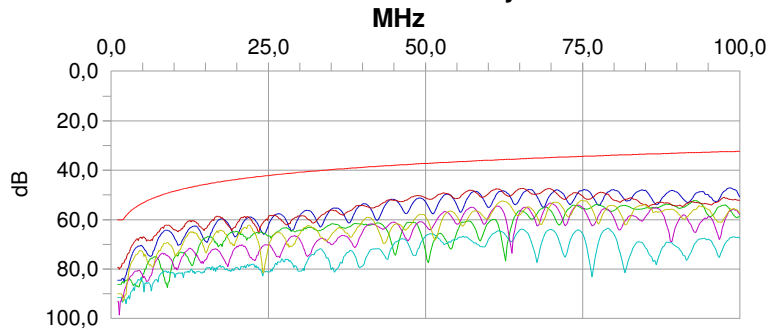
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

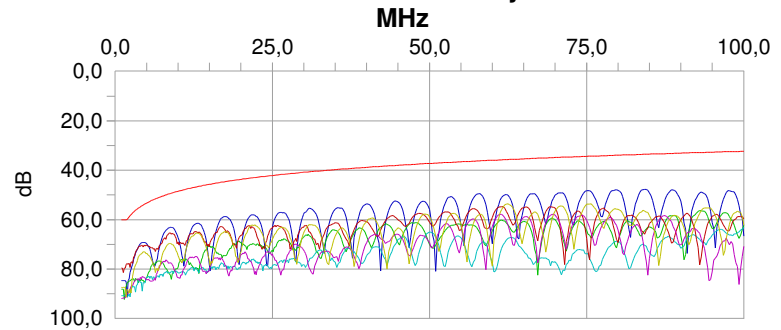
Attenuation Summary



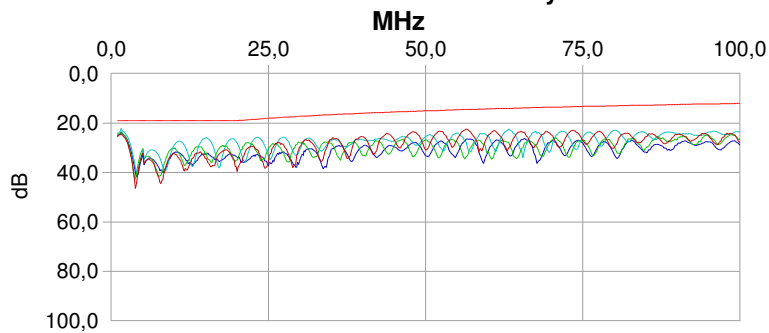
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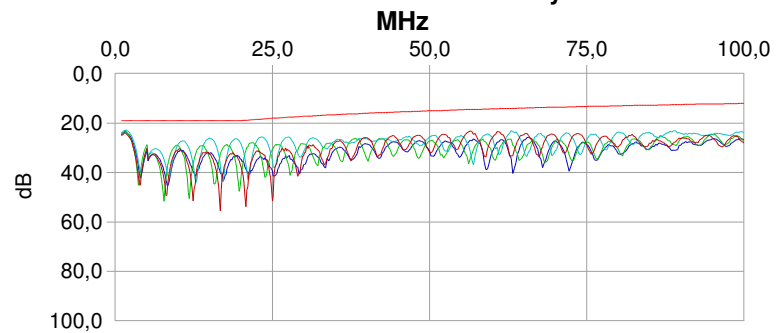
NEXT RH Summary



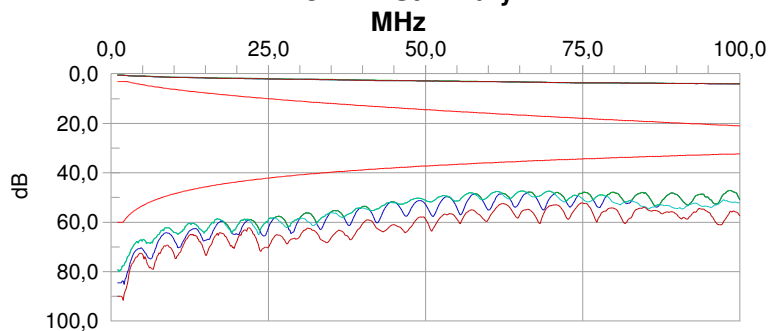
Return Loss DH Summary



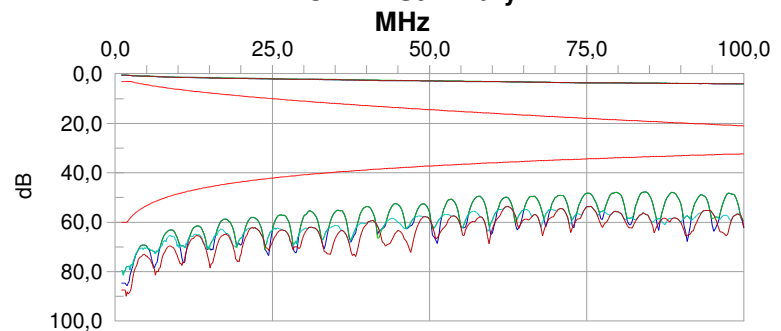
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

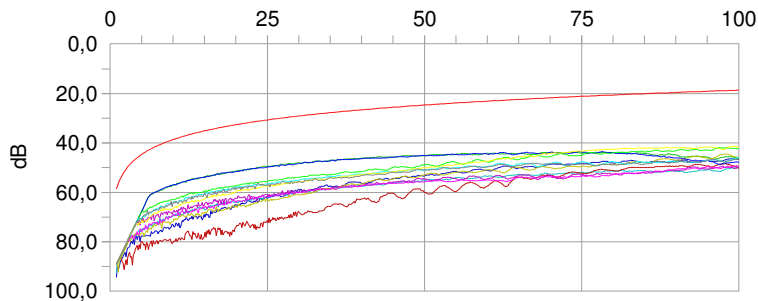
Cable ID 1: 7/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:51:12
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

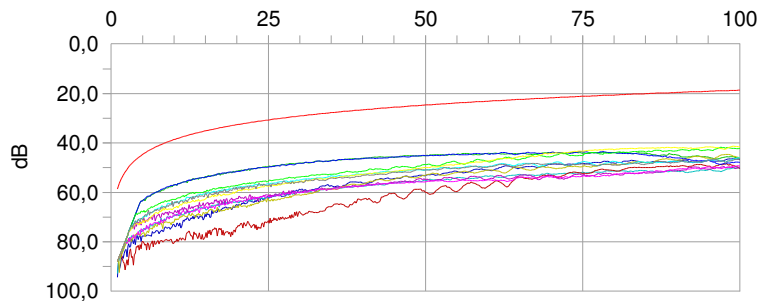
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

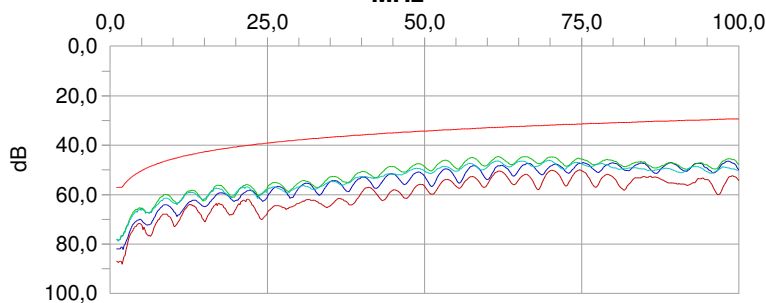
ELFEXT DH Summary
MHz



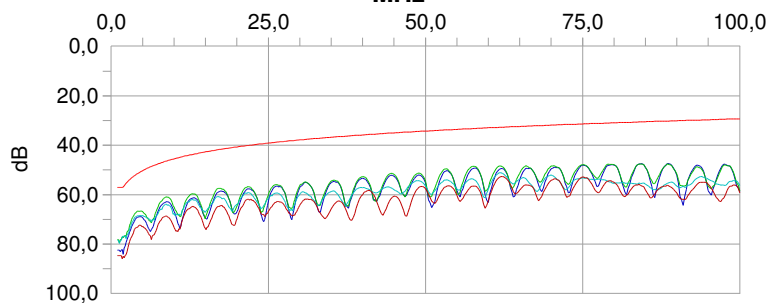
ELFEXT RH Summary
MHz



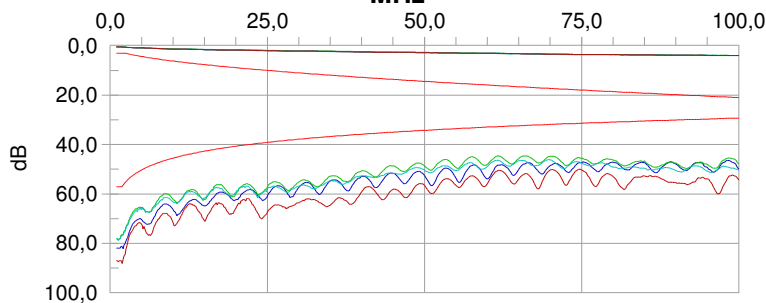
Power Sum NEXT DH Summary
MHz



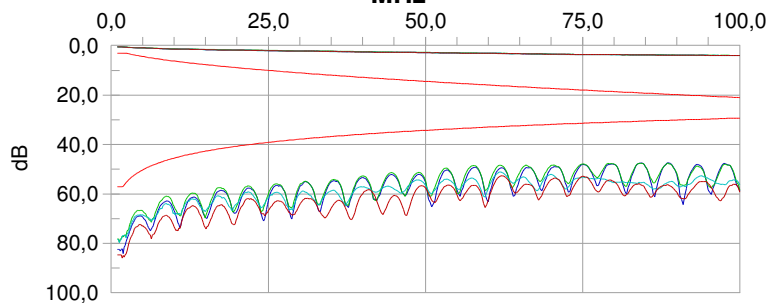
Power Sum NEXT RH Summary
MHz



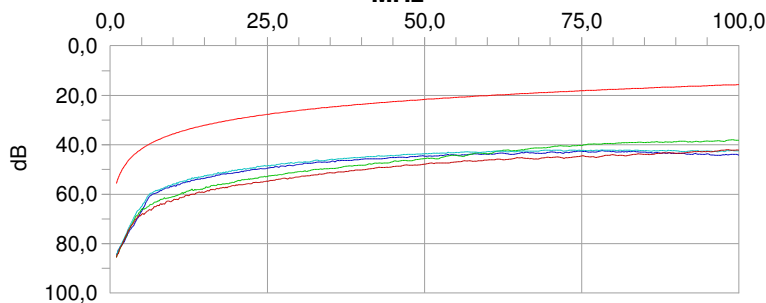
Power Sum ACR DH Summary
MHz



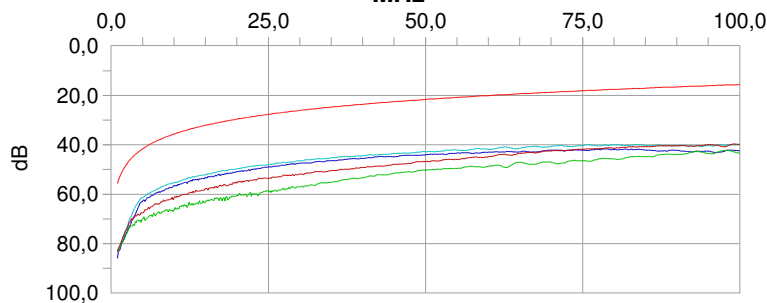
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

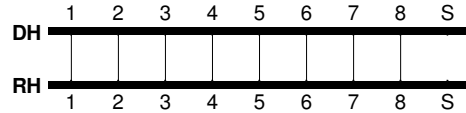
Cable ID 1: 7/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:43:17
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	40.8m	42.1m	41.6m	41.2m	< 90.0m	Pass
Prop. Delay	211.4ns	217.4ns	215.9ns	212.0ns	< 498.0ns	Pass
Delay Skew	6.0ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	13.8 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	55.3 dB @ 18.40MHz	48.0 dB	> 44.3 dB	11.0 dB
7,8-5,4	DH	Pass	63.3 dB @ 8.95MHz	50.5 dB	> 49.3 dB	14.0 dB
7,8-1,2	DH	Pass	48.9 dB @ 27.40MHz	44.8 dB	> 41.5 dB	7.4 dB
3,6-5,4	DH	Pass	61.0 dB @ 7.75MHz	48.1 dB	> 50.3 dB	10.7 dB
3,6-1,2	DH	Pass	47.9 dB @ 97.25MHz	47.9 dB	> 32.5 dB	15.4 dB
5,4-1,2	DH	Pass	56.5 dB @ 5.35MHz	42.7 dB	> 52.8 dB	3.7 dB
7,8-3,6	RH	Pass	47.9 dB @ 26.95MHz	39.5 dB	> 41.6 dB	6.3 dB
7,8-5,4	RH	Pass	50.8 dB @ 45.50MHz	48.1 dB	> 37.9 dB	12.9 dB
7,8-1,2	RH	Pass	38.3 dB @ 53.25MHz	35.6 dB	> 36.8 dB	1.5 dB
3,6-5,4	RH	Pass	63.0 dB @ 8.05MHz	47.5 dB	> 50.0 dB	13.0 dB
3,6-1,2	RH	Pass	48.1 dB @ 71.25MHz	48.1 dB	> 34.7 dB	13.4 dB
5,4-1,2	RH	Pass	46.9 dB @ 14.20MHz	34.0 dB	> 46.1 dB	0.8 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.6 dB @ 1.30MHz	21.2 dB	> 19.0 dB	4.6 dB
3,6	DH	Pass	23.8 dB @ 1.45MHz	22.3 dB	> 19.0 dB	4.8 dB
5,4	DH	Pass	22.6 dB @ 1.30MHz	20.1 dB	> 19.0 dB	3.6 dB
1,2	DH	Pass	19.5 dB @ 44.00MHz	18.6 dB	> 15.6 dB	3.9 dB
7,8	RH	Pass	20.2 dB @ 36.75MHz	17.9 dB	> 16.4 dB	3.8 dB
3,6	RH	Pass	23.0 dB @ 1.30MHz	20.3 dB	> 19.0 dB	4.0 dB
5,4	RH	Pass	18.8 dB @ 35.50MHz	16.7 dB	> 16.5 dB	2.3 dB
1,2	RH	Pass	18.2 dB @ 36.50MHz	15.9 dB	> 16.4 dB	1.8 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.0 dB @ 2.50MHz	7.3 dB	< 3.1 dB	2.1 dB
3,6	Pass	1.1 dB @ 2.50MHz	7.5 dB	< 3.1 dB	2.0 dB
5,4	Pass	1.1 dB @ 2.50MHz	7.2 dB	< 3.1 dB	2.0 dB
1,2	Pass	1.1 dB @ 2.50MHz	7.6 dB	< 3.1 dB	2.0 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	38.6 dB @ 75.00MHz	N/A	>= 16.5 dB	22.1 dB
3,6	DH	Pass	40.7 dB @ 93.50MHz	N/A	>= 12.6 dB	28.1 dB
5,4	DH	Pass	35.7 dB @ 98.25MHz	N/A	>= 11.6 dB	24.1 dB
1,2	DH	Pass	35.4 dB @ 98.25MHz	N/A	>= 11.6 dB	23.8 dB
7,8	RH	Pass	28.4 dB @ 99.00MHz	N/A	>= 11.5 dB	16.9 dB
3,6	RH	Pass	32.6 dB @ 91.00MHz	N/A	>= 13.1 dB	19.5 dB
5,4	RH	Pass	27.0 dB @ 98.25MHz	N/A	>= 11.6 dB	15.4 dB
1,2	RH	Pass	26.6 dB @ 98.50MHz	N/A	>= 11.6 dB	15.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:43:17
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	46.7 dB @ 16.90MHz	32.7 dB	> 34.1 dB	12.6 dB
7,8-5,4	DH	Pass	36.8 dB @ 92.75MHz	36.5 dB	> 19.3 dB	17.5 dB
7,8-1,2	DH	Pass	39.3 dB @ 61.75MHz	35.9 dB	> 22.8 dB	16.5 dB
3,6-7,8	DH	Pass	57.1 dB @ 8.20MHz	37.3 dB	> 40.3 dB	16.8 dB
3,6-5,4	DH	Pass	66.0 dB @ 5.65MHz	42.3 dB	> 43.6 dB	22.4 dB
3,6-1,2	DH	Pass	44.1 dB @ 97.25MHz	44.1 dB	> 18.9 dB	25.2 dB
5,4-7,8	DH	Pass	38.0 dB @ 90.50MHz	37.2 dB	> 19.5 dB	18.5 dB
5,4-3,6	DH	Pass	36.2 dB @ 93.25MHz	36.2 dB	> 19.2 dB	17.0 dB
5,4-1,2	DH	Pass	48.0 dB @ 13.90MHz	33.6 dB	> 35.8 dB	12.2 dB
1,2-7,8	DH	Pass	39.3 dB @ 61.25MHz	36.5 dB	> 22.9 dB	16.4 dB
1,2-3,6	DH	Pass	38.8 dB @ 95.75MHz	38.7 dB	> 19.0 dB	19.8 dB
1,2-5,4	DH	Pass	52.8 dB @ 8.20MHz	33.5 dB	> 40.3 dB	12.5 dB
7,8-3,6	RH	Pass	46.6 dB @ 16.90MHz	32.7 dB	> 34.1 dB	12.5 dB
7,8-5,4	RH	Pass	36.8 dB @ 92.75MHz	36.3 dB	> 19.3 dB	17.5 dB
7,8-1,2	RH	Pass	39.4 dB @ 61.75MHz	36.2 dB	> 22.8 dB	16.6 dB
3,6-7,8	RH	Pass	57.2 dB @ 8.20MHz	37.3 dB	> 40.3 dB	16.9 dB
3,6-5,4	RH	Pass	65.1 dB @ 6.25MHz	42.2 dB	> 42.7 dB	22.4 dB
3,6-1,2	RH	Pass	44.1 dB @ 97.25MHz	44.1 dB	> 18.9 dB	25.2 dB
5,4-7,8	RH	Pass	38.2 dB @ 90.50MHz	37.4 dB	> 19.5 dB	18.7 dB
5,4-3,6	RH	Pass	36.4 dB @ 93.25MHz	36.4 dB	> 19.2 dB	17.2 dB
5,4-1,2	RH	Pass	48.0 dB @ 13.90MHz	33.7 dB	> 35.8 dB	12.2 dB
1,2-7,8	RH	Pass	39.2 dB @ 61.25MHz	36.3 dB	> 22.9 dB	16.3 dB
1,2-3,6	RH	Pass	38.7 dB @ 97.25MHz	38.7 dB	> 18.9 dB	19.8 dB
1,2-5,4	RH	Pass	43.1 dB @ 25.00MHz	33.3 dB	> 30.7 dB	12.4 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	54.3 dB @ 9.70MHz	43.6 dB	> 45.7 dB	8.6 dB
3,6	DH	Pass	59.9 dB @ 7.75MHz	45.4 dB	> 47.3 dB	12.6 dB
5,4	DH	Pass	56.2 dB @ 5.35MHz	42.1 dB	> 49.8 dB	6.4 dB
1,2	DH	Pass	55.4 dB @ 5.35MHz	41.2 dB	> 49.8 dB	5.6 dB
7,8	RH	Pass	37.3 dB @ 53.25MHz	34.2 dB	> 33.8 dB	3.5 dB
3,6	RH	Pass	47.0 dB @ 26.95MHz	39.1 dB	> 38.6 dB	8.4 dB
5,4	RH	Pass	46.8 dB @ 14.20MHz	33.8 dB	> 43.1 dB	3.7 dB
1,2	RH	Pass	35.5 dB @ 52.50MHz	31.7 dB	> 33.9 dB	1.6 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	37.4 dB @ 75.50MHz	N/A	>= 13.3 dB	24.1 dB
3,6	DH	Pass	38.9 dB @ 93.75MHz	N/A	>= 9.6 dB	29.3 dB
5,4	DH	Pass	35.1 dB @ 98.25MHz	N/A	>= 8.6 dB	26.5 dB
1,2	DH	Pass	33.9 dB @ 98.25MHz	N/A	>= 8.6 dB	25.3 dB
7,8	RH	Pass	27.1 dB @ 100.00MHz	N/A	>= 8.3 dB	18.8 dB
3,6	RH	Pass	32.2 dB @ 91.00MHz	N/A	>= 10.1 dB	22.1 dB
5,4	RH	Pass	26.8 dB @ 98.25MHz	N/A	>= 8.6 dB	18.2 dB
1,2	RH	Pass	24.3 dB @ 98.75MHz	N/A	>= 8.6 dB	15.7 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	36.1 dB @ 61.25MHz	32.2 dB	>= 19.9 dB	16.2 dB
3,6	DH	Pass	45.5 dB @ 16.90MHz	30.8 dB	>= 31.1 dB	14.4 dB
5,4	DH	Pass	42.7 dB @ 24.55MHz	31.7 dB	>= 27.8 dB	14.9 dB
1,2	DH	Pass	46.1 dB @ 14.80MHz	31.6 dB	>= 32.2 dB	13.9 dB
7,8	RH	Pass	32.1 dB @ 72.75MHz	30.0 dB	>= 18.4 dB	13.7 dB
3,6	RH	Pass	51.5 dB @ 14.20MHz	35.7 dB	>= 32.6 dB	18.9 dB
5,4	RH	Pass	46.3 dB @ 14.80MHz	31.0 dB	>= 32.2 dB	14.1 dB
1,2	RH	Pass	41.6 dB @ 25.00MHz	31.0 dB	>= 27.7 dB	13.9 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

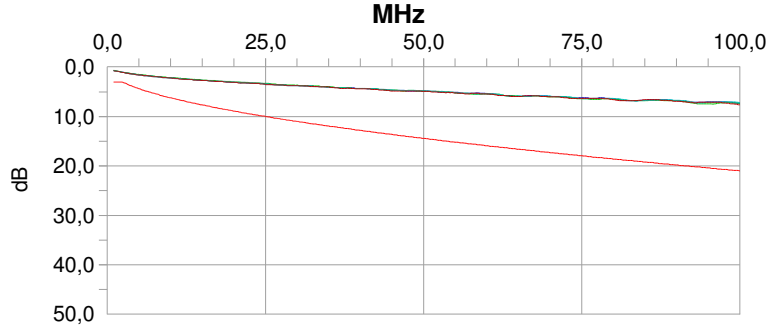
Cable ID 1: 7/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:43:17
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

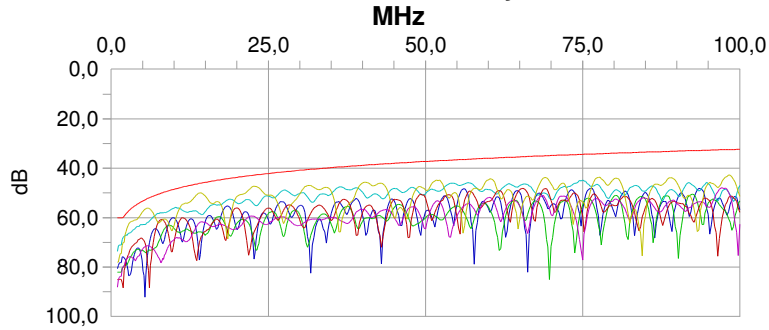
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

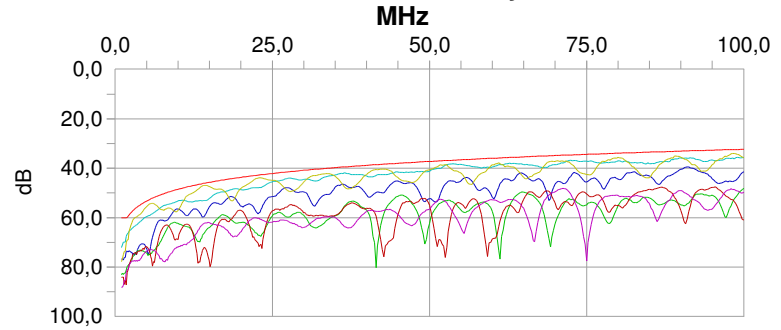
Attenuation Summary



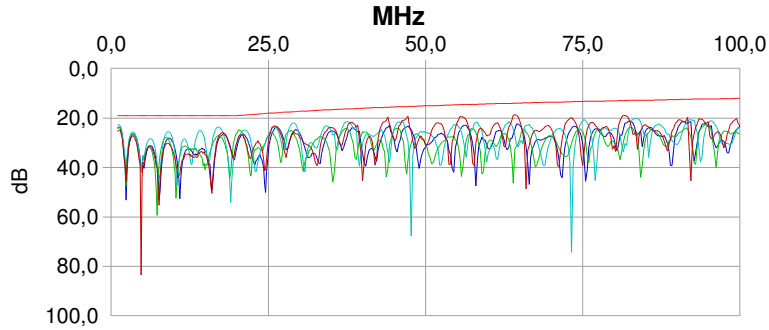
NEXT DH Summary



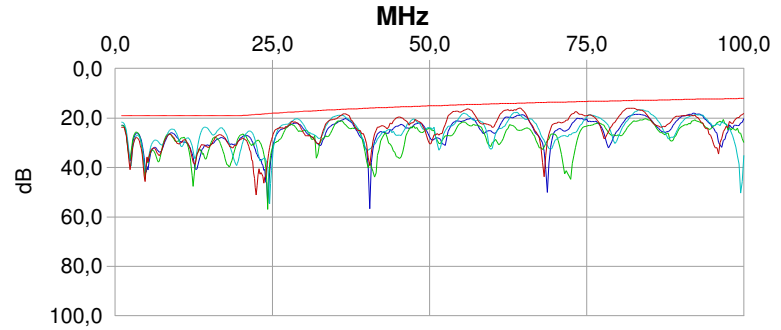
NEXT RH Summary



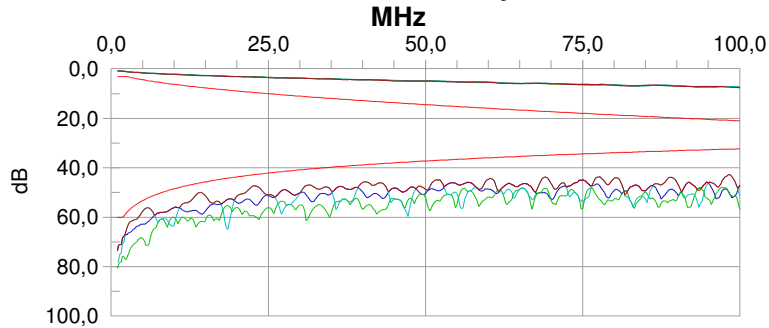
Return Loss DH Summary



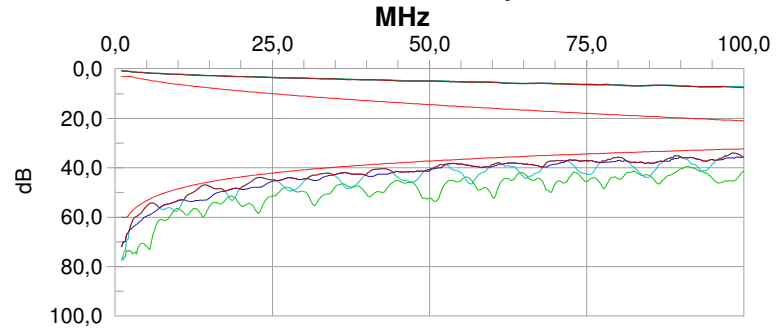
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

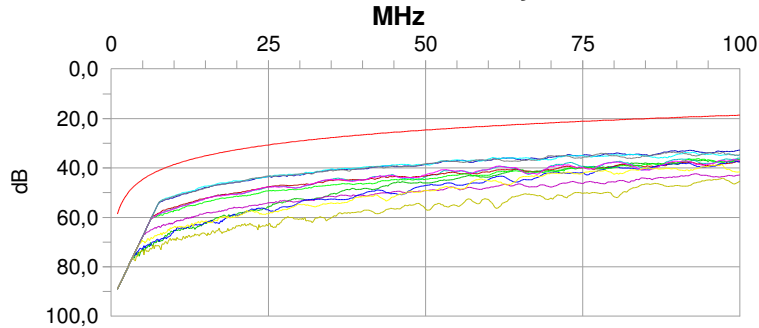
Cable ID 1: 7/10
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:43:17
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

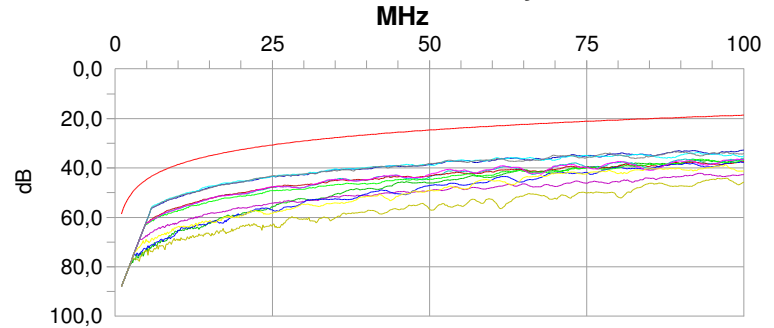
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

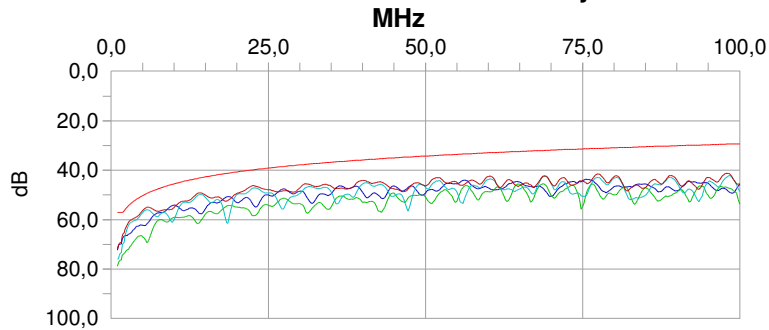
ELFEXT DH Summary



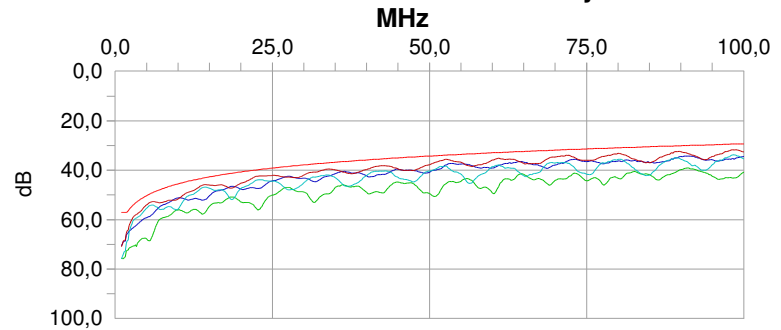
ELFEXT RH Summary



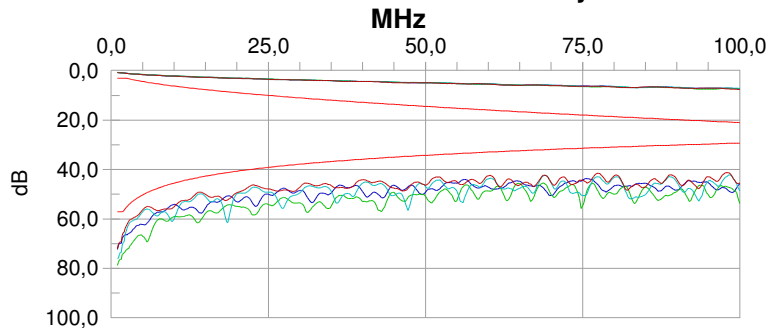
Power Sum NEXT DH Summary



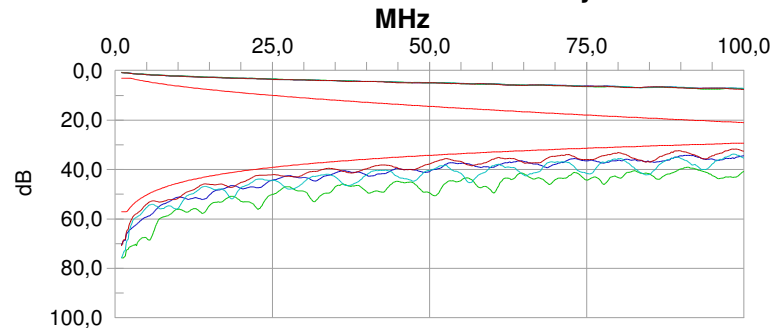
Power Sum NEXT RH Summary



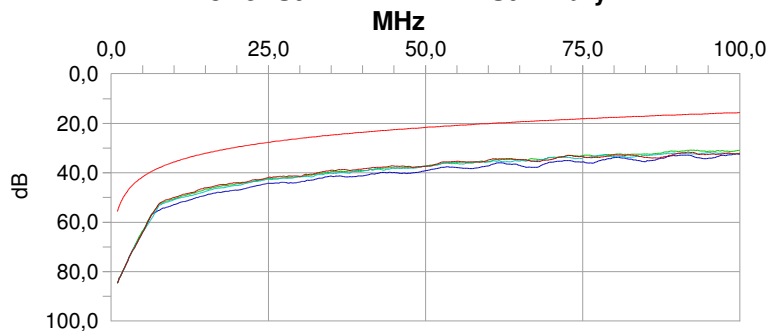
Power Sum ACR DH Summary



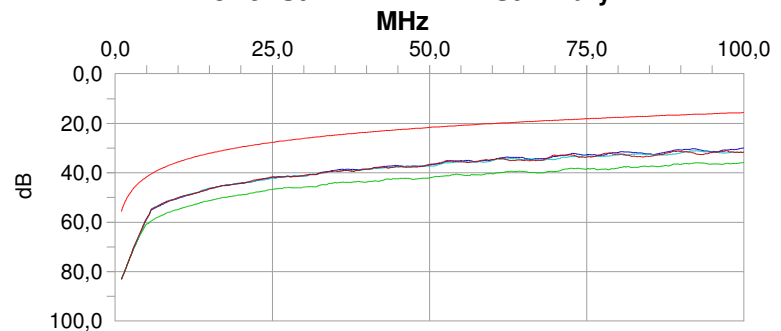
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

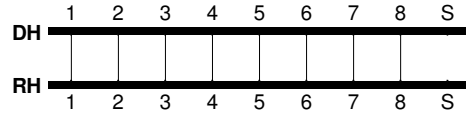
Cable ID 1: 7/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:41:07
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	37.7m	39.4m	39.1m	38.2m	< 90.0m	Pass
Prop. Delay	196.6ns	204.7ns	203.7ns	197.6ns	< 498.0ns	Pass
Delay Skew	8.1ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	21.6 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	51.0 dB @ 28.60MHz	47.3 dB	> 41.2 dB	9.8 dB
7,8-5,4	DH	Pass	59.2 dB @ 16.75MHz	50.2 dB	> 44.9 dB	14.3 dB
7,8-1,2	DH	Pass	62.0 dB @ 12.85MHz	53.0 dB	> 46.8 dB	15.2 dB
3,6-5,4	DH	Pass	49.2 dB @ 59.50MHz	49.1 dB	> 36.0 dB	13.2 dB
3,6-1,2	DH	Pass	52.7 dB @ 59.00MHz	51.4 dB	> 36.1 dB	16.6 dB
5,4-1,2	DH	Pass	65.1 dB @ 9.70MHz	53.6 dB	> 48.7 dB	16.4 dB
7,8-3,6	RH	Pass	46.4 dB @ 28.45MHz	39.2 dB	> 41.2 dB	5.2 dB
7,8-5,4	RH	Pass	49.1 dB @ 60.75MHz	49.1 dB	> 35.9 dB	13.2 dB
7,8-1,2	RH	Pass	47.3 dB @ 60.00MHz	46.4 dB	> 35.9 dB	11.4 dB
3,6-5,4	RH	Pass	50.6 dB @ 62.50MHz	48.3 dB	> 35.7 dB	14.9 dB
3,6-1,2	RH	Pass	49.4 dB @ 71.50MHz	49.4 dB	> 34.7 dB	14.7 dB
5,4-1,2	RH	Pass	63.7 dB @ 9.70MHz	49.1 dB	> 48.7 dB	15.0 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	21.3 dB @ 1.15MHz	21.3 dB	> 19.0 dB	2.3 dB
3,6	DH	Pass	22.6 dB @ 1.15MHz	22.6 dB	> 19.0 dB	3.6 dB
5,4	DH	Pass	21.9 dB @ 1.00MHz	21.0 dB	> 19.0 dB	2.9 dB
1,2	DH	Pass	21.9 dB @ 1.15MHz	18.7 dB	> 19.0 dB	2.9 dB
7,8	RH	Pass	21.6 dB @ 1.00MHz	17.5 dB	> 19.0 dB	2.6 dB
3,6	RH	Pass	21.9 dB @ 19.15MHz	18.2 dB	> 19.0 dB	2.9 dB
5,4	RH	Pass	20.8 dB @ 17.65MHz	16.7 dB	> 19.0 dB	1.8 dB
1,2	RH	Pass	22.0 dB @ 20.05MHz	17.4 dB	> 19.0 dB	3.0 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.0 dB @ 2.50MHz	6.6 dB	< 3.1 dB	2.1 dB
3,6	Pass	1.0 dB @ 2.50MHz	7.0 dB	< 3.1 dB	2.1 dB
5,4	Pass	1.0 dB @ 2.50MHz	7.0 dB	< 3.1 dB	2.1 dB
1,2	Pass	1.0 dB @ 2.50MHz	6.8 dB	< 3.1 dB	2.1 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	40.8 dB @ 92.50MHz	N/A	>= 12.8 dB	28.0 dB
3,6	DH	Pass	40.6 dB @ 92.50MHz	N/A	>= 12.8 dB	27.8 dB
5,4	DH	Pass	43.3 dB @ 71.00MHz	N/A	>= 17.3 dB	26.0 dB
1,2	DH	Pass	45.8 dB @ 71.25MHz	N/A	>= 17.3 dB	28.5 dB
7,8	RH	Pass	32.7 dB @ 92.25MHz	N/A	>= 12.8 dB	19.9 dB
3,6	RH	Pass	32.5 dB @ 92.25MHz	N/A	>= 12.8 dB	19.7 dB
5,4	RH	Pass	41.3 dB @ 100.00MHz	N/A	>= 11.3 dB	30.0 dB
1,2	RH	Pass	40.2 dB @ 81.25MHz	N/A	>= 15.1 dB	25.1 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:41:07
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	44.3 dB @ 45.00MHz	38.5 dB	> 25.5 dB	18.8 dB
7,8-5,4	DH	Pass	37.8 dB @ 99.25MHz	37.8 dB	> 18.7 dB	19.1 dB
7,8-1,2	DH	Pass	54.3 dB @ 70.25MHz	54.1 dB	> 21.7 dB	32.6 dB
3,6-7,8	DH	Pass	41.9 dB @ 90.25MHz	41.6 dB	> 19.5 dB	22.4 dB
3,6-5,4	DH	Pass	65.5 dB @ 8.20MHz	46.5 dB	> 40.3 dB	25.2 dB
3,6-1,2	DH	Pass	41.0 dB @ 96.00MHz	41.0 dB	> 19.0 dB	22.0 dB
5,4-7,8	DH	Pass	39.4 dB @ 97.00MHz	39.4 dB	> 18.9 dB	20.5 dB
5,4-3,6	DH	Pass	64.4 dB @ 5.80MHz	41.6 dB	> 43.3 dB	21.1 dB
5,4-1,2	DH	Pass	59.8 dB @ 7.60MHz	47.3 dB	> 41.0 dB	18.8 dB
1,2-7,8	DH	Pass	49.0 dB @ 100.00MHz	49.0 dB	> 18.6 dB	30.4 dB
1,2-3,6	DH	Pass	38.7 dB @ 72.00MHz	37.3 dB	> 21.5 dB	17.2 dB
1,2-5,4	DH	Pass	62.0 dB @ 6.25MHz	46.4 dB	> 42.7 dB	19.3 dB
7,8-3,6	RH	Pass	44.4 dB @ 45.00MHz	38.9 dB	> 25.5 dB	18.9 dB
7,8-5,4	RH	Pass	38.3 dB @ 96.75MHz	38.1 dB	> 18.9 dB	19.4 dB
7,8-1,2	RH	Pass	57.9 dB @ 46.75MHz	53.9 dB	> 25.2 dB	32.7 dB
3,6-7,8	RH	Pass	41.6 dB @ 89.00MHz	41.3 dB	> 19.6 dB	22.0 dB
3,6-5,4	RH	Pass	65.6 dB @ 8.20MHz	46.5 dB	> 40.3 dB	25.3 dB
3,6-1,2	RH	Pass	40.9 dB @ 96.00MHz	40.9 dB	> 19.0 dB	21.9 dB
5,4-7,8	RH	Pass	39.1 dB @ 97.00MHz	39.1 dB	> 18.9 dB	20.2 dB
5,4-3,6	RH	Pass	65.5 dB @ 4.90MHz	41.6 dB	> 44.8 dB	20.7 dB
5,4-1,2	RH	Pass	63.6 dB @ 4.75MHz	47.3 dB	> 45.1 dB	18.5 dB
1,2-7,8	RH	Pass	48.8 dB @ 100.00MHz	48.8 dB	> 18.6 dB	30.2 dB
1,2-3,6	RH	Pass	39.2 dB @ 69.25MHz	37.5 dB	> 21.8 dB	17.4 dB
1,2-5,4	RH	Pass	64.1 dB @ 4.75MHz	46.4 dB	> 45.1 dB	19.0 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	50.1 dB @ 28.75MHz	45.9 dB	> 38.1 dB	12.0 dB
3,6	DH	Pass	51.3 dB @ 25.45MHz	45.1 dB	> 39.0 dB	12.3 dB
5,4	DH	Pass	47.8 dB @ 59.75MHz	47.1 dB	> 33.0 dB	14.8 dB
1,2	DH	Pass	60.4 dB @ 12.85MHz	48.6 dB	> 43.8 dB	16.6 dB
7,8	RH	Pass	39.3 dB @ 72.00MHz	38.7 dB	> 31.6 dB	7.7 dB
3,6	RH	Pass	46.2 dB @ 28.45MHz	39.1 dB	> 38.2 dB	8.0 dB
5,4	RH	Pass	46.6 dB @ 62.50MHz	45.4 dB	> 32.7 dB	13.9 dB
1,2	RH	Pass	44.7 dB @ 71.25MHz	44.6 dB	> 31.7 dB	13.0 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	40.1 dB @ 92.50MHz	N/A	>= 9.8 dB	30.3 dB
3,6	DH	Pass	39.0 dB @ 75.00MHz	N/A	>= 13.5 dB	25.5 dB
5,4	DH	Pass	41.5 dB @ 67.75MHz	N/A	>= 15.1 dB	26.4 dB
1,2	DH	Pass	43.0 dB @ 71.25MHz	N/A	>= 14.3 dB	28.7 dB
7,8	RH	Pass	32.3 dB @ 92.25MHz	N/A	>= 9.8 dB	22.5 dB
3,6	RH	Pass	32.4 dB @ 92.25MHz	N/A	>= 9.8 dB	22.6 dB
5,4	RH	Pass	38.4 dB @ 100.00MHz	N/A	>= 8.3 dB	30.1 dB
1,2	RH	Pass	38.7 dB @ 73.00MHz	N/A	>= 13.8 dB	24.9 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	37.2 dB @ 98.25MHz	37.1 dB	>= 15.8 dB	21.4 dB
3,6	DH	Pass	36.2 dB @ 72.75MHz	34.0 dB	>= 18.4 dB	17.8 dB
5,4	DH	Pass	57.9 dB @ 7.45MHz	37.1 dB	>= 38.2 dB	19.7 dB
1,2	DH	Pass	50.2 dB @ 23.80MHz	41.1 dB	>= 28.1 dB	22.1 dB
7,8	RH	Pass	35.6 dB @ 99.50MHz	35.6 dB	>= 15.7 dB	19.9 dB
3,6	RH	Pass	38.3 dB @ 90.75MHz	37.7 dB	>= 16.5 dB	21.8 dB
5,4	RH	Pass	60.2 dB @ 4.75MHz	37.2 dB	>= 42.1 dB	18.1 dB
1,2	RH	Pass	38.5 dB @ 69.25MHz	37.0 dB	>= 18.8 dB	19.7 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

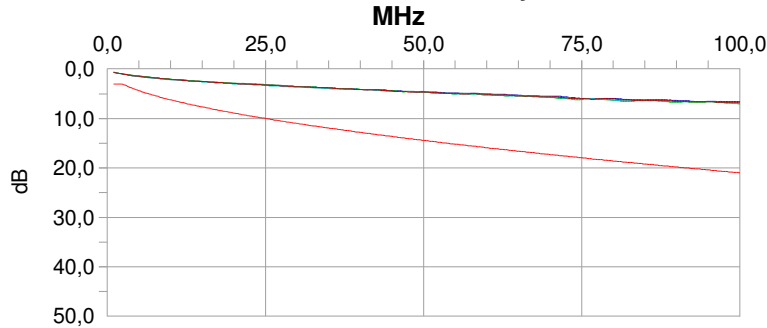
Cable ID 1: 7/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:41:07
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

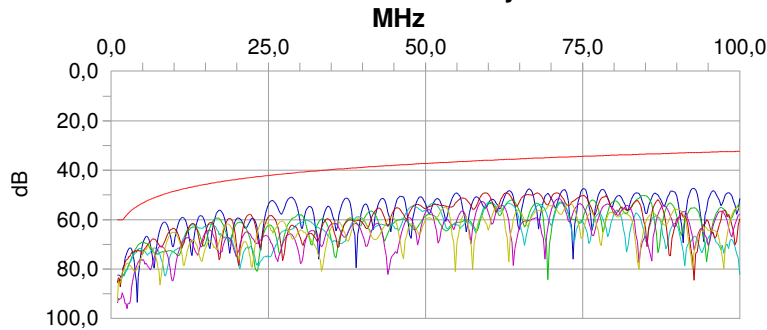
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

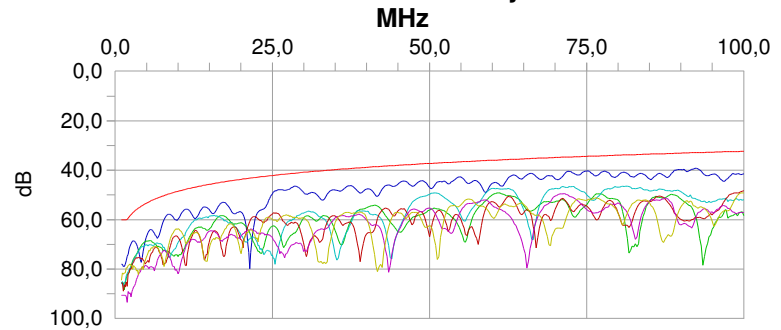
Attenuation Summary



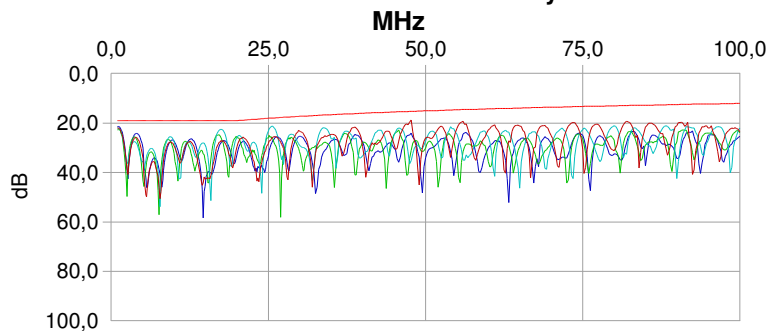
NEXT DH Summary



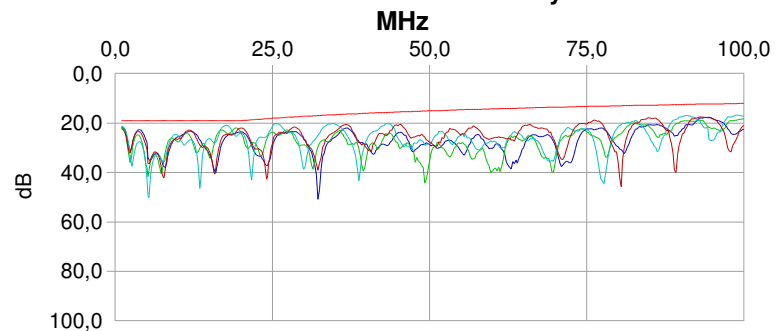
NEXT RH Summary



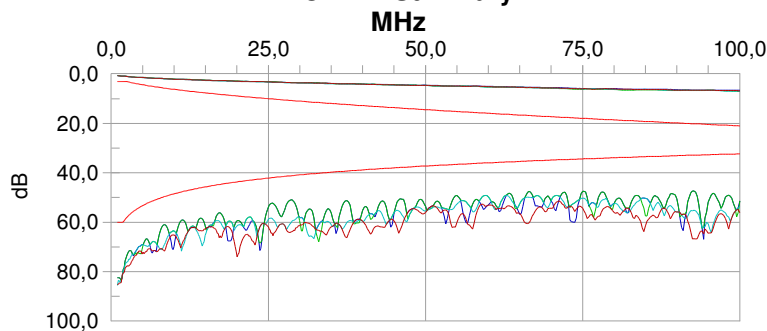
Return Loss DH Summary



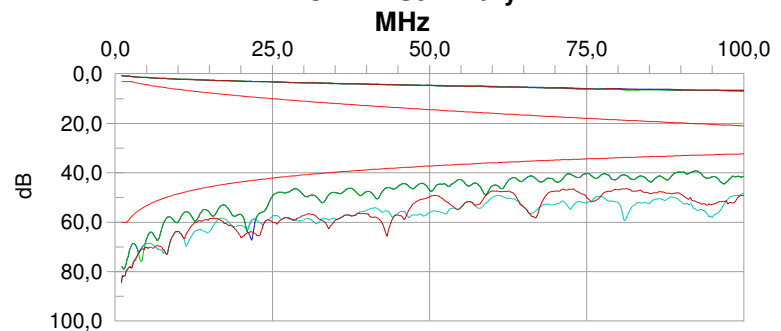
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/11
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:41:07
Adapter ID: 6014

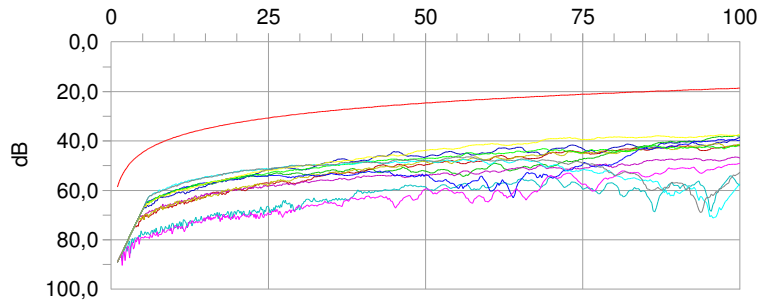
Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

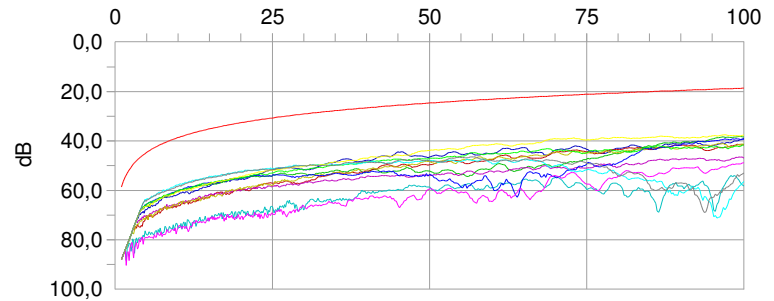
ELFEXT DH Summary

MHz



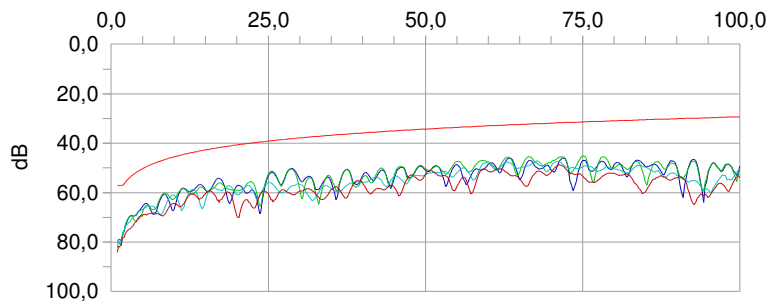
ELFEXT RH Summary

MHz



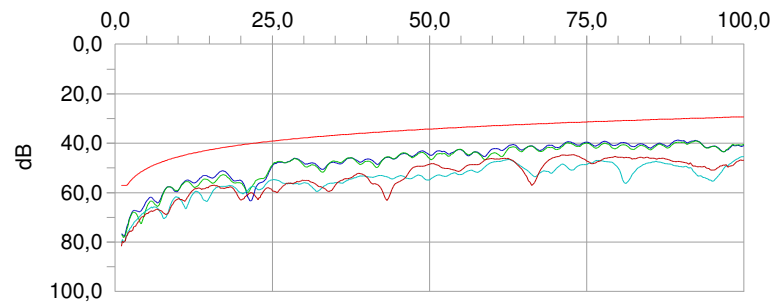
Power Sum NEXT DH Summary

MHz



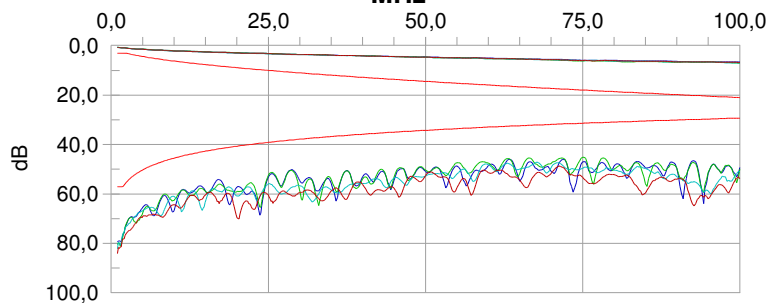
Power Sum NEXT RH Summary

MHz



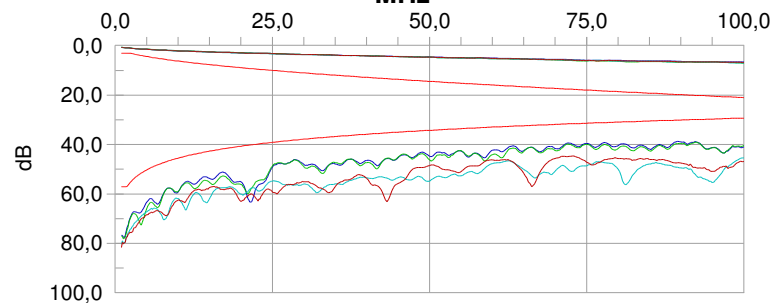
Power Sum ACR DH Summary

MHz



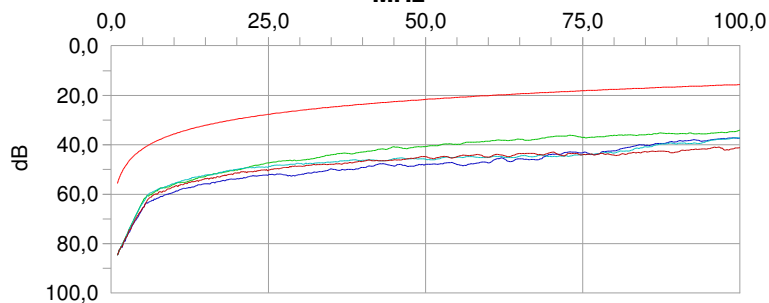
Power Sum ACR RH Summary

MHz



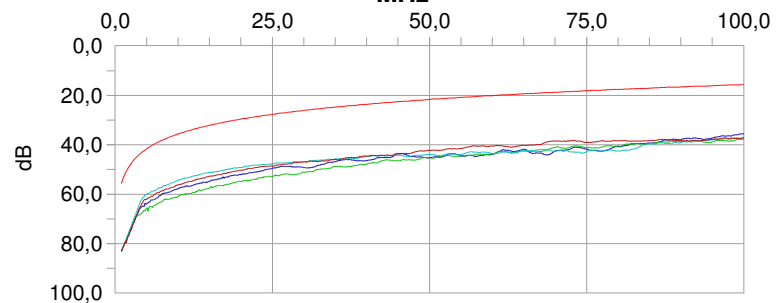
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

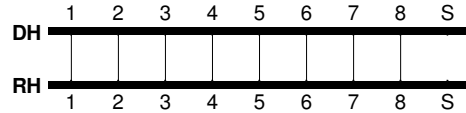
Cable ID 1: 7/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:41:50
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	37.9m	39.0m	38.6m	38.3m	< 90.0m	Pass
Prop. Delay	197.6ns	203.1ns	201.6ns	198.1ns	< 498.0ns	Pass
Delay Skew	5.5ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	18.8 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	53.1 dB @ 16.60MHz	43.5 dB	> 45.0 dB	8.1 dB
7,8-5,4	DH	Pass	58.1 dB @ 27.40MHz	53.9 dB	> 41.5 dB	16.6 dB
7,8-1,2	DH	Pass	58.2 dB @ 47.75MHz	56.0 dB	> 37.6 dB	20.6 dB
3,6-5,4	DH	Pass	55.7 dB @ 12.55MHz	47.7 dB	> 46.9 dB	8.8 dB
3,6-1,2	DH	Pass	53.5 dB @ 68.75MHz	51.8 dB	> 35.0 dB	18.5 dB
5,4-1,2	DH	Pass	53.6 dB @ 12.85MHz	46.4 dB	> 46.8 dB	6.8 dB
7,8-3,6	RH	Pass	46.5 dB @ 29.20MHz	41.2 dB	> 41.0 dB	5.5 dB
7,8-5,4	RH	Pass	54.9 dB @ 27.40MHz	48.1 dB	> 41.5 dB	13.4 dB
7,8-1,2	RH	Pass	50.6 dB @ 69.00MHz	50.6 dB	> 34.9 dB	15.7 dB
3,6-5,4	RH	Pass	46.2 dB @ 41.25MHz	42.1 dB	> 38.6 dB	7.6 dB
3,6-1,2	RH	Pass	50.3 dB @ 69.00MHz	49.6 dB	> 34.9 dB	15.4 dB
5,4-1,2	RH	Pass	50.6 dB @ 12.85MHz	36.4 dB	> 46.8 dB	3.8 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.6 dB @ 1.00MHz	20.3 dB	> 19.0 dB	3.6 dB
3,6	DH	Pass	23.1 dB @ 1.30MHz	22.7 dB	> 19.0 dB	4.1 dB
5,4	DH	Pass	22.0 dB @ 1.00MHz	20.8 dB	> 19.0 dB	3.0 dB
1,2	DH	Pass	24.0 dB @ 1.30MHz	18.5 dB	> 19.0 dB	5.0 dB
7,8	RH	Pass	21.9 dB @ 1.00MHz	18.3 dB	> 19.0 dB	2.9 dB
3,6	RH	Pass	21.8 dB @ 19.30MHz	17.9 dB	> 19.0 dB	2.8 dB
5,4	RH	Pass	20.2 dB @ 17.65MHz	16.6 dB	> 19.0 dB	1.2 dB
1,2	RH	Pass	15.4 dB @ 93.00MHz	15.4 dB	> 12.3 dB	3.1 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.0 dB @ 2.50MHz	6.6 dB	< 3.1 dB	2.1 dB
3,6	Pass	1.0 dB @ 2.50MHz	6.6 dB	< 3.1 dB	2.1 dB
5,4	Pass	1.0 dB @ 2.50MHz	6.5 dB	< 3.1 dB	2.1 dB
1,2	Pass	1.0 dB @ 2.50MHz	6.8 dB	< 3.1 dB	2.1 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	37.3 dB @ 92.25MHz	N/A	>= 12.8 dB	24.5 dB
3,6	DH	Pass	37.2 dB @ 84.00MHz	N/A	>= 14.4 dB	22.8 dB
5,4	DH	Pass	40.3 dB @ 88.00MHz	N/A	>= 13.6 dB	26.7 dB
1,2	DH	Pass	40.1 dB @ 88.00MHz	N/A	>= 13.6 dB	26.5 dB
7,8	RH	Pass	35.1 dB @ 83.50MHz	N/A	>= 14.6 dB	20.5 dB
3,6	RH	Pass	34.8 dB @ 84.50MHz	N/A	>= 14.4 dB	20.4 dB
5,4	RH	Pass	30.0 dB @ 97.50MHz	N/A	>= 11.8 dB	18.2 dB
1,2	RH	Pass	29.9 dB @ 97.50MHz	N/A	>= 11.8 dB	18.1 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:41:50
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	57.5 dB @ 7.60MHz	36.9 dB	> 41.0 dB	16.5 dB
7,8-5,4	DH	Pass	57.6 dB @ 8.20MHz	42.4 dB	> 40.3 dB	17.3 dB
7,8-1,2	DH	Pass	64.5 dB @ 5.65MHz	42.6 dB	> 43.6 dB	20.9 dB
3,6-7,8	DH	Pass	44.4 dB @ 53.25MHz	40.1 dB	> 24.1 dB	20.3 dB
3,6-5,4	DH	Pass	52.5 dB @ 50.25MHz	49.9 dB	> 24.6 dB	27.9 dB
3,6-1,2	DH	Pass	45.0 dB @ 93.25MHz	45.0 dB	> 19.2 dB	25.8 dB
5,4-7,8	DH	Pass	57.2 dB @ 8.50MHz	41.5 dB	> 40.0 dB	17.2 dB
5,4-3,6	DH	Pass	64.6 dB @ 6.85MHz	42.3 dB	> 41.9 dB	22.7 dB
5,4-1,2	DH	Pass	42.9 dB @ 99.25MHz	42.9 dB	> 18.7 dB	24.2 dB
1,2-7,8	DH	Pass	39.6 dB @ 97.00MHz	39.6 dB	> 18.9 dB	20.7 dB
1,2-3,6	DH	Pass	41.9 dB @ 69.75MHz	40.3 dB	> 21.7 dB	20.2 dB
1,2-5,4	DH	Pass	38.9 dB @ 99.00MHz	38.9 dB	> 18.7 dB	20.2 dB
7,8-3,6	RH	Pass	57.4 dB @ 7.60MHz	36.9 dB	> 41.0 dB	16.4 dB
7,8-5,4	RH	Pass	61.0 dB @ 5.50MHz	42.3 dB	> 43.8 dB	17.2 dB
7,8-1,2	RH	Pass	64.6 dB @ 5.65MHz	42.6 dB	> 43.6 dB	21.0 dB
3,6-7,8	RH	Pass	44.5 dB @ 53.25MHz	40.1 dB	> 24.1 dB	20.4 dB
3,6-5,4	RH	Pass	52.5 dB @ 50.25MHz	49.7 dB	> 24.6 dB	27.9 dB
3,6-1,2	RH	Pass	44.9 dB @ 93.50MHz	44.9 dB	> 19.2 dB	25.7 dB
5,4-7,8	RH	Pass	61.2 dB @ 5.20MHz	41.5 dB	> 44.3 dB	16.9 dB
5,4-3,6	RH	Pass	68.1 dB @ 4.45MHz	42.4 dB	> 45.6 dB	22.5 dB
5,4-1,2	RH	Pass	46.0 dB @ 71.25MHz	43.1 dB	> 21.6 dB	24.4 dB
1,2-7,8	RH	Pass	39.5 dB @ 97.00MHz	39.5 dB	> 18.9 dB	20.6 dB
1,2-3,6	RH	Pass	41.9 dB @ 69.75MHz	40.3 dB	> 21.7 dB	20.2 dB
1,2-5,4	RH	Pass	38.8 dB @ 99.00MHz	38.8 dB	> 18.7 dB	20.1 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	52.8 dB @ 16.60MHz	43.3 dB	> 42.0 dB	10.8 dB
3,6	DH	Pass	53.3 dB @ 12.40MHz	42.8 dB	> 44.0 dB	9.3 dB
5,4	DH	Pass	51.4 dB @ 12.85MHz	44.5 dB	> 43.8 dB	7.6 dB
1,2	DH	Pass	53.3 dB @ 12.85MHz	45.9 dB	> 43.8 dB	9.5 dB
7,8	RH	Pass	46.1 dB @ 29.20MHz	40.6 dB	> 38.0 dB	8.1 dB
3,6	RH	Pass	45.0 dB @ 29.20MHz	39.5 dB	> 38.0 dB	7.0 dB
5,4	RH	Pass	49.3 dB @ 12.85MHz	35.3 dB	> 43.8 dB	5.5 dB
1,2	RH	Pass	36.7 dB @ 88.75MHz	36.1 dB	> 30.2 dB	6.5 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	36.9 dB @ 92.25MHz	N/A	>= 9.8 dB	27.1 dB
3,6	DH	Pass	36.2 dB @ 96.75MHz	N/A	>= 8.9 dB	27.3 dB
5,4	DH	Pass	38.7 dB @ 87.75MHz	N/A	>= 10.7 dB	28.0 dB
1,2	DH	Pass	39.4 dB @ 97.50MHz	N/A	>= 8.8 dB	30.6 dB
7,8	RH	Pass	34.5 dB @ 83.50MHz	N/A	>= 11.6 dB	22.9 dB
3,6	RH	Pass	32.9 dB @ 97.00MHz	N/A	>= 8.9 dB	24.0 dB
5,4	RH	Pass	28.9 dB @ 97.50MHz	N/A	>= 8.8 dB	20.1 dB
1,2	RH	Pass	29.6 dB @ 97.50MHz	N/A	>= 8.8 dB	20.8 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	56.6 dB @ 6.85MHz	36.3 dB	>= 38.9 dB	17.7 dB
3,6	DH	Pass	56.5 dB @ 7.30MHz	34.9 dB	>= 38.3 dB	18.2 dB
5,4	DH	Pass	52.0 dB @ 14.80MHz	37.9 dB	>= 32.2 dB	19.8 dB
1,2	DH	Pass	41.1 dB @ 71.25MHz	38.8 dB	>= 18.6 dB	22.5 dB
7,8	RH	Pass	54.1 dB @ 7.60MHz	35.5 dB	>= 38.0 dB	16.1 dB
3,6	RH	Pass	43.5 dB @ 53.25MHz	38.9 dB	>= 21.1 dB	22.4 dB
5,4	RH	Pass	54.5 dB @ 10.30MHz	38.6 dB	>= 35.4 dB	19.1 dB
1,2	RH	Pass	35.0 dB @ 98.50MHz	35.0 dB	>= 15.7 dB	19.3 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

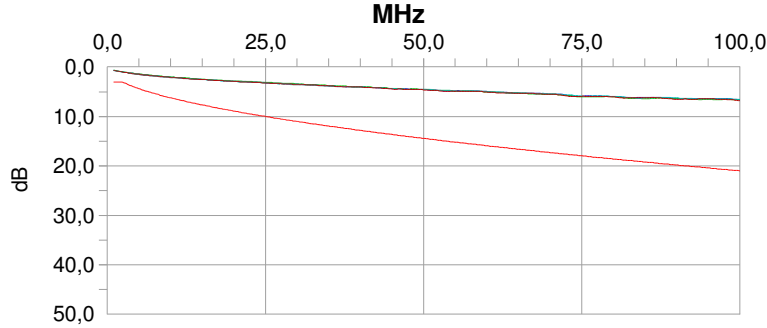
Cable ID 1: 7/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:41:50
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

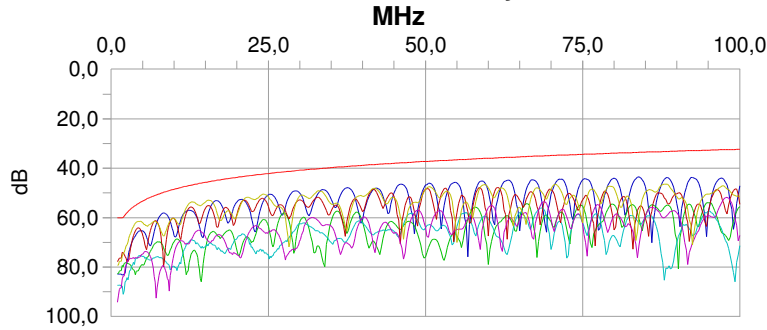
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

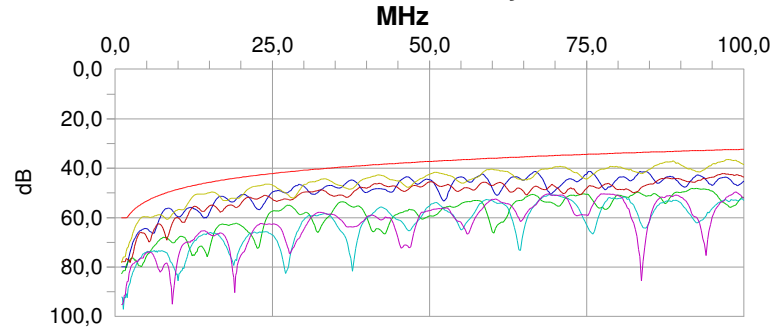
Attenuation Summary



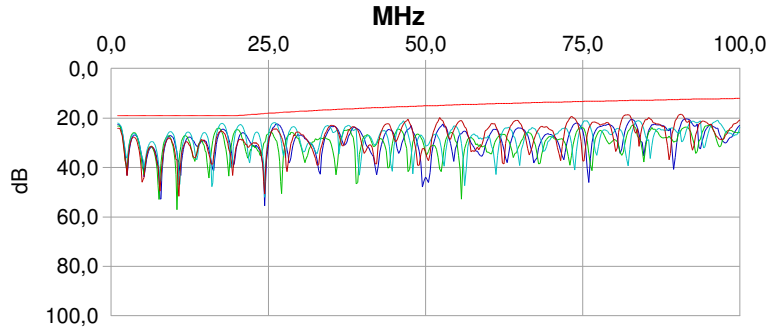
NEXT DH Summary



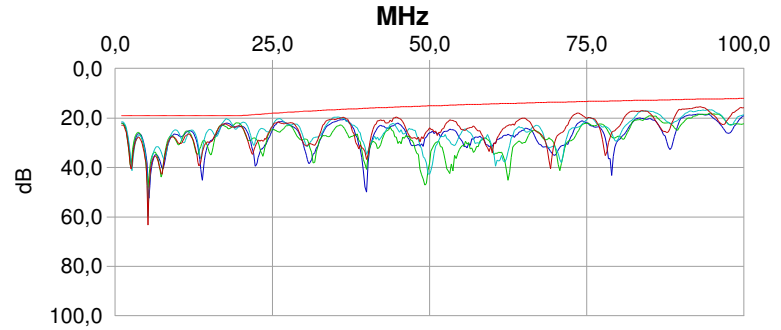
NEXT RH Summary



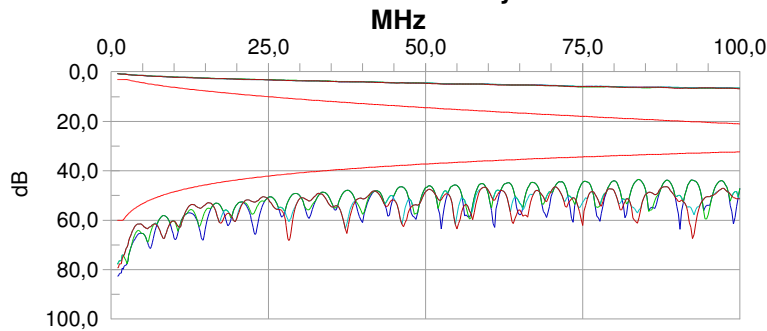
Return Loss DH Summary



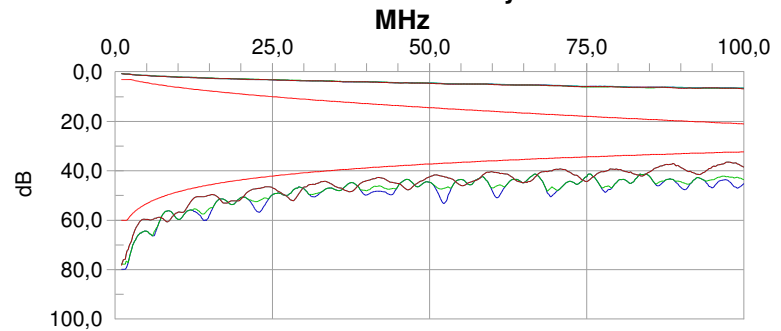
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

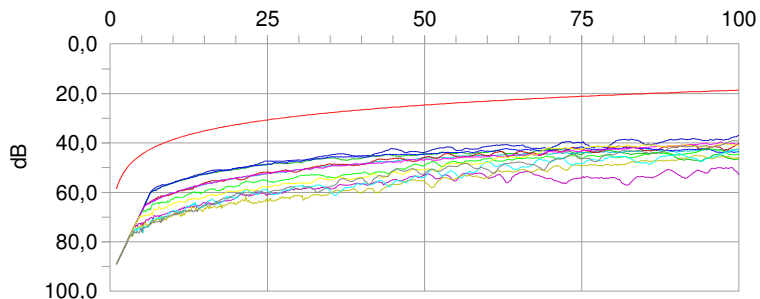
Cable ID 1: 7/12
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:41:50
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

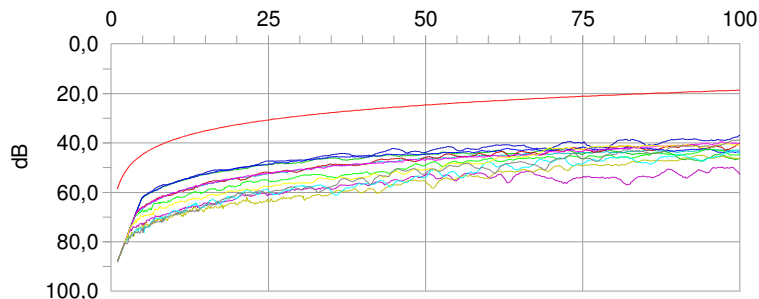
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

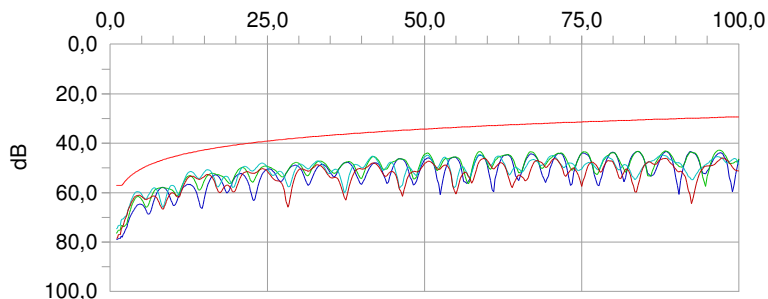
ELFEXT DH Summary
MHz



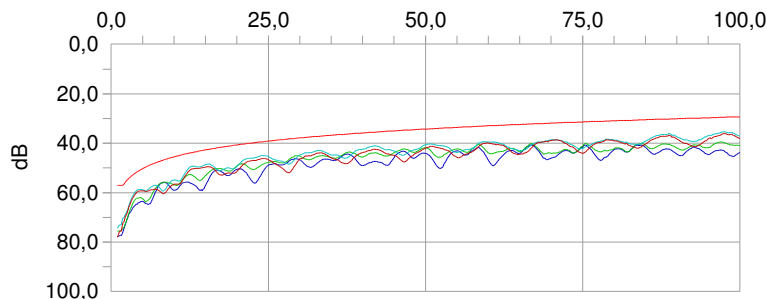
ELFEXT RH Summary
MHz



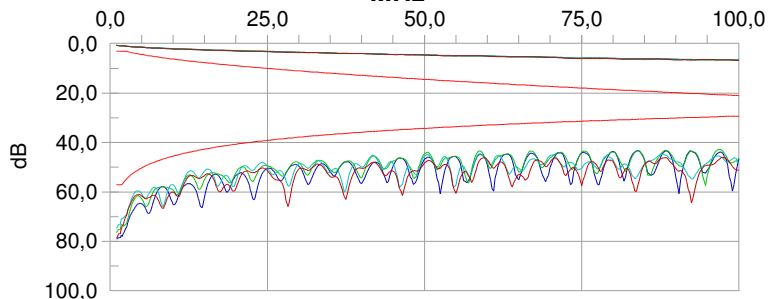
Power Sum NEXT DH Summary
MHz



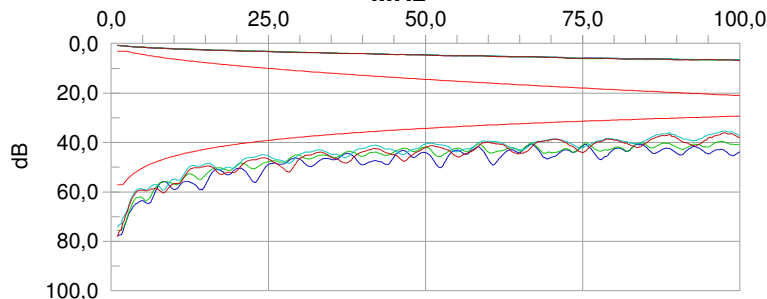
Power Sum NEXT RH Summary
MHz



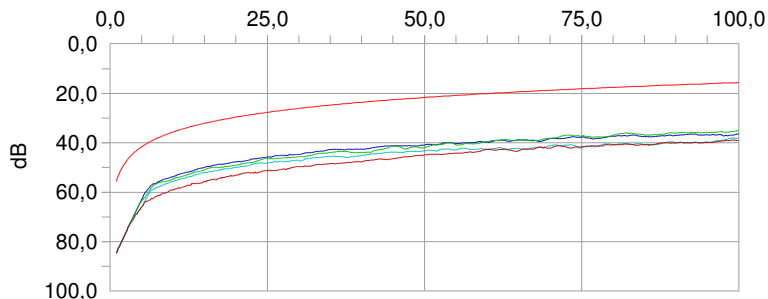
Power Sum ACR DH Summary
MHz



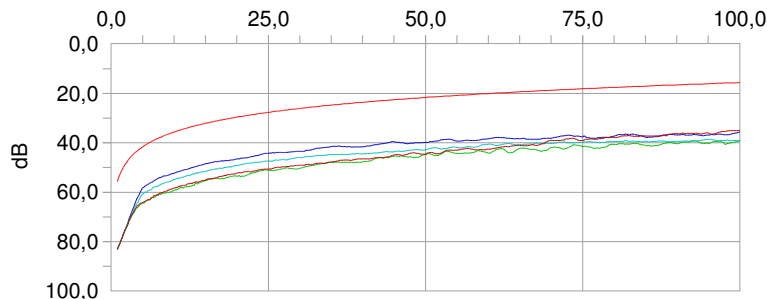
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

