

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

Summary:

All Cables

Total: 24
Pass: 24
Fail: 0

Twisted Pair

Total: 24
Pass: 24
Fail: 0
Tot. Length: 1923.9ft.

Coax/Twinax

Total: 0
Pass: 0
Fail: 0
Tot. Length: 0.0ft.

Fiber

Total: 0
Pass: 0
Fail: 0
Tot. Length: 0.0ft.

Custom

Total: 0
Pass: 0
Fail: 0
Tot. Length: 0.0ft.

PASS

Cable ID 1: 6/1
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:07:52
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	48.9ft.	50.5ft.	50.2ft.	50.2ft.	< 295.3ft.	Pass
Prop. Delay	88.7ns	90.9ns	90.5ns	88.7ns	< 498.0ns	Pass
Delay Skew	2.2ns (Pairs 3,6 vs. 1,2)				< 44.0 ns	Pass
Headroom	22.4 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	47.4 dB @ 51.75MHz	45.6 dB	> 37.0 dB	10.4 dB
7,8-5,4	DH	Pass	57.4 dB @ 67.75MHz	55.0 dB	> 35.1 dB	22.3 dB
7,8-1,2	DH	Pass	57.6 dB @ 50.00MHz	56.0 dB	> 37.2 dB	20.4 dB
3,6-5,4	DH	Pass	55.3 dB @ 17.35MHz	45.5 dB	> 44.7 dB	10.6 dB
3,6-1,2	DH	Pass	55.6 dB @ 44.75MHz	51.9 dB	> 38.0 dB	17.6 dB
5,4-1,2	DH	Pass	52.3 dB @ 81.00MHz	52.3 dB	> 33.8 dB	18.5 dB
7,8-3,6	RH	Pass	43.8 dB @ 52.00MHz	41.3 dB	> 37.0 dB	6.8 dB
7,8-5,4	RH	Pass	59.7 dB @ 45.00MHz	55.6 dB	> 38.0 dB	21.7 dB
7,8-1,2	RH	Pass	57.6 dB @ 49.75MHz	54.2 dB	> 37.3 dB	20.3 dB
3,6-5,4	RH	Pass	57.0 dB @ 17.65MHz	47.5 dB	> 44.5 dB	12.5 dB
3,6-1,2	RH	Pass	52.1 dB @ 79.25MHz	52.1 dB	> 34.0 dB	18.1 dB
5,4-1,2	RH	Pass	62.2 dB @ 16.60MHz	51.5 dB	> 45.0 dB	17.2 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.9 dB @ 1.60MHz	22.2 dB	> 19.0 dB	5.9 dB
3,6	DH	Pass	25.8 dB @ 1.60MHz	25.2 dB	> 19.0 dB	6.8 dB
5,4	DH	Pass	25.7 dB @ 1.60MHz	22.0 dB	> 19.0 dB	6.7 dB
1,2	DH	Pass	25.7 dB @ 1.60MHz	20.2 dB	> 19.0 dB	6.7 dB
7,8	RH	Pass	24.7 dB @ 1.60MHz	22.6 dB	> 19.0 dB	5.7 dB
3,6	RH	Pass	25.7 dB @ 1.60MHz	25.5 dB	> 19.0 dB	6.7 dB
5,4	RH	Pass	23.9 dB @ 34.50MHz	21.1 dB	> 16.6 dB	7.3 dB
1,2	RH	Pass	21.5 dB @ 46.75MHz	19.8 dB	> 15.3 dB	6.2 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.4 dB @ 2.50MHz	3.2 dB	< 3.1 dB	2.7 dB
3,6	Pass	0.4 dB @ 2.50MHz	3.0 dB	< 3.1 dB	2.7 dB
5,4	Pass	0.5 dB @ 2.50MHz	3.0 dB	< 3.1 dB	2.6 dB
1,2	Pass	0.5 dB @ 2.50MHz	3.0 dB	< 3.1 dB	2.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 6/1
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:07:52
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	43.0 dB @ 75.25MHz	N/A	>= 16.3 dB	26.7 dB
3,6	DH	Pass	42.7 dB @ 87.25MHz	N/A	>= 13.8 dB	28.9 dB
5,4	DH	Pass	42.6 dB @ 87.25MHz	N/A	>= 13.8 dB	28.8 dB
1,2	DH	Pass	49.1 dB @ 86.25MHz	N/A	>= 14.1 dB	35.0 dB
7,8	RH	Pass	38.2 dB @ 99.25MHz	N/A	>= 11.5 dB	26.7 dB
3,6	RH	Pass	38.4 dB @ 99.25MHz	N/A	>= 11.5 dB	26.9 dB
5,4	RH	Pass	44.6 dB @ 86.50MHz	N/A	>= 13.9 dB	30.7 dB
1,2	RH	Pass	48.5 dB @ 93.00MHz	N/A	>= 12.6 dB	35.9 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	38.7 dB @ 52.50MHz	34.9 dB	> 24.2 dB	14.5 dB
7,8-5,4	DH	Pass	59.8 dB @ 13.00MHz	44.4 dB	> 36.3 dB	23.5 dB
7,8-1,2	DH	Pass	59.0 dB @ 90.75MHz	59.0 dB	> 19.5 dB	39.5 dB
3,6-7,8	DH	Pass	43.8 dB @ 52.25MHz	40.7 dB	> 24.3 dB	19.5 dB
3,6-5,4	DH	Pass	67.5 dB @ 5.05MHz	45.0 dB	> 44.5 dB	23.0 dB
3,6-1,2	DH	Pass	52.8 dB @ 62.00MHz	51.2 dB	> 22.8 dB	30.0 dB
5,4-7,8	DH	Pass	59.5 dB @ 13.00MHz	44.5 dB	> 36.3 dB	23.2 dB
5,4-3,6	DH	Pass	61.8 dB @ 6.25MHz	40.0 dB	> 42.7 dB	19.1 dB
5,4-1,2	DH	Pass	67.3 dB @ 6.55MHz	46.3 dB	> 42.3 dB	25.0 dB
1,2-7,8	DH	Pass	56.5 dB @ 90.50MHz	56.3 dB	> 19.5 dB	37.0 dB
1,2-3,6	DH	Pass	52.8 dB @ 46.00MHz	47.7 dB	> 25.4 dB	27.4 dB
1,2-5,4	DH	Pass	51.4 dB @ 41.00MHz	45.4 dB	> 26.4 dB	25.0 dB
7,8-3,6	RH	Pass	38.7 dB @ 52.25MHz	34.8 dB	> 24.3 dB	14.4 dB
7,8-5,4	RH	Pass	59.8 dB @ 13.00MHz	44.4 dB	> 36.3 dB	23.5 dB
7,8-1,2	RH	Pass	59.0 dB @ 90.75MHz	59.0 dB	> 19.5 dB	39.5 dB
3,6-7,8	RH	Pass	65.0 dB @ 4.60MHz	40.8 dB	> 45.4 dB	19.6 dB
3,6-5,4	RH	Pass	69.1 dB @ 4.00MHz	45.0 dB	> 46.6 dB	22.5 dB
3,6-1,2	RH	Pass	52.9 dB @ 62.00MHz	51.3 dB	> 22.8 dB	30.1 dB
5,4-7,8	RH	Pass	68.8 dB @ 4.45MHz	44.8 dB	> 45.6 dB	23.2 dB
5,4-3,6	RH	Pass	63.7 dB @ 4.75MHz	40.0 dB	> 45.1 dB	18.6 dB
5,4-1,2	RH	Pass	57.1 dB @ 21.25MHz	46.3 dB	> 32.1 dB	25.0 dB
1,2-7,8	RH	Pass	56.5 dB @ 90.50MHz	56.3 dB	> 19.5 dB	37.0 dB
1,2-3,6	RH	Pass	52.7 dB @ 46.00MHz	47.6 dB	> 25.4 dB	27.3 dB
1,2-5,4	RH	Pass	51.4 dB @ 41.00MHz	45.4 dB	> 26.4 dB	25.0 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	47.0 dB @ 50.75MHz	45.3 dB	> 34.1 dB	12.9 dB
3,6	DH	Pass	53.6 dB @ 17.35MHz	43.5 dB	> 41.7 dB	11.9 dB
5,4	DH	Pass	54.6 dB @ 17.35MHz	44.8 dB	> 41.7 dB	12.9 dB
1,2	DH	Pass	53.6 dB @ 44.25MHz	49.9 dB	> 35.1 dB	18.5 dB
7,8	RH	Pass	43.5 dB @ 52.00MHz	40.9 dB	> 34.0 dB	9.5 dB
3,6	RH	Pass	43.3 dB @ 52.00MHz	40.5 dB	> 34.0 dB	9.3 dB
5,4	RH	Pass	55.7 dB @ 17.65MHz	46.7 dB	> 41.5 dB	14.2 dB
1,2	RH	Pass	59.7 dB @ 16.60MHz	49.0 dB	> 42.0 dB	17.7 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	42.6 dB @ 100.00MHz	N/A	>= 8.3 dB	34.3 dB
3,6	DH	Pass	40.8 dB @ 79.00MHz	N/A	>= 12.6 dB	28.2 dB
5,4	DH	Pass	41.9 dB @ 87.25MHz	N/A	>= 10.8 dB	31.1 dB
1,2	DH	Pass	47.1 dB @ 80.00MHz	N/A	>= 12.3 dB	34.8 dB
7,8	RH	Pass	37.8 dB @ 99.25MHz	N/A	>= 8.5 dB	29.3 dB
3,6	RH	Pass	37.7 dB @ 93.00MHz	N/A	>= 9.6 dB	28.1 dB
5,4	RH	Pass	43.8 dB @ 86.50MHz	N/A	>= 10.9 dB	32.9 dB
1,2	RH	Pass	46.0 dB @ 93.00MHz	N/A	>= 9.6 dB	36.4 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	42.5 dB @ 51.50MHz	39.2 dB	>= 21.4 dB	21.1 dB
3,6	DH	Pass	37.6 dB @ 52.50MHz	33.6 dB	>= 21.2 dB	16.4 dB
5,4	DH	Pass	61.8 dB @ 6.40MHz	40.3 dB	>= 39.5 dB	22.3 dB
1,2	DH	Pass	49.8 dB @ 46.00MHz	45.4 dB	>= 22.4 dB	27.4 dB
7,8	RH	Pass	35.6 dB @ 78.00MHz	34.4 dB	>= 17.8 dB	17.8 dB
3,6	RH	Pass	54.3 dB @ 13.45MHz	39.3 dB	>= 33.0 dB	21.3 dB
5,4	RH	Pass	59.8 dB @ 6.25MHz	38.1 dB	>= 39.7 dB	20.1 dB

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

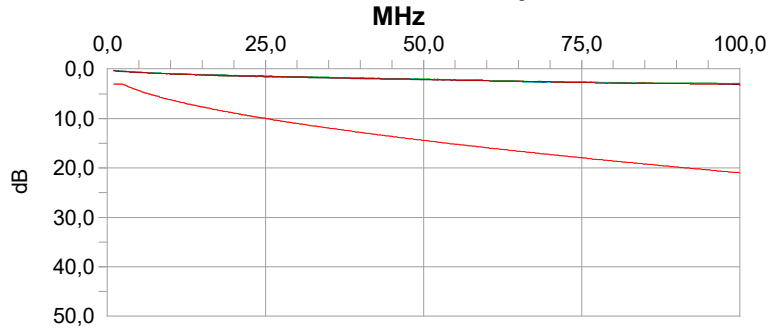
Cable ID 1: 6/1
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:07:52
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

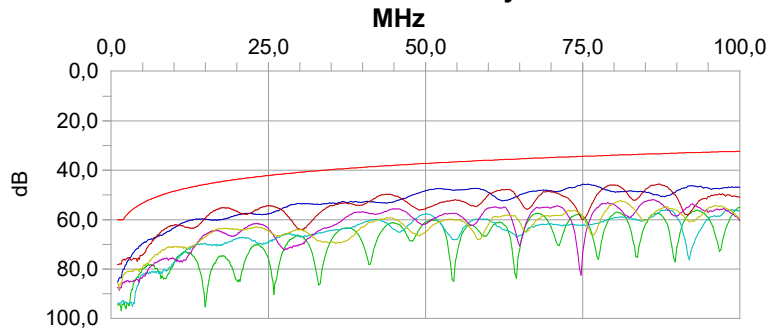
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

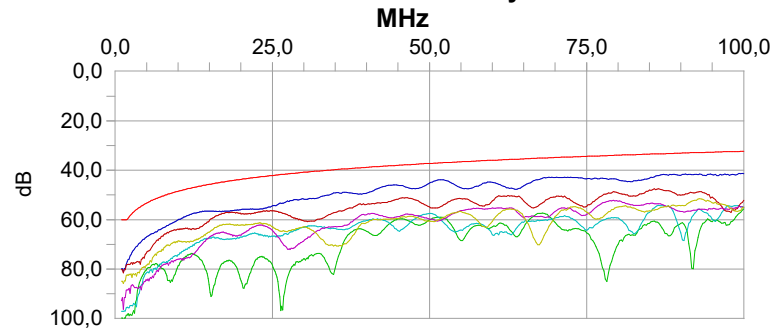
Attenuation Summary



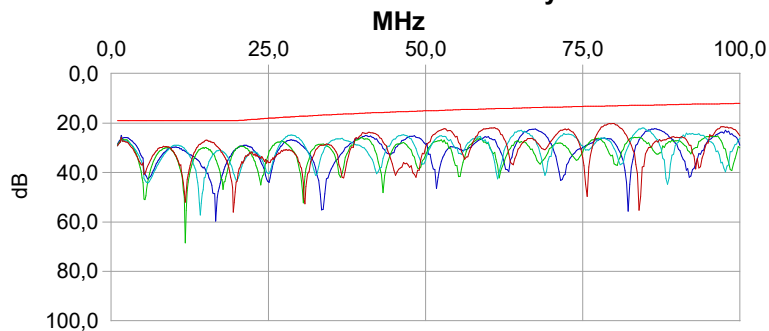
NEXT DH Summary



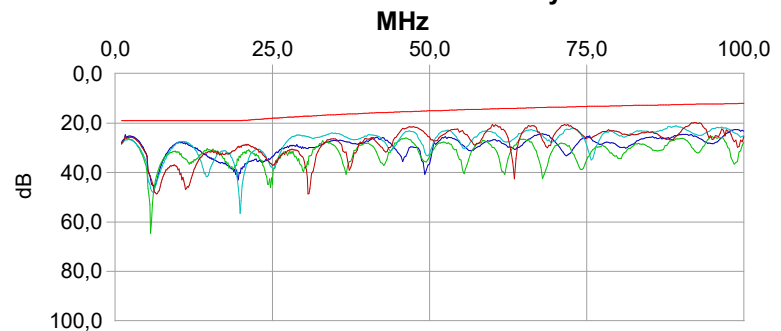
NEXT RH Summary



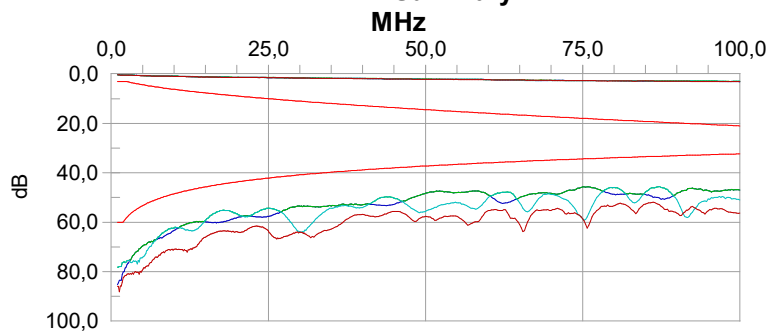
Return Loss DH Summary



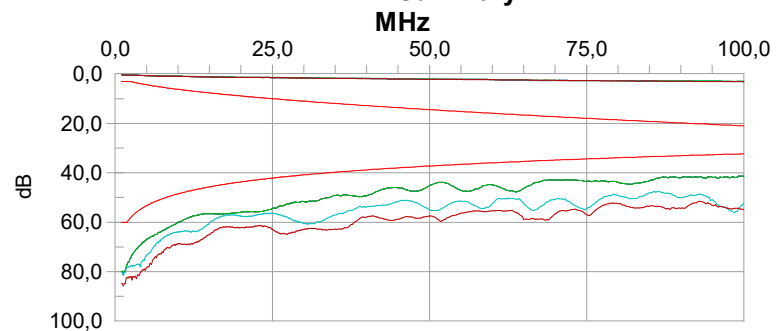
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



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PASS

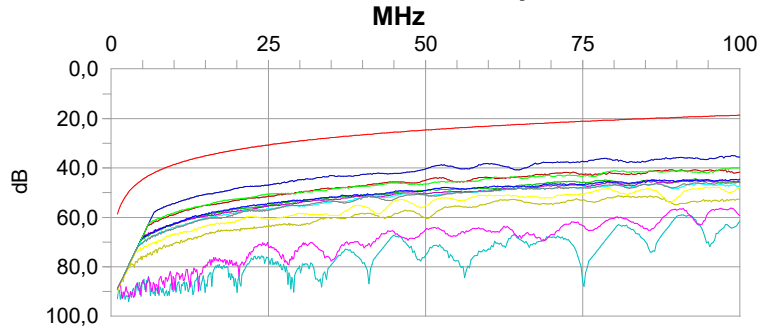
Cable ID 1: 6/1
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:07:52
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

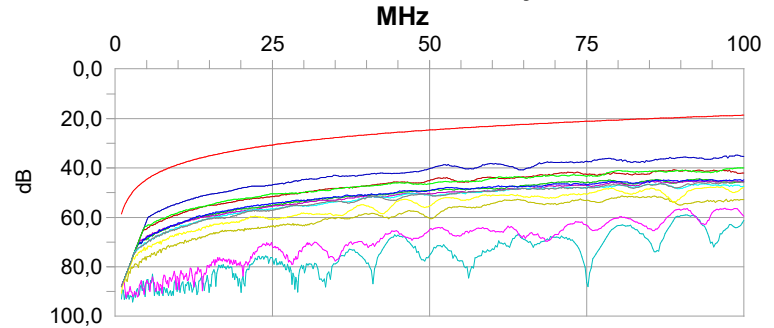
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

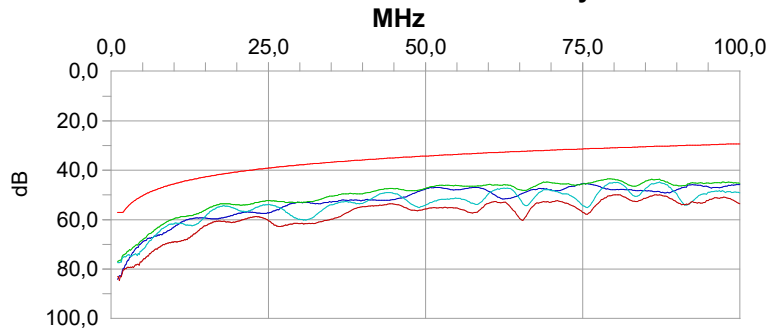
ELFEXT DH Summary



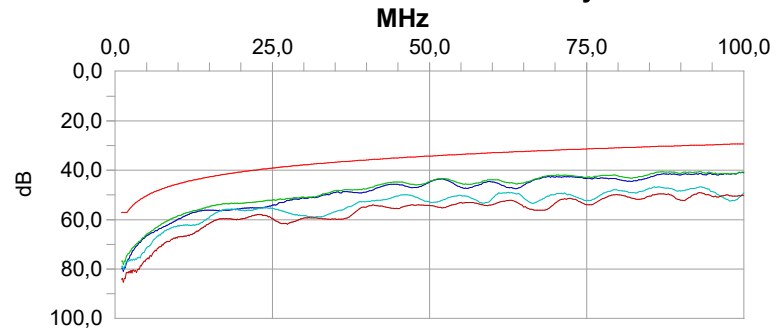
ELFEXT RH Summary



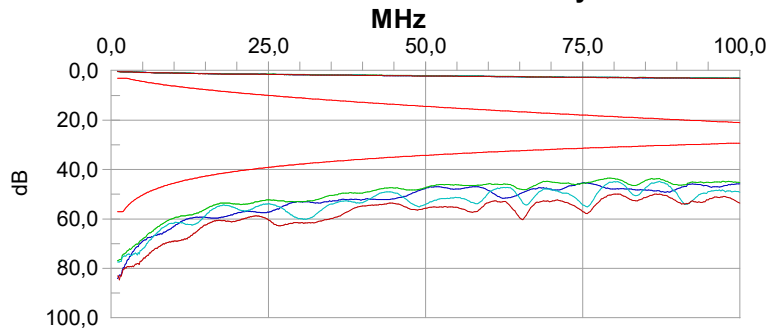
Power Sum NEXT DH Summary



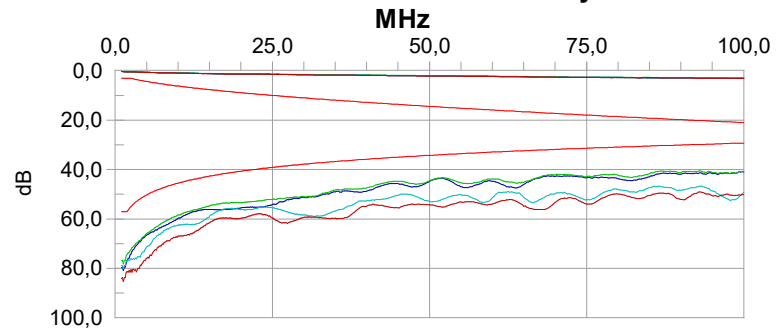
Power Sum NEXT RH Summary



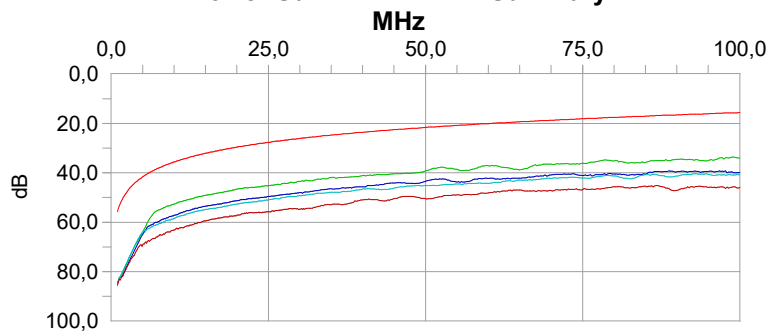
Power Sum ACR DH Summary



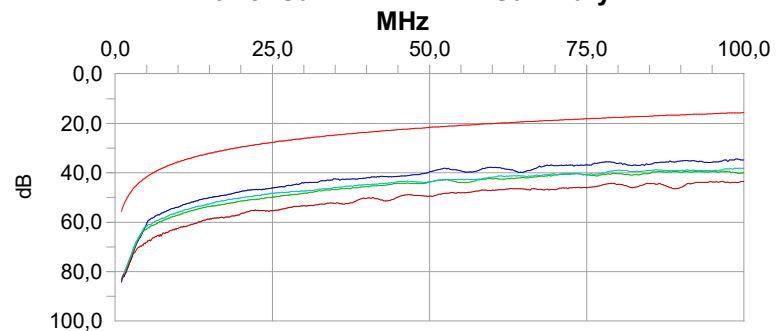
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



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PASS

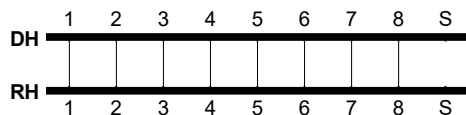
Cable ID 1: 6/3
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:32:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	37.1ft.	38.7ft.	38.4ft.	38.1ft.	< 295.3ft.	Pass
Prop. Delay	71.5ns	74.0ns	73.7ns	71.3ns	< 498.0ns	Pass
Delay Skew	2.7ns (Pairs 3,6 vs. 1,2)				< 44.0 ns	Pass
Headroom	31.2 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	59.9 dB @ 78.75MHz	59.4 dB	> 34.0 dB	25.9 dB
7,8-5,4	DH	Pass	58.6 dB @ 69.75MHz	58.1 dB	> 34.9 dB	23.7 dB
7,8-1,2	DH	Pass	65.3 dB @ 69.50MHz	65.3 dB	> 34.9 dB	30.4 dB
3,6-5,4	DH	Pass	48.1 dB @ 70.75MHz	48.0 dB	> 34.8 dB	13.3 dB
3,6-1,2	DH	Pass	53.9 dB @ 76.50MHz	53.9 dB	> 34.2 dB	19.7 dB
5,4-1,2	DH	Pass	56.7 dB @ 77.50MHz	55.9 dB	> 34.1 dB	22.6 dB
7,8-3,6	RH	Pass	56.6 dB @ 63.50MHz	55.4 dB	> 35.5 dB	21.1 dB
7,8-5,4	RH	Pass	60.9 dB @ 55.50MHz	57.9 dB	> 36.5 dB	24.4 dB
7,8-1,2	RH	Pass	67.7 dB @ 49.00MHz	65.0 dB	> 37.4 dB	30.3 dB
3,6-5,4	RH	Pass	51.3 dB @ 70.50MHz	51.3 dB	> 34.8 dB	16.5 dB
3,6-1,2	RH	Pass	56.5 dB @ 77.00MHz	56.5 dB	> 34.2 dB	22.3 dB
5,4-1,2	RH	Pass	55.7 dB @ 78.00MHz	55.7 dB	> 34.1 dB	21.6 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	26.4 dB @ 1.60MHz	23.9 dB	> 19.0 dB	7.4 dB
3,6	DH	Pass	26.1 dB @ 18.40MHz	23.2 dB	> 19.0 dB	7.1 dB
5,4	DH	Pass	27.3 dB @ 1.60MHz	23.4 dB	> 19.0 dB	8.3 dB
1,2	DH	Pass	26.5 dB @ 1.60MHz	21.2 dB	> 19.0 dB	7.5 dB
7,8	RH	Pass	26.0 dB @ 3.10MHz	24.2 dB	> 19.0 dB	7.0 dB
3,6	RH	Pass	26.6 dB @ 18.85MHz	23.2 dB	> 19.0 dB	7.6 dB
5,4	RH	Pass	27.8 dB @ 2.50MHz	23.0 dB	> 19.0 dB	8.8 dB
1,2	RH	Pass	21.8 dB @ 52.75MHz	20.8 dB	> 14.8 dB	7.0 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.3 dB @ 2.50MHz	2.2 dB	< 3.1 dB	2.8 dB
3,6	Pass	0.3 dB @ 2.50MHz	2.1 dB	< 3.1 dB	2.8 dB
5,4	Pass	0.3 dB @ 2.50MHz	2.3 dB	< 3.1 dB	2.8 dB
1,2	Pass	0.4 dB @ 2.50MHz	2.3 dB	< 3.1 dB	2.7 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	55.9 dB @ 98.00MHz	N/A	>= 11.7 dB	44.2 dB
3,6	DH	Pass	46.1 dB @ 71.00MHz	N/A	>= 17.3 dB	28.8 dB
5,4	DH	Pass	46.0 dB @ 71.00MHz	N/A	>= 17.3 dB	28.7 dB
1,2	DH	Pass	51.8 dB @ 76.50MHz	N/A	>= 16.1 dB	35.7 dB
7,8	RH	Pass	53.3 dB @ 85.00MHz	N/A	>= 14.3 dB	39.0 dB
3,6	RH	Pass	49.4 dB @ 70.50MHz	N/A	>= 17.5 dB	31.9 dB
5,4	RH	Pass	49.3 dB @ 70.50MHz	N/A	>= 17.5 dB	31.8 dB
1,2	RH	Pass	53.6 dB @ 78.00MHz	N/A	>= 15.8 dB	37.8 dB

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Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 6/3
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:32:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	68.0 dB @ 20.05MHz	58.0 dB	> 32.6 dB	35.4 dB
7,8-5,4	DH	Pass	62.1 dB @ 7.75MHz	42.5 dB	> 40.8 dB	21.3 dB
7,8-1,2	DH	Pass	60.0 dB @ 98.50MHz	60.0 dB	> 18.7 dB	41.3 dB
3,6-7,8	DH	Pass	64.4 dB @ 59.00MHz	64.3 dB	> 23.2 dB	41.2 dB
3,6-5,4	DH	Pass	60.4 dB @ 6.70MHz	39.4 dB	> 42.1 dB	18.3 dB
3,6-1,2	DH	Pass	67.4 dB @ 5.20MHz	45.4 dB	> 44.3 dB	23.1 dB
5,4-7,8	DH	Pass	58.2 dB @ 11.65MHz	42.6 dB	> 37.3 dB	20.9 dB
5,4-3,6	DH	Pass	55.3 dB @ 7.45MHz	35.0 dB	> 41.2 dB	14.1 dB
5,4-1,2	DH	Pass	47.6 dB @ 68.75MHz	46.3 dB	> 21.9 dB	25.7 dB
1,2-7,8	DH	Pass	60.8 dB @ 99.00MHz	60.8 dB	> 18.7 dB	42.1 dB
1,2-3,6	DH	Pass	61.5 dB @ 6.55MHz	40.4 dB	> 42.3 dB	19.2 dB
1,2-5,4	DH	Pass	65.8 dB @ 8.95MHz	46.2 dB	> 39.6 dB	26.2 dB
7,8-3,6	RH	Pass	67.9 dB @ 20.05MHz	57.8 dB	> 32.6 dB	35.3 dB
7,8-5,4	RH	Pass	67.7 dB @ 4.15MHz	42.5 dB	> 46.3 dB	21.4 dB
7,8-1,2	RH	Pass	60.0 dB @ 98.50MHz	60.0 dB	> 18.7 dB	41.3 dB
3,6-7,8	RH	Pass	64.5 dB @ 59.00MHz	64.3 dB	> 23.2 dB	41.3 dB
3,6-5,4	RH	Pass	63.5 dB @ 4.75MHz	39.6 dB	> 45.1 dB	18.4 dB
3,6-1,2	RH	Pass	67.4 dB @ 5.20MHz	45.5 dB	> 44.3 dB	23.1 dB
5,4-7,8	RH	Pass	58.2 dB @ 11.65MHz	42.5 dB	> 37.3 dB	20.9 dB
5,4-3,6	RH	Pass	56.7 dB @ 6.10MHz	34.8 dB	> 42.9 dB	13.8 dB
5,4-1,2	RH	Pass	47.7 dB @ 68.75MHz	46.3 dB	> 21.9 dB	25.8 dB
1,2-7,8	RH	Pass	60.8 dB @ 99.00MHz	60.8 dB	> 18.7 dB	42.1 dB
1,2-3,6	RH	Pass	64.5 dB @ 4.60MHz	40.2 dB	> 45.4 dB	19.1 dB
1,2-5,4	RH	Pass	65.8 dB @ 8.95MHz	46.3 dB	> 39.6 dB	26.2 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	56.4 dB @ 70.00MHz	56.1 dB	> 31.8 dB	24.6 dB
3,6	DH	Pass	47.4 dB @ 70.75MHz	47.3 dB	> 31.8 dB	15.6 dB
5,4	DH	Pass	47.5 dB @ 70.75MHz	47.4 dB	> 31.8 dB	15.7 dB
1,2	DH	Pass	52.2 dB @ 77.00MHz	51.8 dB	> 31.2 dB	21.0 dB
7,8	RH	Pass	55.5 dB @ 63.25MHz	54.2 dB	> 32.6 dB	22.9 dB
3,6	RH	Pass	49.7 dB @ 70.50MHz	49.7 dB	> 31.8 dB	17.9 dB
5,4	RH	Pass	50.2 dB @ 70.50MHz	50.2 dB	> 31.8 dB	18.4 dB
1,2	RH	Pass	53.2 dB @ 77.75MHz	53.2 dB	> 31.1 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	54.0 dB @ 78.75MHz	N/A	>= 12.6 dB	41.4 dB
3,6	DH	Pass	45.4 dB @ 71.00MHz	N/A	>= 14.3 dB	31.1 dB
5,4	DH	Pass	45.4 dB @ 71.00MHz	N/A	>= 14.3 dB	31.1 dB
1,2	DH	Pass	49.6 dB @ 92.50MHz	N/A	>= 9.8 dB	39.8 dB
7,8	RH	Pass	52.1 dB @ 85.00MHz	N/A	>= 11.3 dB	40.8 dB
3,6	RH	Pass	47.8 dB @ 70.50MHz	N/A	>= 14.5 dB	33.3 dB
5,4	RH	Pass	48.2 dB @ 70.50MHz	N/A	>= 14.5 dB	33.7 dB
1,2	RH	Pass	51.1 dB @ 77.75MHz	N/A	>= 12.8 dB	38.3 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	44.8 dB @ 63.25MHz	42.5 dB	>= 19.6 dB	25.2 dB
3,6	DH	Pass	46.7 dB @ 18.85MHz	33.9 dB	>= 30.1 dB	16.6 dB
5,4	DH	Pass	58.3 dB @ 6.70MHz	37.1 dB	>= 39.1 dB	19.2 dB
1,2	DH	Pass	43.6 dB @ 77.25MHz	42.8 dB	>= 17.9 dB	25.7 dB
7,8	RH	Pass	43.4 dB @ 77.25MHz	42.3 dB	>= 17.9 dB	25.5 dB
3,6	RH	Pass	40.2 dB @ 70.50MHz	38.6 dB	>= 18.7 dB	21.5 dB
5,4	RH	Pass	55.0 dB @ 6.70MHz	33.8 dB	>= 39.1 dB	15.9 dB
1,2	RH	Pass	41.2 dB @ 69.50MHz	39.3 dB	>= 18.8 dB	22.4 dB

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

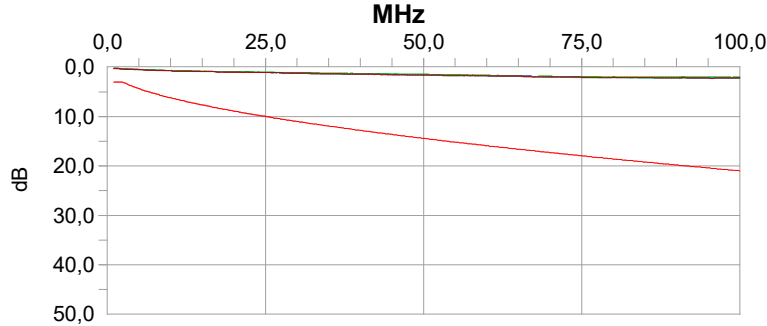
Cable ID 1: 6/3
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:32:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

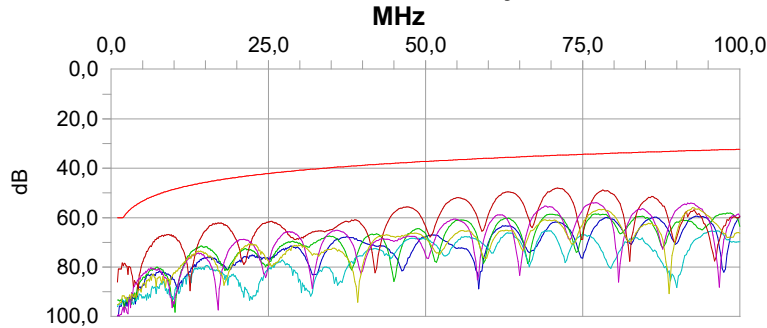
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