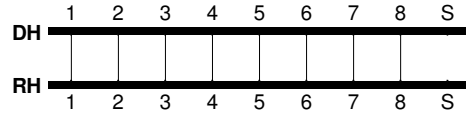
Cable ID 1: 7/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:36:12
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	25.3m	26.6m	26.2m	25.7m	< 90.0m	Pass
Prop. Delay	138.0ns	144.2ns	142.6ns	138.2ns	< 498.0ns	Pass
Delay Skew	6.2ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	32.8 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	52.3 dB @ 65.50MHz	52.1 dB	> 35.3 dB	17.0 dB
7,8-5,4	DH	Pass	62.4 dB @ 21.85MHz	53.5 dB	> 43.1 dB	19.3 dB
7,8-1,2	DH	Pass	60.9 dB @ 68.00MHz	60.9 dB	> 35.1 dB	25.8 dB
3,6-5,4	DH	Pass	48.7 dB @ 57.00MHz	48.0 dB	> 36.3 dB	12.4 dB
3,6-1,2	DH	Pass	57.5 dB @ 49.75MHz	55.8 dB	> 37.3 dB	20.2 dB
5,4-1,2	DH	Pass	51.6 dB @ 73.75MHz	51.6 dB	> 34.5 dB	17.1 dB
7,8-3,6	RH	Pass	51.9 dB @ 81.50MHz	51.8 dB	> 33.8 dB	18.1 dB
7,8-5,4	RH	Pass	61.4 dB @ 29.05MHz	56.7 dB	> 41.1 dB	20.3 dB
7,8-1,2	RH	Pass	80.5 dB @ 2.20MHz	62.1 dB	> 58.9 dB	21.6 dB
3,6-5,4	RH	Pass	72.4 dB @ 3.55MHz	54.1 dB	> 55.6 dB	16.8 dB
3,6-1,2	RH	Pass	60.2 dB @ 57.00MHz	59.5 dB	> 36.3 dB	23.9 dB
5,4-1,2	RH	Pass	78.1 dB @ 2.05MHz	54.8 dB	> 59.4 dB	18.7 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.2 dB @ 1.60MHz	23.2 dB	> 19.0 dB	4.2 dB
3,6	DH	Pass	23.5 dB @ 1.45MHz	23.5 dB	> 19.0 dB	4.5 dB
5,4	DH	Pass	22.0 dB @ 1.60MHz	22.0 dB	> 19.0 dB	3.0 dB
1,2	DH	Pass	23.9 dB @ 1.60MHz	22.5 dB	> 19.0 dB	4.9 dB
7,8	RH	Pass	22.7 dB @ 1.60MHz	22.7 dB	> 19.0 dB	3.7 dB
3,6	RH	Pass	22.6 dB @ 1.60MHz	22.6 dB	> 19.0 dB	3.6 dB
5,4	RH	Pass	22.6 dB @ 1.60MHz	22.6 dB	> 19.0 dB	3.6 dB
1,2	RH	Pass	23.6 dB @ 1.60MHz	23.6 dB	> 19.0 dB	4.6 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.50MHz	4.3 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.50MHz	4.2 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.7 dB @ 2.50MHz	4.2 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.50MHz	4.2 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	48.4 dB @ 73.75MHz	N/A	>= 16.7 dB	31.7 dB
3,6	DH	Pass	44.4 dB @ 69.00MHz	N/A	>= 17.8 dB	26.6 dB
5,4	DH	Pass	44.4 dB @ 69.00MHz	N/A	>= 17.8 dB	26.6 dB
1,2	DH	Pass	47.8 dB @ 73.75MHz	N/A	>= 16.7 dB	31.1 dB
7,8	RH	Pass	47.9 dB @ 81.75MHz	N/A	>= 14.9 dB	33.0 dB
3,6	RH	Pass	47.9 dB @ 81.75MHz	N/A	>= 14.9 dB	33.0 dB
5,4	RH	Pass	50.6 dB @ 65.00MHz	N/A	>= 18.8 dB	31.8 dB
1,2	RH	Pass	51.0 dB @ 74.25MHz	N/A	>= 16.6 dB	34.4 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:36:12
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	54.9 dB @ 40.75MHz	51.0 dB	> 26.4 dB	28.5 dB
7,8-5,4	DH	Pass	59.0 dB @ 7.45MHz	44.6 dB	> 41.2 dB	17.8 dB
7,8-1,2	DH	Pass	60.8 dB @ 12.25MHz	43.3 dB	> 36.9 dB	23.9 dB
3,6-7,8	DH	Pass	52.8 dB @ 86.50MHz	52.4 dB	> 19.9 dB	32.9 dB
3,6-5,4	DH	Pass	66.7 dB @ 7.45MHz	45.4 dB	> 41.2 dB	25.5 dB
3,6-1,2	DH	Pass	44.2 dB @ 95.00MHz	44.0 dB	> 19.1 dB	25.1 dB
5,4-7,8	DH	Pass	57.8 dB @ 8.50MHz	44.3 dB	> 40.0 dB	17.8 dB
5,4-3,6	DH	Pass	64.2 dB @ 5.80MHz	39.9 dB	> 43.3 dB	20.9 dB
5,4-1,2	DH	Pass	61.0 dB @ 6.55MHz	43.2 dB	> 42.3 dB	18.7 dB
1,2-7,8	DH	Pass	63.1 dB @ 9.10MHz	43.9 dB	> 39.4 dB	23.7 dB
1,2-3,6	DH	Pass	40.8 dB @ 88.75MHz	40.5 dB	> 19.7 dB	21.1 dB
1,2-5,4	DH	Pass	57.7 dB @ 9.85MHz	43.1 dB	> 38.7 dB	19.0 dB
7,8-3,6	RH	Pass	54.8 dB @ 40.75MHz	50.9 dB	> 26.4 dB	28.4 dB
7,8-5,4	RH	Pass	59.0 dB @ 7.45MHz	44.6 dB	> 41.2 dB	17.8 dB
7,8-1,2	RH	Pass	69.0 dB @ 4.75MHz	43.3 dB	> 45.1 dB	23.9 dB
3,6-7,8	RH	Pass	52.6 dB @ 86.75MHz	52.4 dB	> 19.8 dB	32.8 dB
3,6-5,4	RH	Pass	66.8 dB @ 7.45MHz	45.4 dB	> 41.2 dB	25.6 dB
3,6-1,2	RH	Pass	44.3 dB @ 95.00MHz	44.0 dB	> 19.1 dB	25.2 dB
5,4-7,8	RH	Pass	61.8 dB @ 5.20MHz	44.3 dB	> 44.3 dB	17.5 dB
5,4-3,6	RH	Pass	65.1 dB @ 5.20MHz	39.9 dB	> 44.3 dB	20.8 dB
5,4-1,2	RH	Pass	58.0 dB @ 9.10MHz	43.1 dB	> 39.4 dB	18.6 dB
1,2-7,8	RH	Pass	69.0 dB @ 4.60MHz	43.9 dB	> 45.4 dB	23.6 dB
1,2-3,6	RH	Pass	40.8 dB @ 88.75MHz	40.5 dB	> 19.7 dB	21.1 dB
1,2-5,4	RH	Pass	63.7 dB @ 4.90MHz	43.1 dB	> 44.8 dB	18.9 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	51.3 dB @ 65.50MHz	50.6 dB	> 32.3 dB	19.0 dB
3,6	DH	Pass	47.3 dB @ 57.00MHz	46.3 dB	> 33.3 dB	14.0 dB
5,4	DH	Pass	47.8 dB @ 57.00MHz	46.8 dB	> 33.3 dB	14.5 dB
1,2	DH	Pass	50.6 dB @ 73.50MHz	50.6 dB	> 31.5 dB	19.1 dB
7,8	RH	Pass	51.6 dB @ 77.00MHz	51.2 dB	> 31.2 dB	20.4 dB
3,6	RH	Pass	70.8 dB @ 3.55MHz	50.1 dB	> 52.6 dB	18.2 dB
5,4	RH	Pass	60.7 dB @ 15.55MHz	51.6 dB	> 42.4 dB	18.3 dB
1,2	RH	Pass	76.2 dB @ 1.90MHz	53.9 dB	> 56.9 dB	19.3 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	46.9 dB @ 73.25MHz	N/A	>= 13.8 dB	33.1 dB
3,6	DH	Pass	42.7 dB @ 69.00MHz	N/A	>= 14.8 dB	27.9 dB
5,4	DH	Pass	43.1 dB @ 73.00MHz	N/A	>= 13.8 dB	29.3 dB
1,2	DH	Pass	46.8 dB @ 73.50MHz	N/A	>= 13.8 dB	33.0 dB
7,8	RH	Pass	47.3 dB @ 81.25MHz	N/A	>= 12.1 dB	35.2 dB
3,6	RH	Pass	46.2 dB @ 77.25MHz	N/A	>= 12.9 dB	33.3 dB
5,4	RH	Pass	47.9 dB @ 73.00MHz	N/A	>= 13.8 dB	34.1 dB
1,2	RH	Pass	50.1 dB @ 73.50MHz	N/A	>= 13.8 dB	36.3 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	48.2 dB @ 25.45MHz	42.0 dB	>= 27.5 dB	20.7 dB
3,6	DH	Pass	38.2 dB @ 84.50MHz	37.1 dB	>= 17.1 dB	21.1 dB
5,4	DH	Pass	56.3 dB @ 7.45MHz	40.5 dB	>= 38.2 dB	18.1 dB
1,2	DH	Pass	51.7 dB @ 16.90MHz	39.3 dB	>= 31.1 dB	20.6 dB
7,8	RH	Pass	53.9 dB @ 12.25MHz	41.8 dB	>= 33.9 dB	20.0 dB
3,6	RH	Pass	41.2 dB @ 99.00MHz	41.2 dB	>= 15.7 dB	25.5 dB
5,4	RH	Pass	58.5 dB @ 5.20MHz	38.6 dB	>= 41.3 dB	17.2 dB
1,2	RH	Pass	49.8 dB @ 20.80MHz	37.8 dB	>= 29.3 dB	20.5 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

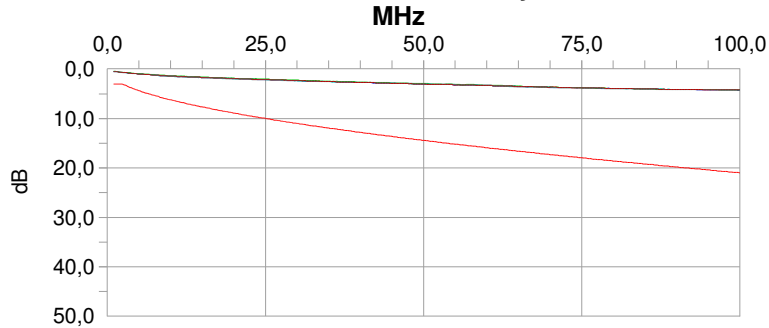
Cable ID 1: 7/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:36:12
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

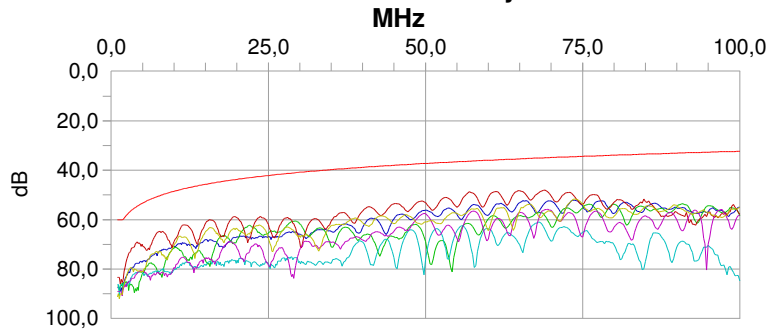
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

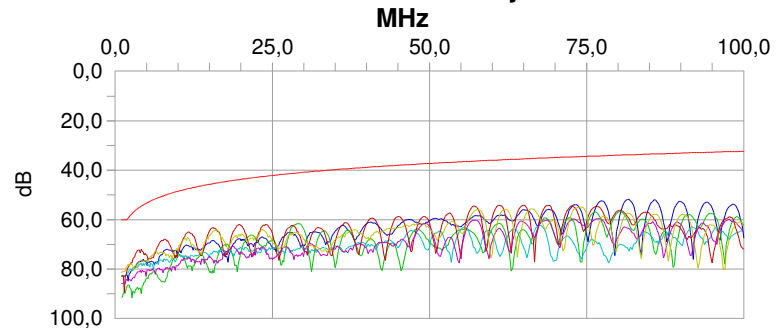
Attenuation Summary



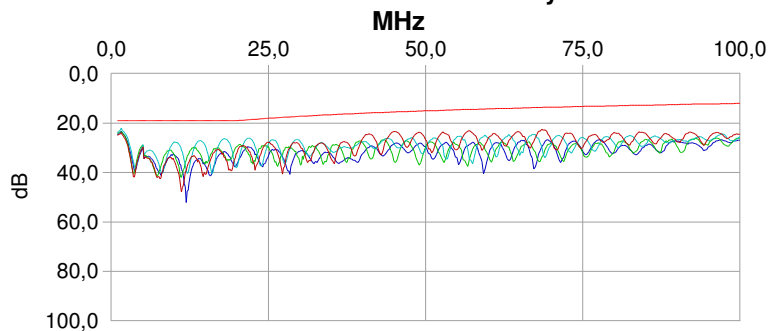
NEXT DH Summary



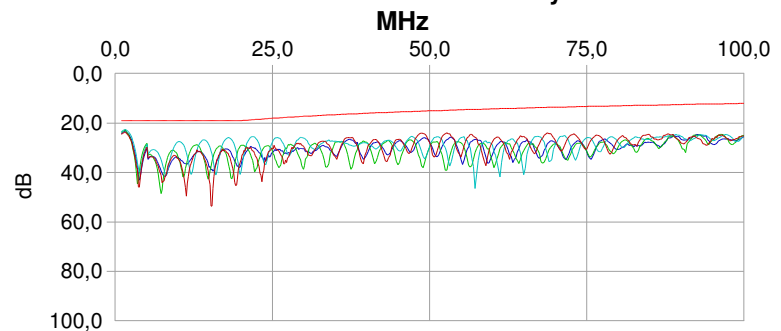
NEXT RH Summary



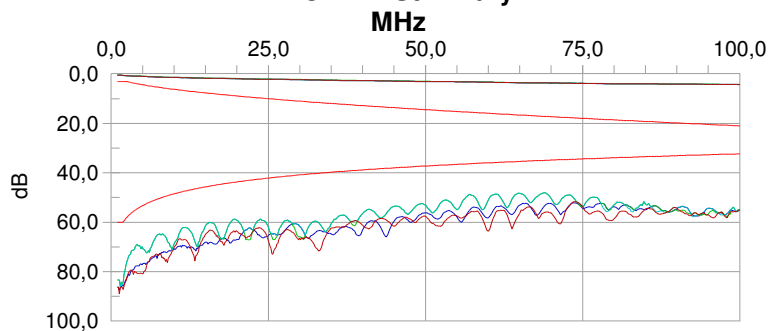
Return Loss DH Summary



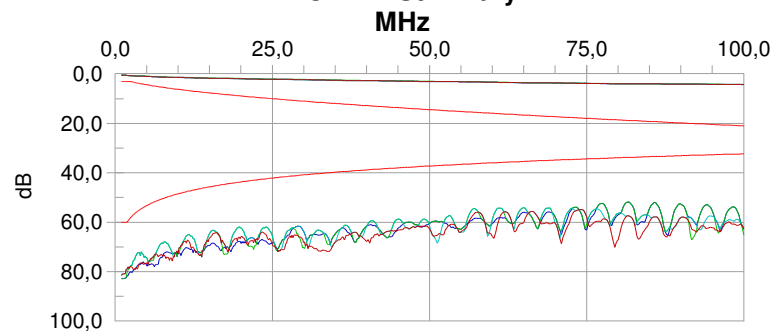
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

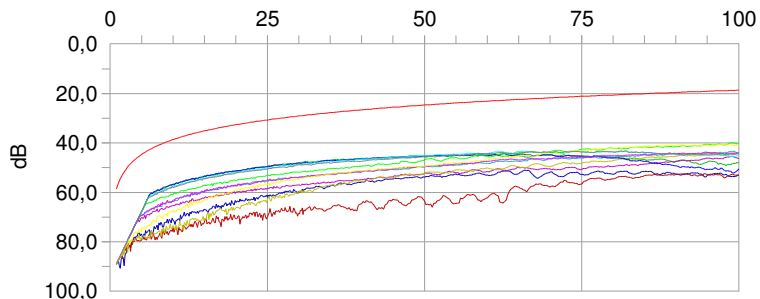
Cable ID 1: 7/13
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:36:12
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

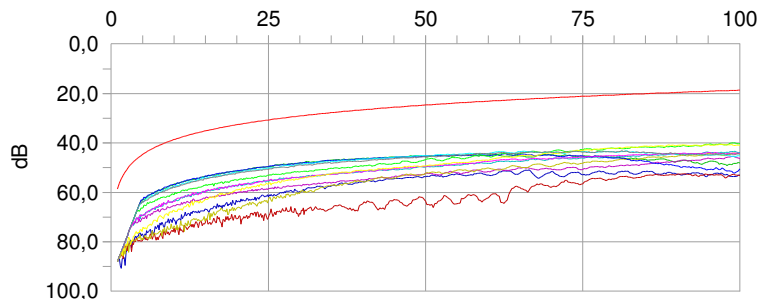
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

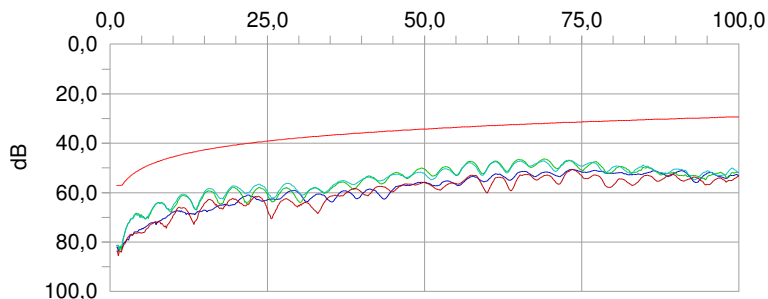
ELFEXT DH Summary
MHz



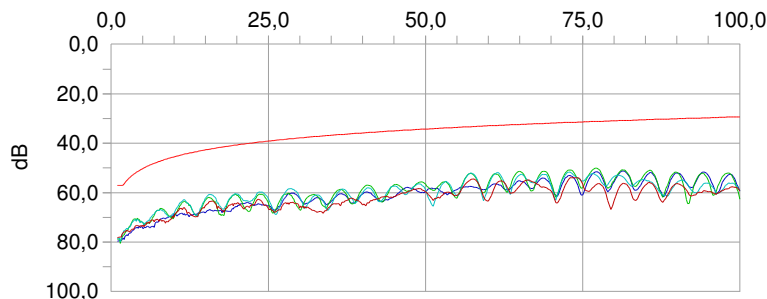
ELFEXT RH Summary
MHz



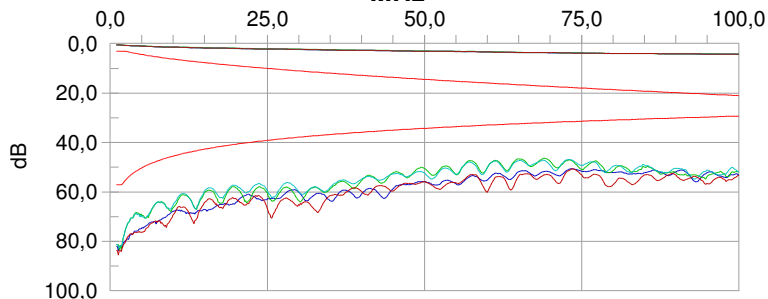
Power Sum NEXT DH Summary
MHz



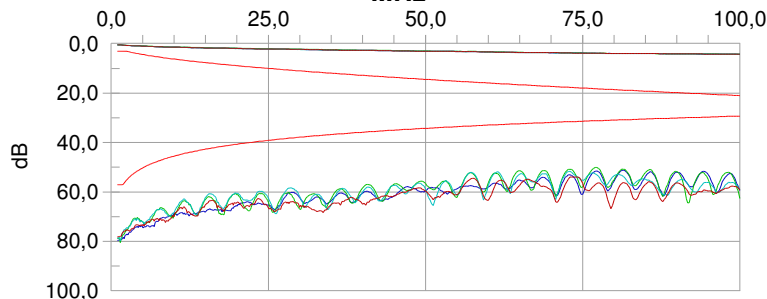
Power Sum NEXT RH Summary
MHz



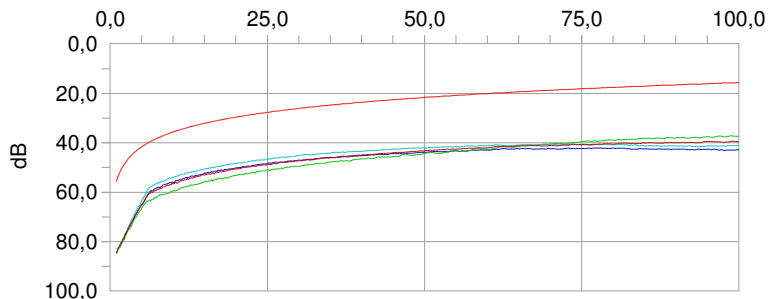
Power Sum ACR DH Summary
MHz



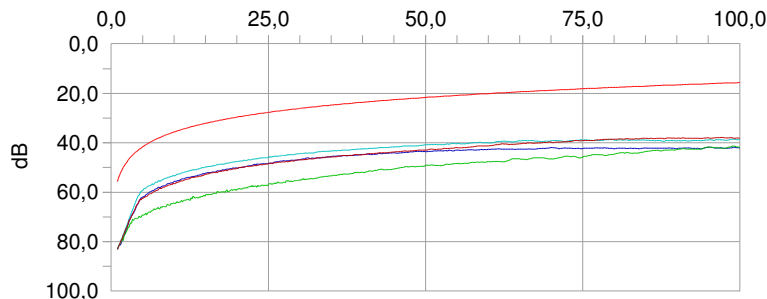
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

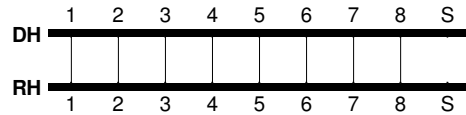
Cable ID 1: 7/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:37:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	25.2m	26.6m	26.2m	25.6m	< 90.0m	Pass
Prop. Delay	137.6ns	144.0ns	142.5ns	138.0ns	< 498.0ns	Pass
Delay Skew	6.4ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	32.9 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	49.0 dB @ 74.00MHz	49.0 dB	> 34.5 dB	14.5 dB
7,8-5,4	DH	Pass	55.6 dB @ 80.00MHz	55.6 dB	> 33.9 dB	21.7 dB
7,8-1,2	DH	Pass	58.4 dB @ 67.75MHz	58.4 dB	> 35.1 dB	23.3 dB
3,6-5,4	DH	Pass	49.5 dB @ 61.00MHz	49.3 dB	> 35.8 dB	13.7 dB
3,6-1,2	DH	Pass	55.0 dB @ 57.75MHz	53.8 dB	> 36.2 dB	18.8 dB
5,4-1,2	DH	Pass	53.7 dB @ 69.75MHz	53.7 dB	> 34.9 dB	18.8 dB
7,8-3,6	RH	Pass	52.3 dB @ 73.75MHz	51.8 dB	> 34.5 dB	17.8 dB
7,8-5,4	RH	Pass	54.3 dB @ 94.75MHz	54.3 dB	> 32.7 dB	21.6 dB
7,8-1,2	RH	Pass	56.3 dB @ 59.50MHz	55.9 dB	> 36.0 dB	20.3 dB
3,6-5,4	RH	Pass	73.4 dB @ 3.70MHz	55.4 dB	> 55.3 dB	18.1 dB
3,6-1,2	RH	Pass	59.2 dB @ 61.50MHz	59.1 dB	> 35.8 dB	23.4 dB
5,4-1,2	RH	Pass	67.5 dB @ 11.65MHz	56.2 dB	> 47.4 dB	20.1 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.1 dB @ 1.60MHz	23.1 dB	> 19.0 dB	4.1 dB
3,6	DH	Pass	23.3 dB @ 1.60MHz	23.3 dB	> 19.0 dB	4.3 dB
5,4	DH	Pass	21.9 dB @ 1.60MHz	21.9 dB	> 19.0 dB	2.9 dB
1,2	DH	Pass	24.0 dB @ 1.60MHz	23.7 dB	> 19.0 dB	5.0 dB
7,8	RH	Pass	22.5 dB @ 1.60MHz	22.5 dB	> 19.0 dB	3.5 dB
3,6	RH	Pass	22.5 dB @ 1.60MHz	22.5 dB	> 19.0 dB	3.5 dB
5,4	RH	Pass	22.6 dB @ 1.45MHz	22.6 dB	> 19.0 dB	3.6 dB
1,2	RH	Pass	23.7 dB @ 1.60MHz	23.7 dB	> 19.0 dB	4.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.50MHz	4.2 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.50MHz	4.2 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.7 dB @ 2.50MHz	4.2 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.50MHz	4.2 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	45.3 dB @ 74.00MHz	N/A	>= 16.7 dB	28.6 dB
3,6	DH	Pass	45.3 dB @ 74.00MHz	N/A	>= 16.7 dB	28.6 dB
5,4	DH	Pass	45.6 dB @ 72.50MHz	N/A	>= 17.0 dB	28.6 dB
1,2	DH	Pass	49.7 dB @ 93.00MHz	N/A	>= 12.6 dB	37.1 dB
7,8	RH	Pass	47.8 dB @ 86.25MHz	N/A	>= 14.1 dB	33.7 dB
3,6	RH	Pass	47.8 dB @ 86.25MHz	N/A	>= 14.1 dB	33.7 dB
5,4	RH	Pass	50.2 dB @ 94.75MHz	N/A	>= 12.3 dB	37.9 dB
1,2	RH	Pass	51.7 dB @ 98.25MHz	N/A	>= 11.6 dB	40.1 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:37:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	59.9 dB @ 39.75MHz	56.1 dB	> 26.6 dB	33.3 dB
7,8-5,4	DH	Pass	62.0 dB @ 6.55MHz	46.2 dB	> 42.3 dB	19.7 dB
7,8-1,2	DH	Pass	49.6 dB @ 70.50MHz	47.6 dB	> 21.7 dB	27.9 dB
3,6-7,8	DH	Pass	53.2 dB @ 91.25MHz	52.9 dB	> 19.4 dB	33.8 dB
3,6-5,4	DH	Pass	67.2 dB @ 8.20MHz	46.4 dB	> 40.3 dB	26.9 dB
3,6-1,2	DH	Pass	46.3 dB @ 95.50MHz	46.1 dB	> 19.0 dB	27.3 dB
5,4-7,8	DH	Pass	60.8 dB @ 7.45MHz	46.2 dB	> 41.2 dB	19.6 dB
5,4-3,6	DH	Pass	40.3 dB @ 99.00MHz	40.3 dB	> 18.7 dB	21.6 dB
5,4-1,2	DH	Pass	61.3 dB @ 11.20MHz	47.6 dB	> 37.6 dB	23.7 dB
1,2-7,8	DH	Pass	50.0 dB @ 63.50MHz	48.1 dB	> 22.6 dB	27.4 dB
1,2-3,6	DH	Pass	43.4 dB @ 80.75MHz	42.5 dB	> 20.5 dB	22.9 dB
1,2-5,4	DH	Pass	57.3 dB @ 17.65MHz	47.8 dB	> 33.7 dB	23.6 dB
7,8-3,6	RH	Pass	57.7 dB @ 50.75MHz	56.1 dB	> 24.5 dB	33.2 dB
7,8-5,4	RH	Pass	63.9 dB @ 5.20MHz	46.2 dB	> 44.3 dB	19.6 dB
7,8-1,2	RH	Pass	49.6 dB @ 70.50MHz	47.6 dB	> 21.7 dB	27.9 dB
3,6-7,8	RH	Pass	53.2 dB @ 91.25MHz	52.9 dB	> 19.4 dB	33.8 dB
3,6-5,4	RH	Pass	67.3 dB @ 8.20MHz	46.4 dB	> 40.3 dB	27.0 dB
3,6-1,2	RH	Pass	46.3 dB @ 95.50MHz	46.1 dB	> 19.0 dB	27.3 dB
5,4-7,8	RH	Pass	60.8 dB @ 7.45MHz	46.2 dB	> 41.2 dB	19.6 dB
5,4-3,6	RH	Pass	68.1 dB @ 4.00MHz	40.3 dB	> 46.6 dB	21.5 dB
5,4-1,2	RH	Pass	61.3 dB @ 11.20MHz	47.6 dB	> 37.6 dB	23.7 dB
1,2-7,8	RH	Pass	50.0 dB @ 63.50MHz	48.0 dB	> 22.6 dB	27.4 dB
1,2-3,6	RH	Pass	43.5 dB @ 79.25MHz	42.5 dB	> 20.6 dB	22.9 dB
1,2-5,4	RH	Pass	57.3 dB @ 17.65MHz	47.8 dB	> 33.7 dB	23.6 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	48.9 dB @ 74.00MHz	48.9 dB	> 31.5 dB	17.4 dB
3,6	DH	Pass	46.5 dB @ 61.25MHz	46.4 dB	> 32.8 dB	13.7 dB
5,4	DH	Pass	48.6 dB @ 61.00MHz	48.5 dB	> 32.8 dB	15.8 dB
1,2	DH	Pass	52.1 dB @ 61.50MHz	51.4 dB	> 32.8 dB	19.3 dB
7,8	RH	Pass	50.9 dB @ 73.75MHz	49.5 dB	> 31.5 dB	19.4 dB
3,6	RH	Pass	70.8 dB @ 3.70MHz	51.1 dB	> 52.3 dB	18.5 dB
5,4	RH	Pass	71.9 dB @ 3.70MHz	53.3 dB	> 52.3 dB	19.6 dB
1,2	RH	Pass	54.2 dB @ 54.25MHz	53.8 dB	> 33.7 dB	20.5 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	45.1 dB @ 95.25MHz	N/A	>= 9.3 dB	35.8 dB
3,6	DH	Pass	42.8 dB @ 69.00MHz	N/A	>= 14.8 dB	28.0 dB
5,4	DH	Pass	44.8 dB @ 72.50MHz	N/A	>= 14.0 dB	30.8 dB
1,2	DH	Pass	47.8 dB @ 69.75MHz	N/A	>= 14.7 dB	33.1 dB
7,8	RH	Pass	45.4 dB @ 94.50MHz	N/A	>= 9.4 dB	36.0 dB
3,6	RH	Pass	47.4 dB @ 73.25MHz	N/A	>= 13.8 dB	33.6 dB
5,4	RH	Pass	49.5 dB @ 79.75MHz	N/A	>= 12.4 dB	37.1 dB
1,2	RH	Pass	50.2 dB @ 70.00MHz	N/A	>= 14.5 dB	35.7 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	46.5 dB @ 46.00MHz	44.7 dB	>= 22.4 dB	24.1 dB
3,6	DH	Pass	39.5 dB @ 84.75MHz	38.5 dB	>= 17.1 dB	22.4 dB
5,4	DH	Pass	58.6 dB @ 7.75MHz	42.6 dB	>= 37.8 dB	20.8 dB
1,2	DH	Pass	55.2 dB @ 19.30MHz	43.0 dB	>= 29.9 dB	25.3 dB
7,8	RH	Pass	51.3 dB @ 22.30MHz	44.0 dB	>= 28.6 dB	22.7 dB
3,6	RH	Pass	43.0 dB @ 99.25MHz	43.0 dB	>= 15.7 dB	27.3 dB
5,4	RH	Pass	58.1 dB @ 7.30MHz	39.5 dB	>= 38.3 dB	19.8 dB
1,2	RH	Pass	42.4 dB @ 70.00MHz	40.6 dB	>= 18.7 dB	23.7 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

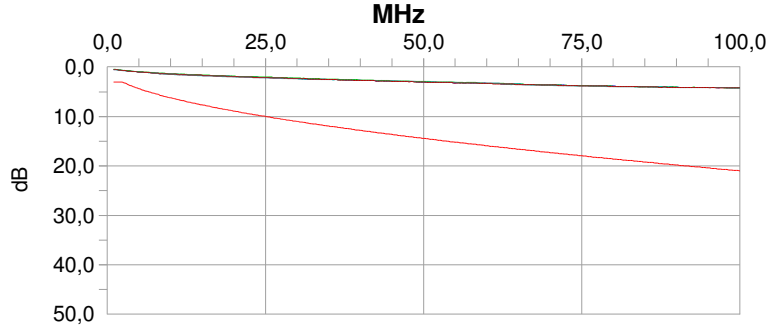
Cable ID 1: 7/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:37:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

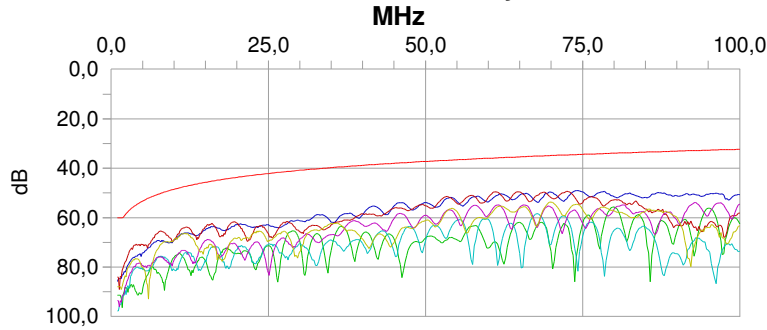
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

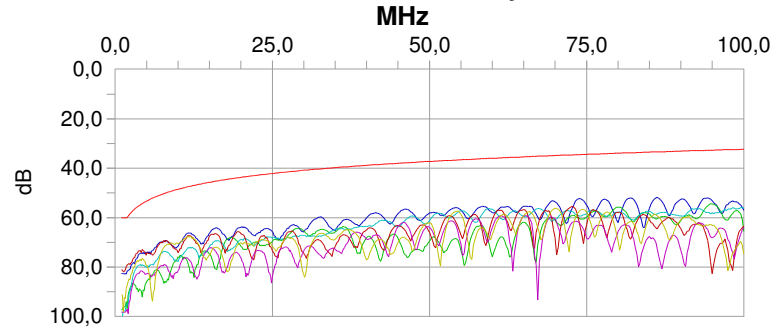
Attenuation Summary



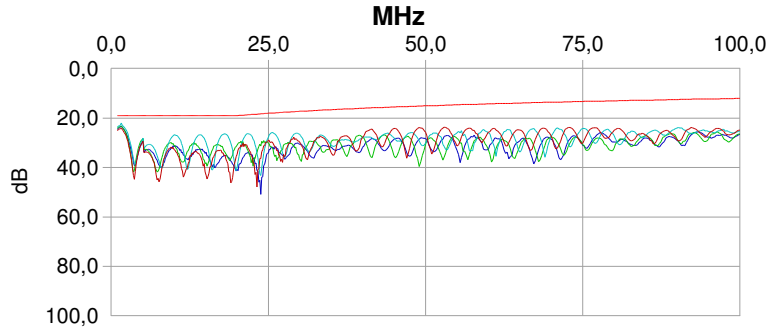
NEXT DH Summary



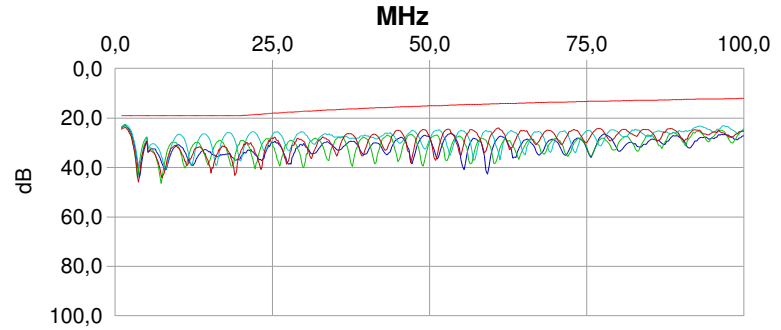
NEXT RH Summary



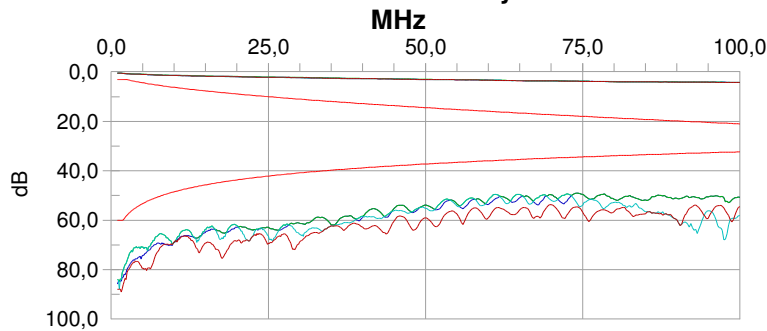
Return Loss DH Summary



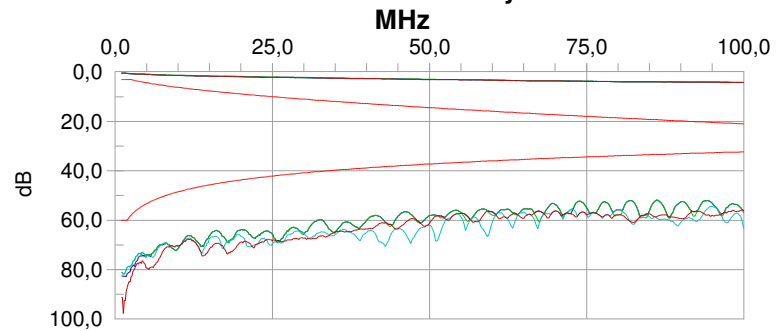
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

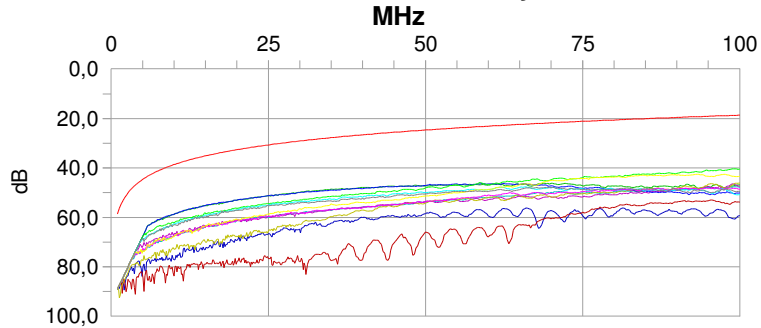
Cable ID 1: 7/14
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:37:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

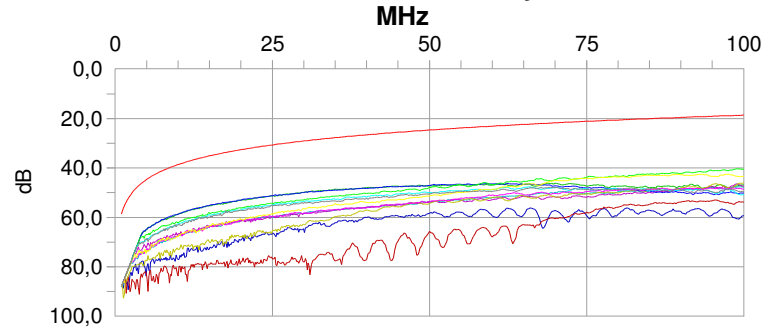
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

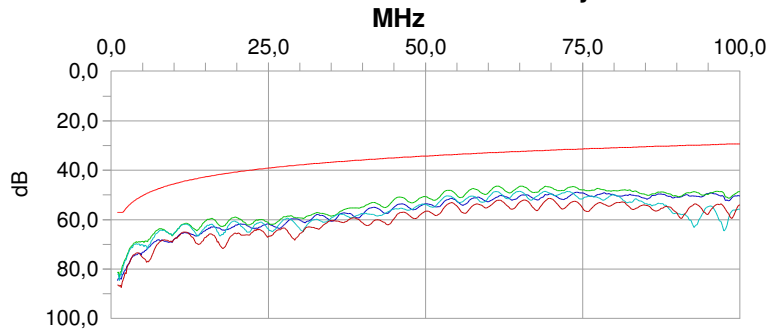
ELFEXT DH Summary



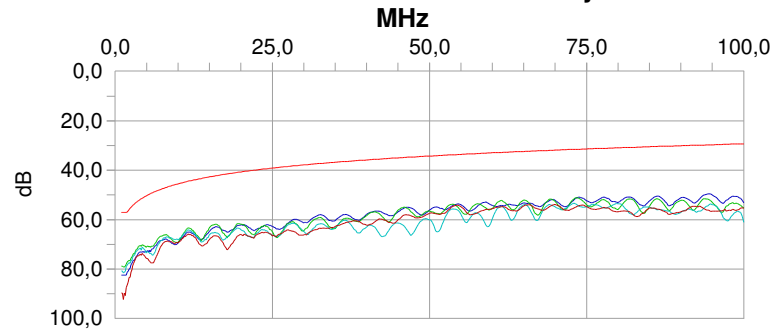
ELFEXT RH Summary



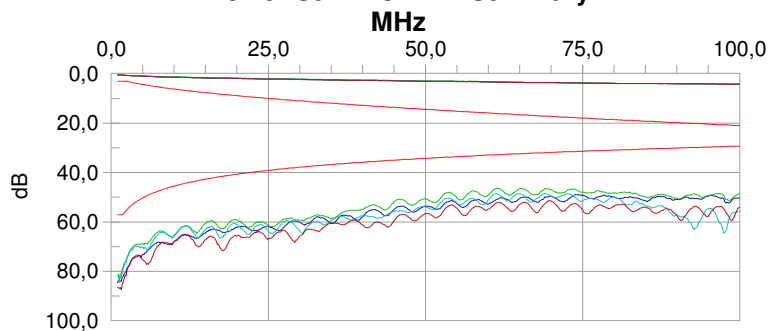
Power Sum NEXT DH Summary



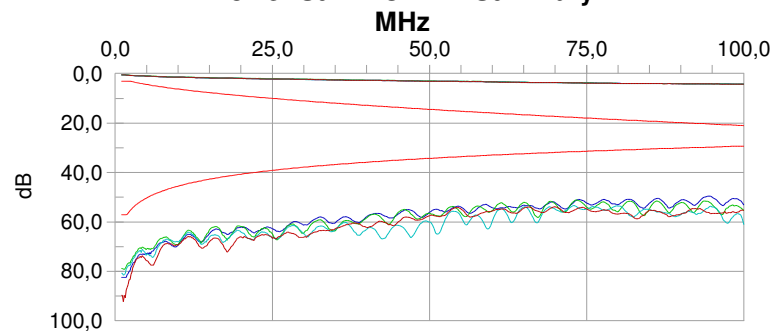
Power Sum NEXT RH Summary



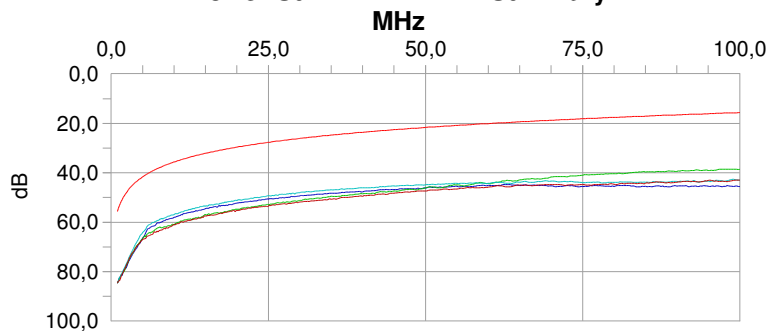
Power Sum ACR DH Summary



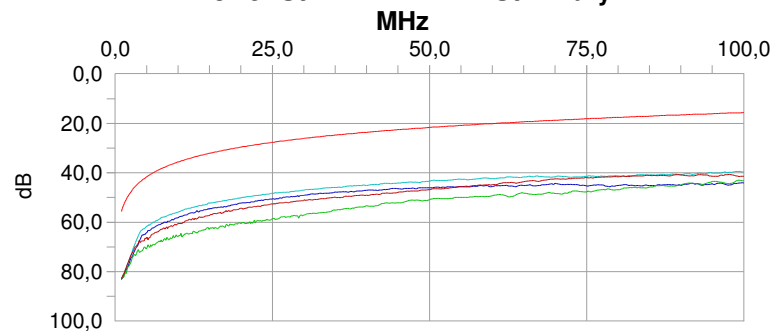
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

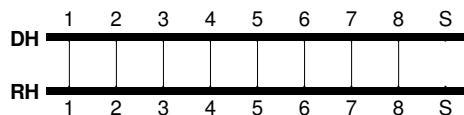
Cable ID 1: 7/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:38:29
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	28.6m	29.9m	29.6m	28.9m	< 90.0m	Pass
Prop. Delay	153.6ns	159.8ns	158.8ns	153.4ns	< 498.0ns	Pass
Delay Skew	6.4ns (Pairs 3,6 vs. 1,2)				< 44.0 ns	Pass
Headroom	33.4 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	49.5 dB @ 65.50MHz	49.1 dB	> 35.3 dB	14.2 dB
7,8-5,4	DH	Pass	54.3 dB @ 84.75MHz	54.3 dB	> 33.5 dB	20.8 dB
7,8-1,2	DH	Pass	64.1 dB @ 59.50MHz	63.2 dB	> 36.0 dB	28.1 dB
3,6-5,4	DH	Pass	51.0 dB @ 57.50MHz	50.6 dB	> 36.2 dB	14.8 dB
3,6-1,2	DH	Pass	54.2 dB @ 58.25MHz	53.8 dB	> 36.1 dB	18.1 dB
5,4-1,2	DH	Pass	60.1 dB @ 17.65MHz	52.3 dB	> 44.5 dB	15.6 dB
7,8-3,6	RH	Pass	61.5 dB @ 17.95MHz	51.0 dB	> 44.4 dB	17.1 dB
7,8-5,4	RH	Pass	57.7 dB @ 78.25MHz	57.6 dB	> 34.1 dB	23.6 dB
7,8-1,2	RH	Pass	62.0 dB @ 59.50MHz	60.1 dB	> 36.0 dB	26.0 dB
3,6-5,4	RH	Pass	74.0 dB @ 3.25MHz	55.0 dB	> 56.2 dB	17.8 dB
3,6-1,2	RH	Pass	58.3 dB @ 58.25MHz	58.3 dB	> 36.1 dB	22.2 dB
5,4-1,2	RH	Pass	58.8 dB @ 18.10MHz	50.4 dB	> 44.4 dB	14.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.9 dB @ 1.60MHz	22.9 dB	> 19.0 dB	3.9 dB
3,6	DH	Pass	23.0 dB @ 1.30MHz	23.0 dB	> 19.0 dB	4.0 dB
5,4	DH	Pass	21.3 dB @ 1.60MHz	21.3 dB	> 19.0 dB	2.3 dB
1,2	DH	Pass	23.2 dB @ 1.60MHz	21.3 dB	> 19.0 dB	4.2 dB
7,8	RH	Pass	22.1 dB @ 1.60MHz	22.1 dB	> 19.0 dB	3.1 dB
3,6	RH	Pass	22.1 dB @ 1.60MHz	22.1 dB	> 19.0 dB	3.1 dB
5,4	RH	Pass	21.6 dB @ 1.45MHz	21.6 dB	> 19.0 dB	2.6 dB
1,2	RH	Pass	22.6 dB @ 1.45MHz	22.2 dB	> 19.0 dB	3.6 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.50MHz	4.8 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.50MHz	4.8 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.8 dB @ 2.50MHz	4.7 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.8 dB @ 2.50MHz	4.7 dB	< 3.1 dB	2.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	44.3 dB @ 99.00MHz	N/A	>= 11.5 dB	32.8 dB
3,6	DH	Pass	44.3 dB @ 98.75MHz	N/A	>= 11.6 dB	32.7 dB
5,4	DH	Pass	46.6 dB @ 68.50MHz	N/A	>= 17.9 dB	28.7 dB
1,2	DH	Pass	48.2 dB @ 73.25MHz	N/A	>= 16.8 dB	31.4 dB
7,8	RH	Pass	46.4 dB @ 95.00MHz	N/A	>= 12.3 dB	34.1 dB
3,6	RH	Pass	46.3 dB @ 95.00MHz	N/A	>= 12.3 dB	34.0 dB
5,4	RH	Pass	46.1 dB @ 83.75MHz	N/A	>= 14.6 dB	31.5 dB
1,2	RH	Pass	46.0 dB @ 84.75MHz	N/A	>= 14.3 dB	31.7 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:38:29
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	64.6 dB @ 31.25MHz	55.6 dB	> 28.7 dB	35.9 dB
7,8-5,4	DH	Pass	58.3 dB @ 7.60MHz	45.1 dB	> 41.0 dB	17.3 dB
7,8-1,2	DH	Pass	57.5 dB @ 83.50MHz	57.5 dB	> 20.2 dB	37.3 dB
3,6-7,8	DH	Pass	54.0 dB @ 93.25MHz	53.7 dB	> 19.2 dB	34.8 dB
3,6-5,4	DH	Pass	50.4 dB @ 86.75MHz	49.9 dB	> 19.8 dB	30.6 dB
3,6-1,2	DH	Pass	44.6 dB @ 99.25MHz	44.6 dB	> 18.7 dB	25.9 dB
5,4-7,8	DH	Pass	57.9 dB @ 7.90MHz	44.7 dB	> 40.7 dB	17.2 dB
5,4-3,6	DH	Pass	43.8 dB @ 79.00MHz	42.4 dB	> 20.7 dB	23.1 dB
5,4-1,2	DH	Pass	60.2 dB @ 7.60MHz	44.3 dB	> 41.0 dB	19.2 dB
1,2-7,8	DH	Pass	56.6 dB @ 97.25MHz	56.5 dB	> 18.9 dB	37.7 dB
1,2-3,6	DH	Pass	40.9 dB @ 90.75MHz	40.5 dB	> 19.5 dB	21.4 dB
1,2-5,4	DH	Pass	62.6 dB @ 5.95MHz	44.8 dB	> 43.1 dB	19.5 dB
7,8-3,6	RH	Pass	64.6 dB @ 31.25MHz	55.7 dB	> 28.7 dB	35.9 dB
7,8-5,4	RH	Pass	58.4 dB @ 7.60MHz	45.1 dB	> 41.0 dB	17.4 dB
7,8-1,2	RH	Pass	57.4 dB @ 83.50MHz	57.4 dB	> 20.2 dB	37.2 dB
3,6-7,8	RH	Pass	54.0 dB @ 93.25MHz	53.7 dB	> 19.2 dB	34.8 dB
3,6-5,4	RH	Pass	51.3 dB @ 79.00MHz	49.8 dB	> 20.7 dB	30.6 dB
3,6-1,2	RH	Pass	44.5 dB @ 99.25MHz	44.5 dB	> 18.7 dB	25.8 dB
5,4-7,8	RH	Pass	61.2 dB @ 5.35MHz	44.7 dB	> 44.0 dB	17.2 dB
5,4-3,6	RH	Pass	44.3 dB @ 75.25MHz	42.5 dB	> 21.1 dB	23.2 dB
5,4-1,2	RH	Pass	60.2 dB @ 7.60MHz	44.3 dB	> 41.0 dB	19.2 dB
1,2-7,8	RH	Pass	56.6 dB @ 97.25MHz	56.5 dB	> 18.9 dB	37.7 dB
1,2-3,6	RH	Pass	41.4 dB @ 86.50MHz	40.5 dB	> 19.9 dB	21.5 dB
1,2-5,4	RH	Pass	62.8 dB @ 5.80MHz	44.8 dB	> 43.3 dB	19.5 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.4 dB @ 65.50MHz	48.4 dB	> 32.3 dB	17.1 dB
3,6	DH	Pass	47.5 dB @ 58.00MHz	46.7 dB	> 33.2 dB	14.3 dB
5,4	DH	Pass	68.8 dB @ 3.55MHz	49.1 dB	> 52.6 dB	16.2 dB
1,2	DH	Pass	50.9 dB @ 58.75MHz	50.2 dB	> 33.1 dB	17.8 dB
7,8	RH	Pass	61.2 dB @ 18.10MHz	49.8 dB	> 41.4 dB	19.8 dB
3,6	RH	Pass	70.2 dB @ 3.55MHz	50.4 dB	> 52.6 dB	17.6 dB
5,4	RH	Pass	58.0 dB @ 17.80MHz	49.4 dB	> 41.5 dB	16.5 dB
1,2	RH	Pass	49.7 dB @ 62.50MHz	49.7 dB	> 32.7 dB	17.0 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	43.6 dB @ 99.00MHz	N/A	>= 8.5 dB	35.1 dB
3,6	DH	Pass	42.7 dB @ 69.00MHz	N/A	>= 14.8 dB	27.9 dB
5,4	DH	Pass	45.0 dB @ 72.75MHz	N/A	>= 14.0 dB	31.0 dB
1,2	DH	Pass	46.1 dB @ 72.75MHz	N/A	>= 14.0 dB	32.1 dB
7,8	RH	Pass	45.2 dB @ 95.00MHz	N/A	>= 9.3 dB	35.9 dB
3,6	RH	Pass	46.0 dB @ 83.25MHz	N/A	>= 11.6 dB	34.4 dB
5,4	RH	Pass	45.0 dB @ 84.75MHz	N/A	>= 11.3 dB	33.7 dB
1,2	RH	Pass	45.4 dB @ 100.00MHz	N/A	>= 8.3 dB	37.1 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	44.9 dB @ 55.00MHz	44.5 dB	>= 20.8 dB	24.1 dB
3,6	DH	Pass	39.4 dB @ 84.75MHz	38.5 dB	>= 17.1 dB	22.3 dB
5,4	DH	Pass	50.4 dB @ 15.40MHz	41.8 dB	>= 31.9 dB	18.5 dB
1,2	DH	Pass	46.7 dB @ 39.75MHz	42.8 dB	>= 23.6 dB	23.1 dB
7,8	RH	Pass	45.9 dB @ 42.75MHz	44.9 dB	>= 23.0 dB	22.9 dB
3,6	RH	Pass	43.4 dB @ 95.75MHz	43.3 dB	>= 16.0 dB	27.4 dB
5,4	RH	Pass	54.1 dB @ 9.40MHz	40.4 dB	>= 36.2 dB	17.9 dB
1,2	RH	Pass	46.0 dB @ 41.00MHz	39.4 dB	>= 23.4 dB	22.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

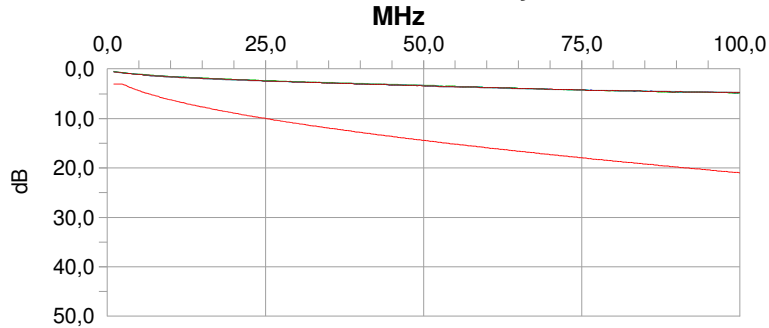
Cable ID 1: 7/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:38:29
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

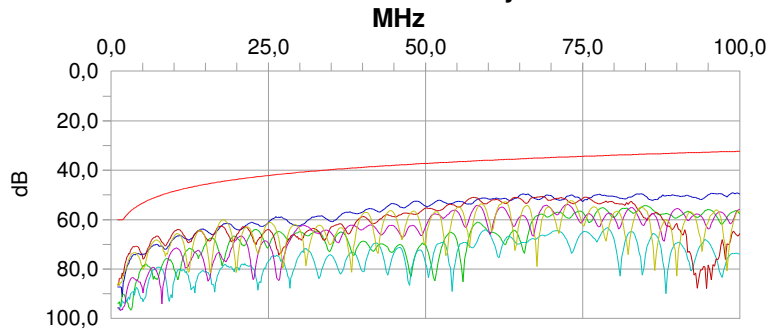
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

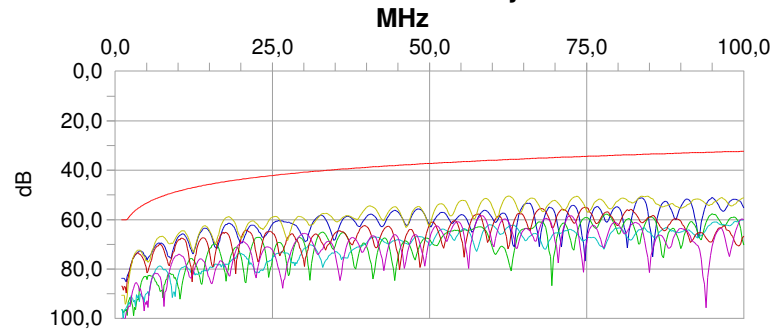
Attenuation Summary



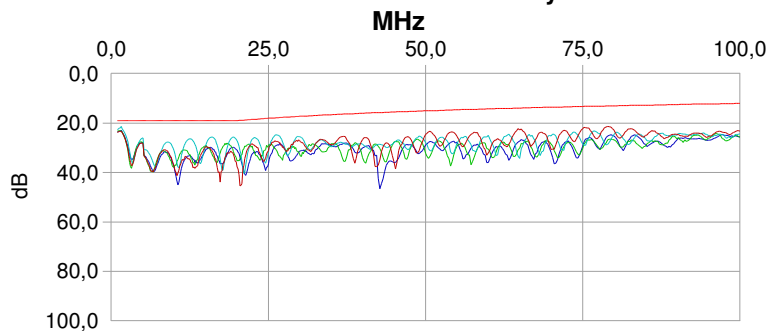
NEXT DH Summary



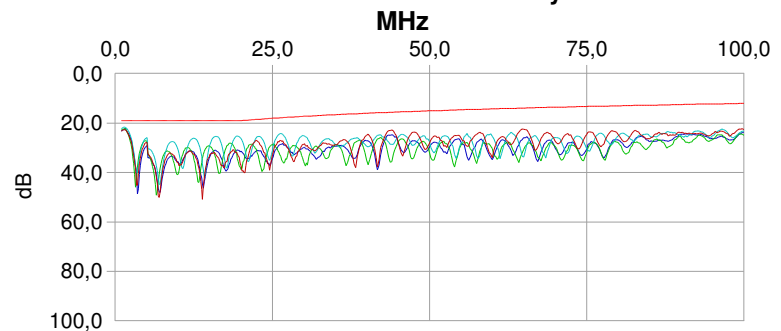
NEXT RH Summary



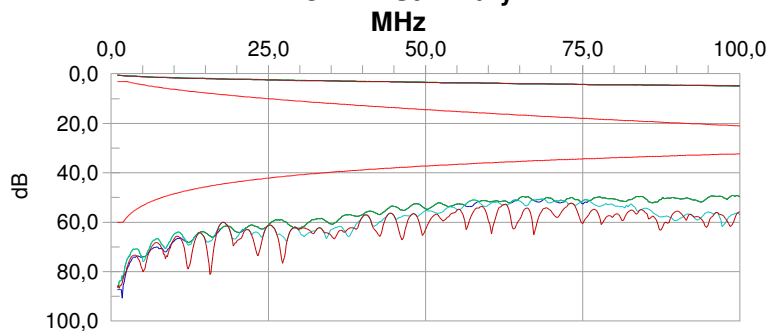
Return Loss DH Summary



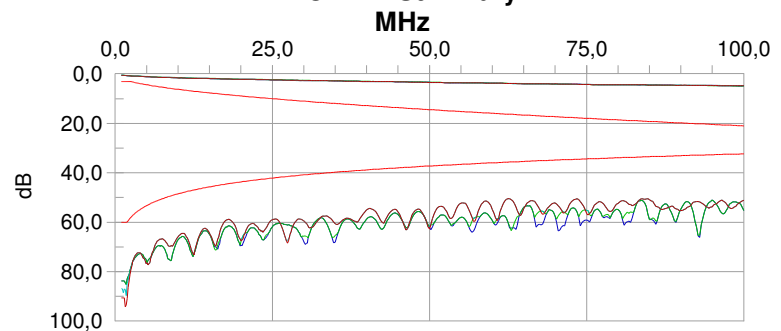
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

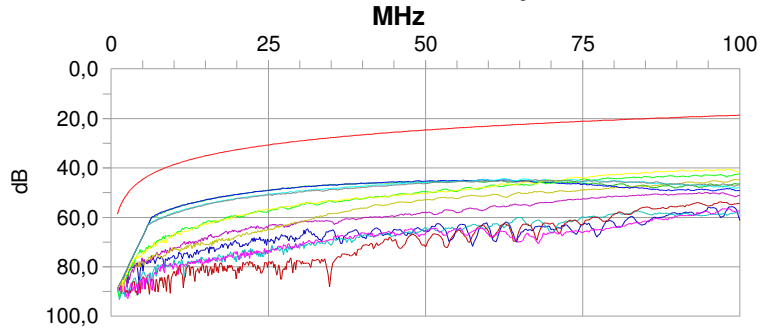
Cable ID 1: 7/15
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:38:29
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

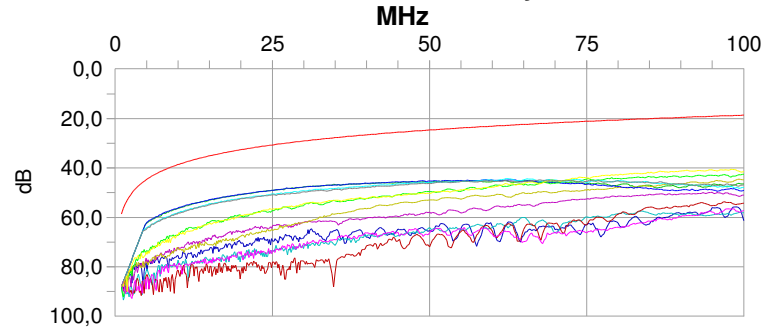
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

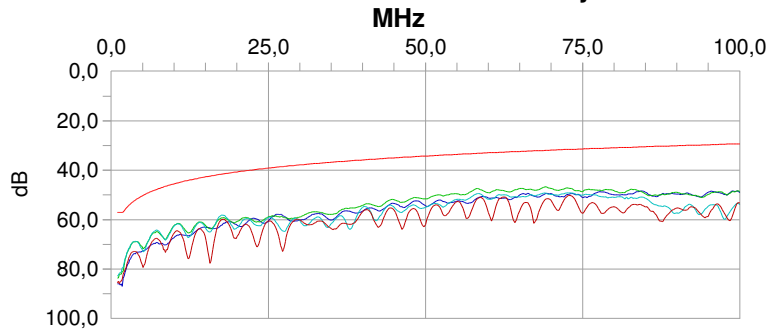
ELFEXT DH Summary



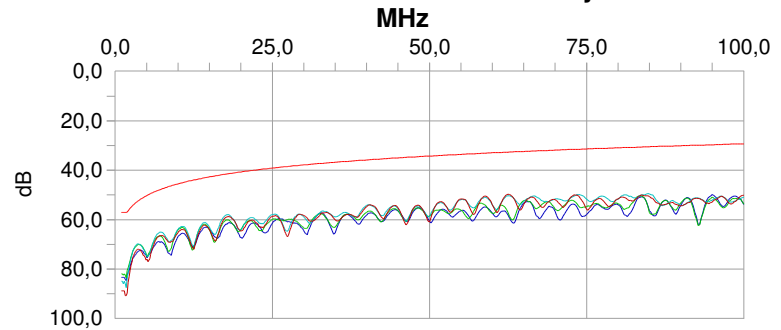
ELFEXT RH Summary



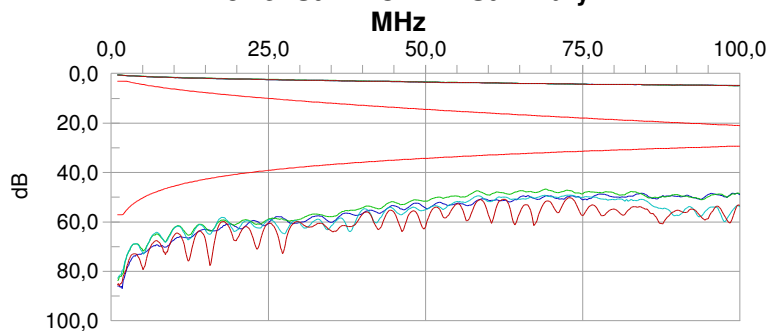
Power Sum NEXT DH Summary



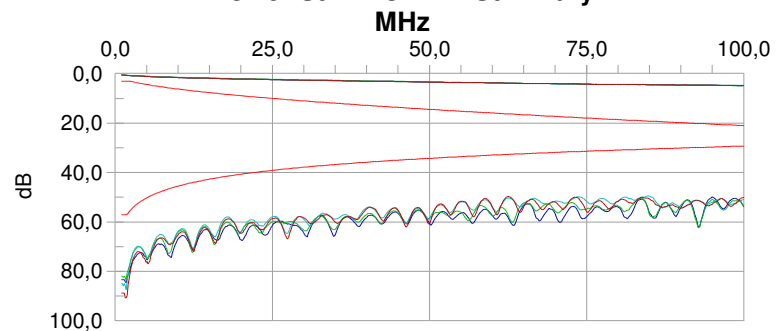
Power Sum NEXT RH Summary



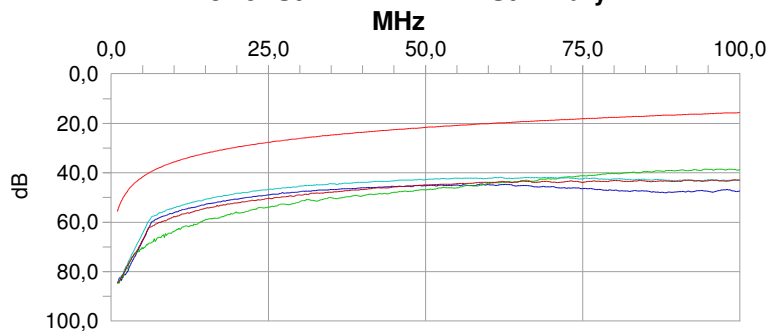
Power Sum ACR DH Summary



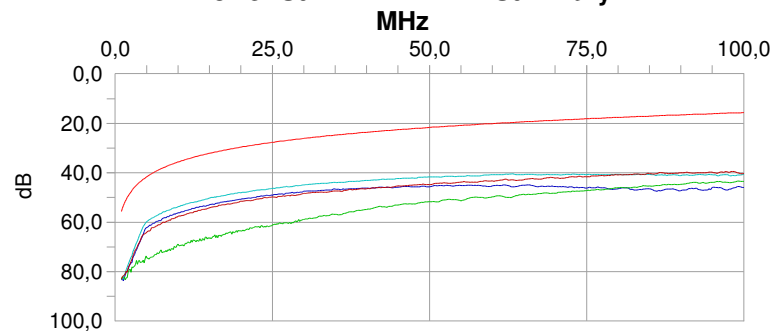
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

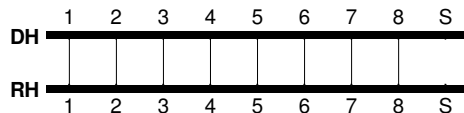
Cable ID 1: 7/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:39:03
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	28.9m	30.3m	29.9m	29.2m	< 90.0m	Pass
Prop. Delay	155.0ns	161.5ns	160.2ns	154.8ns	< 498.0ns	Pass
Delay Skew	6.7ns (Pairs 3,6 vs. 1,2)				< 44.0 ns	Pass
Headroom	23.2 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	44.6 dB @ 99.00MHz	44.6 dB	> 32.4 dB	12.2 dB
7,8-5,4	DH	Pass	55.6 dB @ 76.75MHz	54.2 dB	> 34.2 dB	21.4 dB
7,8-1,2	DH	Pass	58.9 dB @ 81.50MHz	58.7 dB	> 33.8 dB	25.1 dB
3,6-5,4	DH	Pass	55.9 dB @ 10.30MHz	42.0 dB	> 48.3 dB	7.6 dB
3,6-1,2	DH	Pass	46.1 dB @ 99.50MHz	46.1 dB	> 32.3 dB	13.8 dB
5,4-1,2	DH	Pass	54.9 dB @ 48.25MHz	54.8 dB	> 37.5 dB	17.4 dB
7,8-3,6	RH	Pass	64.7 dB @ 7.15MHz	48.1 dB	> 50.8 dB	13.9 dB
7,8-5,4	RH	Pass	55.9 dB @ 97.75MHz	55.9 dB	> 32.5 dB	23.4 dB
7,8-1,2	RH	Pass	83.1 dB @ 3.25MHz	60.8 dB	> 56.2 dB	26.9 dB
3,6-5,4	RH	Pass	68.0 dB @ 3.40MHz	49.9 dB	> 55.9 dB	12.1 dB
3,6-1,2	RH	Pass	68.2 dB @ 13.15MHz	56.3 dB	> 46.6 dB	21.6 dB
5,4-1,2	RH	Pass	57.4 dB @ 58.00MHz	56.7 dB	> 36.2 dB	21.2 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.6 dB @ 1.60MHz	22.6 dB	> 19.0 dB	3.6 dB
3,6	DH	Pass	22.6 dB @ 1.30MHz	22.6 dB	> 19.0 dB	3.6 dB
5,4	DH	Pass	21.1 dB @ 1.60MHz	21.1 dB	> 19.0 dB	2.1 dB
1,2	DH	Pass	23.0 dB @ 1.60MHz	23.0 dB	> 19.0 dB	4.0 dB
7,8	RH	Pass	22.1 dB @ 1.60MHz	22.1 dB	> 19.0 dB	3.1 dB
3,6	RH	Pass	22.1 dB @ 1.60MHz	22.1 dB	> 19.0 dB	3.1 dB
5,4	RH	Pass	21.5 dB @ 1.45MHz	21.5 dB	> 19.0 dB	2.5 dB
1,2	RH	Pass	22.4 dB @ 1.45MHz	22.4 dB	> 19.0 dB	3.4 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.50MHz	4.8 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.50MHz	4.9 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.7 dB @ 2.50MHz	4.8 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.50MHz	4.8 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	39.8 dB @ 99.00MHz	N/A	>= 11.5 dB	28.3 dB
3,6	DH	Pass	37.2 dB @ 94.75MHz	N/A	>= 12.3 dB	24.9 dB
5,4	DH	Pass	37.3 dB @ 94.75MHz	N/A	>= 12.3 dB	25.0 dB
1,2	DH	Pass	41.3 dB @ 99.50MHz	N/A	>= 11.4 dB	29.9 dB
7,8	RH	Pass	43.5 dB @ 86.25MHz	N/A	>= 14.1 dB	29.4 dB
3,6	RH	Pass	43.4 dB @ 90.00MHz	N/A	>= 13.3 dB	30.1 dB
5,4	RH	Pass	45.4 dB @ 88.00MHz	N/A	>= 13.6 dB	31.8 dB
1,2	RH	Pass	51.9 dB @ 82.25MHz	N/A	>= 14.8 dB	37.1 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:39:03
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	68.1 dB @ 10.45MHz	54.4 dB	> 38.2 dB	29.9 dB
7,8-5,4	DH	Pass	56.5 dB @ 12.85MHz	46.2 dB	> 36.4 dB	20.1 dB
7,8-1,2	DH	Pass	58.4 dB @ 67.25MHz	58.4 dB	> 22.1 dB	36.3 dB
3,6-7,8	DH	Pass	67.3 dB @ 19.75MHz	54.7 dB	> 32.7 dB	34.6 dB
3,6-5,4	DH	Pass	59.8 dB @ 7.45MHz	40.3 dB	> 41.2 dB	18.6 dB
3,6-1,2	DH	Pass	47.4 dB @ 74.25MHz	45.3 dB	> 21.2 dB	26.2 dB
5,4-7,8	DH	Pass	62.6 dB @ 6.25MHz	47.3 dB	> 42.7 dB	19.9 dB
5,4-3,6	DH	Pass	55.7 dB @ 7.30MHz	34.7 dB	> 41.3 dB	14.4 dB
5,4-1,2	DH	Pass	64.0 dB @ 6.25MHz	46.4 dB	> 42.7 dB	21.3 dB
1,2-7,8	DH	Pass	57.8 dB @ 91.50MHz	57.4 dB	> 19.4 dB	38.4 dB
1,2-3,6	DH	Pass	41.6 dB @ 87.00MHz	41.2 dB	> 19.8 dB	21.8 dB
1,2-5,4	DH	Pass	64.9 dB @ 5.95MHz	45.4 dB	> 43.1 dB	21.8 dB
7,8-3,6	RH	Pass	68.0 dB @ 10.45MHz	54.5 dB	> 38.2 dB	29.8 dB
7,8-5,4	RH	Pass	65.0 dB @ 4.75MHz	46.1 dB	> 45.1 dB	19.9 dB
7,8-1,2	RH	Pass	58.4 dB @ 67.25MHz	58.4 dB	> 22.1 dB	36.3 dB
3,6-7,8	RH	Pass	67.4 dB @ 19.75MHz	54.6 dB	> 32.7 dB	34.7 dB
3,6-5,4	RH	Pass	59.8 dB @ 7.45MHz	40.2 dB	> 41.2 dB	18.6 dB
3,6-1,2	RH	Pass	47.3 dB @ 74.50MHz	45.2 dB	> 21.2 dB	26.1 dB
5,4-7,8	RH	Pass	62.6 dB @ 6.25MHz	47.4 dB	> 42.7 dB	19.9 dB
5,4-3,6	RH	Pass	57.4 dB @ 5.80MHz	34.9 dB	> 43.3 dB	14.1 dB
5,4-1,2	RH	Pass	66.6 dB @ 4.60MHz	46.3 dB	> 45.4 dB	21.2 dB
1,2-7,8	RH	Pass	57.9 dB @ 91.50MHz	57.4 dB	> 19.4 dB	38.5 dB
1,2-3,6	RH	Pass	41.6 dB @ 88.75MHz	41.3 dB	> 19.7 dB	21.9 dB
1,2-5,4	RH	Pass	64.9 dB @ 5.95MHz	45.4 dB	> 43.1 dB	21.8 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	44.8 dB @ 90.75MHz	44.4 dB	> 30.0 dB	14.8 dB
3,6	DH	Pass	54.9 dB @ 10.30MHz	39.3 dB	> 45.3 dB	9.6 dB
5,4	DH	Pass	55.8 dB @ 10.30MHz	41.5 dB	> 45.3 dB	10.5 dB
1,2	DH	Pass	45.6 dB @ 99.50MHz	45.6 dB	> 29.3 dB	16.3 dB
7,8	RH	Pass	69.6 dB @ 3.40MHz	47.5 dB	> 52.9 dB	16.7 dB
3,6	RH	Pass	65.6 dB @ 3.40MHz	47.0 dB	> 52.9 dB	12.7 dB
5,4	RH	Pass	67.7 dB @ 3.40MHz	49.5 dB	> 52.9 dB	14.8 dB
1,2	RH	Pass	70.2 dB @ 6.85MHz	54.8 dB	> 48.1 dB	22.1 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	39.6 dB @ 99.00MHz	N/A	>= 8.5 dB	31.1 dB
3,6	DH	Pass	34.4 dB @ 100.00MHz	N/A	>= 8.3 dB	26.1 dB
5,4	DH	Pass	36.8 dB @ 96.75MHz	N/A	>= 8.9 dB	27.9 dB
1,2	DH	Pass	40.8 dB @ 99.50MHz	N/A	>= 8.4 dB	32.4 dB
7,8	RH	Pass	42.7 dB @ 97.75MHz	N/A	>= 8.8 dB	33.9 dB
3,6	RH	Pass	42.3 dB @ 90.75MHz	N/A	>= 10.1 dB	32.2 dB
5,4	RH	Pass	45.0 dB @ 88.00MHz	N/A	>= 10.6 dB	34.4 dB
1,2	RH	Pass	50.4 dB @ 82.25MHz	N/A	>= 11.8 dB	38.6 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	48.0 dB @ 68.50MHz	47.1 dB	>= 18.9 dB	29.1 dB
3,6	DH	Pass	52.4 dB @ 10.45MHz	33.9 dB	>= 35.2 dB	17.2 dB
5,4	DH	Pass	56.8 dB @ 7.15MHz	38.5 dB	>= 38.5 dB	18.3 dB
1,2	DH	Pass	46.5 dB @ 49.25MHz	43.5 dB	>= 21.8 dB	24.7 dB
7,8	RH	Pass	48.1 dB @ 39.75MHz	45.5 dB	>= 23.6 dB	24.5 dB
3,6	RH	Pass	46.5 dB @ 35.00MHz	39.1 dB	>= 24.7 dB	21.8 dB
5,4	RH	Pass	55.1 dB @ 6.25MHz	34.5 dB	>= 39.7 dB	15.4 dB
1,2	RH	Pass	40.9 dB @ 80.75MHz	39.9 dB	>= 17.5 dB	23.4 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

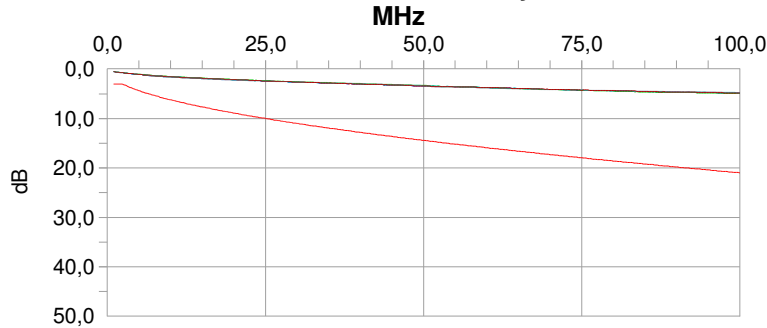
Cable ID 1: 7/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:39:03
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

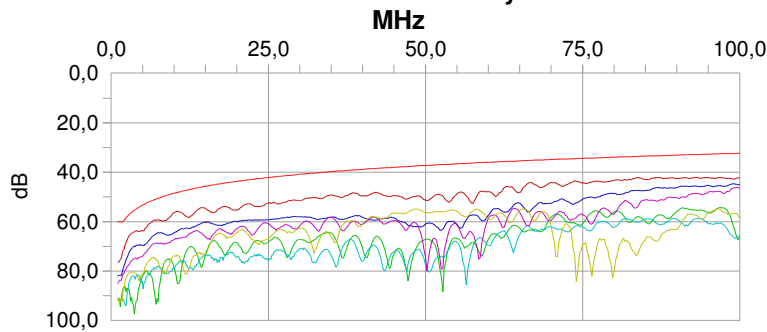
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

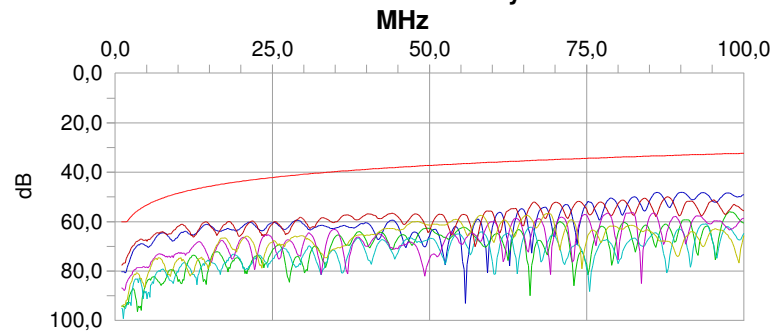
Attenuation Summary



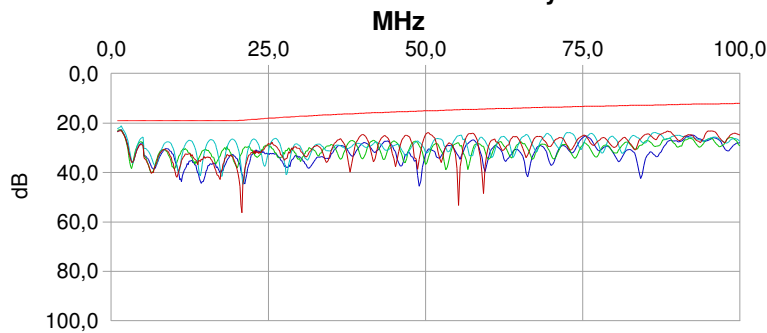
NEXT DH Summary



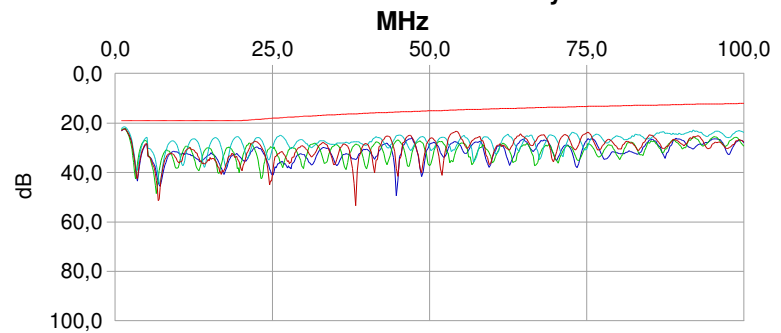
NEXT RH Summary



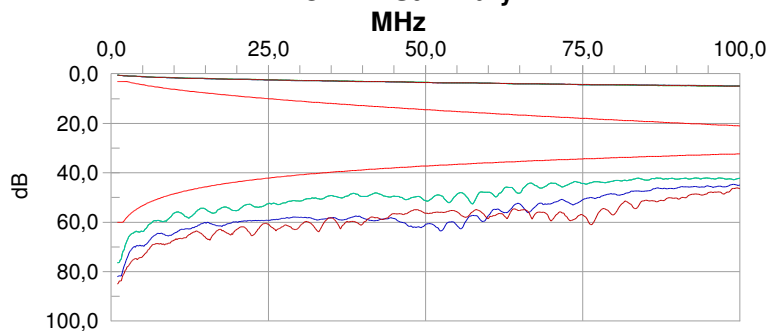
Return Loss DH Summary



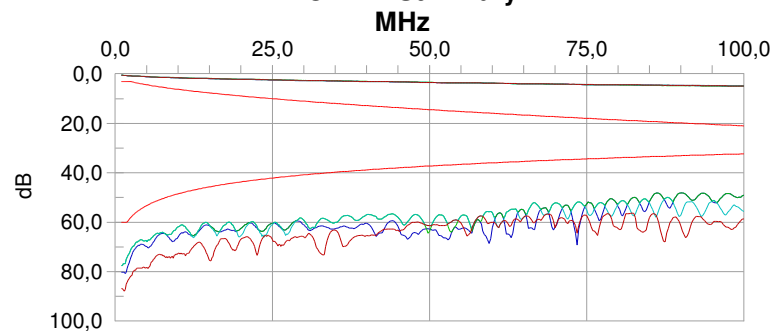
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

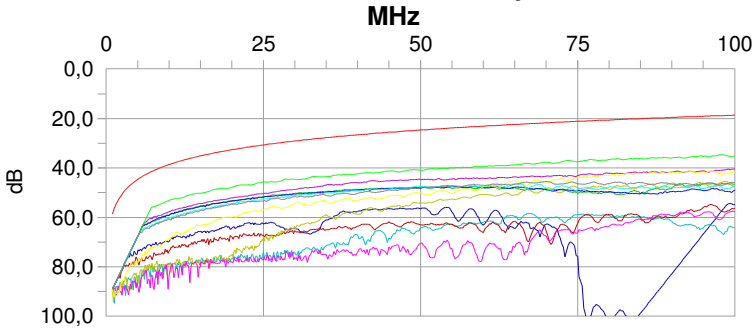
Cable ID 1: 7/16
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:39:03
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

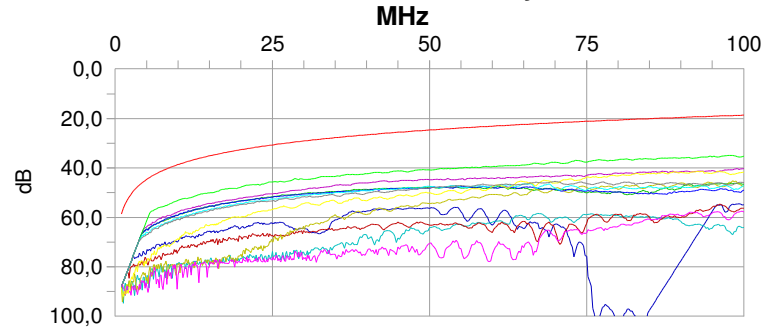
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

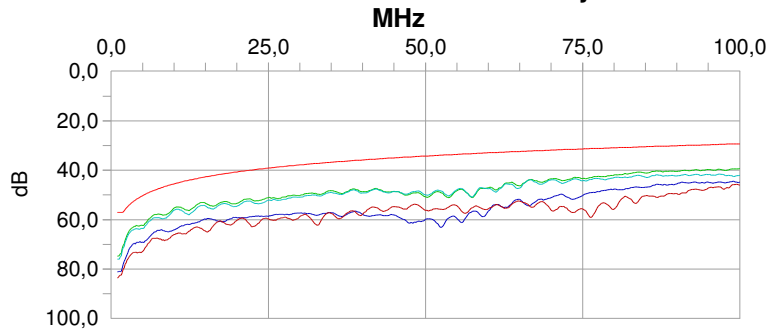
ELFEXT DH Summary



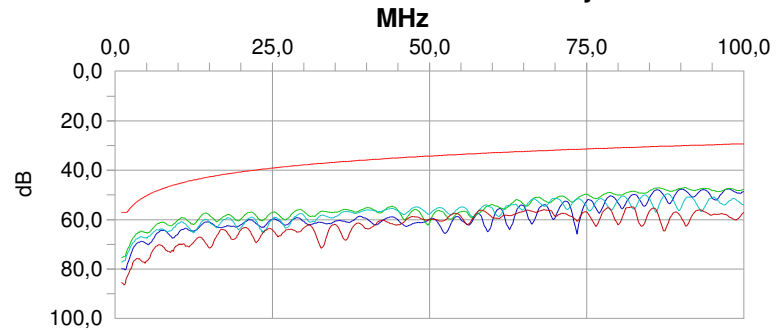
ELFEXT RH Summary



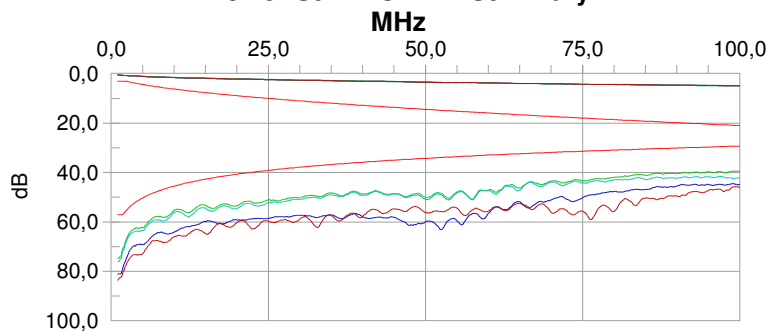
Power Sum NEXT DH Summary



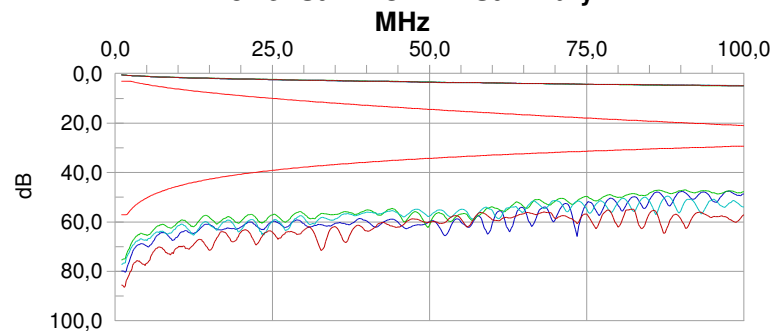
Power Sum NEXT RH Summary



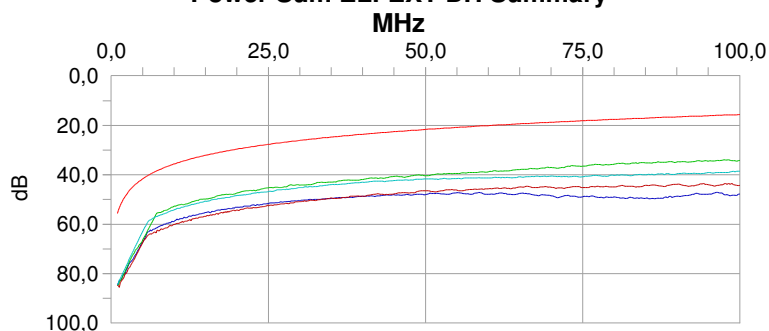
Power Sum ACR DH Summary



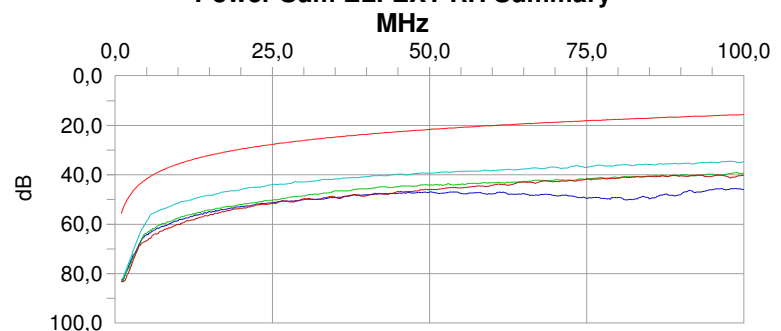
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

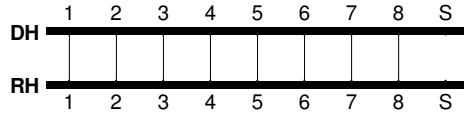
Cable ID 1: 7/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:39:46
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	32.3m	34.0m	33.4m	32.7m	< 90.0m	Pass
Prop. Delay	171.2ns	179.0ns	176.9ns	171.6ns	< 498.0ns	Pass
Delay Skew	7.8ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	33.9 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	51.3 dB @ 64.25MHz	50.9 dB	> 35.5 dB	15.8 dB
7,8-5,4	DH	Pass	50.6 dB @ 91.25MHz	50.6 dB	> 33.0 dB	17.6 dB
7,8-1,2	DH	Pass	60.2 dB @ 70.50MHz	60.2 dB	> 34.8 dB	25.4 dB
3,6-5,4	DH	Pass	49.4 dB @ 60.75MHz	49.3 dB	> 35.9 dB	13.5 dB
3,6-1,2	DH	Pass	57.2 dB @ 55.00MHz	56.8 dB	> 36.6 dB	20.6 dB
5,4-1,2	DH	Pass	55.0 dB @ 58.25MHz	53.6 dB	> 36.1 dB	18.9 dB
7,8-3,6	RH	Pass	52.1 dB @ 73.25MHz	51.4 dB	> 34.5 dB	17.6 dB
7,8-5,4	RH	Pass	57.5 dB @ 69.75MHz	55.7 dB	> 34.9 dB	22.6 dB
7,8-1,2	RH	Pass	63.6 dB @ 90.00MHz	63.6 dB	> 33.1 dB	30.5 dB
3,6-5,4	RH	Pass	64.9 dB @ 12.40MHz	55.6 dB	> 47.0 dB	17.9 dB
3,6-1,2	RH	Pass	72.1 dB @ 11.95MHz	61.4 dB	> 47.3 dB	24.8 dB
5,4-1,2	RH	Pass	55.0 dB @ 77.00MHz	55.0 dB	> 34.2 dB	20.8 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.2 dB @ 1.30MHz	23.2 dB	> 19.0 dB	4.2 dB
3,6	DH	Pass	23.0 dB @ 1.15MHz	23.0 dB	> 19.0 dB	4.0 dB
5,4	DH	Pass	22.1 dB @ 1.60MHz	22.1 dB	> 19.0 dB	3.1 dB
1,2	DH	Pass	23.7 dB @ 1.15MHz	22.4 dB	> 19.0 dB	4.7 dB
7,8	RH	Pass	22.5 dB @ 1.30MHz	22.5 dB	> 19.0 dB	3.5 dB
3,6	RH	Pass	22.5 dB @ 1.15MHz	22.5 dB	> 19.0 dB	3.5 dB
5,4	RH	Pass	21.9 dB @ 1.15MHz	21.9 dB	> 19.0 dB	2.9 dB
1,2	RH	Pass	23.1 dB @ 1.15MHz	23.1 dB	> 19.0 dB	4.1 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.8 dB @ 2.50MHz	5.4 dB	< 3.1 dB	2.3 dB
3,6	Pass	0.8 dB @ 2.50MHz	5.5 dB	< 3.1 dB	2.3 dB
5,4	Pass	0.9 dB @ 2.50MHz	5.4 dB	< 3.1 dB	2.2 dB
1,2	Pass	0.8 dB @ 2.50MHz	5.4 dB	< 3.1 dB	2.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	45.4 dB @ 91.25MHz	N/A	>= 13.0 dB	32.4 dB
3,6	DH	Pass	44.9 dB @ 66.75MHz	N/A	>= 18.4 dB	26.5 dB
5,4	DH	Pass	44.9 dB @ 66.75MHz	N/A	>= 18.4 dB	26.5 dB
1,2	DH	Pass	48.8 dB @ 77.75MHz	N/A	>= 15.8 dB	33.0 dB
7,8	RH	Pass	46.4 dB @ 86.50MHz	N/A	>= 13.9 dB	32.5 dB
3,6	RH	Pass	46.3 dB @ 86.50MHz	N/A	>= 13.9 dB	32.4 dB
5,4	RH	Pass	50.2 dB @ 77.00MHz	N/A	>= 16.0 dB	34.2 dB
1,2	RH	Pass	50.2 dB @ 77.00MHz	N/A	>= 16.0 dB	34.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:39:46
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	57.3 dB @ 38.25MHz	53.1 dB	> 27.0 dB	30.3 dB
7,8-5,4	DH	Pass	62.3 dB @ 8.50MHz	43.0 dB	> 40.0 dB	22.3 dB
7,8-1,2	DH	Pass	56.7 dB @ 51.00MHz	53.2 dB	> 24.5 dB	32.2 dB
3,6-7,8	DH	Pass	54.3 dB @ 87.25MHz	53.7 dB	> 19.8 dB	34.5 dB
3,6-5,4	DH	Pass	47.7 dB @ 99.75MHz	47.7 dB	> 18.6 dB	29.1 dB
3,6-1,2	DH	Pass	46.8 dB @ 95.25MHz	46.8 dB	> 19.0 dB	27.8 dB
5,4-7,8	DH	Pass	66.0 dB @ 5.65MHz	44.4 dB	> 43.6 dB	22.4 dB
5,4-3,6	DH	Pass	41.0 dB @ 86.75MHz	40.0 dB	> 19.8 dB	21.2 dB
5,4-1,2	DH	Pass	62.0 dB @ 7.90MHz	46.9 dB	> 40.7 dB	21.3 dB
1,2-7,8	DH	Pass	50.8 dB @ 100.00MHz	50.8 dB	> 18.6 dB	32.2 dB
1,2-3,6	DH	Pass	44.3 dB @ 79.00MHz	44.1 dB	> 20.7 dB	23.6 dB
1,2-5,4	DH	Pass	64.5 dB @ 6.10MHz	47.7 dB	> 42.9 dB	21.6 dB
7,8-3,6	RH	Pass	57.2 dB @ 38.25MHz	53.2 dB	> 27.0 dB	30.2 dB
7,8-5,4	RH	Pass	62.3 dB @ 8.50MHz	42.9 dB	> 40.0 dB	22.3 dB
7,8-1,2	RH	Pass	56.7 dB @ 51.00MHz	53.2 dB	> 24.5 dB	32.2 dB
3,6-7,8	RH	Pass	54.2 dB @ 86.75MHz	53.6 dB	> 19.8 dB	34.4 dB
3,6-5,4	RH	Pass	47.6 dB @ 99.75MHz	47.6 dB	> 18.6 dB	29.0 dB
3,6-1,2	RH	Pass	47.2 dB @ 91.75MHz	46.8 dB	> 19.4 dB	27.8 dB
5,4-7,8	RH	Pass	68.5 dB @ 4.15MHz	44.4 dB	> 46.3 dB	22.2 dB
5,4-3,6	RH	Pass	40.3 dB @ 95.00MHz	40.1 dB	> 19.1 dB	21.2 dB
5,4-1,2	RH	Pass	61.9 dB @ 7.90MHz	46.9 dB	> 40.7 dB	21.2 dB
1,2-7,8	RH	Pass	50.8 dB @ 100.00MHz	50.8 dB	> 18.6 dB	32.2 dB
1,2-3,6	RH	Pass	46.2 dB @ 65.00MHz	44.2 dB	> 22.4 dB	23.8 dB
1,2-5,4	RH	Pass	68.1 dB @ 4.00MHz	47.6 dB	> 46.6 dB	21.5 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	48.8 dB @ 70.25MHz	48.5 dB	> 31.8 dB	17.0 dB
3,6	DH	Pass	47.7 dB @ 60.75MHz	47.1 dB	> 32.9 dB	14.8 dB
5,4	DH	Pass	48.8 dB @ 57.25MHz	47.6 dB	> 33.3 dB	15.5 dB
1,2	DH	Pass	53.4 dB @ 58.25MHz	52.4 dB	> 33.1 dB	20.3 dB
7,8	RH	Pass	51.2 dB @ 76.50MHz	51.2 dB	> 31.2 dB	20.0 dB
3,6	RH	Pass	50.7 dB @ 73.25MHz	50.4 dB	> 31.5 dB	19.2 dB
5,4	RH	Pass	66.4 dB @ 8.80MHz	52.0 dB	> 46.4 dB	20.0 dB
1,2	RH	Pass	56.1 dB @ 58.50MHz	54.4 dB	> 33.1 dB	23.0 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	43.3 dB @ 90.75MHz	N/A	>= 10.1 dB	33.2 dB
3,6	DH	Pass	42.6 dB @ 67.00MHz	N/A	>= 15.3 dB	27.3 dB
5,4	DH	Pass	43.1 dB @ 70.00MHz	N/A	>= 14.5 dB	28.6 dB
1,2	DH	Pass	47.7 dB @ 73.75MHz	N/A	>= 13.7 dB	34.0 dB
7,8	RH	Pass	46.1 dB @ 93.25MHz	N/A	>= 9.6 dB	36.5 dB
3,6	RH	Pass	45.5 dB @ 76.50MHz	N/A	>= 13.1 dB	32.4 dB
5,4	RH	Pass	47.3 dB @ 76.25MHz	N/A	>= 13.1 dB	34.2 dB
1,2	RH	Pass	49.6 dB @ 76.75MHz	N/A	>= 13.0 dB	36.6 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	52.8 dB @ 31.50MHz	43.2 dB	>= 25.6 dB	27.2 dB
3,6	DH	Pass	39.2 dB @ 86.75MHz	38.7 dB	>= 16.8 dB	22.4 dB
5,4	DH	Pass	48.0 dB @ 37.50MHz	40.8 dB	>= 24.1 dB	23.9 dB
1,2	DH	Pass	55.2 dB @ 16.30MHz	44.7 dB	>= 31.4 dB	23.8 dB
7,8	RH	Pass	56.2 dB @ 16.75MHz	42.2 dB	>= 31.1 dB	25.1 dB
3,6	RH	Pass	43.9 dB @ 97.75MHz	43.9 dB	>= 15.8 dB	28.1 dB
5,4	RH	Pass	55.2 dB @ 12.85MHz	38.4 dB	>= 33.4 dB	21.8 dB
1,2	RH	Pass	54.1 dB @ 17.20MHz	42.5 dB	>= 30.9 dB	23.2 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

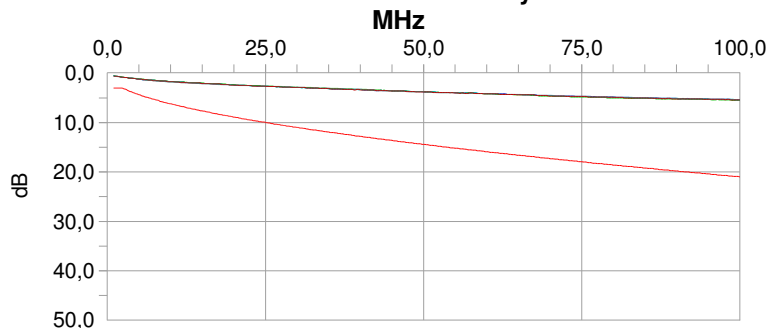
Cable ID 1: 7/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:39:46
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

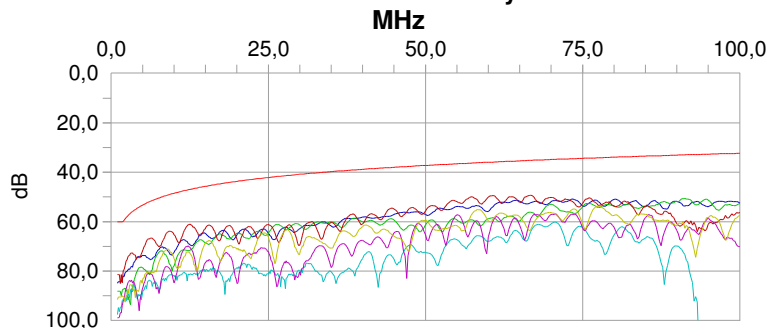
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

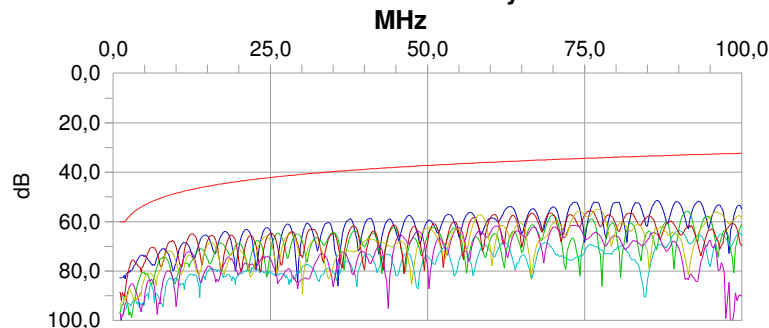
Attenuation Summary



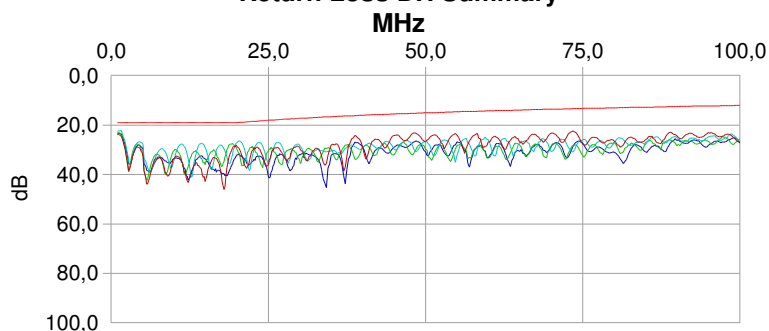
NEXT DH Summary



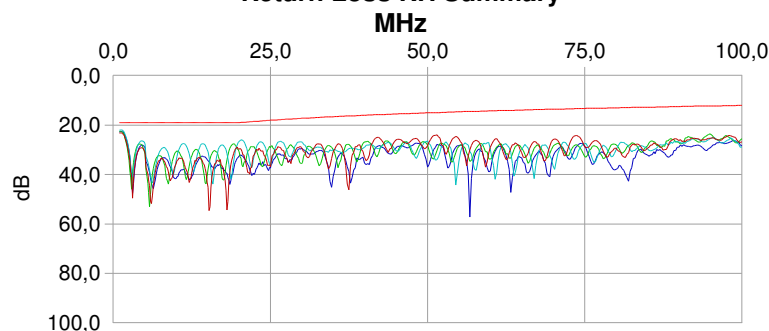
NEXT RH Summary



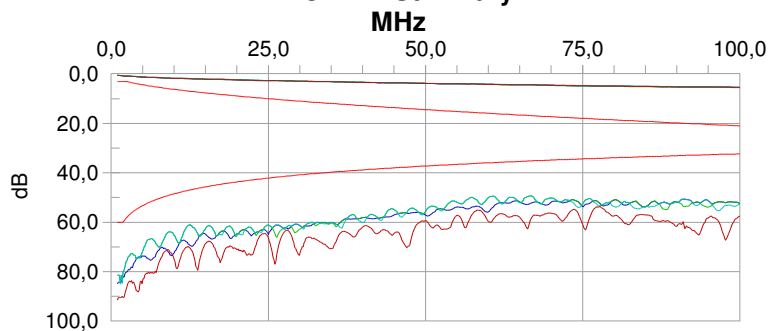
Return Loss DH Summary



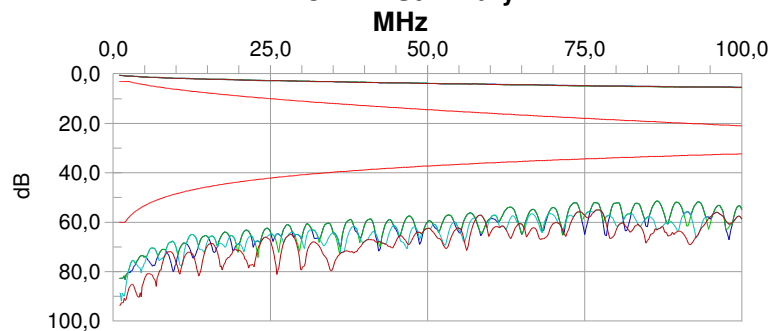
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

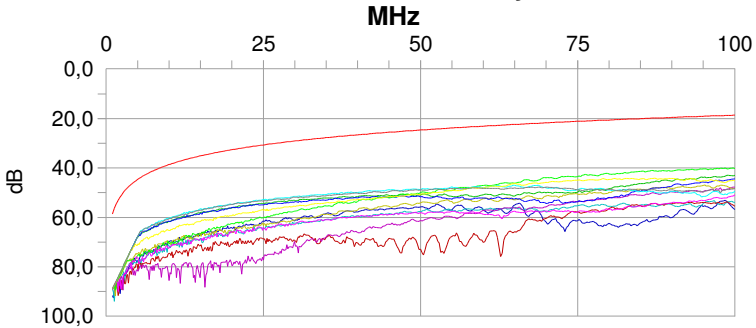
Cable ID 1: 7/17
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:39:46
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

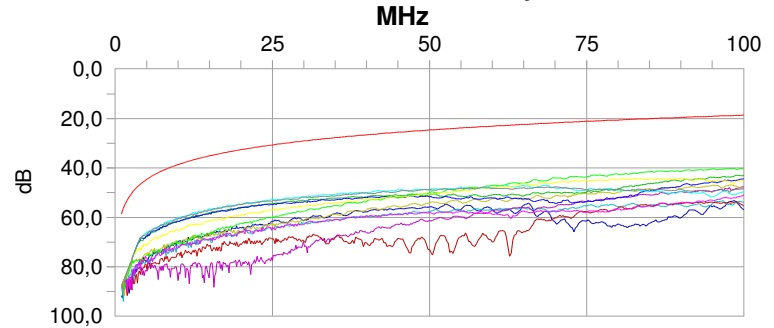
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

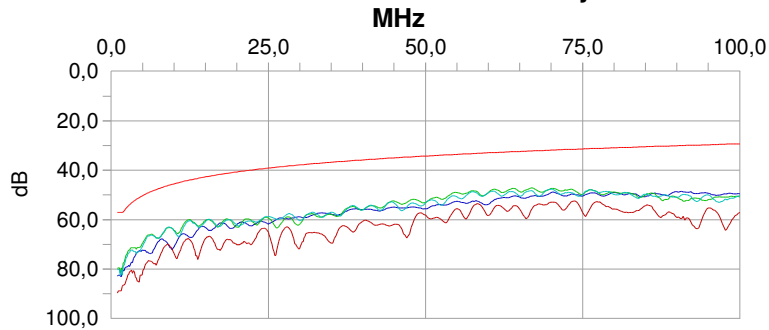
ELFEXT DH Summary



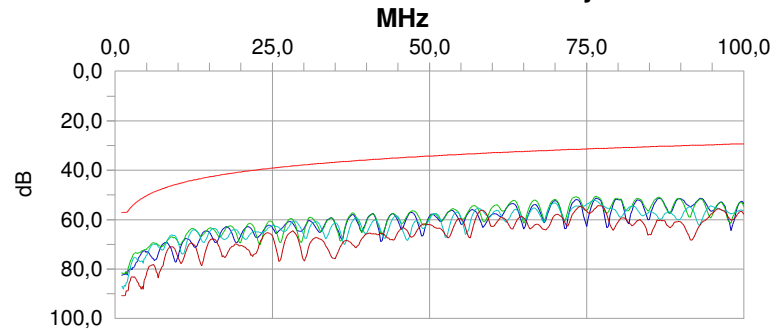
ELFEXT RH Summary



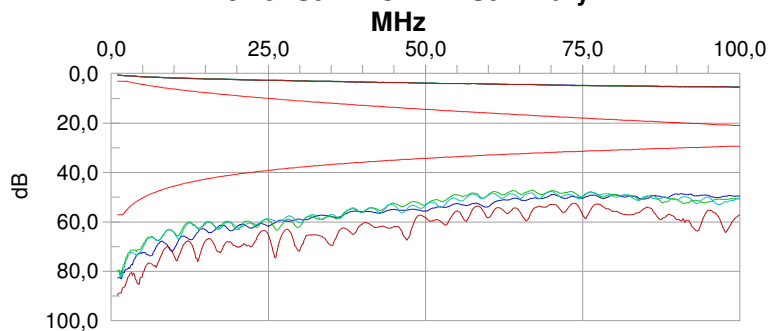
Power Sum NEXT DH Summary



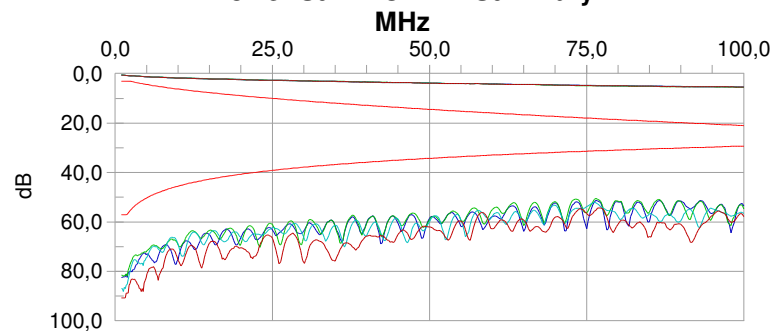
Power Sum NEXT RH Summary



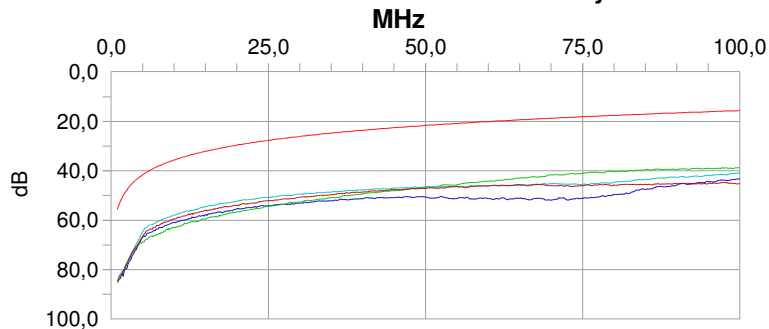
Power Sum ACR DH Summary



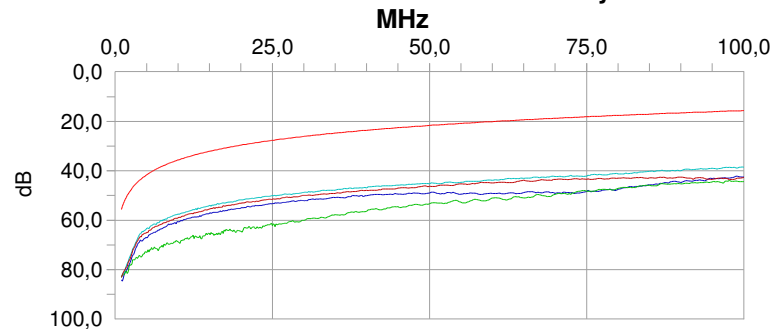
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

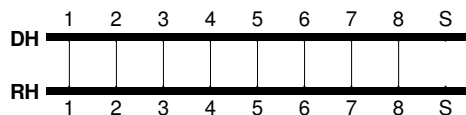
Cable ID 1: 7/18
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:40:25
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	32.4m	34.1m	33.5m	32.8m	< 90.0m	Pass
Prop. Delay	171.6ns	179.6ns	177.3ns	172.2ns	< 498.0ns	Pass
Delay Skew	8.0ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	33.8 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	50.8 dB @ 64.50MHz	50.0 dB	> 35.4 dB	15.4 dB
7,8-5,4	DH	Pass	57.6 dB @ 93.75MHz	57.6 dB	> 32.8 dB	24.8 dB
7,8-1,2	DH	Pass	60.7 dB @ 67.50MHz	60.4 dB	> 35.1 dB	25.6 dB
3,6-5,4	DH	Pass	50.5 dB @ 60.50MHz	50.0 dB	> 35.9 dB	14.6 dB
3,6-1,2	DH	Pass	56.8 dB @ 67.50MHz	56.7 dB	> 35.1 dB	21.7 dB
5,4-1,2	DH	Pass	52.5 dB @ 70.50MHz	52.0 dB	> 34.8 dB	17.7 dB
7,8-3,6	RH	Pass	55.3 dB @ 58.25MHz	53.4 dB	> 36.1 dB	19.2 dB
7,8-5,4	RH	Pass	60.6 dB @ 55.25MHz	59.4 dB	> 36.5 dB	24.1 dB
7,8-1,2	RH	Pass	66.9 dB @ 43.25MHz	63.4 dB	> 38.3 dB	28.6 dB
3,6-5,4	RH	Pass	75.9 dB @ 2.95MHz	55.3 dB	> 56.9 dB	19.0 dB
3,6-1,2	RH	Pass	59.7 dB @ 74.75MHz	59.6 dB	> 34.4 dB	25.3 dB
5,4-1,2	RH	Pass	71.5 dB @ 4.75MHz	54.8 dB	> 53.6 dB	17.9 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.3 dB @ 1.15MHz	23.3 dB	> 19.0 dB	4.3 dB
3,6	DH	Pass	23.0 dB @ 1.15MHz	23.0 dB	> 19.0 dB	4.0 dB
5,4	DH	Pass	22.3 dB @ 1.60MHz	22.3 dB	> 19.0 dB	3.3 dB
1,2	DH	Pass	23.9 dB @ 1.15MHz	23.1 dB	> 19.0 dB	4.9 dB
7,8	RH	Pass	22.7 dB @ 1.30MHz	22.7 dB	> 19.0 dB	3.7 dB
3,6	RH	Pass	22.6 dB @ 1.00MHz	22.6 dB	> 19.0 dB	3.6 dB
5,4	RH	Pass	22.0 dB @ 1.15MHz	22.0 dB	> 19.0 dB	3.0 dB
1,2	RH	Pass	23.3 dB @ 1.15MHz	23.3 dB	> 19.0 dB	4.3 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.9 dB @ 2.50MHz	5.4 dB	< 3.1 dB	2.2 dB
3,6	Pass	0.8 dB @ 2.50MHz	5.5 dB	< 3.1 dB	2.3 dB
5,4	Pass	0.9 dB @ 2.50MHz	5.4 dB	< 3.1 dB	2.2 dB
1,2	Pass	0.8 dB @ 2.50MHz	5.5 dB	< 3.1 dB	2.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	45.1 dB @ 80.25MHz	N/A	>= 15.3 dB	29.8 dB
3,6	DH	Pass	45.0 dB @ 80.25MHz	N/A	>= 15.3 dB	29.7 dB
5,4	DH	Pass	45.5 dB @ 66.50MHz	N/A	>= 18.4 dB	27.1 dB
1,2	DH	Pass	47.2 dB @ 76.75MHz	N/A	>= 16.0 dB	31.2 dB
7,8	RH	Pass	48.5 dB @ 80.25MHz	N/A	>= 15.3 dB	33.2 dB
3,6	RH	Pass	48.4 dB @ 80.25MHz	N/A	>= 15.3 dB	33.1 dB
5,4	RH	Pass	50.0 dB @ 77.00MHz	N/A	>= 16.0 dB	34.0 dB
1,2	RH	Pass	50.0 dB @ 77.00MHz	N/A	>= 16.0 dB	34.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/18
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:40:25
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	50.5 dB @ 47.00MHz	48.0 dB	> 25.2 dB	25.3 dB
7,8-5,4	DH	Pass	57.9 dB @ 8.50MHz	42.9 dB	> 40.0 dB	17.9 dB
7,8-1,2	DH	Pass	63.1 dB @ 8.20MHz	43.5 dB	> 40.3 dB	22.8 dB
3,6-7,8	DH	Pass	66.4 dB @ 14.35MHz	51.6 dB	> 35.5 dB	30.9 dB
3,6-5,4	DH	Pass	45.5 dB @ 99.50MHz	45.4 dB	> 18.7 dB	26.8 dB
3,6-1,2	DH	Pass	48.3 dB @ 93.75MHz	48.0 dB	> 19.2 dB	29.1 dB
5,4-7,8	DH	Pass	58.4 dB @ 7.90MHz	43.7 dB	> 40.7 dB	17.7 dB
5,4-3,6	DH	Pass	38.5 dB @ 98.75MHz	38.5 dB	> 18.7 dB	19.8 dB
5,4-1,2	DH	Pass	59.7 dB @ 8.35MHz	46.2 dB	> 40.2 dB	19.5 dB
1,2-7,8	DH	Pass	64.5 dB @ 7.60MHz	43.1 dB	> 41.0 dB	23.5 dB
1,2-3,6	DH	Pass	45.6 dB @ 79.25MHz	45.3 dB	> 20.6 dB	25.0 dB
1,2-5,4	DH	Pass	61.1 dB @ 7.90MHz	46.5 dB	> 40.7 dB	20.4 dB
7,8-3,6	RH	Pass	50.5 dB @ 47.00MHz	48.0 dB	> 25.2 dB	25.3 dB
7,8-5,4	RH	Pass	57.9 dB @ 8.50MHz	42.8 dB	> 40.0 dB	17.9 dB
7,8-1,2	RH	Pass	68.1 dB @ 4.45MHz	43.6 dB	> 45.6 dB	22.5 dB
3,6-7,8	RH	Pass	66.4 dB @ 14.35MHz	51.5 dB	> 35.5 dB	30.9 dB
3,6-5,4	RH	Pass	45.4 dB @ 99.50MHz	45.3 dB	> 18.7 dB	26.7 dB
3,6-1,2	RH	Pass	48.3 dB @ 93.75MHz	48.0 dB	> 19.2 dB	29.1 dB
5,4-7,8	RH	Pass	58.3 dB @ 7.90MHz	43.8 dB	> 40.7 dB	17.6 dB
5,4-3,6	RH	Pass	38.6 dB @ 98.75MHz	38.6 dB	> 18.7 dB	19.9 dB
5,4-1,2	RH	Pass	63.6 dB @ 5.20MHz	46.3 dB	> 44.3 dB	19.3 dB
1,2-7,8	RH	Pass	64.5 dB @ 7.60MHz	43.0 dB	> 41.0 dB	23.5 dB
1,2-3,6	RH	Pass	45.8 dB @ 79.00MHz	45.3 dB	> 20.7 dB	25.1 dB
1,2-5,4	RH	Pass	60.7 dB @ 8.20MHz	46.5 dB	> 40.3 dB	20.4 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	50.3 dB @ 64.50MHz	49.4 dB	> 32.4 dB	17.9 dB
3,6	DH	Pass	47.8 dB @ 60.75MHz	47.6 dB	> 32.9 dB	14.9 dB
5,4	DH	Pass	48.6 dB @ 63.25MHz	48.3 dB	> 32.6 dB	16.0 dB
1,2	DH	Pass	52.0 dB @ 64.25MHz	51.2 dB	> 32.5 dB	19.5 dB
7,8	RH	Pass	54.4 dB @ 58.25MHz	53.1 dB	> 33.1 dB	21.3 dB
3,6	RH	Pass	73.3 dB @ 2.95MHz	52.6 dB	> 53.9 dB	19.4 dB
5,4	RH	Pass	70.2 dB @ 4.75MHz	53.7 dB	> 50.6 dB	19.6 dB
1,2	RH	Pass	71.4 dB @ 4.75MHz	53.6 dB	> 50.6 dB	20.8 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	44.6 dB @ 73.75MHz	N/A	>= 13.7 dB	30.9 dB
3,6	DH	Pass	43.0 dB @ 73.00MHz	N/A	>= 13.8 dB	29.2 dB
5,4	DH	Pass	43.7 dB @ 69.75MHz	N/A	>= 14.7 dB	29.0 dB
1,2	DH	Pass	46.4 dB @ 76.50MHz	N/A	>= 13.1 dB	33.3 dB
7,8	RH	Pass	48.3 dB @ 73.75MHz	N/A	>= 13.7 dB	34.6 dB
3,6	RH	Pass	47.6 dB @ 79.75MHz	N/A	>= 12.4 dB	35.2 dB
5,4	RH	Pass	48.9 dB @ 76.50MHz	N/A	>= 13.1 dB	35.8 dB
1,2	RH	Pass	48.8 dB @ 76.75MHz	N/A	>= 13.0 dB	35.8 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	53.0 dB @ 13.30MHz	40.2 dB	>= 33.1 dB	19.9 dB
3,6	DH	Pass	39.0 dB @ 82.75MHz	37.5 dB	>= 17.3 dB	21.7 dB
5,4	DH	Pass	49.8 dB @ 18.25MHz	40.9 dB	>= 30.4 dB	19.4 dB
1,2	DH	Pass	49.9 dB @ 23.50MHz	42.1 dB	>= 28.2 dB	21.7 dB
7,8	RH	Pass	55.3 dB @ 9.70MHz	39.7 dB	>= 35.9 dB	19.4 dB
3,6	RH	Pass	43.5 dB @ 95.00MHz	43.3 dB	>= 16.1 dB	27.4 dB
5,4	RH	Pass	57.6 dB @ 6.55MHz	37.3 dB	>= 39.3 dB	18.3 dB
1,2	RH	Pass	54.8 dB @ 13.30MHz	41.1 dB	>= 33.1 dB	21.7 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

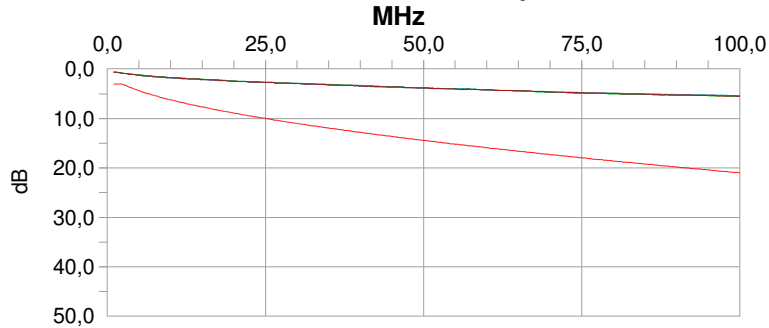
Cable ID 1: 7/18
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:40:25
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

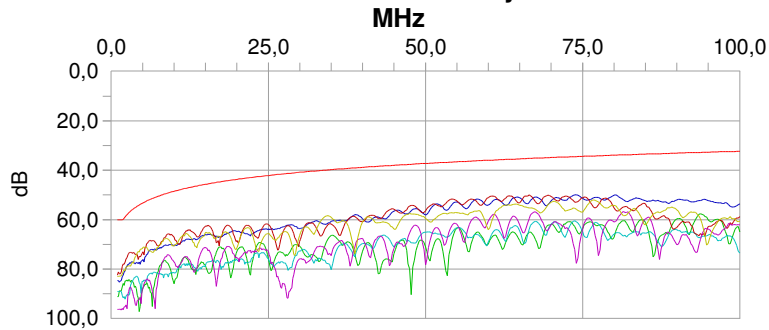
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

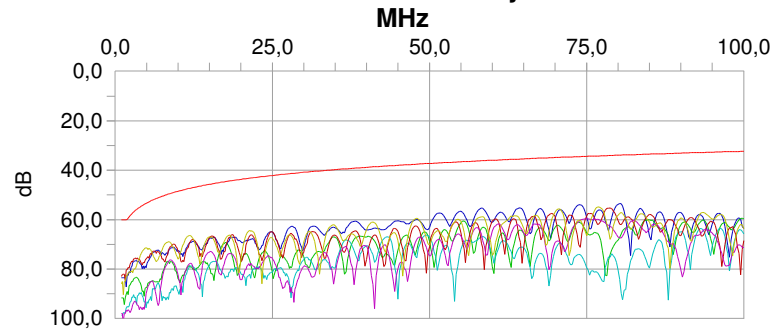
Attenuation Summary



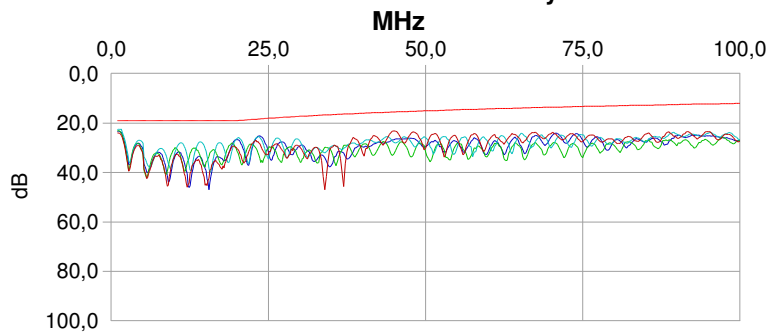
NEXT DH Summary



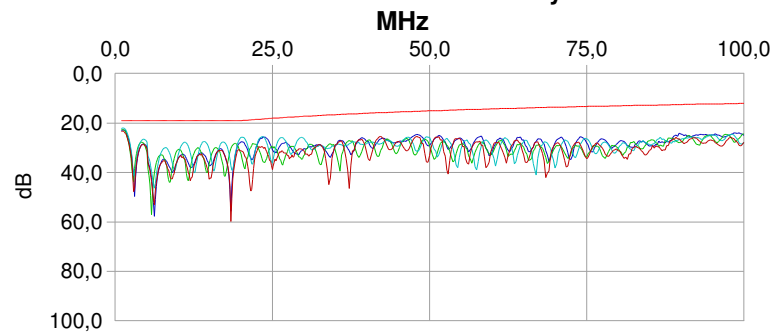
NEXT RH Summary



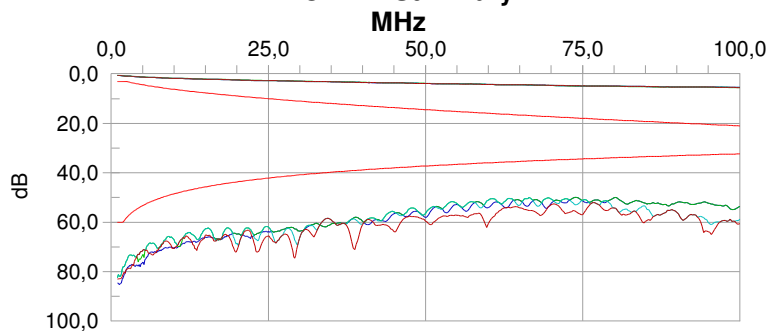
Return Loss DH Summary



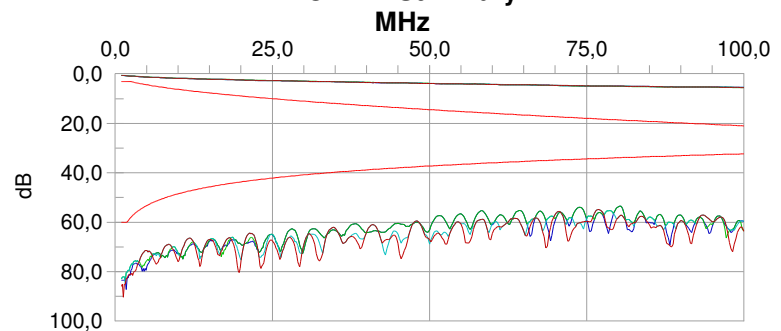
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

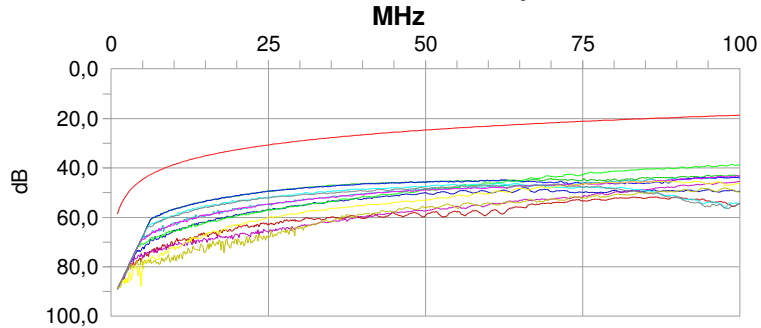
Cable ID 1: 7/18
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:40:25
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

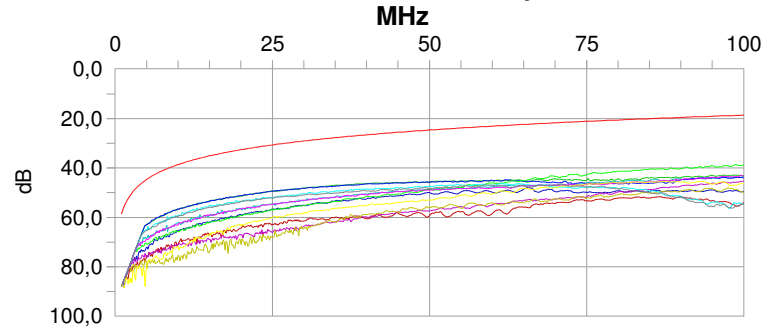
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

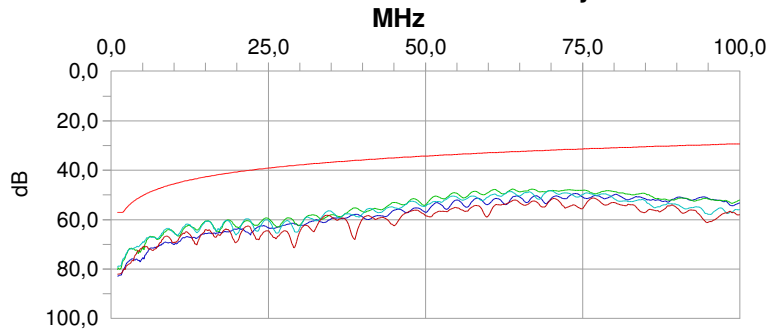
ELFEXT DH Summary



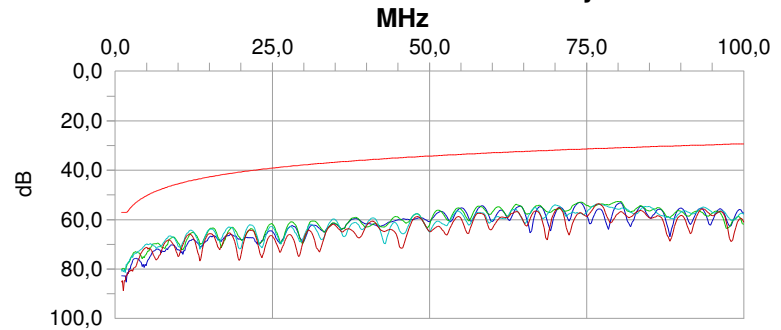
ELFEXT RH Summary



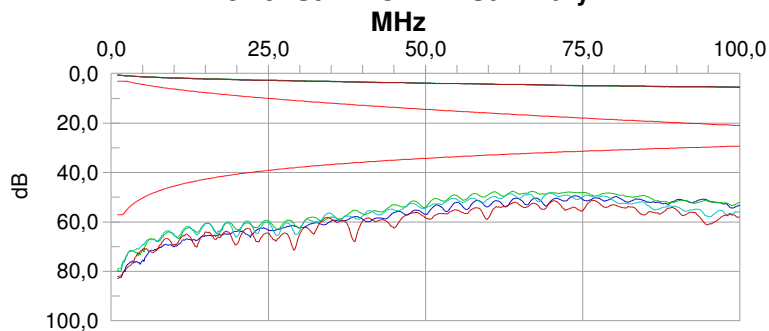
Power Sum NEXT DH Summary



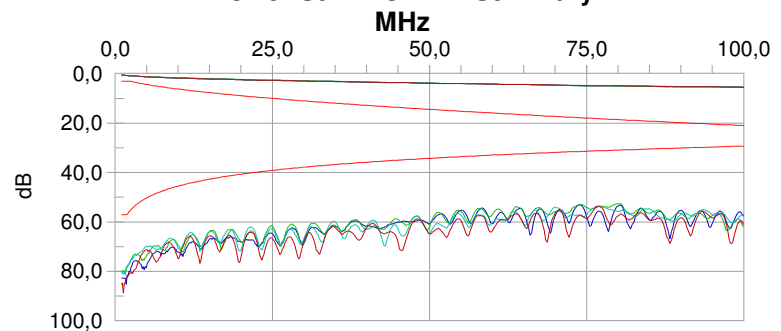
Power Sum NEXT RH Summary



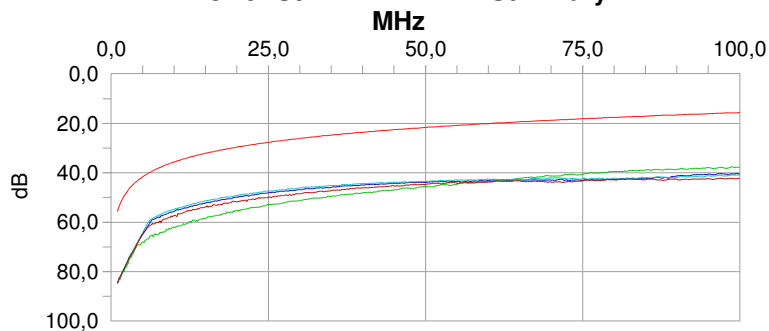
Power Sum ACR DH Summary



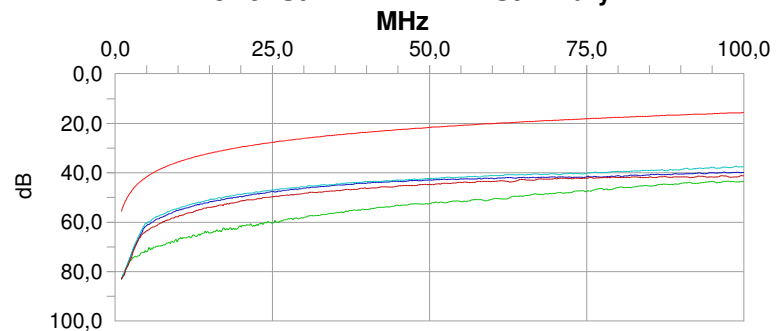
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

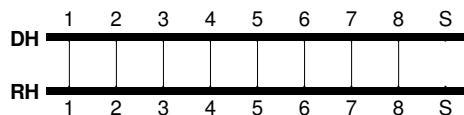
Cable ID 1: 7/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:51:52
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	23.4m	24.7m	24.3m	23.8m	< 90.0m	Pass
Prop. Delay	129.1ns	134.9ns	133.6ns	129.5ns	< 498.0ns	Pass
Delay Skew		5.8ns (Pairs 3,6 vs. 7,8)			< 44.0 ns	Pass
Headroom		32.8 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	50.5 dB @ 62.50MHz	49.6 dB	> 35.7 dB	14.8 dB
7,8-5,4	DH	Pass	52.9 dB @ 93.00MHz	52.9 dB	> 32.8 dB	20.1 dB
7,8-1,2	DH	Pass	62.9 dB @ 55.75MHz	61.5 dB	> 36.5 dB	26.4 dB
3,6-5,4	DH	Pass	50.0 dB @ 57.25MHz	49.4 dB	> 36.3 dB	13.7 dB
3,6-1,2	DH	Pass	55.1 dB @ 61.50MHz	54.3 dB	> 35.8 dB	19.3 dB
5,4-1,2	DH	Pass	52.6 dB @ 70.75MHz	52.5 dB	> 34.8 dB	17.8 dB
7,8-3,6	RH	Pass	50.1 dB @ 92.25MHz	50.1 dB	> 32.9 dB	17.2 dB
7,8-5,4	RH	Pass	63.9 dB @ 30.55MHz	56.6 dB	> 40.7 dB	23.2 dB
7,8-1,2	RH	Pass	82.3 dB @ 3.70MHz	63.3 dB	> 55.3 dB	27.0 dB
3,6-5,4	RH	Pass	72.8 dB @ 4.30MHz	56.2 dB	> 54.3 dB	18.5 dB
3,6-1,2	RH	Pass	57.0 dB @ 74.00MHz	57.0 dB	> 34.5 dB	22.5 dB
5,4-1,2	RH	Pass	68.0 dB @ 8.65MHz	54.0 dB	> 49.5 dB	18.5 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.5 dB @ 1.60MHz	23.5 dB	> 19.0 dB	4.5 dB
3,6	DH	Pass	23.7 dB @ 1.60MHz	23.7 dB	> 19.0 dB	4.7 dB
5,4	DH	Pass	22.1 dB @ 1.60MHz	22.1 dB	> 19.0 dB	3.1 dB
1,2	DH	Pass	24.0 dB @ 1.60MHz	21.6 dB	> 19.0 dB	5.0 dB
7,8	RH	Pass	22.9 dB @ 1.60MHz	22.9 dB	> 19.0 dB	3.9 dB
3,6	RH	Pass	22.8 dB @ 1.60MHz	22.8 dB	> 19.0 dB	3.8 dB
5,4	RH	Pass	22.8 dB @ 1.75MHz	22.8 dB	> 19.0 dB	3.8 dB
1,2	RH	Pass	23.8 dB @ 1.60MHz	22.0 dB	> 19.0 dB	4.8 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 2.50MHz	4.0 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.6 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.5 dB
5,4	Pass	0.7 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.6 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.5 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	46.2 dB @ 70.50MHz	N/A	>= 17.5 dB	28.7 dB
3,6	DH	Pass	46.2 dB @ 64.75MHz	N/A	>= 18.8 dB	27.4 dB
5,4	DH	Pass	46.2 dB @ 64.75MHz	N/A	>= 18.8 dB	27.4 dB
1,2	DH	Pass	49.1 dB @ 71.00MHz	N/A	>= 17.3 dB	31.8 dB
7,8	RH	Pass	46.2 dB @ 96.25MHz	N/A	>= 12.1 dB	34.1 dB
3,6	RH	Pass	46.2 dB @ 96.25MHz	N/A	>= 12.1 dB	34.1 dB
5,4	RH	Pass	50.6 dB @ 71.00MHz	N/A	>= 17.3 dB	33.3 dB
1,2	RH	Pass	50.6 dB @ 71.00MHz	N/A	>= 17.3 dB	33.3 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:51:52
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	55.0 dB @ 39.00MHz	48.7 dB	> 26.8 dB	28.2 dB
7,8-5,4	DH	Pass	60.7 dB @ 7.75MHz	43.4 dB	> 40.8 dB	19.9 dB
7,8-1,2	DH	Pass	66.1 dB @ 5.35MHz	41.6 dB	> 44.0 dB	22.1 dB
3,6-7,8	DH	Pass	52.9 dB @ 88.75MHz	52.4 dB	> 19.7 dB	33.2 dB
3,6-5,4	DH	Pass	68.7 dB @ 7.00MHz	49.3 dB	> 41.7 dB	27.0 dB
3,6-1,2	DH	Pass	44.7 dB @ 97.75MHz	44.7 dB	> 18.8 dB	25.9 dB
5,4-7,8	DH	Pass	59.5 dB @ 8.95MHz	45.1 dB	> 39.6 dB	19.9 dB
5,4-3,6	DH	Pass	64.6 dB @ 6.55MHz	42.0 dB	> 42.3 dB	22.3 dB
5,4-1,2	DH	Pass	60.8 dB @ 7.75MHz	43.7 dB	> 40.8 dB	20.0 dB
1,2-7,8	DH	Pass	55.5 dB @ 18.10MHz	41.6 dB	> 33.5 dB	22.0 dB
1,2-3,6	DH	Pass	42.9 dB @ 79.50MHz	41.3 dB	> 20.6 dB	22.3 dB
1,2-5,4	DH	Pass	57.0 dB @ 12.10MHz	43.7 dB	> 37.0 dB	20.0 dB
7,8-3,6	RH	Pass	55.0 dB @ 39.00MHz	48.6 dB	> 26.8 dB	28.2 dB
7,8-5,4	RH	Pass	59.8 dB @ 8.65MHz	43.4 dB	> 39.9 dB	19.9 dB
7,8-1,2	RH	Pass	66.1 dB @ 5.35MHz	41.6 dB	> 44.0 dB	22.1 dB
3,6-7,8	RH	Pass	53.0 dB @ 88.50MHz	52.4 dB	> 19.7 dB	33.3 dB
3,6-5,4	RH	Pass	68.8 dB @ 7.00MHz	49.4 dB	> 41.7 dB	27.1 dB
3,6-1,2	RH	Pass	44.7 dB @ 97.75MHz	44.7 dB	> 18.8 dB	25.9 dB
5,4-7,8	RH	Pass	59.4 dB @ 8.95MHz	45.1 dB	> 39.6 dB	19.8 dB
5,4-3,6	RH	Pass	68.0 dB @ 4.00MHz	41.9 dB	> 46.6 dB	21.4 dB
5,4-1,2	RH	Pass	60.8 dB @ 7.75MHz	43.7 dB	> 40.8 dB	20.0 dB
1,2-7,8	RH	Pass	55.5 dB @ 18.10MHz	41.6 dB	> 33.5 dB	22.0 dB
1,2-3,6	RH	Pass	42.9 dB @ 79.50MHz	41.3 dB	> 20.6 dB	22.3 dB
1,2-5,4	RH	Pass	57.1 dB @ 12.10MHz	43.7 dB	> 37.0 dB	20.1 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.0 dB @ 70.25MHz	49.0 dB	> 31.8 dB	17.2 dB
3,6	DH	Pass	46.5 dB @ 61.50MHz	46.5 dB	> 32.8 dB	13.7 dB
5,4	DH	Pass	48.8 dB @ 57.25MHz	48.0 dB	> 33.3 dB	15.5 dB
1,2	DH	Pass	51.8 dB @ 62.00MHz	51.7 dB	> 32.7 dB	19.1 dB
7,8	RH	Pass	49.6 dB @ 92.25MHz	49.6 dB	> 29.9 dB	19.7 dB
3,6	RH	Pass	66.1 dB @ 8.20MHz	49.6 dB	> 46.9 dB	19.2 dB
5,4	RH	Pass	65.5 dB @ 8.35MHz	53.2 dB	> 46.7 dB	18.8 dB
1,2	RH	Pass	67.4 dB @ 8.65MHz	53.3 dB	> 46.5 dB	20.9 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	45.3 dB @ 93.00MHz	N/A	>= 9.6 dB	35.7 dB
3,6	DH	Pass	43.1 dB @ 70.00MHz	N/A	>= 14.5 dB	28.6 dB
5,4	DH	Pass	44.6 dB @ 69.75MHz	N/A	>= 14.7 dB	29.9 dB
1,2	DH	Pass	48.3 dB @ 70.75MHz	N/A	>= 14.4 dB	33.9 dB
7,8	RH	Pass	45.8 dB @ 92.25MHz	N/A	>= 9.8 dB	36.0 dB
3,6	RH	Pass	45.8 dB @ 92.25MHz	N/A	>= 9.8 dB	36.0 dB
5,4	RH	Pass	49.8 dB @ 70.00MHz	N/A	>= 14.5 dB	35.3 dB
1,2	RH	Pass	49.9 dB @ 71.00MHz	N/A	>= 14.3 dB	35.6 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.6 dB @ 23.50MHz	40.0 dB	>= 28.2 dB	21.4 dB
3,6	DH	Pass	40.1 dB @ 79.50MHz	38.3 dB	>= 17.6 dB	22.5 dB
5,4	DH	Pass	57.3 dB @ 7.90MHz	40.2 dB	>= 37.7 dB	19.6 dB
1,2	DH	Pass	49.6 dB @ 23.05MHz	38.5 dB	>= 28.4 dB	21.2 dB
7,8	RH	Pass	52.8 dB @ 15.40MHz	39.0 dB	>= 31.9 dB	20.9 dB
3,6	RH	Pass	43.1 dB @ 97.25MHz	43.0 dB	>= 15.9 dB	27.2 dB
5,4	RH	Pass	61.7 dB @ 4.30MHz	38.9 dB	>= 42.9 dB	18.8 dB
1,2	RH	Pass	54.7 dB @ 12.10MHz	37.5 dB	>= 34.0 dB	20.7 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

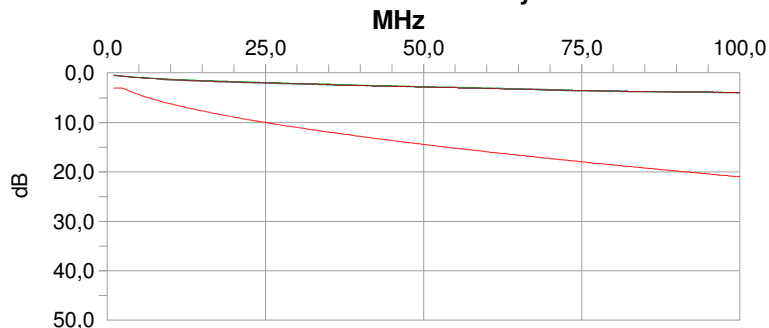
Cable ID 1: 7/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:51:52
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

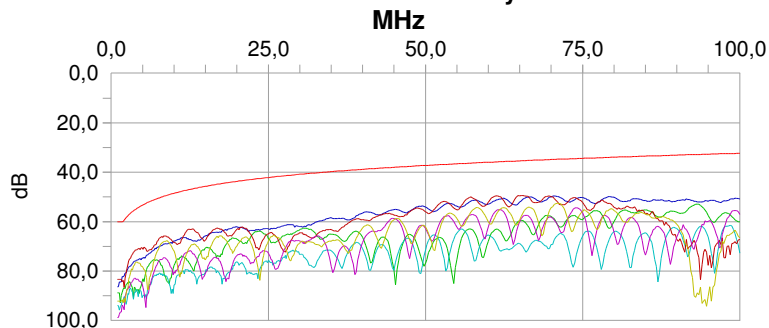
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

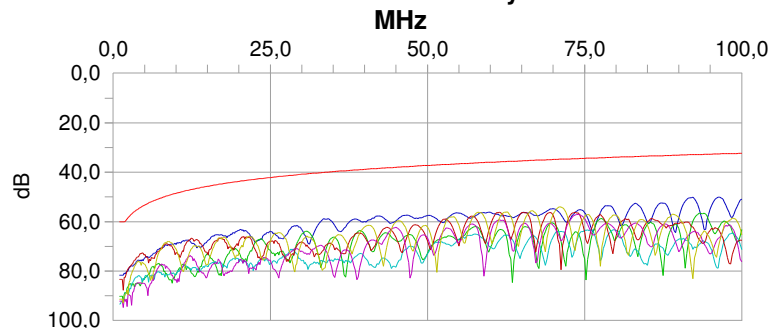
Attenuation Summary



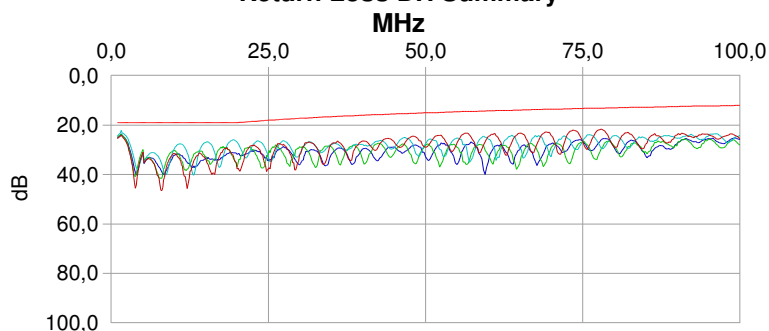
NEXT DH Summary



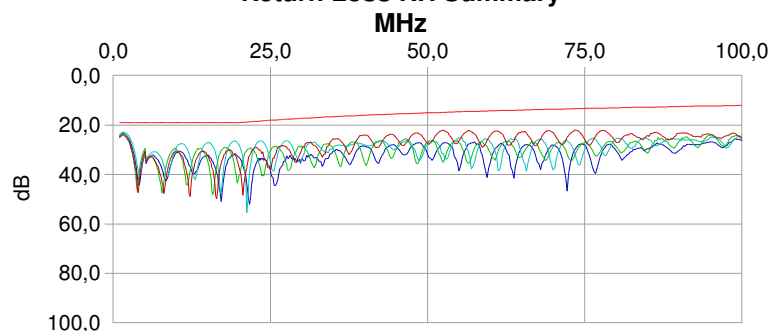
NEXT RH Summary



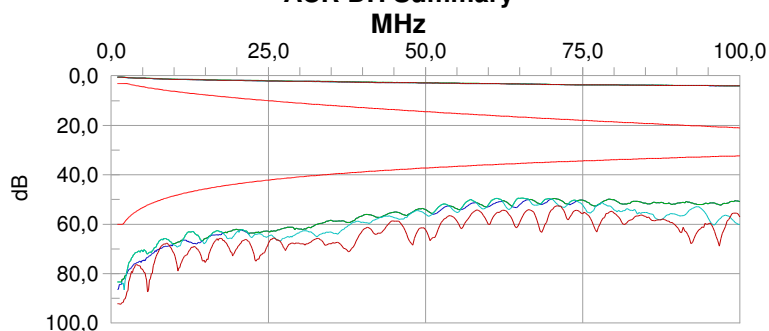
Return Loss DH Summary



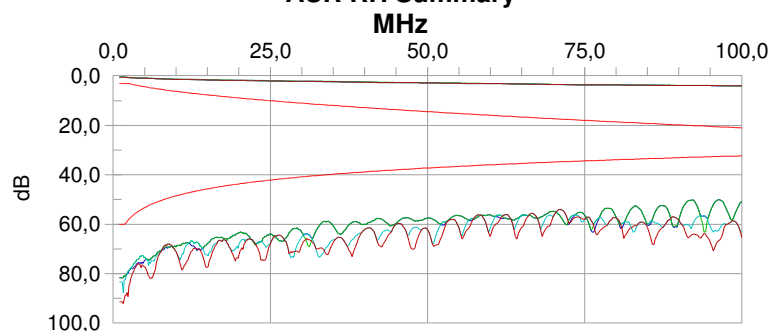
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

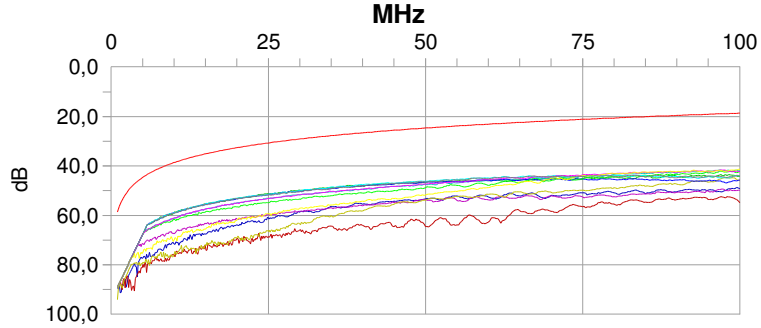
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Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:51:52
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

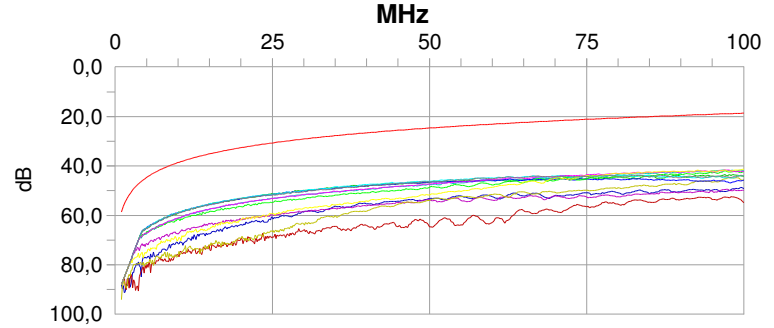
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

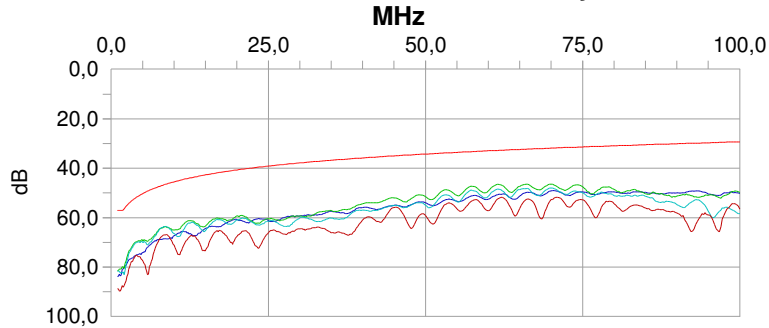
ELFEXT DH Summary



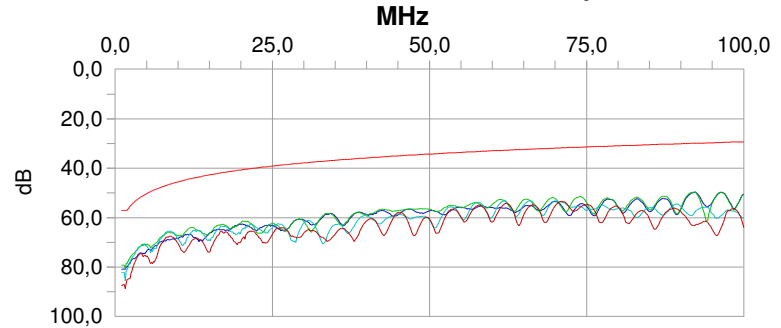
ELFEXT RH Summary



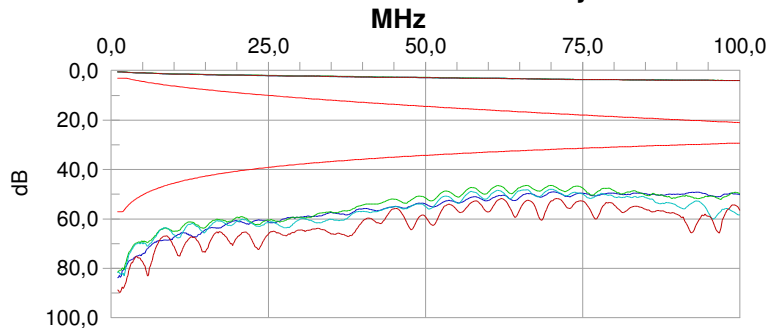
Power Sum NEXT DH Summary



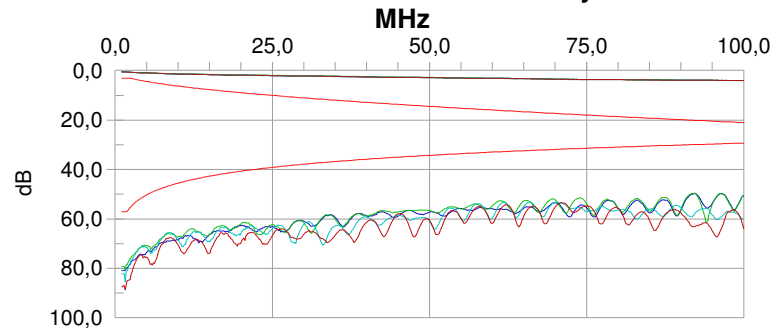
Power Sum NEXT RH Summary



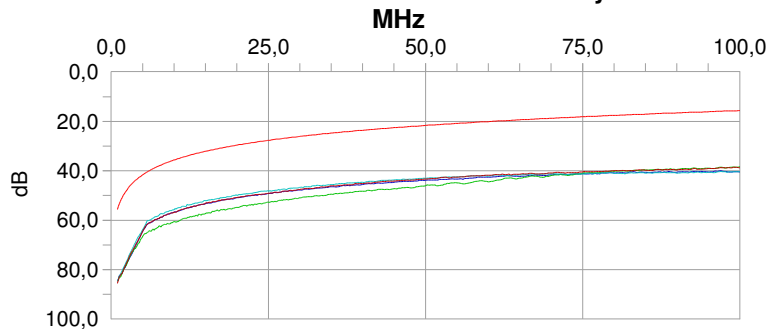
Power Sum ACR DH Summary



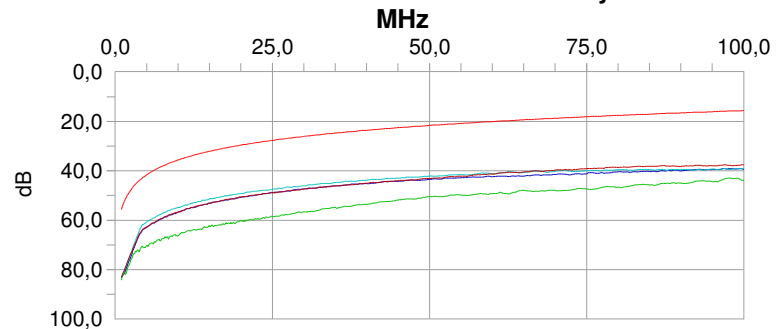
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