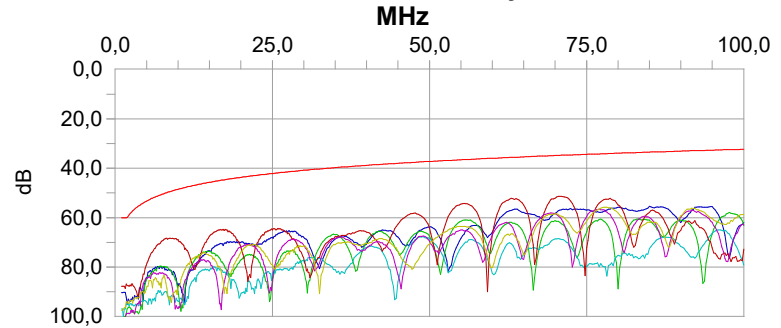
Attenuation Summary



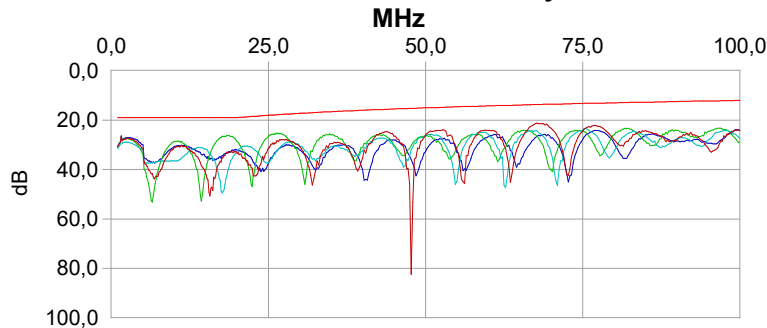
NEXT DH Summary



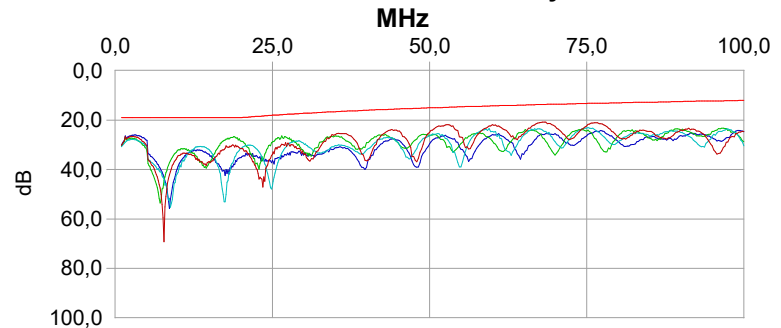
NEXT RH Summary



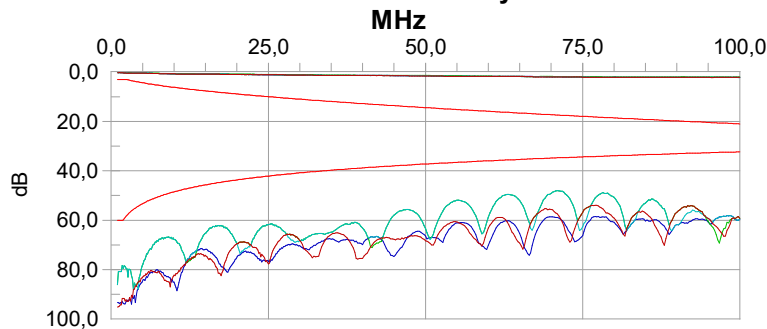
Return Loss DH Summary



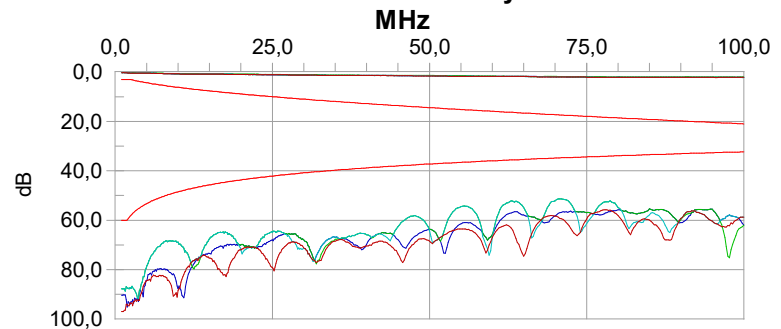
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

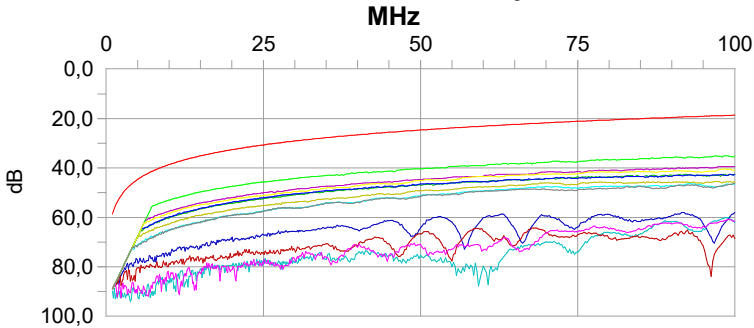
Cable ID 1: 6/3
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:32:23
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

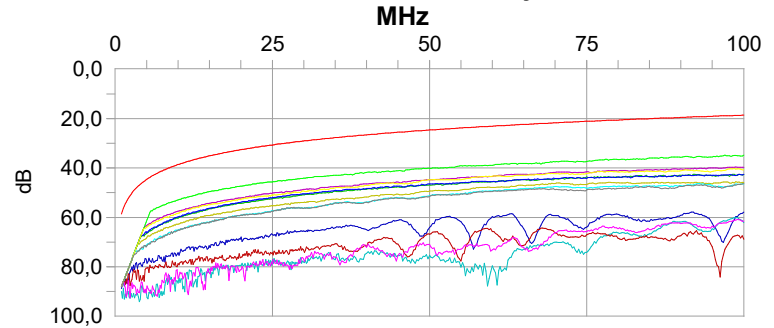
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

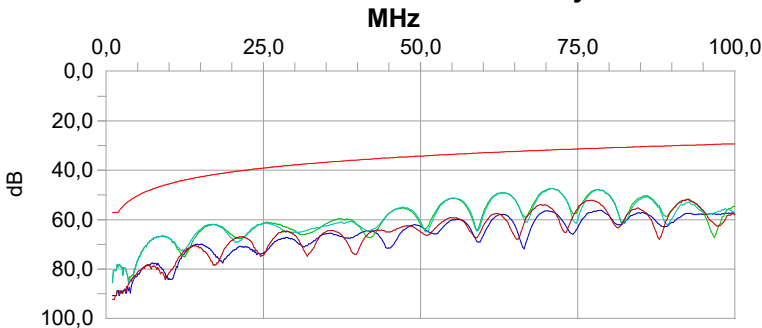
ELFEXT DH Summary



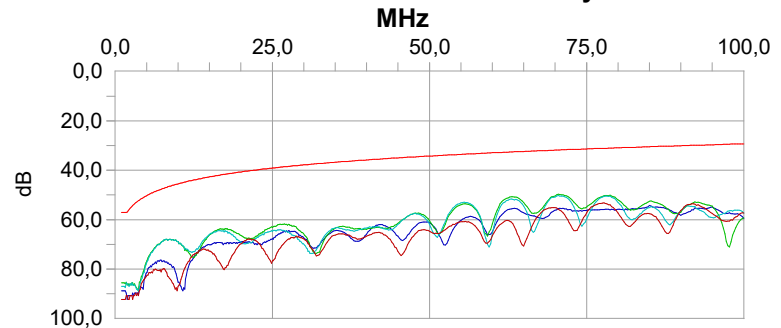
ELFEXT RH Summary



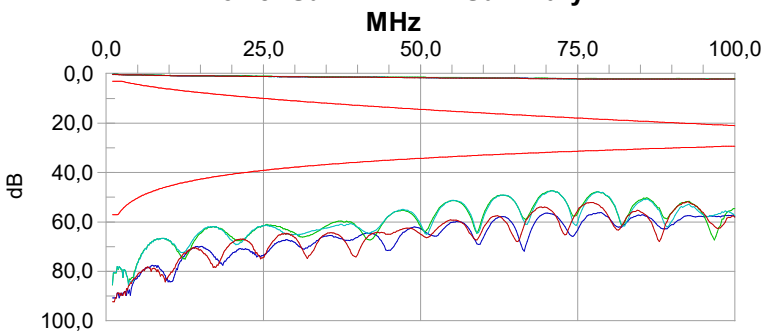
Power Sum NEXT DH Summary



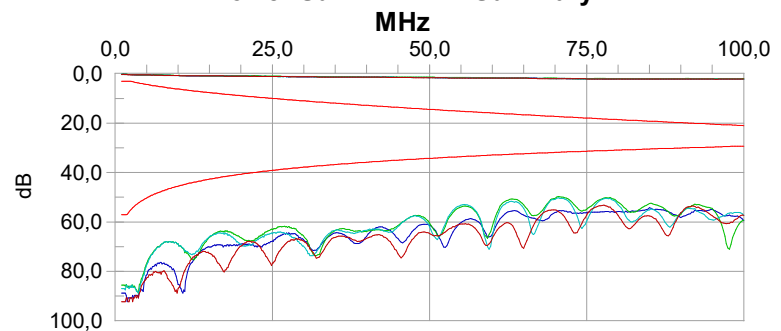
Power Sum NEXT RH Summary



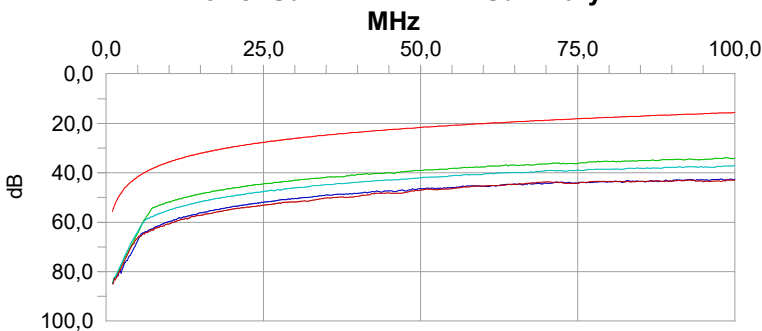
Power Sum ACR DH Summary



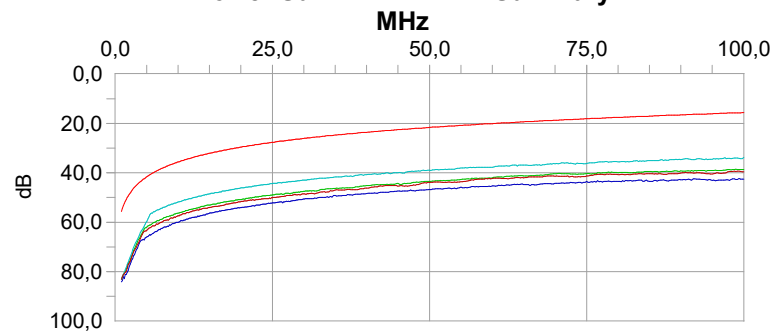
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

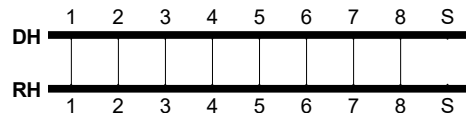
Cable ID 1: 6/4
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:17:46
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	37.4ft.	39.0ft.	39.0ft.	38.7ft.	< 295.3ft.	Pass
Prop. Delay	72.1ns	74.4ns	74.4ns	71.9ns	< 498.0ns	Pass
Delay Skew	2.5ns (Pairs 5,4 vs. 1,2)				< 44.0 ns	Pass
Headroom	31.7 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	55.2 dB @ 80.25MHz	55.2 dB	> 33.9 dB	21.3 dB
7,8-5,4	DH	Pass	59.6 dB @ 62.00MHz	58.4 dB	> 35.7 dB	23.9 dB
7,8-1,2	DH	Pass	63.0 dB @ 48.75MHz	59.9 dB	> 37.4 dB	25.6 dB
3,6-5,4	DH	Pass	48.7 dB @ 70.75MHz	48.7 dB	> 34.8 dB	13.9 dB
3,6-1,2	DH	Pass	54.6 dB @ 68.75MHz	53.9 dB	> 35.0 dB	19.6 dB
5,4-1,2	DH	Pass	57.6 dB @ 70.75MHz	56.2 dB	> 34.8 dB	22.8 dB
7,8-3,6	RH	Pass	52.5 dB @ 64.25MHz	52.5 dB	> 35.5 dB	17.0 dB
7,8-5,4	RH	Pass	60.8 dB @ 62.75MHz	58.7 dB	> 35.6 dB	25.2 dB
7,8-1,2	RH	Pass	59.3 dB @ 66.00MHz	59.2 dB	> 35.3 dB	24.0 dB
3,6-5,4	RH	Pass	53.4 dB @ 70.75MHz	53.4 dB	> 34.8 dB	18.6 dB
3,6-1,2	RH	Pass	55.8 dB @ 68.75MHz	54.6 dB	> 35.0 dB	20.8 dB
5,4-1,2	RH	Pass	57.3 dB @ 70.50MHz	56.5 dB	> 34.8 dB	22.5 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	26.3 dB @ 1.60MHz	24.6 dB	> 19.0 dB	7.3 dB
3,6	DH	Pass	26.2 dB @ 18.85MHz	23.9 dB	> 19.0 dB	7.2 dB
5,4	DH	Pass	27.2 dB @ 1.60MHz	23.5 dB	> 19.0 dB	8.2 dB
1,2	DH	Pass	18.8 dB @ 68.00MHz	18.8 dB	> 13.7 dB	5.1 dB
7,8	RH	Pass	26.1 dB @ 2.95MHz	24.7 dB	> 19.0 dB	7.1 dB
3,6	RH	Pass	23.9 dB @ 33.50MHz	21.5 dB	> 16.8 dB	7.1 dB
5,4	RH	Pass	22.3 dB @ 67.00MHz	22.3 dB	> 13.7 dB	8.6 dB
1,2	RH	Pass	18.2 dB @ 51.75MHz	17.2 dB	> 14.9 dB	3.3 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.3 dB @ 2.50MHz	2.2 dB	< 3.1 dB	2.8 dB
3,6	Pass	0.3 dB @ 2.50MHz	2.1 dB	< 3.1 dB	2.8 dB
5,4	Pass	0.4 dB @ 2.50MHz	2.3 dB	< 3.1 dB	2.7 dB
1,2	Pass	0.4 dB @ 2.50MHz	2.3 dB	< 3.1 dB	2.7 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	53.2 dB @ 80.25MHz	N/A	>= 15.3 dB	37.9 dB
3,6	DH	Pass	46.8 dB @ 70.75MHz	N/A	>= 17.4 dB	29.4 dB
5,4	DH	Pass	46.7 dB @ 70.75MHz	N/A	>= 17.4 dB	29.3 dB
1,2	DH	Pass	51.7 dB @ 84.00MHz	N/A	>= 14.4 dB	37.3 dB
7,8	RH	Pass	50.7 dB @ 64.25MHz	N/A	>= 19.0 dB	31.7 dB
3,6	RH	Pass	50.7 dB @ 64.25MHz	N/A	>= 19.0 dB	31.7 dB
5,4	RH	Pass	51.4 dB @ 70.75MHz	N/A	>= 17.4 dB	34.0 dB
1,2	RH	Pass	52.4 dB @ 91.00MHz	N/A	>= 13.1 dB	39.3 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 6/4
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:17:46
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	69.2 dB @ 6.70MHz	50.3 dB	> 42.1 dB	27.1 dB
7,8-5,4	DH	Pass	60.9 dB @ 10.15MHz	44.0 dB	> 38.5 dB	22.4 dB
7,8-1,2	DH	Pass	51.9 dB @ 64.25MHz	50.4 dB	> 22.5 dB	29.4 dB
3,6-7,8	DH	Pass	68.8 dB @ 12.25MHz	54.8 dB	> 36.9 dB	31.9 dB
3,6-5,4	DH	Pass	59.7 dB @ 7.60MHz	39.6 dB	> 41.0 dB	18.7 dB
3,6-1,2	DH	Pass	68.8 dB @ 5.65MHz	47.4 dB	> 43.6 dB	25.2 dB
5,4-7,8	DH	Pass	65.8 dB @ 5.65MHz	43.9 dB	> 43.6 dB	22.2 dB
5,4-3,6	DH	Pass	54.8 dB @ 8.05MHz	35.4 dB	> 40.5 dB	14.3 dB
5,4-1,2	DH	Pass	46.8 dB @ 65.75MHz	44.9 dB	> 22.3 dB	24.5 dB
1,2-7,8	DH	Pass	51.7 dB @ 66.50MHz	50.6 dB	> 22.2 dB	29.5 dB
1,2-3,6	DH	Pass	64.8 dB @ 5.65MHz	42.5 dB	> 43.6 dB	21.2 dB
1,2-5,4	DH	Pass	47.4 dB @ 64.75MHz	45.3 dB	> 22.4 dB	25.0 dB
7,8-3,6	RH	Pass	69.2 dB @ 6.70MHz	50.3 dB	> 42.1 dB	27.1 dB
7,8-5,4	RH	Pass	61.0 dB @ 10.15MHz	44.1 dB	> 38.5 dB	22.5 dB
7,8-1,2	RH	Pass	52.0 dB @ 64.25MHz	50.4 dB	> 22.5 dB	29.5 dB
3,6-7,8	RH	Pass	68.8 dB @ 12.25MHz	54.8 dB	> 36.9 dB	31.9 dB
3,6-5,4	RH	Pass	64.1 dB @ 4.60MHz	39.9 dB	> 45.4 dB	18.7 dB
3,6-1,2	RH	Pass	68.9 dB @ 5.65MHz	47.5 dB	> 43.6 dB	25.3 dB
5,4-7,8	RH	Pass	65.7 dB @ 5.65MHz	43.8 dB	> 43.6 dB	22.1 dB
5,4-3,6	RH	Pass	57.6 dB @ 5.65MHz	35.2 dB	> 43.6 dB	14.0 dB
5,4-1,2	RH	Pass	47.0 dB @ 64.50MHz	44.9 dB	> 22.4 dB	24.6 dB
1,2-7,8	RH	Pass	51.5 dB @ 66.50MHz	50.6 dB	> 22.2 dB	29.3 dB
1,2-3,6	RH	Pass	67.1 dB @ 4.15MHz	42.3 dB	> 46.3 dB	20.8 dB
1,2-5,4	RH	Pass	47.4 dB @ 64.75MHz	45.3 dB	> 22.4 dB	25.0 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	54.7 dB @ 62.50MHz	54.4 dB	> 32.7 dB	22.0 dB
3,6	DH	Pass	47.6 dB @ 70.75MHz	47.6 dB	> 31.8 dB	15.8 dB
5,4	DH	Pass	47.9 dB @ 70.75MHz	47.9 dB	> 31.8 dB	16.1 dB
1,2	DH	Pass	53.4 dB @ 68.75MHz	52.5 dB	> 32.0 dB	21.4 dB
7,8	RH	Pass	51.6 dB @ 64.25MHz	51.6 dB	> 32.5 dB	19.1 dB
3,6	RH	Pass	50.5 dB @ 63.50MHz	50.5 dB	> 32.5 dB	18.0 dB
5,4	RH	Pass	51.7 dB @ 70.50MHz	51.7 dB	> 31.8 dB	19.9 dB
1,2	RH	Pass	53.4 dB @ 68.75MHz	52.1 dB	> 32.0 dB	21.4 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	52.4 dB @ 79.25MHz	N/A	>= 12.5 dB	39.9 dB
3,6	DH	Pass	45.7 dB @ 70.75MHz	N/A	>= 14.4 dB	31.3 dB
5,4	DH	Pass	45.9 dB @ 70.75MHz	N/A	>= 14.4 dB	31.5 dB
1,2	DH	Pass	50.3 dB @ 91.75MHz	N/A	>= 9.9 dB	40.4 dB
7,8	RH	Pass	49.8 dB @ 64.25MHz	N/A	>= 16.0 dB	33.8 dB
3,6	RH	Pass	48.6 dB @ 69.50MHz	N/A	>= 14.7 dB	33.9 dB
5,4	RH	Pass	49.7 dB @ 70.50MHz	N/A	>= 14.5 dB	35.2 dB
1,2	RH	Pass	49.9 dB @ 91.00MHz	N/A	>= 10.1 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	58.1 dB @ 12.25MHz	42.9 dB	>= 33.9 dB	24.2 dB
3,6	DH	Pass	54.7 dB @ 7.30MHz	34.5 dB	>= 38.3 dB	16.4 dB
5,4	DH	Pass	59.1 dB @ 6.40MHz	37.5 dB	>= 39.5 dB	19.6 dB
1,2	DH	Pass	43.4 dB @ 69.50MHz	42.4 dB	>= 18.8 dB	24.6 dB
7,8	RH	Pass	59.2 dB @ 10.15MHz	42.5 dB	>= 35.5 dB	23.7 dB
3,6	RH	Pass	55.1 dB @ 12.25MHz	39.1 dB	>= 33.9 dB	21.2 dB
5,4	RH	Pass	56.6 dB @ 5.65MHz	34.3 dB	>= 40.6 dB	16.0 dB
1,2	RH	Pass	57.7 dB @ 10.75MHz	40.2 dB	>= 35.0 dB	22.7 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

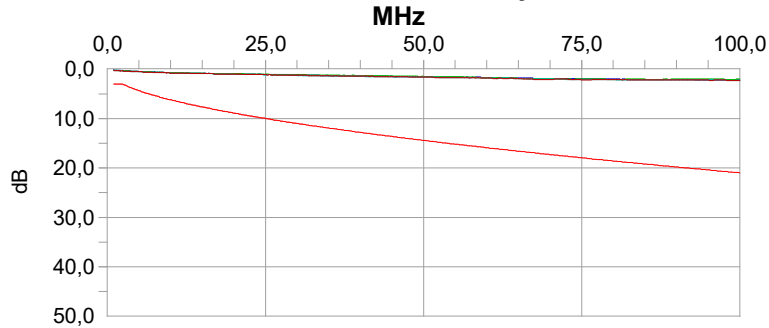
Cable ID 1: 6/4
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:17:46
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

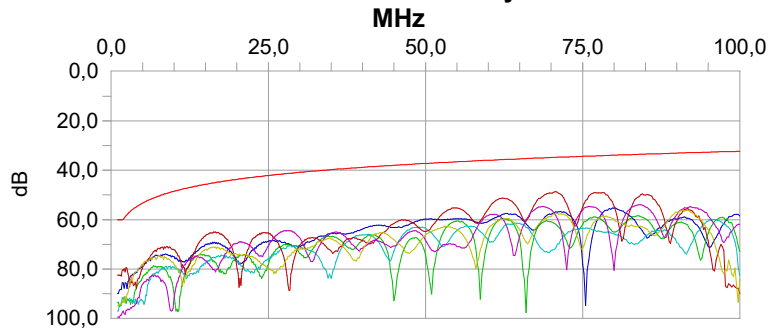
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

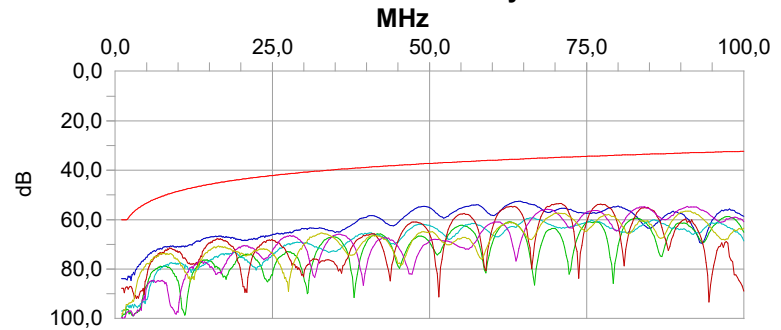
Attenuation Summary



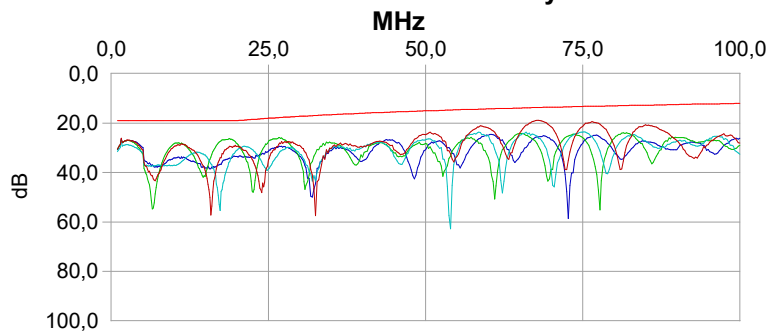
NEXT DH Summary



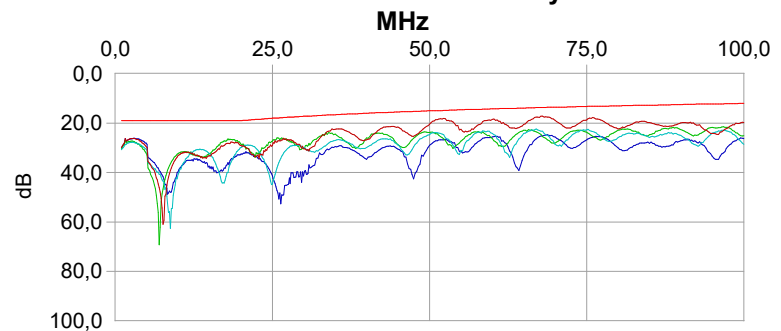
NEXT RH Summary



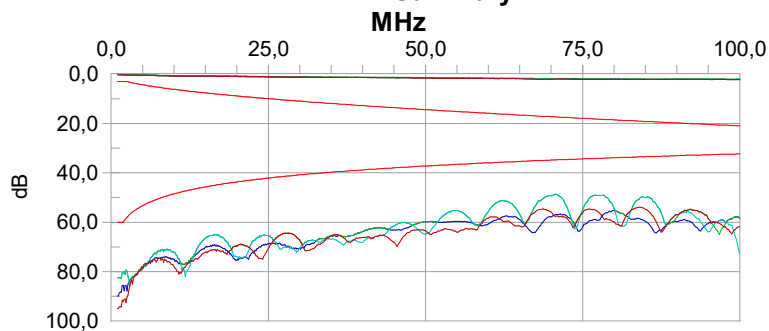
Return Loss DH Summary



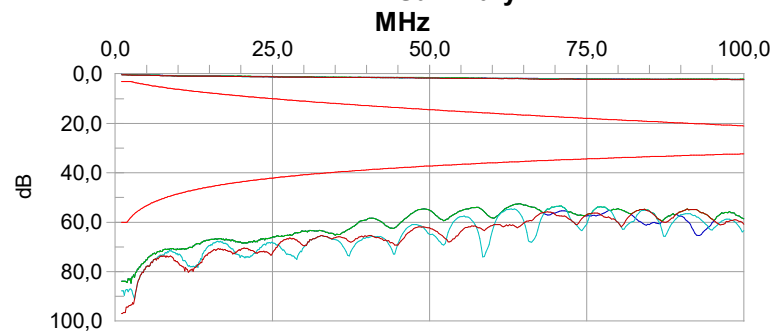
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

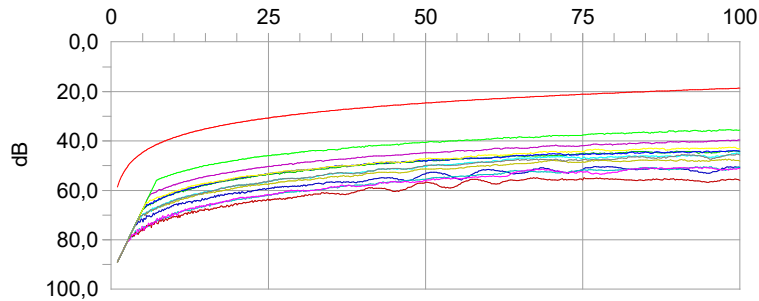
Cable ID 1: 6/4
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:17:46
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

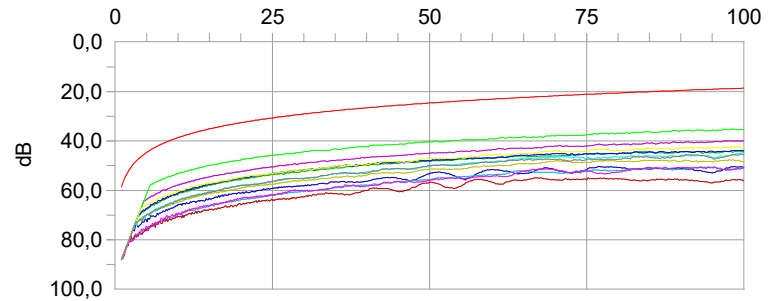
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

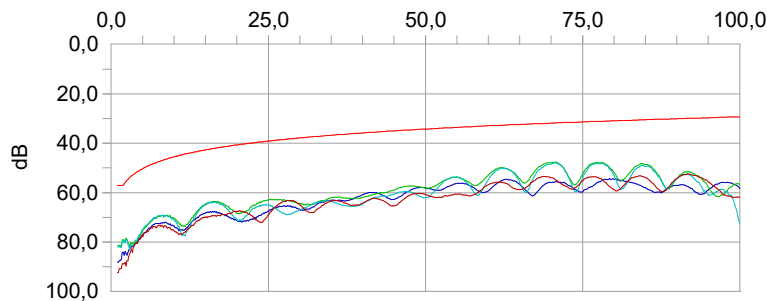
ELFEXT DH Summary
MHz



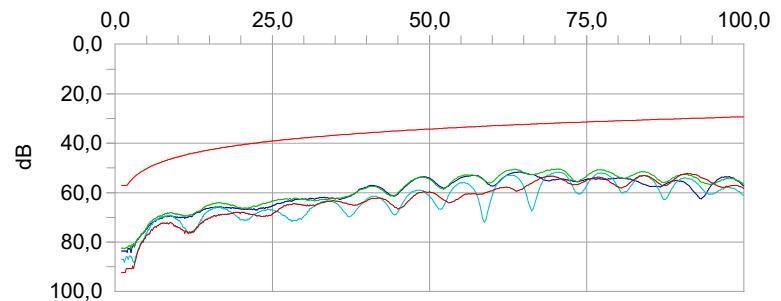
ELFEXT RH Summary
MHz



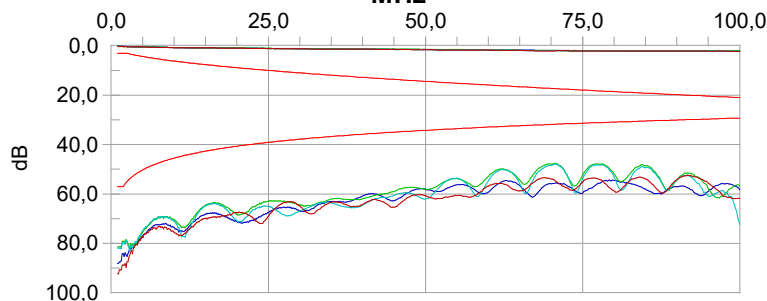
Power Sum NEXT DH Summary
MHz



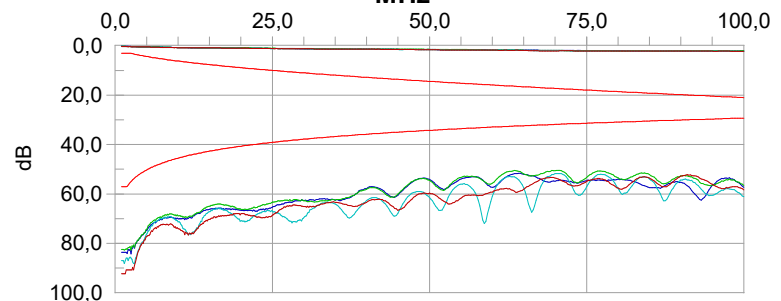
Power Sum NEXT RH Summary
MHz



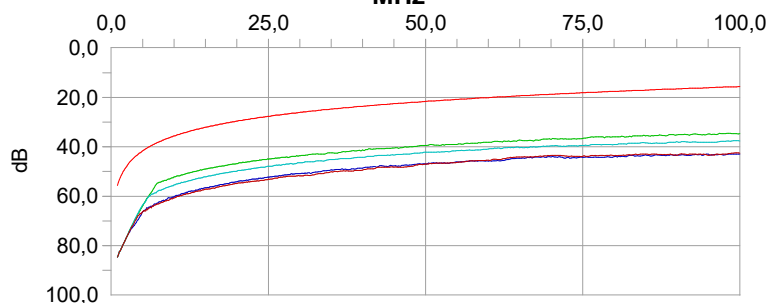
Power Sum ACR DH Summary
MHz



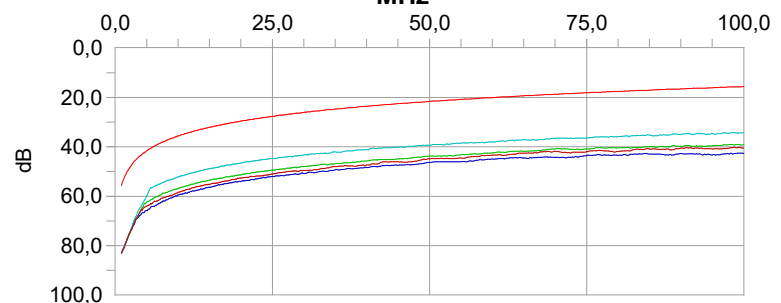
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

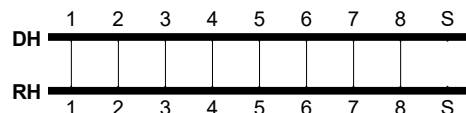
Cable ID 1: 6/7
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:02:59
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	100.4ft.	105.0ft.	104.3ft.	102.4ft.	< 295.3ft.	Pass
Prop. Delay	162.9ns	169.9ns	168.9ns	163.9ns	< 498.0ns	Pass
Delay Skew	7.0ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
DC Resistance	7.3 Ohm	7.6 Ohm	7.5 Ohm	7.8 Ohm	< 20.0 Ohm	Pass
Headroom	3.5 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	47.1 dB @ 225.50MHz	47.1 dB	> 36.1 dB	11.0 dB
7,8-5,4	DH	Pass	52.6 dB @ 177.50MHz	51.5 dB	> 37.8 dB	14.8 dB
7,8-1,2	DH	Pass	77.8 dB @ 3.55MHz	52.5 dB	> 64.9 dB	12.9 dB
3,6-5,4	DH	Pass	45.1 dB @ 209.50MHz	44.4 dB	> 36.6 dB	8.5 dB
3,6-1,2	DH	Pass	42.3 dB @ 247.00MHz	42.3 dB	> 35.4 dB	6.9 dB
5,4-1,2	DH	Pass	49.2 dB @ 221.00MHz	49.2 dB	> 36.2 dB	13.0 dB
7,8-3,6	RH	Pass	41.1 dB @ 247.00MHz	41.1 dB	> 35.4 dB	5.7 dB
7,8-5,4	RH	Pass	49.0 dB @ 249.00MHz	49.0 dB	> 35.4 dB	13.6 dB
7,8-1,2	RH	Pass	42.1 dB @ 249.00MHz	42.1 dB	> 35.4 dB	6.7 dB
3,6-5,4	RH	Pass	37.8 dB @ 250.00MHz	37.8 dB	> 35.3 dB	2.5 dB
3,6-1,2	RH	Pass	42.3 dB @ 248.00MHz	42.3 dB	> 35.4 dB	6.9 dB
5,4-1,2	RH	Pass	46.6 dB @ 214.50MHz	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	23.6 dB @ 1.60MHz	20.8 dB	> 19.9 dB	3.7 dB
3,6	DH	Pass	24.4 dB @ 1.30MHz	24.3 dB	> 19.5 dB	4.9 dB
5,4	DH	Pass	24.7 dB @ 1.60MHz	23.7 dB	> 19.9 dB	4.8 dB
1,2	DH	Pass	24.2 dB @ 1.30MHz	21.6 dB	> 19.5 dB	4.7 dB
7,8	RH	Pass	23.2 dB @ 1.60MHz	23.2 dB	> 19.9 dB	3.3 dB
3,6	RH	Pass	24.1 dB @ 1.30MHz	24.0 dB	> 19.5 dB	4.6 dB
5,4	RH	Pass	24.2 dB @ 1.30MHz	24.1 dB	> 19.5 dB	4.7 dB
1,2	RH	Pass	23.6 dB @ 1.30MHz	23.4 dB	> 19.5 dB	4.1 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.9 dB @ 3.10MHz	9.6 dB	< 3.1 dB	2.2 dB
3,6	Pass	0.9 dB @ 3.10MHz	10.2 dB	< 3.1 dB	2.2 dB
5,4	Pass	0.9 dB @ 3.10MHz	9.9 dB	< 3.1 dB	2.2 dB
1,2	Pass	0.9 dB @ 3.10MHz	9.7 dB	< 3.1 dB	2.2 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	37.8 dB @ 238.00MHz	N/A	>= 5.5 dB	32.3 dB
3,6	DH	Pass	32.1 dB @ 247.00MHz	N/A	>= 4.5 dB	27.6 dB
5,4	DH	Pass	35.0 dB @ 234.50MHz	N/A	>= 5.8 dB	29.2 dB
1,2	DH	Pass	32.7 dB @ 247.00MHz	N/A	>= 4.5 dB	28.2 dB
7,8	RH	Pass	31.6 dB @ 247.00MHz	N/A	>= 4.5 dB	27.1 dB
3,6	RH	Pass	27.6 dB @ 250.00MHz	N/A	>= 4.2 dB	23.4 dB
5,4	RH	Pass	27.9 dB @ 250.00MHz	N/A	>= 4.2 dB	23.7 dB
1,2	RH	Pass	32.4 dB @ 249.00MHz	N/A	>= 4.4 dB	28.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 6/7
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:02:59
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	31.1 dB @ 245.50MHz	31.1 dB	> 16.4 dB	14.7 dB
7,8-5,4	DH	Pass	57.2 dB @ 8.20MHz	31.1 dB	> 45.9 dB	11.3 dB
7,8-1,2	DH	Pass	39.8 dB @ 249.00MHz	39.7 dB	> 16.3 dB	23.5 dB
3,6-7,8	DH	Pass	53.1 dB @ 49.50MHz	40.2 dB	> 30.3 dB	22.8 dB
3,6-5,4	DH	Pass	32.9 dB @ 243.50MHz	32.9 dB	> 16.5 dB	16.4 dB
3,6-1,2	DH	Pass	66.3 dB @ 5.50MHz	37.9 dB	> 49.4 dB	16.9 dB
5,4-7,8	DH	Pass	58.6 dB @ 7.00MHz	30.8 dB	> 47.3 dB	11.3 dB
5,4-3,6	DH	Pass	32.4 dB @ 238.00MHz	32.0 dB	> 16.7 dB	15.7 dB
5,4-1,2	DH	Pass	31.8 dB @ 189.00MHz	30.3 dB	> 18.7 dB	13.1 dB
1,2-7,8	DH	Pass	43.1 dB @ 193.50MHz	41.0 dB	> 18.5 dB	24.6 dB
1,2-3,6	DH	Pass	59.2 dB @ 8.50MHz	34.1 dB	> 45.6 dB	13.6 dB
1,2-5,4	DH	Pass	31.9 dB @ 209.00MHz	30.7 dB	> 17.8 dB	14.1 dB
7,8-3,6	RH	Pass	31.8 dB @ 245.50MHz	31.8 dB	> 16.4 dB	15.4 dB
7,8-5,4	RH	Pass	60.2 dB @ 5.80MHz	31.4 dB	> 48.9 dB	11.3 dB
7,8-1,2	RH	Pass	39.9 dB @ 249.00MHz	39.8 dB	> 16.3 dB	23.6 dB
3,6-7,8	RH	Pass	53.2 dB @ 49.00MHz	39.5 dB	> 30.4 dB	22.8 dB
3,6-5,4	RH	Pass	32.5 dB @ 242.50MHz	32.4 dB	> 16.5 dB	16.0 dB
3,6-1,2	RH	Pass	66.4 dB @ 5.50MHz	37.4 dB	> 49.4 dB	17.0 dB
5,4-7,8	RH	Pass	57.0 dB @ 8.35MHz	30.5 dB	> 45.8 dB	11.2 dB
5,4-3,6	RH	Pass	32.4 dB @ 248.00MHz	32.3 dB	> 16.3 dB	16.1 dB
5,4-1,2	RH	Pass	31.6 dB @ 189.00MHz	30.1 dB	> 18.7 dB	12.9 dB
1,2-7,8	RH	Pass	40.9 dB @ 241.50MHz	40.9 dB	> 16.5 dB	24.4 dB
1,2-3,6	RH	Pass	59.1 dB @ 8.50MHz	34.5 dB	> 45.6 dB	13.5 dB
1,2-5,4	RH	Pass	32.0 dB @ 209.00MHz	30.8 dB	> 17.8 dB	14.2 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	45.6 dB @ 238.00MHz	45.6 dB	> 32.7 dB	12.9 dB
3,6	DH	Pass	40.7 dB @ 237.50MHz	40.7 dB	> 32.7 dB	8.0 dB
5,4	DH	Pass	44.0 dB @ 209.00MHz	43.4 dB	> 33.6 dB	10.4 dB
1,2	DH	Pass	41.6 dB @ 247.00MHz	41.6 dB	> 32.4 dB	9.2 dB
7,8	RH	Pass	38.3 dB @ 249.50MHz	38.3 dB	> 32.4 dB	5.9 dB
3,6	RH	Pass	35.4 dB @ 249.00MHz	35.3 dB	> 32.4 dB	3.0 dB
5,4	RH	Pass	37.1 dB @ 249.00MHz	37.0 dB	> 32.4 dB	4.7 dB
1,2	RH	Pass	38.5 dB @ 249.00MHz	38.5 dB	> 32.4 dB	6.1 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	36.3 dB @ 238.00MHz	N/A	>= 2.5 dB	33.8 dB
3,6	DH	Pass	30.5 dB @ 247.00MHz	N/A	>= 1.5 dB	29.0 dB
5,4	DH	Pass	34.0 dB @ 234.50MHz	N/A	>= 2.8 dB	31.2 dB
1,2	DH	Pass	31.9 dB @ 247.50MHz	N/A	>= 1.5 dB	30.4 dB
7,8	RH	Pass	28.7 dB @ 249.50MHz	N/A	>= 1.3 dB	27.4 dB
3,6	RH	Pass	25.1 dB @ 250.00MHz	N/A	>= 1.2 dB	23.9 dB
5,4	RH	Pass	27.1 dB @ 250.00MHz	N/A	>= 1.2 dB	25.9 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	49.2 dB @ 21.40MHz	30.3 dB	>= 34.6 dB	14.6 dB
3,6	DH	Pass	28.3 dB @ 245.00MHz	28.2 dB	>= 13.4 dB	14.9 dB
5,4	DH	Pass	29.4 dB @ 170.00MHz	27.5 dB	>= 16.6 dB	12.8 dB
1,2	DH	Pass	30.6 dB @ 189.00MHz	29.8 dB	>= 15.7 dB	14.9 dB
7,8	RH	Pass	49.3 dB @ 21.10MHz	29.2 dB	>= 34.7 dB	14.6 dB
3,6	RH	Pass	33.3 dB @ 186.00MHz	31.3 dB	>= 15.8 dB	17.5 dB
5,4	RH	Pass	27.6 dB @ 189.00MHz	27.0 dB	>= 15.7 dB	11.9 dB
1,2	RH	Pass	31.2 dB @ 177.50MHz	29.8 dB	>= 16.2 dB	15.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

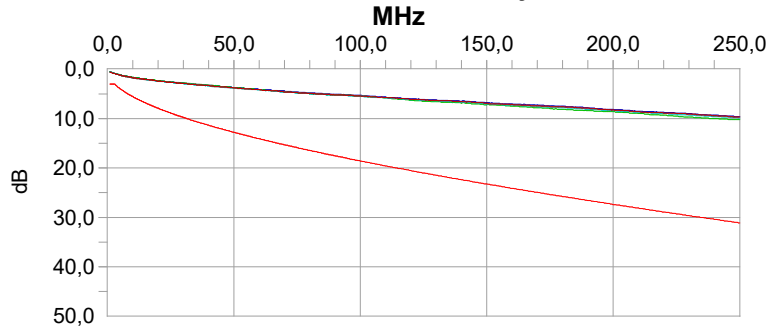
Cable ID 1: 6/7
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:02:59
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

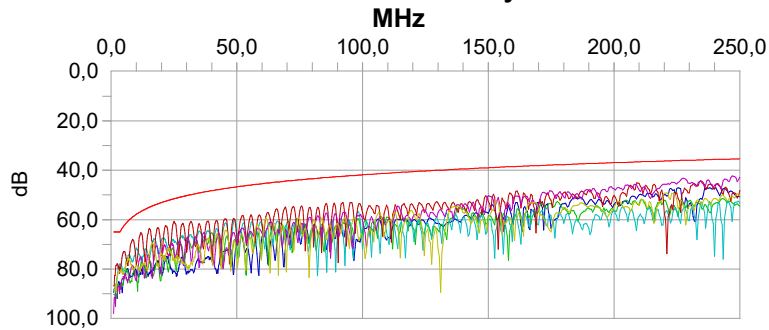
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

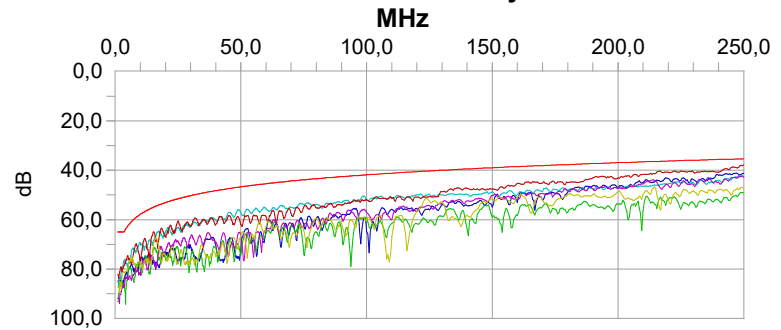
Attenuation Summary



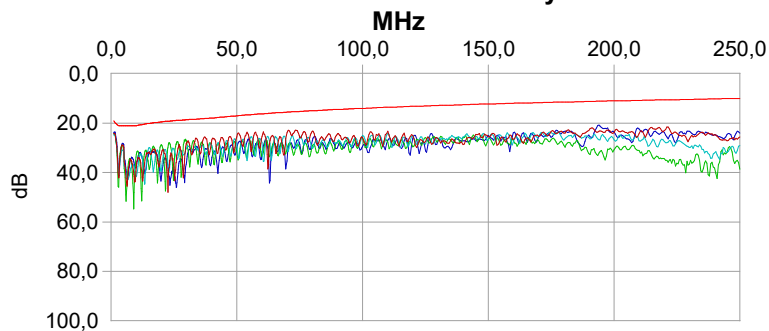
NEXT DH Summary



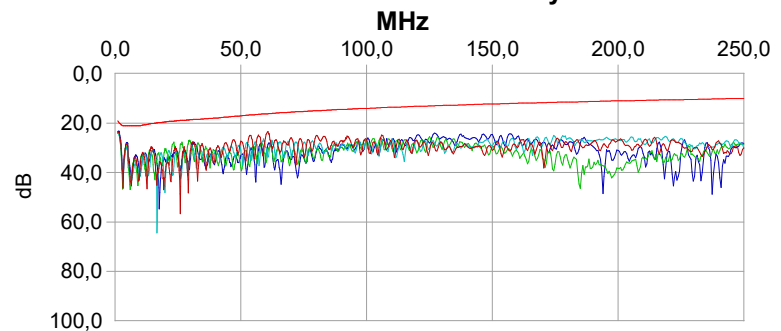
NEXT RH Summary



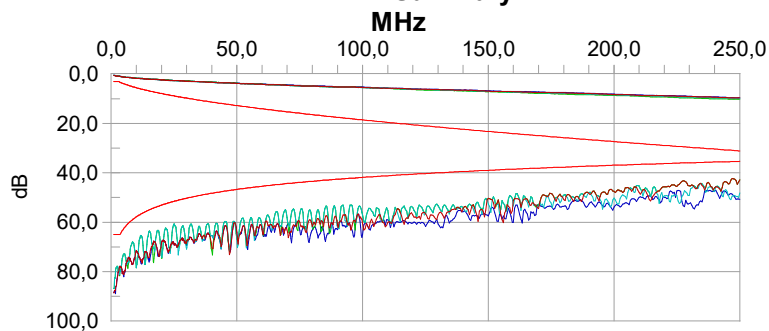
Return Loss DH Summary



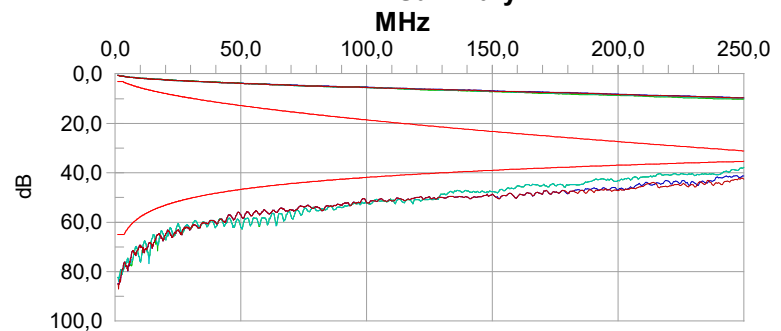
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

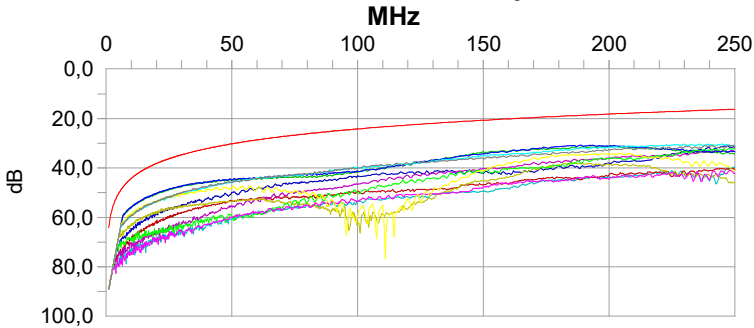
Cable ID 1: 6/7
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:02:59
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

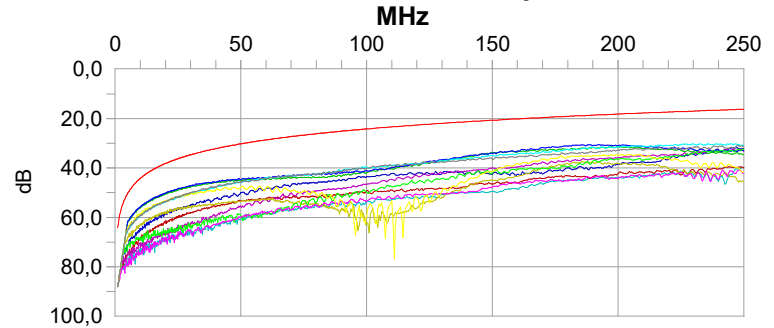
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

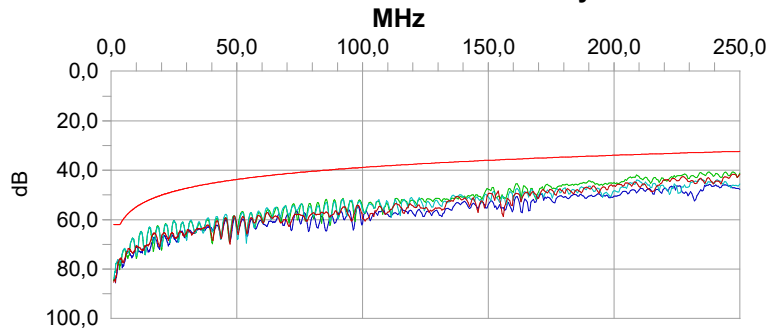
ELFEXT DH Summary



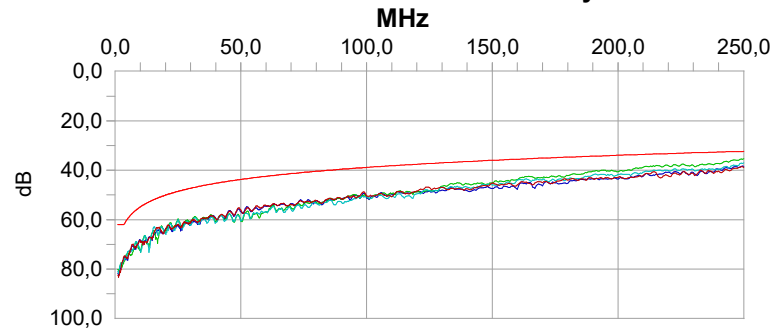
ELFEXT RH Summary



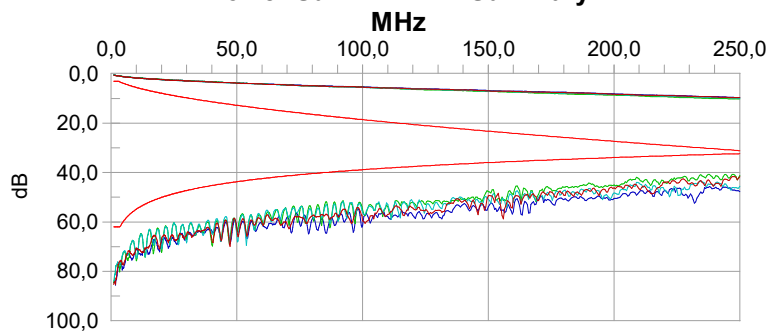
Power Sum NEXT DH Summary



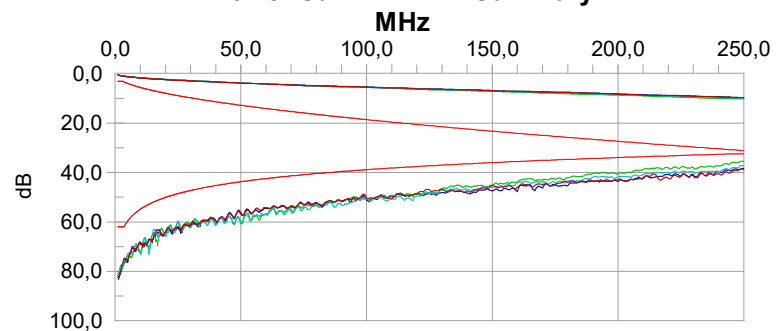
Power Sum NEXT RH Summary



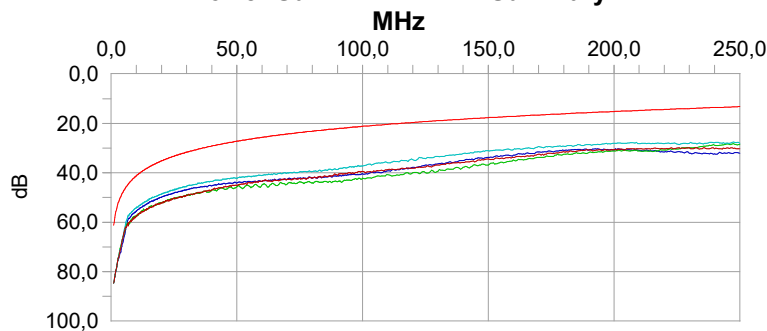
Power Sum ACR DH Summary



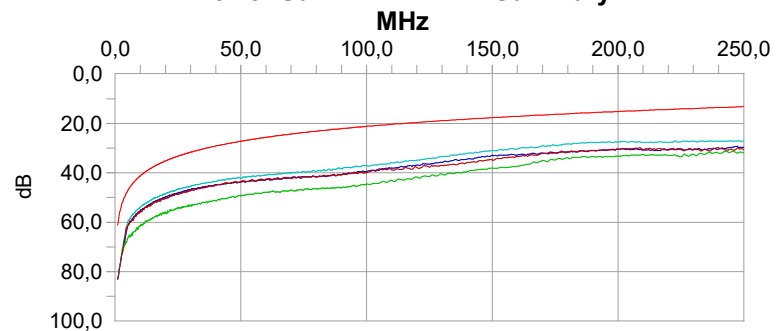
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

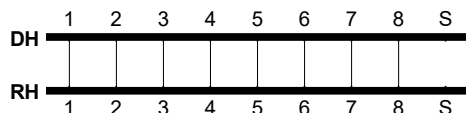
Cable ID 1: 6/8
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:04:11
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	89.2ft.	88.6ft.	88.3ft.	90.9ft.	< 295.3ft.	Pass
Prop. Delay	147.1ns	146.1ns	145.6ns	147.5ns	< 498.0ns	Pass
Delay Skew		1.9ns (Pairs 1,2 vs. 5,4)			< 44.0 ns	Pass
DC Resistance	7.2 Ohm	7.3 Ohm	7.3 Ohm	7.8 Ohm	< 20.0 Ohm	Pass
Headroom		2.8 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	46.4 dB @ 225.50MHz	46.0 dB	> 36.1 dB	10.3 dB
7,8-5,4	DH	Pass	62.7 dB @ 48.75MHz	52.1 dB	> 46.9 dB	15.8 dB
7,8-1,2	DH	Pass	64.9 dB @ 28.60MHz	55.6 dB	> 50.6 dB	14.3 dB
3,6-5,4	DH	Pass	60.6 dB @ 21.85MHz	45.4 dB	> 52.5 dB	8.1 dB
3,6-1,2	DH	Pass	42.4 dB @ 246.50MHz	42.4 dB	> 35.4 dB	7.0 dB
5,4-1,2	DH	Pass	50.3 dB @ 216.00MHz	50.2 dB	> 36.4 dB	13.9 dB
7,8-3,6	RH	Pass	39.5 dB @ 248.00MHz	39.5 dB	> 35.4 dB	4.1 dB
7,8-5,4	RH	Pass	49.5 dB @ 211.50MHz	49.0 dB	> 36.5 dB	13.0 dB
7,8-1,2	RH	Pass	43.2 dB @ 247.00MHz	43.2 dB	> 35.4 dB	7.8 dB
3,6-5,4	RH	Pass	38.0 dB @ 249.50MHz	38.0 dB	> 35.4 dB	2.6 dB
3,6-1,2	RH	Pass	44.9 dB @ 250.00MHz	44.9 dB	> 35.3 dB	9.6 dB
5,4-1,2	RH	Pass	47.8 dB @ 214.50MHz	47.8 dB	> 36.4 dB	11.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.1 dB @ 1.60MHz	23.0 dB	> 19.9 dB	3.2 dB
3,6	DH	Pass	22.9 dB @ 1.60MHz	22.8 dB	> 19.9 dB	3.0 dB
5,4	DH	Pass	22.4 dB @ 1.60MHz	22.4 dB	> 19.9 dB	2.5 dB
1,2	DH	Pass	23.0 dB @ 1.60MHz	22.8 dB	> 19.9 dB	3.1 dB
7,8	RH	Pass	22.6 dB @ 1.60MHz	22.6 dB	> 19.9 dB	2.7 dB
3,6	RH	Pass	22.6 dB @ 1.60MHz	22.5 dB	> 19.9 dB	2.7 dB
5,4	RH	Pass	22.6 dB @ 1.45MHz	22.6 dB	> 19.7 dB	2.9 dB
1,2	RH	Pass	22.6 dB @ 1.60MHz	22.5 dB	> 19.9 dB	2.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.9 dB @ 3.10MHz	8.5 dB	< 3.1 dB	2.2 dB
3,6	Pass	0.9 dB @ 3.10MHz	8.9 dB	< 3.1 dB	2.2 dB
5,4	Pass	1.0 dB @ 3.10MHz	8.5 dB	< 3.1 dB	2.1 dB
1,2	Pass	1.0 dB @ 3.10MHz	8.5 dB	< 3.1 dB	2.1 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	37.8 dB @ 237.50MHz	N/A	>= 5.5 dB	32.3 dB
3,6	DH	Pass	33.6 dB @ 246.50MHz	N/A	>= 4.6 dB	29.0 dB
5,4	DH	Pass	37.7 dB @ 215.00MHz	N/A	>= 7.9 dB	29.8 dB
1,2	DH	Pass	34.0 dB @ 246.50MHz	N/A	>= 4.6 dB	29.4 dB
7,8	RH	Pass	31.1 dB @ 248.00MHz	N/A	>= 4.4 dB	26.7 dB
3,6	RH	Pass	29.2 dB @ 249.50MHz	N/A	>= 4.3 dB	24.9 dB
5,4	RH	Pass	29.5 dB @ 249.50MHz	N/A	>= 4.3 dB	25.2 dB
1,2	RH	Pass	34.8 dB @ 247.00MHz	N/A	>= 4.5 dB	30.3 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 6/8
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:04:11
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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 @ 248.50MHz	32.0 dB	> 16.3 dB	15.7 dB
7,8-5,4	DH	Pass	57.6 dB @ 7.15MHz	33.0 dB	> 47.1 dB	10.5 dB
7,8-1,2	DH	Pass	51.7 dB @ 190.50MHz	49.8 dB	> 18.6 dB	33.1 dB
3,6-7,8	DH	Pass	44.2 dB @ 123.00MHz	38.9 dB	> 22.4 dB	21.8 dB
3,6-5,4	DH	Pass	34.7 dB @ 241.50MHz	34.7 dB	> 16.5 dB	18.2 dB
3,6-1,2	DH	Pass	68.0 dB @ 5.50MHz	44.6 dB	> 49.4 dB	18.6 dB
5,4-7,8	DH	Pass	56.6 dB @ 7.60MHz	31.8 dB	> 46.6 dB	10.0 dB
5,4-3,6	DH	Pass	65.5 dB @ 5.95MHz	34.1 dB	> 48.7 dB	16.8 dB
5,4-1,2	DH	Pass	60.1 dB @ 6.55MHz	32.9 dB	> 47.9 dB	12.2 dB
1,2-7,8	DH	Pass	59.0 dB @ 81.50MHz	54.1 dB	> 26.0 dB	33.0 dB
1,2-3,6	DH	Pass	63.5 dB @ 5.80MHz	40.3 dB	> 48.9 dB	14.6 dB
1,2-5,4	DH	Pass	60.4 dB @ 6.40MHz	31.1 dB	> 48.1 dB	12.3 dB
7,8-3,6	RH	Pass	32.3 dB @ 248.50MHz	32.3 dB	> 16.3 dB	16.0 dB
7,8-5,4	RH	Pass	60.4 dB @ 5.20MHz	33.1 dB	> 49.9 dB	10.5 dB
7,8-1,2	RH	Pass	51.7 dB @ 190.50MHz	49.8 dB	> 18.6 dB	33.1 dB
3,6-7,8	RH	Pass	44.2 dB @ 123.00MHz	38.4 dB	> 22.4 dB	21.8 dB
3,6-5,4	RH	Pass	34.3 dB @ 241.50MHz	34.3 dB	> 16.5 dB	17.8 dB
3,6-1,2	RH	Pass	68.1 dB @ 5.50MHz	44.4 dB	> 49.4 dB	18.7 dB
5,4-7,8	RH	Pass	56.5 dB @ 7.60MHz	31.7 dB	> 46.6 dB	9.9 dB
5,4-3,6	RH	Pass	68.5 dB @ 4.00MHz	34.5 dB	> 52.1 dB	16.4 dB
5,4-1,2	RH	Pass	61.6 dB @ 5.50MHz	32.8 dB	> 49.4 dB	12.2 dB
1,2-7,8	RH	Pass	59.0 dB @ 81.50MHz	54.0 dB	> 26.0 dB	33.0 dB
1,2-3,6	RH	Pass	65.3 dB @ 4.45MHz	40.5 dB	> 51.2 dB	14.1 dB
1,2-5,4	RH	Pass	62.2 dB @ 5.20MHz	31.1 dB	> 49.9 dB	12.3 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	45.2 dB @ 225.50MHz	45.0 dB	> 33.1 dB	12.1 dB
3,6	DH	Pass	40.4 dB @ 246.00MHz	40.4 dB	> 32.5 dB	7.9 dB
5,4	DH	Pass	43.7 dB @ 215.00MHz	43.7 dB	> 33.4 dB	10.3 dB
1,2	DH	Pass	41.8 dB @ 246.50MHz	41.8 dB	> 32.4 dB	9.4 dB
7,8	RH	Pass	37.6 dB @ 248.00MHz	37.6 dB	> 32.4 dB	5.2 dB
3,6	RH	Pass	35.3 dB @ 248.00MHz	35.3 dB	> 32.4 dB	2.9 dB
5,4	RH	Pass	37.4 dB @ 249.50MHz	37.4 dB	> 32.4 dB	5.0 dB
1,2	RH	Pass	40.4 dB @ 250.00MHz	40.4 dB	> 32.3 dB	8.1 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	36.8 dB @ 237.50MHz	N/A	>= 2.5 dB	34.3 dB
3,6	DH	Pass	31.6 dB @ 246.00MHz	N/A	>= 1.7 dB	29.9 dB
5,4	DH	Pass	35.6 dB @ 240.00MHz	N/A	>= 2.2 dB	33.4 dB
1,2	DH	Pass	33.4 dB @ 246.50MHz	N/A	>= 1.6 dB	31.8 dB
7,8	RH	Pass	29.2 dB @ 248.00MHz	N/A	>= 1.4 dB	27.8 dB
3,6	RH	Pass	26.5 dB @ 248.00MHz	N/A	>= 1.4 dB	25.1 dB
5,4	RH	Pass	28.9 dB @ 249.50MHz	N/A	>= 1.3 dB	27.6 dB
1,2	RH	Pass	31.9 dB @ 250.00MHz	N/A	>= 1.2 dB	30.7 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	41.0 dB @ 53.25MHz	31.1 dB	>= 26.7 dB	14.3 dB
3,6	DH	Pass	60.4 dB @ 6.25MHz	29.9 dB	>= 45.3 dB	15.1 dB
5,4	DH	Pass	53.5 dB @ 8.80MHz	28.1 dB	>= 42.3 dB	11.2 dB
1,2	DH	Pass	41.6 dB @ 62.50MHz	32.6 dB	>= 25.3 dB	16.3 dB
7,8	RH	Pass	38.7 dB @ 63.25MHz	29.7 dB	>= 25.2 dB	13.5 dB
3,6	RH	Pass	32.9 dB @ 241.50MHz	32.9 dB	>= 13.5 dB	19.4 dB
5,4	RH	Pass	54.1 dB @ 7.60MHz	28.2 dB	>= 43.6 dB	10.5 dB
1,2	RH	Pass	41.4 dB @ 53.25MHz	30.9 dB	>= 26.7 dB	14.7 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

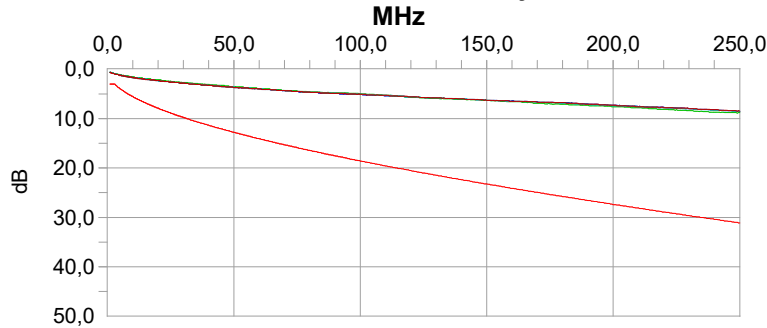
Cable ID 1: 6/8
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:04:11
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

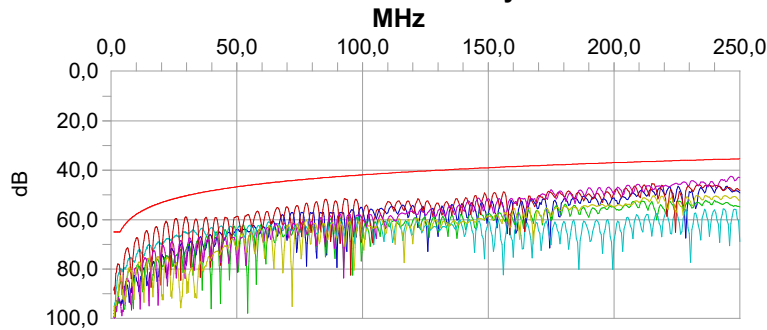
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

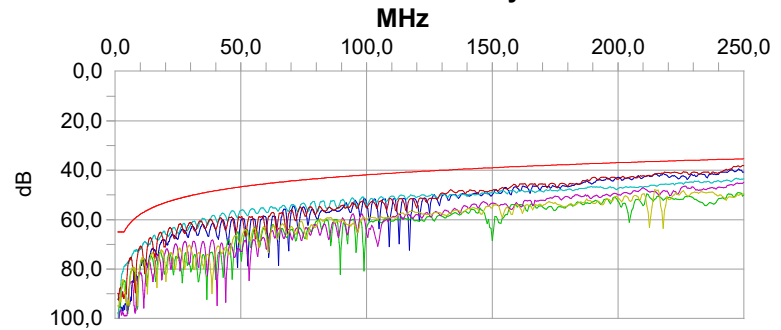
Attenuation Summary



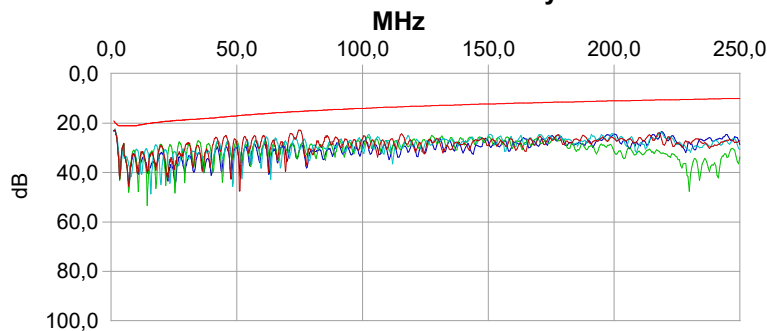
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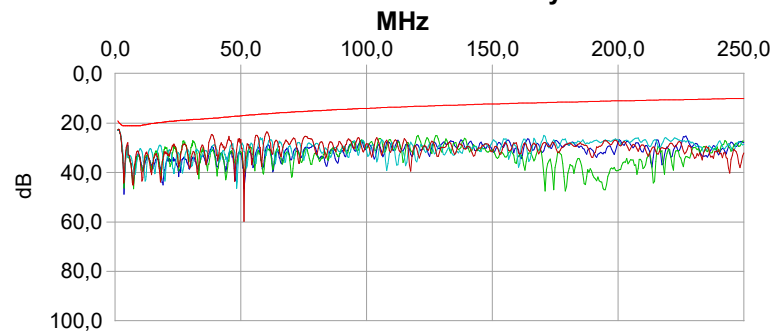
NEXT RH Summary



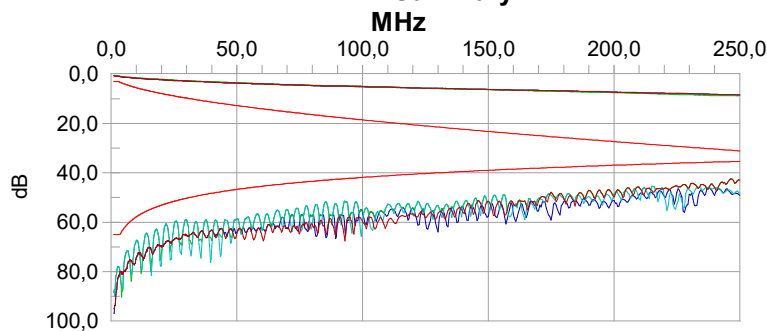
Return Loss DH Summary



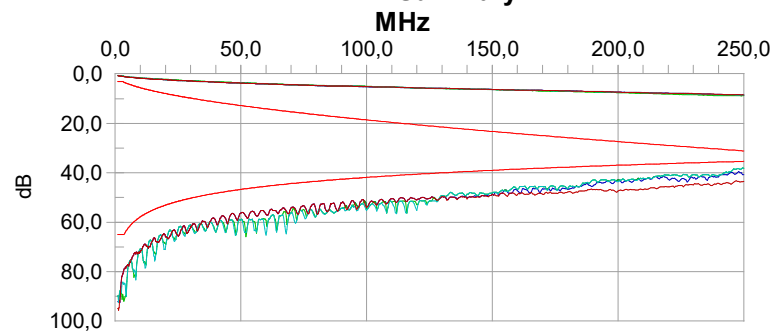
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

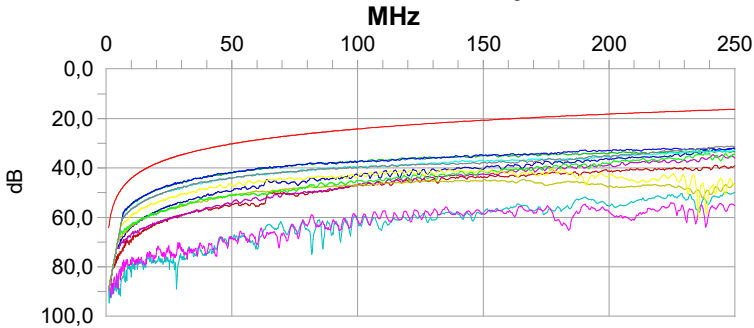
Cable ID 1: 6/8
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:04:11
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

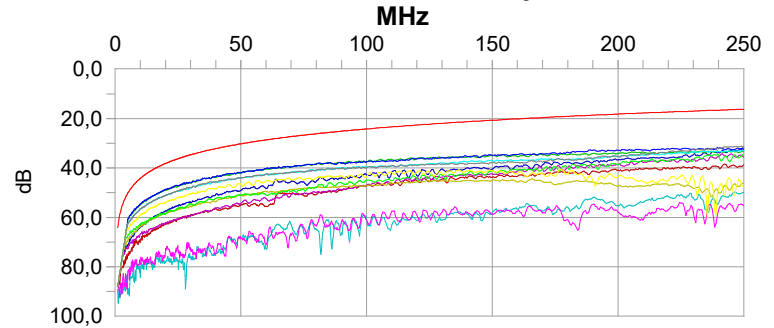
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