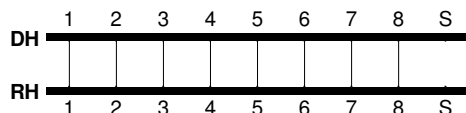
Cable ID 1: 7/20
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:13:13
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	30.8m	32.2m	31.9m	31.1m	< 90.0m	Pass
Prop. Delay	163.9ns	170.6ns	169.7ns	163.9ns	< 498.0ns	Pass
Delay Skew	6.7ns (Pairs 3,6 vs. 1,2)				< 44.0 ns	Pass
Headroom	32.0 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	49.4 dB @ 57.75MHz	47.6 dB	> 36.2 dB	13.2 dB
7,8-5,4	DH	Pass	52.5 dB @ 75.75MHz	51.9 dB	> 34.3 dB	18.2 dB
7,8-1,2	DH	Pass	62.3 dB @ 62.00MHz	61.9 dB	> 35.7 dB	26.6 dB
3,6-5,4	DH	Pass	48.8 dB @ 60.50MHz	48.4 dB	> 35.9 dB	12.9 dB
3,6-1,2	DH	Pass	55.3 dB @ 70.75MHz	55.2 dB	> 34.8 dB	20.5 dB
5,4-1,2	DH	Pass	57.1 dB @ 49.50MHz	56.0 dB	> 37.3 dB	19.8 dB
7,8-3,6	RH	Pass	58.8 dB @ 23.20MHz	50.5 dB	> 42.6 dB	16.2 dB
7,8-5,4	RH	Pass	63.0 dB @ 33.25MHz	57.2 dB	> 40.1 dB	22.9 dB
7,8-1,2	RH	Pass	64.7 dB @ 49.00MHz	61.1 dB	> 37.4 dB	27.3 dB
3,6-5,4	RH	Pass	65.7 dB @ 9.85MHz	53.4 dB	> 48.6 dB	17.1 dB
3,6-1,2	RH	Pass	56.9 dB @ 70.50MHz	56.9 dB	> 34.8 dB	22.1 dB
5,4-1,2	RH	Pass	56.7 dB @ 67.25MHz	56.3 dB	> 35.1 dB	21.6 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.8 dB @ 1.30MHz	22.8 dB	> 19.0 dB	3.8 dB
3,6	DH	Pass	22.4 dB @ 1.30MHz	22.4 dB	> 19.0 dB	3.4 dB
5,4	DH	Pass	21.2 dB @ 1.60MHz	21.2 dB	> 19.0 dB	2.2 dB
1,2	DH	Pass	22.9 dB @ 1.15MHz	21.8 dB	> 19.0 dB	3.9 dB
7,8	RH	Pass	22.4 dB @ 1.60MHz	22.4 dB	> 19.0 dB	3.4 dB
3,6	RH	Pass	22.1 dB @ 1.15MHz	22.1 dB	> 19.0 dB	3.1 dB
5,4	RH	Pass	21.4 dB @ 1.30MHz	21.4 dB	> 19.0 dB	2.4 dB
1,2	RH	Pass	22.6 dB @ 1.15MHz	22.6 dB	> 19.0 dB	3.6 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.8 dB @ 2.50MHz	5.1 dB	< 3.1 dB	2.3 dB
3,6	Pass	0.8 dB @ 2.50MHz	5.2 dB	< 3.1 dB	2.3 dB
5,4	Pass	0.8 dB @ 2.50MHz	5.1 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.8 dB @ 2.50MHz	5.1 dB	< 3.1 dB	2.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	42.6 dB @ 96.25MHz	N/A	>= 12.1 dB	30.5 dB
3,6	DH	Pass	42.6 dB @ 96.25MHz	N/A	>= 12.1 dB	30.5 dB
5,4	DH	Pass	44.2 dB @ 66.75MHz	N/A	>= 18.4 dB	25.8 dB
1,2	DH	Pass	50.9 dB @ 71.00MHz	N/A	>= 17.3 dB	33.6 dB
7,8	RH	Pass	45.8 dB @ 81.25MHz	N/A	>= 15.1 dB	30.7 dB
3,6	RH	Pass	45.8 dB @ 81.25MHz	N/A	>= 15.1 dB	30.7 dB
5,4	RH	Pass	49.1 dB @ 70.25MHz	N/A	>= 17.5 dB	31.6 dB
1,2	RH	Pass	51.7 dB @ 80.50MHz	N/A	>= 15.3 dB	36.4 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/20
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:13:13
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	63.5 dB @ 25.30MHz	55.5 dB	> 30.6 dB	32.9 dB
7,8-5,4	DH	Pass	62.8 dB @ 6.70MHz	45.6 dB	> 42.1 dB	20.7 dB
7,8-1,2	DH	Pass	64.6 dB @ 57.25MHz	63.9 dB	> 23.5 dB	41.1 dB
3,6-7,8	DH	Pass	59.7 dB @ 78.25MHz	58.5 dB	> 20.7 dB	39.0 dB
3,6-5,4	DH	Pass	66.8 dB @ 6.55MHz	45.5 dB	> 42.3 dB	24.5 dB
3,6-1,2	DH	Pass	48.3 dB @ 99.75MHz	48.3 dB	> 18.6 dB	29.7 dB
5,4-7,8	DH	Pass	63.3 dB @ 6.25MHz	47.0 dB	> 42.7 dB	20.6 dB
5,4-3,6	DH	Pass	62.6 dB @ 6.55MHz	40.5 dB	> 42.3 dB	20.3 dB
5,4-1,2	DH	Pass	65.6 dB @ 6.40MHz	46.7 dB	> 42.5 dB	23.1 dB
1,2-7,8	DH	Pass	59.8 dB @ 86.50MHz	59.4 dB	> 19.9 dB	39.9 dB
1,2-3,6	DH	Pass	45.2 dB @ 80.50MHz	44.9 dB	> 20.5 dB	24.7 dB
1,2-5,4	DH	Pass	67.6 dB @ 5.20MHz	46.0 dB	> 44.3 dB	23.3 dB
7,8-3,6	RH	Pass	63.4 dB @ 25.30MHz	55.6 dB	> 30.6 dB	32.8 dB
7,8-5,4	RH	Pass	64.9 dB @ 5.20MHz	45.6 dB	> 44.3 dB	20.6 dB
7,8-1,2	RH	Pass	64.6 dB @ 57.25MHz	63.9 dB	> 23.5 dB	41.1 dB
3,6-7,8	RH	Pass	59.7 dB @ 78.25MHz	58.4 dB	> 20.7 dB	39.0 dB
3,6-5,4	RH	Pass	66.9 dB @ 6.55MHz	45.4 dB	> 42.3 dB	24.6 dB
3,6-1,2	RH	Pass	48.2 dB @ 99.75MHz	48.2 dB	> 18.6 dB	29.6 dB
5,4-7,8	RH	Pass	62.8 dB @ 6.55MHz	47.0 dB	> 42.3 dB	20.5 dB
5,4-3,6	RH	Pass	62.5 dB @ 6.55MHz	40.6 dB	> 42.3 dB	20.2 dB
5,4-1,2	RH	Pass	68.8 dB @ 4.15MHz	46.7 dB	> 46.3 dB	22.5 dB
1,2-7,8	RH	Pass	59.8 dB @ 86.50MHz	59.4 dB	> 19.9 dB	39.9 dB
1,2-3,6	RH	Pass	45.0 dB @ 82.75MHz	44.9 dB	> 20.3 dB	24.7 dB
1,2-5,4	RH	Pass	67.6 dB @ 5.20MHz	45.9 dB	> 44.3 dB	23.3 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.1 dB @ 57.75MHz	46.5 dB	> 33.2 dB	15.9 dB
3,6	DH	Pass	46.4 dB @ 57.25MHz	45.3 dB	> 33.3 dB	13.1 dB
5,4	DH	Pass	47.8 dB @ 60.50MHz	47.2 dB	> 32.9 dB	14.9 dB
1,2	DH	Pass	52.3 dB @ 70.75MHz	52.2 dB	> 31.8 dB	20.5 dB
7,8	RH	Pass	58.3 dB @ 23.35MHz	50.2 dB	> 39.6 dB	18.7 dB
3,6	RH	Pass	62.8 dB @ 9.55MHz	49.8 dB	> 45.8 dB	17.0 dB
5,4	RH	Pass	73.0 dB @ 2.95MHz	51.5 dB	> 53.9 dB	19.1 dB
1,2	RH	Pass	53.4 dB @ 70.75MHz	53.4 dB	> 31.8 dB	21.6 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	41.5 dB @ 95.00MHz	N/A	>= 9.3 dB	32.2 dB
3,6	DH	Pass	41.0 dB @ 70.25MHz	N/A	>= 14.5 dB	26.5 dB
5,4	DH	Pass	42.9 dB @ 70.00MHz	N/A	>= 14.5 dB	28.4 dB
1,2	DH	Pass	47.9 dB @ 71.00MHz	N/A	>= 14.3 dB	33.6 dB
7,8	RH	Pass	45.3 dB @ 98.00MHz	N/A	>= 8.7 dB	36.6 dB
3,6	RH	Pass	45.1 dB @ 81.00MHz	N/A	>= 12.1 dB	33.0 dB
5,4	RH	Pass	47.0 dB @ 76.75MHz	N/A	>= 13.0 dB	34.0 dB
1,2	RH	Pass	49.1 dB @ 70.75MHz	N/A	>= 14.4 dB	34.7 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	46.5 dB @ 94.75MHz	46.4 dB	>= 16.1 dB	30.4 dB
3,6	DH	Pass	40.8 dB @ 76.00MHz	39.3 dB	>= 18.0 dB	22.8 dB
5,4	DH	Pass	60.2 dB @ 6.55MHz	41.0 dB	>= 39.3 dB	20.9 dB
1,2	DH	Pass	47.5 dB @ 54.00MHz	45.8 dB	>= 21.0 dB	26.5 dB
7,8	RH	Pass	48.3 dB @ 54.50MHz	45.7 dB	>= 20.9 dB	27.4 dB
3,6	RH	Pass	50.0 dB @ 47.25MHz	43.5 dB	>= 22.1 dB	27.9 dB
5,4	RH	Pass	62.7 dB @ 4.15MHz	39.0 dB	>= 43.3 dB	19.4 dB
1,2	RH	Pass	42.9 dB @ 82.75MHz	42.4 dB	>= 17.3 dB	25.6 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

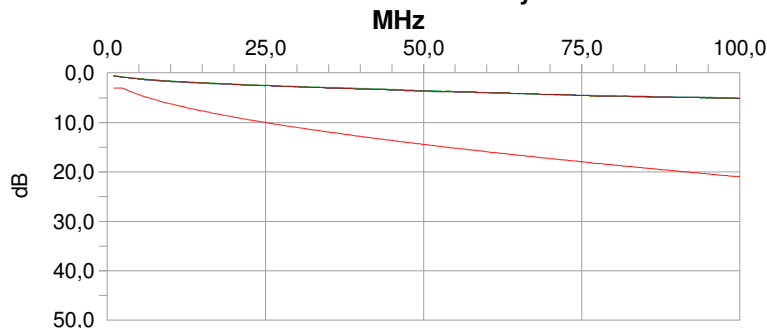
Cable ID 1: 7/20
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:13:13
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

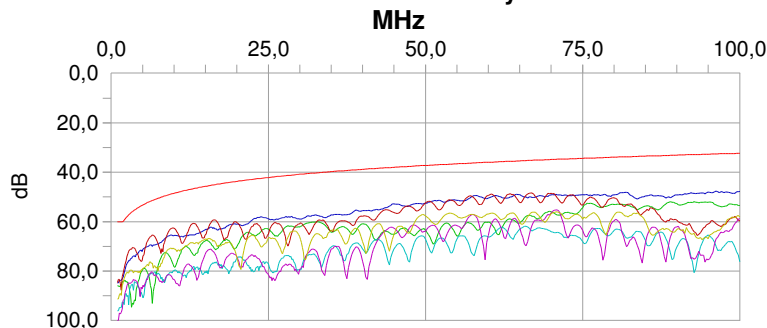
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

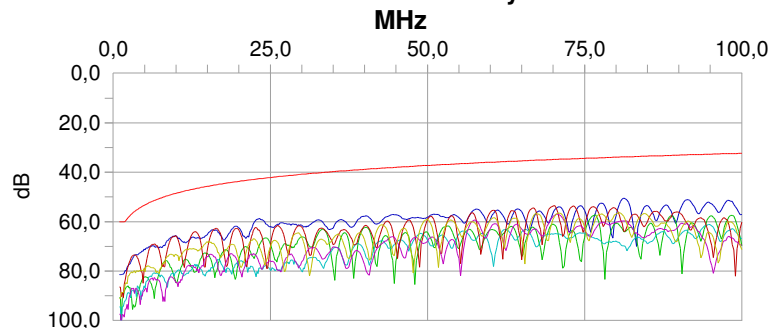
Attenuation Summary



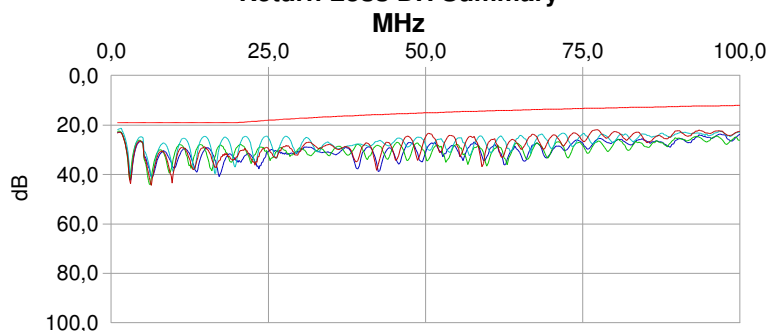
NEXT DH Summary



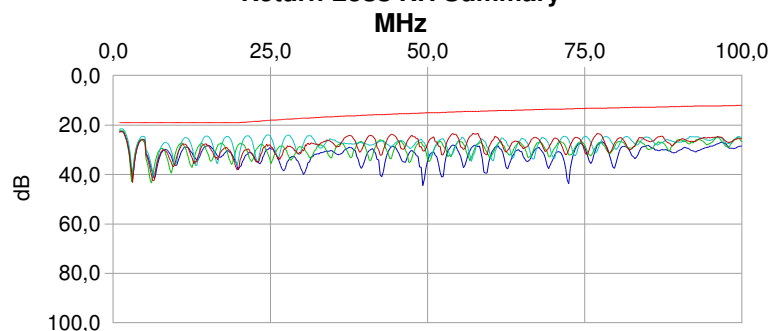
NEXT RH Summary



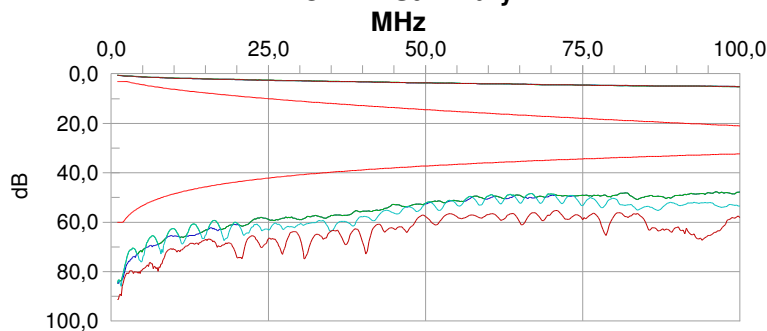
Return Loss DH Summary



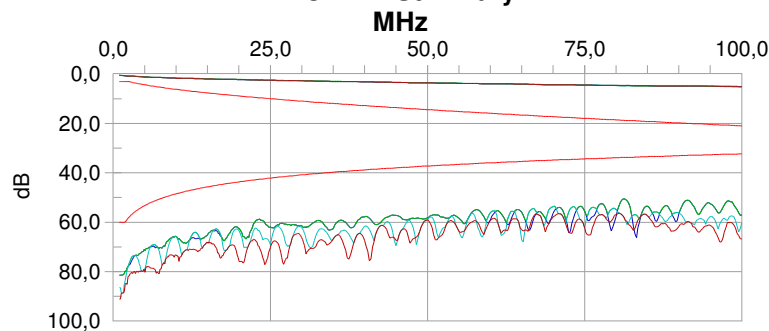
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

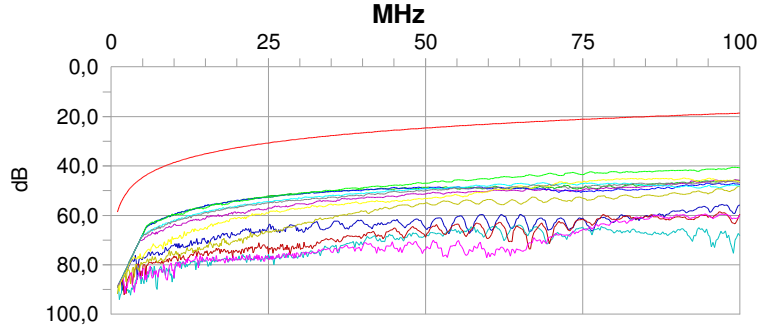
Cable ID 1: 7/20
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:13:13
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

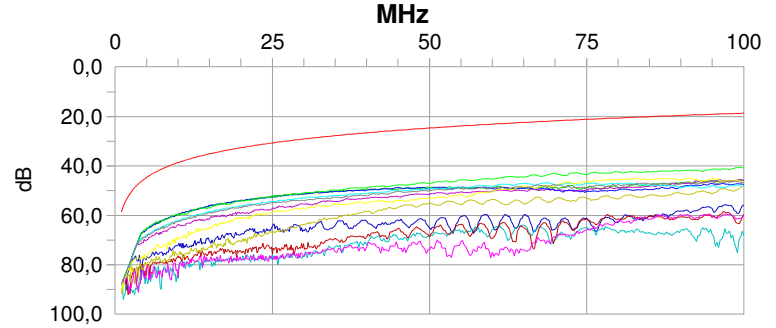
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Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

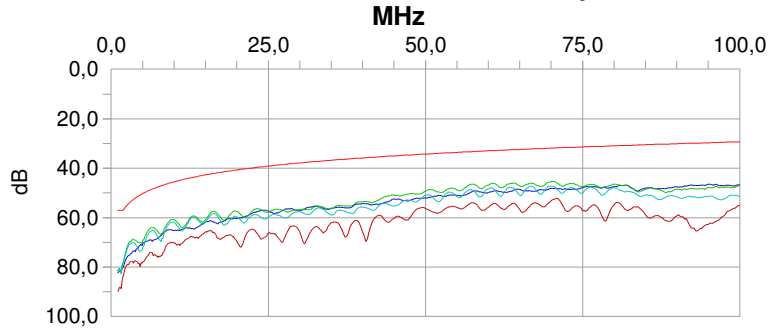
ELFEXT DH Summary



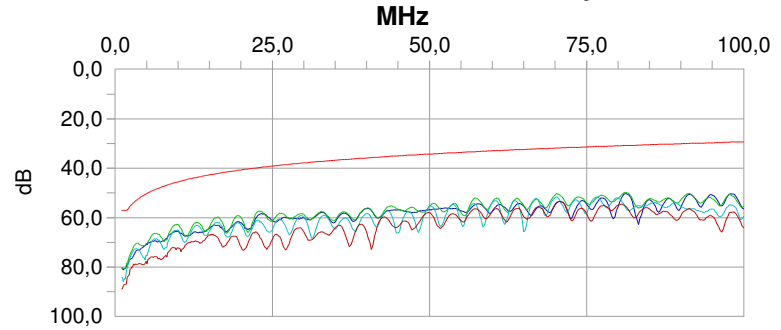
ELFEXT RH Summary



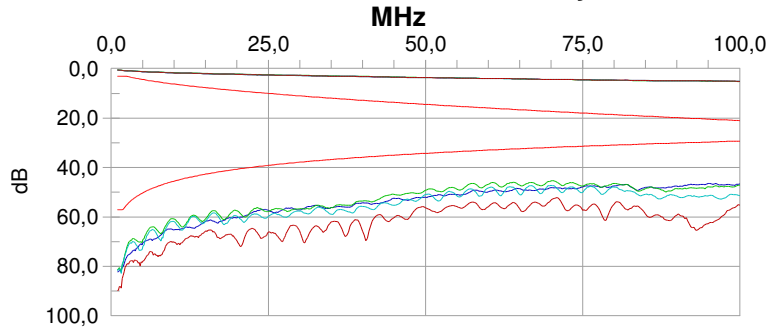
Power Sum NEXT DH Summary



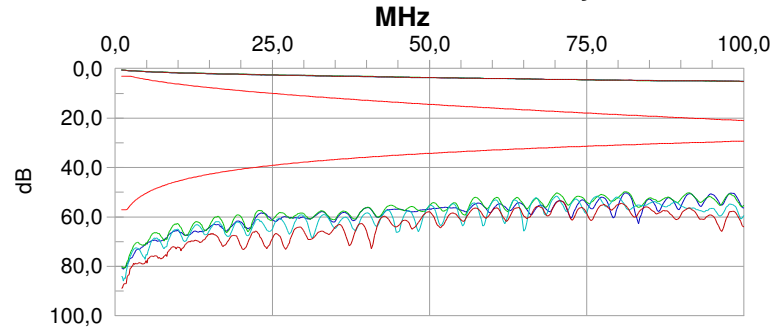
Power Sum NEXT RH Summary



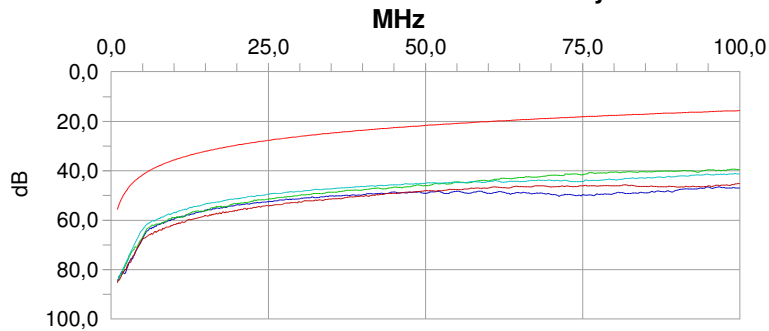
Power Sum ACR DH Summary



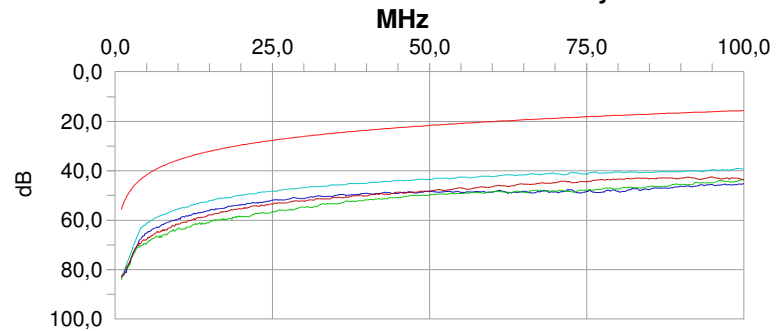
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

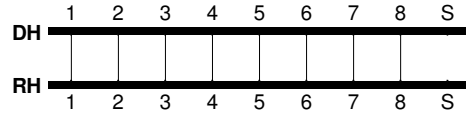
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Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:15:27
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	31.3m	32.8m	32.5m	31.6m	< 90.0m	Pass
Prop. Delay	166.6ns	173.6ns	172.4ns	166.6ns	< 498.0ns	Pass
Delay Skew	7.0ns (Pairs 3,6 vs. 1,2)				< 44.0 ns	Pass
Headroom	34.1 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	52.4 dB @ 53.75MHz	50.1 dB	> 36.7 dB	15.7 dB
7,8-5,4	DH	Pass	54.9 dB @ 71.75MHz	53.2 dB	> 34.7 dB	20.2 dB
7,8-1,2	DH	Pass	61.8 dB @ 64.50MHz	61.8 dB	> 35.4 dB	26.4 dB
3,6-5,4	DH	Pass	50.4 dB @ 62.50MHz	50.1 dB	> 35.7 dB	14.7 dB
3,6-1,2	DH	Pass	56.0 dB @ 60.25MHz	56.0 dB	> 35.9 dB	20.1 dB
5,4-1,2	DH	Pass	55.5 dB @ 60.25MHz	54.5 dB	> 35.9 dB	19.6 dB
7,8-3,6	RH	Pass	61.2 dB @ 22.15MHz	52.0 dB	> 43.0 dB	18.2 dB
7,8-5,4	RH	Pass	58.6 dB @ 71.75MHz	57.7 dB	> 34.7 dB	23.9 dB
7,8-1,2	RH	Pass	66.4 dB @ 51.75MHz	66.1 dB	> 37.0 dB	29.4 dB
3,6-5,4	RH	Pass	76.9 dB @ 2.80MHz	57.1 dB	> 57.2 dB	19.7 dB
3,6-1,2	RH	Pass	59.1 dB @ 69.00MHz	59.1 dB	> 34.9 dB	24.2 dB
5,4-1,2	RH	Pass	58.0 dB @ 60.25MHz	57.8 dB	> 35.9 dB	22.1 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.6 dB @ 1.30MHz	22.6 dB	> 19.0 dB	3.6 dB
3,6	DH	Pass	22.4 dB @ 1.15MHz	22.4 dB	> 19.0 dB	3.4 dB
5,4	DH	Pass	21.2 dB @ 1.60MHz	21.2 dB	> 19.0 dB	2.2 dB
1,2	DH	Pass	22.9 dB @ 1.15MHz	21.8 dB	> 19.0 dB	3.9 dB
7,8	RH	Pass	22.5 dB @ 1.15MHz	22.5 dB	> 19.0 dB	3.5 dB
3,6	RH	Pass	22.2 dB @ 1.15MHz	22.2 dB	> 19.0 dB	3.2 dB
5,4	RH	Pass	21.4 dB @ 1.30MHz	21.4 dB	> 19.0 dB	2.4 dB
1,2	RH	Pass	22.8 dB @ 1.15MHz	22.2 dB	> 19.0 dB	3.8 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.8 dB @ 2.50MHz	5.2 dB	< 3.1 dB	2.3 dB
3,6	Pass	0.8 dB @ 2.50MHz	5.3 dB	< 3.1 dB	2.3 dB
5,4	Pass	0.8 dB @ 2.50MHz	5.1 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.8 dB @ 2.50MHz	5.2 dB	< 3.1 dB	2.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	45.4 dB @ 79.50MHz	N/A	>= 15.4 dB	30.0 dB
3,6	DH	Pass	45.4 dB @ 79.50MHz	N/A	>= 15.4 dB	30.0 dB
5,4	DH	Pass	45.7 dB @ 71.50MHz	N/A	>= 17.2 dB	28.5 dB
1,2	DH	Pass	50.0 dB @ 73.25MHz	N/A	>= 16.8 dB	33.2 dB
7,8	RH	Pass	46.8 dB @ 99.50MHz	N/A	>= 11.4 dB	35.4 dB
3,6	RH	Pass	46.7 dB @ 99.50MHz	N/A	>= 11.4 dB	35.3 dB
5,4	RH	Pass	52.4 dB @ 81.00MHz	N/A	>= 15.1 dB	37.3 dB
1,2	RH	Pass	53.4 dB @ 82.50MHz	N/A	>= 14.8 dB	38.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/22
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:15:27
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	49.2 dB @ 61.25MHz	47.4 dB	> 22.9 dB	26.3 dB
7,8-5,4	DH	Pass	58.6 dB @ 8.50MHz	45.0 dB	> 40.0 dB	18.6 dB
7,8-1,2	DH	Pass	65.9 dB @ 8.80MHz	45.8 dB	> 39.7 dB	26.2 dB
3,6-7,8	DH	Pass	54.5 dB @ 69.50MHz	53.4 dB	> 21.8 dB	32.7 dB
3,6-5,4	DH	Pass	67.6 dB @ 8.50MHz	49.0 dB	> 40.0 dB	27.6 dB
3,6-1,2	DH	Pass	54.3 dB @ 42.25MHz	49.4 dB	> 26.1 dB	28.2 dB
5,4-7,8	DH	Pass	58.5 dB @ 8.65MHz	46.2 dB	> 39.9 dB	18.6 dB
5,4-3,6	DH	Pass	42.1 dB @ 94.50MHz	41.8 dB	> 19.1 dB	23.0 dB
5,4-1,2	DH	Pass	60.3 dB @ 8.80MHz	47.0 dB	> 39.7 dB	20.6 dB
1,2-7,8	DH	Pass	67.4 dB @ 6.70MHz	46.8 dB	> 42.1 dB	25.3 dB
1,2-3,6	DH	Pass	57.1 dB @ 19.30MHz	46.8 dB	> 32.9 dB	24.2 dB
1,2-5,4	DH	Pass	61.0 dB @ 8.20MHz	47.8 dB	> 40.3 dB	20.7 dB
7,8-3,6	RH	Pass	49.2 dB @ 61.25MHz	47.5 dB	> 22.9 dB	26.3 dB
7,8-5,4	RH	Pass	62.1 dB @ 5.65MHz	45.0 dB	> 43.6 dB	18.5 dB
7,8-1,2	RH	Pass	56.8 dB @ 24.85MHz	45.8 dB	> 30.7 dB	26.1 dB
3,6-7,8	RH	Pass	54.5 dB @ 69.50MHz	53.3 dB	> 21.8 dB	32.7 dB
3,6-5,4	RH	Pass	67.7 dB @ 8.50MHz	48.9 dB	> 40.0 dB	27.7 dB
3,6-1,2	RH	Pass	54.3 dB @ 42.25MHz	49.3 dB	> 26.1 dB	28.2 dB
5,4-7,8	RH	Pass	58.5 dB @ 8.65MHz	46.2 dB	> 39.9 dB	18.6 dB
5,4-3,6	RH	Pass	68.7 dB @ 4.45MHz	42.0 dB	> 45.6 dB	23.1 dB
5,4-1,2	RH	Pass	58.4 dB @ 10.90MHz	47.0 dB	> 37.9 dB	20.5 dB
1,2-7,8	RH	Pass	67.4 dB @ 6.70MHz	46.7 dB	> 42.1 dB	25.3 dB
1,2-3,6	RH	Pass	57.0 dB @ 19.30MHz	46.9 dB	> 32.9 dB	24.1 dB
1,2-5,4	RH	Pass	64.4 dB @ 5.50MHz	47.8 dB	> 43.8 dB	20.6 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.0 dB @ 79.50MHz	49.0 dB	> 30.9 dB	18.1 dB
3,6	DH	Pass	47.9 dB @ 62.75MHz	47.5 dB	> 32.6 dB	15.3 dB
5,4	DH	Pass	49.3 dB @ 62.50MHz	48.5 dB	> 32.7 dB	16.6 dB
1,2	DH	Pass	52.6 dB @ 60.25MHz	52.6 dB	> 32.9 dB	19.7 dB
7,8	RH	Pass	61.0 dB @ 22.15MHz	51.4 dB	> 40.0 dB	21.0 dB
3,6	RH	Pass	51.4 dB @ 79.25MHz	51.2 dB	> 31.0 dB	20.4 dB
5,4	RH	Pass	75.9 dB @ 2.50MHz	54.1 dB	> 55.0 dB	20.9 dB
1,2	RH	Pass	56.8 dB @ 60.25MHz	56.4 dB	> 32.9 dB	23.9 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	44.3 dB @ 79.50MHz	N/A	>= 12.4 dB	31.9 dB
3,6	DH	Pass	43.1 dB @ 68.75MHz	N/A	>= 14.9 dB	28.2 dB
5,4	DH	Pass	44.1 dB @ 71.50MHz	N/A	>= 14.2 dB	29.9 dB
1,2	DH	Pass	48.4 dB @ 73.25MHz	N/A	>= 13.8 dB	34.6 dB
7,8	RH	Pass	46.2 dB @ 99.50MHz	N/A	>= 8.4 dB	37.8 dB
3,6	RH	Pass	45.9 dB @ 99.50MHz	N/A	>= 8.4 dB	37.5 dB
5,4	RH	Pass	49.7 dB @ 72.00MHz	N/A	>= 14.1 dB	35.6 dB
1,2	RH	Pass	51.7 dB @ 82.50MHz	N/A	>= 11.8 dB	39.9 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	50.5 dB @ 21.25MHz	43.2 dB	>= 29.1 dB	21.4 dB
3,6	DH	Pass	42.0 dB @ 72.00MHz	40.0 dB	>= 18.5 dB	23.5 dB
5,4	DH	Pass	56.2 dB @ 8.50MHz	43.1 dB	>= 37.0 dB	19.2 dB
1,2	DH	Pass	57.0 dB @ 10.90MHz	44.0 dB	>= 34.9 dB	22.1 dB
7,8	RH	Pass	53.2 dB @ 14.35MHz	41.2 dB	>= 32.5 dB	20.7 dB
3,6	RH	Pass	52.0 dB @ 39.25MHz	45.7 dB	>= 23.7 dB	28.3 dB
5,4	RH	Pass	60.0 dB @ 5.20MHz	40.5 dB	>= 41.3 dB	18.7 dB
1,2	RH	Pass	60.6 dB @ 6.70MHz	43.1 dB	>= 39.1 dB	21.5 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

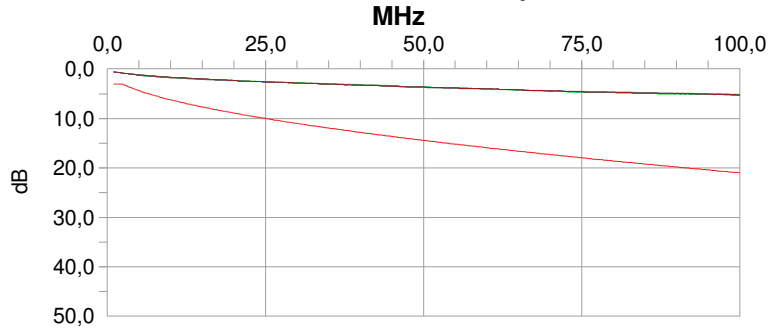
Cable ID 1: 7/22
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:15:27
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

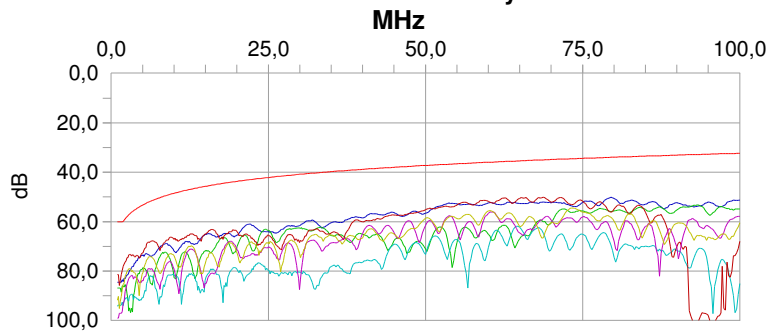
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

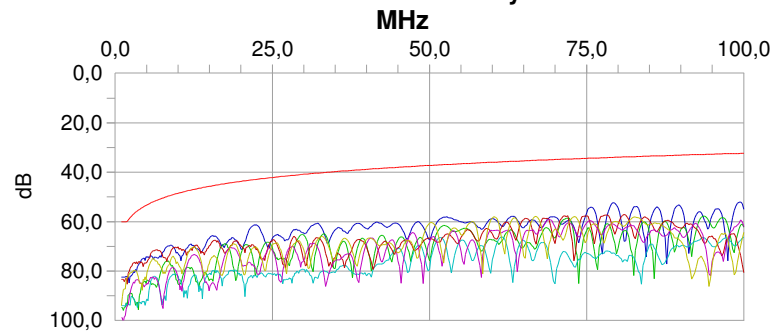
Attenuation Summary



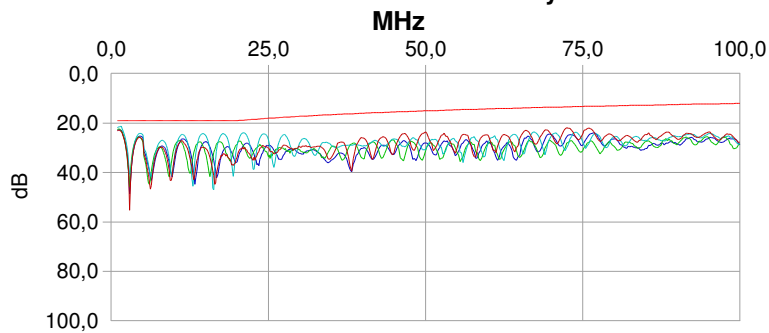
NEXT DH Summary



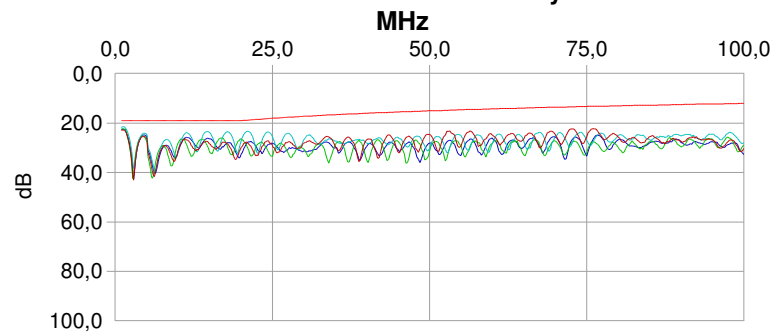
NEXT RH Summary



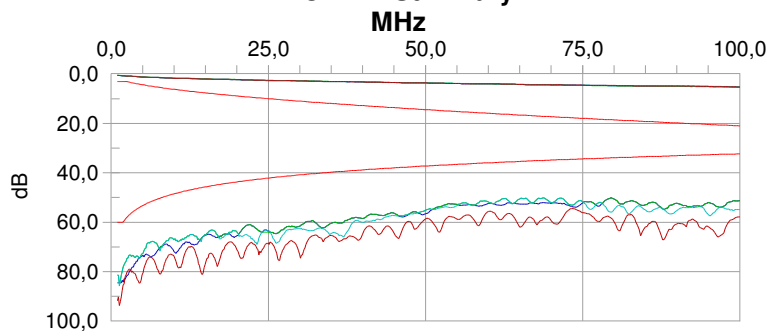
Return Loss DH Summary



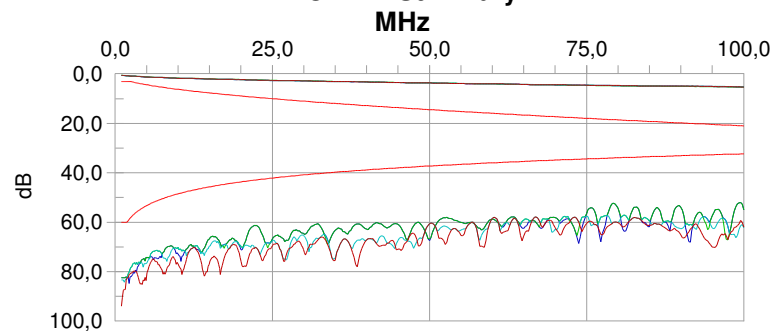
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

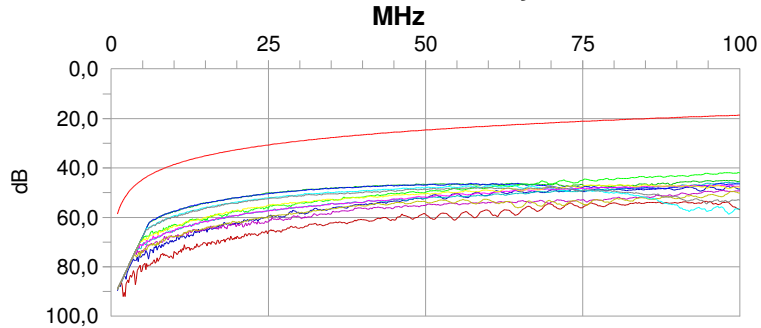
Cable ID 1: 7/22
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:15:27
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

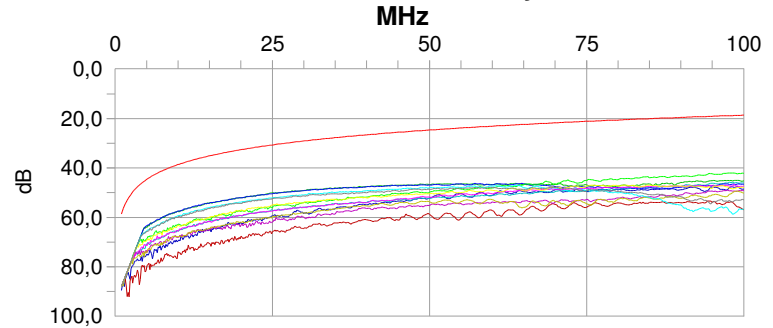
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

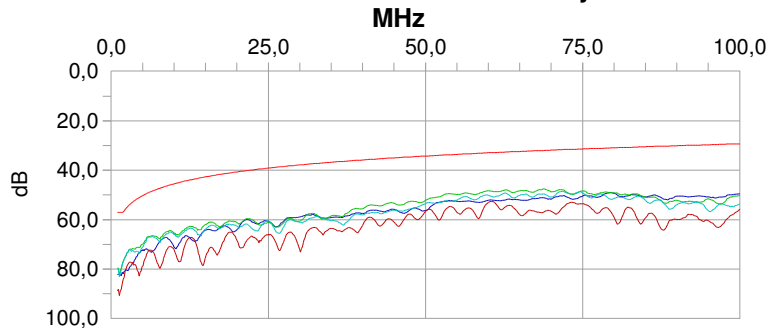
ELFEXT DH Summary



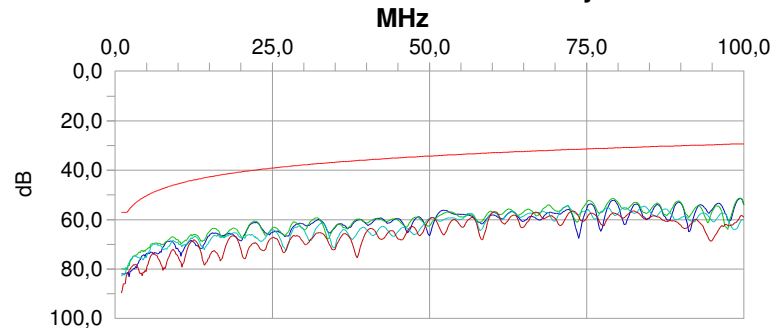
ELFEXT RH Summary



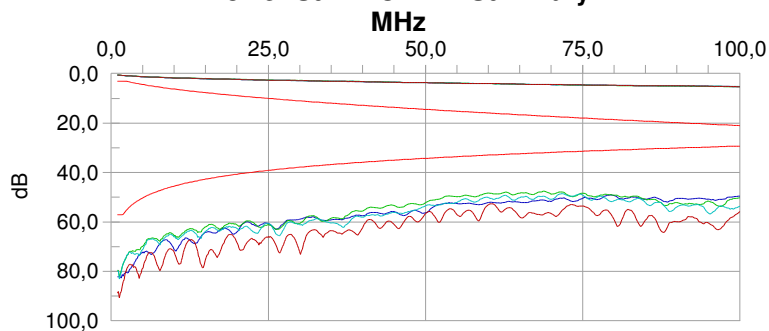
Power Sum NEXT DH Summary



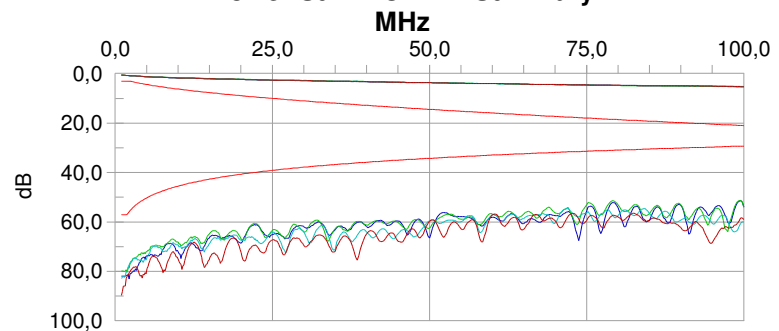
Power Sum NEXT RH Summary



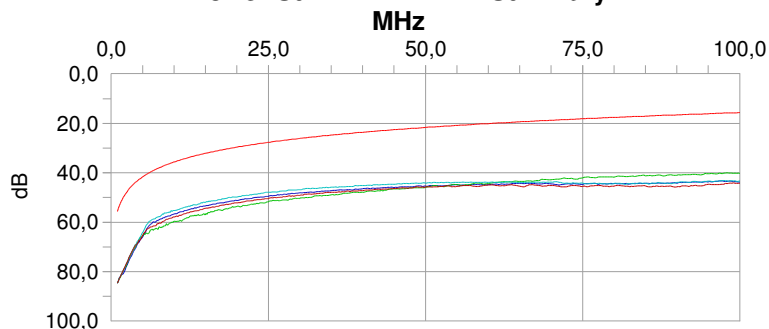
Power Sum ACR DH Summary



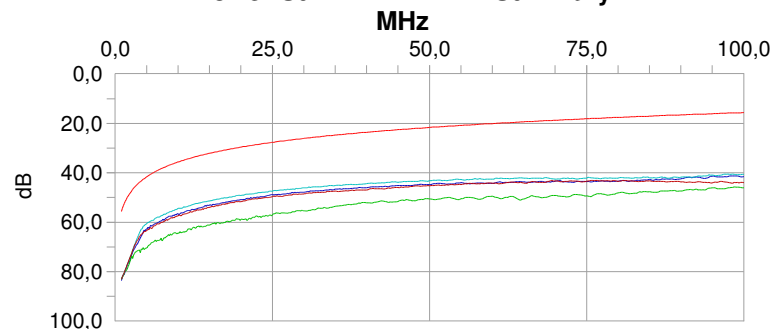
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

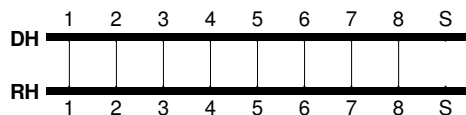
Cable ID 1: 7/23
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:58:20
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	24.2m	25.4m	25.1m	24.4m	< 90.0m	Pass
Prop. Delay	132.6ns	138.2ns	137.4ns	132.4ns	< 498.0ns	Pass
Delay Skew	5.8ns (Pairs 3,6 vs. 1,2)				< 44.0 ns	Pass
Headroom	34.1 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	52.4 dB @ 61.50MHz	52.3 dB	> 35.8 dB	16.6 dB
7,8-5,4	DH	Pass	59.9 dB @ 67.75MHz	59.4 dB	> 35.1 dB	24.8 dB
7,8-1,2	DH	Pass	62.0 dB @ 62.25MHz	62.0 dB	> 35.7 dB	26.3 dB
3,6-5,4	DH	Pass	50.3 dB @ 67.00MHz	50.2 dB	> 35.2 dB	15.1 dB
3,6-1,2	DH	Pass	58.4 dB @ 56.00MHz	57.0 dB	> 36.4 dB	22.0 dB
5,4-1,2	DH	Pass	55.2 dB @ 64.25MHz	55.1 dB	> 35.5 dB	19.7 dB
7,8-3,6	RH	Pass	55.7 dB @ 52.25MHz	52.0 dB	> 36.9 dB	18.8 dB
7,8-5,4	RH	Pass	59.0 dB @ 83.25MHz	58.9 dB	> 33.6 dB	25.4 dB
7,8-1,2	RH	Pass	80.7 dB @ 2.80MHz	60.4 dB	> 57.2 dB	23.5 dB
3,6-5,4	RH	Pass	76.1 dB @ 3.70MHz	57.5 dB	> 55.3 dB	20.8 dB
3,6-1,2	RH	Pass	61.7 dB @ 55.75MHz	60.6 dB	> 36.5 dB	25.2 dB
5,4-1,2	RH	Pass	80.3 dB @ 1.90MHz	56.5 dB	> 59.9 dB	20.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.5 dB @ 1.60MHz	22.5 dB	> 19.0 dB	3.5 dB
3,6	DH	Pass	22.8 dB @ 1.60MHz	22.8 dB	> 19.0 dB	3.8 dB
5,4	DH	Pass	21.4 dB @ 1.60MHz	21.4 dB	> 19.0 dB	2.4 dB
1,2	DH	Pass	22.8 dB @ 1.60MHz	20.8 dB	> 19.0 dB	3.8 dB
7,8	RH	Pass	22.2 dB @ 1.60MHz	22.2 dB	> 19.0 dB	3.2 dB
3,6	RH	Pass	22.1 dB @ 1.60MHz	22.1 dB	> 19.0 dB	3.1 dB
5,4	RH	Pass	22.0 dB @ 1.60MHz	22.0 dB	> 19.0 dB	3.0 dB
1,2	RH	Pass	22.6 dB @ 1.60MHz	21.4 dB	> 19.0 dB	3.6 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 2.50MHz	4.0 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.6 dB @ 2.50MHz	4.0 dB	< 3.1 dB	2.5 dB
5,4	Pass	0.7 dB @ 2.50MHz	4.1 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.50MHz	4.0 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	48.7 dB @ 73.00MHz	N/A	>= 16.8 dB	31.9 dB
3,6	DH	Pass	46.8 dB @ 71.25MHz	N/A	>= 17.3 dB	29.5 dB
5,4	DH	Pass	46.7 dB @ 71.25MHz	N/A	>= 17.3 dB	29.4 dB
1,2	DH	Pass	51.8 dB @ 64.75MHz	N/A	>= 18.8 dB	33.0 dB
7,8	RH	Pass	48.0 dB @ 97.25MHz	N/A	>= 11.8 dB	36.2 dB
3,6	RH	Pass	48.1 dB @ 97.25MHz	N/A	>= 11.8 dB	36.3 dB
5,4	RH	Pass	53.2 dB @ 64.75MHz	N/A	>= 18.8 dB	34.4 dB
1,2	RH	Pass	53.2 dB @ 64.75MHz	N/A	>= 18.8 dB	34.4 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/23
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:58:20
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	54.6 dB @ 60.75MHz	51.2 dB	> 22.9 dB	31.7 dB
7,8-5,4	DH	Pass	61.5 dB @ 7.60MHz	44.9 dB	> 41.0 dB	20.5 dB
7,8-1,2	DH	Pass	64.0 dB @ 14.65MHz	50.3 dB	> 35.3 dB	28.7 dB
3,6-7,8	DH	Pass	52.8 dB @ 96.75MHz	52.8 dB	> 18.9 dB	33.9 dB
3,6-5,4	DH	Pass	53.6 dB @ 97.75MHz	53.6 dB	> 18.8 dB	34.8 dB
3,6-1,2	DH	Pass	49.7 dB @ 99.75MHz	49.7 dB	> 18.6 dB	31.1 dB
5,4-7,8	DH	Pass	57.3 dB @ 12.10MHz	45.9 dB	> 37.0 dB	20.3 dB
5,4-3,6	DH	Pass	42.7 dB @ 98.75MHz	42.7 dB	> 18.7 dB	24.0 dB
5,4-1,2	DH	Pass	59.0 dB @ 12.10MHz	45.7 dB	> 37.0 dB	22.0 dB
1,2-7,8	DH	Pass	50.6 dB @ 66.25MHz	49.2 dB	> 22.2 dB	28.4 dB
1,2-3,6	DH	Pass	47.9 dB @ 75.75MHz	46.9 dB	> 21.0 dB	26.9 dB
1,2-5,4	DH	Pass	60.8 dB @ 10.15MHz	45.3 dB	> 38.5 dB	22.3 dB
7,8-3,6	RH	Pass	54.5 dB @ 60.75MHz	51.1 dB	> 22.9 dB	31.6 dB
7,8-5,4	RH	Pass	61.2 dB @ 7.90MHz	45.0 dB	> 40.7 dB	20.5 dB
7,8-1,2	RH	Pass	66.3 dB @ 11.35MHz	50.3 dB	> 37.5 dB	28.8 dB
3,6-7,8	RH	Pass	52.9 dB @ 96.75MHz	52.9 dB	> 18.9 dB	34.0 dB
3,6-5,4	RH	Pass	53.6 dB @ 97.75MHz	53.6 dB	> 18.8 dB	34.8 dB
3,6-1,2	RH	Pass	49.7 dB @ 99.75MHz	49.7 dB	> 18.6 dB	31.1 dB
5,4-7,8	RH	Pass	57.2 dB @ 12.10MHz	45.9 dB	> 37.0 dB	20.2 dB
5,4-3,6	RH	Pass	42.6 dB @ 98.75MHz	42.6 dB	> 18.7 dB	23.9 dB
5,4-1,2	RH	Pass	56.8 dB @ 15.40MHz	45.7 dB	> 34.9 dB	21.9 dB
1,2-7,8	RH	Pass	50.6 dB @ 66.25MHz	49.2 dB	> 22.2 dB	28.4 dB
1,2-3,6	RH	Pass	48.4 dB @ 72.00MHz	46.8 dB	> 21.5 dB	26.9 dB
1,2-5,4	RH	Pass	67.5 dB @ 4.60MHz	45.3 dB	> 45.4 dB	22.1 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	51.9 dB @ 61.50MHz	51.8 dB	> 32.8 dB	19.1 dB
3,6	DH	Pass	48.2 dB @ 68.00MHz	47.8 dB	> 32.1 dB	16.1 dB
5,4	DH	Pass	49.0 dB @ 68.25MHz	49.0 dB	> 32.0 dB	17.0 dB
1,2	DH	Pass	53.8 dB @ 64.25MHz	53.7 dB	> 32.5 dB	21.3 dB
7,8	RH	Pass	55.0 dB @ 52.50MHz	51.2 dB	> 33.9 dB	21.1 dB
3,6	RH	Pass	64.3 dB @ 11.95MHz	51.5 dB	> 44.3 dB	20.0 dB
5,4	RH	Pass	73.6 dB @ 3.55MHz	54.4 dB	> 52.6 dB	21.0 dB
1,2	RH	Pass	78.4 dB @ 1.90MHz	55.5 dB	> 56.9 dB	21.5 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	48.3 dB @ 70.75MHz	N/A	>= 14.4 dB	33.9 dB
3,6	DH	Pass	44.3 dB @ 72.25MHz	N/A	>= 14.0 dB	30.3 dB
5,4	DH	Pass	45.6 dB @ 68.25MHz	N/A	>= 15.0 dB	30.6 dB
1,2	DH	Pass	50.1 dB @ 76.00MHz	N/A	>= 13.2 dB	36.9 dB
7,8	RH	Pass	47.3 dB @ 89.50MHz	N/A	>= 10.4 dB	36.9 dB
3,6	RH	Pass	47.6 dB @ 97.25MHz	N/A	>= 8.8 dB	38.8 dB
5,4	RH	Pass	50.9 dB @ 72.00MHz	N/A	>= 14.1 dB	36.8 dB
1,2	RH	Pass	52.2 dB @ 64.25MHz	N/A	>= 16.0 dB	36.2 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	47.8 dB @ 41.25MHz	43.8 dB	>= 23.3 dB	24.5 dB
3,6	DH	Pass	41.9 dB @ 88.75MHz	40.9 dB	>= 16.7 dB	25.2 dB
5,4	DH	Pass	44.2 dB @ 55.00MHz	42.0 dB	>= 20.8 dB	23.4 dB
1,2	DH	Pass	50.6 dB @ 30.25MHz	44.0 dB	>= 26.0 dB	24.6 dB
7,8	RH	Pass	54.0 dB @ 16.90MHz	43.2 dB	>= 31.1 dB	22.9 dB
3,6	RH	Pass	47.5 dB @ 99.50MHz	47.4 dB	>= 15.7 dB	31.8 dB
5,4	RH	Pass	54.7 dB @ 12.10MHz	40.0 dB	>= 34.0 dB	20.7 dB
1,2	RH	Pass	52.8 dB @ 22.00MHz	42.2 dB	>= 28.8 dB	24.0 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

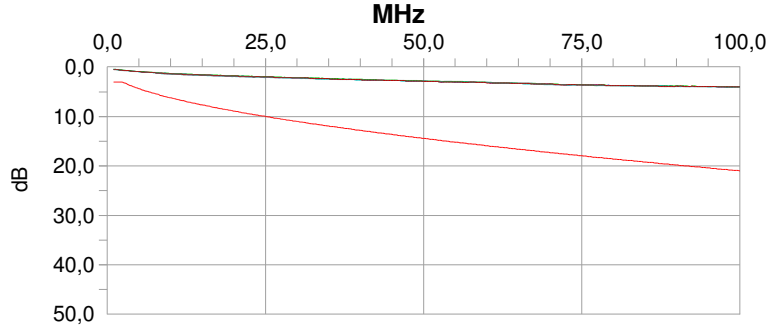
Cable ID 1: 7/23
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:58:20
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

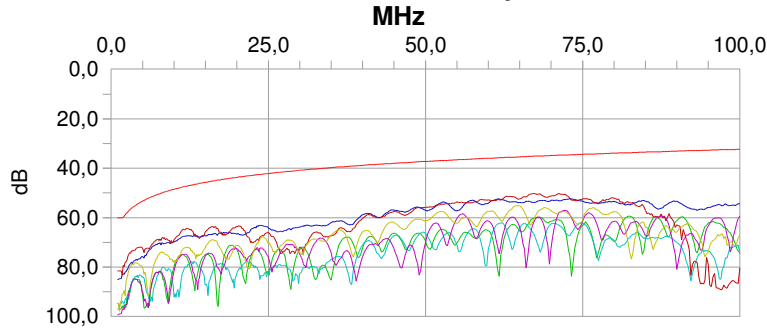
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

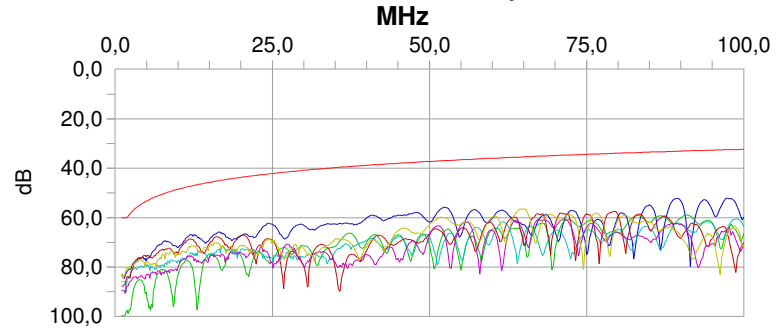
Attenuation Summary



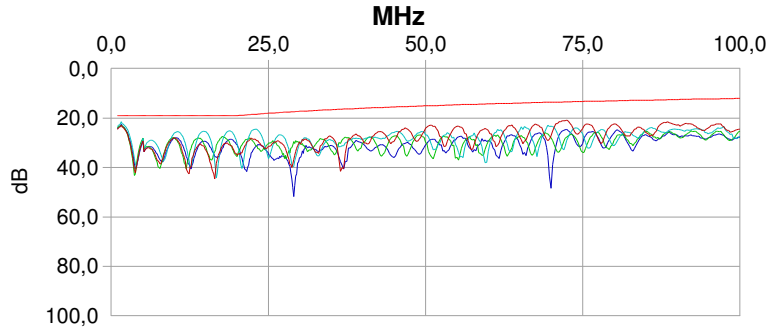
NEXT DH Summary



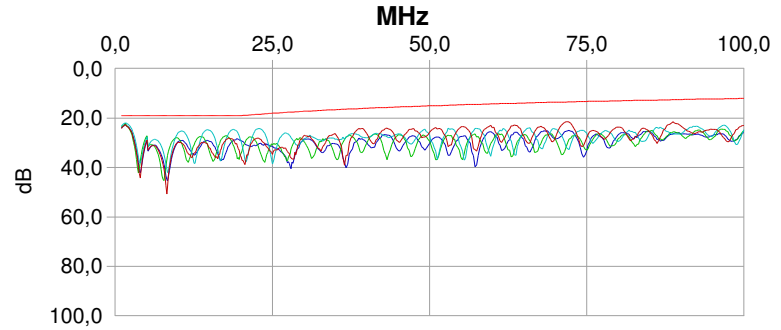
NEXT RH Summary



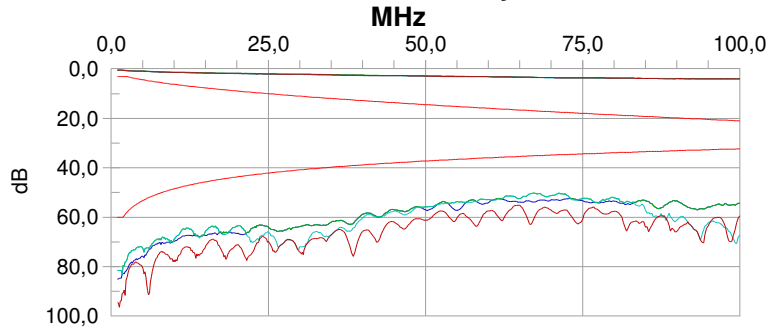
Return Loss DH Summary



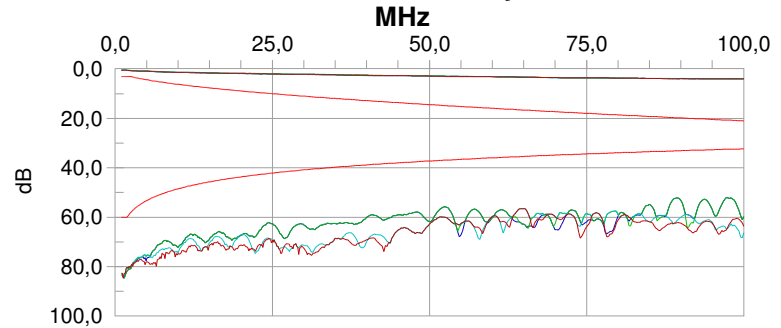
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

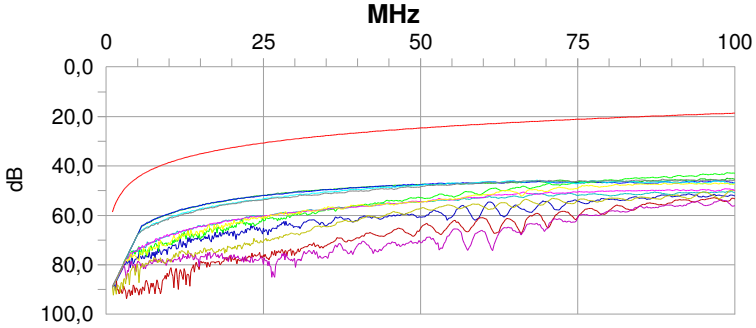
Cable ID 1: 7/23
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:58:20
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

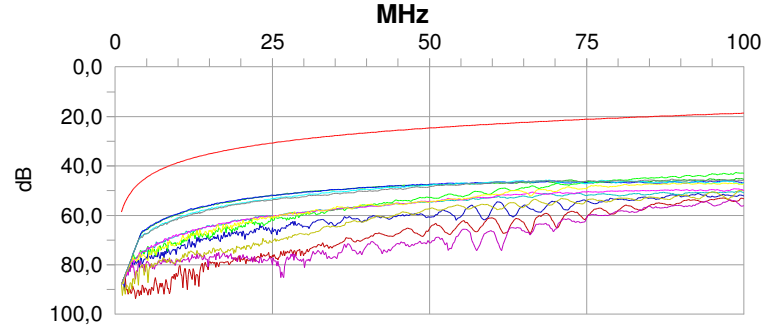
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

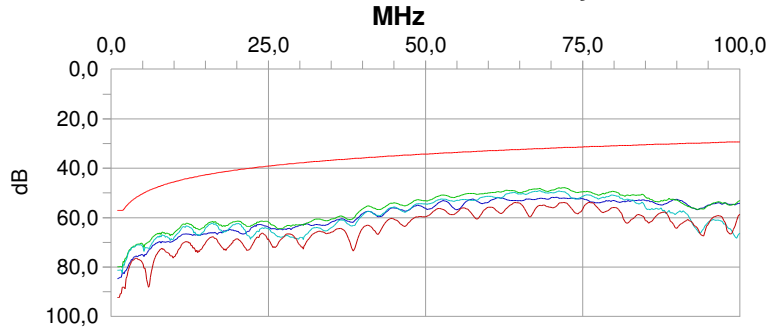
ELFEXT DH Summary



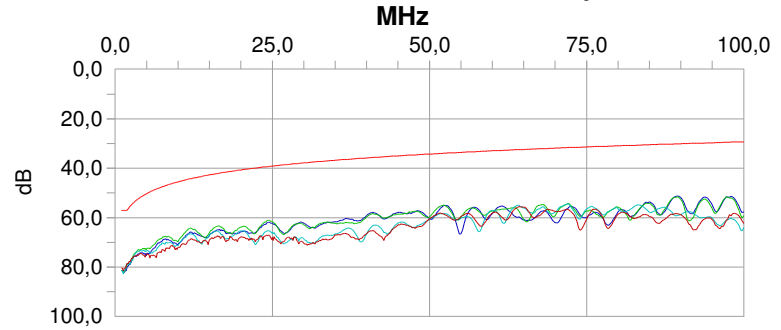
ELFEXT RH Summary



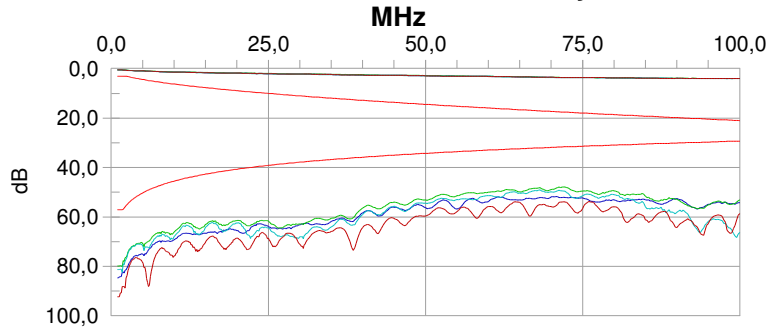
Power Sum NEXT DH Summary



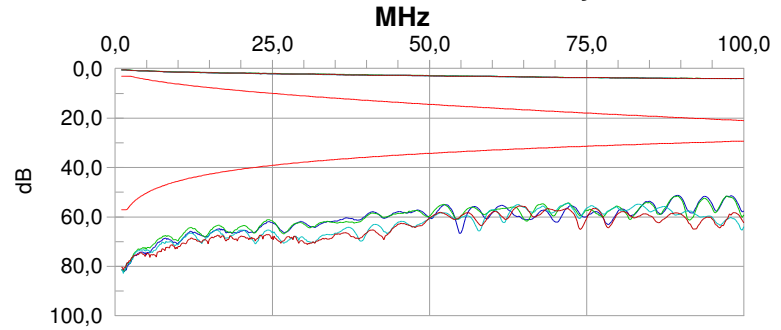
Power Sum NEXT RH Summary



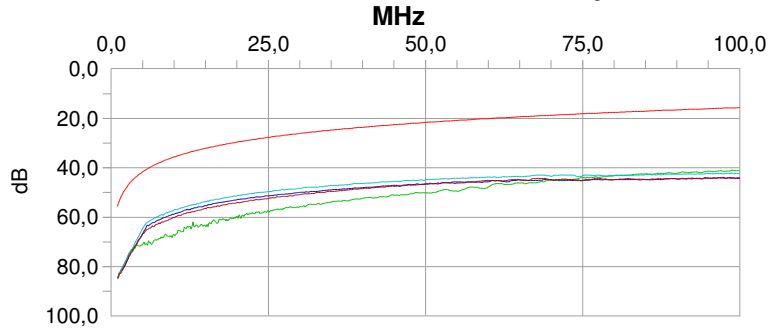
Power Sum ACR DH Summary



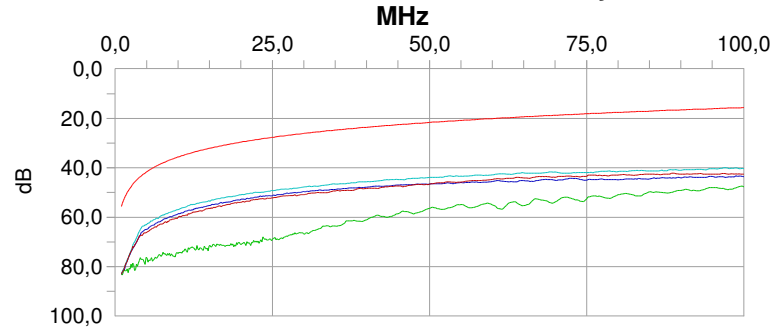
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

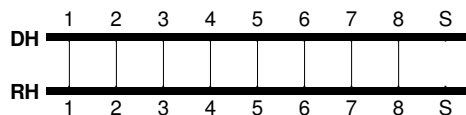
Cable ID 1: 7/24
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:57:48
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	24.3m	25.4m	25.2m	24.6m	< 90.0m	Pass
Prop. Delay	133.2ns	138.6ns	138.0ns	133.4ns	< 498.0ns	Pass
Delay Skew	5.4ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	32.6 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	52.0 dB @ 56.50MHz	50.2 dB	> 36.4 dB	15.6 dB
7,8-5,4	DH	Pass	64.6 dB @ 26.80MHz	57.0 dB	> 41.6 dB	23.0 dB
7,8-1,2	DH	Pass	61.9 dB @ 57.25MHz	61.4 dB	> 36.3 dB	25.6 dB
3,6-5,4	DH	Pass	49.0 dB @ 63.00MHz	48.8 dB	> 35.6 dB	13.4 dB
3,6-1,2	DH	Pass	56.3 dB @ 60.00MHz	54.0 dB	> 35.9 dB	20.4 dB
5,4-1,2	DH	Pass	55.3 dB @ 60.00MHz	54.5 dB	> 35.9 dB	19.4 dB
7,8-3,6	RH	Pass	66.4 dB @ 8.05MHz	51.2 dB	> 50.0 dB	16.4 dB
7,8-5,4	RH	Pass	58.6 dB @ 86.75MHz	58.6 dB	> 33.3 dB	25.3 dB
7,8-1,2	RH	Pass	80.8 dB @ 2.95MHz	60.1 dB	> 56.9 dB	23.9 dB
3,6-5,4	RH	Pass	73.3 dB @ 3.55MHz	55.2 dB	> 55.6 dB	17.7 dB
3,6-1,2	RH	Pass	60.4 dB @ 59.50MHz	60.1 dB	> 36.0 dB	24.4 dB
5,4-1,2	RH	Pass	80.6 dB @ 1.90MHz	56.7 dB	> 59.9 dB	20.7 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.8 dB @ 1.60MHz	22.8 dB	> 19.0 dB	3.8 dB
3,6	DH	Pass	23.2 dB @ 1.60MHz	23.2 dB	> 19.0 dB	4.2 dB
5,4	DH	Pass	21.7 dB @ 1.60MHz	21.7 dB	> 19.0 dB	2.7 dB
1,2	DH	Pass	23.1 dB @ 1.60MHz	21.0 dB	> 19.0 dB	4.1 dB
7,8	RH	Pass	22.5 dB @ 1.60MHz	22.5 dB	> 19.0 dB	3.5 dB
3,6	RH	Pass	22.5 dB @ 1.60MHz	22.5 dB	> 19.0 dB	3.5 dB
5,4	RH	Pass	22.3 dB @ 1.45MHz	22.3 dB	> 19.0 dB	3.3 dB
1,2	RH	Pass	23.0 dB @ 1.60MHz	21.6 dB	> 19.0 dB	4.0 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 2.50MHz	4.1 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.6 dB @ 2.50MHz	4.1 dB	< 3.1 dB	2.5 dB
5,4	Pass	0.7 dB @ 2.50MHz	4.1 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.6 dB @ 2.50MHz	4.1 dB	< 3.1 dB	2.5 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	46.7 dB @ 73.25MHz	N/A	>= 16.8 dB	29.9 dB
3,6	DH	Pass	45.4 dB @ 67.00MHz	N/A	>= 18.3 dB	27.1 dB
5,4	DH	Pass	45.4 dB @ 67.00MHz	N/A	>= 18.3 dB	27.1 dB
1,2	DH	Pass	49.9 dB @ 100.00MHz	N/A	>= 11.3 dB	38.6 dB
7,8	RH	Pass	47.4 dB @ 85.50MHz	N/A	>= 14.1 dB	33.3 dB
3,6	RH	Pass	47.4 dB @ 85.50MHz	N/A	>= 14.1 dB	33.3 dB
5,4	RH	Pass	51.6 dB @ 75.25MHz	N/A	>= 16.3 dB	35.3 dB
1,2	RH	Pass	53.1 dB @ 72.75MHz	N/A	>= 17.0 dB	36.1 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/24
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:57:48
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	46.7 dB @ 92.75MHz	46.4 dB	> 19.3 dB	27.4 dB
7,8-5,4	DH	Pass	57.6 dB @ 9.70MHz	46.1 dB	> 38.9 dB	18.7 dB
7,8-1,2	DH	Pass	67.3 dB @ 8.05MHz	47.8 dB	> 40.5 dB	26.8 dB
3,6-7,8	DH	Pass	51.7 dB @ 95.00MHz	51.6 dB	> 19.1 dB	32.6 dB
3,6-5,4	DH	Pass	68.1 dB @ 9.70MHz	51.5 dB	> 38.9 dB	29.2 dB
3,6-1,2	DH	Pass	45.3 dB @ 88.50MHz	44.8 dB	> 19.7 dB	25.6 dB
5,4-7,8	DH	Pass	58.1 dB @ 9.25MHz	45.4 dB	> 39.3 dB	18.8 dB
5,4-3,6	DH	Pass	42.3 dB @ 99.00MHz	42.3 dB	> 18.7 dB	23.6 dB
5,4-1,2	DH	Pass	62.9 dB @ 7.90MHz	46.7 dB	> 40.7 dB	22.2 dB
1,2-7,8	DH	Pass	48.7 dB @ 66.00MHz	47.1 dB	> 22.2 dB	26.5 dB
1,2-3,6	DH	Pass	41.6 dB @ 84.75MHz	40.7 dB	> 20.1 dB	21.5 dB
1,2-5,4	DH	Pass	62.6 dB @ 8.35MHz	45.9 dB	> 40.2 dB	22.4 dB
7,8-3,6	RH	Pass	46.7 dB @ 92.75MHz	46.4 dB	> 19.3 dB	27.4 dB
7,8-5,4	RH	Pass	57.7 dB @ 9.70MHz	46.2 dB	> 38.9 dB	18.8 dB
7,8-1,2	RH	Pass	67.3 dB @ 8.05MHz	47.7 dB	> 40.5 dB	26.8 dB
3,6-7,8	RH	Pass	51.7 dB @ 95.00MHz	51.6 dB	> 19.1 dB	32.6 dB
3,6-5,4	RH	Pass	68.2 dB @ 9.70MHz	51.5 dB	> 38.9 dB	29.3 dB
3,6-1,2	RH	Pass	45.3 dB @ 88.50MHz	44.7 dB	> 19.7 dB	25.6 dB
5,4-7,8	RH	Pass	62.8 dB @ 5.35MHz	45.3 dB	> 44.0 dB	18.8 dB
5,4-3,6	RH	Pass	42.3 dB @ 99.00MHz	42.3 dB	> 18.7 dB	23.6 dB
5,4-1,2	RH	Pass	63.9 dB @ 7.00MHz	46.7 dB	> 41.7 dB	22.2 dB
1,2-7,8	RH	Pass	48.6 dB @ 66.00MHz	47.2 dB	> 22.2 dB	26.4 dB
1,2-3,6	RH	Pass	41.7 dB @ 84.75MHz	40.7 dB	> 20.1 dB	21.6 dB
1,2-5,4	RH	Pass	62.7 dB @ 8.35MHz	46.0 dB	> 40.2 dB	22.5 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.6 dB @ 73.75MHz	49.6 dB	> 31.5 dB	18.1 dB
3,6	DH	Pass	47.8 dB @ 55.75MHz	46.7 dB	> 33.5 dB	14.3 dB
5,4	DH	Pass	48.0 dB @ 63.75MHz	47.8 dB	> 32.5 dB	15.5 dB
1,2	DH	Pass	52.7 dB @ 60.00MHz	52.7 dB	> 32.9 dB	19.8 dB
7,8	RH	Pass	65.8 dB @ 8.05MHz	50.6 dB	> 47.0 dB	18.8 dB
3,6	RH	Pass	64.1 dB @ 7.90MHz	50.5 dB	> 47.1 dB	17.0 dB
5,4	RH	Pass	66.3 dB @ 7.90MHz	53.2 dB	> 47.1 dB	19.2 dB
1,2	RH	Pass	78.1 dB @ 1.90MHz	55.3 dB	> 56.9 dB	21.2 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	45.8 dB @ 96.00MHz	N/A	>= 9.1 dB	36.7 dB
3,6	DH	Pass	43.1 dB @ 75.75MHz	N/A	>= 13.3 dB	29.8 dB
5,4	DH	Pass	44.4 dB @ 67.50MHz	N/A	>= 15.2 dB	29.2 dB
1,2	DH	Pass	48.6 dB @ 100.00MHz	N/A	>= 8.3 dB	40.3 dB
7,8	RH	Pass	46.7 dB @ 90.00MHz	N/A	>= 10.3 dB	36.4 dB
3,6	RH	Pass	46.7 dB @ 85.00MHz	N/A	>= 11.3 dB	35.4 dB
5,4	RH	Pass	49.6 dB @ 75.75MHz	N/A	>= 13.3 dB	36.3 dB
1,2	RH	Pass	51.7 dB @ 76.50MHz	N/A	>= 13.1 dB	38.6 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	47.3 dB @ 36.00MHz	43.8 dB	>= 24.5 dB	22.8 dB
3,6	DH	Pass	38.8 dB @ 88.75MHz	37.9 dB	>= 16.7 dB	22.1 dB
5,4	DH	Pass	55.9 dB @ 9.70MHz	43.1 dB	>= 35.9 dB	20.0 dB
1,2	DH	Pass	54.5 dB @ 17.65MHz	42.1 dB	>= 30.7 dB	23.8 dB
7,8	RH	Pass	52.5 dB @ 16.90MHz	42.7 dB	>= 31.1 dB	21.4 dB
3,6	RH	Pass	44.1 dB @ 88.50MHz	43.3 dB	>= 16.7 dB	27.4 dB
5,4	RH	Pass	57.1 dB @ 7.90MHz	41.1 dB	>= 37.7 dB	19.4 dB
1,2	RH	Pass	39.4 dB @ 88.50MHz	39.0 dB	>= 16.7 dB	22.7 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

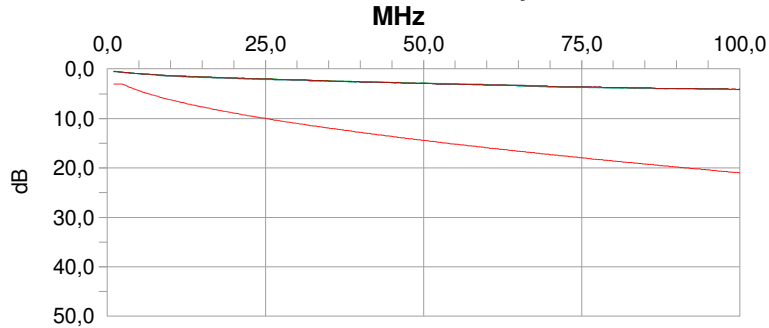
Cable ID 1: 7/24
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:57:48
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

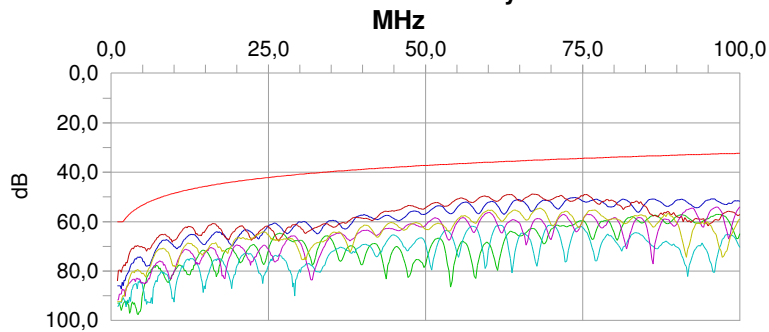
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

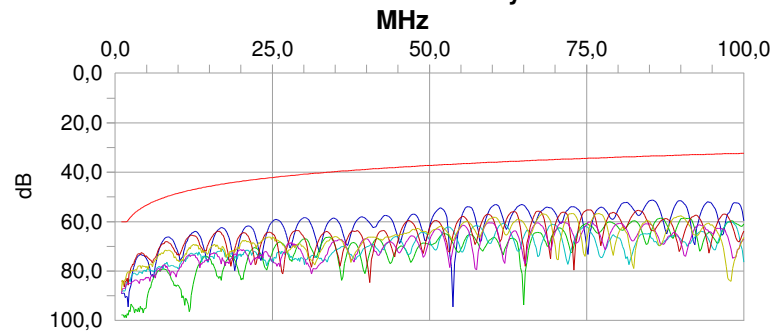
Attenuation Summary



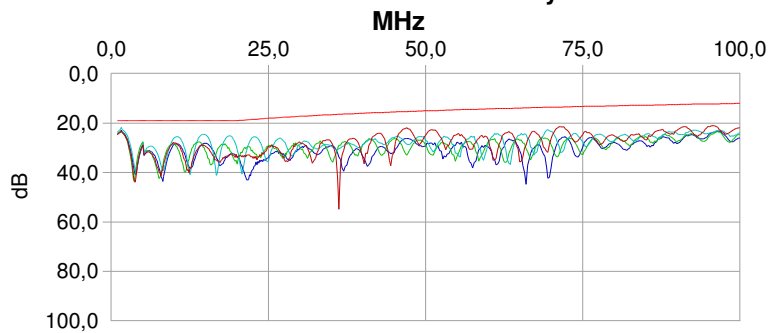
NEXT DH Summary



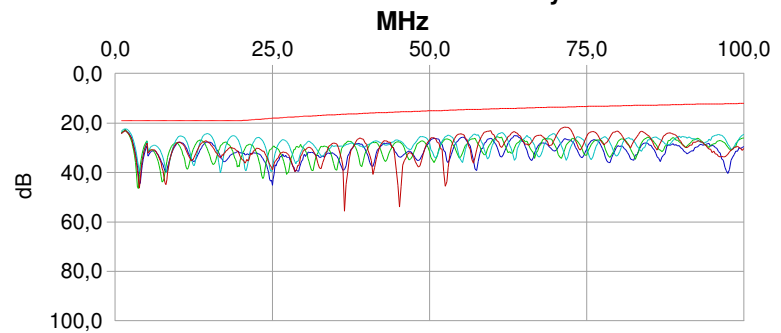
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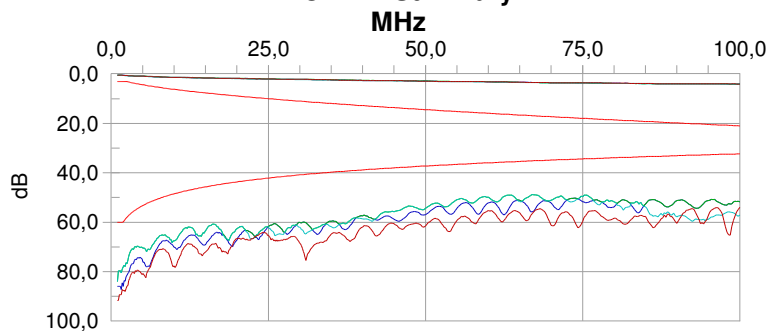
Return Loss DH Summary



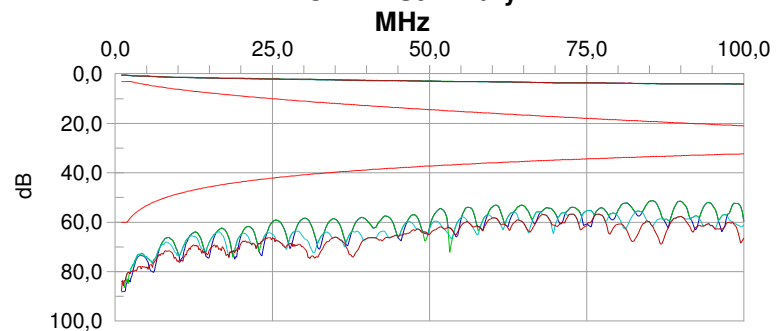
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

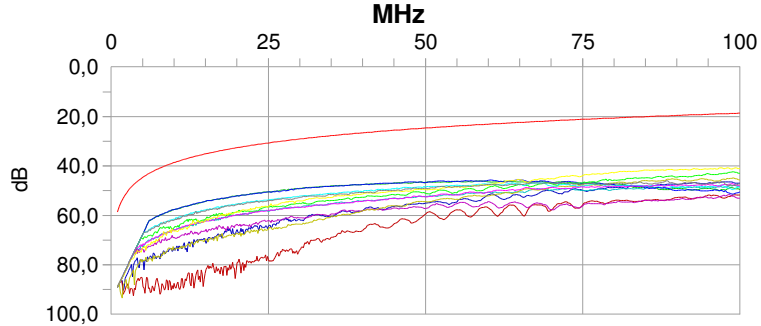
Cable ID 1: 7/24
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:57:48
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