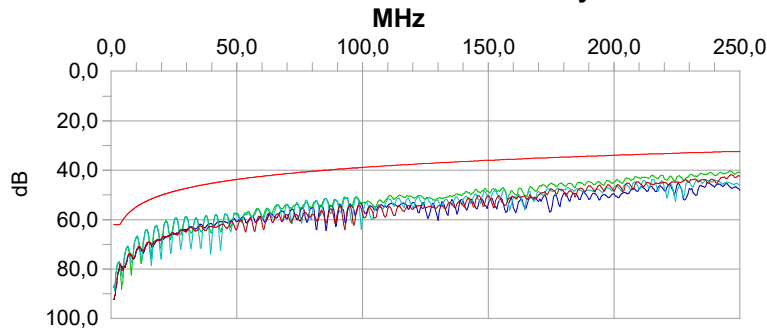
ELFEXT DH Summary



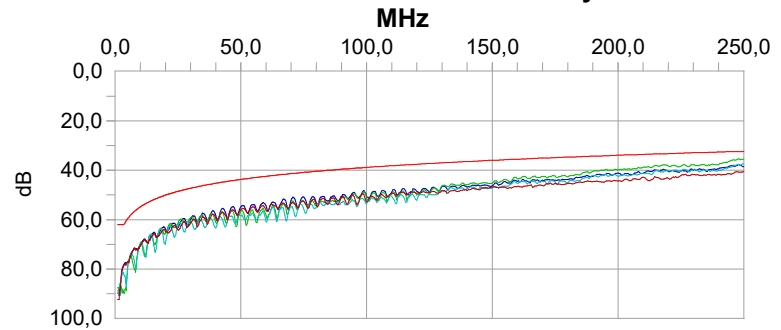
ELFEXT RH Summary



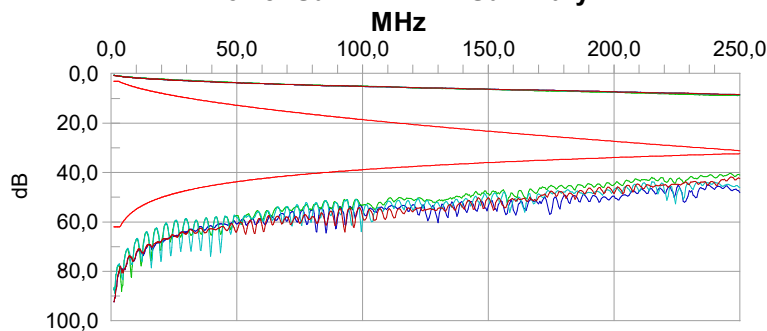
Power Sum NEXT DH Summary



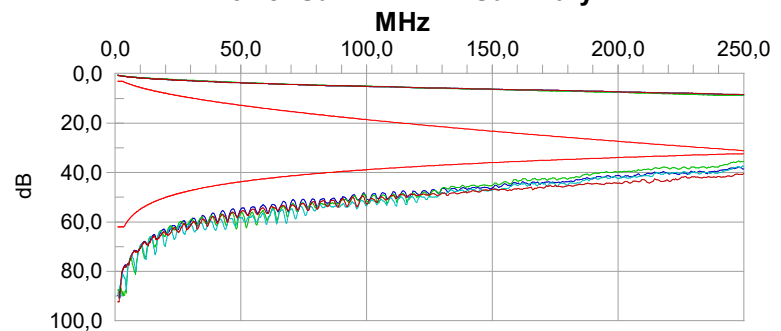
Power Sum NEXT RH Summary



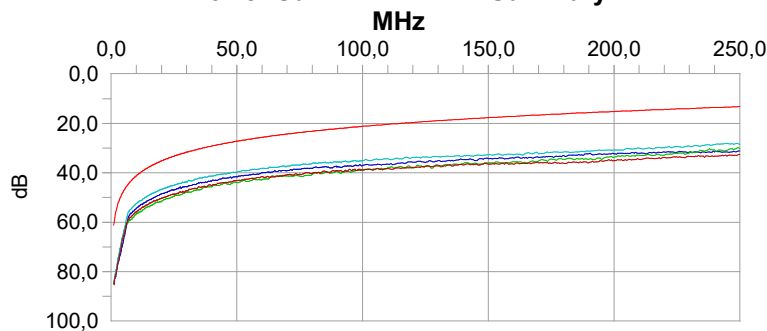
Power Sum ACR DH Summary



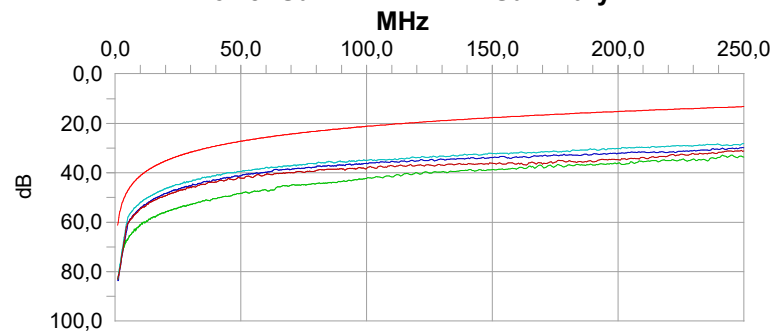
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

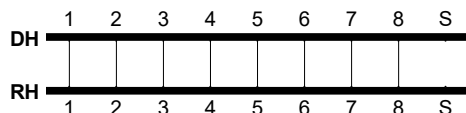
Cable ID 1: 6/9
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:05:03
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	89.2ft.	88.9ft.	88.3ft.	91.2ft.	< 295.3ft.	Pass
Prop. Delay	147.1ns	146.3ns	145.7ns	147.7ns	< 498.0ns	Pass
Delay Skew		2.0ns (Pairs 1,2 vs. 5,4)			< 44.0 ns	Pass
DC Resistance	7.3 Ohm	7.3 Ohm	7.3 Ohm	7.8 Ohm	< 20.0 Ohm	Pass
Headroom		7.7 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	47.0 dB @ 234.00MHz	47.0 dB	> 35.8 dB	11.2 dB
7,8-5,4	DH	Pass	52.0 dB @ 208.50MHz	52.0 dB	> 36.6 dB	15.4 dB
7,8-1,2	DH	Pass	52.5 dB @ 248.50MHz	52.5 dB	> 35.4 dB	17.1 dB
3,6-5,4	DH	Pass	43.8 dB @ 234.50MHz	43.8 dB	> 35.8 dB	8.0 dB
3,6-1,2	DH	Pass	43.1 dB @ 246.50MHz	43.1 dB	> 35.4 dB	7.7 dB
5,4-1,2	DH	Pass	50.6 dB @ 235.50MHz	50.5 dB	> 35.8 dB	14.8 dB
7,8-3,6	RH	Pass	43.1 dB @ 237.00MHz	43.1 dB	> 35.7 dB	7.4 dB
7,8-5,4	RH	Pass	51.9 dB @ 239.50MHz	51.9 dB	> 35.6 dB	16.3 dB
7,8-1,2	RH	Pass	60.7 dB @ 99.25MHz	54.5 dB	> 41.9 dB	18.8 dB
3,6-5,4	RH	Pass	47.1 dB @ 231.50MHz	46.8 dB	> 35.9 dB	11.2 dB
3,6-1,2	RH	Pass	46.5 dB @ 242.50MHz	46.3 dB	> 35.6 dB	10.9 dB
5,4-1,2	RH	Pass	49.5 dB @ 242.50MHz	49.4 dB	> 35.6 dB	13.9 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	> 19.9 dB	3.1 dB
3,6	DH	Pass	22.9 dB @ 1.60MHz	22.8 dB	> 19.9 dB	3.0 dB
5,4	DH	Pass	22.2 dB @ 1.60MHz	22.2 dB	> 19.9 dB	2.3 dB
1,2	DH	Pass	23.0 dB @ 1.60MHz	22.9 dB	> 19.9 dB	3.1 dB
7,8	RH	Pass	22.7 dB @ 1.60MHz	22.7 dB	> 19.9 dB	2.8 dB
3,6	RH	Pass	22.5 dB @ 1.60MHz	22.4 dB	> 19.9 dB	2.6 dB
5,4	RH	Pass	22.5 dB @ 1.45MHz	22.5 dB	> 19.7 dB	2.8 dB
1,2	RH	Pass	22.6 dB @ 1.60MHz	22.5 dB	> 19.9 dB	2.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.0 dB @ 3.10MHz	8.5 dB	< 3.1 dB	2.1 dB
3,6	Pass	0.9 dB @ 3.10MHz	8.9 dB	< 3.1 dB	2.2 dB
5,4	Pass	0.9 dB @ 3.10MHz	8.4 dB	< 3.1 dB	2.2 dB
1,2	Pass	1.0 dB @ 3.10MHz	8.5 dB	< 3.1 dB	2.1 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	38.9 dB @ 234.00MHz	N/A	>= 5.9 dB	33.0 dB
3,6	DH	Pass	34.3 dB @ 246.50MHz	N/A	>= 4.6 dB	29.7 dB
5,4	DH	Pass	35.6 dB @ 242.50MHz	N/A	>= 5.0 dB	30.6 dB
1,2	DH	Pass	34.6 dB @ 249.50MHz	N/A	>= 4.3 dB	30.3 dB
7,8	RH	Pass	34.8 dB @ 241.00MHz	N/A	>= 5.2 dB	29.6 dB
3,6	RH	Pass	34.4 dB @ 241.00MHz	N/A	>= 5.2 dB	29.2 dB
5,4	RH	Pass	38.5 dB @ 246.50MHz	N/A	>= 4.6 dB	33.9 dB
1,2	RH	Pass	37.8 dB @ 249.50MHz	N/A	>= 4.3 dB	33.5 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 6/9
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:05:03
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	41.0 dB @ 249.50MHz	41.0 dB	> 16.2 dB	24.8 dB
7,8-5,4	DH	Pass	62.5 dB @ 7.90MHz	41.6 dB	> 46.2 dB	16.3 dB
7,8-1,2	DH	Pass	58.6 dB @ 66.25MHz	48.2 dB	> 27.8 dB	30.8 dB
3,6-7,8	DH	Pass	58.0 dB @ 62.75MHz	48.5 dB	> 28.2 dB	29.8 dB
3,6-5,4	DH	Pass	62.6 dB @ 5.95MHz	33.8 dB	> 48.7 dB	13.9 dB
3,6-1,2	DH	Pass	68.4 dB @ 5.80MHz	47.9 dB	> 48.9 dB	19.5 dB
5,4-7,8	DH	Pass	64.9 dB @ 5.80MHz	40.9 dB	> 48.9 dB	16.0 dB
5,4-3,6	DH	Pass	56.4 dB @ 7.15MHz	29.3 dB	> 47.1 dB	9.3 dB
5,4-1,2	DH	Pass	67.0 dB @ 7.90MHz	41.6 dB	> 46.2 dB	20.8 dB
1,2-7,8	DH	Pass	52.5 dB @ 106.50MHz	46.9 dB	> 23.6 dB	28.9 dB
1,2-3,6	DH	Pass	65.3 dB @ 5.50MHz	42.9 dB	> 49.4 dB	15.9 dB
1,2-5,4	DH	Pass	66.3 dB @ 8.80MHz	41.6 dB	> 45.3 dB	21.0 dB
7,8-3,6	RH	Pass	41.3 dB @ 250.00MHz	41.3 dB	> 16.2 dB	25.1 dB
7,8-5,4	RH	Pass	62.5 dB @ 7.90MHz	41.5 dB	> 46.2 dB	16.3 dB
7,8-1,2	RH	Pass	48.1 dB @ 218.00MHz	48.1 dB	> 17.4 dB	30.7 dB
3,6-7,8	RH	Pass	58.1 dB @ 62.75MHz	48.2 dB	> 28.2 dB	29.9 dB
3,6-5,4	RH	Pass	64.4 dB @ 4.75MHz	33.3 dB	> 50.7 dB	13.7 dB
3,6-1,2	RH	Pass	68.4 dB @ 5.80MHz	47.3 dB	> 48.9 dB	19.5 dB
5,4-7,8	RH	Pass	64.9 dB @ 5.80MHz	41.0 dB	> 48.9 dB	16.0 dB
5,4-3,6	RH	Pass	57.4 dB @ 6.40MHz	29.8 dB	> 48.1 dB	9.3 dB
5,4-1,2	RH	Pass	67.0 dB @ 7.90MHz	41.7 dB	> 46.2 dB	20.8 dB
1,2-7,8	RH	Pass	51.3 dB @ 123.00MHz	46.9 dB	> 22.4 dB	28.9 dB
1,2-3,6	RH	Pass	65.1 dB @ 5.50MHz	43.0 dB	> 49.4 dB	15.7 dB
1,2-5,4	RH	Pass	66.3 dB @ 8.80MHz	41.5 dB	> 45.3 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	45.5 dB @ 234.00MHz	45.5 dB	> 32.8 dB	12.7 dB
3,6	DH	Pass	40.5 dB @ 231.50MHz	40.1 dB	> 32.9 dB	7.6 dB
5,4	DH	Pass	42.6 dB @ 235.00MHz	42.5 dB	> 32.8 dB	9.8 dB
1,2	DH	Pass	42.1 dB @ 249.50MHz	42.1 dB	> 32.4 dB	9.7 dB
7,8	RH	Pass	42.4 dB @ 237.00MHz	42.4 dB	> 32.7 dB	9.7 dB
3,6	RH	Pass	40.7 dB @ 238.50MHz	40.7 dB	> 32.7 dB	8.0 dB
5,4	RH	Pass	44.4 dB @ 239.00MHz	44.3 dB	> 32.7 dB	11.7 dB
1,2	RH	Pass	44.5 dB @ 242.50MHz	44.5 dB	> 32.6 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	37.4 dB @ 234.00MHz	N/A	>= 2.9 dB	34.5 dB
3,6	DH	Pass	31.3 dB @ 246.50MHz	N/A	>= 1.6 dB	29.7 dB
5,4	DH	Pass	34.4 dB @ 236.00MHz	N/A	>= 2.6 dB	31.8 dB
1,2	DH	Pass	33.6 dB @ 249.50MHz	N/A	>= 1.3 dB	32.3 dB
7,8	RH	Pass	34.2 dB @ 241.00MHz	N/A	>= 2.2 dB	32.0 dB
3,6	RH	Pass	32.0 dB @ 242.00MHz	N/A	>= 2.1 dB	29.9 dB
5,4	RH	Pass	36.0 dB @ 243.00MHz	N/A	>= 1.9 dB	34.1 dB
1,2	RH	Pass	36.0 dB @ 249.50MHz	N/A	>= 1.3 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	46.3 dB @ 56.25MHz	40.1 dB	>= 26.2 dB	20.1 dB
3,6	DH	Pass	47.4 dB @ 20.65MHz	29.0 dB	>= 34.9 dB	12.5 dB
5,4	DH	Pass	58.4 dB @ 7.45MHz	33.0 dB	>= 43.7 dB	14.7 dB
1,2	DH	Pass	52.2 dB @ 34.75MHz	40.4 dB	>= 30.4 dB	21.8 dB
7,8	RH	Pass	50.3 dB @ 34.75MHz	39.0 dB	>= 30.4 dB	19.9 dB
3,6	RH	Pass	46.4 dB @ 41.00MHz	33.2 dB	>= 28.9 dB	17.5 dB
5,4	RH	Pass	55.4 dB @ 7.15MHz	29.4 dB	>= 44.1 dB	11.3 dB
1,2	RH	Pass	53.9 dB @ 20.65MHz	39.8 dB	>= 34.9 dB	19.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

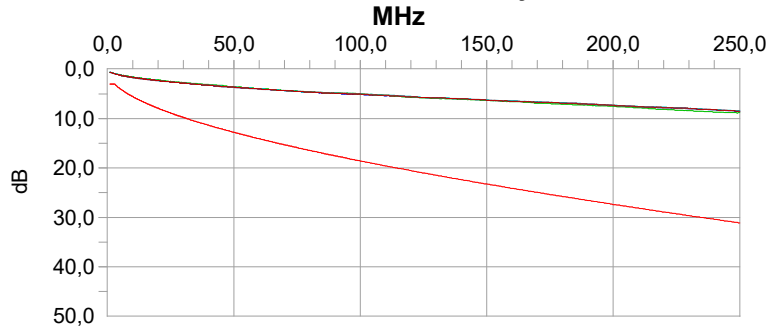
Cable ID 1: 6/9
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:05:03
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

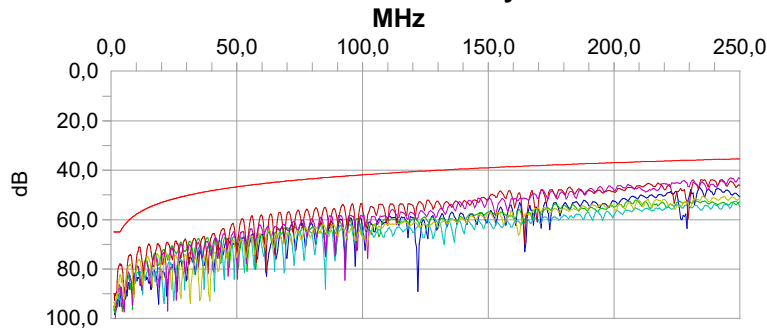
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

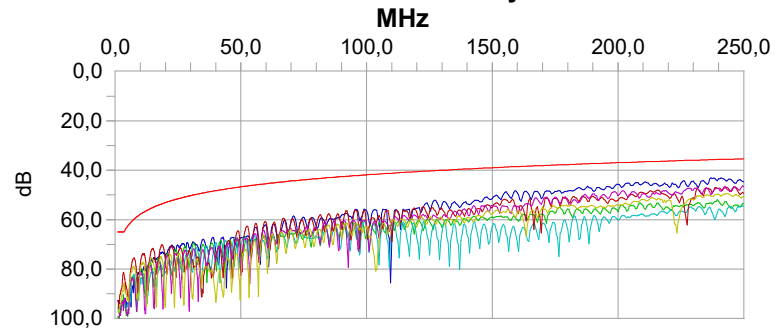
Attenuation Summary



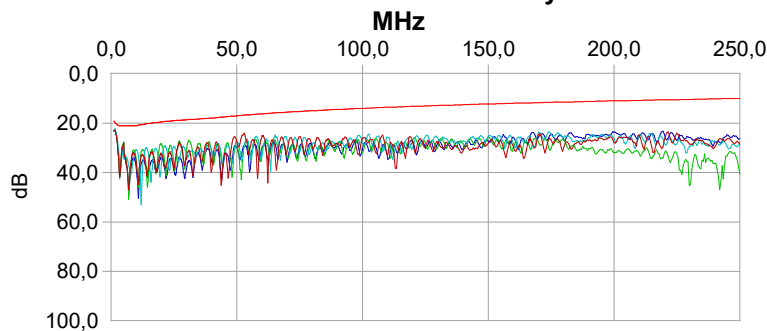
NEXT DH Summary



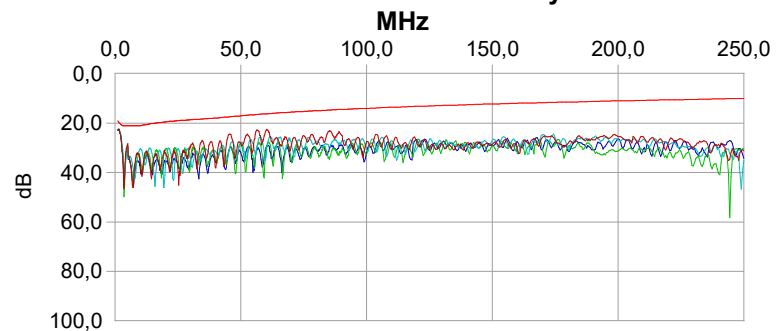
NEXT RH Summary



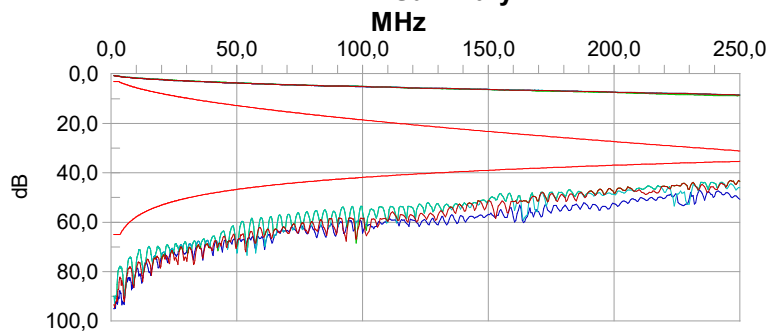
Return Loss DH Summary



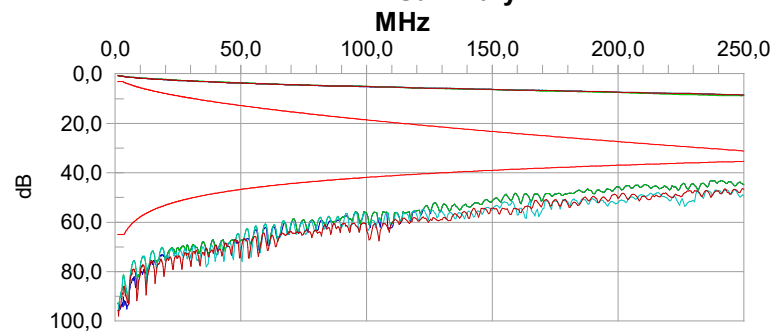
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

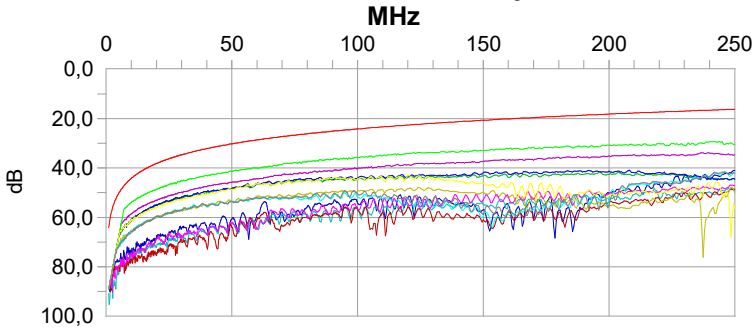
Cable ID 1: 6/9
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:05:03
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

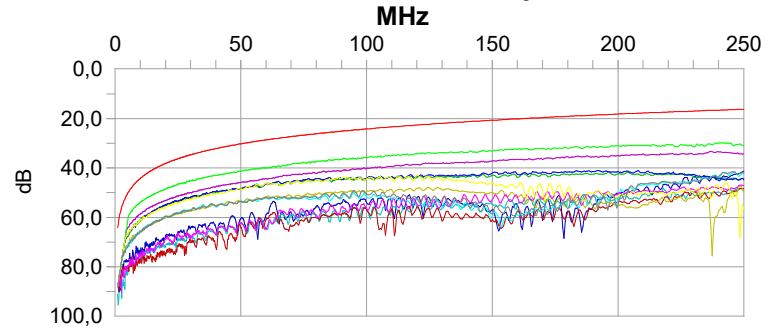
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

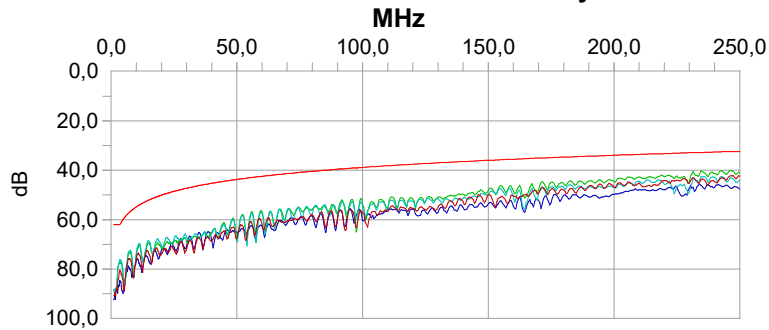
ELFEXT DH Summary



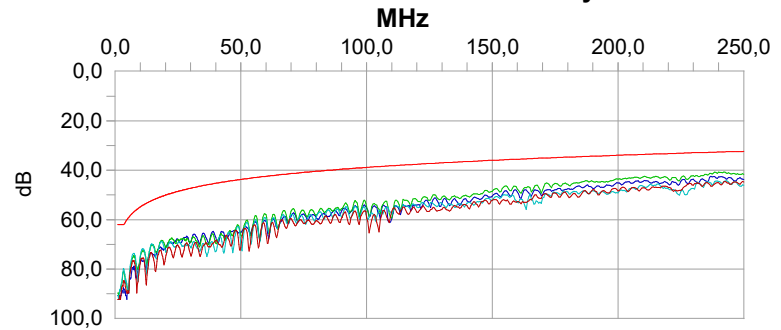
ELFEXT RH Summary



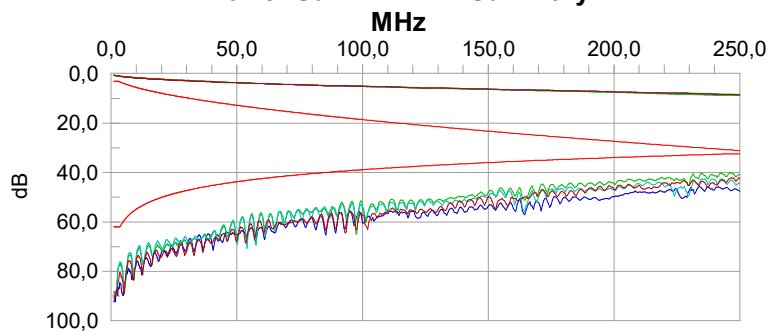
Power Sum NEXT DH Summary



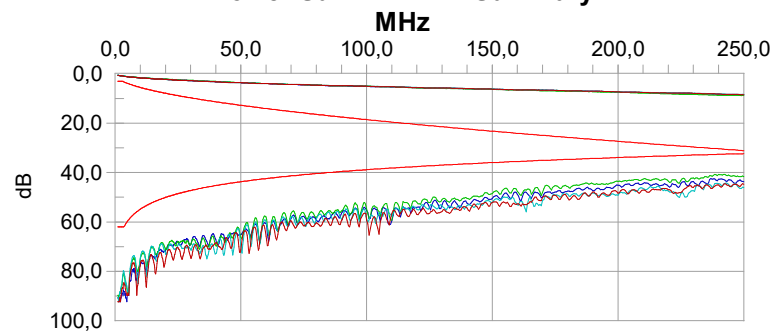
Power Sum NEXT RH Summary



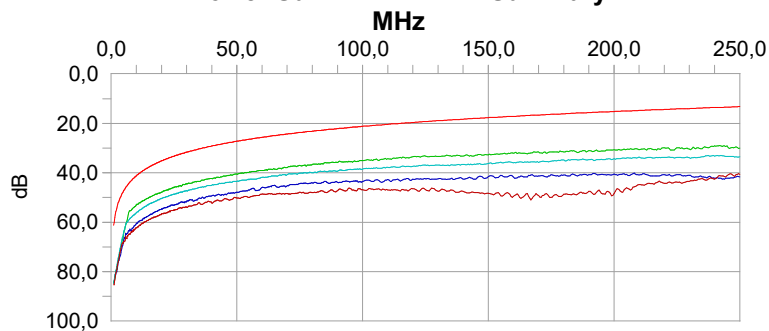
Power Sum ACR DH Summary



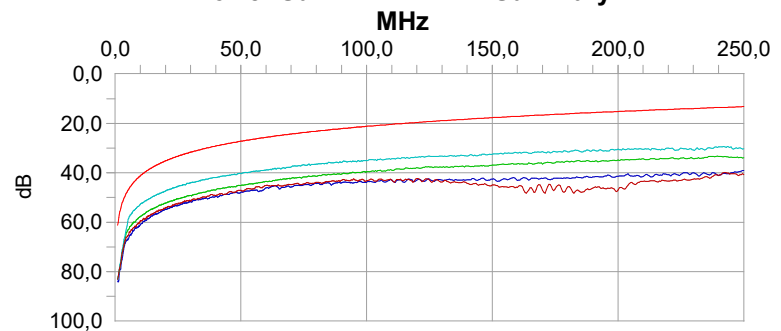
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

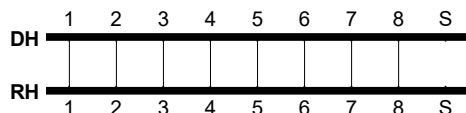
Cable ID 1: 7/8
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:39:17
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	142.7ft.	147.3ft.	146.3ft.	144.7ft.	< 295.3ft.	Pass
Prop. Delay	224.1ns	230.8ns	229.3ns	225.0ns	< 498.0ns	Pass
Delay Skew	6.7ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	17.2 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	53.1 dB @ 12.85MHz	43.1 dB	> 46.8 dB	6.3 dB
7,8-5,4	DH	Pass	64.4 dB @ 17.65MHz	54.9 dB	> 44.5 dB	19.9 dB
7,8-1,2	DH	Pass	68.7 dB @ 4.00MHz	49.3 dB	> 54.8 dB	13.9 dB
3,6-5,4	DH	Pass	52.5 dB @ 14.05MHz	46.1 dB	> 46.1 dB	6.4 dB
3,6-1,2	DH	Pass	54.9 dB @ 16.15MHz	43.3 dB	> 45.2 dB	9.7 dB
5,4-1,2	DH	Pass	48.7 dB @ 14.20MHz	42.8 dB	> 46.1 dB	2.6 dB
7,8-3,6	RH	Pass	36.7 dB @ 70.50MHz	34.9 dB	> 34.8 dB	1.9 dB
7,8-5,4	RH	Pass	71.6 dB @ 6.25MHz	55.5 dB	> 51.7 dB	19.9 dB
7,8-1,2	RH	Pass	51.2 dB @ 42.00MHz	46.6 dB	> 38.5 dB	12.7 dB
3,6-5,4	RH	Pass	54.0 dB @ 13.90MHz	45.7 dB	> 46.2 dB	7.8 dB
3,6-1,2	RH	Pass	45.0 dB @ 74.50MHz	44.4 dB	> 34.4 dB	10.6 dB
5,4-1,2	RH	Pass	46.6 dB @ 13.90MHz	34.8 dB	> 46.2 dB	0.4 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.2 dB @ 1.45MHz	21.8 dB	> 19.0 dB	5.2 dB
3,6	DH	Pass	22.5 dB @ 28.45MHz	22.1 dB	> 17.5 dB	5.0 dB
5,4	DH	Pass	22.6 dB @ 17.65MHz	20.1 dB	> 19.0 dB	3.6 dB
1,2	DH	Pass	18.4 dB @ 55.00MHz	18.4 dB	> 14.6 dB	3.8 dB
7,8	RH	Pass	23.4 dB @ 1.30MHz	19.0 dB	> 19.0 dB	4.4 dB
3,6	RH	Pass	23.3 dB @ 19.30MHz	20.1 dB	> 19.0 dB	4.3 dB
5,4	RH	Pass	21.3 dB @ 17.65MHz	16.6 dB	> 19.0 dB	2.3 dB
1,2	RH	Pass	17.1 dB @ 53.25MHz	16.5 dB	> 14.7 dB	2.4 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	1.0 dB @ 2.50MHz	7.7 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	1.2 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	35.5 dB @ 99.25MHz	N/A	>= 11.5 dB	24.0 dB
3,6	DH	Pass	35.4 dB @ 99.25MHz	N/A	>= 11.5 dB	23.9 dB
5,4	DH	Pass	35.8 dB @ 97.75MHz	N/A	>= 11.8 dB	24.0 dB
1,2	DH	Pass	35.5 dB @ 99.50MHz	N/A	>= 11.4 dB	24.1 dB
7,8	RH	Pass	27.4 dB @ 98.75MHz	N/A	>= 11.6 dB	15.8 dB
3,6	RH	Pass	27.2 dB @ 98.75MHz	N/A	>= 11.6 dB	15.6 dB
5,4	RH	Pass	27.4 dB @ 98.25MHz	N/A	>= 11.6 dB	15.8 dB
1,2	RH	Pass	27.2 dB @ 98.25MHz	N/A	>= 11.6 dB	15.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 7/8
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:39:17
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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 @ 61.25MHz	36.3 dB	> 22.9 dB	16.8 dB
7,8-5,4	DH	Pass	41.0 dB @ 98.75MHz	41.0 dB	> 18.7 dB	22.3 dB
7,8-1,2	DH	Pass	66.0 dB @ 16.30MHz	59.6 dB	> 34.4 dB	31.6 dB
3,6-7,8	DH	Pass	62.7 dB @ 8.05MHz	45.8 dB	> 40.5 dB	22.2 dB
3,6-5,4	DH	Pass	64.9 dB @ 5.65MHz	41.2 dB	> 43.6 dB	21.3 dB
3,6-1,2	DH	Pass	37.3 dB @ 91.25MHz	37.0 dB	> 19.4 dB	17.9 dB
5,4-7,8	DH	Pass	62.9 dB @ 8.35MHz	42.6 dB	> 40.2 dB	22.7 dB
5,4-3,6	DH	Pass	35.7 dB @ 98.50MHz	35.7 dB	> 18.7 dB	17.0 dB
5,4-1,2	DH	Pass	50.4 dB @ 13.45MHz	36.2 dB	> 36.0 dB	14.4 dB
1,2-7,8	DH	Pass	66.8 dB @ 19.15MHz	53.1 dB	> 33.0 dB	33.8 dB
1,2-3,6	DH	Pass	34.8 dB @ 74.75MHz	33.8 dB	> 21.1 dB	13.7 dB
1,2-5,4	DH	Pass	49.2 dB @ 15.85MHz	35.6 dB	> 34.6 dB	14.6 dB
7,8-3,6	RH	Pass	39.7 dB @ 61.25MHz	36.6 dB	> 22.9 dB	16.8 dB
7,8-5,4	RH	Pass	40.9 dB @ 98.75MHz	40.9 dB	> 18.7 dB	22.2 dB
7,8-1,2	RH	Pass	64.9 dB @ 18.40MHz	59.8 dB	> 33.3 dB	31.6 dB
3,6-7,8	RH	Pass	62.7 dB @ 8.05MHz	45.7 dB	> 40.5 dB	22.2 dB
3,6-5,4	RH	Pass	67.6 dB @ 4.15MHz	41.0 dB	> 46.3 dB	21.3 dB
3,6-1,2	RH	Pass	37.6 dB @ 91.25MHz	37.0 dB	> 19.4 dB	18.2 dB
5,4-7,8	RH	Pass	67.1 dB @ 5.05MHz	42.7 dB	> 44.5 dB	22.6 dB
5,4-3,6	RH	Pass	59.4 dB @ 6.40MHz	36.0 dB	> 42.5 dB	16.9 dB
5,4-1,2	RH	Pass	50.4 dB @ 13.45MHz	36.3 dB	> 36.0 dB	14.4 dB
1,2-7,8	RH	Pass	52.9 dB @ 92.75MHz	52.9 dB	> 19.3 dB	33.6 dB
1,2-3,6	RH	Pass	36.2 dB @ 63.75MHz	33.6 dB	> 22.5 dB	13.7 dB
1,2-5,4	RH	Pass	49.1 dB @ 15.85MHz	35.5 dB	> 34.6 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	59.9 dB @ 4.30MHz	42.7 dB	> 51.3 dB	8.6 dB
3,6	DH	Pass	50.5 dB @ 13.30MHz	39.5 dB	> 43.5 dB	7.0 dB
5,4	DH	Pass	47.1 dB @ 14.20MHz	41.8 dB	> 43.1 dB	4.0 dB
1,2	DH	Pass	48.4 dB @ 13.75MHz	40.7 dB	> 43.3 dB	5.1 dB
7,8	RH	Pass	36.4 dB @ 70.50MHz	34.6 dB	> 31.8 dB	4.6 dB
3,6	RH	Pass	41.3 dB @ 32.75MHz	34.3 dB	> 37.2 dB	4.1 dB
5,4	RH	Pass	45.8 dB @ 13.90MHz	34.5 dB	> 43.2 dB	2.6 dB
1,2	RH	Pass	46.2 dB @ 13.90MHz	34.2 dB	> 43.2 dB	3.0 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	35.1 dB @ 99.25MHz	N/A	>= 8.5 dB	26.6 dB
3,6	DH	Pass	31.8 dB @ 99.25MHz	N/A	>= 8.5 dB	23.3 dB
5,4	DH	Pass	35.1 dB @ 87.75MHz	N/A	>= 10.7 dB	24.4 dB
1,2	DH	Pass	33.1 dB @ 98.25MHz	N/A	>= 8.6 dB	24.5 dB
7,8	RH	Pass	27.1 dB @ 98.75MHz	N/A	>= 8.6 dB	18.5 dB
3,6	RH	Pass	26.6 dB @ 98.75MHz	N/A	>= 8.6 dB	18.0 dB
5,4	RH	Pass	27.1 dB @ 98.50MHz	N/A	>= 8.6 dB	18.5 dB
1,2	RH	Pass	26.6 dB @ 98.25MHz	N/A	>= 8.6 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	50.5 dB @ 26.05MHz	41.1 dB	>= 27.3 dB	23.2 dB
3,6	DH	Pass	34.6 dB @ 60.75MHz	30.8 dB	>= 19.9 dB	14.7 dB
5,4	DH	Pass	49.5 dB @ 13.45MHz	33.8 dB	>= 33.0 dB	16.5 dB
1,2	DH	Pass	48.0 dB @ 16.30MHz	33.7 dB	>= 31.4 dB	16.6 dB
7,8	RH	Pass	39.1 dB @ 61.25MHz	35.5 dB	>= 19.9 dB	19.2 dB
3,6	RH	Pass	36.0 dB @ 91.25MHz	35.6 dB	>= 16.4 dB	19.6 dB
5,4	RH	Pass	48.2 dB @ 13.45MHz	32.8 dB	>= 33.0 dB	15.2 dB
1,2	RH	Pass	34.6 dB @ 60.50MHz	31.9 dB	>= 20.0 dB	14.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