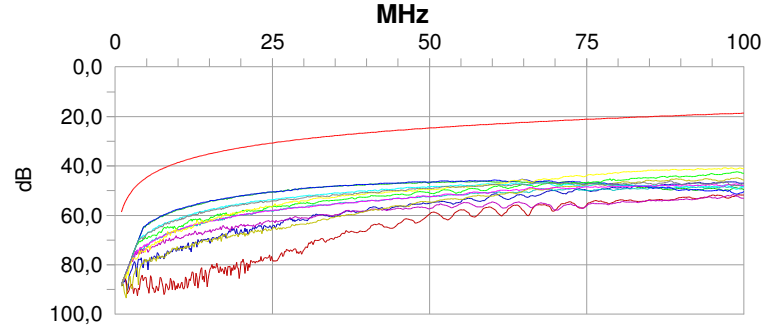
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

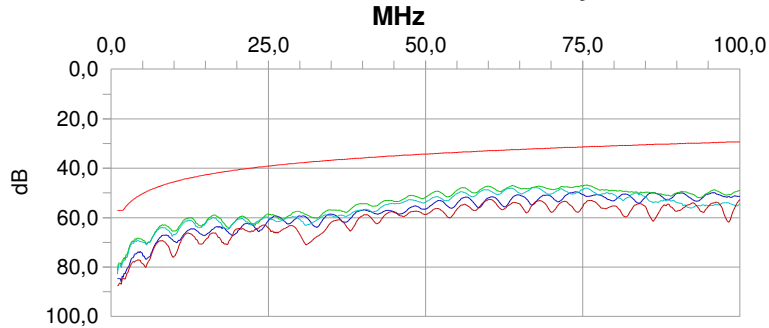
ELFEXT DH Summary



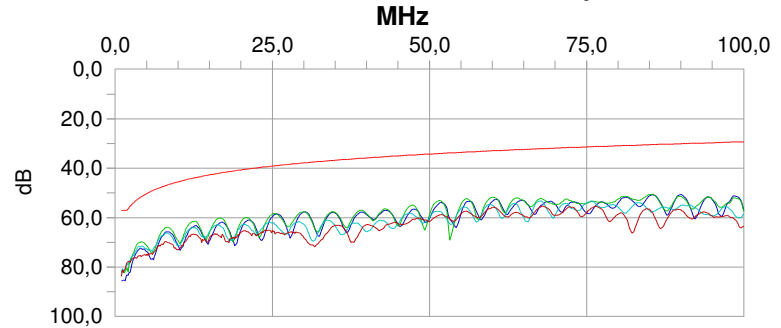
ELFEXT RH Summary



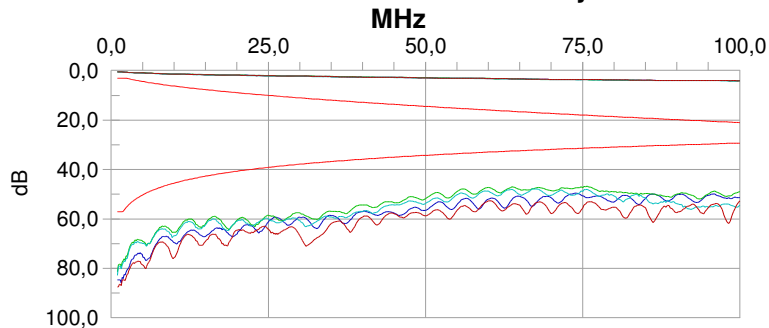
Power Sum NEXT DH Summary



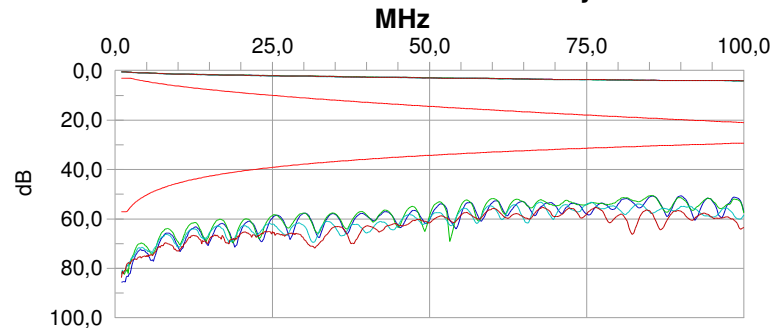
Power Sum NEXT RH Summary



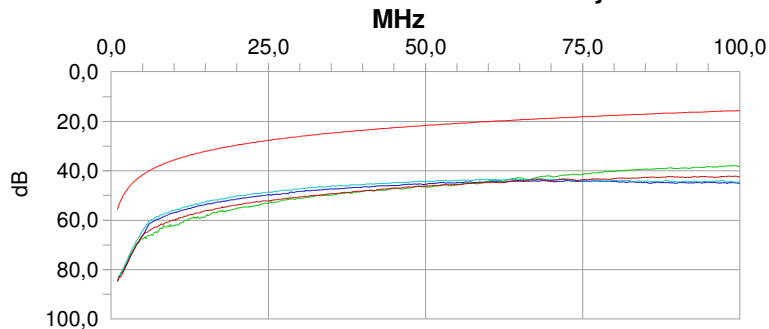
Power Sum ACR DH Summary



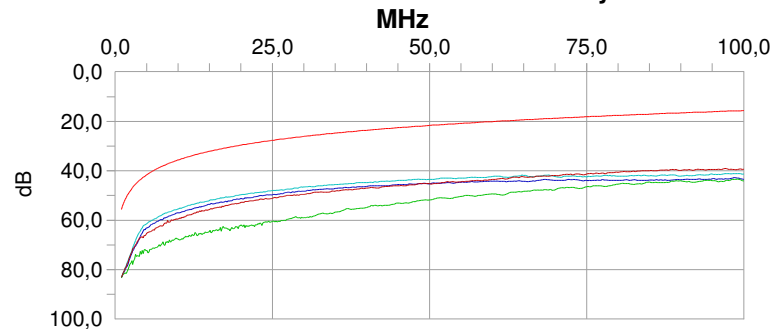
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

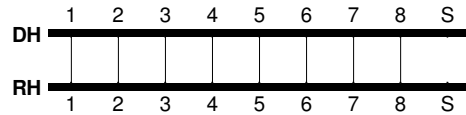
Cable ID 1: 7/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:49:18
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	23.4m	24.6m	24.2m	23.7m	< 90.0m	Pass
Prop. Delay	128.9ns	134.7ns	133.4ns	129.1ns	< 498.0ns	Pass
Delay Skew		5.8ns (Pairs 3,6 vs. 7,8)			< 44.0 ns	Pass
Headroom		32.8 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	50.3 dB @ 58.00MHz	49.1 dB	> 36.2 dB	14.1 dB
7,8-5,4	DH	Pass	52.4 dB @ 81.50MHz	52.3 dB	> 33.8 dB	18.6 dB
7,8-1,2	DH	Pass	59.6 dB @ 46.00MHz	55.3 dB	> 37.8 dB	21.8 dB
3,6-5,4	DH	Pass	49.4 dB @ 61.25MHz	49.3 dB	> 35.8 dB	13.6 dB
3,6-1,2	DH	Pass	53.8 dB @ 61.75MHz	51.9 dB	> 35.7 dB	18.1 dB
5,4-1,2	DH	Pass	52.0 dB @ 62.50MHz	51.8 dB	> 35.7 dB	16.3 dB
7,8-3,6	RH	Pass	76.8 dB @ 1.90MHz	51.3 dB	> 59.9 dB	16.9 dB
7,8-5,4	RH	Pass	61.8 dB @ 31.00MHz	55.1 dB	> 40.6 dB	21.2 dB
7,8-1,2	RH	Pass	81.9 dB @ 1.75MHz	57.2 dB	> 60.0 dB	21.9 dB
3,6-5,4	RH	Pass	72.4 dB @ 2.50MHz	54.5 dB	> 58.0 dB	14.4 dB
3,6-1,2	RH	Pass	58.5 dB @ 61.50MHz	58.5 dB	> 35.8 dB	22.7 dB
5,4-1,2	RH	Pass	77.5 dB @ 2.05MHz	53.7 dB	> 59.4 dB	18.1 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.0 dB @ 1.60MHz	23.0 dB	> 19.0 dB	4.0 dB
3,6	DH	Pass	23.4 dB @ 1.60MHz	23.4 dB	> 19.0 dB	4.4 dB
5,4	DH	Pass	22.0 dB @ 1.60MHz	22.0 dB	> 19.0 dB	3.0 dB
1,2	DH	Pass	23.8 dB @ 1.60MHz	21.6 dB	> 19.0 dB	4.8 dB
7,8	RH	Pass	22.5 dB @ 1.60MHz	22.5 dB	> 19.0 dB	3.5 dB
3,6	RH	Pass	22.7 dB @ 1.60MHz	22.7 dB	> 19.0 dB	3.7 dB
5,4	RH	Pass	22.7 dB @ 1.75MHz	22.7 dB	> 19.0 dB	3.7 dB
1,2	RH	Pass	23.6 dB @ 1.60MHz	22.1 dB	> 19.0 dB	4.6 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.6 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.5 dB
5,4	Pass	0.7 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.6 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.5 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	45.2 dB @ 99.00MHz	N/A	>= 11.5 dB	33.7 dB
3,6	DH	Pass	45.2 dB @ 99.00MHz	N/A	>= 11.5 dB	33.7 dB
5,4	DH	Pass	45.9 dB @ 69.25MHz	N/A	>= 17.7 dB	28.2 dB
1,2	DH	Pass	48.0 dB @ 99.25MHz	N/A	>= 11.5 dB	36.5 dB
7,8	RH	Pass	47.4 dB @ 97.75MHz	N/A	>= 11.8 dB	35.6 dB
3,6	RH	Pass	47.5 dB @ 97.75MHz	N/A	>= 11.8 dB	35.7 dB
5,4	RH	Pass	49.9 dB @ 87.75MHz	N/A	>= 13.7 dB	36.2 dB
1,2	RH	Pass	49.9 dB @ 87.75MHz	N/A	>= 13.7 dB	36.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:49:18
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	51.8 dB @ 62.00MHz	49.1 dB	> 22.8 dB	29.0 dB
7,8-5,4	DH	Pass	58.5 dB @ 8.20MHz	43.7 dB	> 40.3 dB	18.2 dB
7,8-1,2	DH	Pass	53.9 dB @ 83.00MHz	53.4 dB	> 20.2 dB	33.7 dB
3,6-7,8	DH	Pass	50.1 dB @ 92.75MHz	50.1 dB	> 19.3 dB	30.8 dB
3,6-5,4	DH	Pass	64.9 dB @ 5.80MHz	42.6 dB	> 43.3 dB	21.6 dB
3,6-1,2	DH	Pass	45.8 dB @ 98.25MHz	45.8 dB	> 18.8 dB	27.0 dB
5,4-7,8	DH	Pass	58.3 dB @ 8.95MHz	44.1 dB	> 39.6 dB	18.7 dB
5,4-3,6	DH	Pass	58.7 dB @ 7.45MHz	37.7 dB	> 41.2 dB	17.5 dB
5,4-1,2	DH	Pass	59.7 dB @ 6.85MHz	41.7 dB	> 41.9 dB	17.8 dB
1,2-7,8	DH	Pass	63.6 dB @ 28.60MHz	53.6 dB	> 29.5 dB	34.1 dB
1,2-3,6	DH	Pass	44.1 dB @ 78.75MHz	43.0 dB	> 20.7 dB	23.4 dB
1,2-5,4	DH	Pass	57.6 dB @ 8.65MHz	41.8 dB	> 39.9 dB	17.7 dB
7,8-3,6	RH	Pass	51.7 dB @ 62.00MHz	49.1 dB	> 22.8 dB	28.9 dB
7,8-5,4	RH	Pass	58.5 dB @ 8.20MHz	43.7 dB	> 40.3 dB	18.2 dB
7,8-1,2	RH	Pass	54.0 dB @ 83.00MHz	53.4 dB	> 20.2 dB	33.8 dB
3,6-7,8	RH	Pass	50.1 dB @ 92.75MHz	50.1 dB	> 19.3 dB	30.8 dB
3,6-5,4	RH	Pass	67.0 dB @ 4.60MHz	42.6 dB	> 45.4 dB	21.6 dB
3,6-1,2	RH	Pass	45.9 dB @ 98.25MHz	45.9 dB	> 18.8 dB	27.1 dB
5,4-7,8	RH	Pass	58.2 dB @ 8.95MHz	44.1 dB	> 39.6 dB	18.6 dB
5,4-3,6	RH	Pass	61.6 dB @ 5.20MHz	37.7 dB	> 44.3 dB	17.3 dB
5,4-1,2	RH	Pass	60.1 dB @ 6.55MHz	41.7 dB	> 42.3 dB	17.8 dB
1,2-7,8	RH	Pass	62.2 dB @ 33.25MHz	53.6 dB	> 28.2 dB	34.0 dB
1,2-3,6	RH	Pass	43.6 dB @ 82.50MHz	43.0 dB	> 20.3 dB	23.3 dB
1,2-5,4	RH	Pass	61.7 dB @ 5.20MHz	41.8 dB	> 44.3 dB	17.4 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	48.3 dB @ 71.00MHz	47.4 dB	> 31.7 dB	16.6 dB
3,6	DH	Pass	46.2 dB @ 61.75MHz	46.2 dB	> 32.7 dB	13.5 dB
5,4	DH	Pass	47.9 dB @ 61.75MHz	47.6 dB	> 32.7 dB	15.2 dB
1,2	DH	Pass	49.6 dB @ 62.25MHz	49.4 dB	> 32.7 dB	16.9 dB
7,8	RH	Pass	74.5 dB @ 1.90MHz	49.8 dB	> 56.9 dB	17.6 dB
3,6	RH	Pass	71.8 dB @ 2.05MHz	50.4 dB	> 56.4 dB	15.4 dB
5,4	RH	Pass	71.8 dB @ 2.05MHz	51.4 dB	> 56.4 dB	15.4 dB
1,2	RH	Pass	75.4 dB @ 2.05MHz	51.7 dB	> 56.4 dB	19.0 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	43.5 dB @ 99.00MHz	N/A	>= 8.5 dB	35.0 dB
3,6	DH	Pass	42.9 dB @ 70.25MHz	N/A	>= 14.5 dB	28.4 dB
5,4	DH	Pass	44.4 dB @ 65.50MHz	N/A	>= 15.6 dB	28.8 dB
1,2	DH	Pass	45.9 dB @ 74.75MHz	N/A	>= 13.5 dB	32.4 dB
7,8	RH	Pass	46.0 dB @ 97.25MHz	N/A	>= 8.8 dB	37.2 dB
3,6	RH	Pass	46.6 dB @ 92.50MHz	N/A	>= 9.8 dB	36.8 dB
5,4	RH	Pass	48.2 dB @ 65.50MHz	N/A	>= 15.6 dB	32.6 dB
1,2	RH	Pass	47.9 dB @ 87.50MHz	N/A	>= 10.8 dB	37.1 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	47.6 dB @ 35.00MHz	43.5 dB	>= 24.7 dB	22.9 dB
3,6	DH	Pass	37.6 dB @ 82.75MHz	36.4 dB	>= 17.3 dB	20.3 dB
5,4	DH	Pass	56.1 dB @ 7.15MHz	38.2 dB	>= 38.5 dB	17.6 dB
1,2	DH	Pass	50.8 dB @ 19.60MHz	40.2 dB	>= 29.8 dB	21.0 dB
7,8	RH	Pass	49.6 dB @ 24.85MHz	42.3 dB	>= 27.7 dB	21.9 dB
3,6	RH	Pass	40.5 dB @ 98.00MHz	40.5 dB	>= 15.8 dB	24.7 dB
5,4	RH	Pass	54.5 dB @ 7.45MHz	35.7 dB	>= 38.2 dB	16.3 dB
1,2	RH	Pass	50.1 dB @ 20.35MHz	39.4 dB	>= 29.4 dB	20.7 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

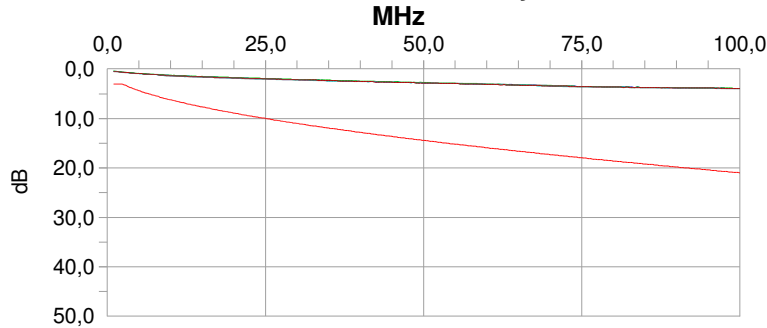
Cable ID 1: 7/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:49:18
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

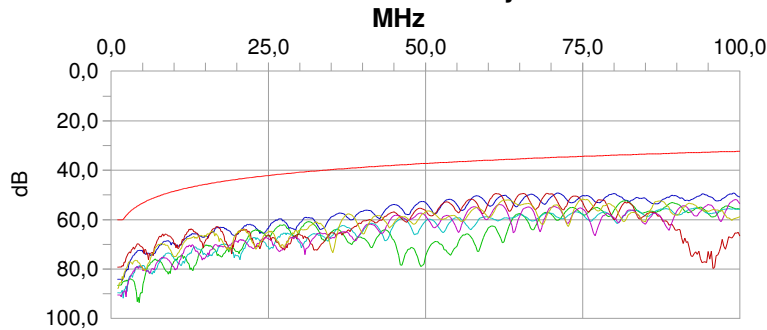
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

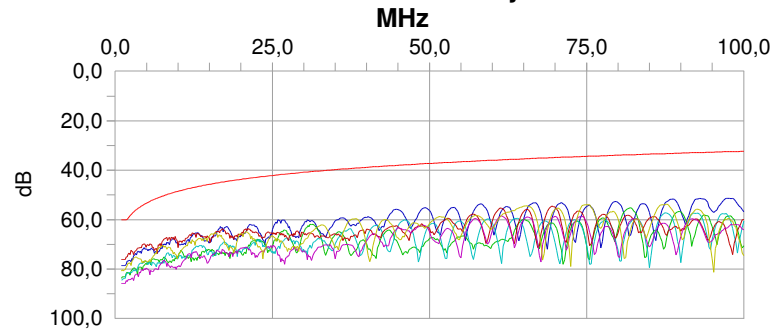
Attenuation Summary



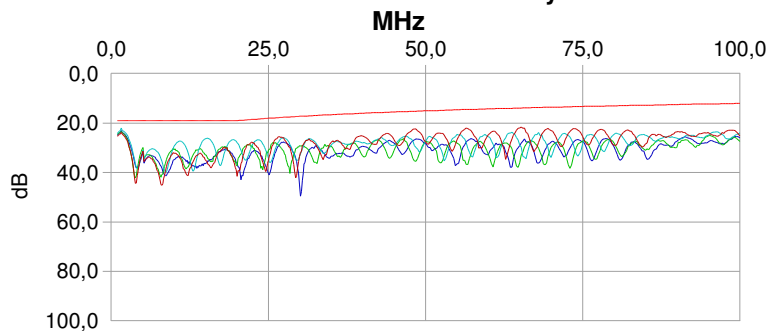
NEXT DH Summary



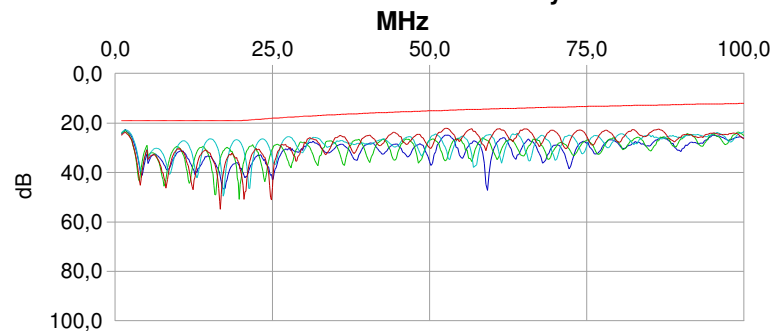
NEXT RH Summary



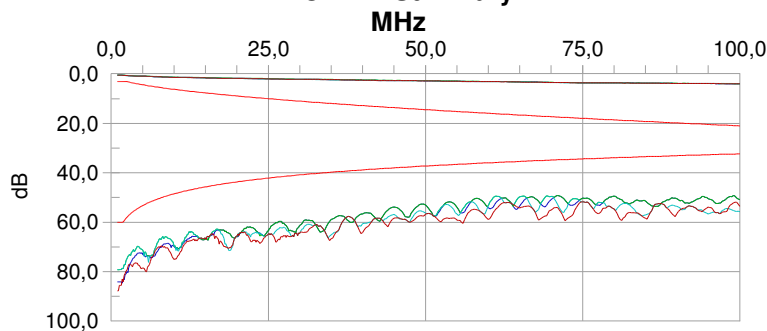
Return Loss DH Summary



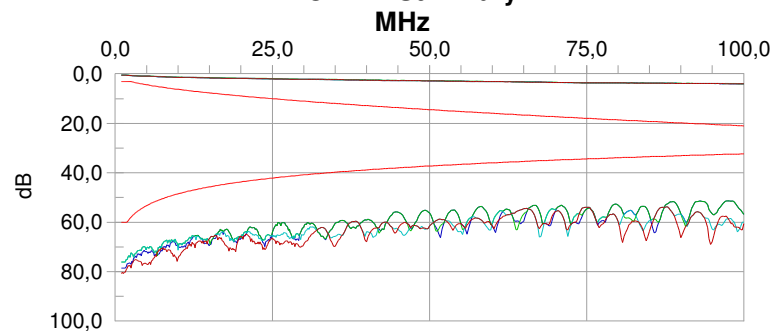
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

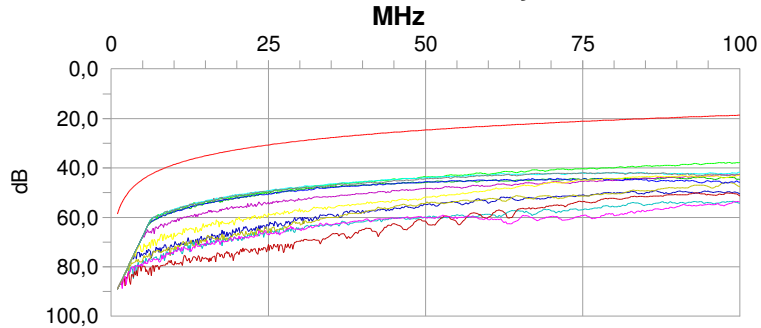
Cable ID 1: 7/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:49:18
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

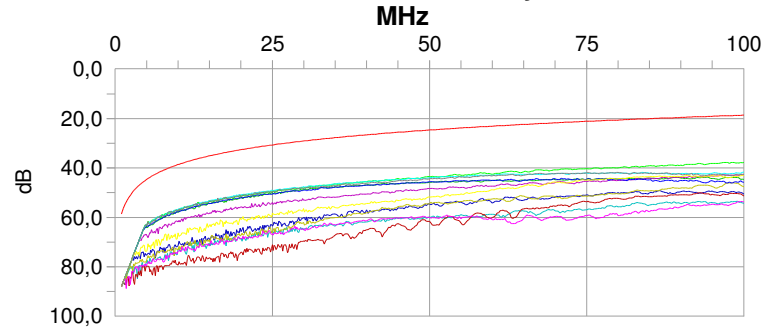
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

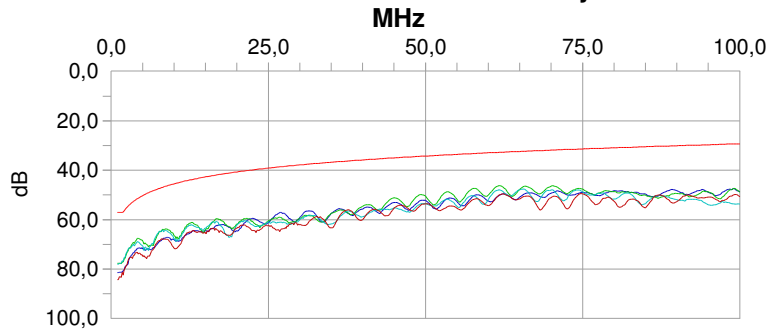
ELFEXT DH Summary



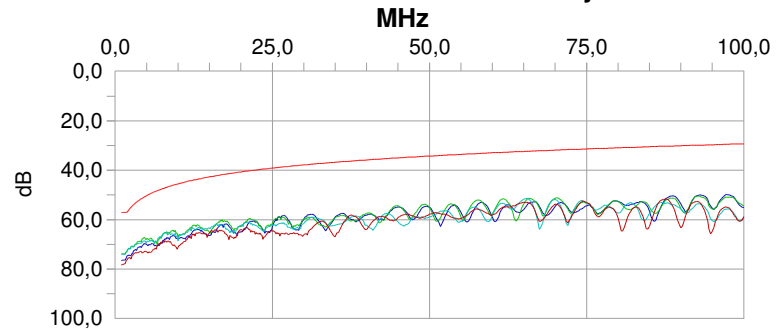
ELFEXT RH Summary



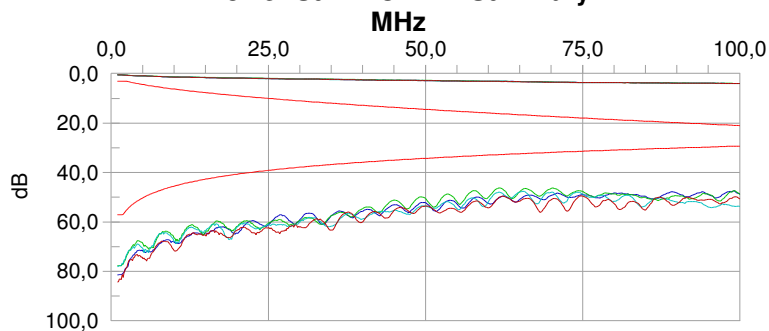
Power Sum NEXT DH Summary



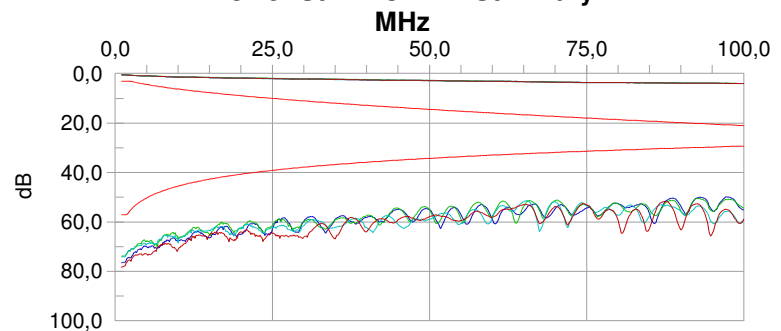
Power Sum NEXT RH Summary



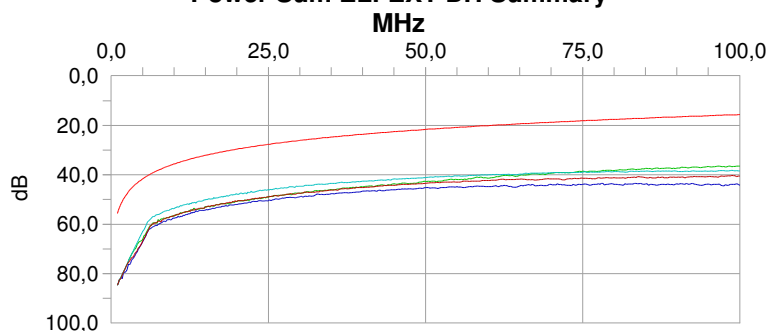
Power Sum ACR DH Summary



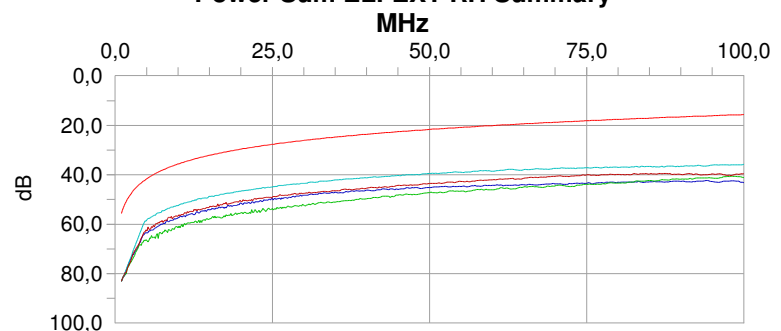
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

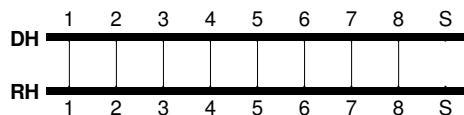
Cable ID 1: 7/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:49:56
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	23.3m	24.5m	24.2m	23.7m	< 90.0m	Pass
Prop. Delay	128.7ns	134.3ns	133.2ns	128.9ns	< 498.0ns	Pass
Delay Skew	5.6ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	32.5 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	49.1 dB @ 62.75MHz	48.9 dB	> 35.6 dB	13.5 dB
7,8-5,4	DH	Pass	58.2 dB @ 78.00MHz	58.2 dB	> 34.1 dB	24.1 dB
7,8-1,2	DH	Pass	64.5 dB @ 64.00MHz	64.5 dB	> 35.5 dB	29.0 dB
3,6-5,4	DH	Pass	48.8 dB @ 65.50MHz	48.8 dB	> 35.3 dB	13.5 dB
3,6-1,2	DH	Pass	57.8 dB @ 66.00MHz	57.4 dB	> 35.3 dB	22.5 dB
5,4-1,2	DH	Pass	52.1 dB @ 70.25MHz	52.1 dB	> 34.8 dB	17.3 dB
7,8-3,6	RH	Pass	64.8 dB @ 12.10MHz	51.4 dB	> 47.2 dB	17.6 dB
7,8-5,4	RH	Pass	65.0 dB @ 34.75MHz	59.8 dB	> 39.8 dB	25.2 dB
7,8-1,2	RH	Pass	60.6 dB @ 63.75MHz	60.6 dB	> 35.5 dB	25.1 dB
3,6-5,4	RH	Pass	72.3 dB @ 4.30MHz	55.4 dB	> 54.3 dB	18.0 dB
3,6-1,2	RH	Pass	60.7 dB @ 61.00MHz	60.4 dB	> 35.8 dB	24.9 dB
5,4-1,2	RH	Pass	54.0 dB @ 70.50MHz	54.0 dB	> 34.8 dB	19.2 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.6 dB @ 1.60MHz	23.6 dB	> 19.0 dB	4.6 dB
3,6	DH	Pass	23.7 dB @ 1.60MHz	23.7 dB	> 19.0 dB	4.7 dB
5,4	DH	Pass	22.2 dB @ 1.60MHz	22.2 dB	> 19.0 dB	3.2 dB
1,2	DH	Pass	24.1 dB @ 1.60MHz	22.5 dB	> 19.0 dB	5.1 dB
7,8	RH	Pass	23.0 dB @ 1.60MHz	23.0 dB	> 19.0 dB	4.0 dB
3,6	RH	Pass	22.8 dB @ 1.60MHz	22.8 dB	> 19.0 dB	3.8 dB
5,4	RH	Pass	22.9 dB @ 1.60MHz	22.9 dB	> 19.0 dB	3.9 dB
1,2	RH	Pass	23.9 dB @ 1.60MHz	23.5 dB	> 19.0 dB	4.9 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.6 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.5 dB
5,4	Pass	0.7 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.6 dB @ 2.50MHz	3.9 dB	< 3.1 dB	2.5 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	45.4 dB @ 75.25MHz	N/A	>= 16.3 dB	29.1 dB
3,6	DH	Pass	45.4 dB @ 75.25MHz	N/A	>= 16.3 dB	29.1 dB
5,4	DH	Pass	45.4 dB @ 70.25MHz	N/A	>= 17.5 dB	27.9 dB
1,2	DH	Pass	48.7 dB @ 70.25MHz	N/A	>= 17.5 dB	31.2 dB
7,8	RH	Pass	47.6 dB @ 88.75MHz	N/A	>= 13.6 dB	34.0 dB
3,6	RH	Pass	47.7 dB @ 88.75MHz	N/A	>= 13.6 dB	34.1 dB
5,4	RH	Pass	50.6 dB @ 70.50MHz	N/A	>= 17.5 dB	33.1 dB
1,2	RH	Pass	50.6 dB @ 70.50MHz	N/A	>= 17.5 dB	33.1 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:49:56
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	50.9 dB @ 63.50MHz	49.1 dB	> 22.6 dB	28.3 dB
7,8-5,4	DH	Pass	60.4 dB @ 7.90MHz	46.2 dB	> 40.7 dB	19.7 dB
7,8-1,2	DH	Pass	57.8 dB @ 25.45MHz	47.1 dB	> 30.5 dB	27.3 dB
3,6-7,8	DH	Pass	52.8 dB @ 83.75MHz	51.4 dB	> 20.2 dB	32.6 dB
3,6-5,4	DH	Pass	67.3 dB @ 6.70MHz	45.8 dB	> 42.1 dB	25.2 dB
3,6-1,2	DH	Pass	45.1 dB @ 98.25MHz	45.1 dB	> 18.8 dB	26.3 dB
5,4-7,8	DH	Pass	60.0 dB @ 8.65MHz	45.9 dB	> 39.9 dB	20.1 dB
5,4-3,6	DH	Pass	61.8 dB @ 7.30MHz	39.7 dB	> 41.3 dB	20.5 dB
5,4-1,2	DH	Pass	56.8 dB @ 17.65MHz	42.8 dB	> 33.7 dB	23.1 dB
1,2-7,8	DH	Pass	49.8 dB @ 63.50MHz	47.0 dB	> 22.6 dB	27.2 dB
1,2-3,6	DH	Pass	43.5 dB @ 79.25MHz	41.9 dB	> 20.6 dB	22.9 dB
1,2-5,4	DH	Pass	67.0 dB @ 5.35MHz	42.6 dB	> 44.0 dB	23.0 dB
7,8-3,6	RH	Pass	50.9 dB @ 63.25MHz	49.1 dB	> 22.6 dB	28.3 dB
7,8-5,4	RH	Pass	60.5 dB @ 7.90MHz	46.2 dB	> 40.7 dB	19.8 dB
7,8-1,2	RH	Pass	57.8 dB @ 25.45MHz	47.1 dB	> 30.5 dB	27.3 dB
3,6-7,8	RH	Pass	52.9 dB @ 83.75MHz	51.4 dB	> 20.2 dB	32.7 dB
3,6-5,4	RH	Pass	67.4 dB @ 6.70MHz	45.8 dB	> 42.1 dB	25.3 dB
3,6-1,2	RH	Pass	45.2 dB @ 98.25MHz	45.2 dB	> 18.8 dB	26.4 dB
5,4-7,8	RH	Pass	59.4 dB @ 9.10MHz	45.9 dB	> 39.4 dB	20.0 dB
5,4-3,6	RH	Pass	64.3 dB @ 5.20MHz	39.7 dB	> 44.3 dB	20.0 dB
5,4-1,2	RH	Pass	56.7 dB @ 17.65MHz	42.8 dB	> 33.7 dB	23.0 dB
1,2-7,8	RH	Pass	49.9 dB @ 63.50MHz	47.0 dB	> 22.6 dB	27.3 dB
1,2-3,6	RH	Pass	43.5 dB @ 79.25MHz	42.0 dB	> 20.6 dB	22.9 dB
1,2-5,4	RH	Pass	67.0 dB @ 5.35MHz	42.6 dB	> 44.0 dB	23.0 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.0 dB @ 62.25MHz	48.7 dB	> 32.7 dB	16.3 dB
3,6	DH	Pass	46.3 dB @ 62.00MHz	45.9 dB	> 32.7 dB	13.6 dB
5,4	DH	Pass	47.0 dB @ 70.25MHz	47.0 dB	> 31.8 dB	15.2 dB
1,2	DH	Pass	50.9 dB @ 70.25MHz	50.9 dB	> 31.8 dB	19.1 dB
7,8	RH	Pass	64.1 dB @ 12.10MHz	51.0 dB	> 44.2 dB	19.9 dB
3,6	RH	Pass	69.9 dB @ 4.30MHz	50.6 dB	> 51.3 dB	18.6 dB
5,4	RH	Pass	51.4 dB @ 70.25MHz	51.4 dB	> 31.8 dB	19.6 dB
1,2	RH	Pass	53.1 dB @ 70.25MHz	53.1 dB	> 31.8 dB	21.3 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	45.2 dB @ 75.25MHz	N/A	>= 13.3 dB	31.9 dB
3,6	DH	Pass	42.6 dB @ 70.25MHz	N/A	>= 14.5 dB	28.1 dB
5,4	DH	Pass	43.6 dB @ 70.25MHz	N/A	>= 14.5 dB	29.1 dB
1,2	DH	Pass	47.5 dB @ 70.25MHz	N/A	>= 14.5 dB	33.0 dB
7,8	RH	Pass	47.2 dB @ 88.75MHz	N/A	>= 10.6 dB	36.6 dB
3,6	RH	Pass	46.9 dB @ 92.75MHz	N/A	>= 9.7 dB	37.2 dB
5,4	RH	Pass	48.0 dB @ 70.25MHz	N/A	>= 14.5 dB	33.5 dB
1,2	RH	Pass	49.7 dB @ 70.25MHz	N/A	>= 14.5 dB	35.2 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	50.8 dB @ 24.85MHz	43.9 dB	>= 27.7 dB	23.1 dB
3,6	DH	Pass	37.6 dB @ 96.75MHz	37.5 dB	>= 15.9 dB	21.7 dB
5,4	DH	Pass	54.5 dB @ 12.10MHz	40.0 dB	>= 34.0 dB	20.5 dB
1,2	DH	Pass	40.1 dB @ 97.00MHz	40.0 dB	>= 15.9 dB	24.2 dB
7,8	RH	Pass	53.6 dB @ 16.30MHz	43.0 dB	>= 31.4 dB	22.2 dB
3,6	RH	Pass	42.1 dB @ 98.00MHz	42.1 dB	>= 15.8 dB	26.3 dB
5,4	RH	Pass	60.6 dB @ 5.20MHz	37.8 dB	>= 41.3 dB	19.3 dB
1,2	RH	Pass	41.5 dB @ 70.50MHz	38.8 dB	>= 18.7 dB	22.8 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

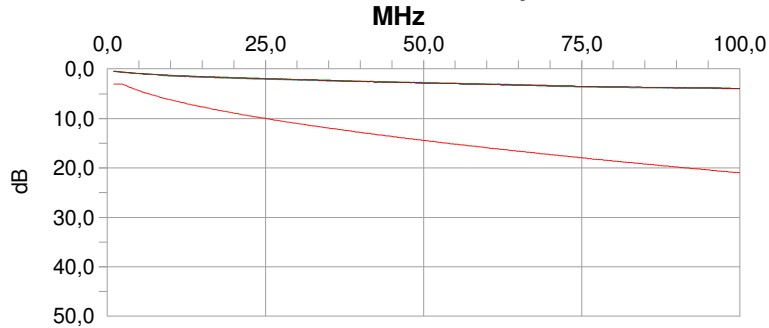
Cable ID 1: 7/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:49:56
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

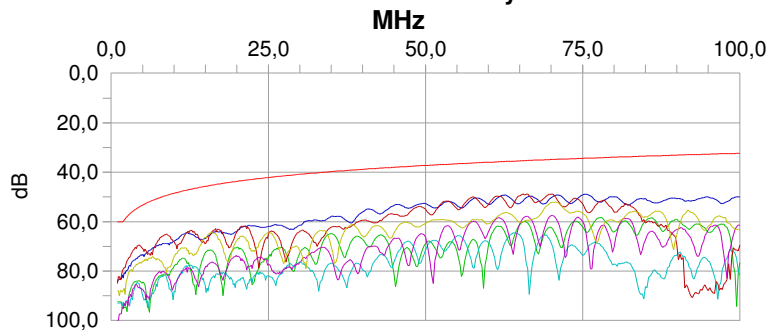
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

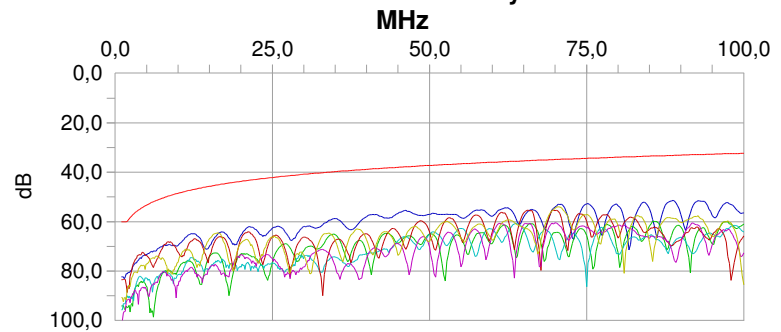
Attenuation Summary



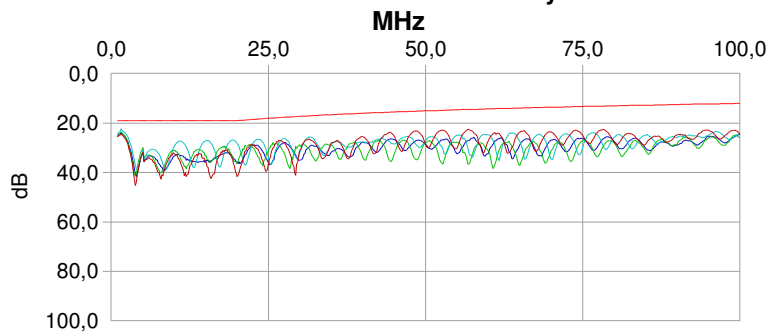
NEXT DH Summary



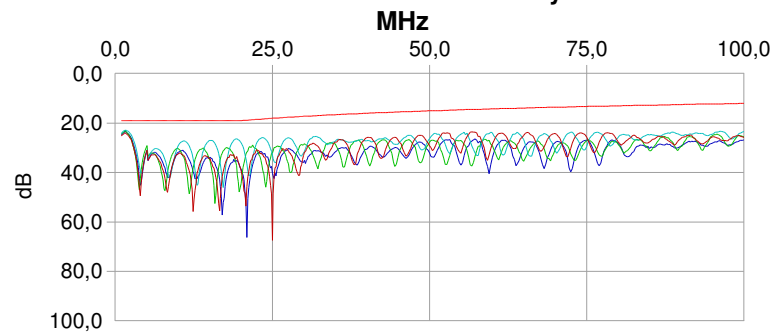
NEXT RH Summary



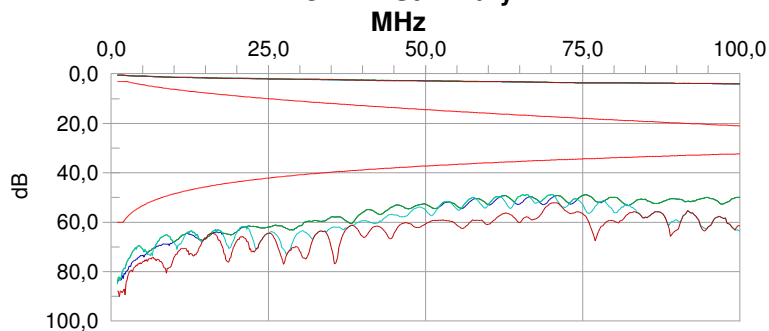
Return Loss DH Summary



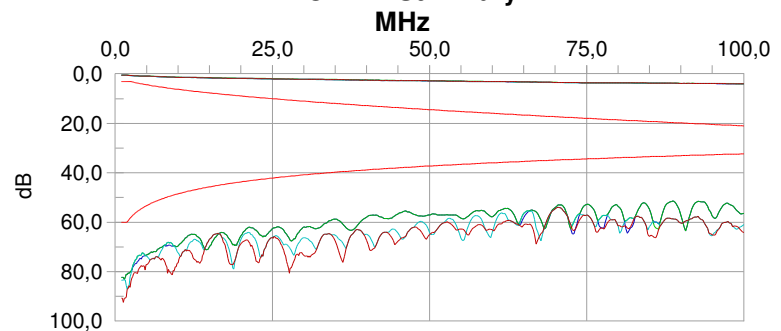
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

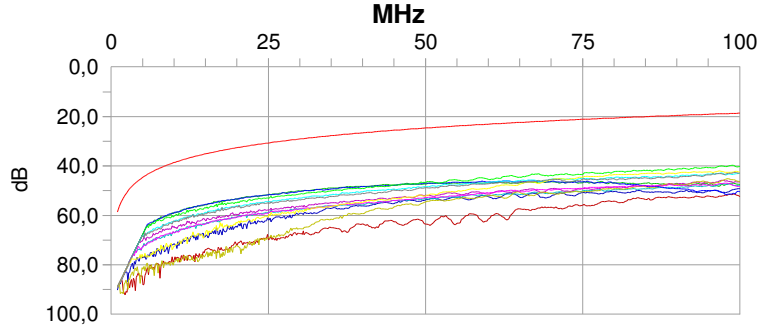
Cable ID 1: 7/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:49:56
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

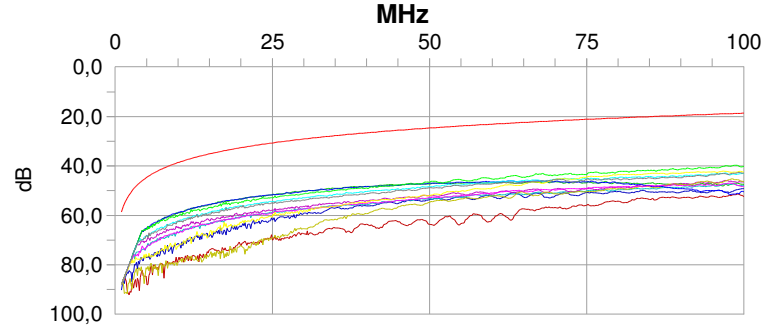
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

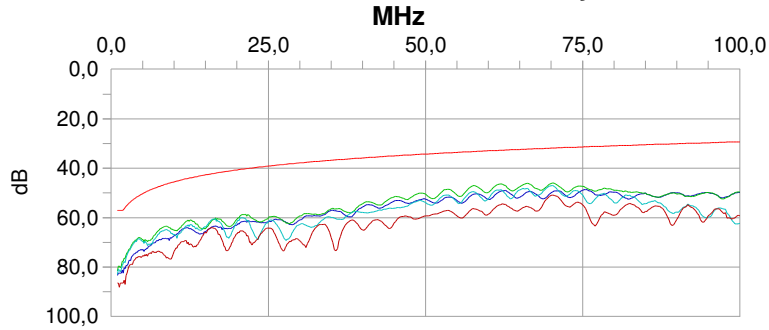
ELFEXT DH Summary



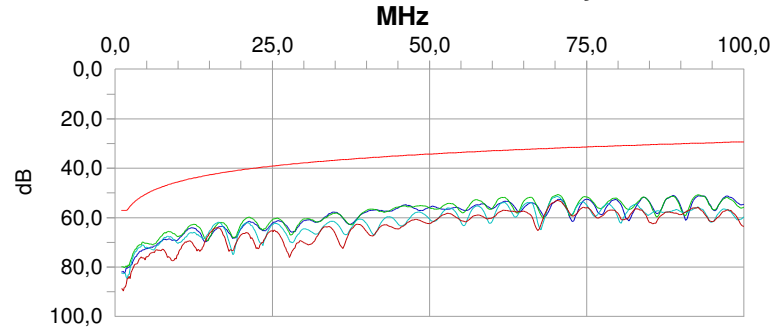
ELFEXT RH Summary



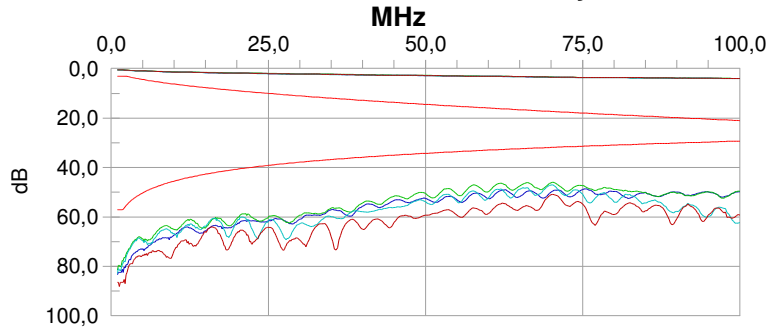
Power Sum NEXT DH Summary



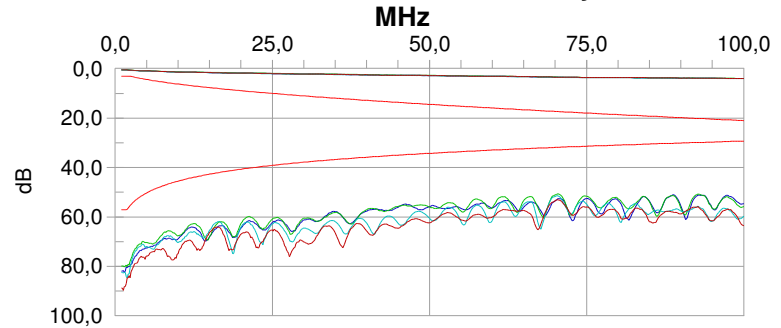
Power Sum NEXT RH Summary



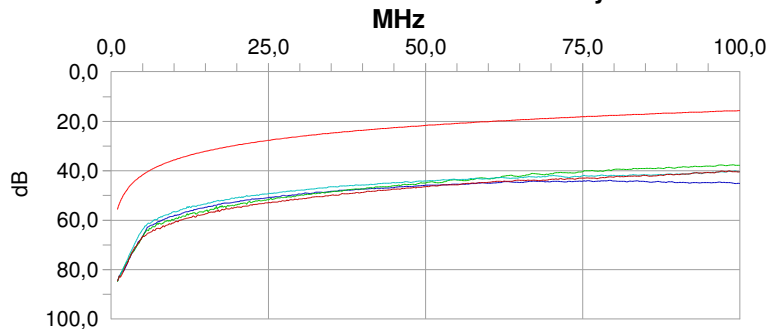
Power Sum ACR DH Summary



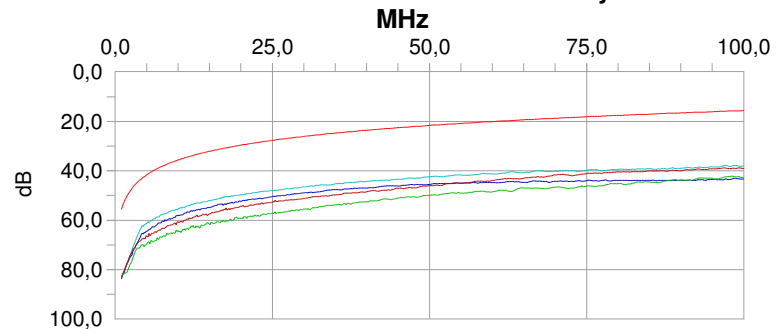
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

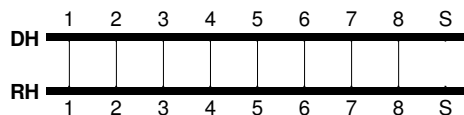
Cable ID 1: 7/5
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:48:28
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	27.3m	28.7m	28.2m	27.7m	< 90.0m	Pass
Prop. Delay	147.3ns	154.0ns	152.2ns	147.7ns	< 498.0ns	Pass
Delay Skew	6.7ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	33.5 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	49.4 dB @ 65.00MHz	49.2 dB	> 35.4 dB	14.0 dB
7,8-5,4	DH	Pass	71.5 dB @ 9.85MHz	58.1 dB	> 48.6 dB	22.9 dB
7,8-1,2	DH	Pass	85.2 dB @ 4.15MHz	67.0 dB	> 54.5 dB	30.7 dB
3,6-5,4	DH	Pass	50.6 dB @ 60.50MHz	50.1 dB	> 35.9 dB	14.7 dB
3,6-1,2	DH	Pass	56.6 dB @ 57.25MHz	56.2 dB	> 36.3 dB	20.3 dB
5,4-1,2	DH	Pass	54.4 dB @ 72.00MHz	54.4 dB	> 34.6 dB	19.8 dB
7,8-3,6	RH	Pass	55.3 dB @ 46.25MHz	52.1 dB	> 37.8 dB	17.5 dB
7,8-5,4	RH	Pass	64.2 dB @ 30.55MHz	59.0 dB	> 40.7 dB	23.5 dB
7,8-1,2	RH	Pass	82.2 dB @ 2.65MHz	63.7 dB	> 57.6 dB	24.6 dB
3,6-5,4	RH	Pass	76.8 dB @ 2.50MHz	56.2 dB	> 58.0 dB	18.8 dB
3,6-1,2	RH	Pass	61.4 dB @ 57.00MHz	60.6 dB	> 36.3 dB	25.1 dB
5,4-1,2	RH	Pass	75.4 dB @ 3.85MHz	56.8 dB	> 55.1 dB	20.3 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.2 dB @ 1.60MHz	23.2 dB	> 19.0 dB	4.2 dB
3,6	DH	Pass	23.4 dB @ 1.30MHz	23.4 dB	> 19.0 dB	4.4 dB
5,4	DH	Pass	21.8 dB @ 1.60MHz	21.8 dB	> 19.0 dB	2.8 dB
1,2	DH	Pass	23.9 dB @ 1.60MHz	22.1 dB	> 19.0 dB	4.9 dB
7,8	RH	Pass	22.5 dB @ 1.60MHz	22.5 dB	> 19.0 dB	3.5 dB
3,6	RH	Pass	22.7 dB @ 1.60MHz	22.7 dB	> 19.0 dB	3.7 dB
5,4	RH	Pass	22.3 dB @ 1.45MHz	22.3 dB	> 19.0 dB	3.3 dB
1,2	RH	Pass	23.6 dB @ 1.45MHz	22.9 dB	> 19.0 dB	4.6 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.50MHz	4.6 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.50MHz	4.6 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.7 dB @ 2.50MHz	4.5 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.50MHz	4.6 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	45.4 dB @ 68.75MHz	N/A	>= 17.9 dB	27.5 dB
3,6	DH	Pass	45.3 dB @ 68.75MHz	N/A	>= 17.9 dB	27.4 dB
5,4	DH	Pass	46.3 dB @ 67.00MHz	N/A	>= 18.3 dB	28.0 dB
1,2	DH	Pass	50.4 dB @ 72.00MHz	N/A	>= 17.1 dB	33.3 dB
7,8	RH	Pass	47.7 dB @ 95.00MHz	N/A	>= 12.3 dB	35.4 dB
3,6	RH	Pass	47.6 dB @ 95.25MHz	N/A	>= 12.3 dB	35.3 dB
5,4	RH	Pass	52.3 dB @ 70.75MHz	N/A	>= 17.4 dB	34.9 dB
1,2	RH	Pass	52.8 dB @ 72.50MHz	N/A	>= 17.0 dB	35.8 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/5
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:48:28
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	47.0 dB @ 65.75MHz	45.7 dB	> 22.3 dB	24.7 dB
7,8-5,4	DH	Pass	56.1 dB @ 9.70MHz	43.1 dB	> 38.9 dB	17.2 dB
7,8-1,2	DH	Pass	57.3 dB @ 99.50MHz	57.3 dB	> 18.7 dB	38.6 dB
3,6-7,8	DH	Pass	48.8 dB @ 83.50MHz	48.3 dB	> 20.2 dB	28.6 dB
3,6-5,4	DH	Pass	66.0 dB @ 8.50MHz	46.3 dB	> 40.0 dB	26.0 dB
3,6-1,2	DH	Pass	46.2 dB @ 99.25MHz	46.1 dB	> 18.7 dB	27.5 dB
5,4-7,8	DH	Pass	58.9 dB @ 7.00MHz	43.6 dB	> 41.7 dB	17.2 dB
5,4-3,6	DH	Pass	39.8 dB @ 99.00MHz	39.7 dB	> 18.7 dB	21.1 dB
5,4-1,2	DH	Pass	62.3 dB @ 7.15MHz	42.3 dB	> 41.5 dB	20.8 dB
1,2-7,8	DH	Pass	61.3 dB @ 62.00MHz	58.8 dB	> 22.8 dB	38.5 dB
1,2-3,6	DH	Pass	43.9 dB @ 83.50MHz	43.3 dB	> 20.2 dB	23.7 dB
1,2-5,4	DH	Pass	62.2 dB @ 7.60MHz	41.9 dB	> 41.0 dB	21.2 dB
7,8-3,6	RH	Pass	46.9 dB @ 65.75MHz	45.7 dB	> 22.3 dB	24.6 dB
7,8-5,4	RH	Pass	56.1 dB @ 9.70MHz	43.0 dB	> 38.9 dB	17.2 dB
7,8-1,2	RH	Pass	57.3 dB @ 99.50MHz	57.3 dB	> 18.7 dB	38.6 dB
3,6-7,8	RH	Pass	48.9 dB @ 82.75MHz	48.3 dB	> 20.3 dB	28.6 dB
3,6-5,4	RH	Pass	66.1 dB @ 8.50MHz	46.3 dB	> 40.0 dB	26.1 dB
3,6-1,2	RH	Pass	46.2 dB @ 99.25MHz	46.1 dB	> 18.7 dB	27.5 dB
5,4-7,8	RH	Pass	58.9 dB @ 7.00MHz	43.6 dB	> 41.7 dB	17.2 dB
5,4-3,6	RH	Pass	64.2 dB @ 5.35MHz	39.8 dB	> 44.0 dB	20.2 dB
5,4-1,2	RH	Pass	62.3 dB @ 7.15MHz	42.3 dB	> 41.5 dB	20.8 dB
1,2-7,8	RH	Pass	61.3 dB @ 62.00MHz	58.8 dB	> 22.8 dB	38.5 dB
1,2-3,6	RH	Pass	43.9 dB @ 83.50MHz	43.2 dB	> 20.2 dB	23.7 dB
1,2-5,4	RH	Pass	67.0 dB @ 4.30MHz	41.8 dB	> 45.9 dB	21.1 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.1 dB @ 65.00MHz	49.0 dB	> 32.4 dB	16.7 dB
3,6	DH	Pass	47.1 dB @ 60.75MHz	46.7 dB	> 32.9 dB	14.2 dB
5,4	DH	Pass	49.6 dB @ 60.75MHz	49.0 dB	> 32.9 dB	16.7 dB
1,2	DH	Pass	52.6 dB @ 68.50MHz	52.5 dB	> 32.0 dB	20.6 dB
7,8	RH	Pass	63.0 dB @ 14.65MHz	51.1 dB	> 42.8 dB	20.2 dB
3,6	RH	Pass	71.9 dB @ 3.25MHz	51.7 dB	> 53.2 dB	18.7 dB
5,4	RH	Pass	72.7 dB @ 3.25MHz	53.9 dB	> 53.2 dB	19.5 dB
1,2	RH	Pass	73.6 dB @ 4.00MHz	55.5 dB	> 51.8 dB	21.8 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	45.2 dB @ 68.50MHz	N/A	>= 14.9 dB	30.3 dB
3,6	DH	Pass	42.9 dB @ 68.00MHz	N/A	>= 15.1 dB	27.8 dB
5,4	DH	Pass	45.2 dB @ 67.75MHz	N/A	>= 15.1 dB	30.1 dB
1,2	DH	Pass	48.5 dB @ 72.00MHz	N/A	>= 14.1 dB	34.4 dB
7,8	RH	Pass	46.7 dB @ 95.00MHz	N/A	>= 9.3 dB	37.4 dB
3,6	RH	Pass	47.4 dB @ 83.50MHz	N/A	>= 11.6 dB	35.8 dB
5,4	RH	Pass	50.0 dB @ 71.50MHz	N/A	>= 14.2 dB	35.8 dB
1,2	RH	Pass	51.5 dB @ 72.50MHz	N/A	>= 14.0 dB	37.5 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	43.7 dB @ 54.25MHz	43.0 dB	>= 20.9 dB	22.8 dB
3,6	DH	Pass	38.9 dB @ 83.50MHz	37.6 dB	>= 17.2 dB	21.7 dB
5,4	DH	Pass	54.7 dB @ 9.40MHz	38.7 dB	>= 36.2 dB	18.5 dB
1,2	DH	Pass	44.1 dB @ 61.75MHz	40.9 dB	>= 19.8 dB	24.3 dB
7,8	RH	Pass	42.4 dB @ 61.75MHz	41.0 dB	>= 19.8 dB	22.6 dB
3,6	RH	Pass	42.1 dB @ 99.25MHz	42.0 dB	>= 15.7 dB	26.4 dB
5,4	RH	Pass	58.5 dB @ 5.35MHz	37.1 dB	>= 41.0 dB	17.5 dB
1,2	RH	Pass	42.0 dB @ 68.75MHz	39.3 dB	>= 18.9 dB	23.1 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

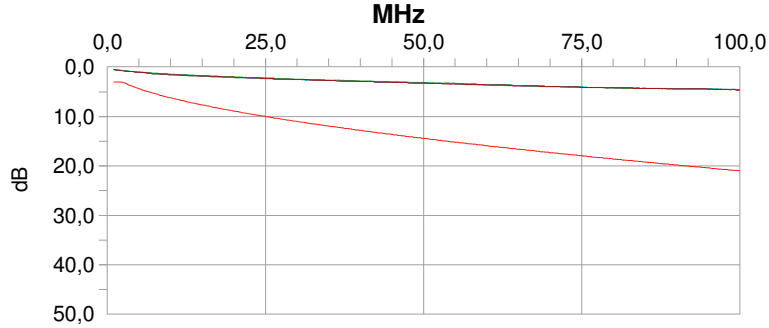
Cable ID 1: 7/5
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:48:28
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

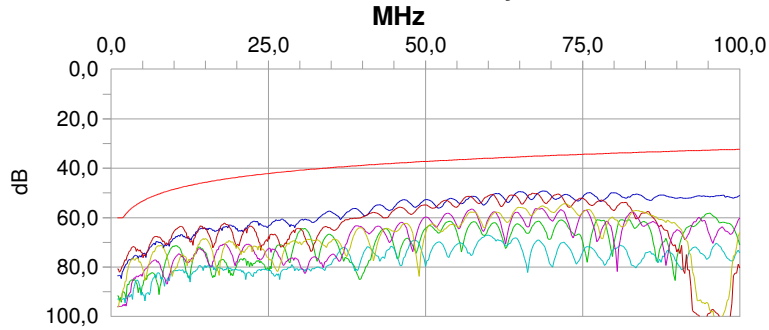
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

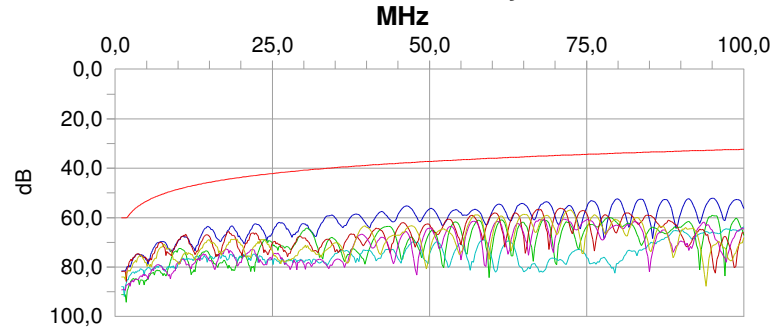
Attenuation Summary



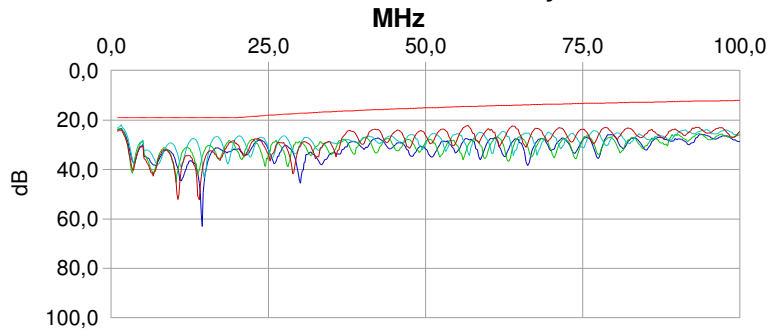
NEXT DH Summary



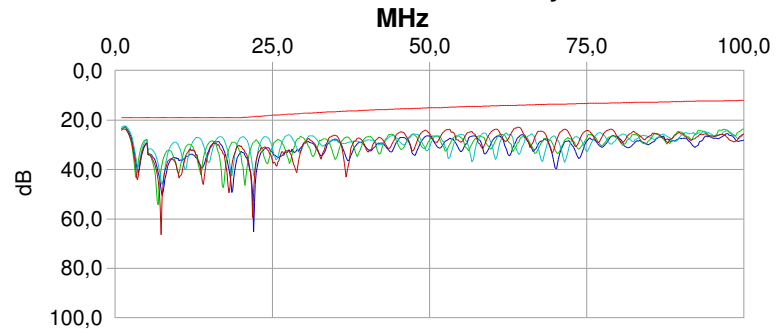
NEXT RH Summary



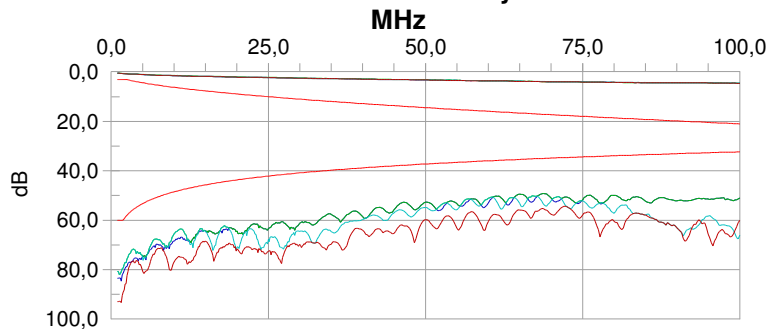
Return Loss DH Summary



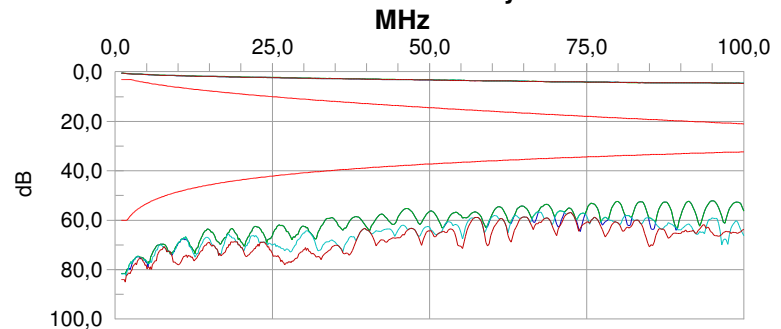
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

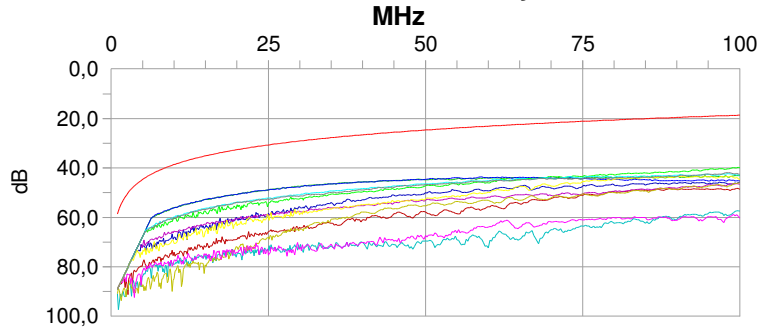
Cable ID 1: 7/5
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:48:28
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

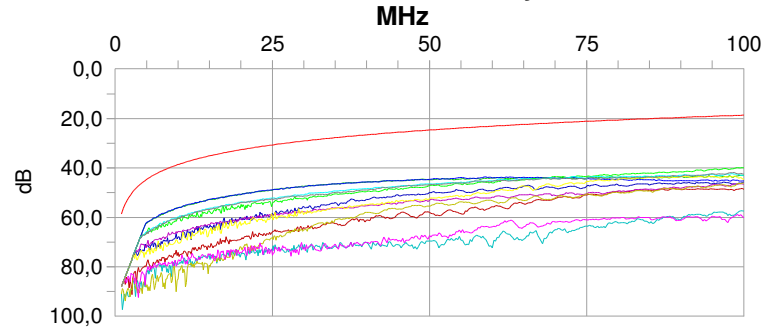
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

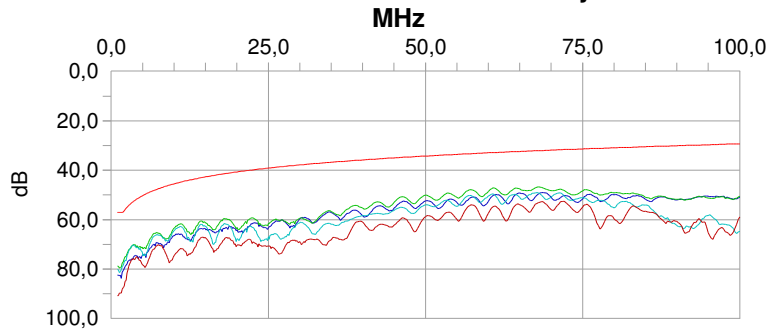
ELFEXT DH Summary



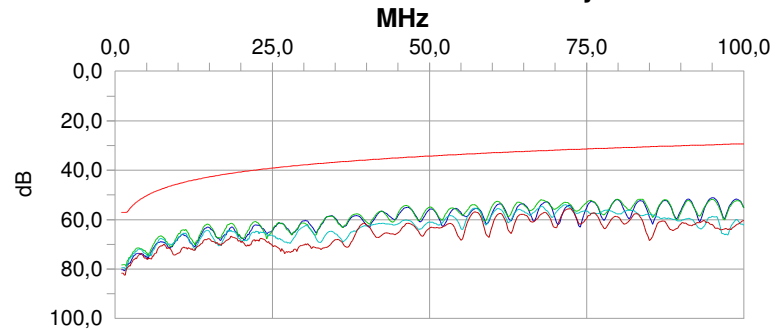
ELFEXT RH Summary



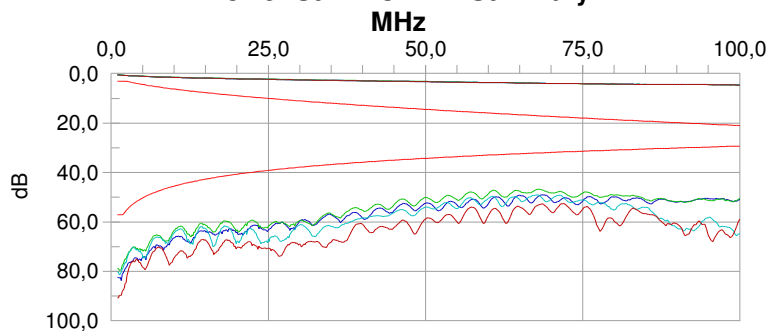
Power Sum NEXT DH Summary



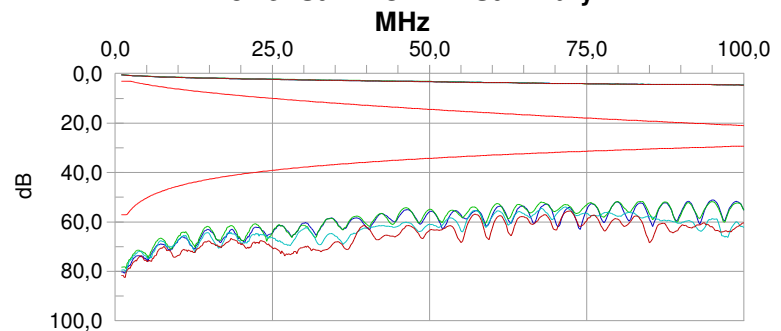
Power Sum NEXT RH Summary



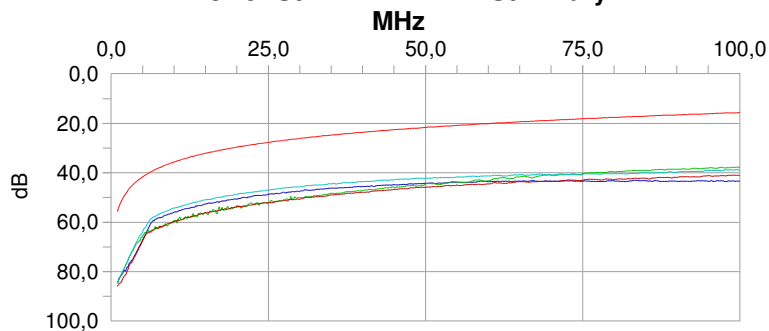
Power Sum ACR DH Summary



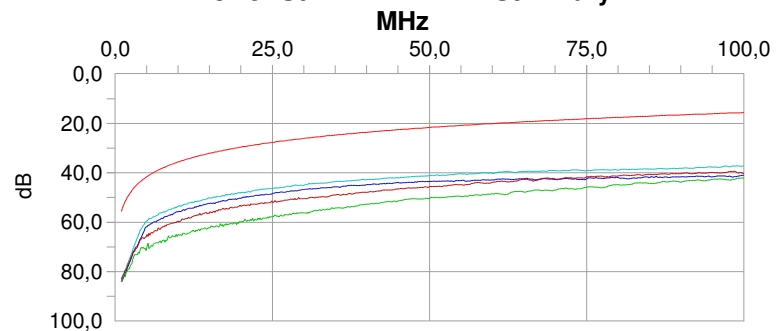
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

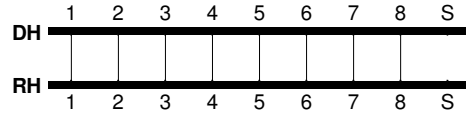
Cable ID 1: 7/6
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:47:54
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	27.4m	28.8m	28.3m	27.8m	< 90.0m	Pass
Prop. Delay	148.1ns	154.6ns	152.6ns	148.3ns	< 498.0ns	Pass
Delay Skew	6.5ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	33.1 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	51.3 dB @ 64.75MHz	51.0 dB	> 35.4 dB	15.9 dB
7,8-5,4	DH	Pass	53.8 dB @ 81.00MHz	53.2 dB	> 33.8 dB	20.0 dB
7,8-1,2	DH	Pass	59.7 dB @ 52.75MHz	57.8 dB	> 36.9 dB	22.8 dB
3,6-5,4	DH	Pass	51.2 dB @ 56.75MHz	50.3 dB	> 36.3 dB	14.9 dB
3,6-1,2	DH	Pass	54.7 dB @ 49.50MHz	51.1 dB	> 37.3 dB	17.4 dB
5,4-1,2	DH	Pass	64.2 dB @ 17.20MHz	53.9 dB	> 44.7 dB	19.5 dB
7,8-3,6	RH	Pass	51.1 dB @ 76.00MHz	51.1 dB	> 34.3 dB	16.8 dB
7,8-5,4	RH	Pass	61.0 dB @ 44.75MHz	57.2 dB	> 38.0 dB	23.0 dB
7,8-1,2	RH	Pass	64.5 dB @ 25.60MHz	56.5 dB	> 41.9 dB	22.6 dB
3,6-5,4	RH	Pass	76.3 dB @ 2.95MHz	57.6 dB	> 56.9 dB	19.4 dB
3,6-1,2	RH	Pass	58.8 dB @ 60.50MHz	58.5 dB	> 35.9 dB	22.9 dB
5,4-1,2	RH	Pass	64.6 dB @ 17.80MHz	54.6 dB	> 44.5 dB	20.1 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.5 dB @ 1.60MHz	23.5 dB	> 19.0 dB	4.5 dB
3,6	DH	Pass	23.5 dB @ 1.30MHz	23.5 dB	> 19.0 dB	4.5 dB
5,4	DH	Pass	22.0 dB @ 1.60MHz	22.0 dB	> 19.0 dB	3.0 dB
1,2	DH	Pass	24.3 dB @ 1.60MHz	22.4 dB	> 19.0 dB	5.3 dB
7,8	RH	Pass	22.8 dB @ 1.60MHz	22.8 dB	> 19.0 dB	3.8 dB
3,6	RH	Pass	22.8 dB @ 1.60MHz	22.8 dB	> 19.0 dB	3.8 dB
5,4	RH	Pass	22.5 dB @ 1.30MHz	22.5 dB	> 19.0 dB	3.5 dB
1,2	RH	Pass	23.8 dB @ 1.30MHz	23.5 dB	> 19.0 dB	4.8 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.50MHz	4.6 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.50MHz	4.6 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.7 dB @ 2.50MHz	4.5 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.50MHz	4.6 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	46.9 dB @ 76.00MHz	N/A	>= 16.2 dB	30.7 dB
3,6	DH	Pass	46.4 dB @ 70.50MHz	N/A	>= 17.5 dB	28.9 dB
5,4	DH	Pass	46.4 dB @ 70.50MHz	N/A	>= 17.5 dB	28.9 dB
1,2	DH	Pass	46.6 dB @ 96.75MHz	N/A	>= 11.9 dB	34.7 dB
7,8	RH	Pass	47.0 dB @ 76.00MHz	N/A	>= 16.2 dB	30.8 dB
3,6	RH	Pass	47.0 dB @ 76.00MHz	N/A	>= 16.2 dB	30.8 dB
5,4	RH	Pass	50.6 dB @ 75.25MHz	N/A	>= 16.3 dB	34.3 dB
1,2	RH	Pass	50.5 dB @ 75.25MHz	N/A	>= 16.3 dB	34.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/6
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:47:54
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	49.0 dB @ 65.25MHz	49.0 dB	> 22.3 dB	26.7 dB
7,8-5,4	DH	Pass	59.0 dB @ 9.25MHz	41.5 dB	> 39.3 dB	19.7 dB
7,8-1,2	DH	Pass	66.9 dB @ 7.45MHz	46.8 dB	> 41.2 dB	25.7 dB
3,6-7,8	DH	Pass	51.3 dB @ 82.75MHz	50.6 dB	> 20.3 dB	31.0 dB
3,6-5,4	DH	Pass	50.3 dB @ 97.75MHz	50.3 dB	> 18.8 dB	31.5 dB
3,6-1,2	DH	Pass	46.7 dB @ 99.50MHz	46.7 dB	> 18.7 dB	28.0 dB
5,4-7,8	DH	Pass	60.0 dB @ 8.20MHz	43.1 dB	> 40.3 dB	19.7 dB
5,4-3,6	DH	Pass	41.7 dB @ 99.25MHz	41.7 dB	> 18.7 dB	23.0 dB
5,4-1,2	DH	Pass	67.9 dB @ 5.05MHz	44.5 dB	> 44.5 dB	23.4 dB
1,2-7,8	DH	Pass	66.1 dB @ 8.35MHz	45.8 dB	> 40.2 dB	25.9 dB
1,2-3,6	DH	Pass	45.6 dB @ 75.50MHz	44.6 dB	> 21.1 dB	24.5 dB
1,2-5,4	DH	Pass	63.1 dB @ 9.40MHz	43.8 dB	> 39.2 dB	23.9 dB
7,8-3,6	RH	Pass	49.0 dB @ 65.25MHz	49.0 dB	> 22.3 dB	26.7 dB
7,8-5,4	RH	Pass	64.9 dB @ 4.75MHz	41.4 dB	> 45.1 dB	19.8 dB
7,8-1,2	RH	Pass	66.9 dB @ 7.45MHz	46.8 dB	> 41.2 dB	25.7 dB
3,6-7,8	RH	Pass	50.7 dB @ 87.25MHz	50.5 dB	> 19.8 dB	30.9 dB
3,6-5,4	RH	Pass	50.3 dB @ 97.75MHz	50.3 dB	> 18.8 dB	31.5 dB
3,6-1,2	RH	Pass	46.7 dB @ 99.50MHz	46.7 dB	> 18.7 dB	28.0 dB
5,4-7,8	RH	Pass	59.9 dB @ 8.20MHz	43.2 dB	> 40.3 dB	19.6 dB
5,4-3,6	RH	Pass	41.8 dB @ 99.25MHz	41.8 dB	> 18.7 dB	23.1 dB
5,4-1,2	RH	Pass	67.8 dB @ 5.05MHz	44.6 dB	> 44.5 dB	23.3 dB
1,2-7,8	RH	Pass	66.1 dB @ 8.35MHz	45.7 dB	> 40.2 dB	25.9 dB
1,2-3,6	RH	Pass	45.6 dB @ 75.50MHz	44.6 dB	> 21.1 dB	24.5 dB
1,2-5,4	RH	Pass	65.3 dB @ 7.30MHz	43.7 dB	> 41.3 dB	24.0 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.9 dB @ 68.50MHz	49.4 dB	> 32.0 dB	17.9 dB
3,6	DH	Pass	47.8 dB @ 57.00MHz	46.9 dB	> 33.3 dB	14.5 dB
5,4	DH	Pass	48.9 dB @ 67.00MHz	48.5 dB	> 32.2 dB	16.7 dB
1,2	DH	Pass	52.3 dB @ 53.00MHz	50.2 dB	> 33.8 dB	18.5 dB
7,8	RH	Pass	50.4 dB @ 76.00MHz	50.4 dB	> 31.3 dB	19.1 dB
3,6	RH	Pass	52.5 dB @ 57.00MHz	50.7 dB	> 33.3 dB	19.2 dB
5,4	RH	Pass	74.7 dB @ 2.95MHz	53.7 dB	> 53.9 dB	20.8 dB
1,2	RH	Pass	55.4 dB @ 52.75MHz	52.8 dB	> 33.9 dB	21.5 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	45.3 dB @ 76.00MHz	N/A	>= 13.2 dB	32.1 dB
3,6	DH	Pass	42.9 dB @ 71.75MHz	N/A	>= 14.2 dB	28.7 dB
5,4	DH	Pass	44.6 dB @ 70.50MHz	N/A	>= 14.5 dB	30.1 dB
1,2	DH	Pass	45.7 dB @ 96.75MHz	N/A	>= 8.9 dB	36.8 dB
7,8	RH	Pass	46.3 dB @ 76.00MHz	N/A	>= 13.2 dB	33.1 dB
3,6	RH	Pass	46.6 dB @ 75.50MHz	N/A	>= 13.3 dB	33.3 dB
5,4	RH	Pass	49.7 dB @ 74.75MHz	N/A	>= 13.5 dB	36.2 dB
1,2	RH	Pass	48.7 dB @ 75.25MHz	N/A	>= 13.3 dB	35.4 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.6 dB @ 26.50MHz	40.8 dB	>= 27.1 dB	22.5 dB
3,6	DH	Pass	40.7 dB @ 82.25MHz	39.6 dB	>= 17.3 dB	23.4 dB
5,4	DH	Pass	46.5 dB @ 36.75MHz	39.5 dB	>= 24.3 dB	22.2 dB
1,2	DH	Pass	48.5 dB @ 39.00MHz	41.5 dB	>= 23.8 dB	24.7 dB
7,8	RH	Pass	54.1 dB @ 14.50MHz	39.9 dB	>= 32.4 dB	21.7 dB
3,6	RH	Pass	44.6 dB @ 96.00MHz	44.3 dB	>= 16.0 dB	28.6 dB
5,4	RH	Pass	56.4 dB @ 10.30MHz	38.4 dB	>= 35.4 dB	21.0 dB
1,2	RH	Pass	42.9 dB @ 67.75MHz	39.9 dB	>= 19.0 dB	23.9 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

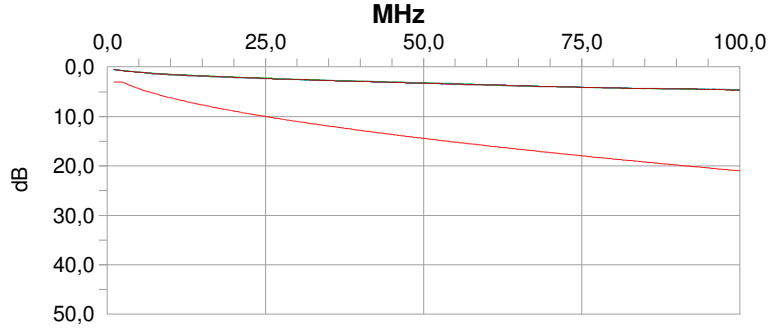
Cable ID 1: 7/6
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:47:54
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

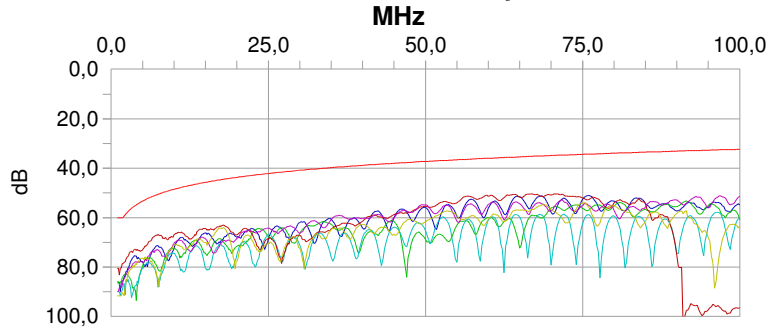
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

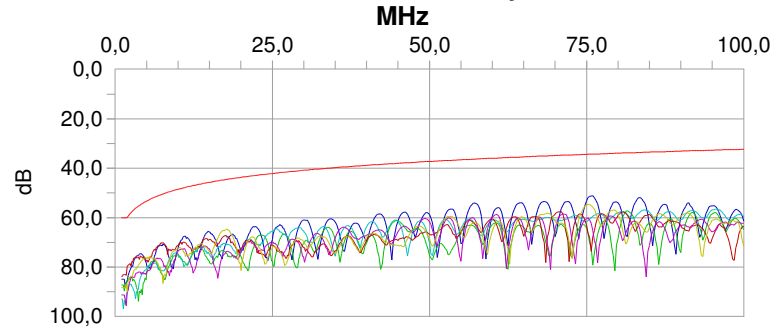
Attenuation Summary



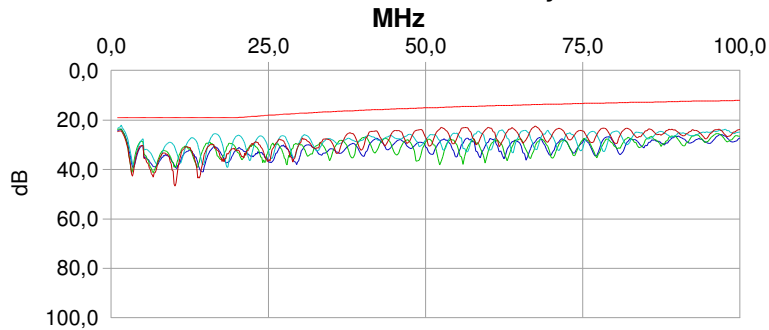
NEXT DH Summary



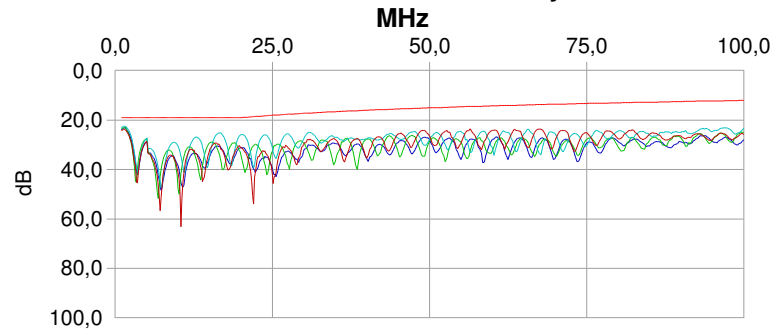
NEXT RH Summary



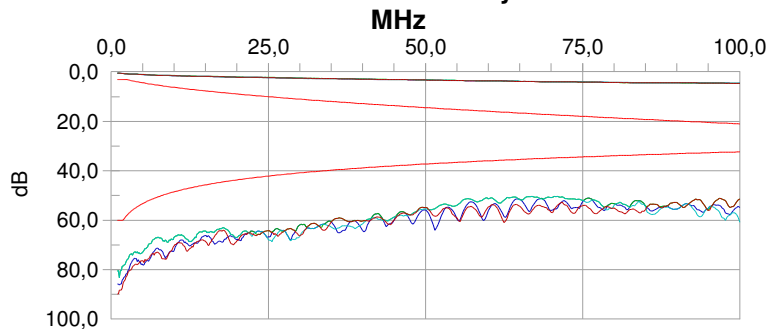
Return Loss DH Summary



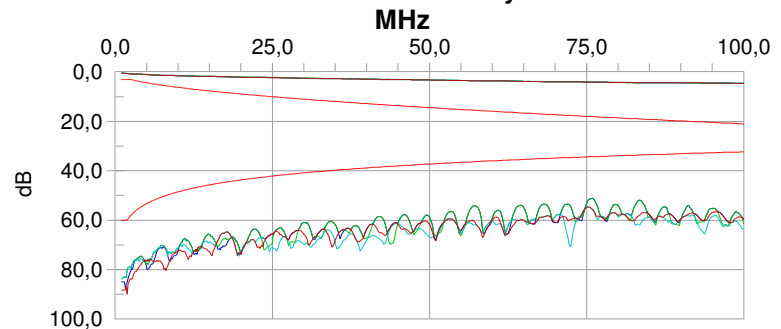
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

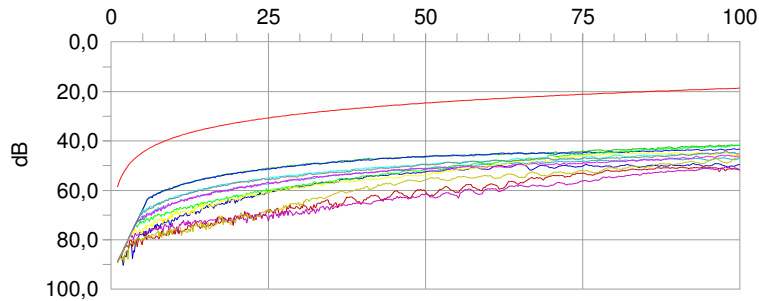
Cable ID 1: 7/6
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:47:54
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

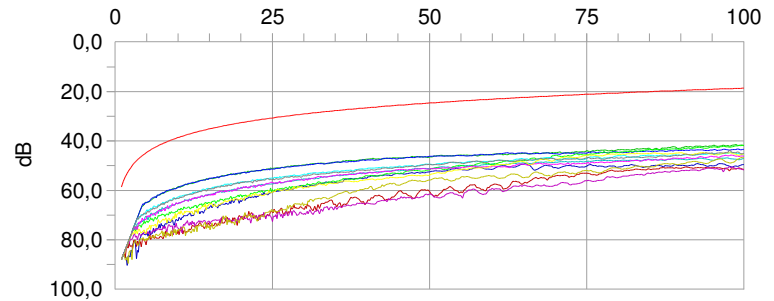
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

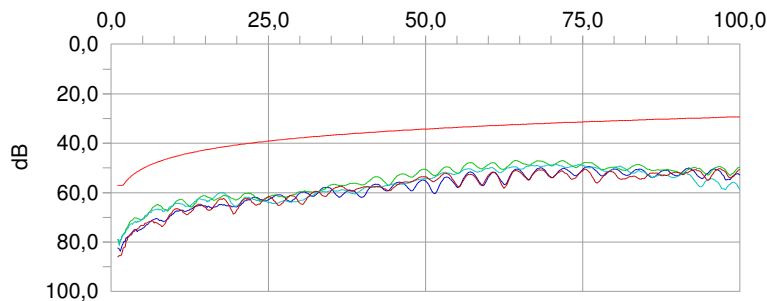
ELFEXT DH Summary
MHz



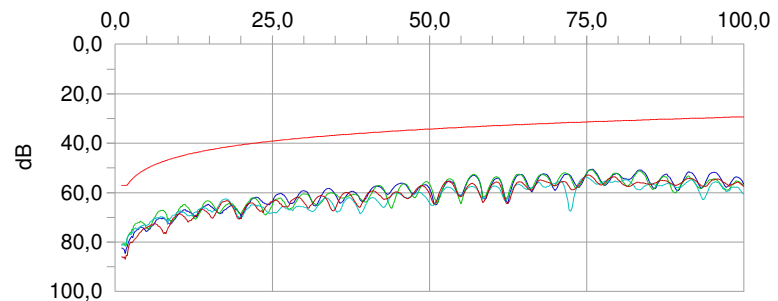
ELFEXT RH Summary
MHz



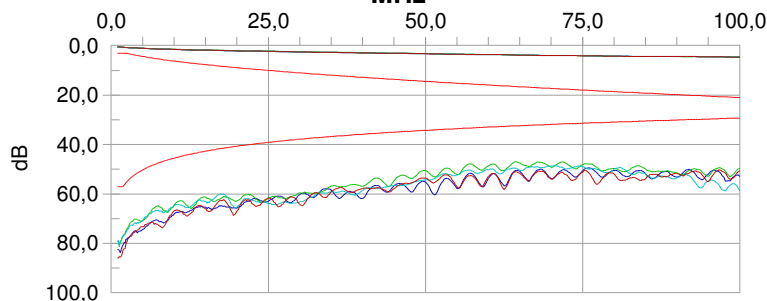
Power Sum NEXT DH Summary
MHz



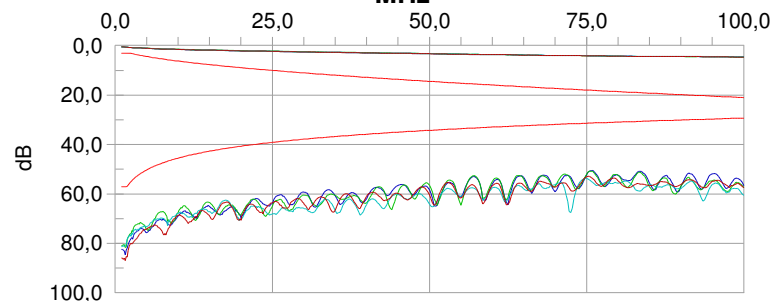
Power Sum NEXT RH Summary
MHz



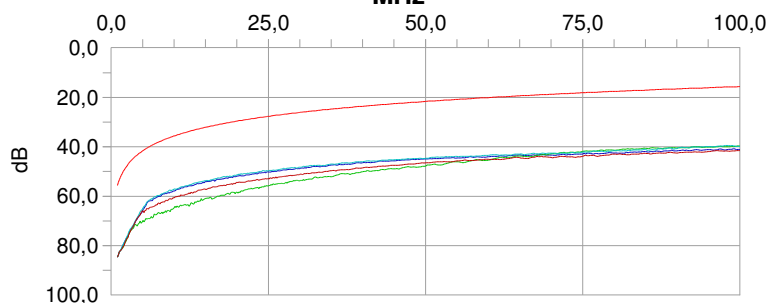
Power Sum ACR DH Summary
MHz



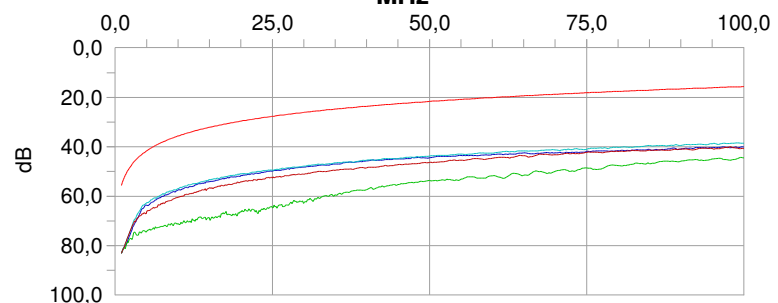
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

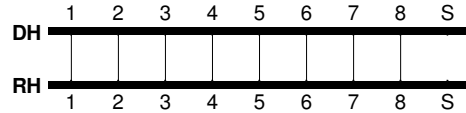
Cable ID 1: 7/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:44:44
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	43.3m	45.3m	44.9m	43.8m	< 90.0m	Pass
Prop. Delay	223.3ns	233.0ns	231.2ns	224.3ns	< 498.0ns	Pass
Delay Skew	9.7ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	25.4 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	44.8 dB @ 54.25MHz	43.0 dB	> 36.7 dB	8.1 dB
7,8-5,4	DH	Pass	61.4 dB @ 24.40MHz	53.9 dB	> 42.3 dB	19.1 dB
7,8-1,2	DH	Pass	52.0 dB @ 83.25MHz	52.0 dB	> 33.6 dB	18.4 dB
3,6-5,4	DH	Pass	59.8 dB @ 12.10MHz	48.6 dB	> 47.2 dB	12.6 dB
3,6-1,2	DH	Pass	54.3 dB @ 22.45MHz	46.3 dB	> 42.9 dB	11.4 dB
5,4-1,2	DH	Pass	57.1 dB @ 28.15MHz	50.8 dB	> 41.3 dB	15.8 dB
7,8-3,6	RH	Pass	44.1 dB @ 58.00MHz	43.4 dB	> 36.2 dB	7.9 dB
7,8-5,4	RH	Pass	51.2 dB @ 96.75MHz	51.2 dB	> 32.5 dB	18.7 dB
7,8-1,2	RH	Pass	44.8 dB @ 100.00MHz	44.8 dB	> 32.3 dB	12.5 dB
3,6-5,4	RH	Pass	51.9 dB @ 54.75MHz	51.6 dB	> 36.6 dB	15.3 dB
3,6-1,2	RH	Pass	46.6 dB @ 73.50MHz	46.5 dB	> 34.5 dB	12.1 dB
5,4-1,2	RH	Pass	52.9 dB @ 45.75MHz	50.1 dB	> 37.9 dB	15.0 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.8 dB @ 1.45MHz	22.4 dB	> 19.0 dB	4.8 dB
3,6	DH	Pass	25.9 dB @ 3.10MHz	22.4 dB	> 19.0 dB	6.9 dB
5,4	DH	Pass	23.0 dB @ 17.50MHz	19.5 dB	> 19.0 dB	4.0 dB
1,2	DH	Pass	24.0 dB @ 1.45MHz	20.2 dB	> 19.0 dB	5.0 dB
7,8	RH	Pass	22.4 dB @ 1.00MHz	21.1 dB	> 19.0 dB	3.4 dB
3,6	RH	Pass	23.7 dB @ 1.45MHz	20.2 dB	> 19.0 dB	4.7 dB
5,4	RH	Pass	21.3 dB @ 17.65MHz	17.9 dB	> 19.0 dB	2.3 dB
1,2	RH	Pass	17.6 dB @ 65.25MHz	17.6 dB	> 13.9 dB	3.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.2 dB @ 2.50MHz	7.4 dB	< 3.1 dB	1.9 dB
3,6	Pass	1.1 dB @ 2.50MHz	8.2 dB	< 3.1 dB	2.0 dB
5,4	Pass	1.2 dB @ 2.50MHz	7.8 dB	< 3.1 dB	1.9 dB
1,2	Pass	1.2 dB @ 2.50MHz	7.6 dB	< 3.1 dB	1.9 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	36.0 dB @ 87.50MHz	N/A	>= 13.8 dB	22.2 dB
3,6	DH	Pass	35.8 dB @ 87.50MHz	N/A	>= 13.8 dB	22.0 dB
5,4	DH	Pass	42.4 dB @ 78.75MHz	N/A	>= 15.6 dB	26.8 dB
1,2	DH	Pass	39.5 dB @ 93.75MHz	N/A	>= 12.6 dB	26.9 dB
7,8	RH	Pass	36.8 dB @ 75.50MHz	N/A	>= 16.3 dB	20.5 dB
3,6	RH	Pass	36.5 dB @ 87.00MHz	N/A	>= 13.9 dB	22.6 dB
5,4	RH	Pass	42.9 dB @ 92.25MHz	N/A	>= 12.8 dB	30.1 dB
1,2	RH	Pass	37.2 dB @ 100.00MHz	N/A	>= 11.3 dB	25.9 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:44:44
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	44.6 dB @ 99.00MHz	44.6 dB	> 18.7 dB	25.9 dB
7,8-5,4	DH	Pass	37.0 dB @ 99.25MHz	37.0 dB	> 18.7 dB	18.3 dB
7,8-1,2	DH	Pass	42.8 dB @ 69.25MHz	41.3 dB	> 21.8 dB	21.0 dB
3,6-7,8	DH	Pass	52.7 dB @ 54.00MHz	48.9 dB	> 24.0 dB	28.7 dB
3,6-5,4	DH	Pass	50.3 dB @ 99.25MHz	50.3 dB	> 18.7 dB	31.6 dB
3,6-1,2	DH	Pass	40.7 dB @ 69.75MHz	39.1 dB	> 21.7 dB	19.0 dB
5,4-7,8	DH	Pass	59.9 dB @ 7.30MHz	38.1 dB	> 41.3 dB	18.6 dB
5,4-3,6	DH	Pass	41.0 dB @ 93.00MHz	40.7 dB	> 19.2 dB	21.8 dB
5,4-1,2	DH	Pass	58.5 dB @ 7.75MHz	46.5 dB	> 40.8 dB	17.7 dB
1,2-7,8	DH	Pass	52.5 dB @ 23.80MHz	41.7 dB	> 31.1 dB	21.4 dB
1,2-3,6	DH	Pass	37.4 dB @ 63.50MHz	36.0 dB	> 22.6 dB	14.8 dB
1,2-5,4	DH	Pass	58.1 dB @ 8.35MHz	46.5 dB	> 40.2 dB	17.9 dB
7,8-3,6	RH	Pass	44.9 dB @ 99.00MHz	44.9 dB	> 18.7 dB	26.2 dB
7,8-5,4	RH	Pass	37.5 dB @ 96.50MHz	37.3 dB	> 18.9 dB	18.6 dB
7,8-1,2	RH	Pass	42.8 dB @ 69.25MHz	41.4 dB	> 21.8 dB	21.0 dB
3,6-7,8	RH	Pass	52.4 dB @ 54.25MHz	48.8 dB	> 23.9 dB	28.5 dB
3,6-5,4	RH	Pass	50.0 dB @ 99.25MHz	49.9 dB	> 18.7 dB	31.3 dB
3,6-1,2	RH	Pass	40.4 dB @ 69.75MHz	38.9 dB	> 21.7 dB	18.7 dB
5,4-7,8	RH	Pass	59.9 dB @ 7.30MHz	37.8 dB	> 41.3 dB	18.6 dB
5,4-3,6	RH	Pass	40.9 dB @ 97.00MHz	40.9 dB	> 18.9 dB	22.0 dB
5,4-1,2	RH	Pass	58.5 dB @ 7.75MHz	46.4 dB	> 40.8 dB	17.7 dB
1,2-7,8	RH	Pass	66.3 dB @ 4.75MHz	41.6 dB	> 45.1 dB	21.2 dB
1,2-3,6	RH	Pass	37.7 dB @ 63.50MHz	36.5 dB	> 22.6 dB	15.1 dB
1,2-5,4	RH	Pass	62.6 dB @ 4.90MHz	46.5 dB	> 44.8 dB	17.8 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	44.6 dB @ 54.25MHz	42.6 dB	> 33.7 dB	10.9 dB
3,6	DH	Pass	43.6 dB @ 54.50MHz	42.6 dB	> 33.6 dB	10.0 dB
5,4	DH	Pass	46.6 dB @ 66.25MHz	46.6 dB	> 32.2 dB	14.4 dB
1,2	DH	Pass	45.6 dB @ 72.75MHz	45.5 dB	> 31.6 dB	14.0 dB
7,8	RH	Pass	43.4 dB @ 58.00MHz	43.0 dB	> 33.2 dB	10.2 dB
3,6	RH	Pass	43.2 dB @ 57.75MHz	42.2 dB	> 33.2 dB	10.0 dB
5,4	RH	Pass	60.8 dB @ 11.95MHz	48.4 dB	> 44.3 dB	16.5 dB
1,2	RH	Pass	43.6 dB @ 84.50MHz	43.6 dB	> 30.5 dB	13.1 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	35.6 dB @ 87.50MHz	N/A	>= 10.8 dB	24.8 dB
3,6	DH	Pass	35.3 dB @ 100.00MHz	N/A	>= 8.3 dB	27.0 dB
5,4	DH	Pass	40.4 dB @ 74.25MHz	N/A	>= 13.6 dB	26.8 dB
1,2	DH	Pass	38.4 dB @ 97.75MHz	N/A	>= 8.8 dB	29.6 dB
7,8	RH	Pass	35.8 dB @ 100.00MHz	N/A	>= 8.3 dB	27.5 dB
3,6	RH	Pass	35.3 dB @ 85.00MHz	N/A	>= 11.3 dB	24.0 dB
5,4	RH	Pass	41.1 dB @ 94.75MHz	N/A	>= 9.3 dB	31.8 dB
1,2	RH	Pass	36.6 dB @ 84.50MHz	N/A	>= 11.4 dB	25.2 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	36.4 dB @ 96.75MHz	36.3 dB	>= 15.9 dB	20.5 dB
3,6	DH	Pass	37.1 dB @ 63.50MHz	34.4 dB	>= 19.6 dB	17.5 dB
5,4	DH	Pass	46.7 dB @ 28.45MHz	36.6 dB	>= 26.5 dB	20.2 dB
1,2	DH	Pass	56.1 dB @ 7.75MHz	37.2 dB	>= 37.8 dB	18.3 dB
7,8	RH	Pass	35.6 dB @ 99.00MHz	35.6 dB	>= 15.7 dB	19.9 dB
3,6	RH	Pass	40.2 dB @ 70.50MHz	38.4 dB	>= 18.7 dB	21.5 dB
5,4	RH	Pass	52.2 dB @ 12.25MHz	35.9 dB	>= 33.9 dB	18.3 dB
1,2	RH	Pass	58.6 dB @ 4.90MHz	35.3 dB	>= 41.8 dB	16.8 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

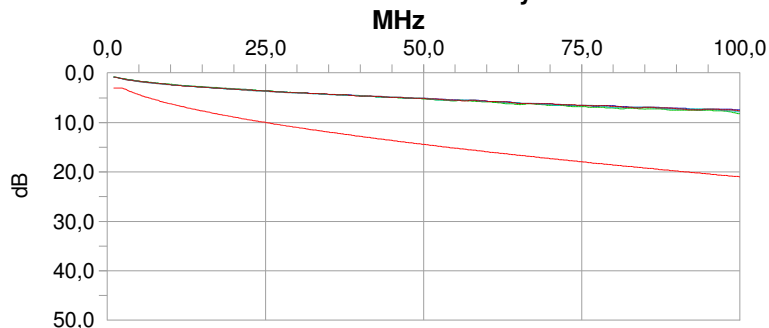
Cable ID 1: 7/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:44:44
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

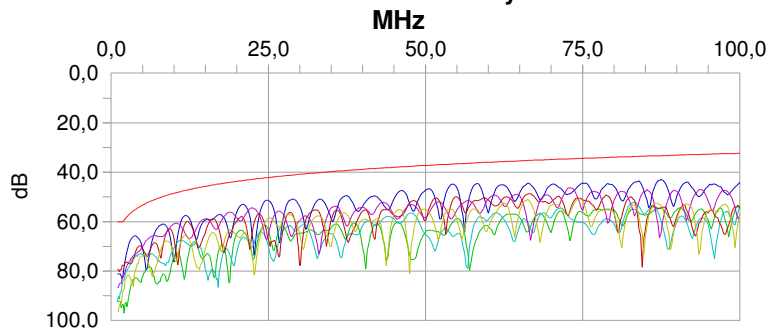
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

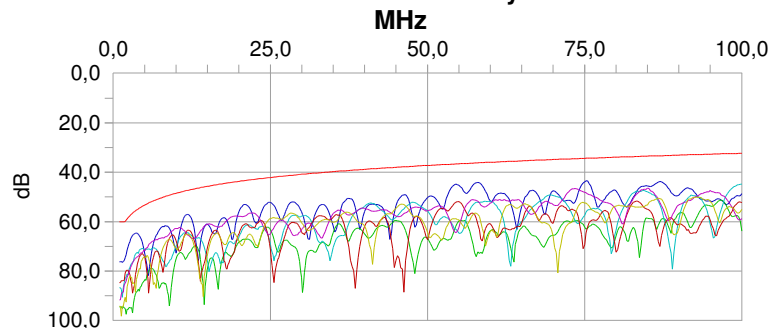
Attenuation Summary



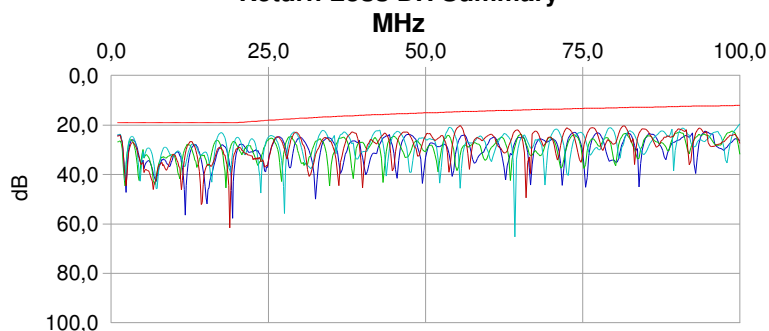
NEXT DH Summary



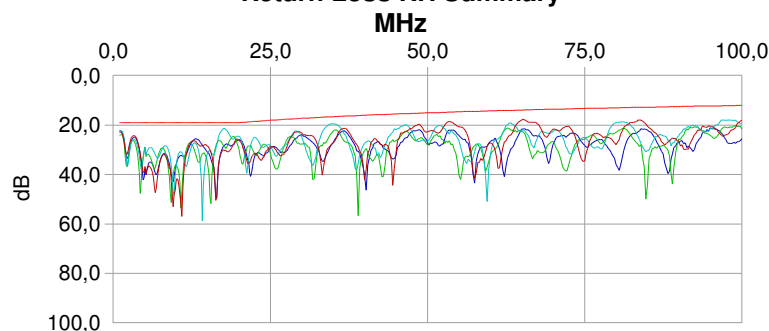
NEXT RH Summary



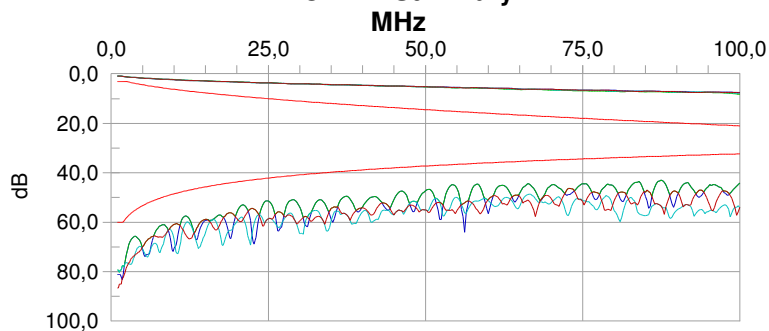
Return Loss DH Summary



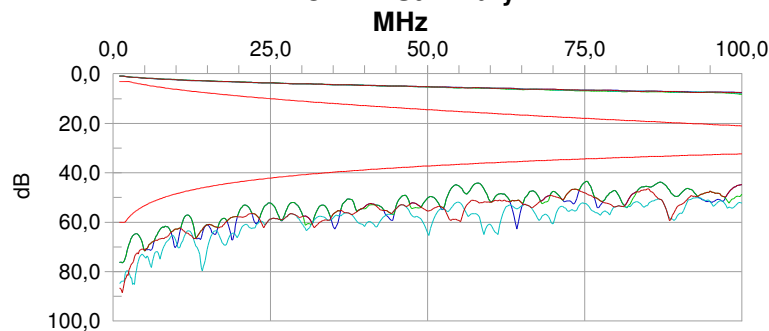
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:44:44
Adapter ID: 6014

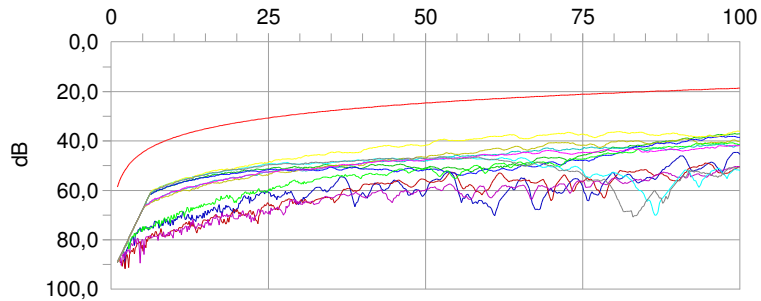
Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

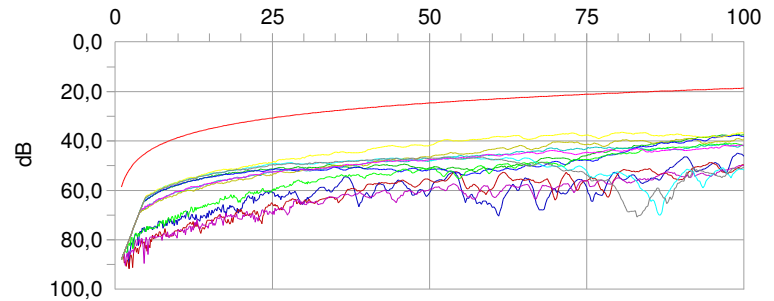
ELFEXT DH Summary

MHz



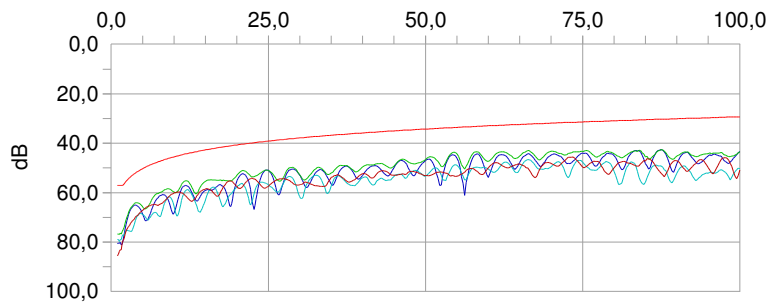
ELFEXT RH Summary

MHz



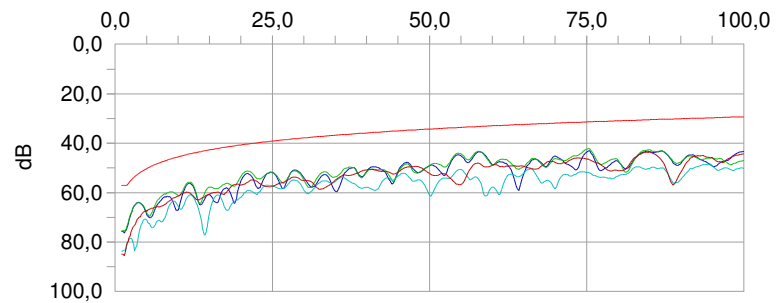
Power Sum NEXT DH Summary

MHz



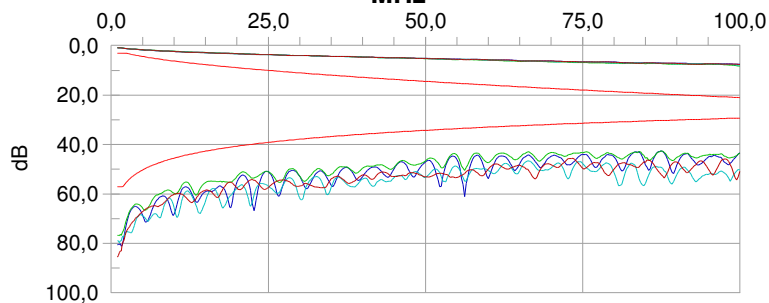
Power Sum NEXT RH Summary

MHz



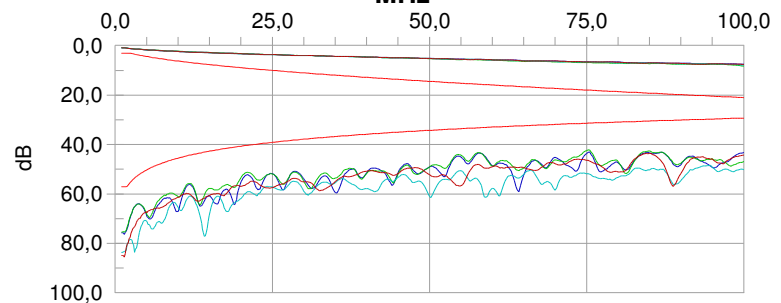
Power Sum ACR DH Summary

MHz



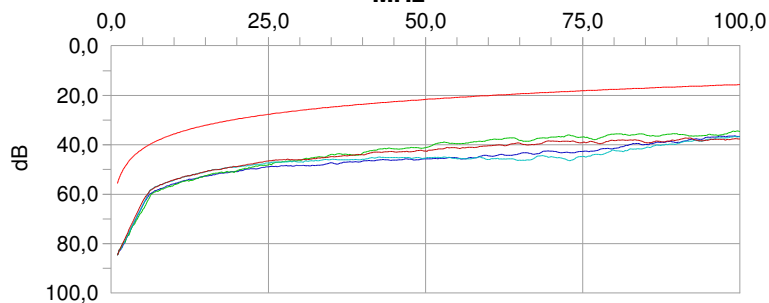
Power Sum ACR RH Summary

MHz



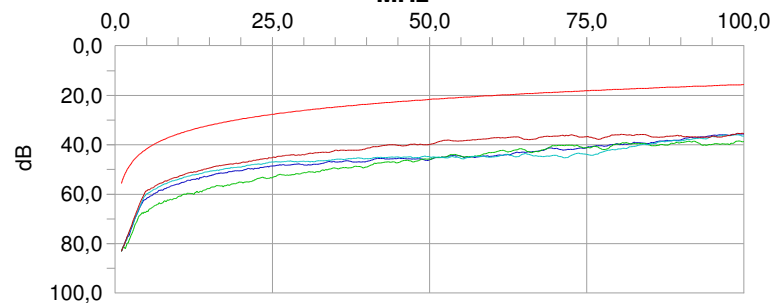
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

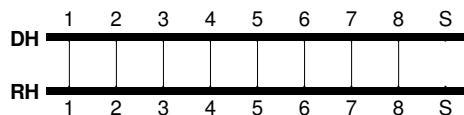
Cable ID 1: 7/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:42:47
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	41.0m	42.3m	41.8m	41.5m	< 90.0m	Pass
Prop. Delay	212.4ns	218.6ns	216.8ns	213.2ns	< 498.0ns	Pass
Delay Skew	6.2ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	19.5 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	57.2 dB @ 16.60MHz	46.8 dB	> 45.0 dB	12.2 dB
7,8-5,4	DH	Pass	51.7 dB @ 33.00MHz	46.6 dB	> 40.2 dB	11.5 dB
7,8-1,2	DH	Pass	53.7 dB @ 73.50MHz	53.7 dB	> 34.5 dB	19.2 dB
3,6-5,4	DH	Pass	55.3 dB @ 5.65MHz	40.7 dB	> 52.4 dB	2.9 dB
3,6-1,2	DH	Pass	53.5 dB @ 23.80MHz	45.6 dB	> 42.5 dB	11.0 dB
5,4-1,2	DH	Pass	54.1 dB @ 9.55MHz	43.3 dB	> 48.8 dB	5.3 dB
7,8-3,6	RH	Pass	42.8 dB @ 74.50MHz	41.4 dB	> 34.4 dB	8.4 dB
7,8-5,4	RH	Pass	49.3 dB @ 33.00MHz	44.2 dB	> 40.2 dB	9.1 dB
7,8-1,2	RH	Pass	65.6 dB @ 14.05MHz	52.8 dB	> 46.1 dB	19.5 dB
3,6-5,4	RH	Pass	47.3 dB @ 22.45MHz	40.4 dB	> 42.9 dB	4.4 dB
3,6-1,2	RH	Pass	44.1 dB @ 78.75MHz	43.1 dB	> 34.0 dB	10.1 dB
5,4-1,2	RH	Pass	48.1 dB @ 18.40MHz	40.1 dB	> 44.3 dB	3.8 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.6 dB @ 1.15MHz	23.0 dB	> 19.0 dB	4.6 dB
3,6	DH	Pass	23.9 dB @ 1.45MHz	22.0 dB	> 19.0 dB	4.9 dB
5,4	DH	Pass	22.5 dB @ 1.00MHz	20.4 dB	> 19.0 dB	3.5 dB
1,2	DH	Pass	22.6 dB @ 26.05MHz	18.9 dB	> 17.9 dB	4.7 dB
7,8	RH	Pass	22.7 dB @ 1.30MHz	20.1 dB	> 19.0 dB	3.7 dB
3,6	RH	Pass	23.0 dB @ 1.30MHz	20.4 dB	> 19.0 dB	4.0 dB
5,4	RH	Pass	18.7 dB @ 28.90MHz	16.9 dB	> 17.4 dB	1.3 dB
1,2	RH	Pass	15.8 dB @ 64.00MHz	15.8 dB	> 13.9 dB	1.9 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.1 dB @ 2.50MHz	7.3 dB	< 3.1 dB	2.0 dB
3,6	Pass	1.1 dB @ 2.50MHz	7.4 dB	< 3.1 dB	2.0 dB
5,4	Pass	1.1 dB @ 2.50MHz	7.2 dB	< 3.1 dB	2.0 dB
1,2	Pass	1.1 dB @ 2.50MHz	7.5 dB	< 3.1 dB	2.0 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	39.9 dB @ 95.50MHz	N/A	>= 12.1 dB	27.8 dB
3,6	DH	Pass	34.5 dB @ 100.00MHz	N/A	>= 11.3 dB	23.2 dB
5,4	DH	Pass	34.7 dB @ 71.00MHz	N/A	>= 17.3 dB	17.4 dB
1,2	DH	Pass	36.6 dB @ 84.25MHz	N/A	>= 14.4 dB	22.2 dB
7,8	RH	Pass	34.4 dB @ 94.00MHz	N/A	>= 12.4 dB	22.0 dB
3,6	RH	Pass	33.1 dB @ 99.50MHz	N/A	>= 11.4 dB	21.7 dB
5,4	RH	Pass	32.9 dB @ 100.00MHz	N/A	>= 11.3 dB	21.6 dB
1,2	RH	Pass	32.6 dB @ 100.00MHz	N/A	>= 11.3 dB	21.3 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 7/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:42:47
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	44.4 dB @ 95.00MHz	44.4 dB	> 19.1 dB	25.3 dB
7,8-5,4	DH	Pass	55.5 dB @ 8.95MHz	40.1 dB	> 39.6 dB	15.9 dB
7,8-1,2	DH	Pass	47.7 dB @ 40.25MHz	41.8 dB	> 26.5 dB	21.2 dB
3,6-7,8	DH	Pass	53.0 dB @ 62.50MHz	50.5 dB	> 22.7 dB	30.3 dB
3,6-5,4	DH	Pass	53.1 dB @ 62.75MHz	51.9 dB	> 22.7 dB	30.4 dB
3,6-1,2	DH	Pass	42.6 dB @ 98.50MHz	42.6 dB	> 18.7 dB	23.9 dB
5,4-7,8	DH	Pass	54.6 dB @ 9.70MHz	42.0 dB	> 38.9 dB	15.7 dB
5,4-3,6	DH	Pass	49.6 dB @ 62.25MHz	46.8 dB	> 22.7 dB	26.9 dB
5,4-1,2	DH	Pass	40.8 dB @ 98.75MHz	40.8 dB	> 18.7 dB	22.1 dB
1,2-7,8	DH	Pass	54.9 dB @ 17.20MHz	40.4 dB	> 33.9 dB	21.0 dB
1,2-3,6	DH	Pass	42.8 dB @ 68.00MHz	40.9 dB	> 22.0 dB	20.8 dB
1,2-5,4	DH	Pass	38.7 dB @ 83.75MHz	37.5 dB	> 20.2 dB	18.5 dB
7,8-3,6	RH	Pass	44.8 dB @ 95.00MHz	44.8 dB	> 19.1 dB	25.7 dB
7,8-5,4	RH	Pass	55.5 dB @ 8.95MHz	40.1 dB	> 39.6 dB	15.9 dB
7,8-1,2	RH	Pass	65.2 dB @ 5.35MHz	42.0 dB	> 44.0 dB	21.2 dB
3,6-7,8	RH	Pass	52.9 dB @ 62.50MHz	50.2 dB	> 22.7 dB	30.2 dB
3,6-5,4	RH	Pass	52.6 dB @ 62.00MHz	51.9 dB	> 22.8 dB	29.8 dB
3,6-1,2	RH	Pass	42.7 dB @ 98.50MHz	42.7 dB	> 18.7 dB	24.0 dB
5,4-7,8	RH	Pass	53.7 dB @ 10.60MHz	42.1 dB	> 38.1 dB	15.6 dB
5,4-3,6	RH	Pass	49.6 dB @ 62.50MHz	46.8 dB	> 22.7 dB	26.9 dB
5,4-1,2	RH	Pass	41.1 dB @ 98.75MHz	41.1 dB	> 18.7 dB	22.4 dB
1,2-7,8	RH	Pass	54.9 dB @ 17.20MHz	40.1 dB	> 33.9 dB	21.0 dB
1,2-3,6	RH	Pass	42.9 dB @ 68.00MHz	41.0 dB	> 22.0 dB	20.9 dB
1,2-5,4	RH	Pass	38.7 dB @ 83.75MHz	37.2 dB	> 20.2 dB	18.5 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	54.7 dB @ 16.45MHz	44.3 dB	> 42.0 dB	12.7 dB
3,6	DH	Pass	55.1 dB @ 5.50MHz	39.6 dB	> 49.6 dB	5.5 dB
5,4	DH	Pass	49.8 dB @ 9.85MHz	39.2 dB	> 45.6 dB	4.2 dB
1,2	DH	Pass	53.7 dB @ 9.85MHz	42.1 dB	> 45.6 dB	8.1 dB
7,8	RH	Pass	48.2 dB @ 33.00MHz	40.8 dB	> 37.2 dB	11.0 dB
3,6	RH	Pass	46.2 dB @ 22.75MHz	38.3 dB	> 39.8 dB	6.4 dB
5,4	RH	Pass	45.9 dB @ 17.65MHz	36.7 dB	> 41.5 dB	4.4 dB
1,2	RH	Pass	48.0 dB @ 18.40MHz	39.2 dB	> 41.3 dB	6.7 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	37.4 dB @ 99.75MHz	N/A	>= 8.4 dB	29.0 dB
3,6	DH	Pass	33.2 dB @ 99.75MHz	N/A	>= 8.4 dB	24.8 dB
5,4	DH	Pass	32.2 dB @ 100.00MHz	N/A	>= 8.3 dB	23.9 dB
1,2	DH	Pass	34.8 dB @ 98.75MHz	N/A	>= 8.6 dB	26.2 dB
7,8	RH	Pass	33.8 dB @ 95.25MHz	N/A	>= 9.3 dB	24.5 dB
3,6	RH	Pass	31.1 dB @ 98.75MHz	N/A	>= 8.6 dB	22.5 dB
5,4	RH	Pass	29.5 dB @ 100.00MHz	N/A	>= 8.3 dB	21.2 dB
1,2	RH	Pass	31.7 dB @ 99.50MHz	N/A	>= 8.4 dB	23.3 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	43.4 dB @ 35.00MHz	39.5 dB	>= 24.7 dB	18.7 dB
3,6	DH	Pass	40.9 dB @ 75.00MHz	39.4 dB	>= 18.1 dB	22.8 dB
5,4	DH	Pass	38.0 dB @ 63.75MHz	36.4 dB	>= 19.5 dB	18.5 dB
1,2	DH	Pass	37.0 dB @ 98.75MHz	37.0 dB	>= 15.7 dB	21.3 dB
7,8	RH	Pass	45.0 dB @ 27.25MHz	38.4 dB	>= 26.9 dB	18.1 dB
3,6	RH	Pass	42.1 dB @ 99.00MHz	42.1 dB	>= 15.7 dB	26.4 dB
5,4	RH	Pass	47.4 dB @ 23.20MHz	40.1 dB	>= 28.3 dB	19.1 dB
1,2	RH	Pass	35.7 dB @ 83.00MHz	34.7 dB	>= 17.2 dB	18.5 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

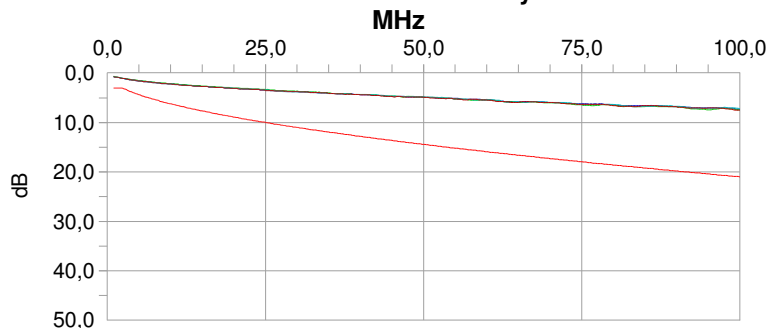
Cable ID 1: 7/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:42:47
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

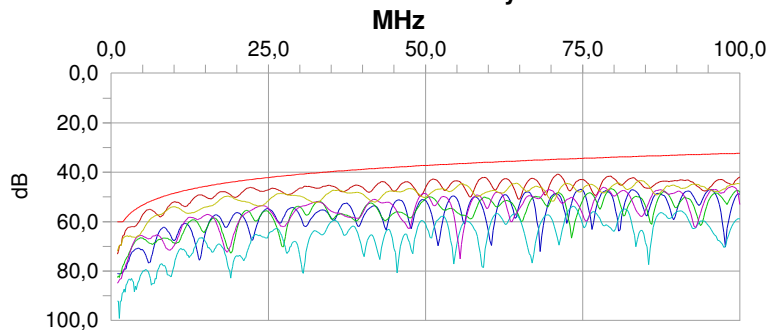
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

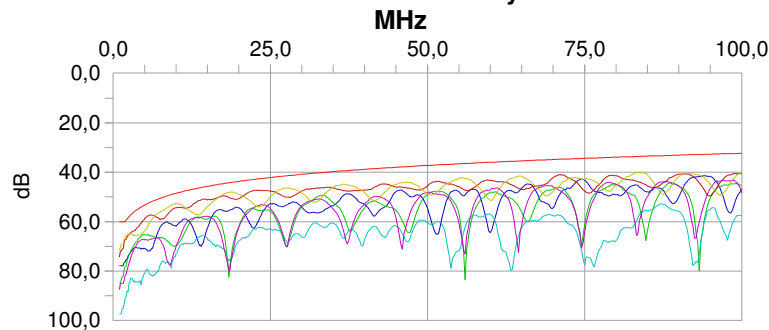
Attenuation Summary



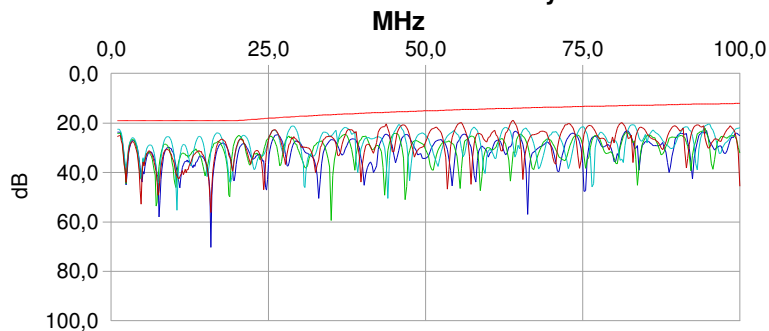
NEXT DH Summary



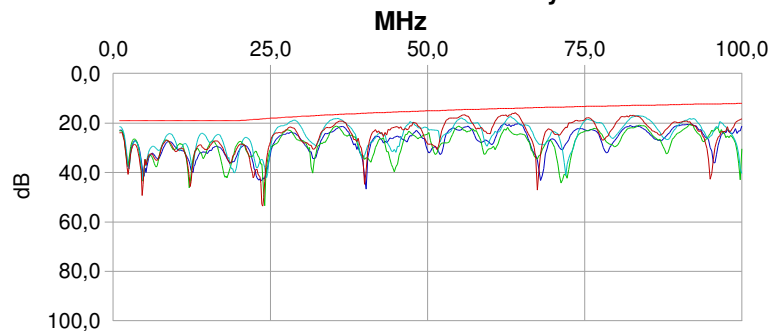
NEXT RH Summary



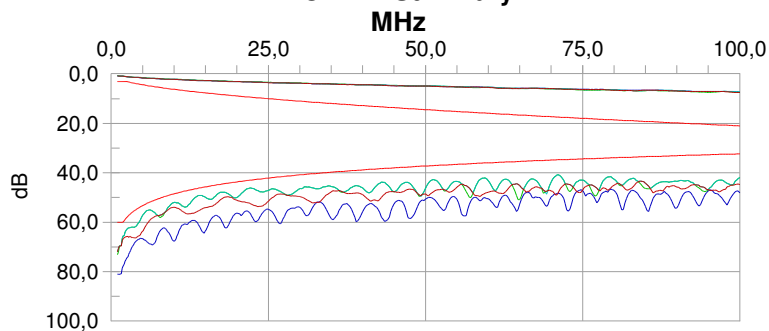
Return Loss DH Summary



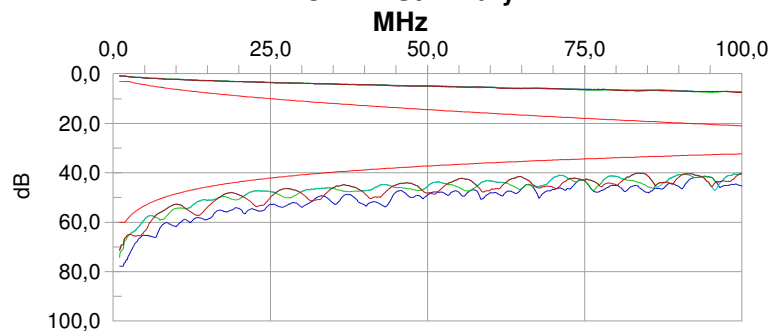
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

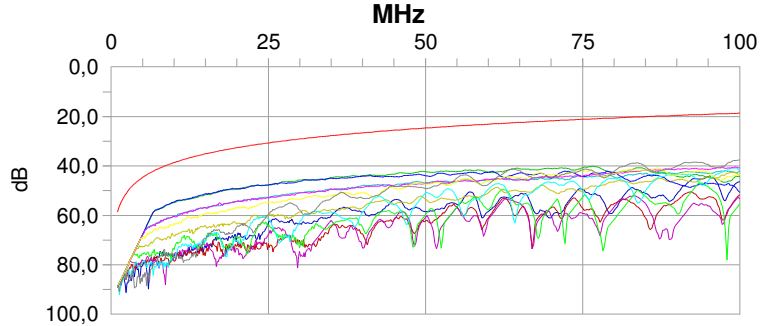
Cable ID 1: 7/9
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:42:47
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

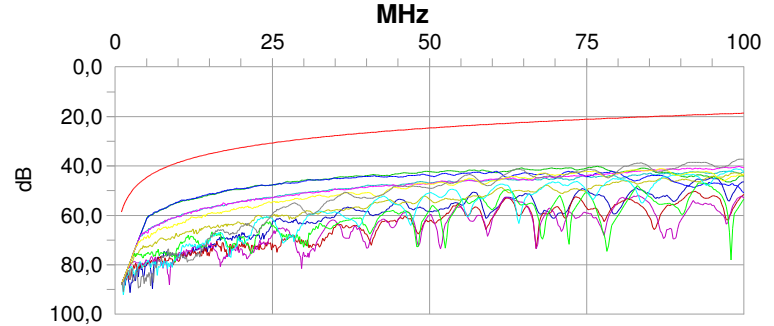
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

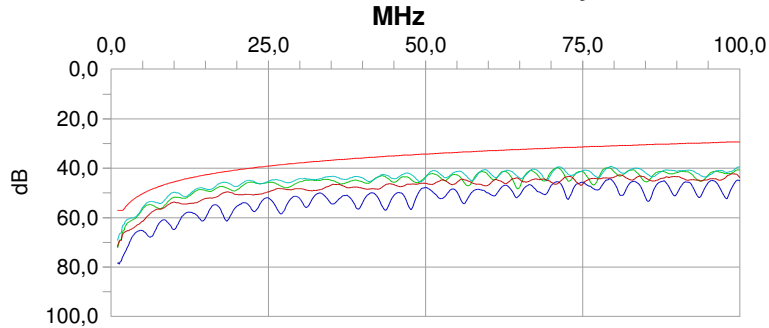
ELFEXT DH Summary



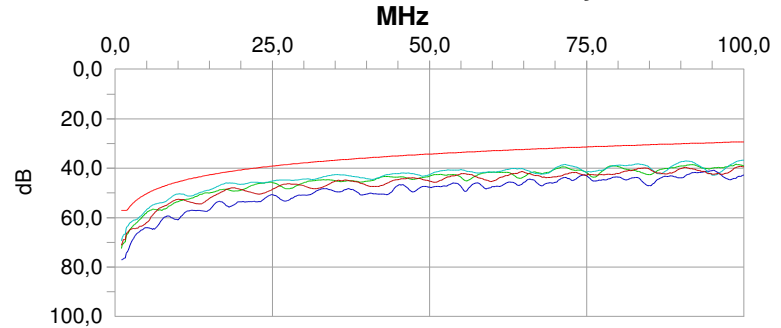
ELFEXT RH Summary



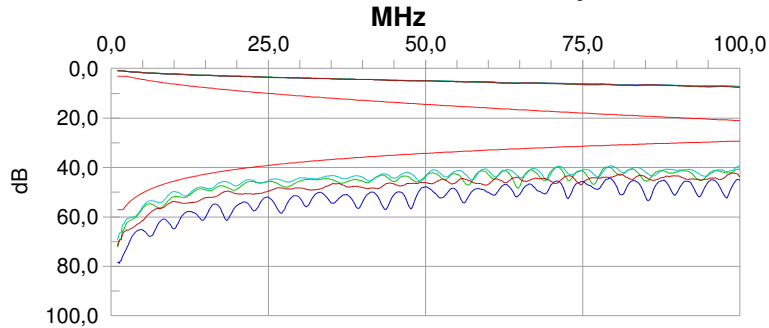
Power Sum NEXT DH Summary



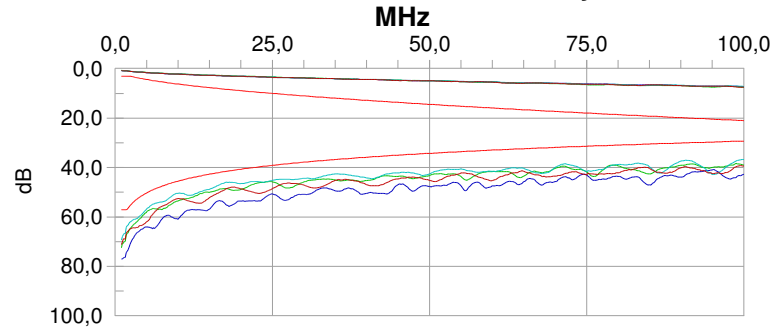
Power Sum NEXT RH Summary



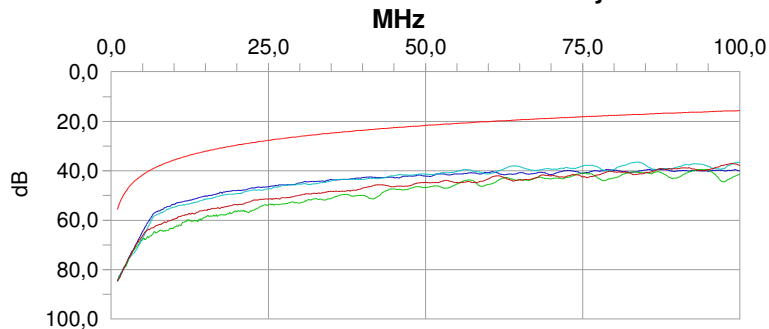
Power Sum ACR DH Summary



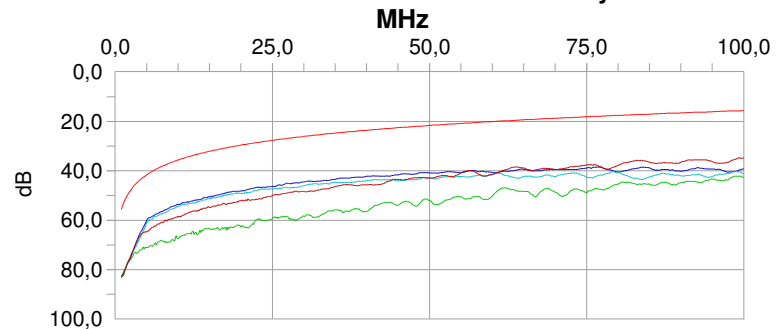
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

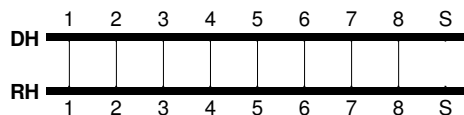
Cable ID 1: 8/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:59:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	24.5m	25.6m	25.3m	24.7m	< 90.0m	Pass
Prop. Delay	134.1ns	139.6ns	138.6ns	133.7ns	< 498.0ns	Pass
Delay Skew		5.9ns (Pairs 3,6 vs. 1,2)			< 44.0 ns	Pass
Headroom		33.1 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	50.8 dB @ 68.00MHz	50.7 dB	> 35.1 dB	15.7 dB
7,8-5,4	DH	Pass	56.2 dB @ 74.50MHz	56.2 dB	> 34.4 dB	21.8 dB
7,8-1,2	DH	Pass	63.0 dB @ 48.25MHz	61.5 dB	> 37.5 dB	25.5 dB
3,6-5,4	DH	Pass	49.7 dB @ 59.00MHz	49.5 dB	> 36.1 dB	13.6 dB
3,6-1,2	DH	Pass	54.4 dB @ 59.25MHz	52.8 dB	> 36.0 dB	18.4 dB
5,4-1,2	DH	Pass	54.7 dB @ 71.50MHz	54.7 dB	> 34.7 dB	20.0 dB
7,8-3,6	RH	Pass	54.9 dB @ 56.00MHz	51.8 dB	> 36.4 dB	18.5 dB
7,8-5,4	RH	Pass	60.2 dB @ 62.75MHz	59.3 dB	> 35.6 dB	24.6 dB
7,8-1,2	RH	Pass	63.8 dB @ 48.25MHz	60.0 dB	> 37.5 dB	26.3 dB
3,6-5,4	RH	Pass	71.2 dB @ 4.15MHz	54.1 dB	> 54.5 dB	16.7 dB
3,6-1,2	RH	Pass	56.9 dB @ 67.25MHz	56.9 dB	> 35.1 dB	21.8 dB
5,4-1,2	RH	Pass	56.3 dB @ 72.00MHz	56.3 dB	> 34.6 dB	21.7 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.0 dB @ 1.60MHz	23.0 dB	> 19.0 dB	4.0 dB
3,6	DH	Pass	23.3 dB @ 1.60MHz	23.3 dB	> 19.0 dB	4.3 dB
5,4	DH	Pass	21.6 dB @ 1.60MHz	21.6 dB	> 19.0 dB	2.6 dB
1,2	DH	Pass	23.3 dB @ 1.60MHz	22.5 dB	> 19.0 dB	4.3 dB
7,8	RH	Pass	22.8 dB @ 1.60MHz	22.8 dB	> 19.0 dB	3.8 dB
3,6	RH	Pass	22.5 dB @ 1.60MHz	22.5 dB	> 19.0 dB	3.5 dB
5,4	RH	Pass	22.3 dB @ 1.45MHz	22.3 dB	> 19.0 dB	3.3 dB
1,2	RH	Pass	23.1 dB @ 1.60MHz	22.5 dB	> 19.0 dB	4.1 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 2.50MHz	4.1 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.6 dB @ 2.50MHz	4.1 dB	< 3.1 dB	2.5 dB
5,4	Pass	0.7 dB @ 2.50MHz	4.1 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.50MHz	4.1 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	46.6 dB @ 99.25MHz	N/A	>= 11.5 dB	35.1 dB
3,6	DH	Pass	46.1 dB @ 66.75MHz	N/A	>= 18.4 dB	27.7 dB
5,4	DH	Pass	46.1 dB @ 66.75MHz	N/A	>= 18.4 dB	27.7 dB
1,2	DH	Pass	48.7 dB @ 99.75MHz	N/A	>= 11.4 dB	37.3 dB
7,8	RH	Pass	47.7 dB @ 97.50MHz	N/A	>= 11.8 dB	35.9 dB
3,6	RH	Pass	47.7 dB @ 97.50MHz	N/A	>= 11.8 dB	35.9 dB
5,4	RH	Pass	50.5 dB @ 71.25MHz	N/A	>= 17.3 dB	33.2 dB
1,2	RH	Pass	52.7 dB @ 72.00MHz	N/A	>= 17.1 dB	35.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 8/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:59:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	47.8 dB @ 87.00MHz	46.8 dB	> 19.8 dB	28.0 dB
7,8-5,4	DH	Pass	63.5 dB @ 7.45MHz	47.6 dB	> 41.2 dB	22.3 dB
7,8-1,2	DH	Pass	54.2 dB @ 97.75MHz	54.2 dB	> 18.8 dB	35.4 dB
3,6-7,8	DH	Pass	51.5 dB @ 89.75MHz	50.6 dB	> 19.6 dB	31.9 dB
3,6-5,4	DH	Pass	66.4 dB @ 11.20MHz	50.0 dB	> 37.6 dB	28.8 dB
3,6-1,2	DH	Pass	47.9 dB @ 98.00MHz	47.9 dB	> 18.8 dB	29.1 dB
5,4-7,8	DH	Pass	66.1 dB @ 5.50MHz	47.9 dB	> 43.8 dB	22.3 dB
5,4-3,6	DH	Pass	68.3 dB @ 4.90MHz	43.6 dB	> 44.8 dB	23.5 dB
5,4-1,2	DH	Pass	49.8 dB @ 63.25MHz	47.8 dB	> 22.6 dB	27.2 dB
1,2-7,8	DH	Pass	55.1 dB @ 97.00MHz	55.0 dB	> 18.9 dB	36.2 dB
1,2-3,6	DH	Pass	45.1 dB @ 85.25MHz	44.0 dB	> 20.0 dB	25.1 dB
1,2-5,4	DH	Pass	46.2 dB @ 95.75MHz	46.0 dB	> 19.0 dB	27.2 dB
7,8-3,6	RH	Pass	47.8 dB @ 87.00MHz	46.8 dB	> 19.8 dB	28.0 dB
7,8-5,4	RH	Pass	63.6 dB @ 7.45MHz	47.6 dB	> 41.2 dB	22.4 dB
7,8-1,2	RH	Pass	54.2 dB @ 97.75MHz	54.2 dB	> 18.8 dB	35.4 dB
3,6-7,8	RH	Pass	50.6 dB @ 99.25MHz	50.6 dB	> 18.7 dB	31.9 dB
3,6-5,4	RH	Pass	66.5 dB @ 11.20MHz	50.1 dB	> 37.6 dB	28.9 dB
3,6-1,2	RH	Pass	47.9 dB @ 98.00MHz	47.9 dB	> 18.8 dB	29.1 dB
5,4-7,8	RH	Pass	68.5 dB @ 4.00MHz	47.9 dB	> 46.6 dB	21.9 dB
5,4-3,6	RH	Pass	68.8 dB @ 4.30MHz	43.6 dB	> 45.9 dB	22.9 dB
5,4-1,2	RH	Pass	49.8 dB @ 63.25MHz	47.8 dB	> 22.6 dB	27.2 dB
1,2-7,8	RH	Pass	55.2 dB @ 97.00MHz	55.0 dB	> 18.9 dB	36.3 dB
1,2-3,6	RH	Pass	45.1 dB @ 85.25MHz	44.0 dB	> 20.0 dB	25.1 dB
1,2-5,4	RH	Pass	46.2 dB @ 95.75MHz	46.0 dB	> 19.0 dB	27.2 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	50.1 dB @ 67.75MHz	49.9 dB	> 32.1 dB	18.0 dB
3,6	DH	Pass	46.3 dB @ 67.75MHz	46.3 dB	> 32.1 dB	14.2 dB
5,4	DH	Pass	48.7 dB @ 59.00MHz	48.2 dB	> 33.1 dB	15.6 dB
1,2	DH	Pass	52.2 dB @ 59.25MHz	51.4 dB	> 33.0 dB	19.2 dB
7,8	RH	Pass	54.1 dB @ 56.25MHz	50.8 dB	> 33.4 dB	20.7 dB
3,6	RH	Pass	69.5 dB @ 4.15MHz	51.0 dB	> 51.5 dB	18.0 dB
5,4	RH	Pass	70.9 dB @ 4.15MHz	52.0 dB	> 51.5 dB	19.4 dB
1,2	RH	Pass	54.4 dB @ 67.50MHz	53.9 dB	> 32.1 dB	22.3 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	46.2 dB @ 77.75MHz	N/A	>= 12.8 dB	33.4 dB
3,6	DH	Pass	42.9 dB @ 67.75MHz	N/A	>= 15.1 dB	27.8 dB
5,4	DH	Pass	44.6 dB @ 71.00MHz	N/A	>= 14.3 dB	30.3 dB
1,2	DH	Pass	47.8 dB @ 71.75MHz	N/A	>= 14.2 dB	33.6 dB
7,8	RH	Pass	46.7 dB @ 97.50MHz	N/A	>= 8.8 dB	37.9 dB
3,6	RH	Pass	47.1 dB @ 97.50MHz	N/A	>= 8.8 dB	38.3 dB
5,4	RH	Pass	48.4 dB @ 71.50MHz	N/A	>= 14.2 dB	34.2 dB
1,2	RH	Pass	50.3 dB @ 72.00MHz	N/A	>= 14.1 dB	36.2 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	50.8 dB @ 38.25MHz	45.6 dB	>= 24.0 dB	26.8 dB
3,6	DH	Pass	40.0 dB @ 96.75MHz	39.8 dB	>= 15.9 dB	24.1 dB
5,4	DH	Pass	59.9 dB @ 9.40MHz	42.9 dB	>= 36.2 dB	23.7 dB
1,2	DH	Pass	48.2 dB @ 62.75MHz	44.6 dB	>= 19.7 dB	28.5 dB
7,8	RH	Pass	50.1 dB @ 36.50MHz	43.7 dB	>= 24.4 dB	25.7 dB
3,6	RH	Pass	44.8 dB @ 98.00MHz	44.7 dB	>= 15.8 dB	29.0 dB
5,4	RH	Pass	60.0 dB @ 7.90MHz	41.3 dB	>= 37.7 dB	22.3 dB
1,2	RH	Pass	41.9 dB @ 96.25MHz	41.7 dB	>= 15.9 dB	26.0 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

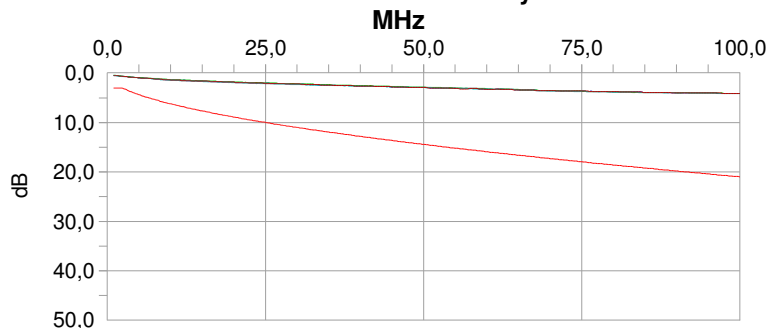
Cable ID 1: 8/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:59:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

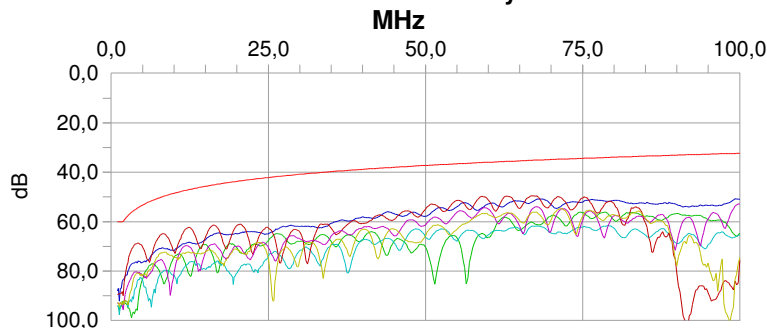
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

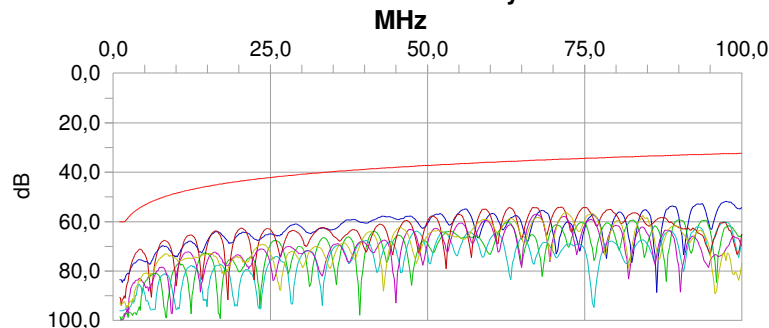
Attenuation Summary



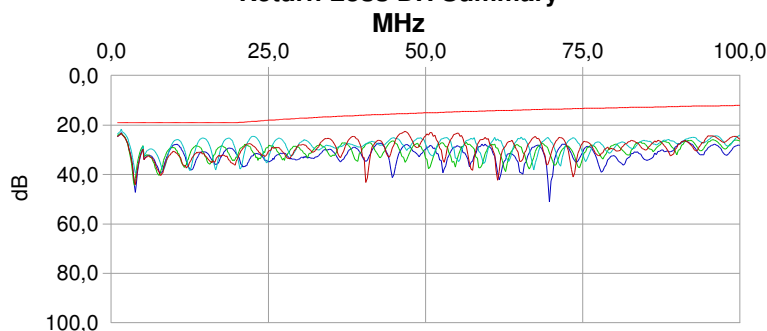
NEXT DH Summary



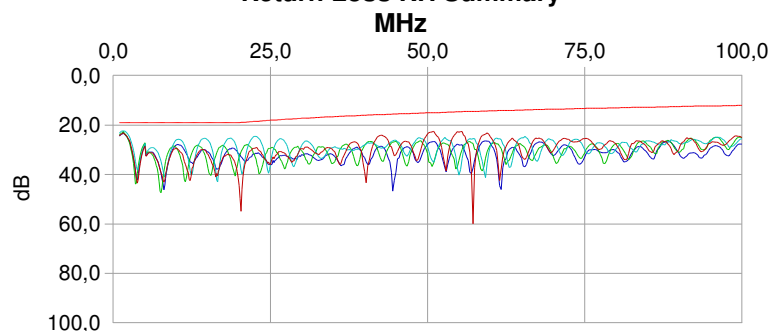
NEXT RH Summary



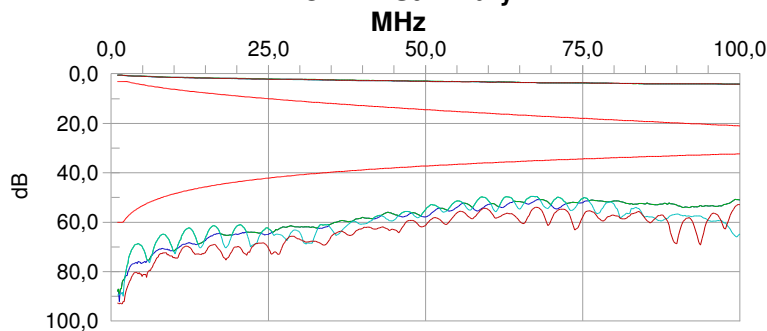
Return Loss DH Summary



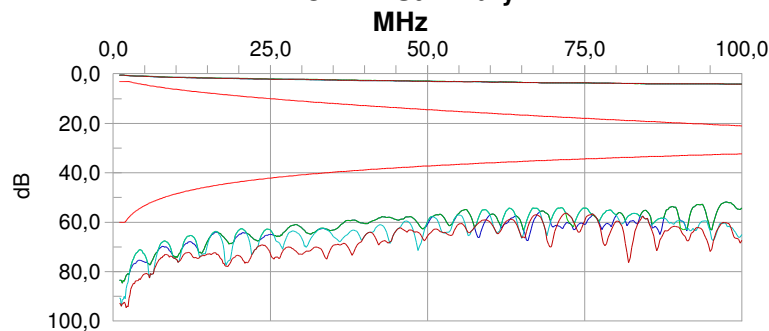
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

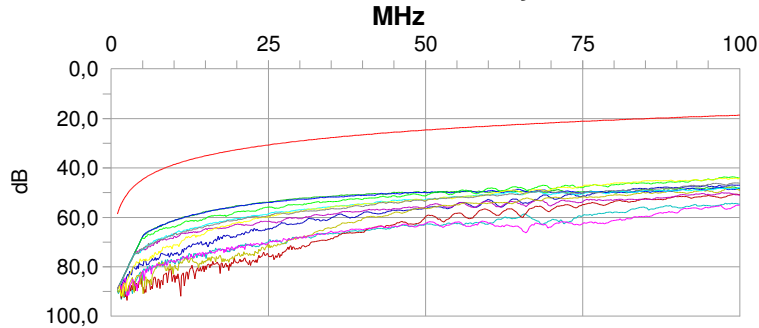
Cable ID 1: 8/1
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:59:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

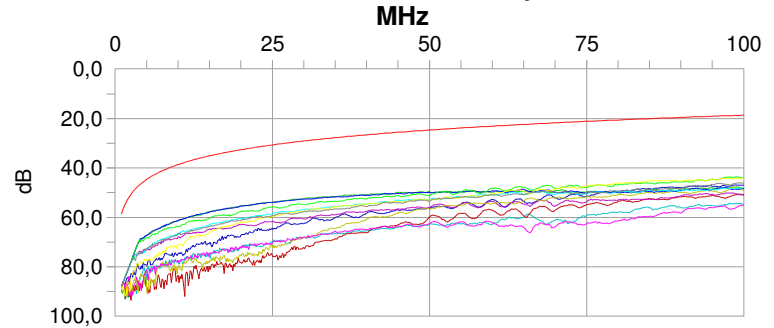
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

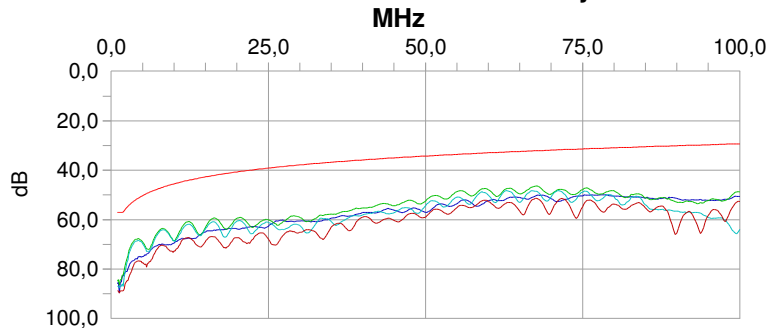
ELFEXT DH Summary



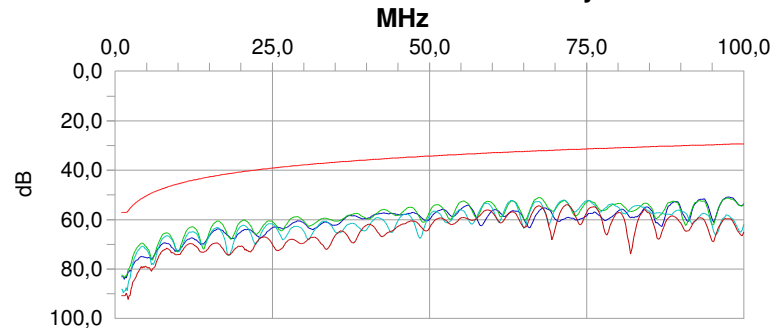
ELFEXT RH Summary



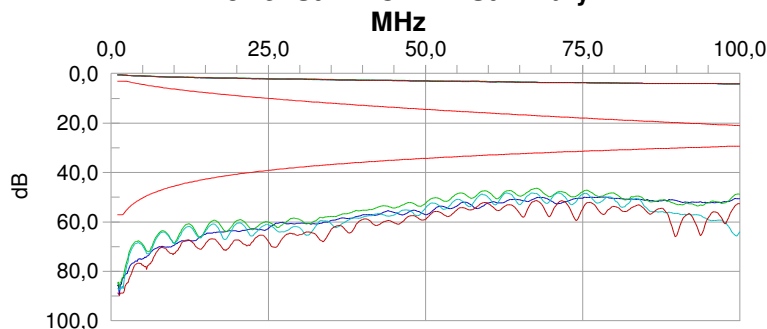
Power Sum NEXT DH Summary



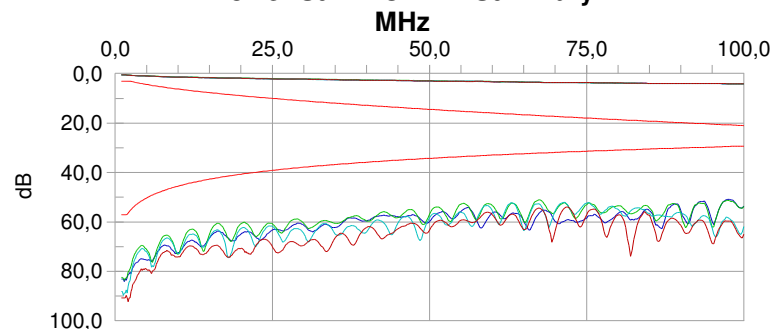
Power Sum NEXT RH Summary



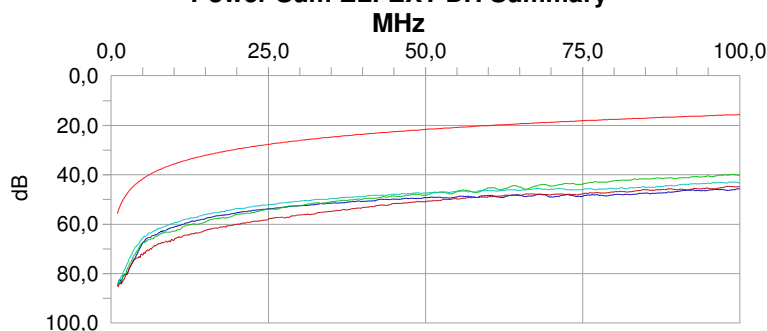
Power Sum ACR DH Summary



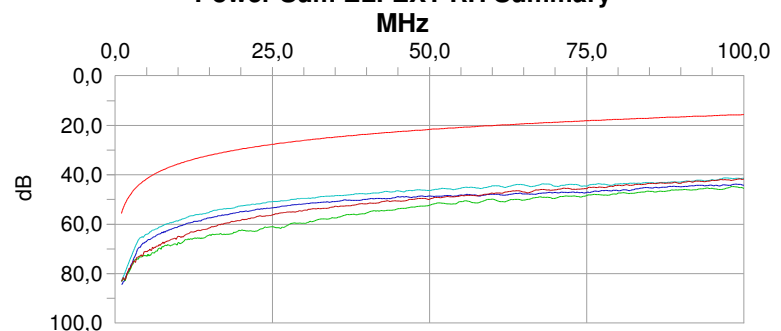
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