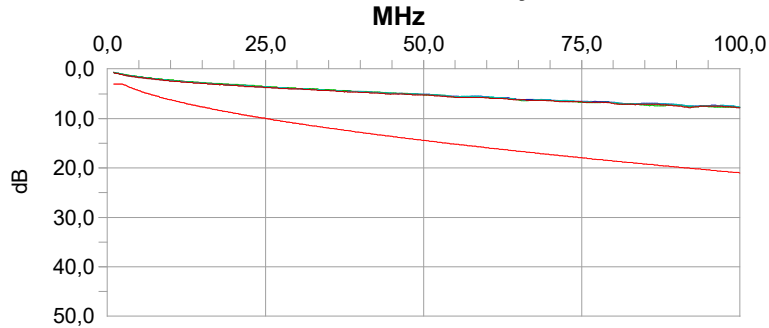
Cable ID 1: 7/8
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:39:17
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

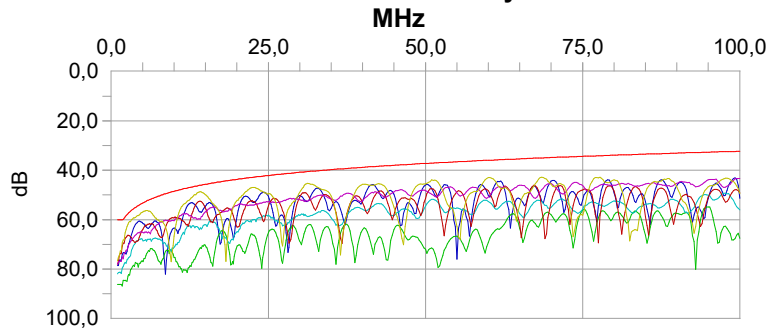
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

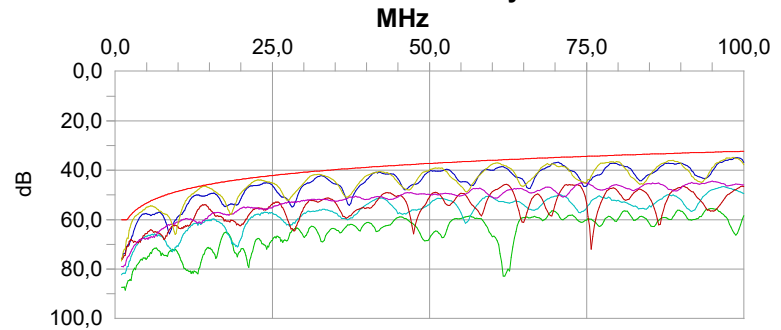
Attenuation Summary



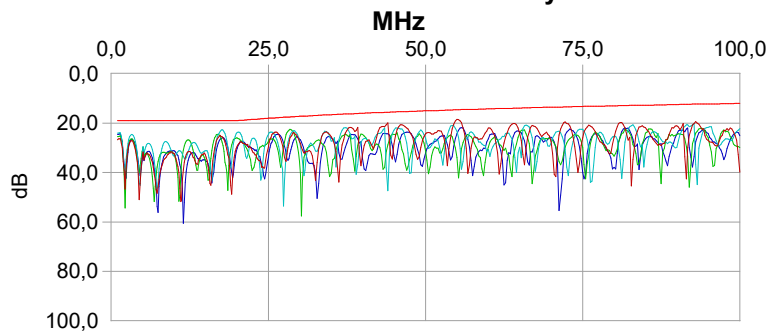
NEXT DH Summary



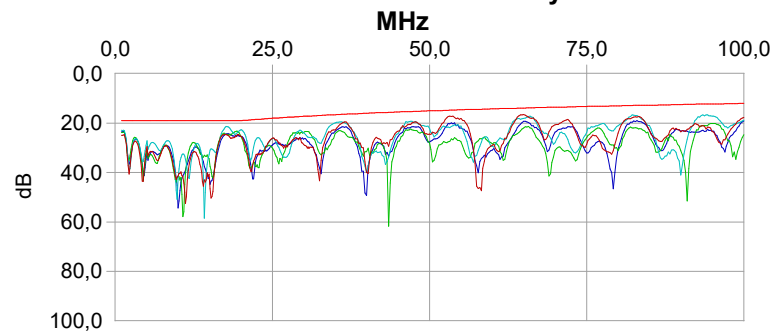
NEXT RH Summary



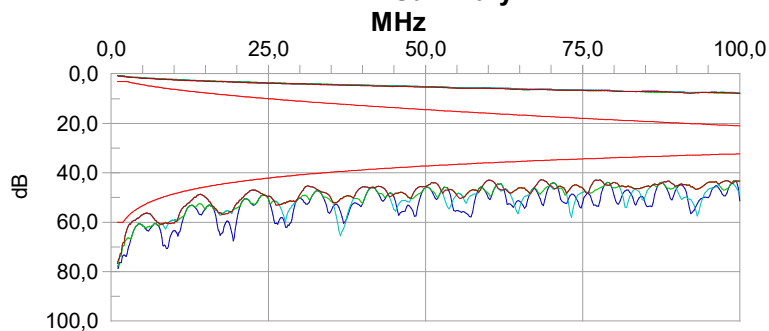
Return Loss DH Summary



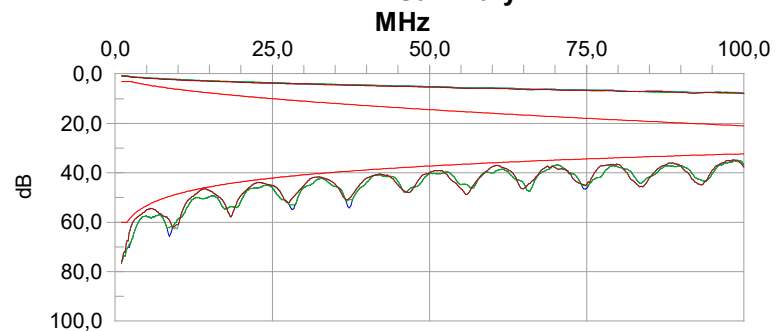
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

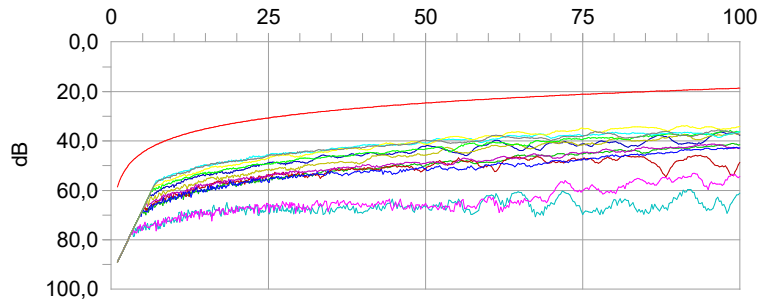
Cable ID 1: 7/8
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:39:17
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

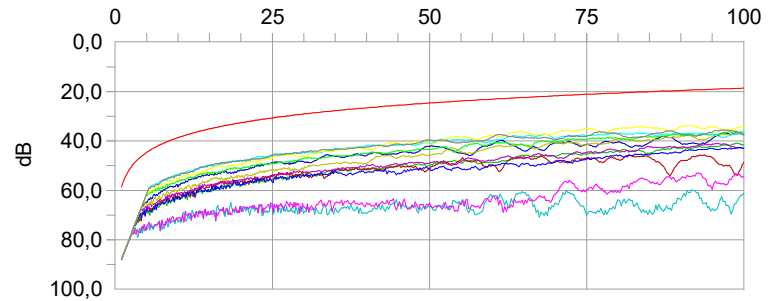
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

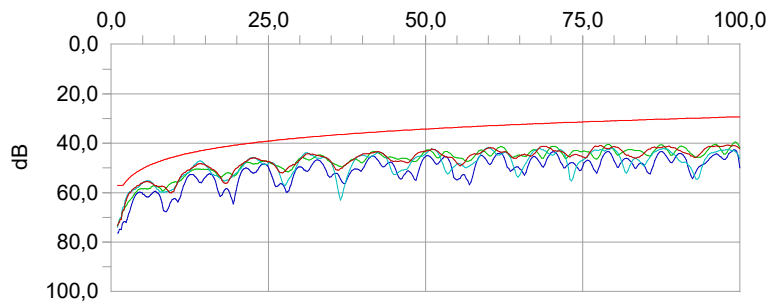
ELFEXT DH Summary
MHz



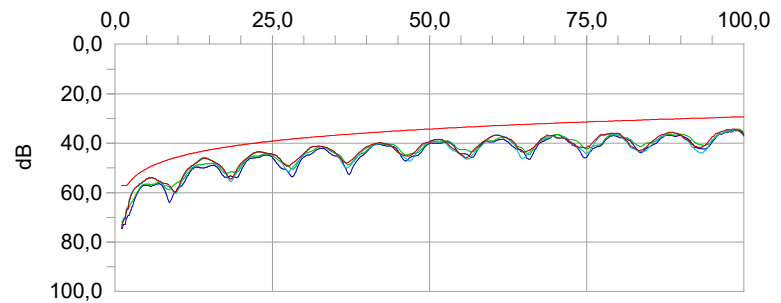
ELFEXT RH Summary
MHz



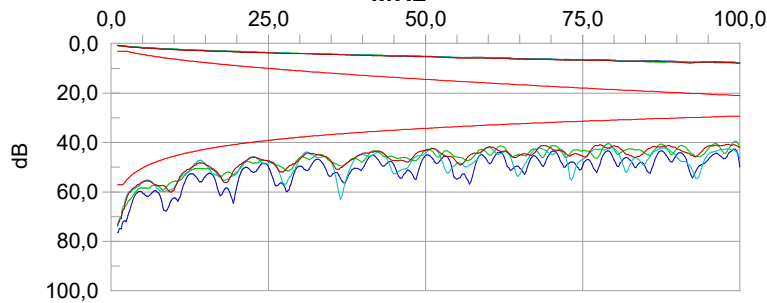
Power Sum NEXT DH Summary
MHz



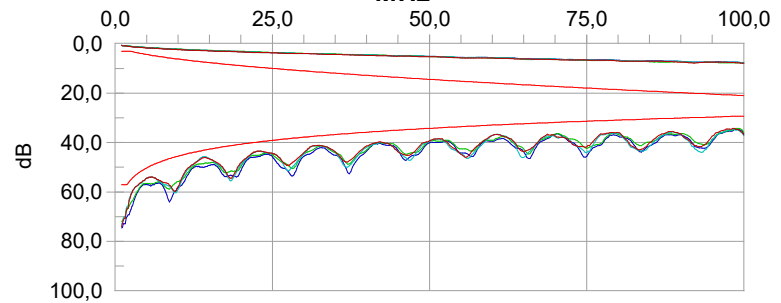
Power Sum NEXT RH Summary
MHz



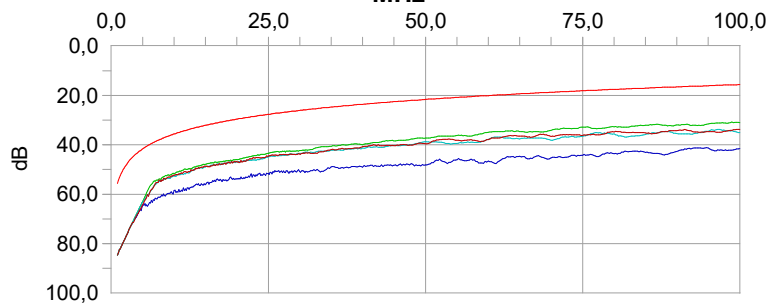
Power Sum ACR DH Summary
MHz



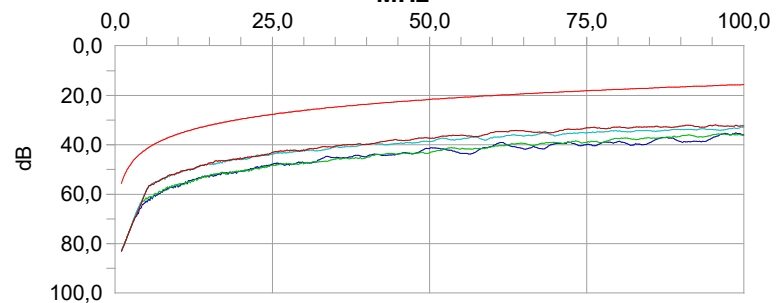
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

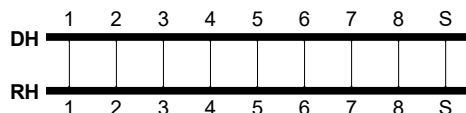
Cable ID 1: 9/1
Cable ID 2:
Test Date: 2017-12-13
Test Time: 13:54:17
Adapter ID: 6014

Cable Type: Cat 6-250 STP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	124.7ft.	123.4ft.	124.0ft.	123.7ft.	< 295.3ft.	Pass
Prop. Delay	198.1ns	196.5ns	197.4ns	194.7ns	< 498.0ns	Pass
Delay Skew		3.4ns (Pairs 7,8 vs. 1,2)			< 44.0 ns	Pass
DC Resistance	9.2 Ohm	9.2 Ohm	9.4 Ohm	9.9 Ohm	< 20.0 Ohm	Pass
Headroom		10.7 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	47.7 dB @ 232.50MHz	47.7 dB	> 35.9 dB	11.8 dB
7,8-5,4	DH	Pass	54.1 dB @ 205.50MHz	52.9 dB	> 36.7 dB	17.4 dB
7,8-1,2	DH	Pass	75.8 dB @ 17.50MHz	59.0 dB	> 54.0 dB	21.8 dB
3,6-5,4	DH	Pass	46.2 dB @ 242.50MHz	46.2 dB	> 35.6 dB	10.6 dB
3,6-1,2	DH	Pass	46.4 dB @ 232.00MHz	46.4 dB	> 35.9 dB	10.5 dB
5,4-1,2	DH	Pass	51.0 dB @ 245.50MHz	50.9 dB	> 35.5 dB	15.5 dB
7,8-3,6	RH	Pass	46.1 dB @ 235.00MHz	46.1 dB	> 35.8 dB	10.3 dB
7,8-5,4	RH	Pass	52.9 dB @ 207.00MHz	52.6 dB	> 36.7 dB	16.2 dB
7,8-1,2	RH	Pass	67.1 dB @ 28.15MHz	52.3 dB	> 50.7 dB	16.4 dB
3,6-5,4	RH	Pass	48.2 dB @ 240.00MHz	48.2 dB	> 35.6 dB	12.6 dB
3,6-1,2	RH	Pass	47.2 dB @ 234.50MHz	47.2 dB	> 35.8 dB	11.4 dB
5,4-1,2	RH	Pass	50.6 dB @ 244.50MHz	50.6 dB	> 35.5 dB	15.1 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	> 19.5 dB	3.1 dB
3,6	DH	Pass	20.7 dB @ 1.15MHz	20.6 dB	> 19.3 dB	1.4 dB
5,4	DH	Pass	20.7 dB @ 1.15MHz	20.6 dB	> 19.3 dB	1.4 dB
1,2	DH	Pass	22.3 dB @ 1.30MHz	22.2 dB	> 19.5 dB	2.8 dB
7,8	RH	Pass	22.1 dB @ 1.30MHz	22.1 dB	> 19.5 dB	2.6 dB
3,6	RH	Pass	20.5 dB @ 1.15MHz	20.5 dB	> 19.3 dB	1.2 dB
5,4	RH	Pass	20.3 dB @ 1.00MHz	20.3 dB	> 19.1 dB	1.2 dB
1,2	RH	Pass	21.6 dB @ 1.15MHz	21.6 dB	> 19.3 dB	2.3 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.3 dB @ 3.10MHz	11.9 dB	< 3.1 dB	1.8 dB
3,6	Pass	1.2 dB @ 3.10MHz	12.0 dB	< 3.1 dB	1.9 dB
5,4	Pass	1.3 dB @ 3.10MHz	11.7 dB	< 3.1 dB	1.8 dB
1,2	Pass	1.3 dB @ 3.10MHz	12.0 dB	< 3.1 dB	1.8 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	36.3 dB @ 232.50MHz	N/A	>= 6.1 dB	30.2 dB
3,6	DH	Pass	34.4 dB @ 242.50MHz	N/A	>= 5.0 dB	29.4 dB
5,4	DH	Pass	34.6 dB @ 246.00MHz	N/A	>= 4.7 dB	29.9 dB
1,2	DH	Pass	35.1 dB @ 232.00MHz	N/A	>= 6.1 dB	29.0 dB
7,8	RH	Pass	34.4 dB @ 243.50MHz	N/A	>= 4.9 dB	29.5 dB
3,6	RH	Pass	34.3 dB @ 243.50MHz	N/A	>= 4.9 dB	29.4 dB
5,4	RH	Pass	36.5 dB @ 249.00MHz	N/A	>= 4.4 dB	32.1 dB
1,2	RH	Pass	35.7 dB @ 234.50MHz	N/A	>= 5.8 dB	29.9 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 9/1
Cable ID 2:
Test Date: 2017-12-13
Test Time: 13:54:17
Adapter ID: 6014

Cable Type: Cat 6-250 STP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	66.1 dB @ 6.25MHz	45.3 dB	> 48.3 dB	17.8 dB
7,8-5,4	DH	Pass	67.3 dB @ 6.25MHz	36.9 dB	> 48.3 dB	19.0 dB
7,8-1,2	DH	Pass	67.0 dB @ 10.75MHz	44.5 dB	> 43.6 dB	23.4 dB
3,6-7,8	DH	Pass	67.8 dB @ 8.35MHz	49.2 dB	> 45.8 dB	22.0 dB
3,6-5,4	DH	Pass	63.4 dB @ 5.80MHz	38.3 dB	> 48.9 dB	14.5 dB
3,6-1,2	DH	Pass	66.3 dB @ 5.50MHz	36.3 dB	> 49.4 dB	16.9 dB
5,4-7,8	DH	Pass	65.7 dB @ 7.15MHz	36.0 dB	> 47.1 dB	18.6 dB
5,4-3,6	DH	Pass	57.0 dB @ 7.30MHz	33.7 dB	> 46.9 dB	10.1 dB
5,4-1,2	DH	Pass	67.8 dB @ 8.20MHz	46.4 dB	> 45.9 dB	21.9 dB
1,2-7,8	DH	Pass	66.4 dB @ 11.65MHz	45.1 dB	> 42.9 dB	23.5 dB
1,2-3,6	DH	Pass	60.1 dB @ 7.15MHz	31.5 dB	> 47.1 dB	13.0 dB
1,2-5,4	DH	Pass	66.1 dB @ 10.00MHz	47.0 dB	> 44.2 dB	21.9 dB
7,8-3,6	RH	Pass	67.8 dB @ 4.75MHz	45.3 dB	> 50.7 dB	17.1 dB
7,8-5,4	RH	Pass	67.2 dB @ 6.25MHz	36.6 dB	> 48.3 dB	18.9 dB
7,8-1,2	RH	Pass	67.0 dB @ 10.75MHz	44.6 dB	> 43.6 dB	23.4 dB
3,6-7,8	RH	Pass	67.9 dB @ 8.35MHz	49.0 dB	> 45.8 dB	22.1 dB
3,6-5,4	RH	Pass	63.5 dB @ 5.65MHz	37.9 dB	> 49.1 dB	14.4 dB
3,6-1,2	RH	Pass	68.2 dB @ 4.45MHz	36.2 dB	> 51.2 dB	17.0 dB
5,4-7,8	RH	Pass	65.6 dB @ 7.15MHz	36.2 dB	> 47.1 dB	18.5 dB
5,4-3,6	RH	Pass	59.2 dB @ 5.50MHz	33.8 dB	> 49.4 dB	9.8 dB
5,4-1,2	RH	Pass	67.8 dB @ 8.20MHz	46.6 dB	> 45.9 dB	21.9 dB
1,2-7,8	RH	Pass	66.4 dB @ 11.65MHz	45.0 dB	> 42.9 dB	23.5 dB
1,2-3,6	RH	Pass	63.3 dB @ 4.75MHz	31.5 dB	> 50.7 dB	12.6 dB
1,2-5,4	RH	Pass	66.1 dB @ 10.00MHz	46.7 dB	> 44.2 dB	21.9 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	46.6 dB @ 232.50MHz	46.6 dB	> 32.9 dB	13.7 dB
3,6	DH	Pass	42.8 dB @ 232.50MHz	42.6 dB	> 32.9 dB	9.9 dB
5,4	DH	Pass	44.3 dB @ 246.00MHz	44.3 dB	> 32.5 dB	11.8 dB
1,2	DH	Pass	45.6 dB @ 232.00MHz	45.6 dB	> 32.9 dB	12.7 dB
7,8	RH	Pass	44.5 dB @ 235.00MHz	44.5 dB	> 32.8 dB	11.7 dB
3,6	RH	Pass	42.8 dB @ 235.00MHz	42.7 dB	> 32.8 dB	10.0 dB
5,4	RH	Pass	45.7 dB @ 240.50MHz	45.5 dB	> 32.6 dB	13.1 dB
1,2	RH	Pass	45.2 dB @ 235.00MHz	45.2 dB	> 32.8 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	35.2 dB @ 232.50MHz	N/A	>= 3.1 dB	32.1 dB
3,6	DH	Pass	30.6 dB @ 250.00MHz	N/A	>= 1.2 dB	29.4 dB
5,4	DH	Pass	32.7 dB @ 246.00MHz	N/A	>= 1.7 dB	31.0 dB
1,2	DH	Pass	33.7 dB @ 250.00MHz	N/A	>= 1.2 dB	32.5 dB
7,8	RH	Pass	33.0 dB @ 235.00MHz	N/A	>= 2.8 dB	30.2 dB
3,6	RH	Pass	31.0 dB @ 237.50MHz	N/A	>= 2.5 dB	28.5 dB
5,4	RH	Pass	33.8 dB @ 248.50MHz	N/A	>= 1.4 dB	32.4 dB
1,2	RH	Pass	33.3 dB @ 249.50MHz	N/A	>= 1.3 dB	32.0 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	59.9 dB @ 10.75MHz	35.5 dB	>= 40.6 dB	19.3 dB
3,6	DH	Pass	55.2 dB @ 7.00MHz	29.6 dB	>= 44.3 dB	10.9 dB
5,4	DH	Pass	58.4 dB @ 8.50MHz	34.5 dB	>= 42.6 dB	15.8 dB
1,2	DH	Pass	59.3 dB @ 10.45MHz	35.6 dB	>= 40.8 dB	18.5 dB
7,8	RH	Pass	55.7 dB @ 14.80MHz	35.8 dB	>= 37.8 dB	17.9 dB
3,6	RH	Pass	58.2 dB @ 8.35MHz	34.3 dB	>= 42.8 dB	15.4 dB
5,4	RH	Pass	55.2 dB @ 8.20MHz	32.1 dB	>= 42.9 dB	12.3 dB
1,2	RH	Pass	56.3 dB @ 10.15MHz	31.3 dB	>= 41.1 dB	15.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

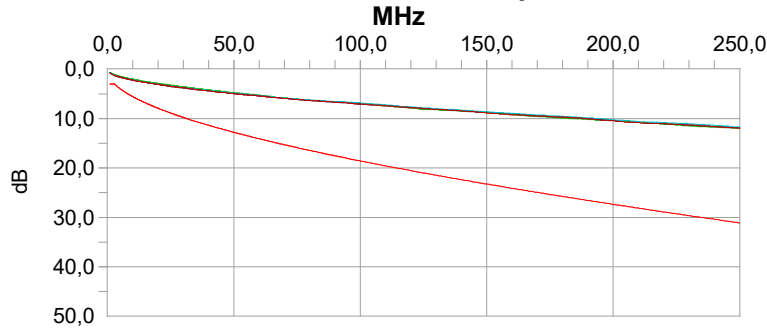
Cable ID 1: 9/1
Cable ID 2:
Test Date: 2017-12-13
Test Time: 13:54:17
Adapter ID: 6014

Cable Type: Cat 6-250 STP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

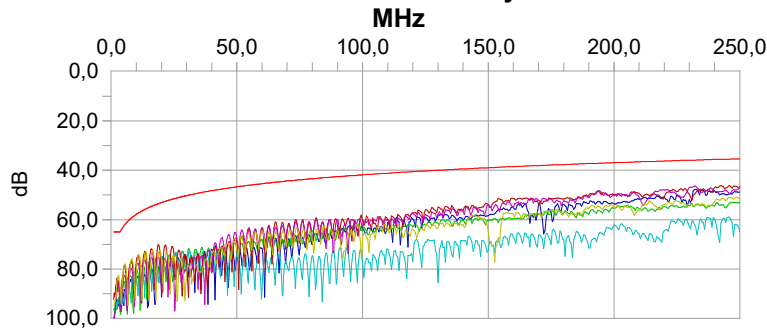
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

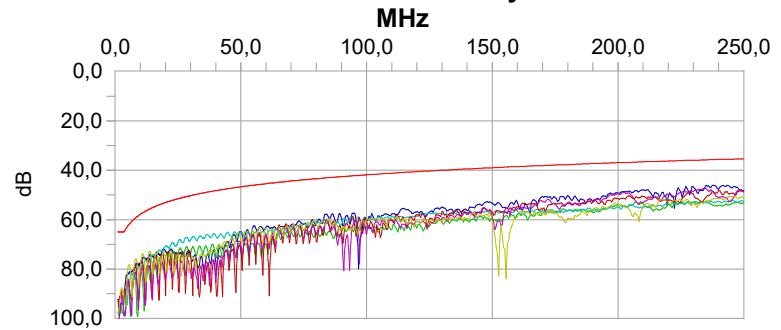
Attenuation Summary



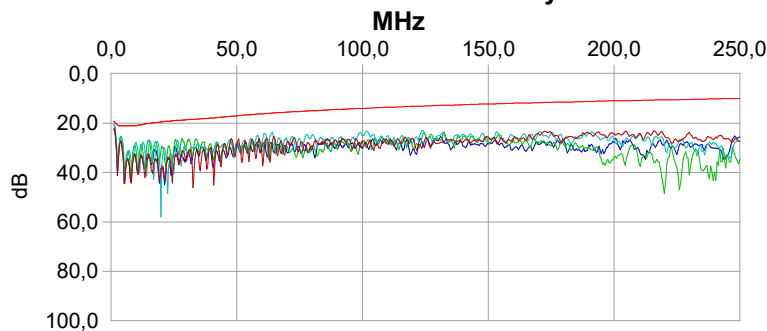
NEXT DH Summary



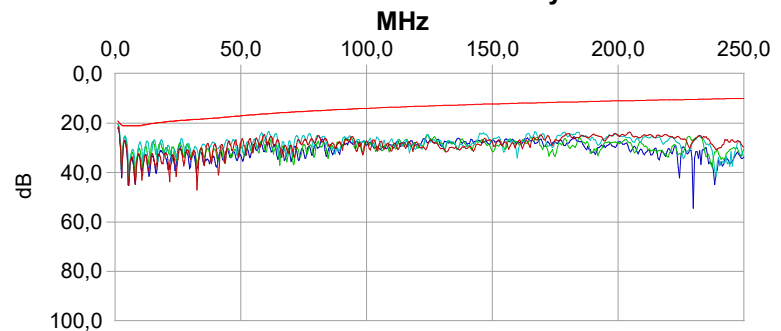
NEXT RH Summary



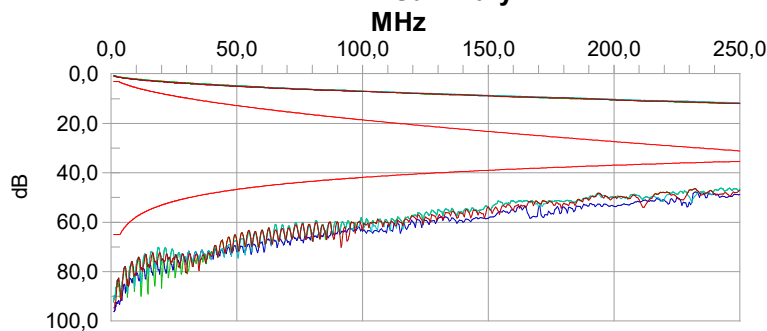
Return Loss DH Summary



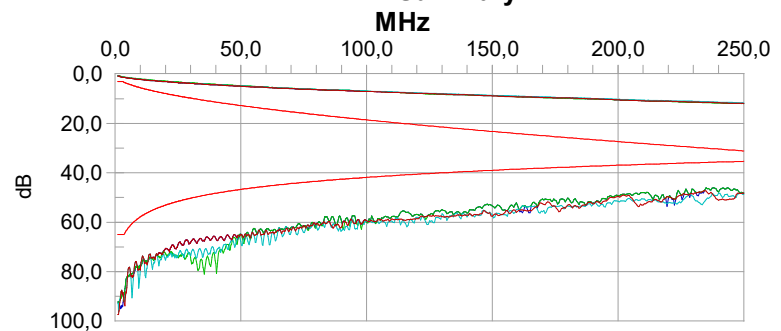
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

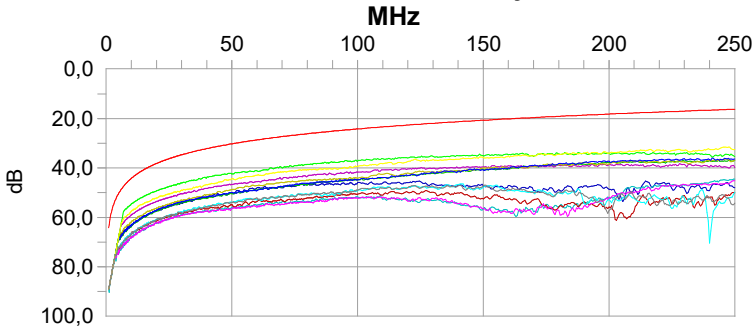
Cable ID 1: 9/1
Cable ID 2:
Test Date: 2017-12-13
Test Time: 13:54:17
Adapter ID: 6014

Cable Type: Cat 6-250 STP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

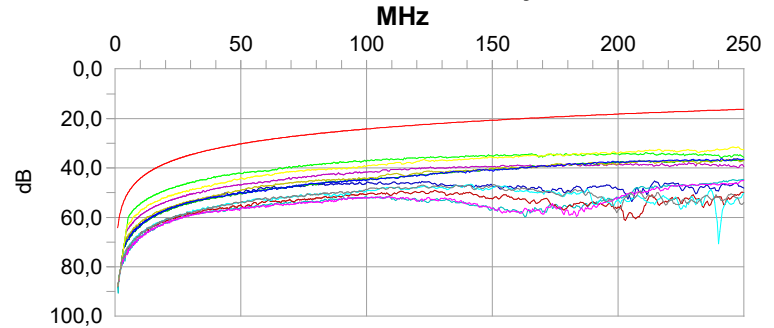
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

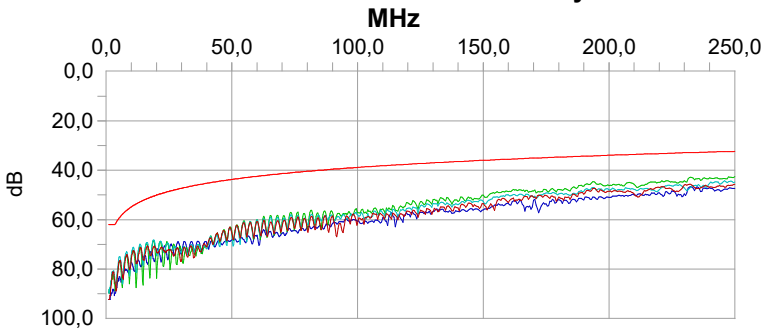
ELFEXT DH Summary



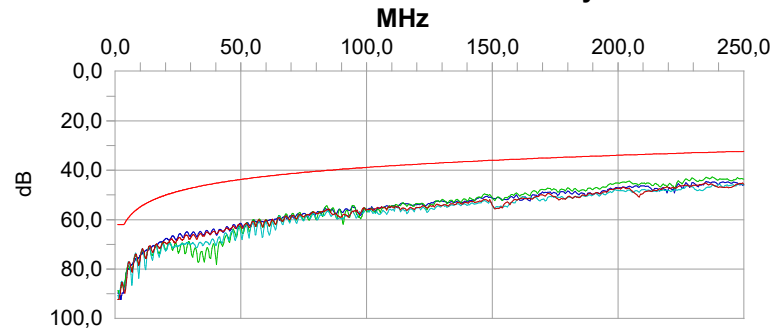
ELFEXT RH Summary



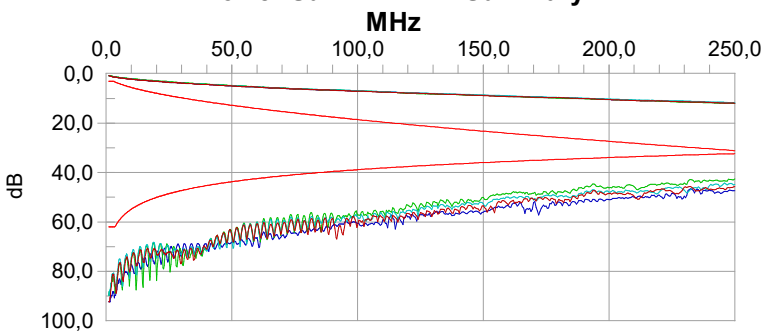
Power Sum NEXT DH Summary



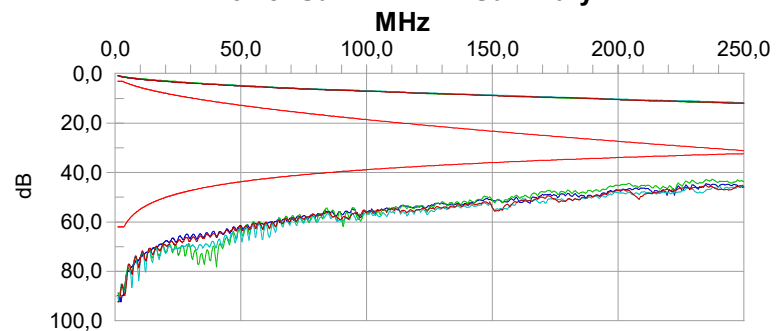
Power Sum NEXT RH Summary



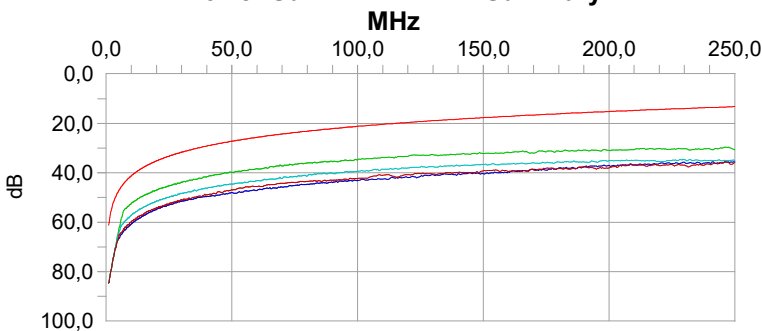
Power Sum ACR DH Summary



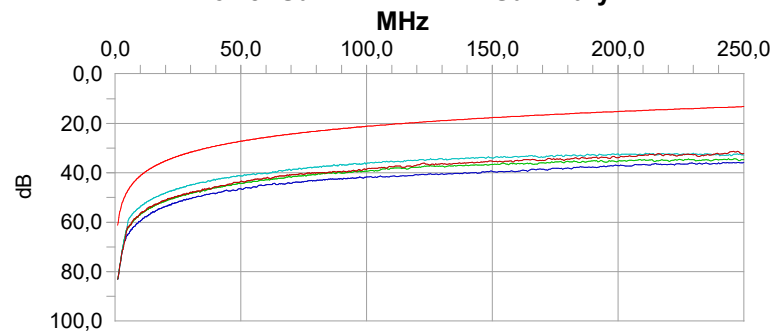
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

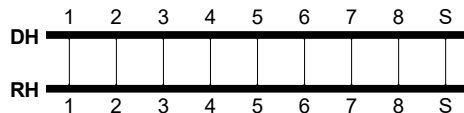
Cable ID 1: 9/2
Cable ID 2:
Test Date: 2017-12-13
Test Time: 13:53:36
Adapter ID: 6014