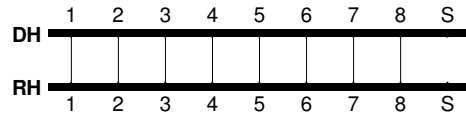
Cable ID 1: 8/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:59:53
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	24.4m	25.6m	25.3m	24.7m	< 90.0m	Pass
Prop. Delay	133.9ns	139.4ns	138.6ns	133.7ns	< 498.0ns	Pass
Delay Skew	5.7ns (Pairs 3,6 vs. 1,2)				< 44.0 ns	Pass
Headroom	31.9 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	50.2 dB @ 57.50MHz	48.7 dB	> 36.2 dB	14.0 dB
7,8-5,4	DH	Pass	63.1 dB @ 18.40MHz	52.5 dB	> 44.3 dB	18.8 dB
7,8-1,2	DH	Pass	83.8 dB @ 1.75MHz	63.6 dB	> 60.0 dB	23.8 dB
3,6-5,4	DH	Pass	49.1 dB @ 63.00MHz	49.1 dB	> 35.6 dB	13.5 dB
3,6-1,2	DH	Pass	54.8 dB @ 59.25MHz	52.7 dB	> 36.0 dB	18.8 dB
5,4-1,2	DH	Pass	67.6 dB @ 8.05MHz	53.2 dB	> 50.0 dB	17.6 dB
7,8-3,6	RH	Pass	56.4 dB @ 36.75MHz	51.6 dB	> 39.4 dB	17.0 dB
7,8-5,4	RH	Pass	64.3 dB @ 25.90MHz	56.6 dB	> 41.9 dB	22.4 dB
7,8-1,2	RH	Pass	85.6 dB @ 2.05MHz	63.4 dB	> 59.4 dB	26.2 dB
3,6-5,4	RH	Pass	73.7 dB @ 3.10MHz	55.1 dB	> 56.5 dB	17.2 dB
3,6-1,2	RH	Pass	57.6 dB @ 71.50MHz	57.6 dB	> 34.7 dB	22.9 dB
5,4-1,2	RH	Pass	66.9 dB @ 8.50MHz	53.6 dB	> 49.6 dB	17.3 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.6 dB @ 1.60MHz	22.6 dB	> 19.0 dB	3.6 dB
3,6	DH	Pass	23.0 dB @ 1.60MHz	23.0 dB	> 19.0 dB	4.0 dB
5,4	DH	Pass	21.6 dB @ 1.60MHz	21.6 dB	> 19.0 dB	2.6 dB
1,2	DH	Pass	23.0 dB @ 1.60MHz	21.8 dB	> 19.0 dB	4.0 dB
7,8	RH	Pass	22.3 dB @ 1.60MHz	22.3 dB	> 19.0 dB	3.3 dB
3,6	RH	Pass	22.2 dB @ 1.60MHz	22.2 dB	> 19.0 dB	3.2 dB
5,4	RH	Pass	22.0 dB @ 1.60MHz	22.0 dB	> 19.0 dB	3.0 dB
1,2	RH	Pass	22.7 dB @ 1.60MHz	21.8 dB	> 19.0 dB	3.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 2.50MHz	4.1 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.6 dB @ 2.50MHz	4.1 dB	< 3.1 dB	2.5 dB
5,4	Pass	0.7 dB @ 2.50MHz	4.1 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.6 dB @ 2.50MHz	4.1 dB	< 3.1 dB	2.5 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	44.7 dB @ 96.50MHz	N/A	>= 12.0 dB	32.7 dB
3,6	DH	Pass	44.7 dB @ 96.50MHz	N/A	>= 12.0 dB	32.7 dB
5,4	DH	Pass	45.7 dB @ 66.75MHz	N/A	>= 18.4 dB	27.3 dB
1,2	DH	Pass	48.6 dB @ 99.50MHz	N/A	>= 11.4 dB	37.2 dB
7,8	RH	Pass	47.6 dB @ 96.75MHz	N/A	>= 11.9 dB	35.7 dB
3,6	RH	Pass	47.5 dB @ 96.75MHz	N/A	>= 11.9 dB	35.6 dB
5,4	RH	Pass	50.0 dB @ 76.75MHz	N/A	>= 16.0 dB	34.0 dB
1,2	RH	Pass	50.0 dB @ 76.75MHz	N/A	>= 16.0 dB	34.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 8/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:59:53
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	67.8 dB @ 8.20MHz	54.1 dB	> 40.3 dB	27.5 dB
7,8-5,4	DH	Pass	47.3 dB @ 22.90MHz	43.7 dB	> 31.4 dB	15.9 dB
7,8-1,2	DH	Pass	60.8 dB @ 22.90MHz	53.3 dB	> 31.4 dB	29.4 dB
3,6-7,8	DH	Pass	65.9 dB @ 22.90MHz	56.3 dB	> 31.4 dB	34.5 dB
3,6-5,4	DH	Pass	52.9 dB @ 22.90MHz	44.1 dB	> 31.4 dB	21.5 dB
3,6-1,2	DH	Pass	46.9 dB @ 88.50MHz	46.2 dB	> 19.7 dB	27.2 dB
5,4-7,8	DH	Pass	57.5 dB @ 8.05MHz	43.3 dB	> 40.5 dB	17.0 dB
5,4-3,6	DH	Pass	49.7 dB @ 22.90MHz	38.7 dB	> 31.4 dB	18.3 dB
5,4-1,2	DH	Pass	60.6 dB @ 7.45MHz	44.7 dB	> 41.2 dB	19.4 dB
1,2-7,8	DH	Pass	59.4 dB @ 22.90MHz	52.2 dB	> 31.4 dB	28.0 dB
1,2-3,6	DH	Pass	43.7 dB @ 80.00MHz	42.4 dB	> 20.6 dB	23.1 dB
1,2-5,4	DH	Pass	49.8 dB @ 22.75MHz	44.7 dB	> 31.5 dB	18.3 dB
7,8-3,6	RH	Pass	67.8 dB @ 8.20MHz	54.1 dB	> 40.3 dB	27.5 dB
7,8-5,4	RH	Pass	47.4 dB @ 22.90MHz	43.7 dB	> 31.4 dB	16.0 dB
7,8-1,2	RH	Pass	60.9 dB @ 22.90MHz	53.2 dB	> 31.4 dB	29.5 dB
3,6-7,8	RH	Pass	64.7 dB @ 22.90MHz	56.3 dB	> 31.4 dB	33.3 dB
3,6-5,4	RH	Pass	52.5 dB @ 22.90MHz	44.1 dB	> 31.4 dB	21.1 dB
3,6-1,2	RH	Pass	46.9 dB @ 88.50MHz	46.2 dB	> 19.7 dB	27.2 dB
5,4-7,8	RH	Pass	61.2 dB @ 5.20MHz	43.3 dB	> 44.3 dB	16.9 dB
5,4-3,6	RH	Pass	62.7 dB @ 5.05MHz	38.6 dB	> 44.5 dB	18.2 dB
5,4-1,2	RH	Pass	63.8 dB @ 5.05MHz	44.7 dB	> 44.5 dB	19.3 dB
1,2-7,8	RH	Pass	58.2 dB @ 22.90MHz	52.2 dB	> 31.4 dB	26.8 dB
1,2-3,6	RH	Pass	43.8 dB @ 80.00MHz	42.5 dB	> 20.6 dB	23.2 dB
1,2-5,4	RH	Pass	49.8 dB @ 22.75MHz	44.8 dB	> 31.5 dB	18.3 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.5 dB @ 58.50MHz	47.2 dB	> 33.1 dB	16.4 dB
3,6	DH	Pass	46.6 dB @ 58.75MHz	45.9 dB	> 33.1 dB	13.5 dB
5,4	DH	Pass	48.5 dB @ 59.25MHz	47.7 dB	> 33.0 dB	15.5 dB
1,2	DH	Pass	51.3 dB @ 64.00MHz	51.1 dB	> 32.5 dB	18.8 dB
7,8	RH	Pass	55.5 dB @ 37.00MHz	50.9 dB	> 36.4 dB	19.1 dB
3,6	RH	Pass	72.7 dB @ 2.35MHz	51.0 dB	> 55.4 dB	17.3 dB
5,4	RH	Pass	64.1 dB @ 8.50MHz	52.2 dB	> 46.6 dB	17.5 dB
1,2	RH	Pass	66.8 dB @ 8.20MHz	52.9 dB	> 46.9 dB	19.9 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	43.2 dB @ 96.50MHz	N/A	>= 9.0 dB	34.2 dB
3,6	DH	Pass	42.3 dB @ 71.25MHz	N/A	>= 14.3 dB	28.0 dB
5,4	DH	Pass	44.1 dB @ 71.25MHz	N/A	>= 14.3 dB	29.8 dB
1,2	DH	Pass	47.4 dB @ 76.50MHz	N/A	>= 13.1 dB	34.3 dB
7,8	RH	Pass	46.9 dB @ 97.50MHz	N/A	>= 8.8 dB	38.1 dB
3,6	RH	Pass	46.9 dB @ 96.75MHz	N/A	>= 8.9 dB	38.0 dB
5,4	RH	Pass	48.7 dB @ 78.25MHz	N/A	>= 12.8 dB	35.9 dB
1,2	RH	Pass	49.2 dB @ 76.50MHz	N/A	>= 13.1 dB	36.1 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.1 dB @ 22.75MHz	42.9 dB	>= 28.5 dB	20.6 dB
3,6	DH	Pass	48.4 dB @ 22.90MHz	37.1 dB	>= 28.4 dB	20.0 dB
5,4	DH	Pass	45.0 dB @ 22.90MHz	40.2 dB	>= 28.4 dB	16.6 dB
1,2	DH	Pass	50.6 dB @ 22.90MHz	43.1 dB	>= 28.4 dB	22.2 dB
7,8	RH	Pass	46.9 dB @ 22.90MHz	43.1 dB	>= 28.4 dB	18.5 dB
3,6	RH	Pass	52.1 dB @ 22.90MHz	41.9 dB	>= 28.4 dB	23.7 dB
5,4	RH	Pass	54.1 dB @ 8.05MHz	37.5 dB	>= 37.5 dB	16.6 dB
1,2	RH	Pass	48.5 dB @ 22.75MHz	41.1 dB	>= 28.5 dB	20.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

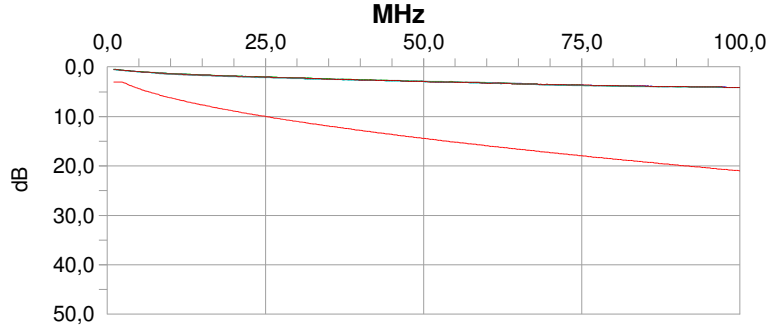
Cable ID 1: 8/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:59:53
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

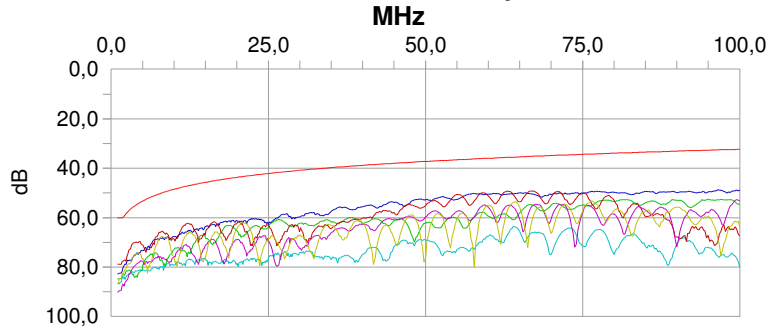
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

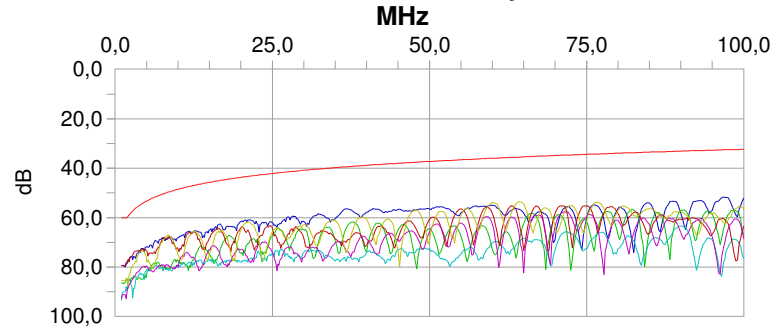
Attenuation Summary



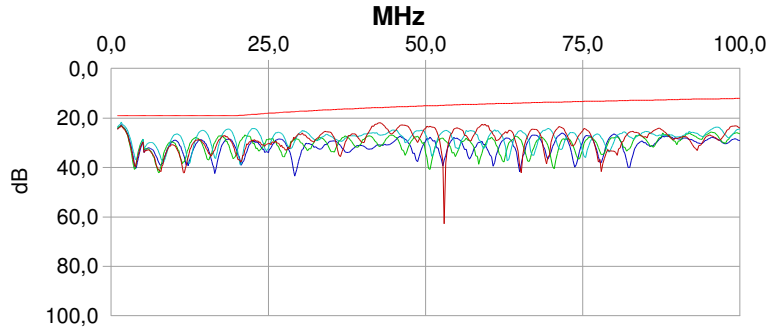
NEXT DH Summary



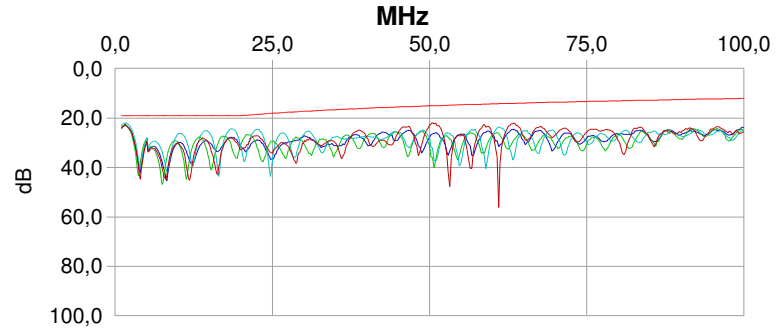
NEXT RH Summary



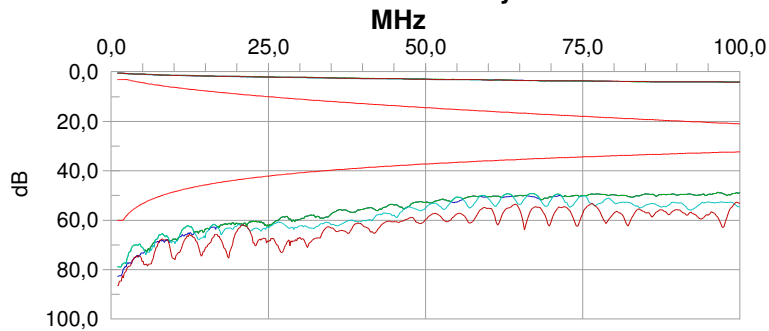
Return Loss DH Summary



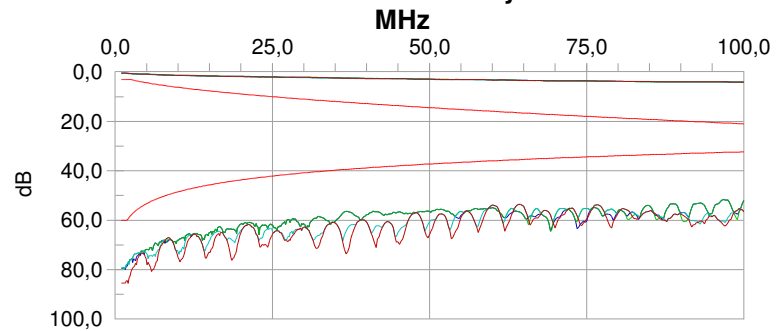
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 8/2
Cable ID 2:
Test Date: 2017-11-30
Test Time: 19:59:53
Adapter ID: 6014

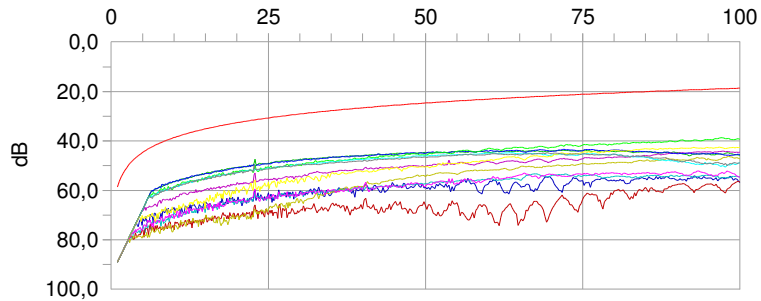
Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

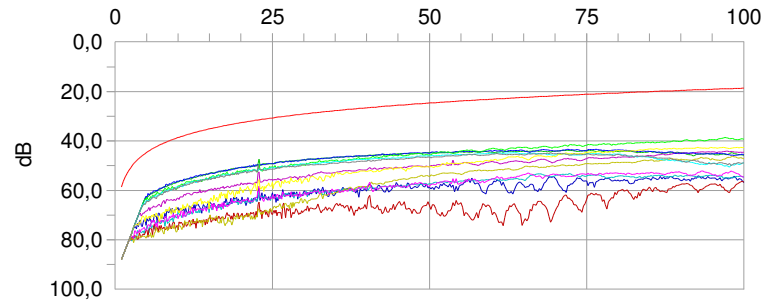
ELFEXT DH Summary

MHz



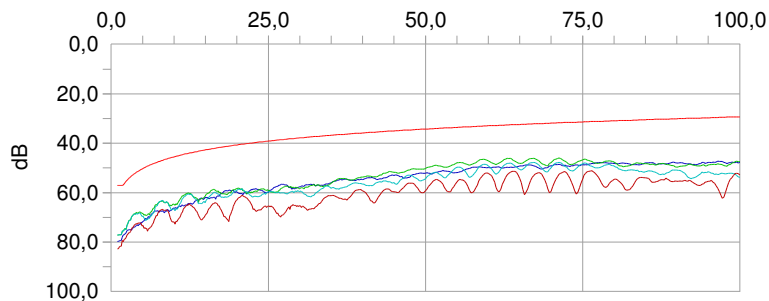
ELFEXT RH Summary

MHz



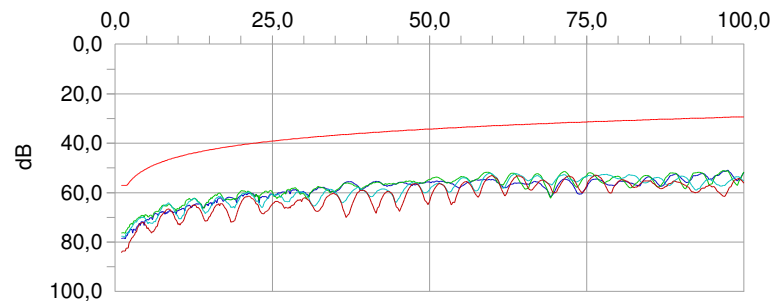
Power Sum NEXT DH Summary

MHz



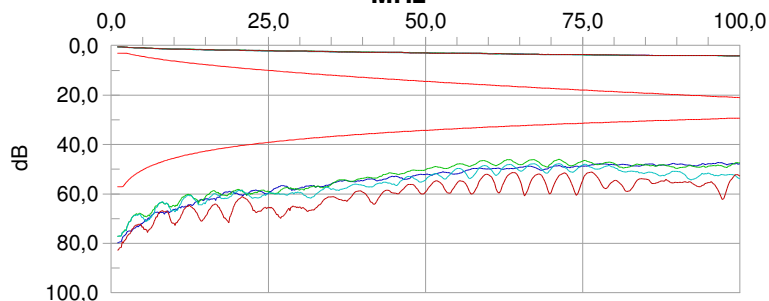
Power Sum NEXT RH Summary

MHz



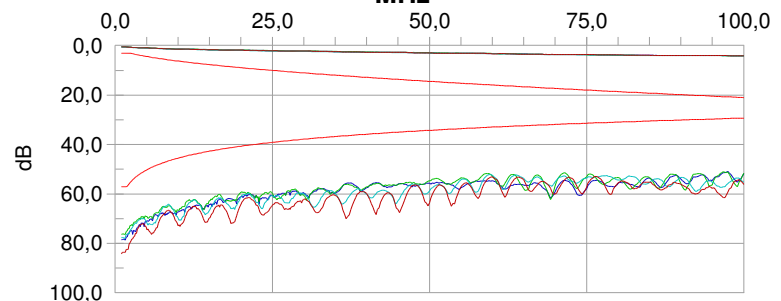
Power Sum ACR DH Summary

MHz



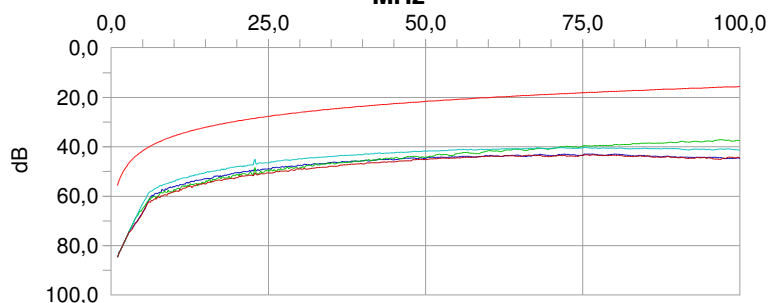
Power Sum ACR RH Summary

MHz



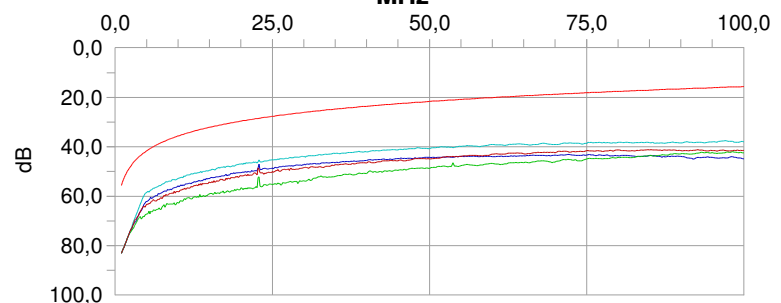
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

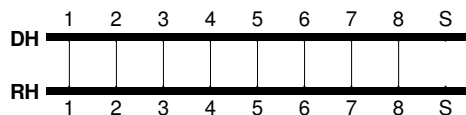
Cable ID 1: 8/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:01:34
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	28.2m	29.5m	29.1m	28.4m	< 90.0m	Pass
Prop. Delay	151.5ns	157.7ns	156.5ns	151.3ns	< 498.0ns	Pass
Delay Skew	6.4ns (Pairs 3,6 vs. 1,2)				< 44.0 ns	Pass
Headroom	32.0 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	49.7 dB @ 61.25MHz	47.9 dB	> 35.8 dB	13.9 dB
7,8-5,4	DH	Pass	54.7 dB @ 82.50MHz	54.0 dB	> 33.7 dB	21.0 dB
7,8-1,2	DH	Pass	66.2 dB @ 30.25MHz	58.4 dB	> 40.8 dB	25.4 dB
3,6-5,4	DH	Pass	51.0 dB @ 65.25MHz	51.0 dB	> 35.3 dB	15.7 dB
3,6-1,2	DH	Pass	53.5 dB @ 62.75MHz	52.0 dB	> 35.6 dB	17.9 dB
5,4-1,2	DH	Pass	52.5 dB @ 59.50MHz	51.7 dB	> 36.0 dB	16.5 dB
7,8-3,6	RH	Pass	47.8 dB @ 99.25MHz	47.8 dB	> 32.4 dB	15.4 dB
7,8-5,4	RH	Pass	83.4 dB @ 1.90MHz	58.6 dB	> 59.9 dB	23.5 dB
7,8-1,2	RH	Pass	68.0 dB @ 30.40MHz	63.5 dB	> 40.7 dB	27.3 dB
3,6-5,4	RH	Pass	76.7 dB @ 1.90MHz	57.0 dB	> 59.9 dB	16.8 dB
3,6-1,2	RH	Pass	65.8 dB @ 20.80MHz	57.0 dB	> 43.4 dB	22.4 dB
5,4-1,2	RH	Pass	70.2 dB @ 7.15MHz	55.8 dB	> 50.8 dB	19.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.1 dB @ 1.60MHz	23.1 dB	> 19.0 dB	4.1 dB
3,6	DH	Pass	23.2 dB @ 1.30MHz	23.2 dB	> 19.0 dB	4.2 dB
5,4	DH	Pass	21.7 dB @ 1.60MHz	21.7 dB	> 19.0 dB	2.7 dB
1,2	DH	Pass	23.6 dB @ 1.30MHz	22.7 dB	> 19.0 dB	4.6 dB
7,8	RH	Pass	22.6 dB @ 1.60MHz	22.6 dB	> 19.0 dB	3.6 dB
3,6	RH	Pass	22.7 dB @ 1.60MHz	22.7 dB	> 19.0 dB	3.7 dB
5,4	RH	Pass	22.1 dB @ 1.45MHz	22.1 dB	> 19.0 dB	3.1 dB
1,2	RH	Pass	23.3 dB @ 1.30MHz	20.8 dB	> 19.0 dB	4.3 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.50MHz	4.8 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.50MHz	4.8 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.7 dB @ 2.50MHz	4.7 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.50MHz	4.7 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	43.3 dB @ 95.50MHz	N/A	>= 12.1 dB	31.2 dB
3,6	DH	Pass	43.2 dB @ 95.50MHz	N/A	>= 12.1 dB	31.1 dB
5,4	DH	Pass	47.1 dB @ 65.25MHz	N/A	>= 18.7 dB	28.4 dB
1,2	DH	Pass	47.4 dB @ 94.75MHz	N/A	>= 12.3 dB	35.1 dB
7,8	RH	Pass	43.1 dB @ 99.25MHz	N/A	>= 11.5 dB	31.6 dB
3,6	RH	Pass	43.0 dB @ 99.25MHz	N/A	>= 11.5 dB	31.5 dB
5,4	RH	Pass	51.7 dB @ 74.25MHz	N/A	>= 16.6 dB	35.1 dB
1,2	RH	Pass	51.8 dB @ 74.25MHz	N/A	>= 16.6 dB	35.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 8/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:01:34
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	64.6 dB @ 12.55MHz	53.3 dB	> 36.6 dB	28.0 dB
7,8-5,4	DH	Pass	59.2 dB @ 8.35MHz	45.4 dB	> 40.2 dB	19.0 dB
7,8-1,2	DH	Pass	55.2 dB @ 65.25MHz	53.8 dB	> 22.3 dB	32.9 dB
3,6-7,8	DH	Pass	65.8 dB @ 19.75MHz	55.6 dB	> 32.7 dB	33.1 dB
3,6-5,4	DH	Pass	65.7 dB @ 13.60MHz	52.5 dB	> 35.9 dB	29.8 dB
3,6-1,2	DH	Pass	44.8 dB @ 97.25MHz	44.8 dB	> 18.9 dB	25.9 dB
5,4-7,8	DH	Pass	59.3 dB @ 8.20MHz	45.9 dB	> 40.3 dB	19.0 dB
5,4-3,6	DH	Pass	66.8 dB @ 7.00MHz	44.2 dB	> 41.7 dB	25.1 dB
5,4-1,2	DH	Pass	68.0 dB @ 5.05MHz	44.1 dB	> 44.5 dB	23.5 dB
1,2-7,8	DH	Pass	54.1 dB @ 98.75MHz	54.1 dB	> 18.7 dB	35.4 dB
1,2-3,6	DH	Pass	42.1 dB @ 80.75MHz	40.8 dB	> 20.5 dB	21.6 dB
1,2-5,4	DH	Pass	60.5 dB @ 12.25MHz	43.6 dB	> 36.9 dB	23.6 dB
7,8-3,6	RH	Pass	64.5 dB @ 12.55MHz	53.4 dB	> 36.6 dB	27.9 dB
7,8-5,4	RH	Pass	62.0 dB @ 5.80MHz	45.4 dB	> 43.3 dB	18.7 dB
7,8-1,2	RH	Pass	55.3 dB @ 65.25MHz	53.8 dB	> 22.3 dB	33.0 dB
3,6-7,8	RH	Pass	65.9 dB @ 19.75MHz	55.5 dB	> 32.7 dB	33.2 dB
3,6-5,4	RH	Pass	65.8 dB @ 13.60MHz	52.5 dB	> 35.9 dB	29.9 dB
3,6-1,2	RH	Pass	44.8 dB @ 97.25MHz	44.8 dB	> 18.9 dB	25.9 dB
5,4-7,8	RH	Pass	63.5 dB @ 5.05MHz	45.9 dB	> 44.5 dB	19.0 dB
5,4-3,6	RH	Pass	66.7 dB @ 7.00MHz	44.3 dB	> 41.7 dB	25.0 dB
5,4-1,2	RH	Pass	67.9 dB @ 5.05MHz	44.1 dB	> 44.5 dB	23.4 dB
1,2-7,8	RH	Pass	54.1 dB @ 98.75MHz	54.1 dB	> 18.7 dB	35.4 dB
1,2-3,6	RH	Pass	42.0 dB @ 81.75MHz	40.9 dB	> 20.4 dB	21.6 dB
1,2-5,4	RH	Pass	68.7 dB @ 4.45MHz	43.6 dB	> 45.6 dB	23.1 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	47.9 dB @ 72.50MHz	47.1 dB	> 31.6 dB	16.3 dB
3,6	DH	Pass	47.1 dB @ 62.50MHz	46.2 dB	> 32.7 dB	14.4 dB
5,4	DH	Pass	49.5 dB @ 59.00MHz	48.5 dB	> 33.1 dB	16.4 dB
1,2	DH	Pass	50.3 dB @ 59.25MHz	49.7 dB	> 33.0 dB	17.3 dB
7,8	RH	Pass	47.4 dB @ 99.25MHz	47.4 dB	> 29.4 dB	18.0 dB
3,6	RH	Pass	74.7 dB @ 1.90MHz	47.3 dB	> 56.9 dB	17.8 dB
5,4	RH	Pass	75.2 dB @ 1.90MHz	54.4 dB	> 56.9 dB	18.3 dB
1,2	RH	Pass	69.4 dB @ 7.15MHz	53.7 dB	> 47.8 dB	21.6 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	42.5 dB @ 95.50MHz	N/A	>= 9.1 dB	33.4 dB
3,6	DH	Pass	42.0 dB @ 73.00MHz	N/A	>= 13.8 dB	28.2 dB
5,4	DH	Pass	44.3 dB @ 75.50MHz	N/A	>= 13.3 dB	31.0 dB
1,2	DH	Pass	45.1 dB @ 94.50MHz	N/A	>= 9.4 dB	35.7 dB
7,8	RH	Pass	42.7 dB @ 99.25MHz	N/A	>= 8.5 dB	34.2 dB
3,6	RH	Pass	42.5 dB @ 99.25MHz	N/A	>= 8.5 dB	34.0 dB
5,4	RH	Pass	49.9 dB @ 93.00MHz	N/A	>= 9.6 dB	40.3 dB
1,2	RH	Pass	49.6 dB @ 73.50MHz	N/A	>= 13.8 dB	35.8 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	50.5 dB @ 25.30MHz	45.1 dB	>= 27.6 dB	22.9 dB
3,6	DH	Pass	40.7 dB @ 80.75MHz	39.3 dB	>= 17.5 dB	23.2 dB
5,4	DH	Pass	54.7 dB @ 12.25MHz	41.1 dB	>= 33.9 dB	20.8 dB
1,2	DH	Pass	44.6 dB @ 65.75MHz	41.6 dB	>= 19.3 dB	25.3 dB
7,8	RH	Pass	47.9 dB @ 32.25MHz	44.6 dB	>= 25.4 dB	22.5 dB
3,6	RH	Pass	44.2 dB @ 94.50MHz	44.0 dB	>= 16.1 dB	28.1 dB
5,4	RH	Pass	59.1 dB @ 6.85MHz	40.1 dB	>= 38.9 dB	20.2 dB
1,2	RH	Pass	40.4 dB @ 81.25MHz	39.0 dB	>= 17.4 dB	23.0 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

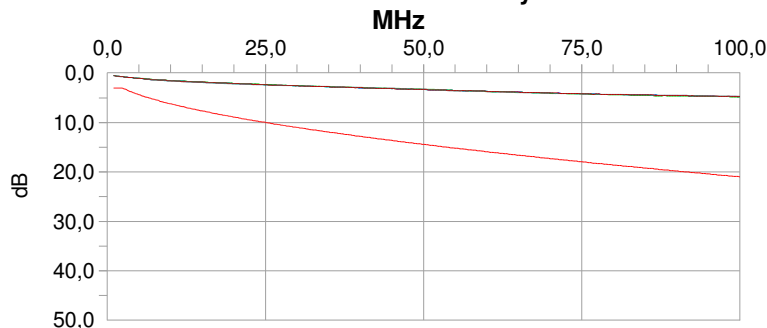
Cable ID 1: 8/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:01:34
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

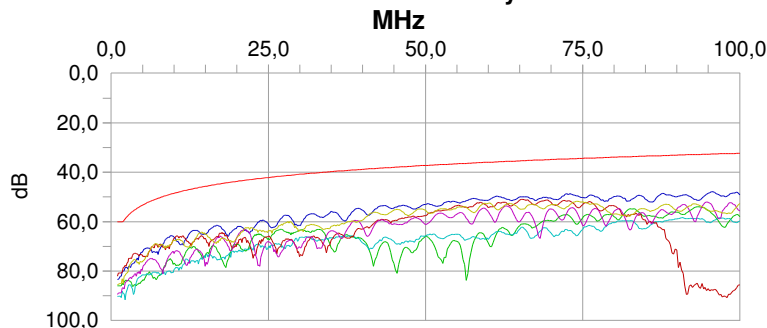
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

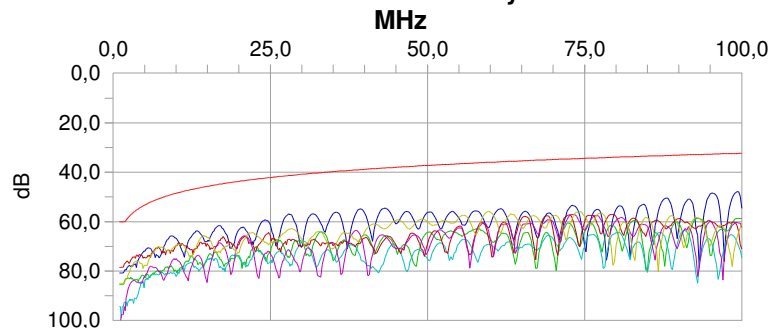
Attenuation Summary



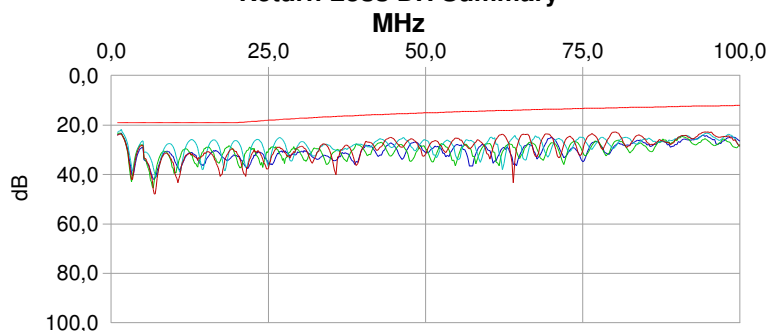
NEXT DH Summary



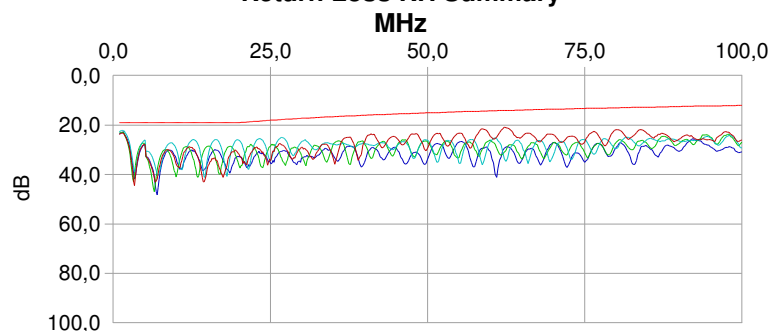
NEXT RH Summary



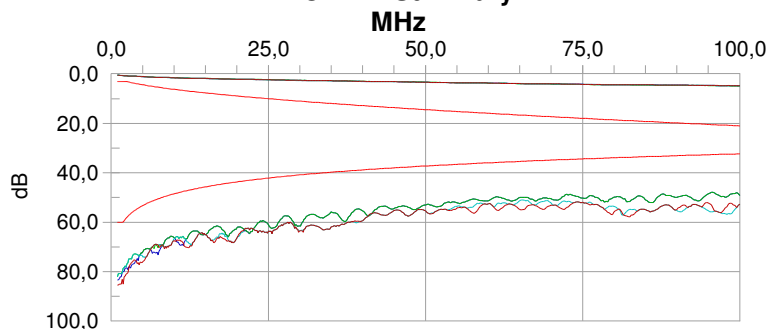
Return Loss DH Summary



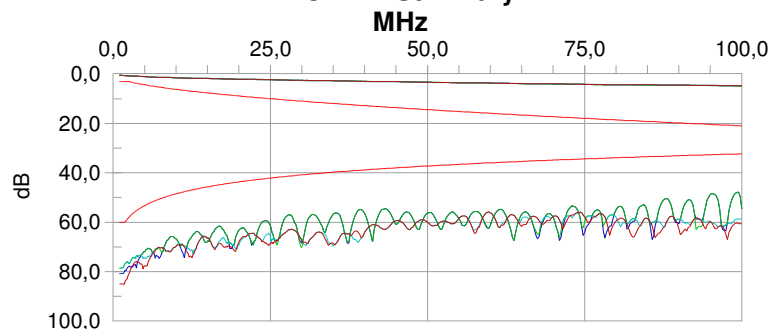
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

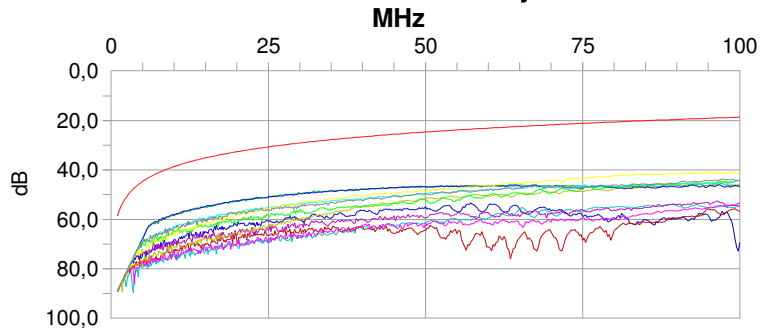
Cable ID 1: 8/3
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:01:34
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

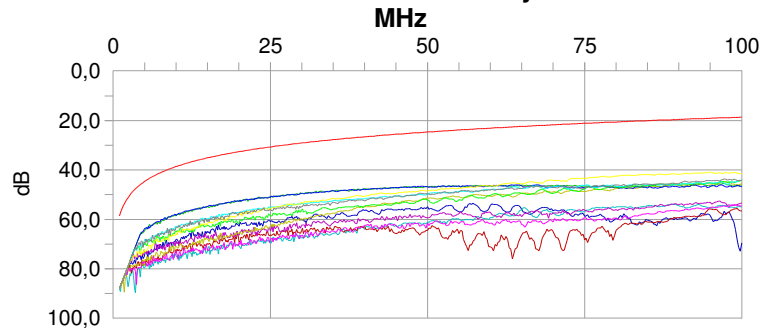
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

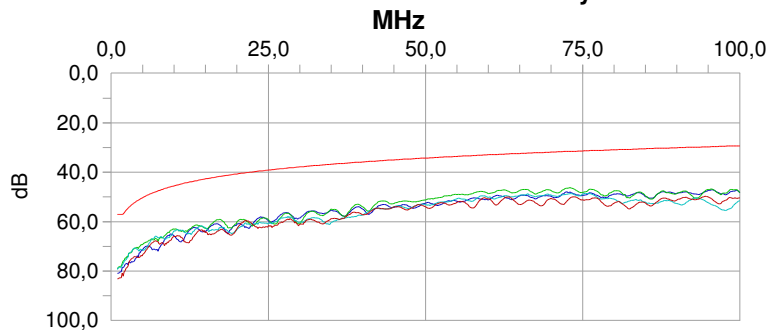
ELFEXT DH Summary



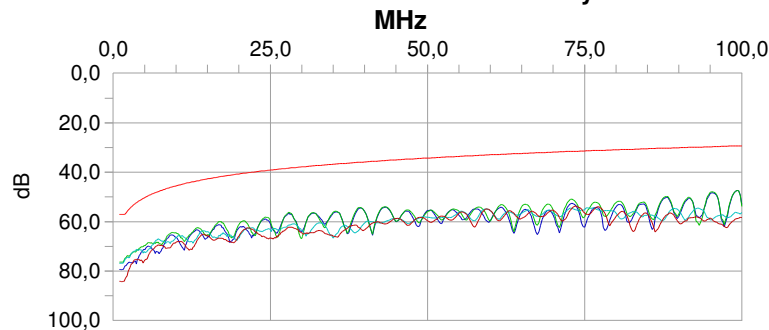
ELFEXT RH Summary



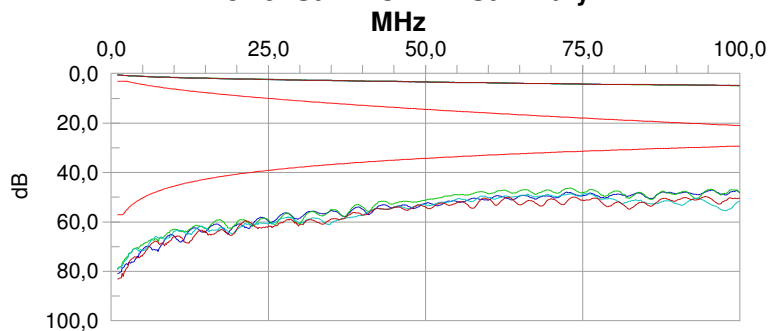
Power Sum NEXT DH Summary



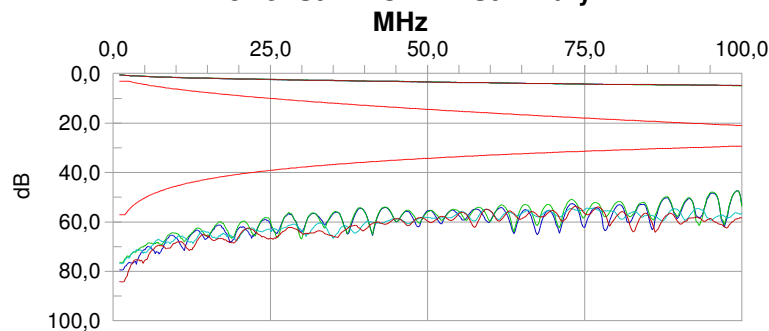
Power Sum NEXT RH Summary



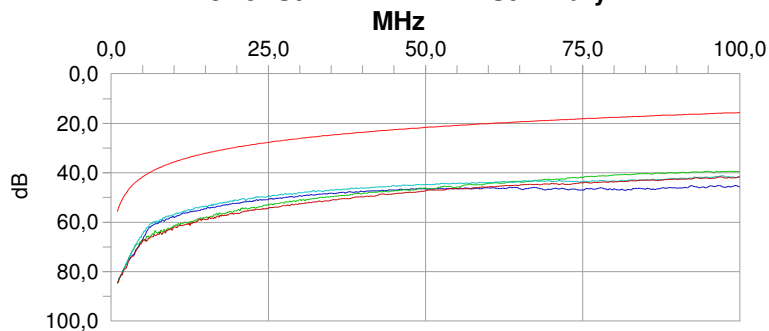
Power Sum ACR DH Summary



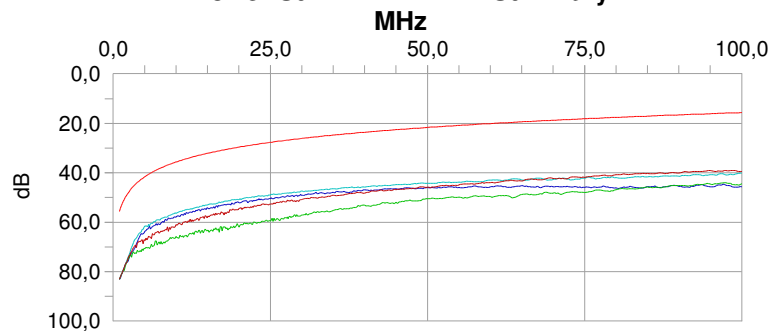
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

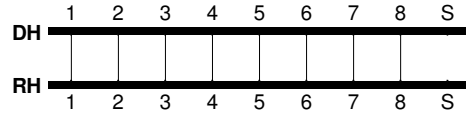
Cable ID 1: 8/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:02:01
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	28.1m	29.5m	29.1m	28.4m	< 90.0m	Pass
Prop. Delay	151.3ns	157.7ns	156.5ns	151.3ns	< 498.0ns	Pass
Delay Skew	6.4ns (Pairs 3,6 vs. 1,2)				< 44.0 ns	Pass
Headroom	33.1 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	51.5 dB @ 61.00MHz	49.6 dB	> 35.8 dB	15.7 dB
7,8-5,4	DH	Pass	55.6 dB @ 75.50MHz	55.1 dB	> 34.3 dB	21.3 dB
7,8-1,2	DH	Pass	80.7 dB @ 2.95MHz	61.9 dB	> 56.9 dB	23.8 dB
3,6-5,4	DH	Pass	50.8 dB @ 58.75MHz	49.9 dB	> 36.1 dB	14.7 dB
3,6-1,2	DH	Pass	55.6 dB @ 55.50MHz	55.6 dB	> 36.5 dB	19.1 dB
5,4-1,2	DH	Pass	65.2 dB @ 10.90MHz	53.3 dB	> 47.9 dB	17.3 dB
7,8-3,6	RH	Pass	60.4 dB @ 20.80MHz	49.9 dB	> 43.4 dB	17.0 dB
7,8-5,4	RH	Pass	57.0 dB @ 75.75MHz	56.9 dB	> 34.3 dB	22.7 dB
7,8-1,2	RH	Pass	83.0 dB @ 2.20MHz	62.7 dB	> 58.9 dB	24.1 dB
3,6-5,4	RH	Pass	77.6 dB @ 1.75MHz	54.9 dB	> 60.0 dB	17.6 dB
3,6-1,2	RH	Pass	59.4 dB @ 55.50MHz	59.4 dB	> 36.5 dB	22.9 dB
5,4-1,2	RH	Pass	64.0 dB @ 10.90MHz	52.6 dB	> 47.9 dB	16.1 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.0 dB @ 1.60MHz	23.0 dB	> 19.0 dB	4.0 dB
3,6	DH	Pass	23.3 dB @ 1.30MHz	23.3 dB	> 19.0 dB	4.3 dB
5,4	DH	Pass	21.5 dB @ 1.60MHz	21.5 dB	> 19.0 dB	2.5 dB
1,2	DH	Pass	23.5 dB @ 1.60MHz	23.3 dB	> 19.0 dB	4.5 dB
7,8	RH	Pass	22.5 dB @ 1.60MHz	22.5 dB	> 19.0 dB	3.5 dB
3,6	RH	Pass	22.7 dB @ 1.60MHz	22.7 dB	> 19.0 dB	3.7 dB
5,4	RH	Pass	22.0 dB @ 1.30MHz	22.0 dB	> 19.0 dB	3.0 dB
1,2	RH	Pass	23.1 dB @ 1.45MHz	23.1 dB	> 19.0 dB	4.1 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.50MHz	4.7 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.50MHz	4.8 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.7 dB @ 2.50MHz	4.7 dB	< 3.1 dB	2.4 dB
1,2	Pass	0.7 dB @ 2.50MHz	4.8 dB	< 3.1 dB	2.4 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	44.9 dB @ 100.00MHz	N/A	>= 11.3 dB	33.6 dB
3,6	DH	Pass	44.8 dB @ 100.00MHz	N/A	>= 11.3 dB	33.5 dB
5,4	DH	Pass	45.8 dB @ 72.50MHz	N/A	>= 17.0 dB	28.8 dB
1,2	DH	Pass	49.4 dB @ 66.75MHz	N/A	>= 18.4 dB	31.0 dB
7,8	RH	Pass	45.2 dB @ 99.25MHz	N/A	>= 11.5 dB	33.7 dB
3,6	RH	Pass	45.1 dB @ 99.25MHz	N/A	>= 11.5 dB	33.6 dB
5,4	RH	Pass	48.7 dB @ 67.00MHz	N/A	>= 18.3 dB	30.4 dB
1,2	RH	Pass	48.7 dB @ 67.00MHz	N/A	>= 18.3 dB	30.4 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 8/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:02:01
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	64.8 dB @ 12.10MHz	53.2 dB	> 37.0 dB	27.8 dB
7,8-5,4	DH	Pass	59.0 dB @ 9.70MHz	47.0 dB	> 38.9 dB	20.1 dB
7,8-1,2	DH	Pass	65.6 dB @ 6.25MHz	43.9 dB	> 42.7 dB	22.9 dB
3,6-7,8	DH	Pass	67.7 dB @ 12.40MHz	52.4 dB	> 36.7 dB	31.0 dB
3,6-5,4	DH	Pass	65.5 dB @ 7.60MHz	46.3 dB	> 41.0 dB	24.5 dB
3,6-1,2	DH	Pass	51.9 dB @ 69.00MHz	49.3 dB	> 21.8 dB	30.1 dB
5,4-7,8	DH	Pass	59.7 dB @ 8.50MHz	47.0 dB	> 40.0 dB	19.7 dB
5,4-3,6	DH	Pass	64.4 dB @ 5.65MHz	40.5 dB	> 43.6 dB	20.8 dB
5,4-1,2	DH	Pass	59.1 dB @ 8.95MHz	45.2 dB	> 39.6 dB	19.5 dB
1,2-7,8	DH	Pass	60.6 dB @ 10.90MHz	44.0 dB	> 37.9 dB	22.7 dB
1,2-3,6	DH	Pass	46.0 dB @ 84.75MHz	45.0 dB	> 20.1 dB	25.9 dB
1,2-5,4	DH	Pass	59.8 dB @ 8.35MHz	45.5 dB	> 40.2 dB	19.6 dB
7,8-3,6	RH	Pass	64.8 dB @ 12.10MHz	53.3 dB	> 37.0 dB	27.8 dB
7,8-5,4	RH	Pass	64.6 dB @ 4.90MHz	47.0 dB	> 44.8 dB	19.8 dB
7,8-1,2	RH	Pass	65.6 dB @ 6.25MHz	44.0 dB	> 42.7 dB	22.9 dB
3,6-7,8	RH	Pass	67.8 dB @ 12.40MHz	52.3 dB	> 36.7 dB	31.1 dB
3,6-5,4	RH	Pass	65.5 dB @ 7.60MHz	46.2 dB	> 41.0 dB	24.5 dB
3,6-1,2	RH	Pass	51.9 dB @ 69.00MHz	49.3 dB	> 21.8 dB	30.1 dB
5,4-7,8	RH	Pass	63.7 dB @ 5.20MHz	47.0 dB	> 44.3 dB	19.4 dB
5,4-3,6	RH	Pass	67.0 dB @ 4.15MHz	40.6 dB	> 46.3 dB	20.7 dB
5,4-1,2	RH	Pass	62.6 dB @ 5.95MHz	45.2 dB	> 43.1 dB	19.5 dB
1,2-7,8	RH	Pass	60.6 dB @ 10.90MHz	43.9 dB	> 37.9 dB	22.7 dB
1,2-3,6	RH	Pass	45.4 dB @ 89.25MHz	45.0 dB	> 19.6 dB	25.8 dB
1,2-5,4	RH	Pass	59.8 dB @ 8.35MHz	45.4 dB	> 40.2 dB	19.6 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.5 dB @ 72.50MHz	48.8 dB	> 31.6 dB	17.9 dB
3,6	DH	Pass	48.0 dB @ 59.00MHz	46.9 dB	> 33.1 dB	14.9 dB
5,4	DH	Pass	61.4 dB @ 10.60MHz	48.9 dB	> 45.1 dB	16.3 dB
1,2	DH	Pass	71.9 dB @ 3.55MHz	52.1 dB	> 52.6 dB	19.3 dB
7,8	RH	Pass	60.2 dB @ 20.80MHz	49.4 dB	> 40.4 dB	19.8 dB
3,6	RH	Pass	58.6 dB @ 20.80MHz	49.3 dB	> 40.4 dB	18.2 dB
5,4	RH	Pass	70.2 dB @ 3.40MHz	51.2 dB	> 52.9 dB	17.3 dB
1,2	RH	Pass	63.7 dB @ 10.75MHz	52.0 dB	> 45.0 dB	18.7 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	44.1 dB @ 100.00MHz	N/A	>= 8.3 dB	35.8 dB
3,6	DH	Pass	42.8 dB @ 72.50MHz	N/A	>= 14.0 dB	28.8 dB
5,4	DH	Pass	45.0 dB @ 66.00MHz	N/A	>= 15.6 dB	29.4 dB
1,2	DH	Pass	48.0 dB @ 70.50MHz	N/A	>= 14.5 dB	33.5 dB
7,8	RH	Pass	44.7 dB @ 99.50MHz	N/A	>= 8.4 dB	36.3 dB
3,6	RH	Pass	44.6 dB @ 95.50MHz	N/A	>= 9.1 dB	35.5 dB
5,4	RH	Pass	46.7 dB @ 90.00MHz	N/A	>= 10.3 dB	36.4 dB
1,2	RH	Pass	48.1 dB @ 67.00MHz	N/A	>= 15.3 dB	32.8 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	52.8 dB @ 16.30MHz	41.9 dB	>= 31.4 dB	21.4 dB
3,6	DH	Pass	55.1 dB @ 14.80MHz	39.0 dB	>= 32.2 dB	22.9 dB
5,4	DH	Pass	56.7 dB @ 8.35MHz	42.6 dB	>= 37.2 dB	19.5 dB
1,2	DH	Pass	47.9 dB @ 29.65MHz	42.2 dB	>= 26.2 dB	21.7 dB
7,8	RH	Pass	57.1 dB @ 9.70MHz	42.0 dB	>= 35.9 dB	21.2 dB
3,6	RH	Pass	50.5 dB @ 46.00MHz	44.0 dB	>= 22.4 dB	28.1 dB
5,4	RH	Pass	58.9 dB @ 5.65MHz	39.5 dB	>= 40.6 dB	18.3 dB
1,2	RH	Pass	52.4 dB @ 16.45MHz	40.7 dB	>= 31.3 dB	21.1 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

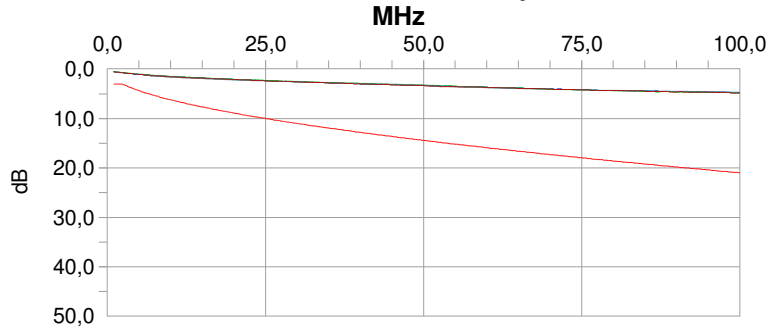
Cable ID 1: 8/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:02:01
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

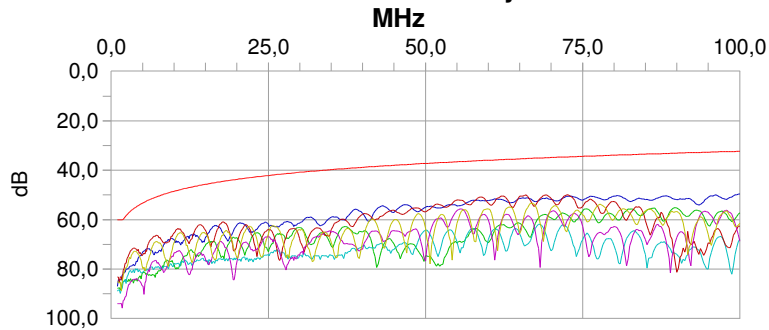
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

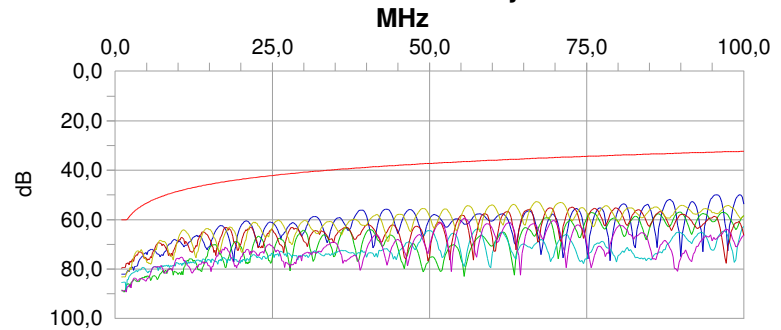
Attenuation Summary



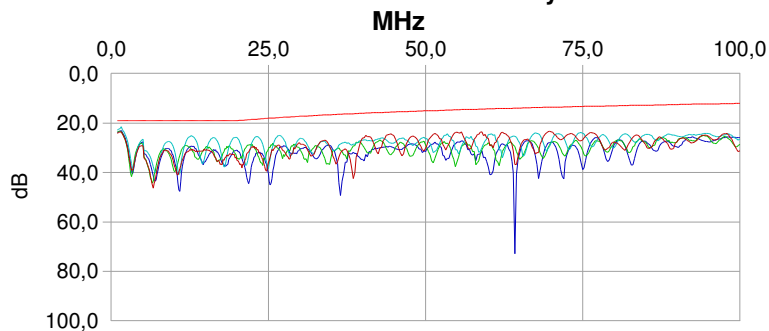
NEXT DH Summary



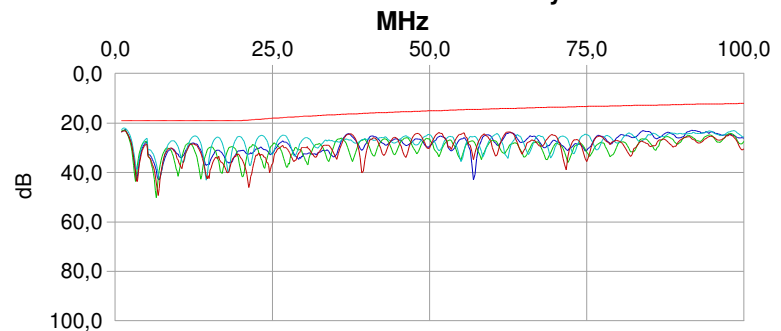
NEXT RH Summary



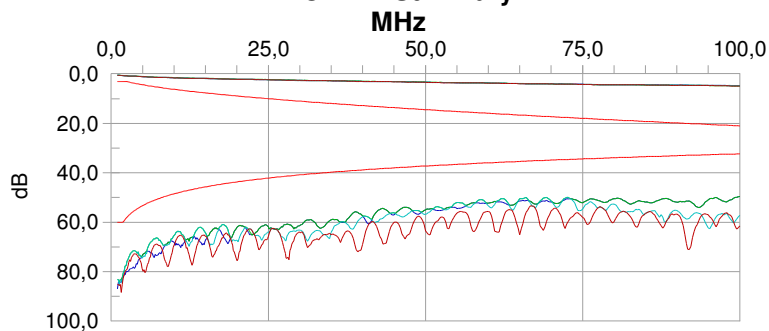
Return Loss DH Summary



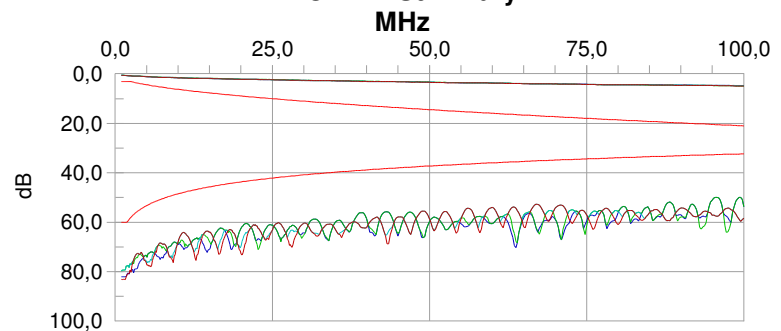
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

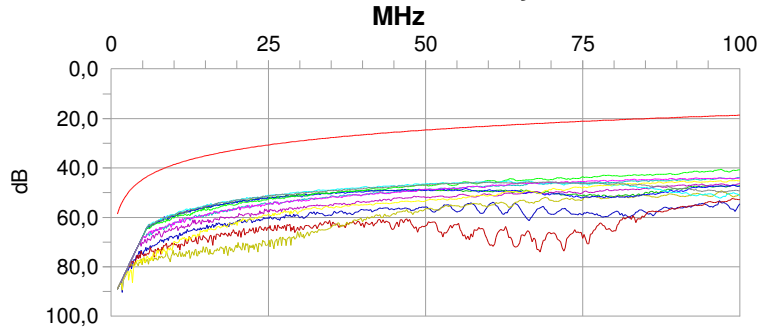
Cable ID 1: 8/4
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:02:01
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

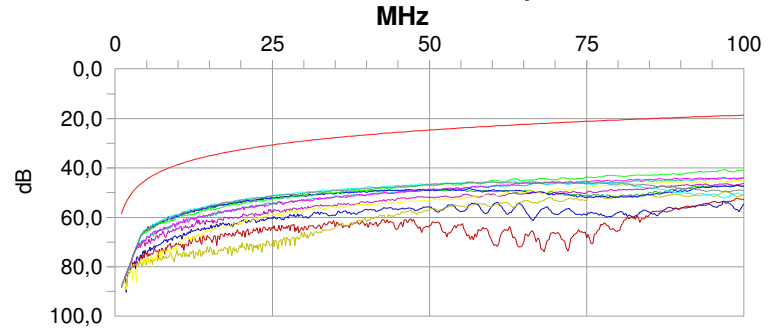
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

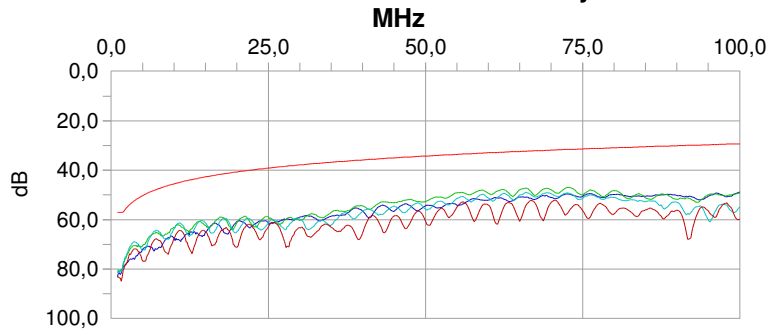
ELFEXT DH Summary



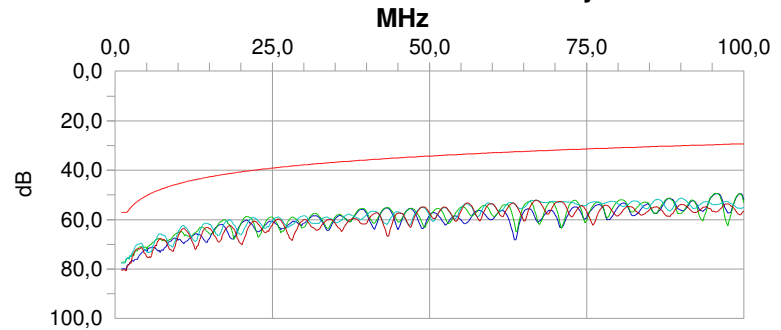
ELFEXT RH Summary



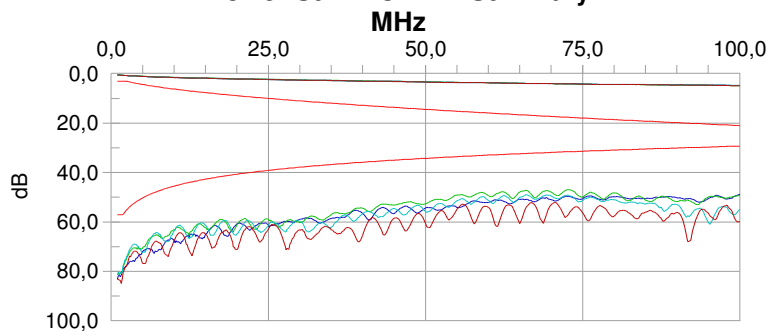
Power Sum NEXT DH Summary



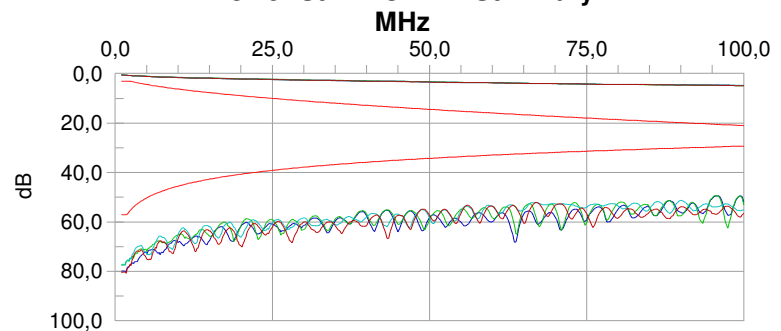
Power Sum NEXT RH Summary



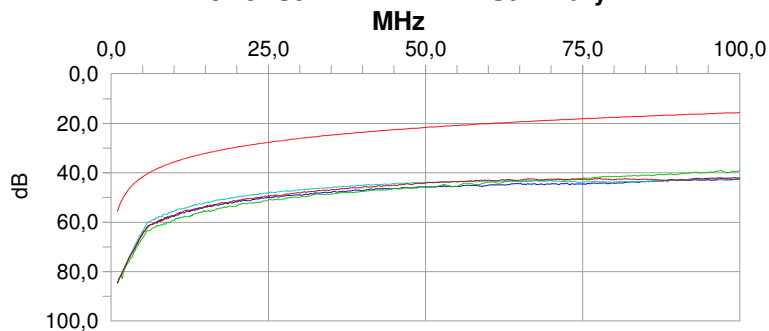
Power Sum ACR DH Summary



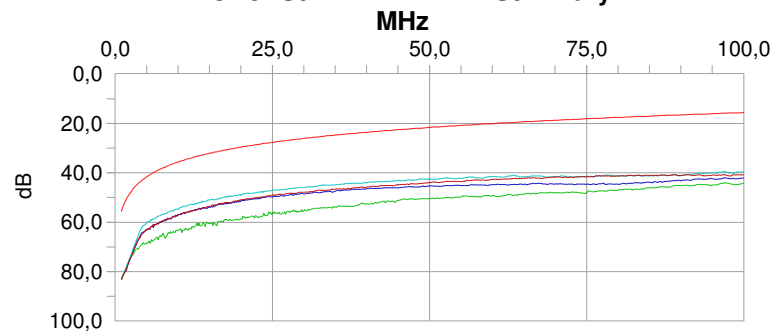
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

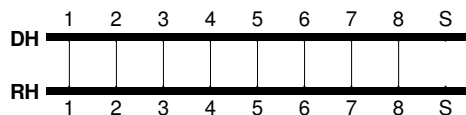
Cable ID 1: 8/5
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:04:13
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	31.7m	33.2m	32.8m	32.0m	< 90.0m	Pass
Prop. Delay	168.1ns	175.2ns	173.8ns	168.1ns	< 498.0ns	Pass
Delay Skew	7.1ns (Pairs 3,6 vs. 1,2)				< 44.0 ns	Pass
Headroom	33.1 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	52.2 dB @ 64.75MHz	51.9 dB	> 35.4 dB	16.8 dB
7,8-5,4	DH	Pass	53.5 dB @ 84.50MHz	53.4 dB	> 33.5 dB	20.0 dB
7,8-1,2	DH	Pass	58.6 dB @ 93.25MHz	58.6 dB	> 32.8 dB	25.8 dB
3,6-5,4	DH	Pass	49.7 dB @ 65.00MHz	49.6 dB	> 35.4 dB	14.3 dB
3,6-1,2	DH	Pass	51.6 dB @ 52.75MHz	49.8 dB	> 36.9 dB	14.7 dB
5,4-1,2	DH	Pass	56.2 dB @ 75.00MHz	56.2 dB	> 34.4 dB	21.8 dB
7,8-3,6	RH	Pass	67.0 dB @ 12.25MHz	52.9 dB	> 47.1 dB	19.9 dB
7,8-5,4	RH	Pass	62.7 dB @ 41.75MHz	59.1 dB	> 38.5 dB	24.2 dB
7,8-1,2	RH	Pass	61.5 dB @ 49.50MHz	57.1 dB	> 37.3 dB	24.2 dB
3,6-5,4	RH	Pass	74.7 dB @ 3.10MHz	56.4 dB	> 56.5 dB	18.2 dB
3,6-1,2	RH	Pass	57.4 dB @ 53.00MHz	56.9 dB	> 36.8 dB	20.6 dB
5,4-1,2	RH	Pass	74.8 dB @ 6.70MHz	58.1 dB	> 51.3 dB	23.5 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.1 dB @ 1.15MHz	23.1 dB	> 19.0 dB	4.1 dB
3,6	DH	Pass	22.8 dB @ 1.15MHz	22.8 dB	> 19.0 dB	3.8 dB
5,4	DH	Pass	21.7 dB @ 1.60MHz	21.7 dB	> 19.0 dB	2.7 dB
1,2	DH	Pass	23.2 dB @ 1.15MHz	22.1 dB	> 19.0 dB	4.2 dB
7,8	RH	Pass	22.8 dB @ 1.30MHz	22.8 dB	> 19.0 dB	3.8 dB
3,6	RH	Pass	22.5 dB @ 1.15MHz	22.5 dB	> 19.0 dB	3.5 dB
5,4	RH	Pass	21.8 dB @ 1.30MHz	21.8 dB	> 19.0 dB	2.8 dB
1,2	RH	Pass	22.9 dB @ 1.15MHz	20.7 dB	> 19.0 dB	3.9 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.8 dB @ 2.50MHz	5.4 dB	< 3.1 dB	2.3 dB
3,6	Pass	0.8 dB @ 2.50MHz	5.4 dB	< 3.1 dB	2.3 dB
5,4	Pass	0.9 dB @ 2.50MHz	5.3 dB	< 3.1 dB	2.2 dB
1,2	Pass	0.8 dB @ 2.50MHz	5.3 dB	< 3.1 dB	2.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	47.1 dB @ 78.75MHz	N/A	>= 15.6 dB	31.5 dB
3,6	DH	Pass	44.4 dB @ 100.00MHz	N/A	>= 11.3 dB	33.1 dB
5,4	DH	Pass	45.1 dB @ 68.25MHz	N/A	>= 18.0 dB	27.1 dB
1,2	DH	Pass	44.5 dB @ 100.00MHz	N/A	>= 11.3 dB	33.2 dB
7,8	RH	Pass	47.6 dB @ 98.50MHz	N/A	>= 11.6 dB	36.0 dB
3,6	RH	Pass	47.5 dB @ 98.50MHz	N/A	>= 11.6 dB	35.9 dB
5,4	RH	Pass	51.8 dB @ 71.25MHz	N/A	>= 17.3 dB	34.5 dB
1,2	RH	Pass	51.6 dB @ 99.00MHz	N/A	>= 11.5 dB	40.1 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 8/5
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:04:13
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	57.0 dB @ 54.50MHz	54.2 dB	> 23.9 dB	33.1 dB
7,8-5,4	DH	Pass	56.8 dB @ 10.75MHz	47.5 dB	> 38.0 dB	18.8 dB
7,8-1,2	DH	Pass	60.8 dB @ 65.25MHz	60.4 dB	> 22.3 dB	38.5 dB
3,6-7,8	DH	Pass	58.8 dB @ 98.75MHz	58.8 dB	> 18.7 dB	40.1 dB
3,6-5,4	DH	Pass	66.5 dB @ 9.70MHz	49.3 dB	> 38.9 dB	27.6 dB
3,6-1,2	DH	Pass	65.8 dB @ 16.30MHz	55.3 dB	> 34.4 dB	31.4 dB
5,4-7,8	DH	Pass	60.1 dB @ 7.30MHz	47.2 dB	> 41.3 dB	18.8 dB
5,4-3,6	DH	Pass	67.0 dB @ 5.20MHz	41.8 dB	> 44.3 dB	22.7 dB
5,4-1,2	DH	Pass	63.9 dB @ 8.95MHz	47.4 dB	> 39.6 dB	24.3 dB
1,2-7,8	DH	Pass	63.1 dB @ 98.75MHz	63.1 dB	> 18.7 dB	44.4 dB
1,2-3,6	DH	Pass	67.9 dB @ 8.65MHz	51.3 dB	> 39.9 dB	28.0 dB
1,2-5,4	DH	Pass	66.8 dB @ 6.70MHz	45.9 dB	> 42.1 dB	24.7 dB
7,8-3,6	RH	Pass	56.9 dB @ 54.50MHz	54.3 dB	> 23.9 dB	33.0 dB
7,8-5,4	RH	Pass	62.6 dB @ 5.50MHz	47.5 dB	> 43.8 dB	18.8 dB
7,8-1,2	RH	Pass	60.8 dB @ 65.25MHz	60.3 dB	> 22.3 dB	38.5 dB
3,6-7,8	RH	Pass	58.7 dB @ 98.75MHz	58.7 dB	> 18.7 dB	40.0 dB
3,6-5,4	RH	Pass	66.6 dB @ 9.70MHz	49.2 dB	> 38.9 dB	27.7 dB
3,6-1,2	RH	Pass	65.8 dB @ 16.30MHz	55.2 dB	> 34.4 dB	31.4 dB
5,4-7,8	RH	Pass	60.1 dB @ 7.30MHz	47.3 dB	> 41.3 dB	18.8 dB
5,4-3,6	RH	Pass	68.5 dB @ 4.30MHz	41.9 dB	> 45.9 dB	22.6 dB
5,4-1,2	RH	Pass	63.9 dB @ 8.95MHz	47.4 dB	> 39.6 dB	24.3 dB
1,2-7,8	RH	Pass	63.1 dB @ 98.75MHz	63.1 dB	> 18.7 dB	44.4 dB
1,2-3,6	RH	Pass	67.8 dB @ 8.65MHz	51.4 dB	> 39.9 dB	27.9 dB
1,2-5,4	RH	Pass	66.8 dB @ 6.70MHz	46.0 dB	> 42.1 dB	24.7 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	50.2 dB @ 74.50MHz	49.7 dB	> 31.4 dB	18.8 dB
3,6	DH	Pass	48.1 dB @ 52.75MHz	46.6 dB	> 33.9 dB	14.2 dB
5,4	DH	Pass	48.8 dB @ 65.00MHz	48.5 dB	> 32.4 dB	16.4 dB
1,2	DH	Pass	51.0 dB @ 53.00MHz	49.3 dB	> 33.8 dB	17.2 dB
7,8	RH	Pass	65.9 dB @ 11.80MHz	51.4 dB	> 44.3 dB	21.6 dB
3,6	RH	Pass	72.4 dB @ 3.10MHz	51.7 dB	> 53.5 dB	18.9 dB
5,4	RH	Pass	73.4 dB @ 3.10MHz	54.1 dB	> 53.5 dB	19.9 dB
1,2	RH	Pass	55.5 dB @ 53.00MHz	53.9 dB	> 33.8 dB	21.7 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	44.7 dB @ 84.50MHz	N/A	>= 11.4 dB	33.3 dB
3,6	DH	Pass	42.1 dB @ 68.50MHz	N/A	>= 14.9 dB	27.2 dB
5,4	DH	Pass	44.0 dB @ 68.25MHz	N/A	>= 15.0 dB	29.0 dB
1,2	DH	Pass	44.0 dB @ 100.00MHz	N/A	>= 8.3 dB	35.7 dB
7,8	RH	Pass	46.1 dB @ 98.25MHz	N/A	>= 8.6 dB	37.5 dB
3,6	RH	Pass	46.3 dB @ 98.50MHz	N/A	>= 8.6 dB	37.7 dB
5,4	RH	Pass	49.4 dB @ 74.50MHz	N/A	>= 13.5 dB	35.9 dB
1,2	RH	Pass	48.6 dB @ 99.25MHz	N/A	>= 8.5 dB	40.1 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.9 dB @ 98.50MHz	49.9 dB	>= 15.7 dB	34.2 dB
3,6	DH	Pass	41.5 dB @ 95.00MHz	41.1 dB	>= 16.1 dB	25.4 dB
5,4	DH	Pass	57.2 dB @ 8.95MHz	43.1 dB	>= 36.6 dB	20.6 dB
1,2	DH	Pass	48.5 dB @ 63.25MHz	47.0 dB	>= 19.6 dB	28.9 dB
7,8	RH	Pass	47.3 dB @ 58.25MHz	47.3 dB	>= 20.3 dB	27.0 dB
3,6	RH	Pass	48.2 dB @ 95.75MHz	47.9 dB	>= 16.0 dB	32.2 dB
5,4	RH	Pass	60.9 dB @ 5.20MHz	40.4 dB	>= 41.3 dB	19.6 dB
1,2	RH	Pass	44.8 dB @ 97.75MHz	44.8 dB	>= 15.8 dB	29.0 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