Cable Type: Cat 6-250 STP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	124.7ft.	124.0ft.	123.7ft.	127.0ft.	< 295.3ft.	Pass
Prop. Delay	198.3ns	197.2ns	196.6ns	199.4ns	< 498.0ns	Pass
Delay Skew		2.8ns (Pairs 1,2 vs. 5,4)			< 44.0 ns	Pass
DC Resistance	9.1 Ohm	9.2 Ohm	9.3 Ohm	10.0 Ohm	< 20.0 Ohm	Pass
Headroom		10.5 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	47.7 dB @ 228.50MHz	47.7 dB	> 36.0 dB	11.7 dB
7,8-5,4	DH	Pass	54.4 dB @ 197.00MHz	53.5 dB	> 37.0 dB	17.4 dB
7,8-1,2	DH	Pass	59.8 dB @ 245.00MHz	59.8 dB	> 35.5 dB	24.3 dB
3,6-5,4	DH	Pass	46.8 dB @ 242.00MHz	46.8 dB	> 35.6 dB	11.2 dB
3,6-1,2	DH	Pass	46.1 dB @ 250.00MHz	46.1 dB	> 35.3 dB	10.8 dB
5,4-1,2	DH	Pass	51.7 dB @ 219.00MHz	51.0 dB	> 36.3 dB	15.4 dB
7,8-3,6	RH	Pass	46.6 dB @ 231.00MHz	46.6 dB	> 35.9 dB	10.7 dB
7,8-5,4	RH	Pass	53.1 dB @ 211.00MHz	52.9 dB	> 36.5 dB	16.6 dB
7,8-1,2	RH	Pass	57.8 dB @ 243.00MHz	57.8 dB	> 35.5 dB	22.3 dB
3,6-5,4	RH	Pass	45.3 dB @ 227.00MHz	45.1 dB	> 36.0 dB	9.3 dB
3,6-1,2	RH	Pass	47.5 dB @ 228.00MHz	47.5 dB	> 36.0 dB	11.5 dB
5,4-1,2	RH	Pass	51.1 dB @ 213.50MHz	50.3 dB	> 36.5 dB	14.6 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	> 19.3 dB	2.0 dB
3,6	DH	Pass	21.1 dB @ 1.15MHz	21.1 dB	> 19.3 dB	1.8 dB
5,4	DH	Pass	22.0 dB @ 1.15MHz	22.0 dB	> 19.3 dB	2.7 dB
1,2	DH	Pass	21.7 dB @ 1.30MHz	21.7 dB	> 19.5 dB	2.2 dB
7,8	RH	Pass	20.8 dB @ 1.15MHz	20.7 dB	> 19.3 dB	1.5 dB
3,6	RH	Pass	20.5 dB @ 1.15MHz	20.5 dB	> 19.3 dB	1.2 dB
5,4	RH	Pass	21.1 dB @ 1.00MHz	21.1 dB	> 19.1 dB	2.0 dB
1,2	RH	Pass	21.0 dB @ 1.15MHz	21.0 dB	> 19.3 dB	1.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.3 dB @ 3.10MHz	11.9 dB	< 3.1 dB	1.8 dB
3,6	Pass	1.2 dB @ 3.10MHz	12.2 dB	< 3.1 dB	1.9 dB
5,4	Pass	1.3 dB @ 3.10MHz	11.9 dB	< 3.1 dB	1.8 dB
1,2	Pass	1.3 dB @ 3.10MHz	12.2 dB	< 3.1 dB	1.8 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	36.4 dB @ 228.50MHz	N/A	>= 6.5 dB	29.9 dB
3,6	DH	Pass	33.9 dB @ 250.00MHz	N/A	>= 4.2 dB	29.7 dB
5,4	DH	Pass	35.1 dB @ 242.00MHz	N/A	>= 5.1 dB	30.0 dB
1,2	DH	Pass	33.9 dB @ 250.00MHz	N/A	>= 4.2 dB	29.7 dB
7,8	RH	Pass	35.2 dB @ 233.50MHz	N/A	>= 5.9 dB	29.3 dB
3,6	RH	Pass	32.9 dB @ 250.00MHz	N/A	>= 4.2 dB	28.7 dB
5,4	RH	Pass	33.2 dB @ 248.00MHz	N/A	>= 4.4 dB	28.8 dB
1,2	RH	Pass	36.1 dB @ 228.00MHz	N/A	>= 6.5 dB	29.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 9/2
Cable ID 2:
Test Date: 2017-12-13
Test Time: 13:53:36
Adapter ID: 6014

Cable Type: Cat 6-250 STP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT
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	66.2 dB @ 5.80MHz	40.0 dB	> 48.9 dB	17.3 dB
7,8-5,4	DH	Pass	66.5 dB @ 7.60MHz	42.2 dB	> 46.6 dB	19.9 dB
7,8-1,2	DH	Pass	64.5 dB @ 16.75MHz	49.6 dB	> 39.7 dB	24.8 dB
3,6-7,8	DH	Pass	67.6 dB @ 8.35MHz	43.9 dB	> 45.8 dB	21.8 dB
3,6-5,4	DH	Pass	63.5 dB @ 6.25MHz	35.1 dB	> 48.3 dB	15.2 dB
3,6-1,2	DH	Pass	65.5 dB @ 6.10MHz	37.7 dB	> 48.5 dB	17.0 dB
5,4-7,8	DH	Pass	66.6 dB @ 7.15MHz	42.8 dB	> 47.1 dB	19.5 dB
5,4-3,6	DH	Pass	57.4 dB @ 7.45MHz	30.4 dB	> 46.7 dB	10.7 dB
5,4-1,2	DH	Pass	66.6 dB @ 12.70MHz	41.9 dB	> 42.1 dB	24.5 dB
1,2-7,8	DH	Pass	66.3 dB @ 13.90MHz	49.4 dB	> 41.3 dB	25.0 dB
1,2-3,6	DH	Pass	60.9 dB @ 6.55MHz	31.8 dB	> 47.9 dB	13.0 dB
1,2-5,4	DH	Pass	66.0 dB @ 14.80MHz	42.2 dB	> 40.8 dB	25.2 dB
7,8-3,6	RH	Pass	67.9 dB @ 4.75MHz	40.4 dB	> 50.7 dB	17.2 dB
7,8-5,4	RH	Pass	65.1 dB @ 8.95MHz	42.2 dB	> 45.2 dB	19.9 dB
7,8-1,2	RH	Pass	64.9 dB @ 16.15MHz	49.9 dB	> 40.0 dB	24.9 dB
3,6-7,8	RH	Pass	67.7 dB @ 8.35MHz	43.7 dB	> 45.8 dB	21.9 dB
3,6-5,4	RH	Pass	66.5 dB @ 4.30MHz	34.9 dB	> 51.5 dB	15.0 dB
3,6-1,2	RH	Pass	68.5 dB @ 4.30MHz	37.6 dB	> 51.5 dB	17.0 dB
5,4-7,8	RH	Pass	66.5 dB @ 7.15MHz	42.7 dB	> 47.1 dB	19.4 dB
5,4-3,6	RH	Pass	60.1 dB @ 5.35MHz	30.7 dB	> 49.6 dB	10.5 dB
5,4-1,2	RH	Pass	66.6 dB @ 12.70MHz	42.1 dB	> 42.1 dB	24.5 dB
1,2-7,8	RH	Pass	66.2 dB @ 13.90MHz	49.3 dB	> 41.3 dB	24.9 dB
1,2-3,6	RH	Pass	63.0 dB @ 4.75MHz	31.8 dB	> 50.7 dB	12.3 dB
1,2-5,4	RH	Pass	66.0 dB @ 14.80MHz	42.0 dB	> 40.8 dB	25.2 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	46.7 dB @ 228.50MHz	46.7 dB	> 33.0 dB	13.7 dB
3,6	DH	Pass	42.8 dB @ 231.00MHz	42.7 dB	> 32.9 dB	9.9 dB
5,4	DH	Pass	45.0 dB @ 238.50MHz	45.0 dB	> 32.7 dB	12.3 dB
1,2	DH	Pass	44.8 dB @ 250.00MHz	44.8 dB	> 32.3 dB	12.5 dB
7,8	RH	Pass	45.5 dB @ 231.00MHz	45.5 dB	> 32.9 dB	12.6 dB
3,6	RH	Pass	42.3 dB @ 228.50MHz	42.3 dB	> 33.0 dB	9.3 dB
5,4	RH	Pass	43.5 dB @ 248.00MHz	43.5 dB	> 32.4 dB	11.1 dB
1,2	RH	Pass	45.9 dB @ 231.00MHz	45.9 dB	> 32.9 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	35.4 dB @ 228.50MHz	N/A	>= 3.5 dB	31.9 dB
3,6	DH	Pass	30.5 dB @ 250.00MHz	N/A	>= 1.2 dB	29.3 dB
5,4	DH	Pass	33.2 dB @ 250.00MHz	N/A	>= 1.2 dB	32.0 dB
1,2	DH	Pass	32.6 dB @ 250.00MHz	N/A	>= 1.2 dB	31.4 dB
7,8	RH	Pass	34.1 dB @ 233.50MHz	N/A	>= 2.9 dB	31.2 dB
3,6	RH	Pass	30.7 dB @ 228.50MHz	N/A	>= 3.5 dB	27.2 dB
5,4	RH	Pass	31.6 dB @ 248.00MHz	N/A	>= 1.4 dB	30.2 dB
1,2	RH	Pass	34.4 dB @ 231.00MHz	N/A	>= 3.2 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	58.3 dB @ 14.05MHz	40.2 dB	>= 38.2 dB	20.1 dB
3,6	DH	Pass	55.3 dB @ 7.15MHz	27.8 dB	>= 44.1 dB	11.2 dB
5,4	DH	Pass	55.9 dB @ 13.00MHz	33.9 dB	>= 38.9 dB	17.0 dB
1,2	DH	Pass	58.2 dB @ 13.15MHz	36.4 dB	>= 38.8 dB	19.4 dB
7,8	RH	Pass	56.9 dB @ 13.90MHz	38.7 dB	>= 38.3 dB	18.6 dB
3,6	RH	Pass	58.8 dB @ 8.20MHz	32.7 dB	>= 42.9 dB	15.9 dB
5,4	RH	Pass	52.6 dB @ 12.55MHz	30.2 dB	>= 39.2 dB	13.4 dB
1,2	RH	Pass	52.9 dB @ 15.70MHz	31.4 dB	>= 37.3 dB	15.6 dB

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

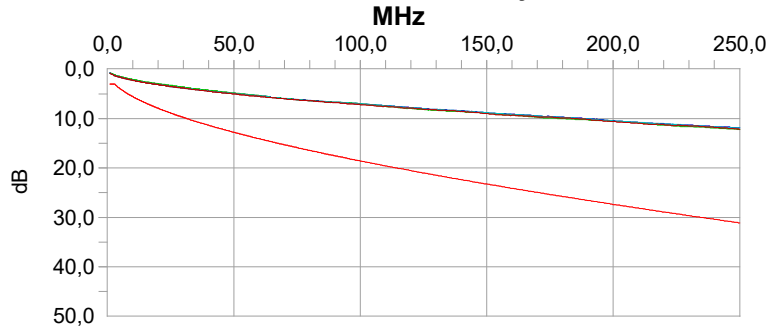
Cable ID 1: 9/2
Cable ID 2:
Test Date: 2017-12-13
Test Time: 13:53:36
Adapter ID: 6014

Cable Type: Cat 6-250 STP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

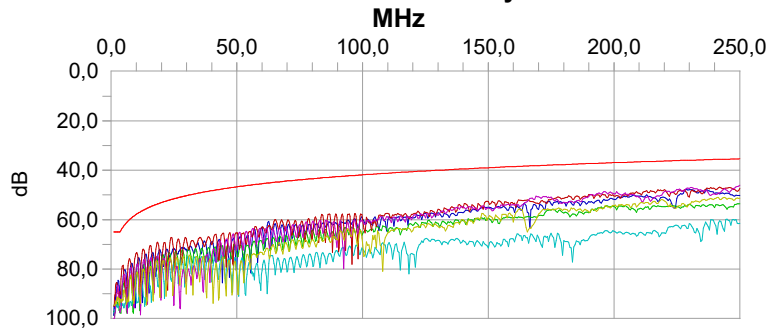
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

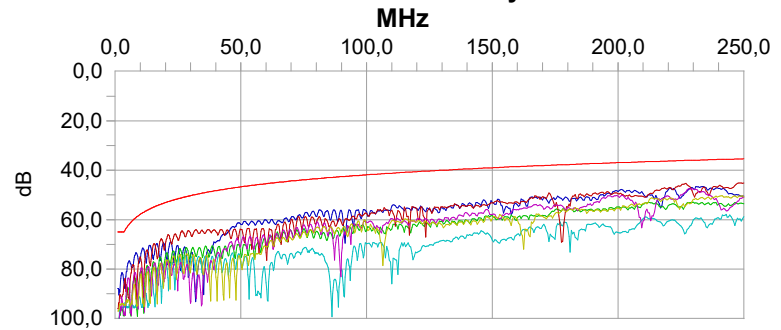
Attenuation Summary



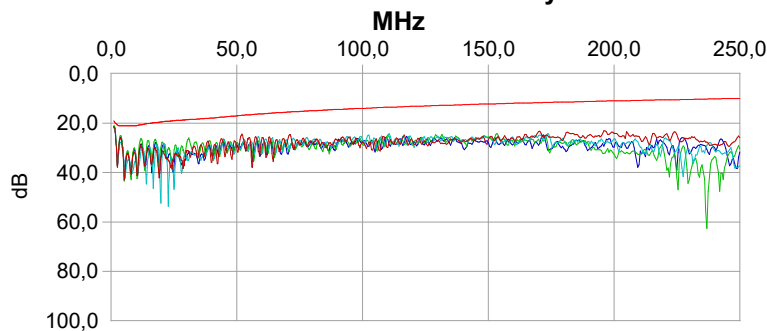
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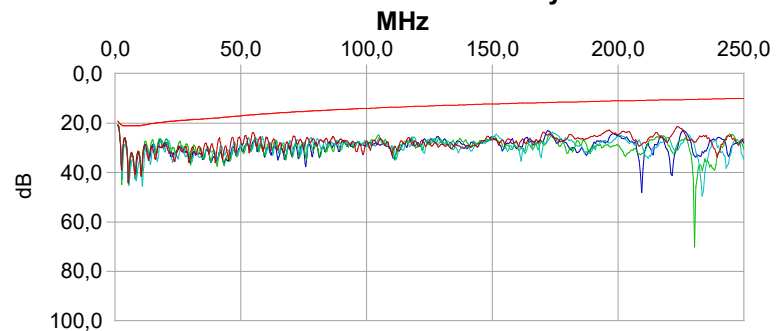
NEXT RH Summary



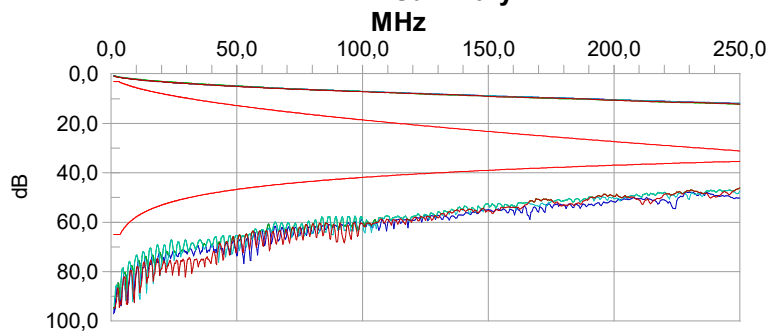
Return Loss DH Summary



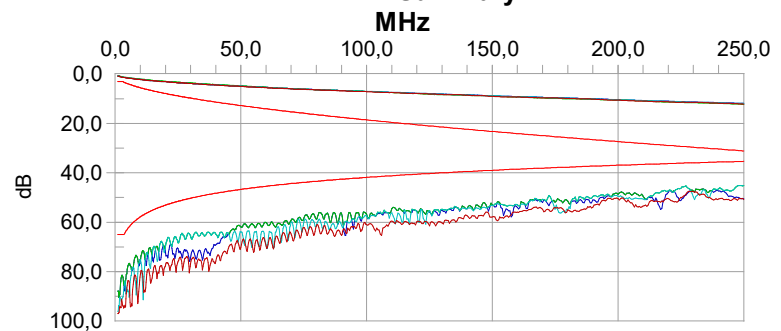
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

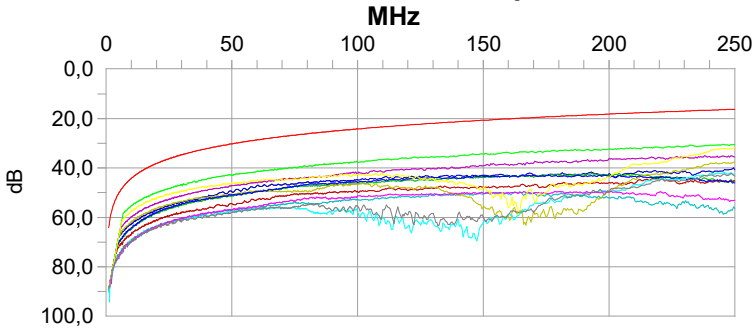
Cable ID 1: 9/2
Cable ID 2:
Test Date: 2017-12-13
Test Time: 13:53:36
Adapter ID: 6014

Cable Type: Cat 6-250 STP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

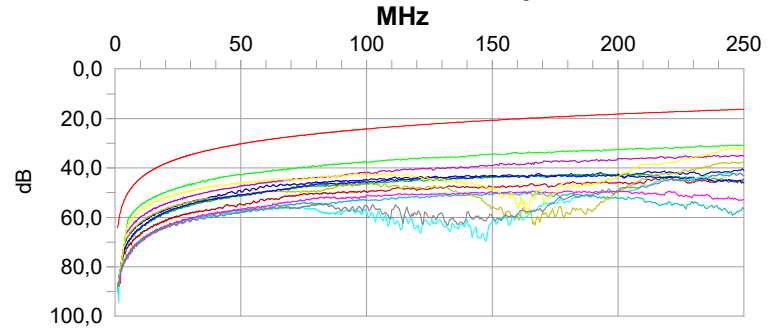
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

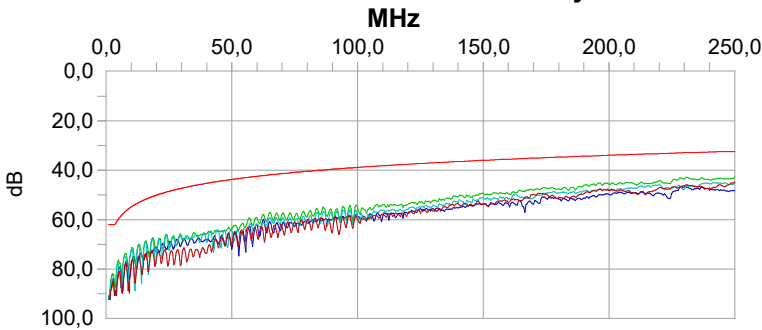
ELFEXT DH Summary



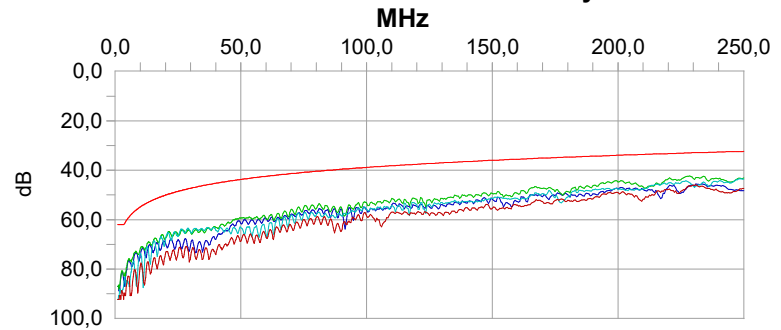
ELFEXT RH Summary



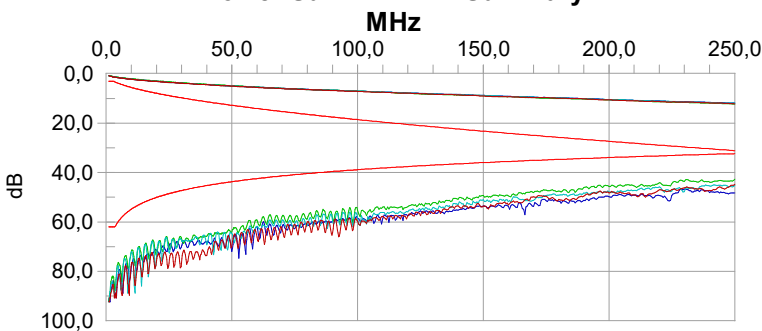
Power Sum NEXT DH Summary



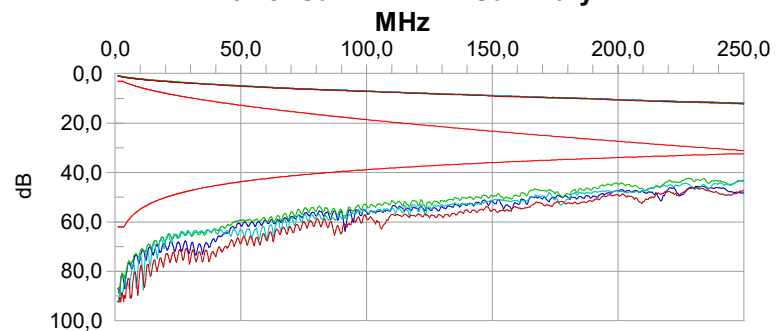
Power Sum NEXT RH Summary



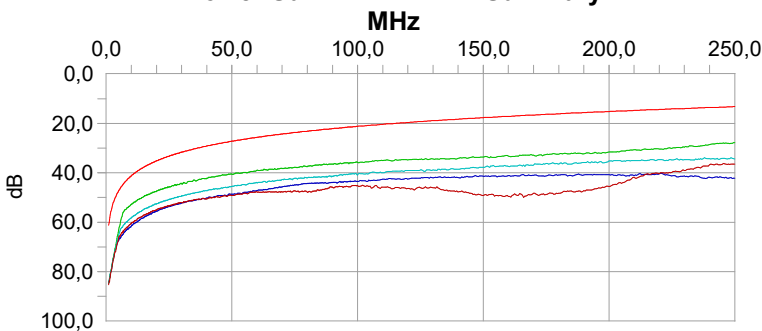
Power Sum ACR DH Summary



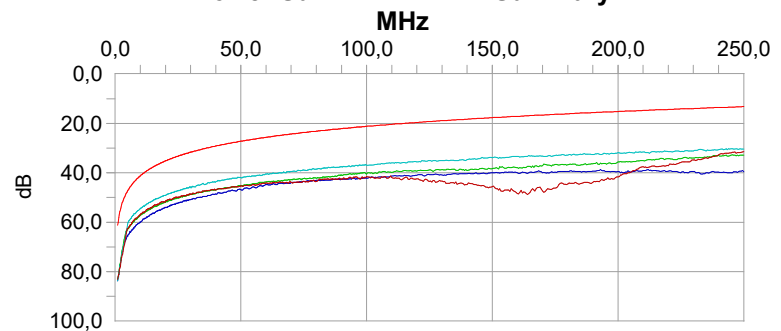
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

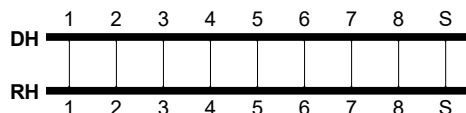
Cable ID 1: 9/3
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:35:00
Adapter ID: 6014

Cable Type: Cat 6-250 STP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	26.9ft.	26.9ft.	26.6ft.	28.5ft.	< 295.3ft.	Pass
Prop. Delay	56.8ns	56.8ns	56.2ns	57.2ns	< 498.0ns	Pass
Delay Skew		1.0ns (Pairs 1,2 vs. 5,4)			< 44.0 ns	Pass
DC Resistance	4.5 Ohm	4.6 Ohm	4.4 Ohm	5.1 Ohm	< 20.0 Ohm	Pass
Headroom		9.5 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	44.7 dB @ 214.00MHz	44.7 dB	> 36.4 dB	8.3 dB
7,8-5,4	DH	Pass	47.3 dB @ 201.00MHz	46.8 dB	> 36.9 dB	10.4 dB
7,8-1,2	DH	Pass	55.2 dB @ 239.00MHz	55.2 dB	> 35.7 dB	19.5 dB
3,6-5,4	DH	Pass	49.6 dB @ 154.00MHz	46.5 dB	> 38.8 dB	10.8 dB
3,6-1,2	DH	Pass	41.8 dB @ 234.00MHz	41.5 dB	> 35.8 dB	6.0 dB
5,4-1,2	DH	Pass	50.4 dB @ 246.50MHz	50.4 dB	> 35.4 dB	15.0 dB
7,8-3,6	RH	Pass	47.1 dB @ 213.50MHz	46.1 dB	> 36.5 dB	10.6 dB
7,8-5,4	RH	Pass	43.4 dB @ 236.50MHz	43.3 dB	> 35.7 dB	7.7 dB
7,8-1,2	RH	Pass	49.6 dB @ 222.00MHz	49.3 dB	> 36.2 dB	13.4 dB
3,6-5,4	RH	Pass	55.0 dB @ 126.00MHz	50.3 dB	> 40.2 dB	14.8 dB
3,6-1,2	RH	Pass	45.7 dB @ 191.00MHz	44.3 dB	> 37.3 dB	8.4 dB
5,4-1,2	RH	Pass	50.8 dB @ 250.00MHz	50.8 dB	> 35.3 dB	15.5 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	25.2 dB @ 3.85MHz	20.1 dB	> 21.0 dB	4.2 dB
3,6	DH	Pass	24.9 dB @ 4.00MHz	21.7 dB	> 21.0 dB	3.9 dB
5,4	DH	Pass	26.6 dB @ 3.85MHz	21.3 dB	> 21.0 dB	5.6 dB
1,2	DH	Pass	25.3 dB @ 4.00MHz	19.9 dB	> 21.0 dB	4.3 dB
7,8	RH	Pass	25.8 dB @ 3.70MHz	18.6 dB	> 21.0 dB	4.8 dB
3,6	RH	Pass	25.2 dB @ 3.85MHz	24.2 dB	> 21.0 dB	4.2 dB
5,4	RH	Pass	27.9 dB @ 2.95MHz	21.7 dB	> 21.0 dB	6.9 dB
1,2	RH	Pass	25.7 dB @ 3.70MHz	20.4 dB	> 21.0 dB	4.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.2 dB @ 3.10MHz	2.4 dB	< 3.1 dB	2.9 dB
3,6	Pass	0.3 dB @ 3.10MHz	2.5 dB	< 3.1 dB	2.8 dB
5,4	Pass	0.3 dB @ 3.10MHz	2.4 dB	< 3.1 dB	2.8 dB
1,2	Pass	0.3 dB @ 3.10MHz	2.5 dB	< 3.1 dB	2.8 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	42.4 dB @ 214.00MHz	N/A	>= 8.0 dB	34.4 dB
3,6	DH	Pass	39.0 dB @ 244.50MHz	N/A	>= 4.8 dB	34.2 dB
5,4	DH	Pass	44.1 dB @ 245.50MHz	N/A	>= 4.7 dB	39.4 dB
1,2	DH	Pass	39.0 dB @ 244.50MHz	N/A	>= 4.8 dB	34.2 dB
7,8	RH	Pass	40.9 dB @ 248.50MHz	N/A	>= 4.4 dB	36.5 dB
3,6	RH	Pass	41.9 dB @ 243.50MHz	N/A	>= 4.9 dB	37.0 dB
5,4	RH	Pass	40.9 dB @ 248.50MHz	N/A	>= 4.4 dB	36.5 dB
1,2	RH	Pass	41.8 dB @ 243.50MHz	N/A	>= 4.9 dB	36.9 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 9/3
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:35:00
Adapter ID: 6014

Cable Type: Cat 6-250 STP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	38.6 dB @ 221.00MHz	38.4 dB	> 17.3 dB	21.3 dB
7,8-5,4	DH	Pass	61.8 dB @ 11.20MHz	34.9 dB	> 43.2 dB	18.6 dB
7,8-1,2	DH	Pass	54.5 dB @ 73.25MHz	45.3 dB	> 26.9 dB	27.6 dB
3,6-7,8	DH	Pass	44.3 dB @ 212.00MHz	43.6 dB	> 17.7 dB	26.6 dB
3,6-5,4	DH	Pass	41.0 dB @ 222.00MHz	40.3 dB	> 17.3 dB	23.7 dB
3,6-1,2	DH	Pass	40.0 dB @ 241.50MHz	40.0 dB	> 16.5 dB	23.5 dB
5,4-7,8	DH	Pass	62.1 dB @ 10.75MHz	35.7 dB	> 43.6 dB	18.5 dB
5,4-3,6	DH	Pass	69.5 dB @ 10.15MHz	44.9 dB	> 44.1 dB	25.4 dB
5,4-1,2	DH	Pass	54.1 dB @ 60.50MHz	44.3 dB	> 28.6 dB	25.5 dB
1,2-7,8	DH	Pass	44.6 dB @ 212.00MHz	44.2 dB	> 17.7 dB	26.9 dB
1,2-3,6	DH	Pass	38.0 dB @ 240.50MHz	37.9 dB	> 16.6 dB	21.4 dB
1,2-5,4	DH	Pass	48.6 dB @ 98.50MHz	44.6 dB	> 24.3 dB	24.3 dB
7,8-3,6	RH	Pass	38.5 dB @ 221.00MHz	38.4 dB	> 17.3 dB	21.2 dB
7,8-5,4	RH	Pass	57.9 dB @ 17.50MHz	34.9 dB	> 39.3 dB	18.6 dB
7,8-1,2	RH	Pass	54.5 dB @ 73.25MHz	45.4 dB	> 26.9 dB	27.6 dB
3,6-7,8	RH	Pass	44.4 dB @ 212.00MHz	43.5 dB	> 17.7 dB	26.7 dB
3,6-5,4	RH	Pass	41.0 dB @ 222.00MHz	40.3 dB	> 17.3 dB	23.7 dB
3,6-1,2	RH	Pass	40.5 dB @ 232.50MHz	40.1 dB	> 16.9 dB	23.6 dB
5,4-7,8	RH	Pass	62.1 dB @ 10.75MHz	35.7 dB	> 43.6 dB	18.5 dB
5,4-3,6	RH	Pass	69.4 dB @ 10.15MHz	44.9 dB	> 44.1 dB	25.3 dB
5,4-1,2	RH	Pass	54.2 dB @ 60.50MHz	44.4 dB	> 28.6 dB	25.6 dB
1,2-7,8	RH	Pass	44.5 dB @ 212.00MHz	44.1 dB	> 17.7 dB	26.8 dB
1,2-3,6	RH	Pass	38.0 dB @ 240.50MHz	37.9 dB	> 16.6 dB	21.4 dB
1,2-5,4	RH	Pass	48.4 dB @ 98.75MHz	44.5 dB	> 24.3 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	42.9 dB @ 227.50MHz	42.9 dB	> 33.0 dB	9.9 dB
3,6	DH	Pass	39.8 dB @ 214.50MHz	39.8 dB	> 33.4 dB	6.4 dB
5,4	DH	Pass	42.9 dB @ 245.50MHz	42.8 dB	> 32.5 dB	10.4 dB
1,2	DH	Pass	40.9 dB @ 244.50MHz	40.9 dB	> 32.5 dB	8.4 dB
7,8	RH	Pass	41.0 dB @ 245.00MHz	41.0 dB	> 32.5 dB	8.5 dB
3,6	RH	Pass	41.7 dB @ 244.50MHz	41.7 dB	> 32.5 dB	9.2 dB
5,4	RH	Pass	42.5 dB @ 244.00MHz	42.5 dB	> 32.5 dB	10.0 dB
1,2	RH	Pass	42.7 dB @ 242.00MHz	42.6 dB	> 32.6 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	40.6 dB @ 227.50MHz	N/A	>= 3.5 dB	37.1 dB
3,6	DH	Pass	37.4 dB @ 244.50MHz	N/A	>= 1.8 dB	35.6 dB
5,4	DH	Pass	40.4 dB @ 246.50MHz	N/A	>= 1.6 dB	38.8 dB
1,2	DH	Pass	38.4 dB @ 244.50MHz	N/A	>= 1.8 dB	36.6 dB
7,8	RH	Pass	38.6 dB @ 245.00MHz	N/A	>= 1.8 dB	36.8 dB
3,6	RH	Pass	39.2 dB @ 244.50MHz	N/A	>= 1.8 dB	37.4 dB
5,4	RH	Pass	40.1 dB @ 244.00MHz	N/A	>= 1.8 dB	38.3 dB
1,2	RH	Pass	40.1 dB @ 243.50MHz	N/A	>= 1.9 dB	38.2 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	55.8 dB @ 20.50MHz	34.6 dB	>= 35.0 dB	20.8 dB
3,6	DH	Pass	34.7 dB @ 244.50MHz	34.7 dB	>= 13.4 dB	21.3 dB
5,4	DH	Pass	34.0 dB @ 242.50MHz	33.9 dB	>= 13.5 dB	20.5 dB
1,2	DH	Pass	40.9 dB @ 170.00MHz	37.9 dB	>= 16.6 dB	24.3 dB
7,8	RH	Pass	33.3 dB @ 242.50MHz	33.2 dB	>= 13.5 dB	19.8 dB
3,6	RH	Pass	36.8 dB @ 232.50MHz	36.4 dB	>= 13.9 dB	22.9 dB
5,4	RH	Pass	60.1 dB @ 11.65MHz	34.9 dB	>= 39.9 dB	20.2 dB
1,2	RH	Pass	37.3 dB @ 214.50MHz	36.5 dB	>= 14.6 dB	22.7 dB

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

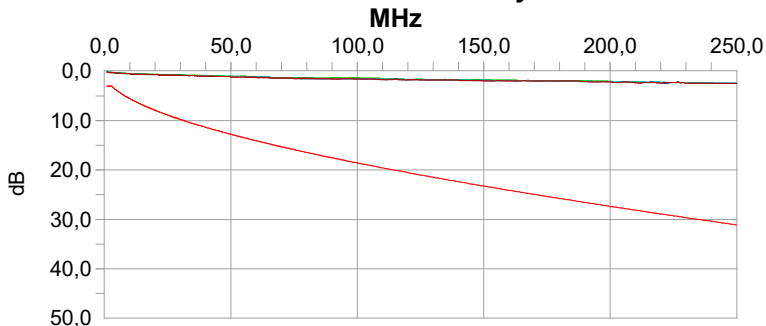
Cable ID 1: 9/3
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:35:00
Adapter ID: 6014

Cable Type: Cat 6-250 STP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

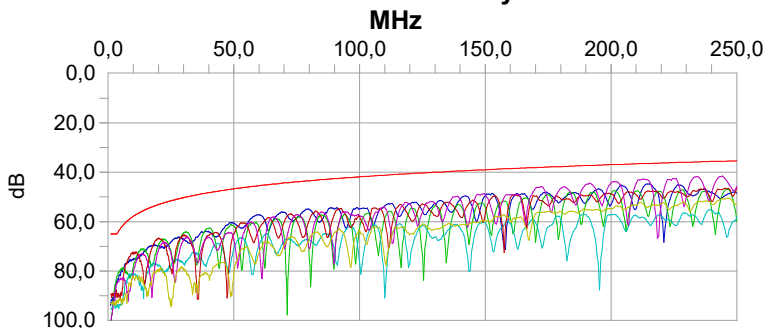
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