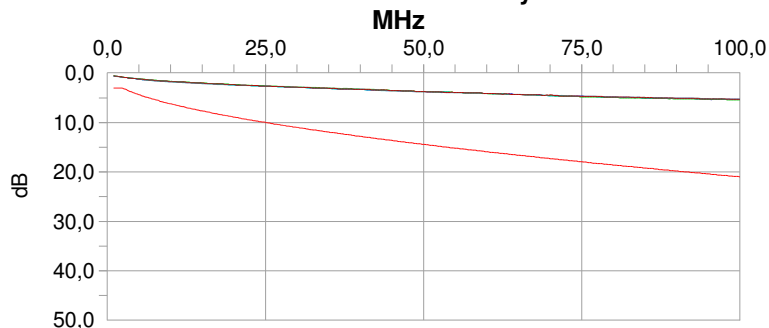
Cable ID 1: 8/5
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:04:13
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

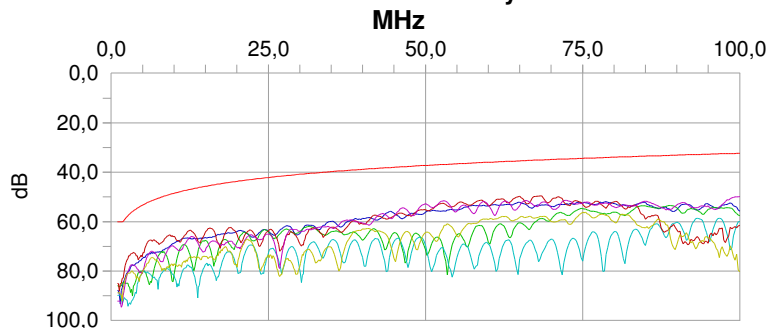
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

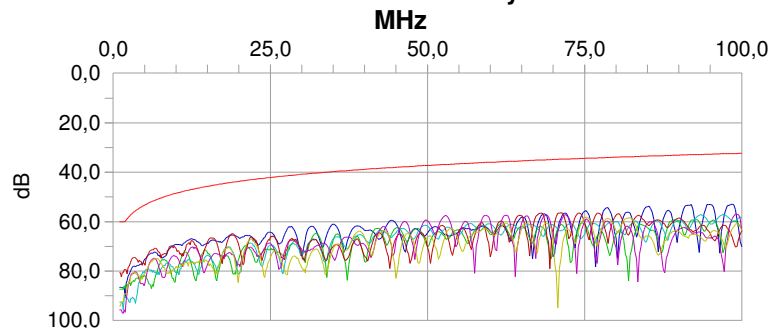
Attenuation Summary



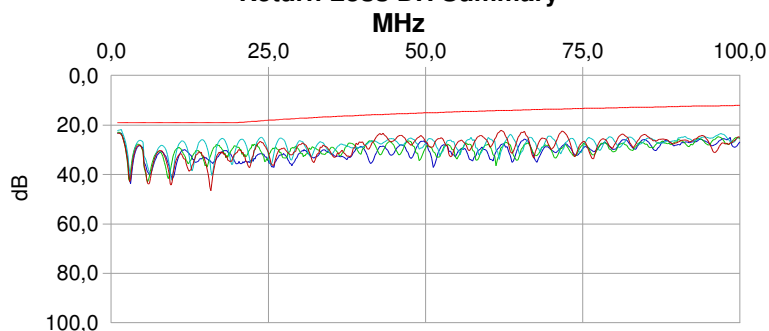
NEXT DH Summary



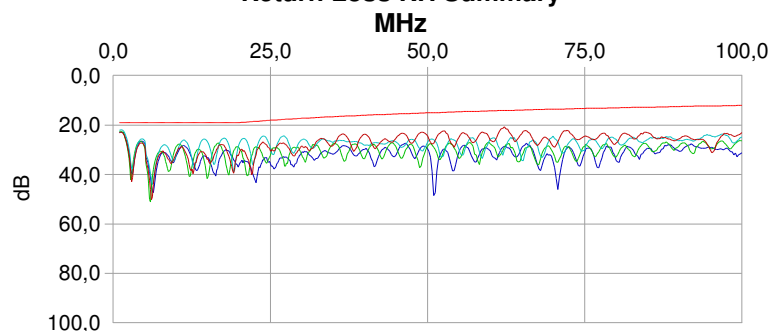
NEXT RH Summary



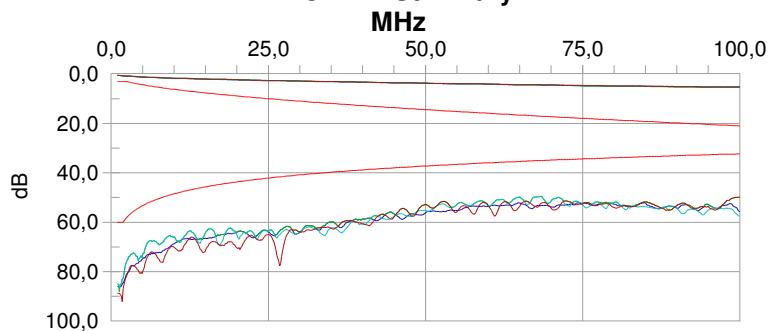
Return Loss DH Summary



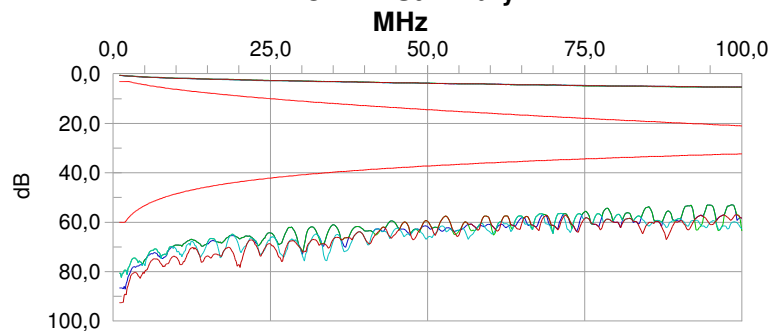
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

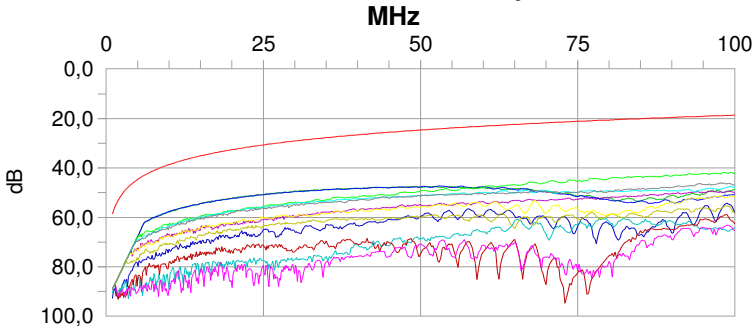
Cable ID 1: 8/5
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:04:13
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

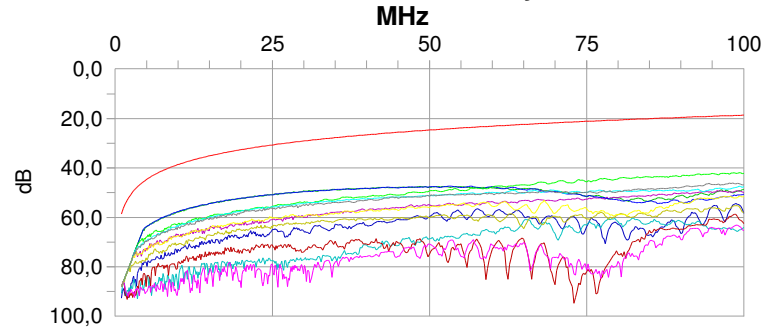
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

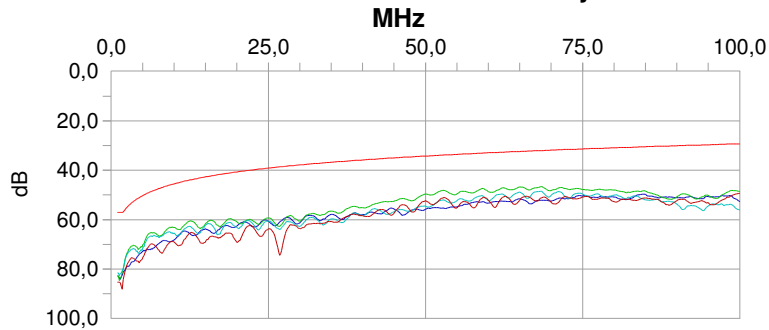
ELFEXT DH Summary



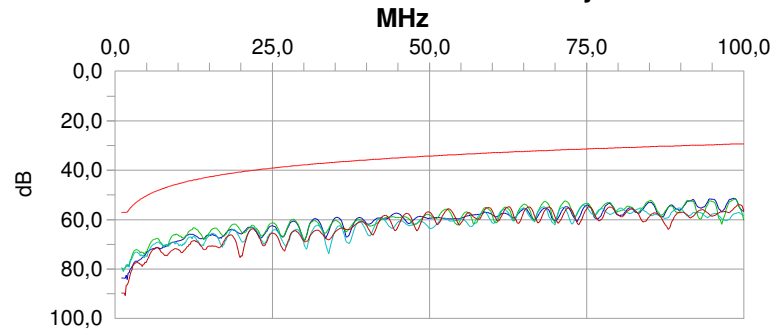
ELFEXT RH Summary



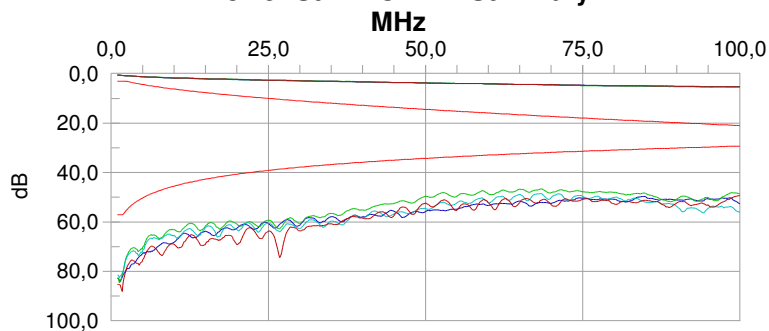
Power Sum NEXT DH Summary



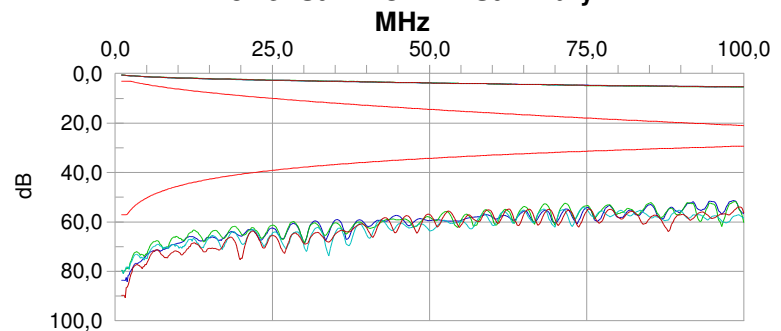
Power Sum NEXT RH Summary



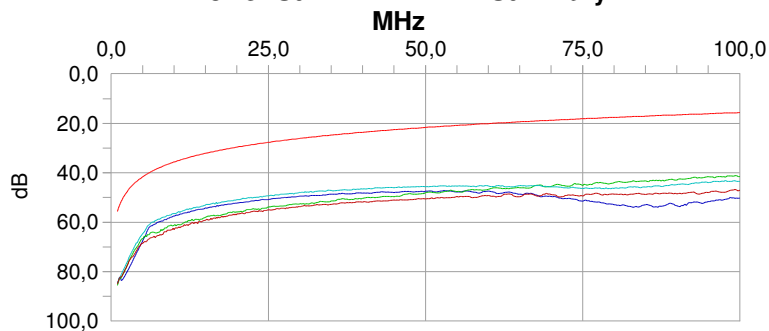
Power Sum ACR DH Summary



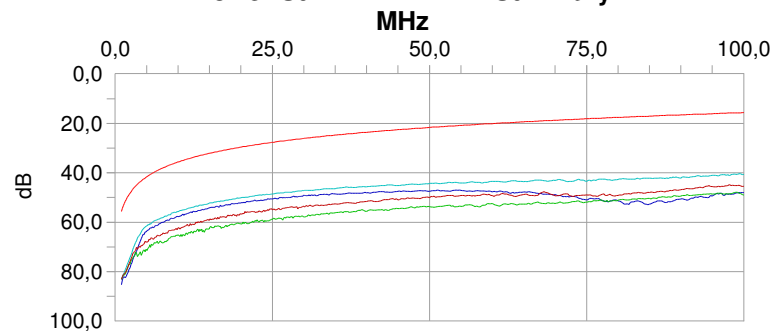
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

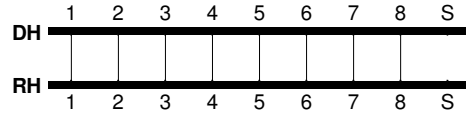
Cable ID 1: 8/6
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:04:47
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	31.7m	33.3m	32.9m	32.1m	< 90.0m	Pass
Prop. Delay	168.5ns	175.8ns	174.4ns	168.7ns	< 498.0ns	Pass
Delay Skew	7.3ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	33.6 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	50.8 dB @ 62.75MHz	49.7 dB	> 35.6 dB	15.2 dB
7,8-5,4	DH	Pass	53.0 dB @ 82.75MHz	52.8 dB	> 33.7 dB	19.3 dB
7,8-1,2	DH	Pass	63.8 dB @ 57.25MHz	62.9 dB	> 36.3 dB	27.5 dB
3,6-5,4	DH	Pass	50.3 dB @ 64.75MHz	50.1 dB	> 35.4 dB	14.9 dB
3,6-1,2	DH	Pass	57.0 dB @ 49.75MHz	55.8 dB	> 37.3 dB	19.7 dB
5,4-1,2	DH	Pass	54.0 dB @ 71.50MHz	54.0 dB	> 34.7 dB	19.3 dB
7,8-3,6	RH	Pass	62.2 dB @ 19.15MHz	53.2 dB	> 44.0 dB	18.2 dB
7,8-5,4	RH	Pass	65.4 dB @ 26.50MHz	57.4 dB	> 41.7 dB	23.7 dB
7,8-1,2	RH	Pass	62.8 dB @ 57.25MHz	60.8 dB	> 36.3 dB	26.5 dB
3,6-5,4	RH	Pass	71.2 dB @ 6.55MHz	58.3 dB	> 51.4 dB	19.8 dB
3,6-1,2	RH	Pass	60.6 dB @ 49.25MHz	59.2 dB	> 37.3 dB	23.3 dB
5,4-1,2	RH	Pass	56.7 dB @ 72.00MHz	56.6 dB	> 34.6 dB	22.1 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.3 dB @ 1.15MHz	23.3 dB	> 19.0 dB	4.3 dB
3,6	DH	Pass	23.0 dB @ 1.15MHz	23.0 dB	> 19.0 dB	4.0 dB
5,4	DH	Pass	22.1 dB @ 1.60MHz	22.1 dB	> 19.0 dB	3.1 dB
1,2	DH	Pass	23.5 dB @ 1.15MHz	23.5 dB	> 19.0 dB	4.5 dB
7,8	RH	Pass	22.8 dB @ 1.30MHz	22.8 dB	> 19.0 dB	3.8 dB
3,6	RH	Pass	22.7 dB @ 1.15MHz	22.7 dB	> 19.0 dB	3.7 dB
5,4	RH	Pass	22.0 dB @ 1.15MHz	22.0 dB	> 19.0 dB	3.0 dB
1,2	RH	Pass	23.1 dB @ 1.30MHz	21.8 dB	> 19.0 dB	4.1 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.8 dB @ 2.50MHz	5.3 dB	< 3.1 dB	2.3 dB
3,6	Pass	0.8 dB @ 2.50MHz	5.4 dB	< 3.1 dB	2.3 dB
5,4	Pass	0.8 dB @ 2.50MHz	5.3 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.8 dB @ 2.50MHz	5.3 dB	< 3.1 dB	2.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	44.5 dB @ 96.75MHz	N/A	>= 11.9 dB	32.6 dB
3,6	DH	Pass	44.4 dB @ 97.00MHz	N/A	>= 11.9 dB	32.5 dB
5,4	DH	Pass	45.7 dB @ 67.25MHz	N/A	>= 18.2 dB	27.5 dB
1,2	DH	Pass	49.4 dB @ 71.50MHz	N/A	>= 17.2 dB	32.2 dB
7,8	RH	Pass	47.9 dB @ 98.25MHz	N/A	>= 11.6 dB	36.3 dB
3,6	RH	Pass	47.8 dB @ 98.25MHz	N/A	>= 11.6 dB	36.2 dB
5,4	RH	Pass	51.7 dB @ 81.75MHz	N/A	>= 14.9 dB	36.8 dB
1,2	RH	Pass	51.7 dB @ 81.75MHz	N/A	>= 14.9 dB	36.8 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 8/6
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:04:47
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	64.5 dB @ 28.30MHz	56.5 dB	> 29.6 dB	34.9 dB
7,8-5,4	DH	Pass	68.2 dB @ 4.90MHz	42.3 dB	> 44.8 dB	23.4 dB
7,8-1,2	DH	Pass	66.1 dB @ 9.40MHz	47.1 dB	> 39.2 dB	26.9 dB
3,6-7,8	DH	Pass	55.7 dB @ 94.50MHz	55.6 dB	> 19.1 dB	36.6 dB
3,6-5,4	DH	Pass	55.8 dB @ 92.50MHz	55.7 dB	> 19.3 dB	36.5 dB
3,6-1,2	DH	Pass	44.6 dB @ 97.00MHz	44.5 dB	> 18.9 dB	25.7 dB
5,4-7,8	DH	Pass	63.6 dB @ 8.35MHz	43.4 dB	> 40.2 dB	23.4 dB
5,4-3,6	DH	Pass	44.1 dB @ 99.25MHz	44.0 dB	> 18.7 dB	25.4 dB
5,4-1,2	DH	Pass	60.9 dB @ 8.95MHz	43.4 dB	> 39.6 dB	21.3 dB
1,2-7,8	DH	Pass	68.5 dB @ 7.45MHz	48.2 dB	> 41.2 dB	27.3 dB
1,2-3,6	DH	Pass	41.5 dB @ 82.75MHz	40.7 dB	> 20.3 dB	21.2 dB
1,2-5,4	DH	Pass	65.2 dB @ 5.80MHz	42.7 dB	> 43.3 dB	21.9 dB
7,8-3,6	RH	Pass	64.4 dB @ 28.30MHz	56.6 dB	> 29.6 dB	34.8 dB
7,8-5,4	RH	Pass	68.1 dB @ 4.90MHz	42.3 dB	> 44.8 dB	23.3 dB
7,8-1,2	RH	Pass	66.1 dB @ 9.40MHz	47.1 dB	> 39.2 dB	26.9 dB
3,6-7,8	RH	Pass	55.6 dB @ 94.50MHz	55.5 dB	> 19.1 dB	36.5 dB
3,6-5,4	RH	Pass	55.7 dB @ 92.50MHz	55.6 dB	> 19.3 dB	36.4 dB
3,6-1,2	RH	Pass	44.6 dB @ 96.50MHz	44.4 dB	> 18.9 dB	25.7 dB
5,4-7,8	RH	Pass	63.6 dB @ 8.35MHz	43.4 dB	> 40.2 dB	23.4 dB
5,4-3,6	RH	Pass	44.2 dB @ 99.25MHz	44.1 dB	> 18.7 dB	25.5 dB
5,4-1,2	RH	Pass	60.9 dB @ 8.95MHz	43.4 dB	> 39.6 dB	21.3 dB
1,2-7,8	RH	Pass	68.4 dB @ 7.45MHz	48.1 dB	> 41.2 dB	27.2 dB
1,2-3,6	RH	Pass	41.6 dB @ 82.75MHz	40.7 dB	> 20.3 dB	21.3 dB
1,2-5,4	RH	Pass	68.3 dB @ 4.00MHz	42.7 dB	> 46.6 dB	21.7 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	49.7 dB @ 62.75MHz	48.4 dB	> 32.6 dB	17.1 dB
3,6	DH	Pass	47.3 dB @ 65.00MHz	47.1 dB	> 32.4 dB	14.9 dB
5,4	DH	Pass	48.5 dB @ 67.00MHz	48.4 dB	> 32.2 dB	16.3 dB
1,2	DH	Pass	51.9 dB @ 71.50MHz	51.9 dB	> 31.7 dB	20.2 dB
7,8	RH	Pass	74.8 dB @ 2.95MHz	51.5 dB	> 53.9 dB	20.9 dB
3,6	RH	Pass	72.7 dB @ 2.95MHz	52.1 dB	> 53.9 dB	18.8 dB
5,4	RH	Pass	75.5 dB @ 2.95MHz	55.1 dB	> 53.9 dB	21.6 dB
1,2	RH	Pass	55.1 dB @ 71.50MHz	55.1 dB	> 31.7 dB	23.4 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	43.2 dB @ 95.50MHz	N/A	>= 9.1 dB	34.1 dB
3,6	DH	Pass	42.6 dB @ 68.50MHz	N/A	>= 14.9 dB	27.7 dB
5,4	DH	Pass	43.9 dB @ 70.50MHz	N/A	>= 14.5 dB	29.4 dB
1,2	DH	Pass	47.3 dB @ 71.50MHz	N/A	>= 14.2 dB	33.1 dB
7,8	RH	Pass	46.3 dB @ 95.25MHz	N/A	>= 9.3 dB	37.0 dB
3,6	RH	Pass	46.9 dB @ 88.25MHz	N/A	>= 10.6 dB	36.3 dB
5,4	RH	Pass	50.3 dB @ 83.00MHz	N/A	>= 11.7 dB	38.6 dB
1,2	RH	Pass	50.5 dB @ 71.50MHz	N/A	>= 14.2 dB	36.3 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	42.6 dB @ 92.75MHz	42.1 dB	>= 16.3 dB	26.3 dB
3,6	DH	Pass	40.1 dB @ 82.75MHz	39.0 dB	>= 17.3 dB	22.8 dB
5,4	DH	Pass	49.4 dB @ 31.75MHz	39.5 dB	>= 25.6 dB	23.8 dB
1,2	DH	Pass	49.5 dB @ 30.70MHz	40.0 dB	>= 25.9 dB	23.6 dB
7,8	RH	Pass	40.9 dB @ 99.00MHz	40.9 dB	>= 15.7 dB	25.2 dB
3,6	RH	Pass	44.0 dB @ 96.75MHz	43.9 dB	>= 15.9 dB	28.1 dB
5,4	RH	Pass	58.2 dB @ 9.25MHz	38.8 dB	>= 36.3 dB	21.9 dB
1,2	RH	Pass	39.3 dB @ 82.75MHz	38.2 dB	>= 17.3 dB	22.0 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

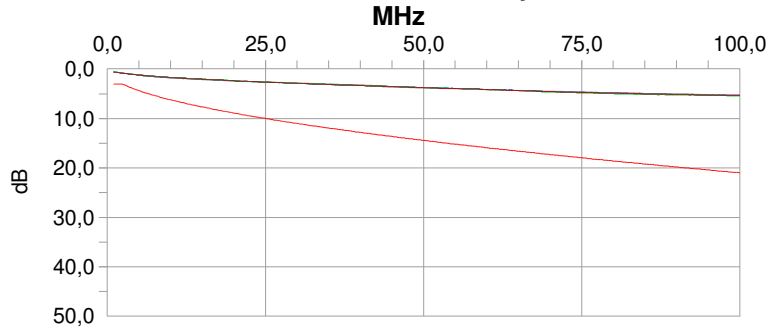
Cable ID 1: 8/6
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:04:47
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

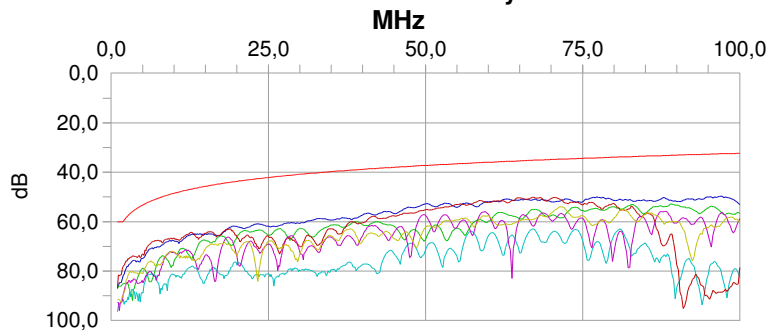
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

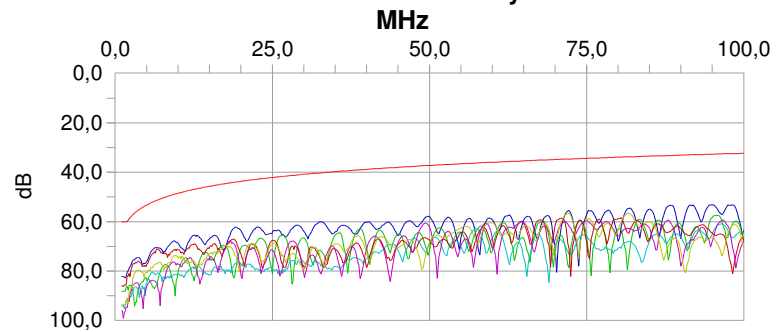
Attenuation Summary



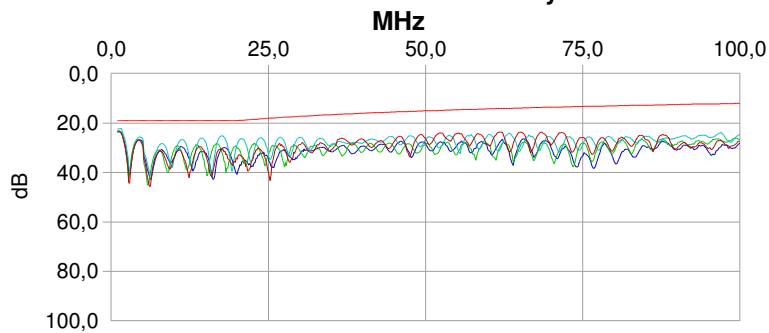
NEXT DH Summary



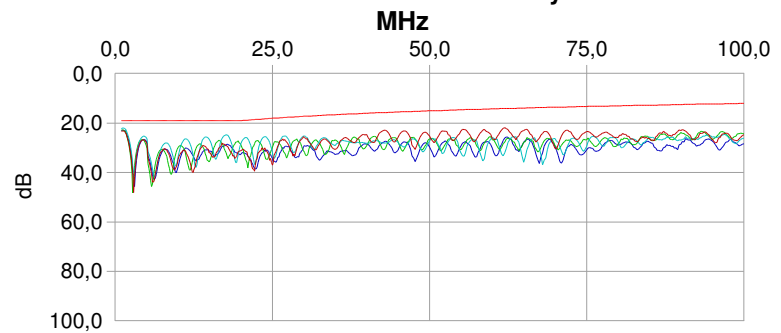
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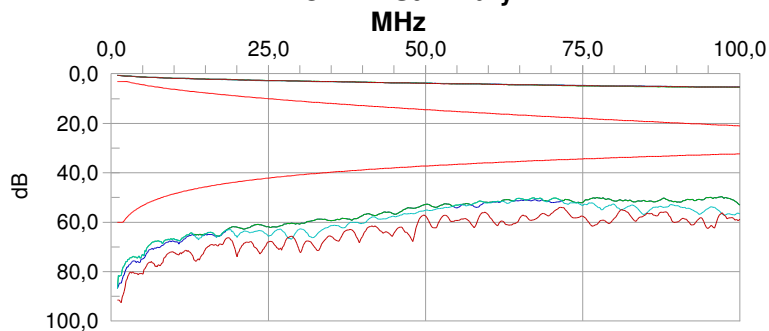
Return Loss DH Summary



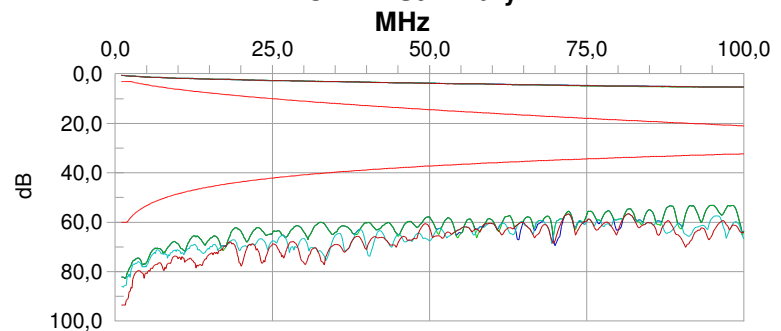
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 8/6
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:04:47
Adapter ID: 6014

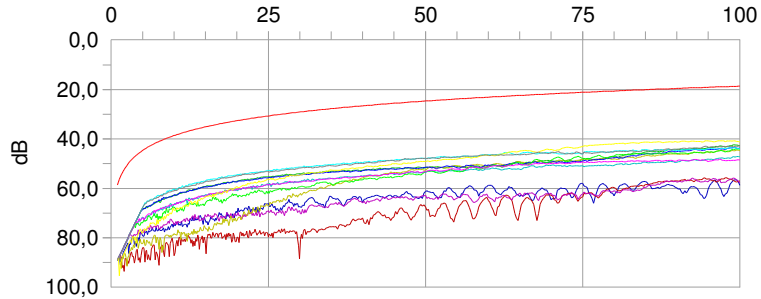
Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

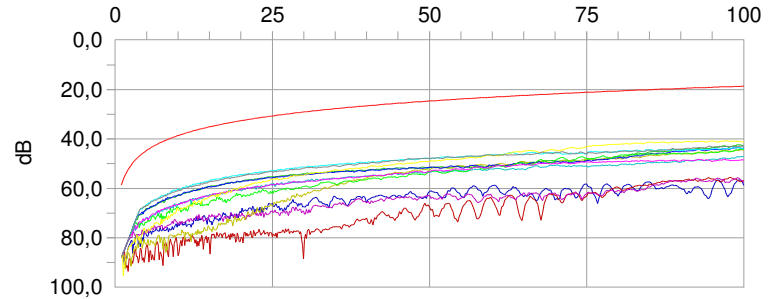
ELFEXT DH Summary

MHz



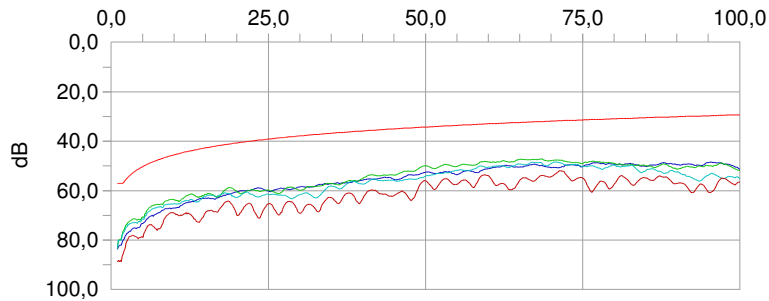
ELFEXT RH Summary

MHz



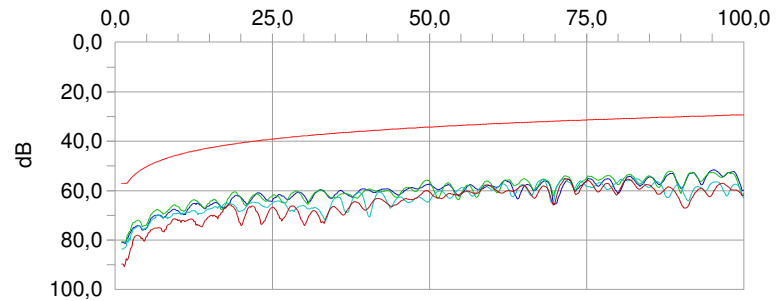
Power Sum NEXT DH Summary

MHz



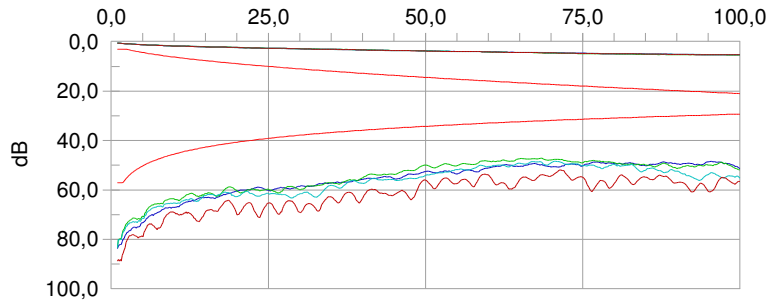
Power Sum NEXT RH Summary

MHz



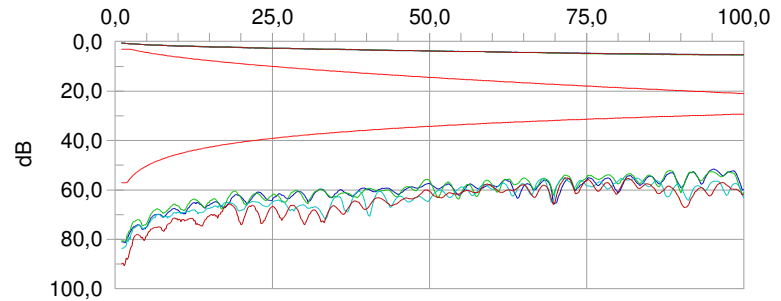
Power Sum ACR DH Summary

MHz



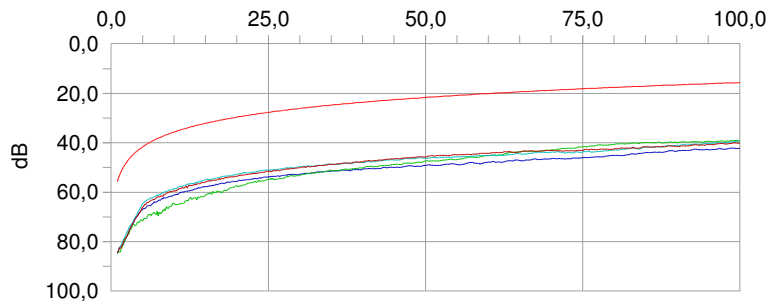
Power Sum ACR RH Summary

MHz



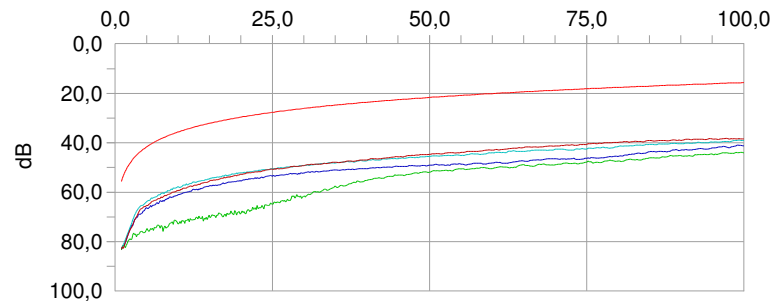
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

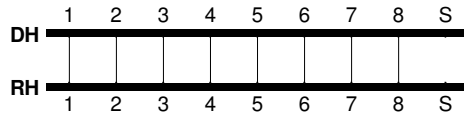
Cable ID 1: 8/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:05:42
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	31.7m	33.2m	32.8m	32.0m	< 90.0m	Pass
Prop. Delay	168.5ns	175.4ns	174.0ns	168.5ns	< 498.0ns	Pass
Delay Skew	6.9ns (Pairs 3,6 vs. 1,2)				< 44.0 ns	Pass
Headroom	29.9 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	48.6 dB @ 59.50MHz	46.7 dB	> 36.0 dB	12.6 dB
7,8-5,4	DH	Pass	53.6 dB @ 83.25MHz	53.5 dB	> 33.6 dB	20.0 dB
7,8-1,2	DH	Pass	58.8 dB @ 67.00MHz	58.8 dB	> 35.2 dB	23.6 dB
3,6-5,4	DH	Pass	48.9 dB @ 64.75MHz	48.9 dB	> 35.4 dB	13.5 dB
3,6-1,2	DH	Pass	57.6 dB @ 68.00MHz	56.0 dB	> 35.1 dB	22.5 dB
5,4-1,2	DH	Pass	54.4 dB @ 84.25MHz	54.4 dB	> 33.5 dB	20.9 dB
7,8-3,6	RH	Pass	60.5 dB @ 13.00MHz	50.0 dB	> 46.7 dB	13.8 dB
7,8-5,4	RH	Pass	64.3 dB @ 29.95MHz	58.1 dB	> 40.8 dB	23.5 dB
7,8-1,2	RH	Pass	82.6 dB @ 3.10MHz	63.6 dB	> 56.5 dB	26.1 dB
3,6-5,4	RH	Pass	76.5 dB @ 2.50MHz	56.9 dB	> 58.0 dB	18.5 dB
3,6-1,2	RH	Pass	57.9 dB @ 75.75MHz	57.9 dB	> 34.3 dB	23.6 dB
5,4-1,2	RH	Pass	58.5 dB @ 84.25MHz	57.8 dB	> 33.5 dB	25.0 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.4 dB @ 1.15MHz	23.4 dB	> 19.0 dB	4.4 dB
3,6	DH	Pass	23.1 dB @ 1.15MHz	23.1 dB	> 19.0 dB	4.1 dB
5,4	DH	Pass	22.1 dB @ 1.60MHz	22.1 dB	> 19.0 dB	3.1 dB
1,2	DH	Pass	23.6 dB @ 1.15MHz	23.2 dB	> 19.0 dB	4.6 dB
7,8	RH	Pass	22.9 dB @ 1.15MHz	22.9 dB	> 19.0 dB	3.9 dB
3,6	RH	Pass	22.7 dB @ 1.15MHz	22.7 dB	> 19.0 dB	3.7 dB
5,4	RH	Pass	22.0 dB @ 1.30MHz	22.0 dB	> 19.0 dB	3.0 dB
1,2	RH	Pass	23.1 dB @ 1.30MHz	23.1 dB	> 19.0 dB	4.1 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.8 dB @ 2.50MHz	5.3 dB	< 3.1 dB	2.3 dB
3,6	Pass	0.8 dB @ 2.50MHz	5.4 dB	< 3.1 dB	2.3 dB
5,4	Pass	0.8 dB @ 2.50MHz	5.3 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.8 dB @ 2.50MHz	5.3 dB	< 3.1 dB	2.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	41.4 dB @ 100.00MHz	N/A	>= 11.3 dB	30.1 dB
3,6	DH	Pass	41.3 dB @ 100.00MHz	N/A	>= 11.3 dB	30.0 dB
5,4	DH	Pass	44.6 dB @ 64.75MHz	N/A	>= 18.8 dB	25.8 dB
1,2	DH	Pass	49.5 dB @ 84.25MHz	N/A	>= 14.4 dB	35.1 dB
7,8	RH	Pass	44.7 dB @ 99.50MHz	N/A	>= 11.4 dB	33.3 dB
3,6	RH	Pass	44.6 dB @ 99.50MHz	N/A	>= 11.4 dB	33.2 dB
5,4	RH	Pass	52.2 dB @ 77.50MHz	N/A	>= 15.8 dB	36.4 dB
1,2	RH	Pass	52.6 dB @ 93.75MHz	N/A	>= 12.6 dB	40.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 8/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:05:42
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	64.5 dB @ 24.85MHz	55.1 dB	> 30.7 dB	33.8 dB
7,8-5,4	DH	Pass	62.4 dB @ 7.60MHz	45.9 dB	> 41.0 dB	21.4 dB
7,8-1,2	DH	Pass	58.2 dB @ 65.00MHz	57.5 dB	> 22.4 dB	35.8 dB
3,6-7,8	DH	Pass	62.6 dB @ 53.00MHz	59.9 dB	> 24.1 dB	38.5 dB
3,6-5,4	DH	Pass	67.0 dB @ 7.90MHz	47.1 dB	> 40.7 dB	26.3 dB
3,6-1,2	DH	Pass	43.9 dB @ 96.25MHz	43.8 dB	> 18.9 dB	25.0 dB
5,4-7,8	DH	Pass	61.2 dB @ 8.35MHz	47.5 dB	> 40.2 dB	21.0 dB
5,4-3,6	DH	Pass	43.1 dB @ 67.75MHz	39.8 dB	> 22.0 dB	21.1 dB
5,4-1,2	DH	Pass	66.7 dB @ 5.20MHz	47.9 dB	> 44.3 dB	22.4 dB
1,2-7,8	DH	Pass	55.2 dB @ 97.75MHz	55.2 dB	> 18.8 dB	36.4 dB
1,2-3,6	DH	Pass	41.1 dB @ 77.25MHz	39.5 dB	> 20.9 dB	20.2 dB
1,2-5,4	DH	Pass	64.2 dB @ 7.00MHz	47.2 dB	> 41.7 dB	22.5 dB
7,8-3,6	RH	Pass	64.5 dB @ 24.85MHz	55.1 dB	> 30.7 dB	33.8 dB
7,8-5,4	RH	Pass	62.4 dB @ 7.60MHz	45.9 dB	> 41.0 dB	21.4 dB
7,8-1,2	RH	Pass	58.2 dB @ 65.00MHz	57.6 dB	> 22.4 dB	35.8 dB
3,6-7,8	RH	Pass	62.7 dB @ 53.00MHz	59.8 dB	> 24.1 dB	38.6 dB
3,6-5,4	RH	Pass	67.0 dB @ 7.90MHz	47.0 dB	> 40.7 dB	26.3 dB
3,6-1,2	RH	Pass	43.8 dB @ 96.25MHz	43.7 dB	> 18.9 dB	24.9 dB
5,4-7,8	RH	Pass	61.2 dB @ 8.35MHz	47.5 dB	> 40.2 dB	21.0 dB
5,4-3,6	RH	Pass	67.1 dB @ 4.30MHz	39.9 dB	> 45.9 dB	21.2 dB
5,4-1,2	RH	Pass	68.4 dB @ 4.15MHz	47.9 dB	> 46.3 dB	22.1 dB
1,2-7,8	RH	Pass	55.1 dB @ 97.75MHz	55.1 dB	> 18.8 dB	36.3 dB
1,2-3,6	RH	Pass	40.7 dB @ 81.00MHz	39.6 dB	> 20.4 dB	20.3 dB
1,2-5,4	RH	Pass	68.3 dB @ 4.30MHz	47.1 dB	> 45.9 dB	22.4 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	48.2 dB @ 59.50MHz	46.3 dB	> 33.0 dB	15.2 dB
3,6	DH	Pass	45.9 dB @ 65.25MHz	45.8 dB	> 32.3 dB	13.6 dB
5,4	DH	Pass	48.4 dB @ 64.75MHz	48.3 dB	> 32.4 dB	16.0 dB
1,2	DH	Pass	52.4 dB @ 77.75MHz	51.9 dB	> 31.1 dB	21.3 dB
7,8	RH	Pass	60.2 dB @ 13.00MHz	49.5 dB	> 43.7 dB	16.5 dB
3,6	RH	Pass	59.8 dB @ 12.85MHz	49.7 dB	> 43.8 dB	16.0 dB
5,4	RH	Pass	75.9 dB @ 2.50MHz	54.6 dB	> 55.0 dB	20.9 dB
1,2	RH	Pass	56.4 dB @ 75.00MHz	56.0 dB	> 31.4 dB	25.0 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	41.0 dB @ 99.75MHz	N/A	>= 8.4 dB	32.6 dB
3,6	DH	Pass	40.7 dB @ 99.75MHz	N/A	>= 8.4 dB	32.3 dB
5,4	DH	Pass	43.7 dB @ 74.00MHz	N/A	>= 13.7 dB	30.0 dB
1,2	DH	Pass	46.9 dB @ 83.75MHz	N/A	>= 11.6 dB	35.3 dB
7,8	RH	Pass	44.2 dB @ 99.50MHz	N/A	>= 8.4 dB	35.8 dB
3,6	RH	Pass	44.3 dB @ 99.50MHz	N/A	>= 8.4 dB	35.9 dB
5,4	RH	Pass	49.7 dB @ 83.75MHz	N/A	>= 11.6 dB	38.1 dB
1,2	RH	Pass	50.9 dB @ 93.50MHz	N/A	>= 9.6 dB	41.3 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	50.0 dB @ 46.50MHz	46.9 dB	>= 22.3 dB	27.7 dB
3,6	DH	Pass	38.4 dB @ 77.25MHz	36.7 dB	>= 17.9 dB	20.5 dB
5,4	DH	Pass	59.4 dB @ 7.60MHz	42.0 dB	>= 38.0 dB	21.4 dB
1,2	DH	Pass	47.6 dB @ 45.50MHz	42.5 dB	>= 22.5 dB	25.1 dB
7,8	RH	Pass	50.2 dB @ 41.00MHz	45.4 dB	>= 23.4 dB	26.8 dB
3,6	RH	Pass	42.5 dB @ 92.50MHz	42.0 dB	>= 16.3 dB	26.2 dB
5,4	RH	Pass	62.9 dB @ 4.30MHz	38.7 dB	>= 42.9 dB	20.0 dB
1,2	RH	Pass	39.9 dB @ 81.00MHz	38.8 dB	>= 17.4 dB	22.5 dB

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

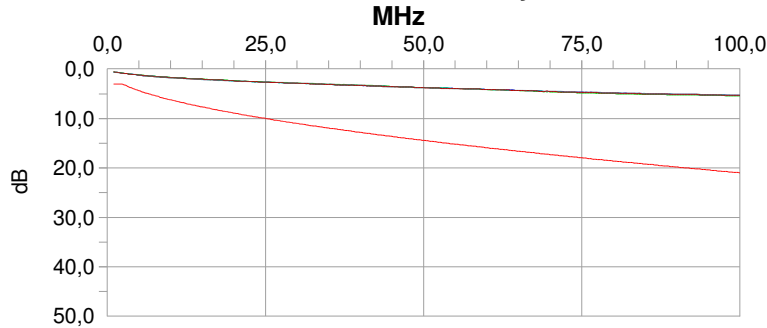
Cable ID 1: 8/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:05:42
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

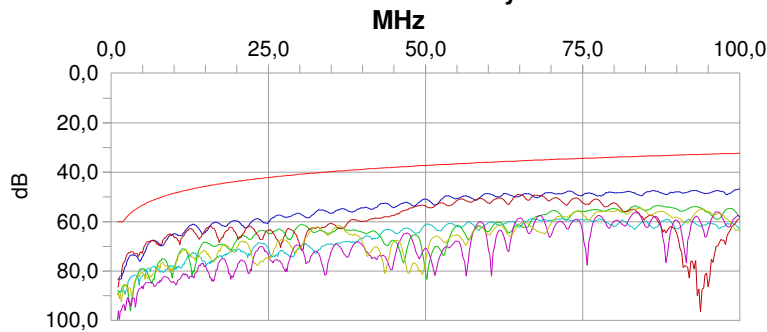
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

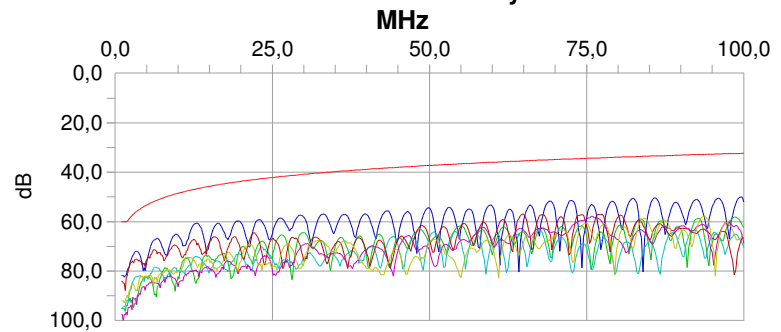
Attenuation Summary



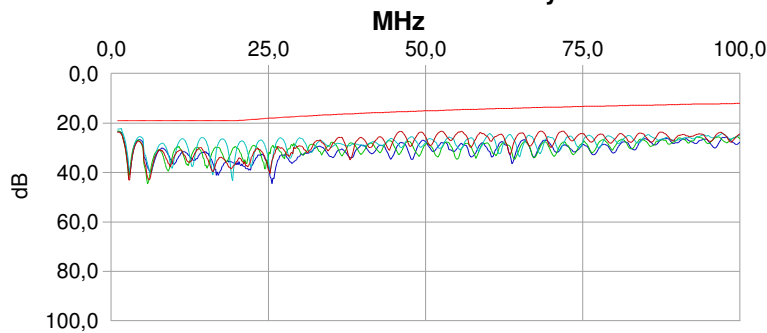
NEXT DH Summary



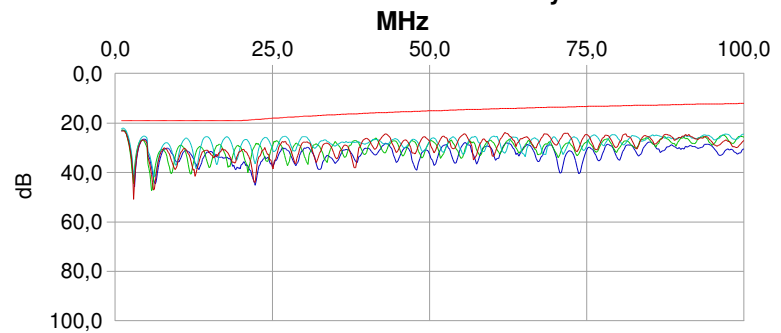
NEXT RH Summary



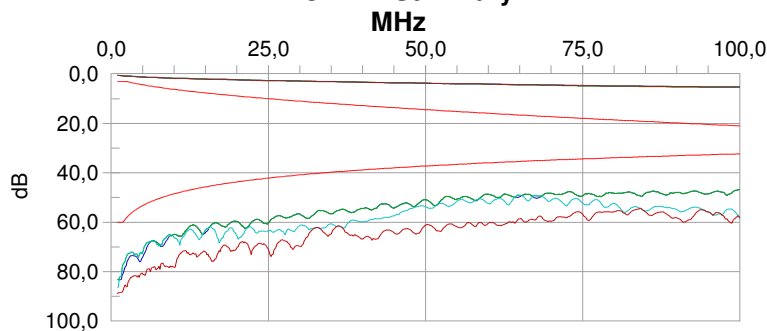
Return Loss DH Summary



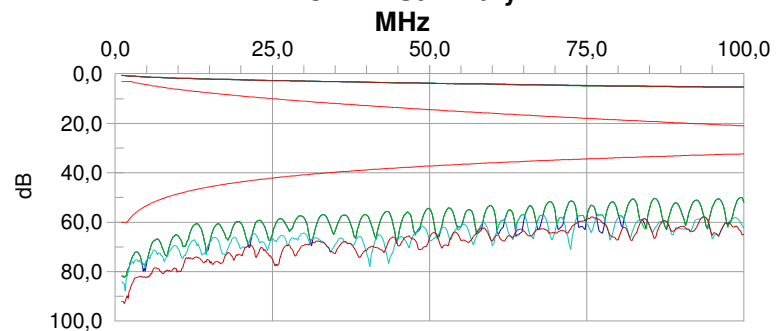
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

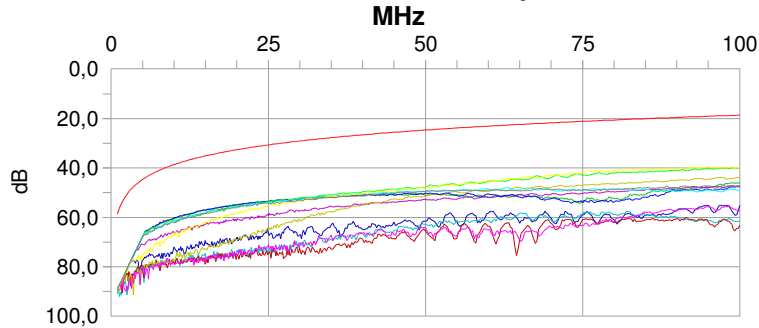
Cable ID 1: 8/7
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:05:42
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

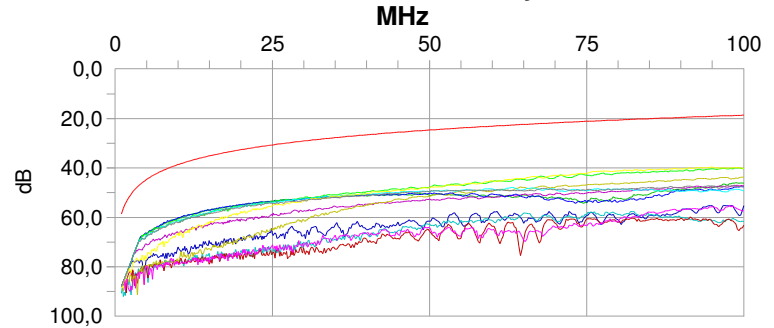
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

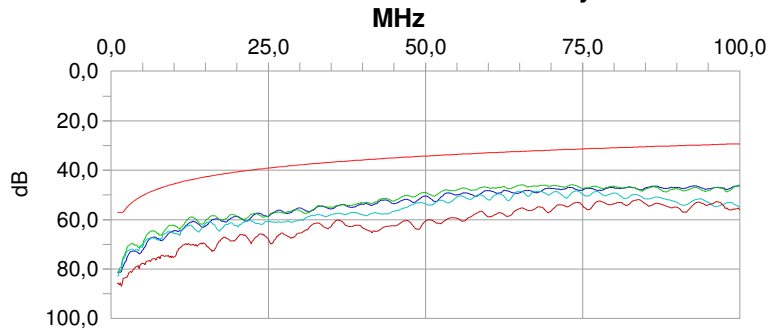
ELFEXT DH Summary



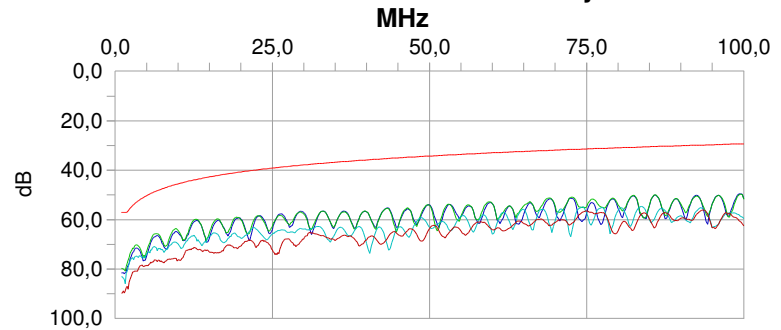
ELFEXT RH Summary



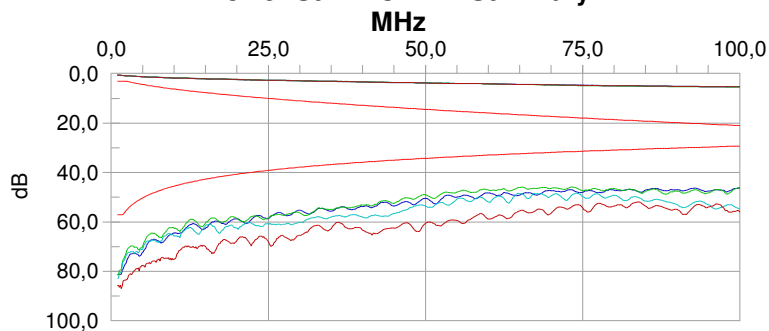
Power Sum NEXT DH Summary



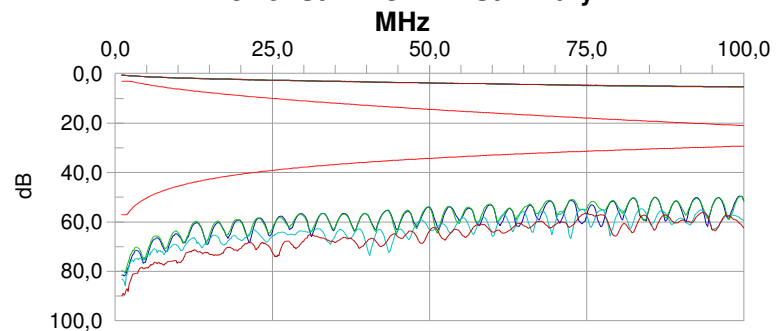
Power Sum NEXT RH Summary



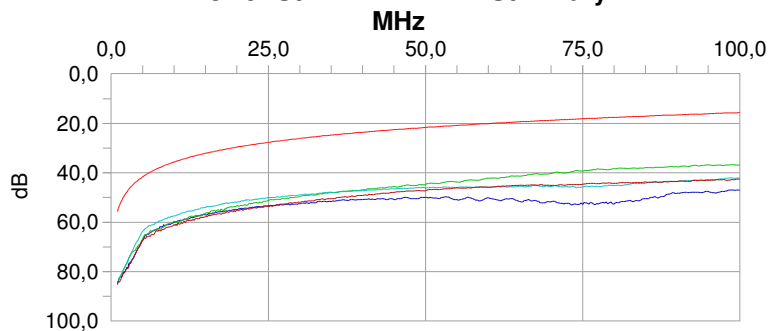
Power Sum ACR DH Summary



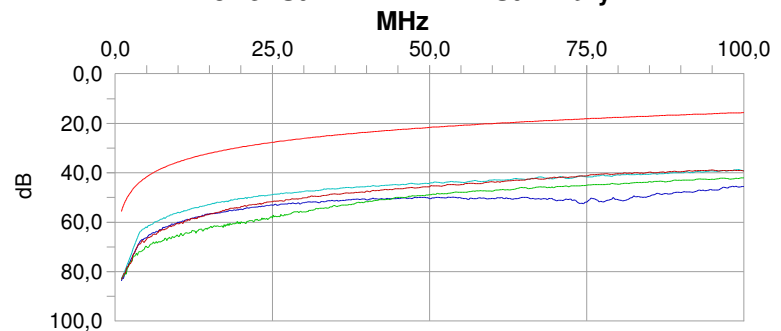
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

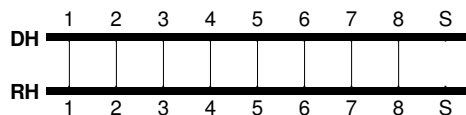
Cable ID 1: 8/8
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:06:17
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

Wiremap



PASS

Pairs (NVP)

Test	7,8(0.72)	3,6(0.72)	5,4(0.72)	1,2(0.72)	Limit	Result
Length	31.7m	33.2m	32.8m	32.1m	< 90.0m	Pass
Prop. Delay	168.3ns	175.2ns	174.2ns	168.7ns	< 498.0ns	Pass
Delay Skew	6.9ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	30.7 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	50.5 dB @ 56.50MHz	48.2 dB	> 36.4 dB	14.1 dB
7,8-5,4	DH	Pass	66.0 dB @ 29.65MHz	58.2 dB	> 40.9 dB	25.1 dB
7,8-1,2	DH	Pass	82.6 dB @ 2.95MHz	63.3 dB	> 56.9 dB	25.7 dB
3,6-5,4	DH	Pass	49.5 dB @ 64.75MHz	49.5 dB	> 35.4 dB	14.1 dB
3,6-1,2	DH	Pass	52.3 dB @ 86.75MHz	52.3 dB	> 33.3 dB	19.0 dB
5,4-1,2	DH	Pass	57.0 dB @ 53.25MHz	55.1 dB	> 36.8 dB	20.2 dB
7,8-3,6	RH	Pass	67.0 dB @ 9.40MHz	51.6 dB	> 48.9 dB	18.1 dB
7,8-5,4	RH	Pass	59.7 dB @ 68.00MHz	59.5 dB	> 35.1 dB	24.6 dB
7,8-1,2	RH	Pass	65.7 dB @ 48.25MHz	63.7 dB	> 37.5 dB	28.2 dB
3,6-5,4	RH	Pass	75.0 dB @ 2.80MHz	56.8 dB	> 57.2 dB	17.8 dB
3,6-1,2	RH	Pass	59.2 dB @ 73.25MHz	59.2 dB	> 34.5 dB	24.7 dB
5,4-1,2	RH	Pass	72.0 dB @ 8.95MHz	58.0 dB	> 49.3 dB	22.7 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.1 dB @ 1.15MHz	23.1 dB	> 19.0 dB	4.1 dB
3,6	DH	Pass	23.0 dB @ 1.15MHz	23.0 dB	> 19.0 dB	4.0 dB
5,4	DH	Pass	22.0 dB @ 1.60MHz	22.0 dB	> 19.0 dB	3.0 dB
1,2	DH	Pass	23.5 dB @ 1.15MHz	21.6 dB	> 19.0 dB	4.5 dB
7,8	RH	Pass	22.8 dB @ 1.30MHz	22.8 dB	> 19.0 dB	3.8 dB
3,6	RH	Pass	22.7 dB @ 1.15MHz	22.7 dB	> 19.0 dB	3.7 dB
5,4	RH	Pass	21.9 dB @ 1.30MHz	21.9 dB	> 19.0 dB	2.9 dB
1,2	RH	Pass	23.1 dB @ 1.15MHz	23.1 dB	> 19.0 dB	4.1 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.8 dB @ 2.50MHz	5.3 dB	< 3.1 dB	2.3 dB
3,6	Pass	0.8 dB @ 2.50MHz	5.4 dB	< 3.1 dB	2.3 dB
5,4	Pass	0.8 dB @ 2.50MHz	5.3 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.8 dB @ 2.50MHz	5.3 dB	< 3.1 dB	2.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	42.9 dB @ 100.00MHz	N/A	>= 11.3 dB	31.6 dB
3,6	DH	Pass	42.8 dB @ 100.00MHz	N/A	>= 11.3 dB	31.5 dB
5,4	DH	Pass	45.2 dB @ 64.75MHz	N/A	>= 18.8 dB	26.4 dB
1,2	DH	Pass	47.2 dB @ 95.75MHz	N/A	>= 12.1 dB	35.1 dB
7,8	RH	Pass	46.3 dB @ 98.50MHz	N/A	>= 11.6 dB	34.7 dB
3,6	RH	Pass	46.2 dB @ 98.50MHz	N/A	>= 11.6 dB	34.6 dB
5,4	RH	Pass	52.3 dB @ 71.00MHz	N/A	>= 17.3 dB	35.0 dB
1,2	RH	Pass	53.2 dB @ 78.75MHz	N/A	>= 15.6 dB	37.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

Cable ID 1: 8/8
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:06:17
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:
ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8-3,6	DH	Pass	50.0 dB @ 85.00MHz	49.5 dB	> 20.0 dB	30.0 dB
7,8-5,4	DH	Pass	63.6 dB @ 6.55MHz	44.4 dB	> 42.3 dB	21.3 dB
7,8-1,2	DH	Pass	56.4 dB @ 18.25MHz	43.1 dB	> 33.4 dB	23.0 dB
3,6-7,8	DH	Pass	52.2 dB @ 90.25MHz	52.1 dB	> 19.5 dB	32.7 dB
3,6-5,4	DH	Pass	67.7 dB @ 11.50MHz	50.2 dB	> 37.4 dB	30.3 dB
3,6-1,2	DH	Pass	42.2 dB @ 97.00MHz	42.0 dB	> 18.9 dB	23.3 dB
5,4-7,8	DH	Pass	62.5 dB @ 7.60MHz	45.6 dB	> 41.0 dB	21.5 dB
5,4-3,6	DH	Pass	41.4 dB @ 99.25MHz	41.4 dB	> 18.7 dB	22.7 dB
5,4-1,2	DH	Pass	57.5 dB @ 9.85MHz	45.2 dB	> 38.7 dB	18.8 dB
1,2-7,8	DH	Pass	67.2 dB @ 5.20MHz	43.8 dB	> 44.3 dB	22.9 dB
1,2-3,6	DH	Pass	39.3 dB @ 81.00MHz	38.3 dB	> 20.4 dB	18.9 dB
1,2-5,4	DH	Pass	58.4 dB @ 8.95MHz	45.5 dB	> 39.6 dB	18.8 dB
7,8-3,6	RH	Pass	50.1 dB @ 85.00MHz	49.6 dB	> 20.0 dB	30.1 dB
7,8-5,4	RH	Pass	67.6 dB @ 4.15MHz	44.4 dB	> 46.3 dB	21.3 dB
7,8-1,2	RH	Pass	56.5 dB @ 18.25MHz	43.1 dB	> 33.4 dB	23.1 dB
3,6-7,8	RH	Pass	52.1 dB @ 90.25MHz	52.0 dB	> 19.5 dB	32.6 dB
3,6-5,4	RH	Pass	67.8 dB @ 11.50MHz	50.1 dB	> 37.4 dB	30.4 dB
3,6-1,2	RH	Pass	42.1 dB @ 97.00MHz	41.9 dB	> 18.9 dB	23.2 dB
5,4-7,8	RH	Pass	66.3 dB @ 4.75MHz	45.6 dB	> 45.1 dB	21.2 dB
5,4-3,6	RH	Pass	41.5 dB @ 99.25MHz	41.5 dB	> 18.7 dB	22.8 dB
5,4-1,2	RH	Pass	57.5 dB @ 9.85MHz	45.3 dB	> 38.7 dB	18.8 dB
1,2-7,8	RH	Pass	67.2 dB @ 5.20MHz	43.7 dB	> 44.3 dB	22.9 dB
1,2-3,6	RH	Pass	40.3 dB @ 73.75MHz	38.3 dB	> 21.3 dB	19.0 dB
1,2-5,4	RH	Pass	64.0 dB @ 4.60MHz	45.4 dB	> 45.4 dB	18.6 dB

Power Sum NEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	50.3 dB @ 56.50MHz	47.9 dB	> 33.4 dB	16.9 dB
3,6	DH	Pass	47.1 dB @ 61.25MHz	46.4 dB	> 32.8 dB	14.3 dB
5,4	DH	Pass	48.8 dB @ 64.75MHz	48.8 dB	> 32.4 dB	16.4 dB
1,2	DH	Pass	51.7 dB @ 77.50MHz	51.6 dB	> 31.1 dB	20.6 dB
7,8	RH	Pass	75.3 dB @ 2.65MHz	51.2 dB	> 54.6 dB	20.7 dB
3,6	RH	Pass	72.8 dB @ 2.65MHz	51.5 dB	> 54.6 dB	18.2 dB
5,4	RH	Pass	73.6 dB @ 2.80MHz	54.1 dB	> 54.2 dB	19.4 dB
1,2	RH	Pass	71.3 dB @ 8.95MHz	56.8 dB	> 46.3 dB	25.0 dB

Power Sum ACR: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	42.6 dB @ 99.25MHz	N/A	>= 8.5 dB	34.1 dB
3,6	DH	Pass	41.5 dB @ 99.25MHz	N/A	>= 8.5 dB	33.0 dB
5,4	DH	Pass	44.5 dB @ 64.75MHz	N/A	>= 15.8 dB	28.7 dB
1,2	DH	Pass	46.6 dB @ 86.75MHz	N/A	>= 10.9 dB	35.7 dB
7,8	RH	Pass	45.9 dB @ 98.50MHz	N/A	>= 8.6 dB	37.3 dB
3,6	RH	Pass	46.1 dB @ 98.50MHz	N/A	>= 8.6 dB	37.5 dB
5,4	RH	Pass	49.7 dB @ 68.25MHz	N/A	>= 15.0 dB	34.7 dB
1,2	RH	Pass	51.9 dB @ 82.50MHz	N/A	>= 11.8 dB	40.1 dB

Power Sum ELFEXT: PASS

<u>Pairs</u>	<u>DH/RH</u>	<u>Result</u>	<u>Worst Margin</u>	<u>Worst dB</u>	<u>Limit</u>	<u>Margin</u>
7,8	DH	Pass	48.5 dB @ 35.25MHz	41.3 dB	>= 24.7 dB	23.8 dB
3,6	DH	Pass	37.3 dB @ 85.00MHz	36.4 dB	>= 17.0 dB	20.3 dB
5,4	DH	Pass	54.2 dB @ 12.25MHz	42.8 dB	>= 33.9 dB	20.3 dB
1,2	DH	Pass	53.7 dB @ 13.15MHz	39.3 dB	>= 33.2 dB	20.5 dB
7,8	RH	Pass	52.8 dB @ 18.25MHz	40.2 dB	>= 30.4 dB	22.4 dB
3,6	RH	Pass	41.8 dB @ 90.75MHz	41.0 dB	>= 16.5 dB	25.3 dB
5,4	RH	Pass	57.7 dB @ 7.45MHz	39.8 dB	>= 38.2 dB	19.5 dB
1,2	RH	Pass	45.4 dB @ 31.00MHz	37.1 dB	>= 25.8 dB	19.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

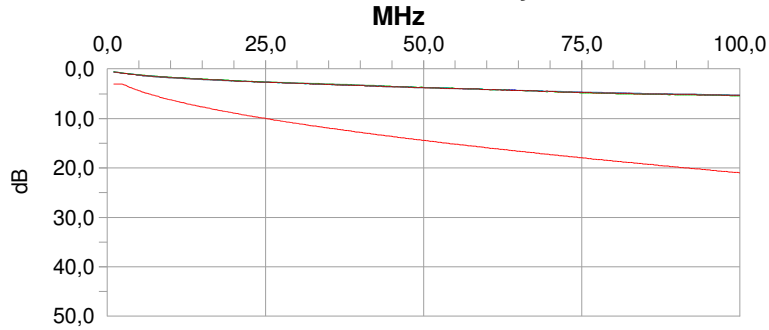
Cable ID 1: 8/8
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:06:17
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

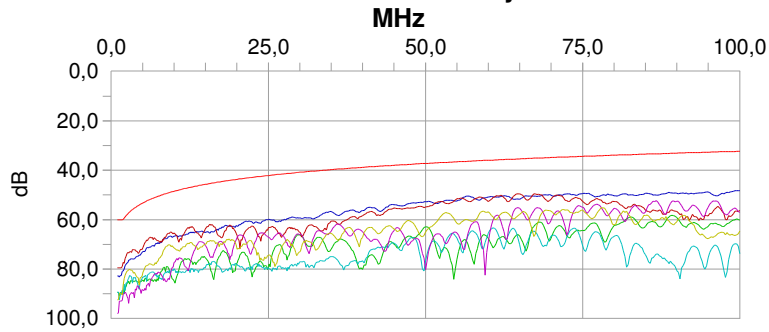
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

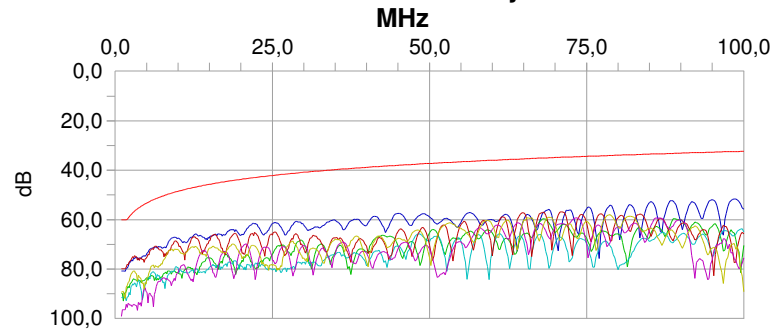
Attenuation Summary



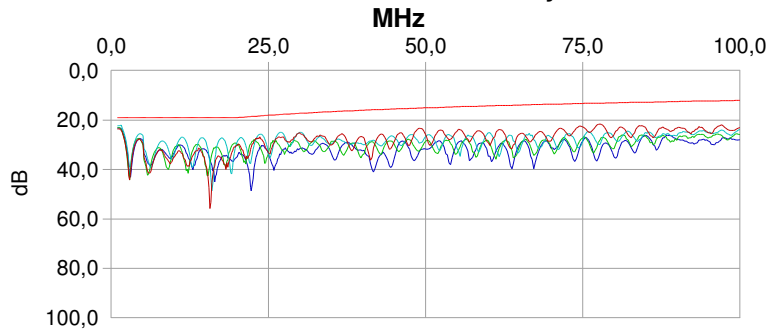
NEXT DH Summary



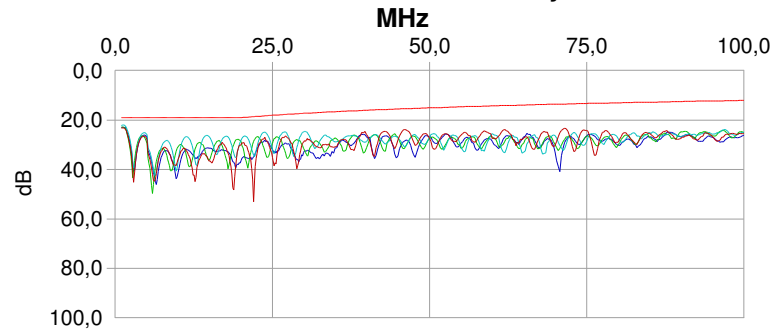
NEXT RH Summary



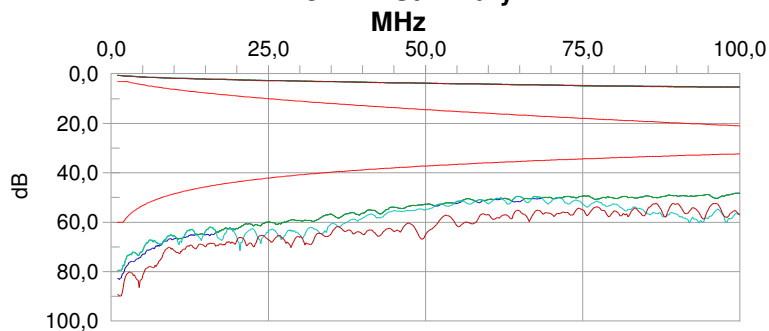
Return Loss DH Summary



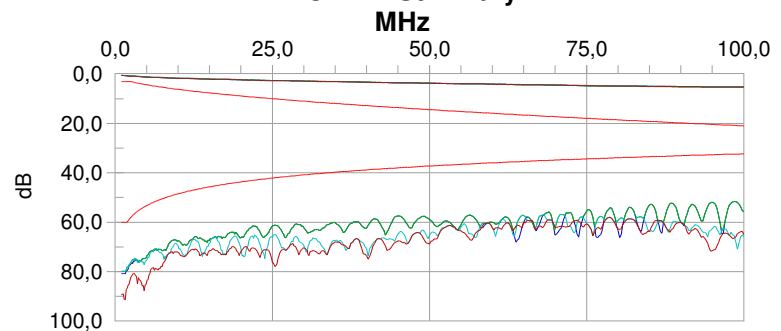
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT SP.Z.O.O.
Customer:

Report Date: 2017-12-04
S/W Version: 3.274

PASS

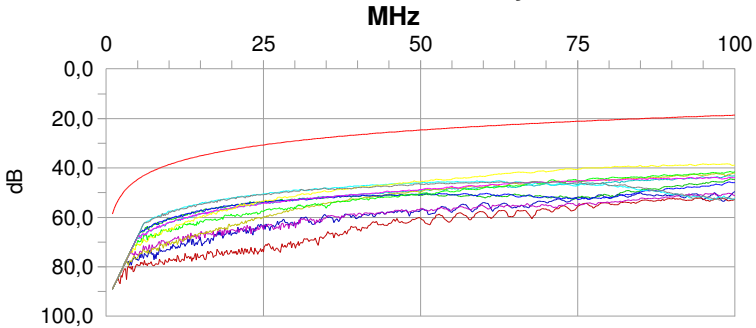
Cable ID 1: 8/8
Cable ID 2:
Test Date: 2017-11-30
Test Time: 20:06:17
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 20.0° C

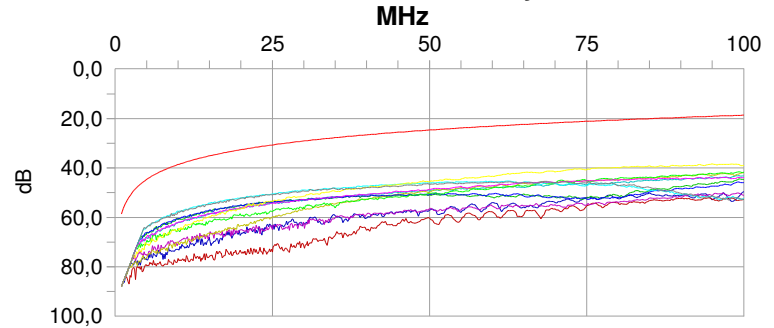
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT SP.Z.O.O.
Company: ASSET

Notes:

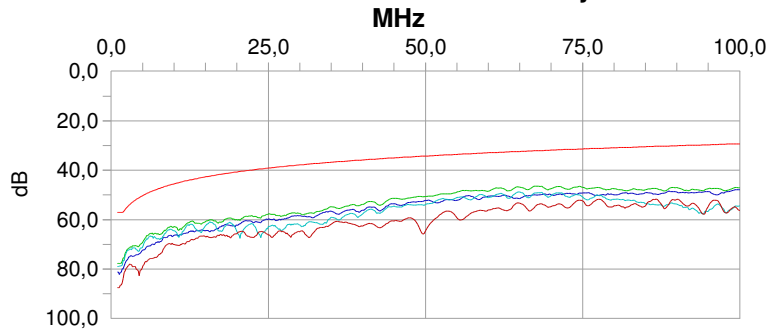
ELFEXT DH Summary



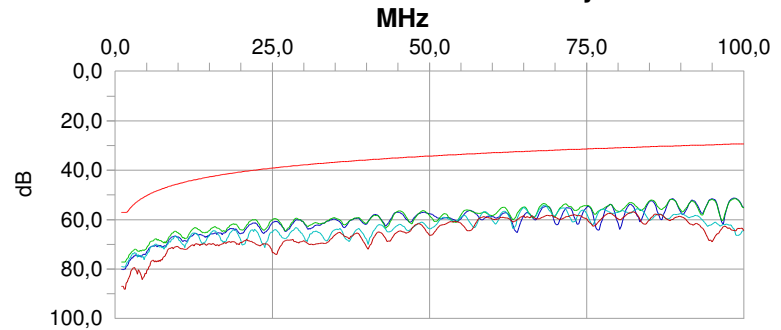
ELFEXT RH Summary



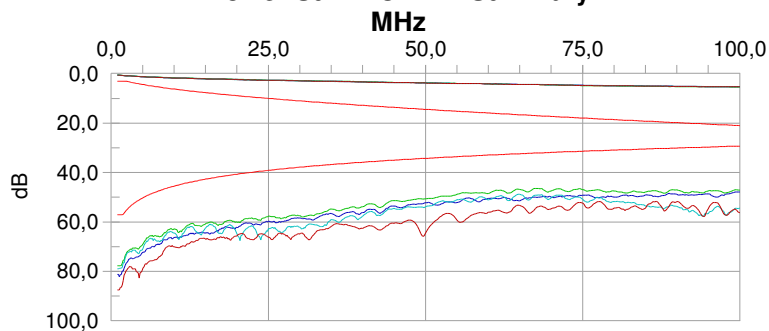
Power Sum NEXT DH Summary



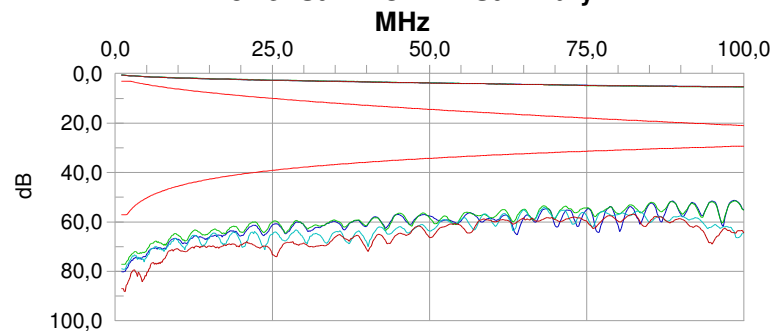
Power Sum NEXT RH Summary



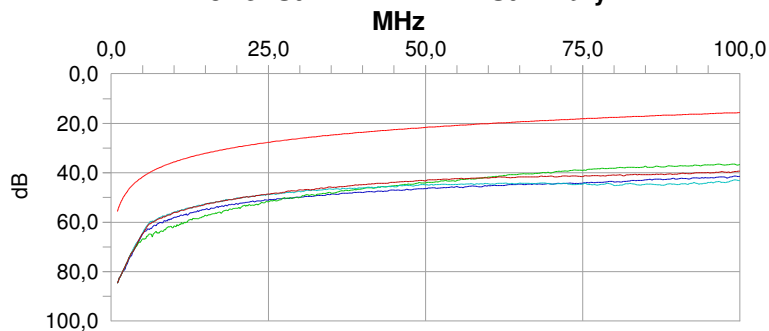
Power Sum ACR DH Summary



Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary