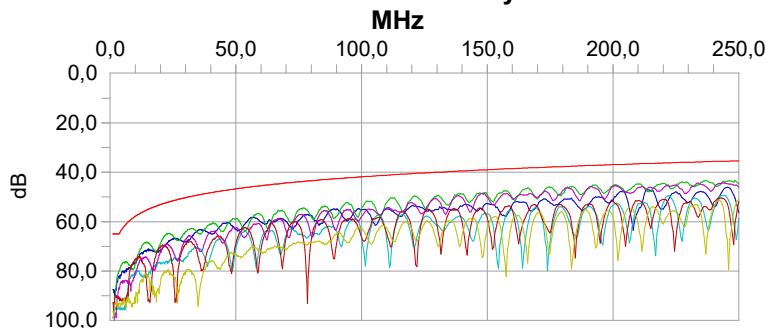
Attenuation Summary



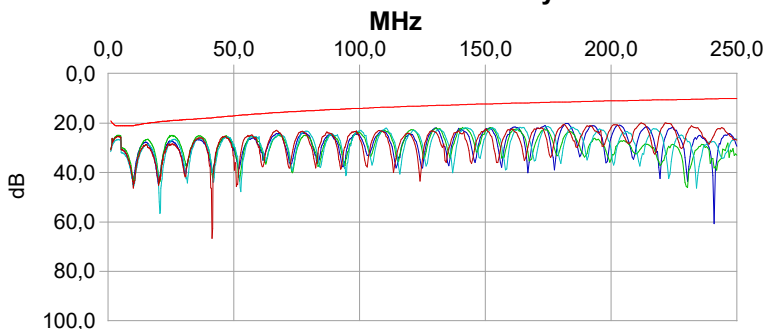
NEXT DH Summary



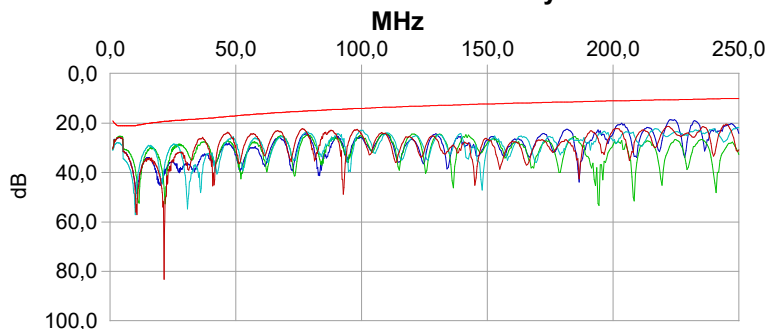
NEXT RH Summary



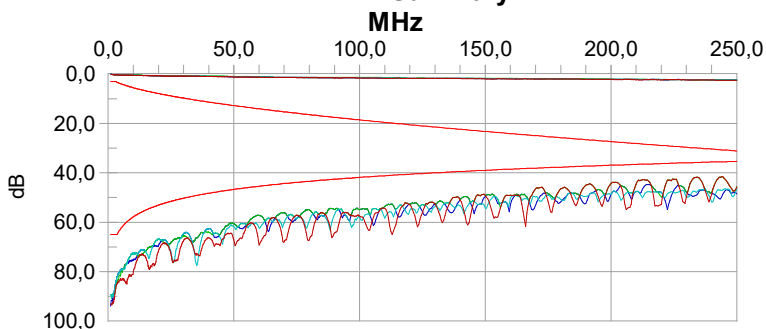
Return Loss DH Summary



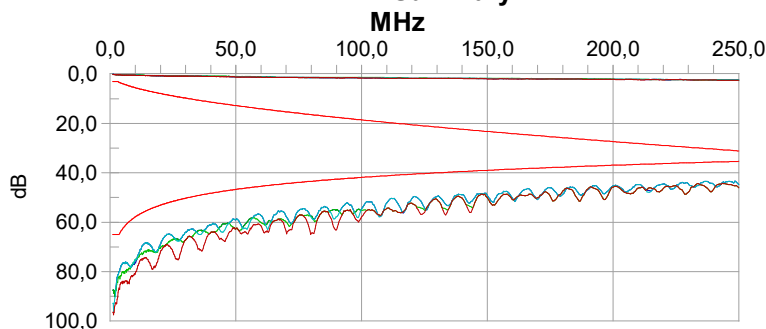
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

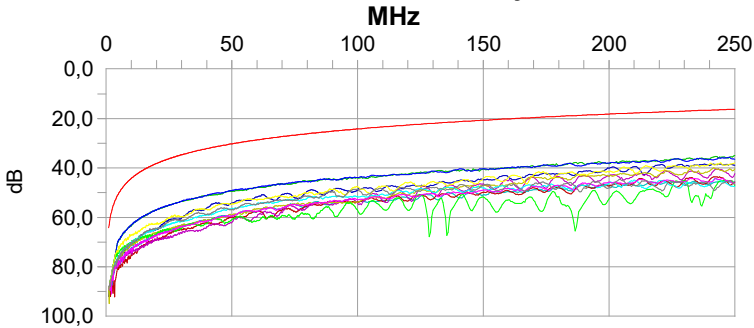
Cable ID 1: 9/3
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:35:00
Adapter ID: 6014

Cable Type: Cat 6-250 STP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

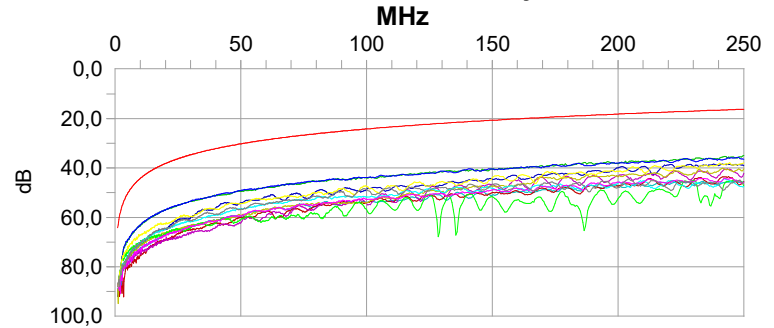
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

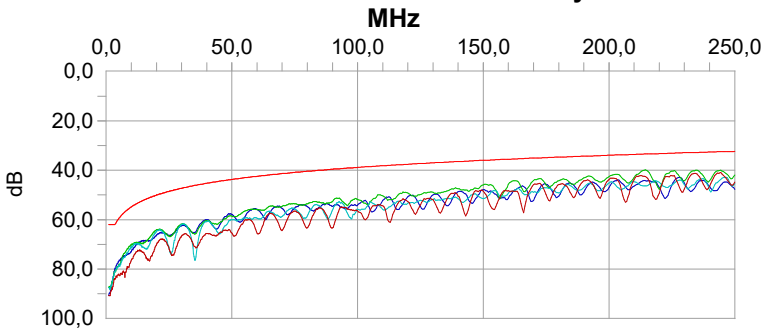
ELFEXT DH Summary



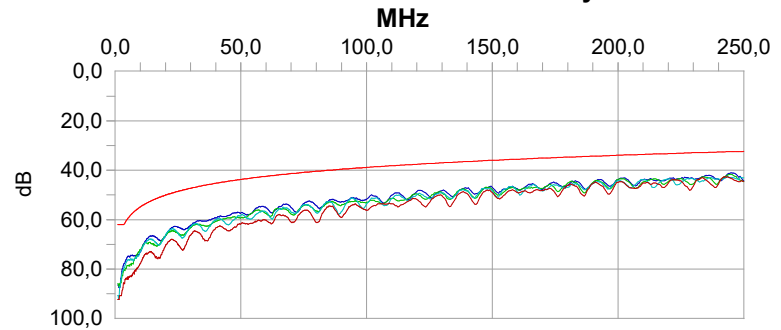
ELFEXT RH Summary



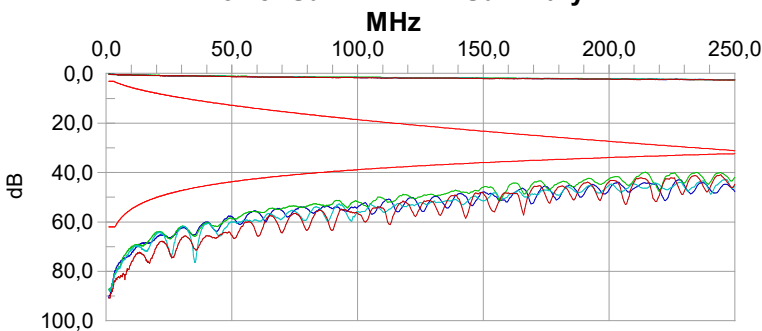
Power Sum NEXT DH Summary



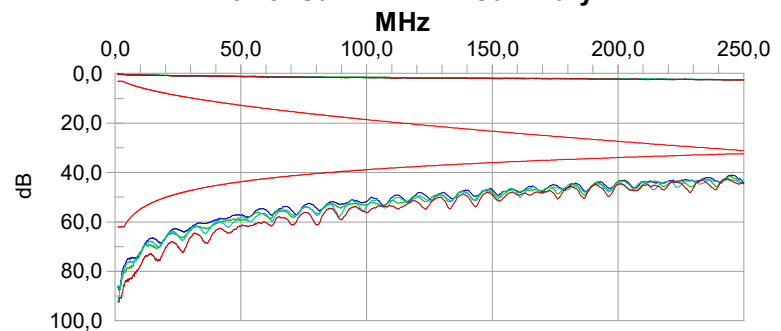
Power Sum NEXT RH Summary



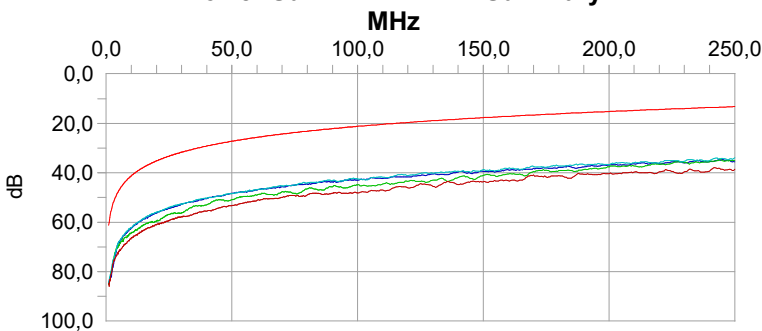
Power Sum ACR DH Summary



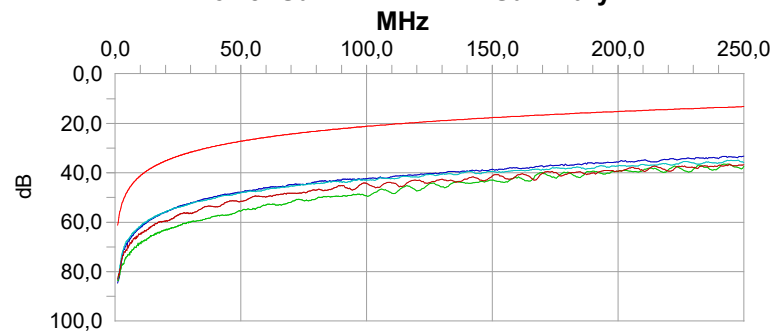
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

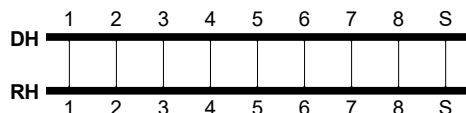
Cable ID 1: 9/4
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:37:17
Adapter ID: 6014

Cable Type: Cat 6-250 STP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	27.9ft.	27.9ft.	27.9ft.	29.5ft.	< 295.3ft.	Pass
Prop. Delay	58.5ns	58.5ns	58.2ns	58.7ns	< 498.0ns	Pass
Delay Skew		0.5ns (Pairs 1,2 vs. 5,4)			< 44.0 ns	Pass
DC Resistance	4.4 Ohm	4.5 Ohm	4.7 Ohm	5.1 Ohm	< 20.0 Ohm	Pass
Headroom		7.6 dB				Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	39.9 dB @ 247.00MHz	39.9 dB	> 35.4 dB	4.5 dB
7,8-5,4	DH	Pass	50.4 dB @ 188.50MHz	49.2 dB	> 37.4 dB	13.0 dB
7,8-1,2	DH	Pass	70.0 dB @ 25.15MHz	56.3 dB	> 51.5 dB	18.5 dB
3,6-5,4	DH	Pass	44.1 dB @ 228.50MHz	43.9 dB	> 36.0 dB	8.1 dB
3,6-1,2	DH	Pass	45.7 dB @ 218.00MHz	45.7 dB	> 36.3 dB	9.4 dB
5,4-1,2	DH	Pass	50.3 dB @ 222.00MHz	49.9 dB	> 36.2 dB	14.1 dB
7,8-3,6	RH	Pass	46.5 dB @ 112.00MHz	41.9 dB	> 41.0 dB	5.5 dB
7,8-5,4	RH	Pass	48.5 dB @ 230.00MHz	48.5 dB	> 35.9 dB	12.6 dB
7,8-1,2	RH	Pass	60.0 dB @ 94.25MHz	55.1 dB	> 42.3 dB	17.7 dB
3,6-5,4	RH	Pass	47.7 dB @ 202.00MHz	47.1 dB	> 36.9 dB	10.8 dB
3,6-1,2	RH	Pass	44.6 dB @ 249.00MHz	44.6 dB	> 35.4 dB	9.2 dB
5,4-1,2	RH	Pass	55.0 dB @ 173.00MHz	52.3 dB	> 38.0 dB	17.0 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.7 dB @ 4.00MHz	21.3 dB	> 21.0 dB	3.7 dB
3,6	DH	Pass	24.2 dB @ 4.00MHz	22.3 dB	> 21.0 dB	3.2 dB
5,4	DH	Pass	25.9 dB @ 4.00MHz	21.7 dB	> 21.0 dB	4.9 dB
1,2	DH	Pass	24.7 dB @ 4.00MHz	21.1 dB	> 21.0 dB	3.7 dB
7,8	RH	Pass	25.5 dB @ 3.70MHz	20.7 dB	> 21.0 dB	4.5 dB
3,6	RH	Pass	24.8 dB @ 3.70MHz	24.3 dB	> 21.0 dB	3.8 dB
5,4	RH	Pass	27.3 dB @ 2.95MHz	22.5 dB	> 21.0 dB	6.3 dB
1,2	RH	Pass	25.2 dB @ 3.70MHz	22.1 dB	> 21.0 dB	4.2 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.3 dB @ 3.10MHz	2.5 dB	< 3.1 dB	2.8 dB
3,6	Pass	0.3 dB @ 3.10MHz	2.6 dB	< 3.1 dB	2.8 dB
5,4	Pass	0.3 dB @ 3.10MHz	2.5 dB	< 3.1 dB	2.8 dB
1,2	Pass	0.3 dB @ 3.10MHz	2.6 dB	< 3.1 dB	2.8 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	37.4 dB @ 247.00MHz	N/A	>= 4.5 dB	32.9 dB
3,6	DH	Pass	37.3 dB @ 247.00MHz	N/A	>= 4.5 dB	32.8 dB
5,4	DH	Pass	41.4 dB @ 246.00MHz	N/A	>= 4.7 dB	36.7 dB
1,2	DH	Pass	43.2 dB @ 245.00MHz	N/A	>= 4.8 dB	38.4 dB
7,8	RH	Pass	39.4 dB @ 247.00MHz	N/A	>= 4.5 dB	34.9 dB
3,6	RH	Pass	39.3 dB @ 247.00MHz	N/A	>= 4.5 dB	34.8 dB
5,4	RH	Pass	44.8 dB @ 220.50MHz	N/A	>= 7.3 dB	37.5 dB
1,2	RH	Pass	42.0 dB @ 249.00MHz	N/A	>= 4.4 dB	37.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 9/4
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:37:17
Adapter ID: 6014

Cable Type: Cat 6-250 STP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT
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 @ 61.50MHz	34.3 dB	> 28.4 dB	16.7 dB
7,8-5,4	DH	Pass	55.5 dB @ 18.55MHz	33.9 dB	> 38.8 dB	16.7 dB
7,8-1,2	DH	Pass	59.9 dB @ 62.50MHz	48.9 dB	> 28.3 dB	31.6 dB
3,6-7,8	DH	Pass	44.4 dB @ 120.50MHz	38.6 dB	> 22.6 dB	21.8 dB
3,6-5,4	DH	Pass	42.9 dB @ 183.00MHz	40.8 dB	> 18.9 dB	24.0 dB
3,6-1,2	DH	Pass	38.9 dB @ 226.00MHz	38.4 dB	> 17.1 dB	21.8 dB
5,4-7,8	DH	Pass	59.4 dB @ 11.65MHz	34.4 dB	> 42.9 dB	16.5 dB
5,4-3,6	DH	Pass	48.6 dB @ 183.00MHz	46.9 dB	> 18.9 dB	29.7 dB
5,4-1,2	DH	Pass	47.5 dB @ 122.00MHz	44.2 dB	> 22.5 dB	25.0 dB
1,2-7,8	DH	Pass	48.3 dB @ 205.00MHz	47.4 dB	> 18.0 dB	30.3 dB
1,2-3,6	DH	Pass	68.3 dB @ 4.90MHz	34.8 dB	> 50.4 dB	17.9 dB
1,2-5,4	DH	Pass	47.4 dB @ 105.00MHz	43.4 dB	> 23.8 dB	23.6 dB
7,8-3,6	RH	Pass	45.0 dB @ 61.50MHz	34.4 dB	> 28.4 dB	16.6 dB
7,8-5,4	RH	Pass	55.5 dB @ 18.55MHz	33.9 dB	> 38.8 dB	16.7 dB
7,8-1,2	RH	Pass	60.0 dB @ 62.50MHz	49.0 dB	> 28.3 dB	31.7 dB
3,6-7,8	RH	Pass	44.4 dB @ 120.50MHz	38.6 dB	> 22.6 dB	21.8 dB
3,6-5,4	RH	Pass	42.9 dB @ 183.00MHz	40.7 dB	> 18.9 dB	24.0 dB
3,6-1,2	RH	Pass	38.8 dB @ 226.00MHz	38.4 dB	> 17.1 dB	21.7 dB
5,4-7,8	RH	Pass	59.4 dB @ 11.65MHz	34.4 dB	> 42.9 dB	16.5 dB
5,4-3,6	RH	Pass	48.6 dB @ 183.00MHz	46.9 dB	> 18.9 dB	29.7 dB
5,4-1,2	RH	Pass	65.5 dB @ 15.40MHz	44.3 dB	> 40.4 dB	25.1 dB
1,2-7,8	RH	Pass	48.2 dB @ 205.00MHz	47.3 dB	> 18.0 dB	30.2 dB
1,2-3,6	RH	Pass	68.5 dB @ 4.75MHz	34.8 dB	> 50.7 dB	17.8 dB
1,2-5,4	RH	Pass	47.3 dB @ 105.00MHz	43.3 dB	> 23.8 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	39.3 dB @ 247.00MHz	39.3 dB	> 32.4 dB	6.9 dB
3,6	DH	Pass	38.3 dB @ 236.00MHz	38.1 dB	> 32.7 dB	5.6 dB
5,4	DH	Pass	42.4 dB @ 229.50MHz	42.2 dB	> 32.9 dB	9.5 dB
1,2	DH	Pass	44.9 dB @ 218.00MHz	44.1 dB	> 33.3 dB	11.6 dB
7,8	RH	Pass	43.9 dB @ 154.00MHz	41.0 dB	> 35.8 dB	8.1 dB
3,6	RH	Pass	45.6 dB @ 112.00MHz	40.4 dB	> 38.0 dB	7.6 dB
5,4	RH	Pass	45.2 dB @ 212.50MHz	44.8 dB	> 33.5 dB	11.7 dB
1,2	RH	Pass	44.0 dB @ 249.50MHz	44.0 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	36.8 dB @ 247.00MHz	N/A	>= 1.5 dB	35.3 dB
3,6	DH	Pass	35.5 dB @ 246.50MHz	N/A	>= 1.6 dB	33.9 dB
5,4	DH	Pass	39.7 dB @ 246.00MHz	N/A	>= 1.7 dB	38.0 dB
1,2	DH	Pass	41.5 dB @ 245.00MHz	N/A	>= 1.8 dB	39.7 dB
7,8	RH	Pass	38.5 dB @ 246.50MHz	N/A	>= 1.6 dB	36.9 dB
3,6	RH	Pass	37.8 dB @ 247.00MHz	N/A	>= 1.5 dB	36.3 dB
5,4	RH	Pass	42.4 dB @ 232.00MHz	N/A	>= 3.1 dB	39.3 dB
1,2	RH	Pass	41.4 dB @ 249.50MHz	N/A	>= 1.3 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	50.3 dB @ 29.95MHz	33.0 dB	>= 31.7 dB	18.6 dB
3,6	DH	Pass	43.0 dB @ 61.00MHz	31.4 dB	>= 25.5 dB	17.5 dB
5,4	DH	Pass	51.7 dB @ 26.95MHz	32.9 dB	>= 32.6 dB	19.1 dB
1,2	DH	Pass	39.3 dB @ 182.00MHz	37.1 dB	>= 16.0 dB	23.3 dB
7,8	RH	Pass	42.3 dB @ 61.00MHz	31.2 dB	>= 25.5 dB	16.8 dB
3,6	RH	Pass	37.1 dB @ 182.00MHz	34.6 dB	>= 16.0 dB	21.1 dB
5,4	RH	Pass	53.7 dB @ 20.80MHz	33.9 dB	>= 34.8 dB	18.9 dB
1,2	RH	Pass	41.0 dB @ 105.00MHz	34.1 dB	>= 20.8 dB	20.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

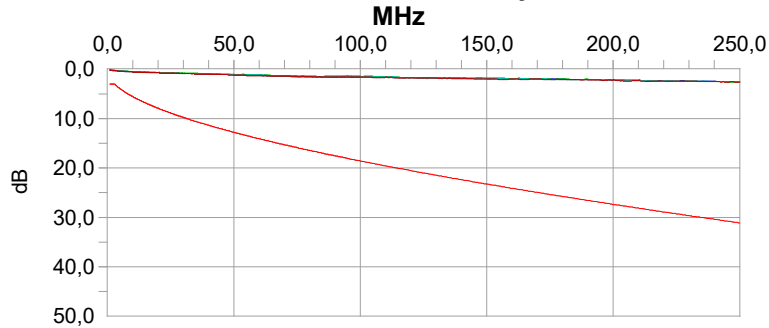
Cable ID 1: 9/4
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:37:17
Adapter ID: 6014

Cable Type: Cat 6-250 STP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

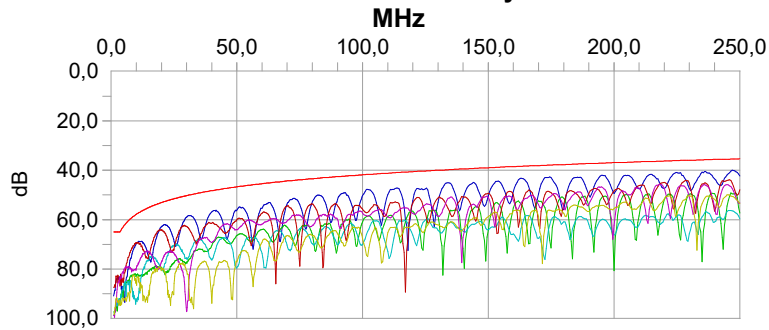
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

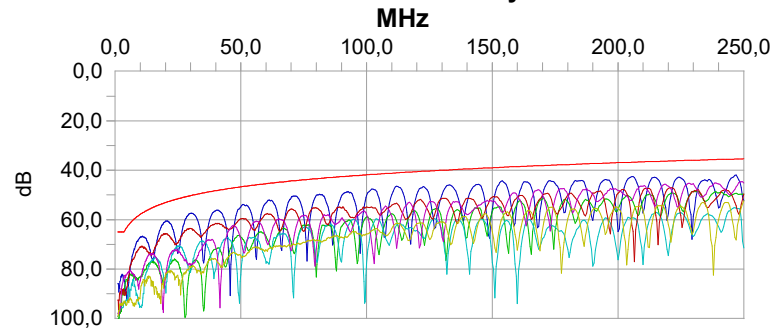
Attenuation Summary



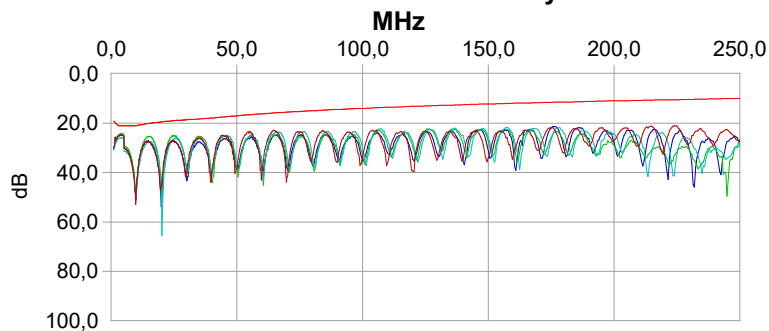
NEXT DH Summary



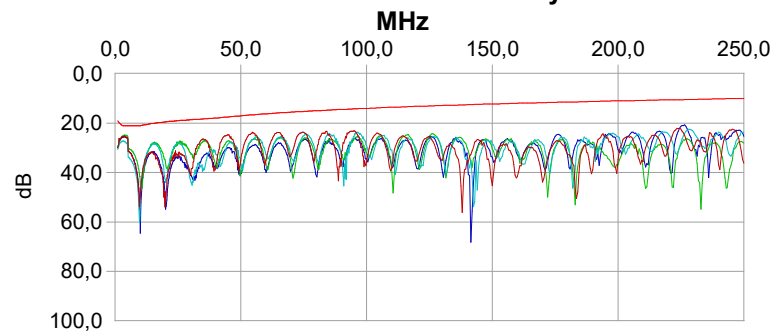
NEXT RH Summary



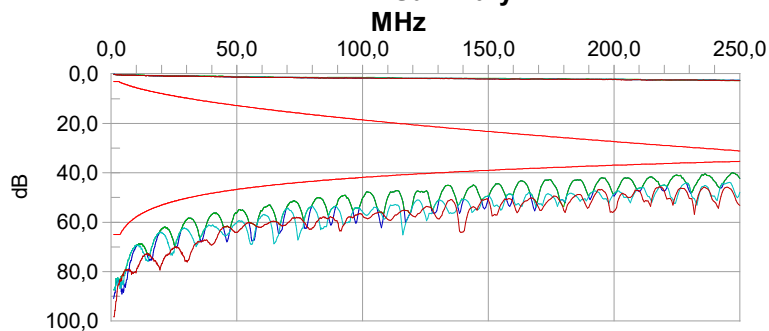
Return Loss DH Summary



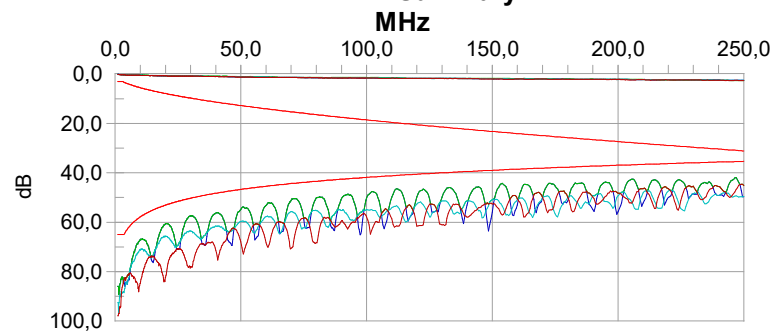
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

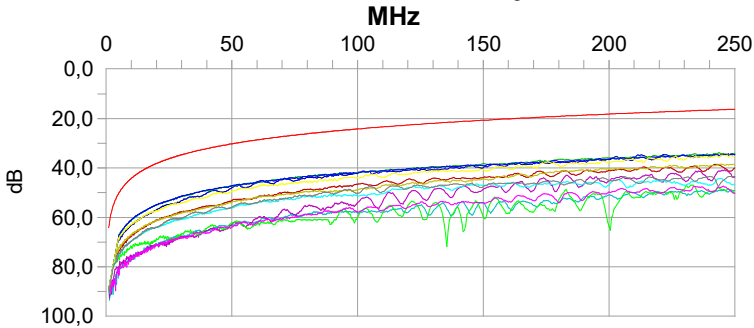
Cable ID 1: 9/4
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:37:17
Adapter ID: 6014

Cable Type: Cat 6-250 STP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

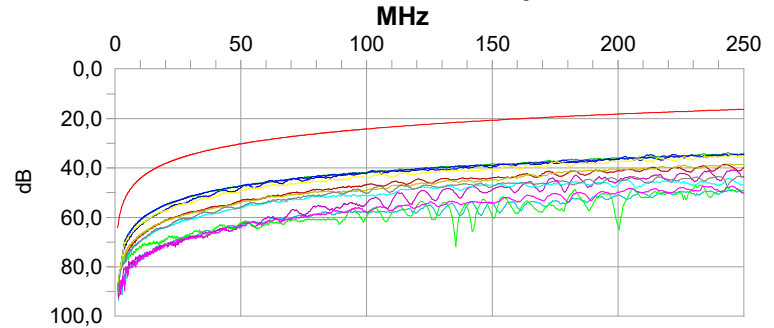
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

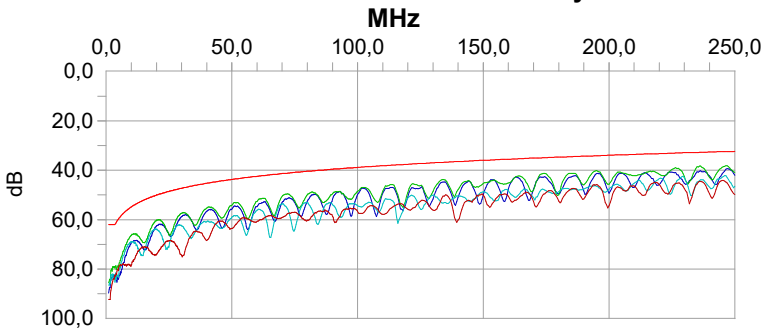
ELFEXT DH Summary



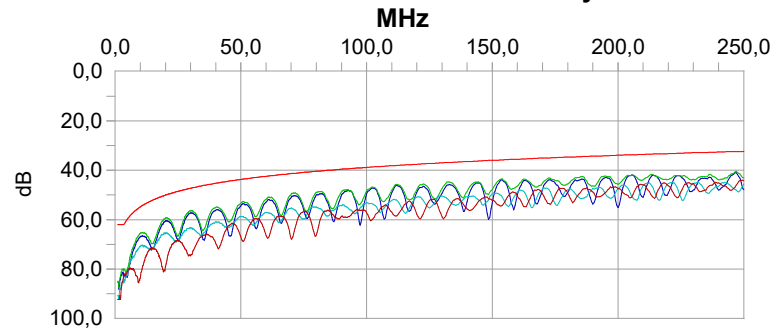
ELFEXT RH Summary



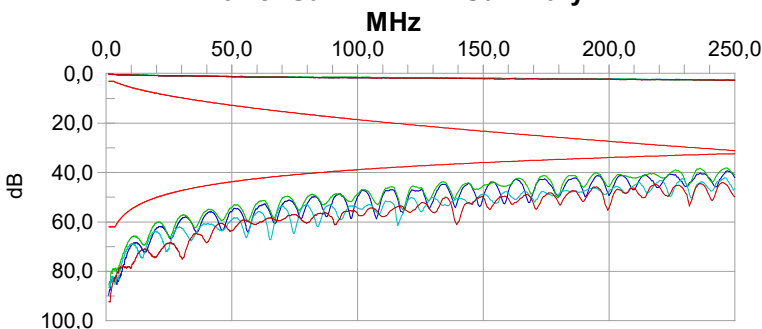
Power Sum NEXT DH Summary



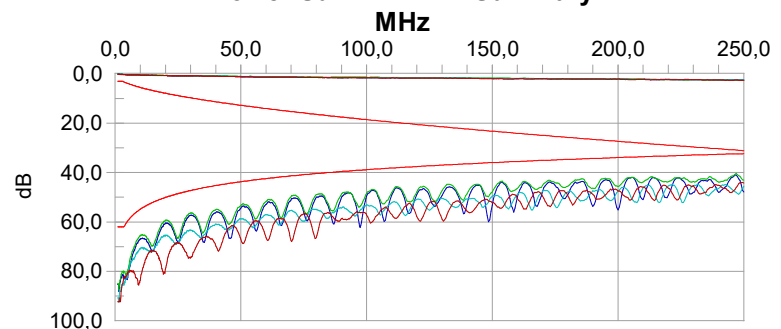
Power Sum NEXT RH Summary



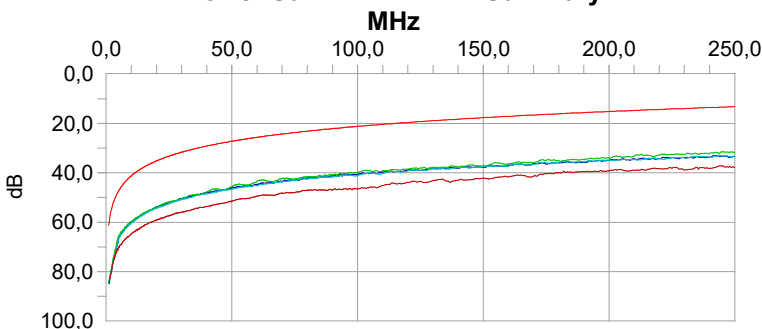
Power Sum ACR DH Summary



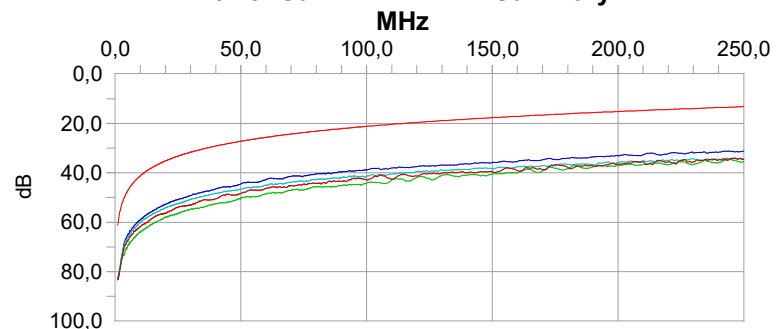
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

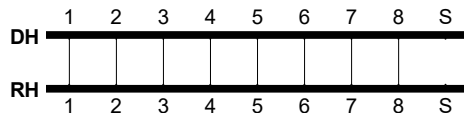
Cable ID 1: 3/12
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:59:09
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	32.8ft.	32.5ft.	32.5ft.	33.8ft.	< 295.3ft.	Pass
Prop. Delay	65.5ns	64.9ns	64.9ns	65.1ns	< 498.0ns	Pass
Delay Skew	0.6ns (Pairs 7,8 vs. 5,4)				< 44.0 ns	Pass
Headroom	19.1 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	41.1 dB @ 82.25MHz	40.9 dB	> 33.7 dB	7.4 dB
7,8-5,4	DH	Pass	49.7 dB @ 54.00MHz	46.9 dB	> 36.7 dB	13.0 dB
7,8-1,2	DH	Pass	53.5 dB @ 81.00MHz	52.9 dB	> 33.8 dB	19.7 dB
3,6-5,4	DH	Pass	40.1 dB @ 72.25MHz	40.1 dB	> 34.6 dB	5.5 dB
3,6-1,2	DH	Pass	43.3 dB @ 73.25MHz	43.3 dB	> 34.5 dB	8.8 dB
5,4-1,2	DH	Pass	62.2 dB @ 5.50MHz	44.8 dB	> 52.6 dB	9.6 dB
7,8-3,6	RH	Pass	39.7 dB @ 82.00MHz	39.6 dB	> 33.7 dB	6.0 dB
7,8-5,4	RH	Pass	50.0 dB @ 55.00MHz	47.5 dB	> 36.6 dB	13.4 dB
7,8-1,2	RH	Pass	51.0 dB @ 83.25MHz	50.5 dB	> 33.6 dB	17.4 dB
3,6-5,4	RH	Pass	43.3 dB @ 81.00MHz	43.3 dB	> 33.8 dB	9.5 dB
3,6-1,2	RH	Pass	45.1 dB @ 73.75MHz	45.1 dB	> 34.5 dB	10.6 dB
5,4-1,2	RH	Pass	62.3 dB @ 5.05MHz	43.4 dB	> 53.2 dB	9.1 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	25.1 dB @ 3.10MHz	24.1 dB	> 19.0 dB	6.1 dB
3,6	DH	Pass	23.4 dB @ 3.55MHz	23.1 dB	> 19.0 dB	4.4 dB
5,4	DH	Pass	23.6 dB @ 4.00MHz	19.8 dB	> 19.0 dB	4.6 dB
1,2	DH	Pass	25.5 dB @ 1.60MHz	21.1 dB	> 19.0 dB	6.5 dB
7,8	RH	Pass	25.1 dB @ 3.25MHz	24.4 dB	> 19.0 dB	6.1 dB
3,6	RH	Pass	23.8 dB @ 3.40MHz	22.5 dB	> 19.0 dB	4.8 dB
5,4	RH	Pass	23.6 dB @ 3.85MHz	19.9 dB	> 19.0 dB	4.6 dB
1,2	RH	Pass	25.2 dB @ 2.95MHz	20.1 dB	> 19.0 dB	6.2 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.2 dB @ 2.50MHz	2.1 dB	< 3.1 dB	2.9 dB
3,6	Pass	0.2 dB @ 2.50MHz	1.9 dB	< 3.1 dB	2.9 dB
5,4	Pass	0.3 dB @ 2.50MHz	2.1 dB	< 3.1 dB	2.8 dB
1,2	Pass	0.3 dB @ 2.50MHz	2.1 dB	< 3.1 dB	2.8 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	38.8 dB @ 97.50MHz	N/A	>= 11.8 dB	27.0 dB
3,6	DH	Pass	38.3 dB @ 82.25MHz	N/A	>= 14.8 dB	23.5 dB
5,4	DH	Pass	38.1 dB @ 82.25MHz	N/A	>= 14.8 dB	23.3 dB
1,2	DH	Pass	41.4 dB @ 73.25MHz	N/A	>= 16.8 dB	24.6 dB
7,8	RH	Pass	37.5 dB @ 97.00MHz	N/A	>= 11.9 dB	25.6 dB
3,6	RH	Pass	37.9 dB @ 82.00MHz	N/A	>= 14.9 dB	23.0 dB
5,4	RH	Pass	41.3 dB @ 81.00MHz	N/A	>= 15.1 dB	26.2 dB
1,2	RH	Pass	41.3 dB @ 92.50MHz	N/A	>= 12.8 dB	28.5 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 3/12
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:59:09
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT
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	46.8 dB @ 31.75MHz	38.6 dB	> 28.6 dB	18.2 dB
7,8-5,4	DH	Pass	55.6 dB @ 7.45MHz	33.5 dB	> 41.2 dB	14.4 dB
7,8-1,2	DH	Pass	45.8 dB @ 69.75MHz	44.3 dB	> 21.7 dB	24.1 dB
3,6-7,8	DH	Pass	41.9 dB @ 91.00MHz	41.9 dB	> 19.4 dB	22.5 dB
3,6-5,4	DH	Pass	55.9 dB @ 7.60MHz	35.2 dB	> 41.0 dB	14.9 dB
3,6-1,2	DH	Pass	41.0 dB @ 65.00MHz	39.7 dB	> 22.4 dB	18.6 dB
5,4-7,8	DH	Pass	48.8 dB @ 16.15MHz	34.0 dB	> 34.5 dB	14.3 dB
5,4-3,6	DH	Pass	50.7 dB @ 8.20MHz	30.3 dB	> 40.3 dB	10.4 dB
5,4-1,2	DH	Pass	48.3 dB @ 42.75MHz	41.6 dB	> 26.0 dB	22.3 dB
1,2-7,8	DH	Pass	45.7 dB @ 72.25MHz	44.5 dB	> 21.4 dB	24.3 dB
1,2-3,6	DH	Pass	55.1 dB @ 8.05MHz	36.1 dB	> 40.5 dB	14.6 dB
1,2-5,4	DH	Pass	45.4 dB @ 62.00MHz	42.2 dB	> 22.8 dB	22.6 dB
7,8-3,6	RH	Pass	46.7 dB @ 31.75MHz	38.4 dB	> 28.6 dB	18.1 dB
7,8-5,4	RH	Pass	55.7 dB @ 7.45MHz	33.5 dB	> 41.2 dB	14.5 dB
7,8-1,2	RH	Pass	46.0 dB @ 69.00MHz	44.4 dB	> 21.8 dB	24.2 dB
3,6-7,8	RH	Pass	48.6 dB @ 43.25MHz	42.1 dB	> 25.9 dB	22.7 dB
3,6-5,4	RH	Pass	57.9 dB @ 6.10MHz	35.4 dB	> 42.9 dB	15.0 dB
3,6-1,2	RH	Pass	41.1 dB @ 65.00MHz	39.9 dB	> 22.4 dB	18.7 dB
5,4-7,8	RH	Pass	48.7 dB @ 16.15MHz	34.1 dB	> 34.5 dB	14.2 dB
5,4-3,6	RH	Pass	50.6 dB @ 8.20MHz	30.1 dB	> 40.3 dB	10.3 dB
5,4-1,2	RH	Pass	44.8 dB @ 64.25MHz	41.7 dB	> 22.5 dB	22.3 dB
1,2-7,8	RH	Pass	45.7 dB @ 72.25MHz	44.4 dB	> 21.4 dB	24.3 dB
1,2-3,6	RH	Pass	56.4 dB @ 6.85MHz	35.9 dB	> 41.9 dB	14.5 dB
1,2-5,4	RH	Pass	42.1 dB @ 89.75MHz	42.1 dB	> 19.6 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	40.7 dB @ 82.00MHz	40.0 dB	> 30.7 dB	10.0 dB
3,6	DH	Pass	37.2 dB @ 82.25MHz	37.2 dB	> 30.7 dB	6.5 dB
5,4	DH	Pass	38.9 dB @ 71.75MHz	38.8 dB	> 31.7 dB	7.2 dB
1,2	DH	Pass	41.2 dB @ 73.25MHz	41.2 dB	> 31.5 dB	9.7 dB
7,8	RH	Pass	39.2 dB @ 82.00MHz	39.0 dB	> 30.7 dB	8.5 dB
3,6	RH	Pass	37.9 dB @ 82.00MHz	37.8 dB	> 30.7 dB	7.2 dB
5,4	RH	Pass	41.2 dB @ 70.75MHz	41.1 dB	> 31.8 dB	9.4 dB
1,2	RH	Pass	42.0 dB @ 72.50MHz	41.4 dB	> 31.6 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	37.9 dB @ 97.50MHz	N/A	>= 8.8 dB	29.1 dB
3,6	DH	Pass	35.4 dB @ 82.25MHz	N/A	>= 11.8 dB	23.6 dB
5,4	DH	Pass	36.9 dB @ 72.00MHz	N/A	>= 14.1 dB	22.8 dB
1,2	DH	Pass	39.3 dB @ 73.25MHz	N/A	>= 13.8 dB	25.5 dB
7,8	RH	Pass	36.9 dB @ 97.00MHz	N/A	>= 8.9 dB	28.0 dB
3,6	RH	Pass	36.0 dB @ 83.00MHz	N/A	>= 11.7 dB	24.3 dB
5,4	RH	Pass	39.2 dB @ 71.00MHz	N/A	>= 14.3 dB	24.9 dB
1,2	RH	Pass	39.4 dB @ 94.50MHz	N/A	>= 9.4 dB	30.0 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	47.9 dB @ 16.15MHz	33.0 dB	>= 31.5 dB	16.4 dB
3,6	DH	Pass	48.9 dB @ 8.20MHz	28.9 dB	>= 37.3 dB	11.6 dB
5,4	DH	Pass	52.5 dB @ 7.45MHz	30.9 dB	>= 38.2 dB	14.3 dB
1,2	DH	Pass	38.8 dB @ 65.00MHz	36.8 dB	>= 19.4 dB	19.4 dB
7,8	RH	Pass	55.9 dB @ 6.10MHz	32.2 dB	>= 39.9 dB	16.0 dB
3,6	RH	Pass	54.9 dB @ 7.00MHz	33.5 dB	>= 38.7 dB	16.2 dB
5,4	RH	Pass	49.0 dB @ 8.20MHz	28.5 dB	>= 37.3 dB	11.7 dB
1,2	RH	Pass	55.5 dB @ 6.85MHz	34.6 dB	>= 38.9 dB	16.6 dB

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

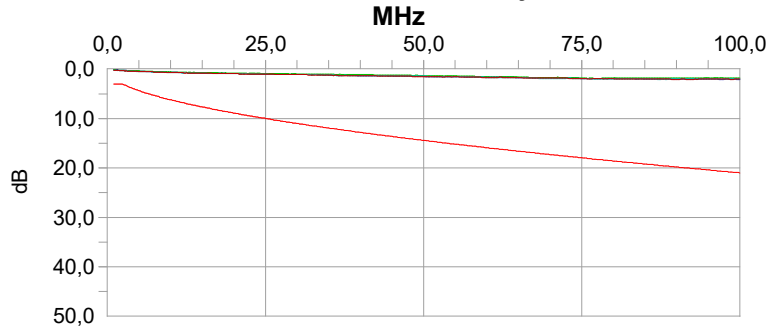
Cable ID 1: 3/12
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:59:09
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

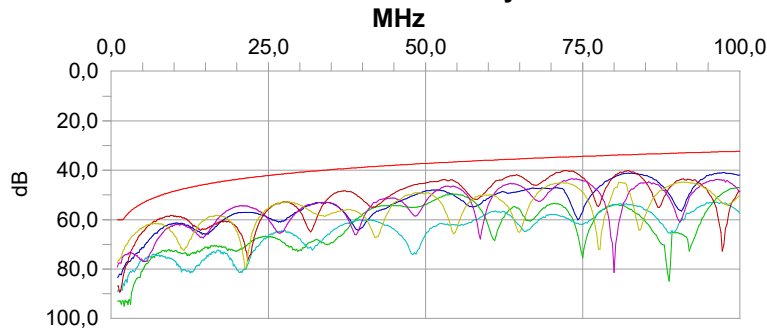
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

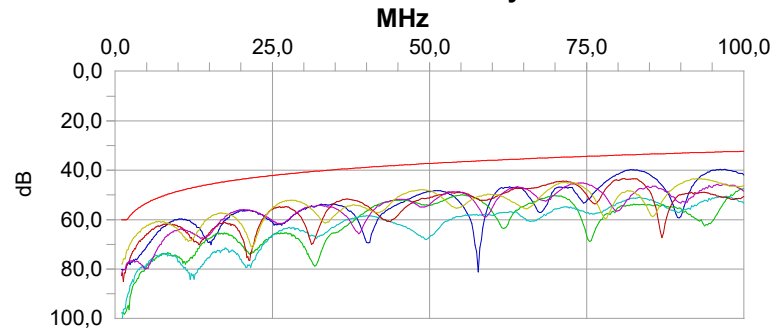
Attenuation Summary



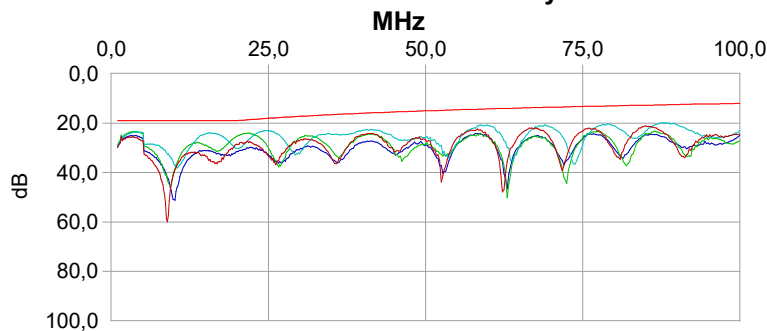
NEXT DH Summary



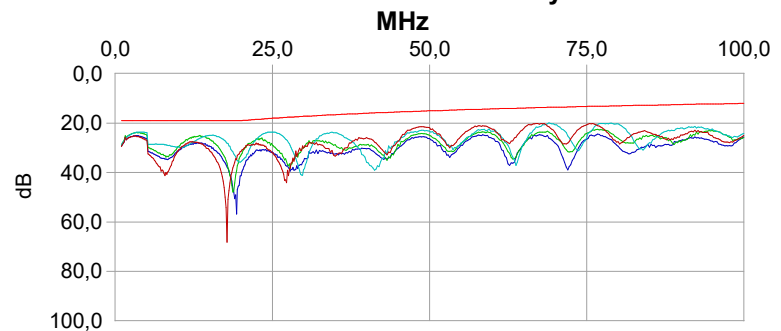
NEXT RH Summary



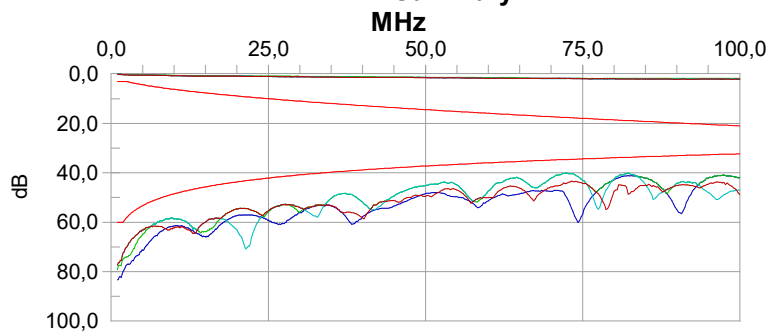
Return Loss DH Summary



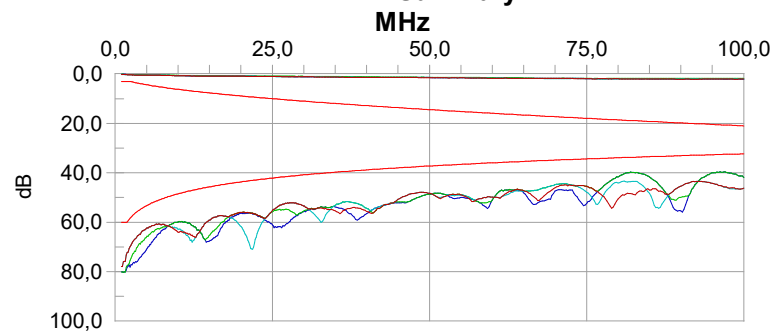
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

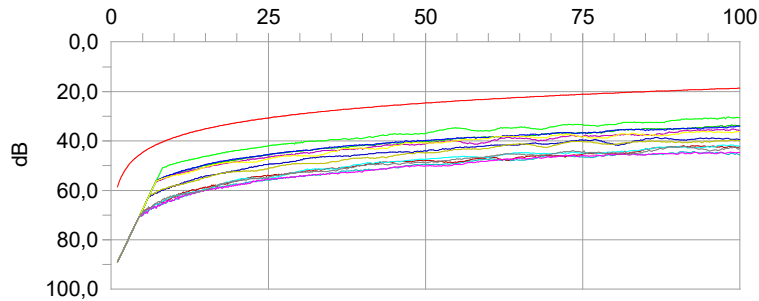
Cable ID 1: 3/12
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:59:09
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

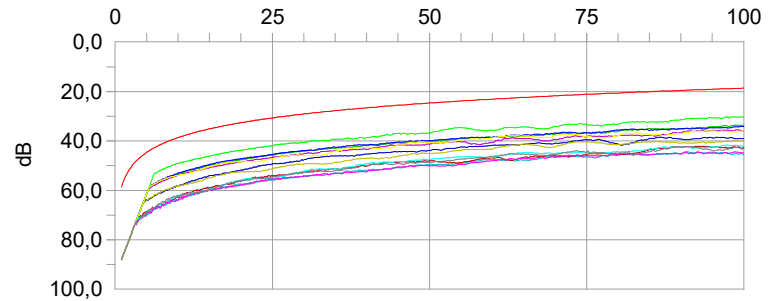
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

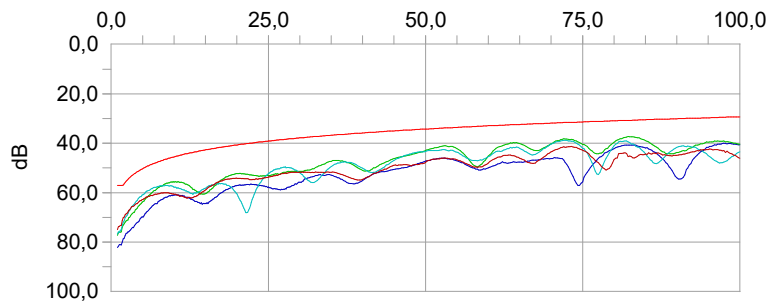
ELFEXT DH Summary
MHz



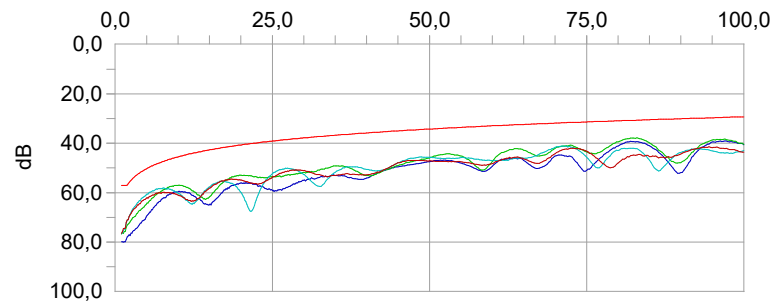
ELFEXT RH Summary
MHz



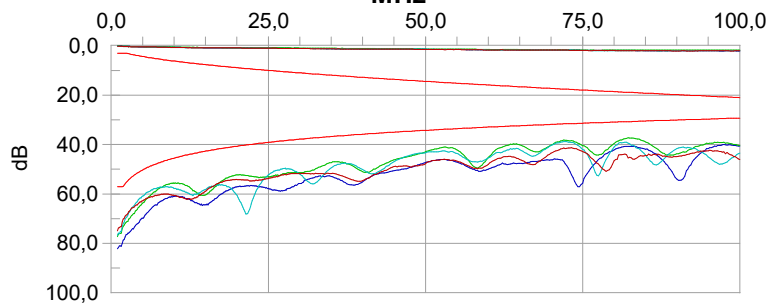
Power Sum NEXT DH Summary
MHz



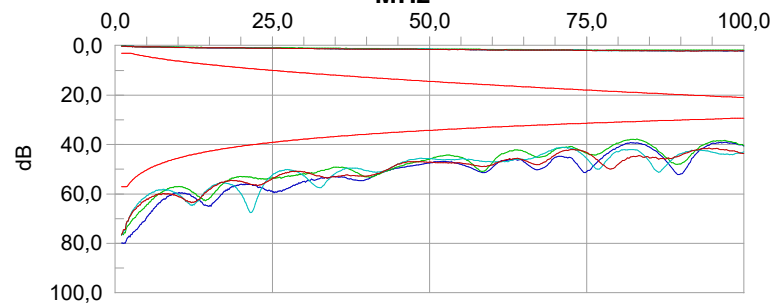
Power Sum NEXT RH Summary
MHz



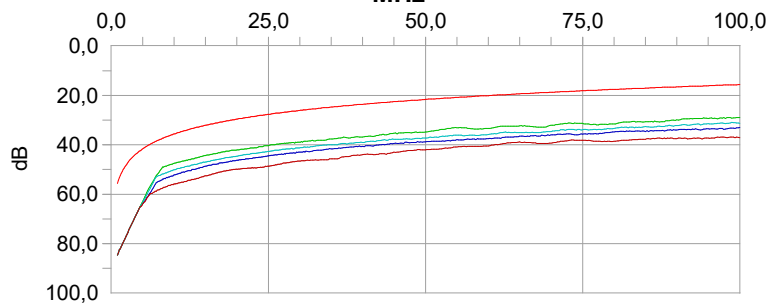
Power Sum ACR DH Summary
MHz



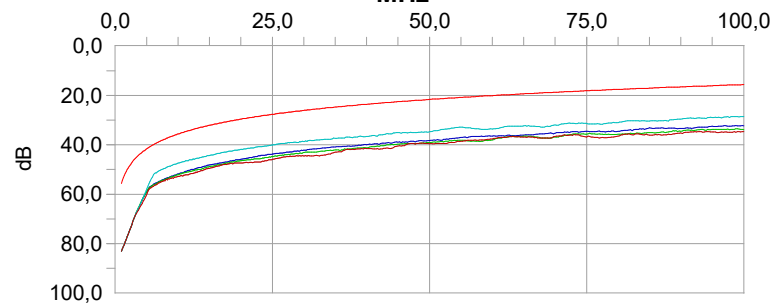
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

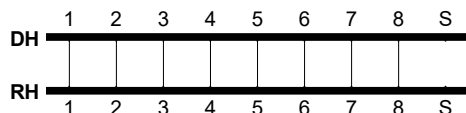
Cable ID 1: 5/17
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:06:13
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	83.3ft.	87.3ft.	86.6ft.	85.0ft.	< 295.3ft.	Pass
Prop. Delay	138.4ns	144.2ns	143.4ns	139.0ns	< 498.0ns	Pass
Delay Skew	5.8ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
DC Resistance	6.6 Ohm	6.8 Ohm	6.8 Ohm	7.1 Ohm	< 20.0 Ohm	Pass
Headroom	3.3 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	46.8 dB @ 219.00MHz	46.8 dB	> 36.3 dB	10.5 dB
7,8-5,4	DH	Pass	51.5 dB @ 212.50MHz	51.5 dB	> 36.5 dB	15.0 dB
7,8-1,2	DH	Pass	77.4 dB @ 4.45MHz	54.3 dB	> 63.4 dB	14.0 dB
3,6-5,4	DH	Pass	44.5 dB @ 211.50MHz	44.2 dB	> 36.5 dB	8.0 dB
3,6-1,2	DH	Pass	41.6 dB @ 249.00MHz	41.6 dB	> 35.4 dB	6.2 dB
5,4-1,2	DH	Pass	74.2 dB @ 4.15MHz	47.4 dB	> 63.8 dB	10.4 dB
7,8-3,6	RH	Pass	39.5 dB @ 243.50MHz	39.5 dB	> 35.5 dB	4.0 dB
7,8-5,4	RH	Pass	50.0 dB @ 205.50MHz	50.0 dB	> 36.7 dB	13.3 dB
7,8-1,2	RH	Pass	44.6 dB @ 248.50MHz	44.6 dB	> 35.4 dB	9.2 dB
3,6-5,4	RH	Pass	38.3 dB @ 245.50MHz	38.3 dB	> 35.5 dB	2.8 dB
3,6-1,2	RH	Pass	42.2 dB @ 247.50MHz	42.2 dB	> 35.4 dB	6.8 dB
5,4-1,2	RH	Pass	51.9 dB @ 72.75MHz	46.3 dB	> 44.1 dB	7.8 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.7 dB @ 1.60MHz	22.3 dB	> 19.9 dB	3.8 dB
3,6	DH	Pass	24.8 dB @ 1.60MHz	24.5 dB	> 19.9 dB	4.9 dB
5,4	DH	Pass	24.7 dB @ 1.60MHz	23.6 dB	> 19.9 dB	4.8 dB
1,2	DH	Pass	24.6 dB @ 1.60MHz	23.8 dB	> 19.9 dB	4.7 dB
7,8	RH	Pass	23.3 dB @ 1.60MHz	23.3 dB	> 19.9 dB	3.4 dB
3,6	RH	Pass	24.5 dB @ 1.60MHz	24.5 dB	> 19.9 dB	4.6 dB
5,4	RH	Pass	24.9 dB @ 1.45MHz	24.9 dB	> 19.7 dB	5.2 dB
1,2	RH	Pass	24.2 dB @ 1.60MHz	23.7 dB	> 19.9 dB	4.3 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 3.10MHz	7.9 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.8 dB @ 3.10MHz	8.6 dB	< 3.1 dB	2.3 dB
5,4	Pass	0.8 dB @ 3.10MHz	8.2 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.8 dB @ 3.10MHz	8.0 dB	< 3.1 dB	2.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	39.1 dB @ 240.50MHz	N/A	>= 5.2 dB	33.9 dB
3,6	DH	Pass	33.0 dB @ 249.00MHz	N/A	>= 4.4 dB	28.6 dB
5,4	DH	Pass	36.3 dB @ 238.00MHz	N/A	>= 5.5 dB	30.8 dB
1,2	DH	Pass	33.6 dB @ 249.00MHz	N/A	>= 4.4 dB	29.2 dB
7,8	RH	Pass	31.8 dB @ 243.50MHz	N/A	>= 4.9 dB	26.9 dB
3,6	RH	Pass	29.8 dB @ 245.50MHz	N/A	>= 4.7 dB	25.1 dB
5,4	RH	Pass	30.2 dB @ 245.50MHz	N/A	>= 4.7 dB	25.5 dB
1,2	RH	Pass	34.2 dB @ 247.50MHz	N/A	>= 4.5 dB	29.7 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 5/17
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:06:13
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	36.5 dB @ 175.00MHz	34.1 dB	> 19.3 dB	17.2 dB
7,8-5,4	DH	Pass	56.7 dB @ 8.35MHz	28.8 dB	> 45.8 dB	10.9 dB
7,8-1,2	DH	Pass	47.7 dB @ 240.50MHz	47.6 dB	> 16.6 dB	31.1 dB
3,6-7,8	DH	Pass	58.4 dB @ 24.85MHz	39.4 dB	> 36.3 dB	22.1 dB
3,6-5,4	DH	Pass	33.2 dB @ 240.50MHz	33.1 dB	> 16.6 dB	16.6 dB
3,6-1,2	DH	Pass	68.0 dB @ 7.60MHz	39.2 dB	> 46.6 dB	21.4 dB
5,4-7,8	DH	Pass	53.8 dB @ 11.65MHz	28.8 dB	> 42.9 dB	10.9 dB
5,4-3,6	DH	Pass	31.6 dB @ 249.50MHz	31.6 dB	> 16.2 dB	15.4 dB
5,4-1,2	DH	Pass	61.3 dB @ 6.70MHz	32.4 dB	> 47.7 dB	13.6 dB
1,2-7,8	DH	Pass	50.5 dB @ 246.50MHz	50.5 dB	> 16.4 dB	34.1 dB
1,2-3,6	DH	Pass	64.0 dB @ 7.60MHz	35.7 dB	> 46.6 dB	17.4 dB
1,2-5,4	DH	Pass	59.7 dB @ 7.75MHz	33.2 dB	> 46.4 dB	13.3 dB
7,8-3,6	RH	Pass	36.9 dB @ 175.00MHz	34.8 dB	> 19.3 dB	17.6 dB
7,8-5,4	RH	Pass	56.7 dB @ 8.35MHz	29.0 dB	> 45.8 dB	10.9 dB
7,8-1,2	RH	Pass	47.8 dB @ 240.50MHz	47.7 dB	> 16.6 dB	31.2 dB
3,6-7,8	RH	Pass	38.6 dB @ 227.00MHz	38.6 dB	> 17.1 dB	21.5 dB
3,6-5,4	RH	Pass	32.7 dB @ 240.00MHz	32.6 dB	> 16.6 dB	16.1 dB
3,6-1,2	RH	Pass	68.1 dB @ 7.60MHz	38.6 dB	> 46.6 dB	21.5 dB
5,4-7,8	RH	Pass	53.7 dB @ 11.65MHz	28.5 dB	> 42.9 dB	10.8 dB
5,4-3,6	RH	Pass	32.0 dB @ 249.50MHz	32.0 dB	> 16.2 dB	15.8 dB
5,4-1,2	RH	Pass	63.2 dB @ 5.35MHz	32.2 dB	> 49.6 dB	13.6 dB
1,2-7,8	RH	Pass	50.5 dB @ 246.00MHz	50.4 dB	> 16.4 dB	34.1 dB
1,2-3,6	RH	Pass	67.9 dB @ 4.75MHz	36.3 dB	> 50.7 dB	17.2 dB
1,2-5,4	RH	Pass	61.8 dB @ 5.95MHz	33.3 dB	> 48.7 dB	13.1 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	45.3 dB @ 219.00MHz	45.3 dB	> 33.3 dB	12.0 dB
3,6	DH	Pass	39.7 dB @ 249.00MHz	39.7 dB	> 32.4 dB	7.3 dB
5,4	DH	Pass	43.0 dB @ 216.00MHz	42.9 dB	> 33.4 dB	9.6 dB
1,2	DH	Pass	41.4 dB @ 231.50MHz	41.0 dB	> 32.9 dB	8.5 dB
7,8	RH	Pass	38.1 dB @ 243.50MHz	38.1 dB	> 32.5 dB	5.6 dB
3,6	RH	Pass	35.2 dB @ 246.50MHz	35.2 dB	> 32.4 dB	2.8 dB
5,4	RH	Pass	37.6 dB @ 245.50MHz	37.6 dB	> 32.5 dB	5.1 dB
1,2	RH	Pass	39.3 dB @ 248.50MHz	39.3 dB	> 32.4 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	37.8 dB @ 240.50MHz	N/A	>= 2.2 dB	35.6 dB
3,6	DH	Pass	31.1 dB @ 249.00MHz	N/A	>= 1.4 dB	29.7 dB
5,4	DH	Pass	35.2 dB @ 234.50MHz	N/A	>= 2.8 dB	32.4 dB
1,2	DH	Pass	33.0 dB @ 249.00MHz	N/A	>= 1.4 dB	31.6 dB
7,8	RH	Pass	30.4 dB @ 243.50MHz	N/A	>= 1.9 dB	28.5 dB
3,6	RH	Pass	26.7 dB @ 246.50MHz	N/A	>= 1.6 dB	25.1 dB
5,4	RH	Pass	29.4 dB @ 249.00MHz	N/A	>= 1.4 dB	28.0 dB
1,2	RH	Pass	31.3 dB @ 248.50MHz	N/A	>= 1.4 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	28.8 dB @ 216.50MHz	28.4 dB	>= 14.5 dB	14.3 dB
3,6	DH	Pass	29.0 dB @ 246.00MHz	28.8 dB	>= 13.4 dB	15.6 dB
5,4	DH	Pass	55.2 dB @ 7.75MHz	26.7 dB	>= 43.4 dB	11.8 dB
1,2	DH	Pass	32.8 dB @ 204.50MHz	31.6 dB	>= 15.0 dB	17.8 dB
7,8	RH	Pass	28.8 dB @ 206.00MHz	28.2 dB	>= 14.9 dB	13.9 dB
3,6	RH	Pass	31.1 dB @ 241.50MHz	31.1 dB	>= 13.5 dB	17.6 dB
5,4	RH	Pass	56.3 dB @ 6.55MHz	25.8 dB	>= 44.9 dB	11.4 dB
1,2	RH	Pass	42.5 dB @ 64.50MHz	31.4 dB	>= 25.0 dB	17.5 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

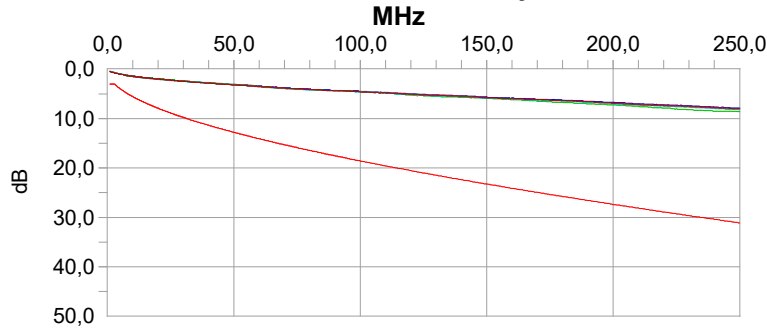
Cable ID 1: 5/17
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:06:13
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

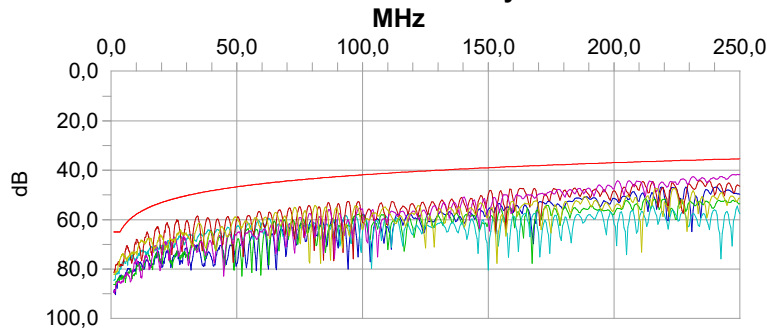
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

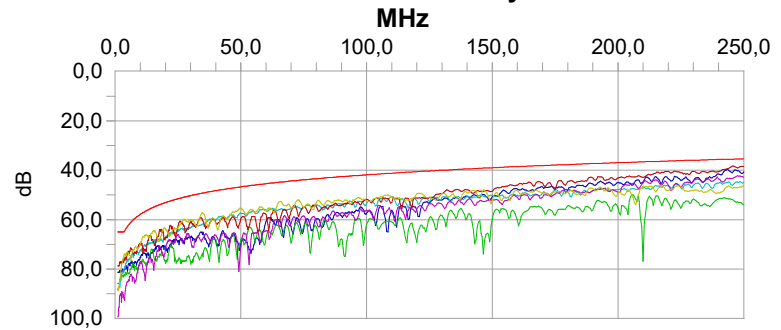
Attenuation Summary



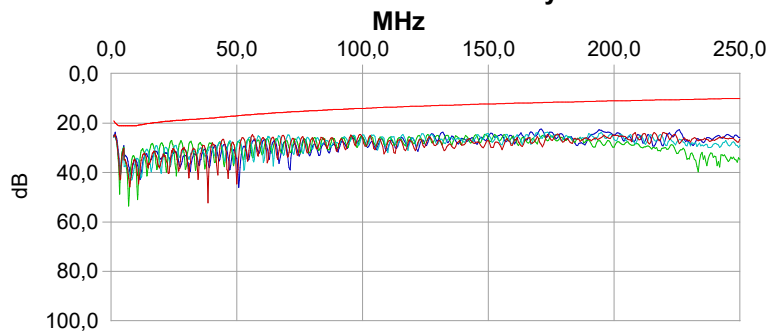
NEXT DH Summary



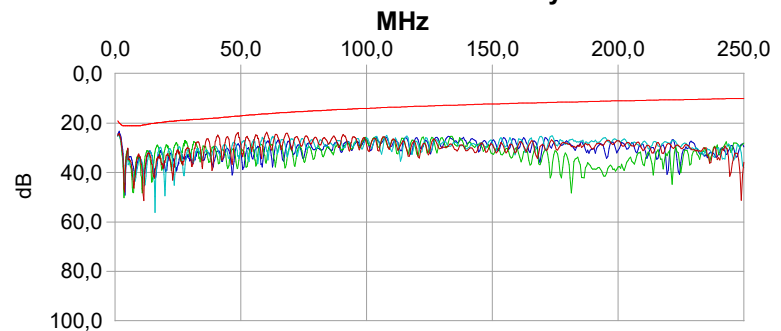
NEXT RH Summary



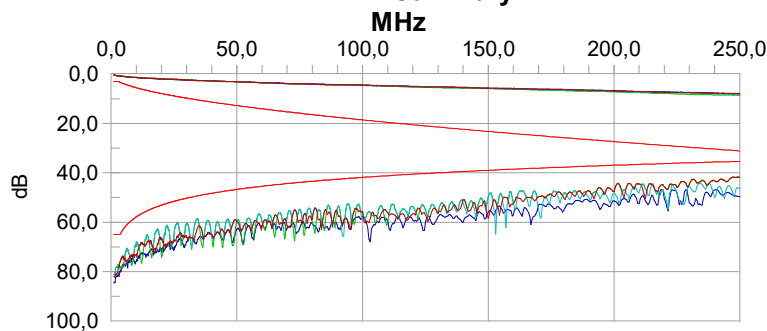
Return Loss DH Summary



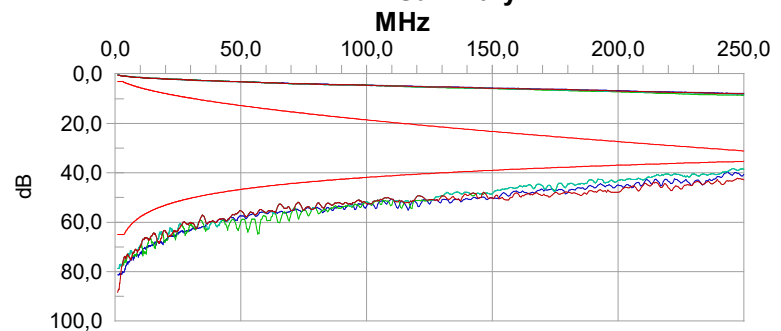
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

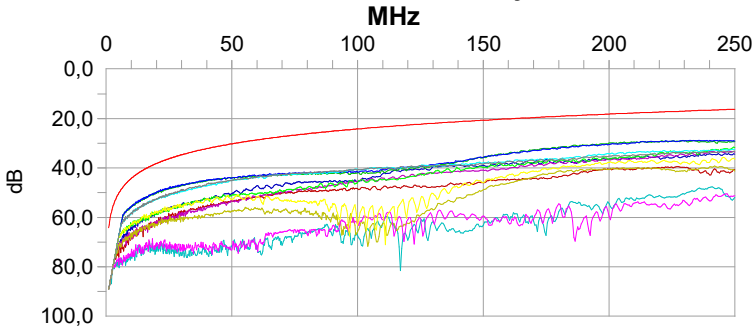
Cable ID 1: 5/17
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:06:13
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

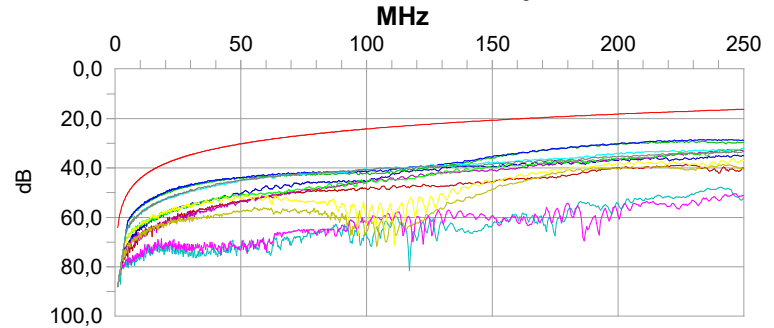
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

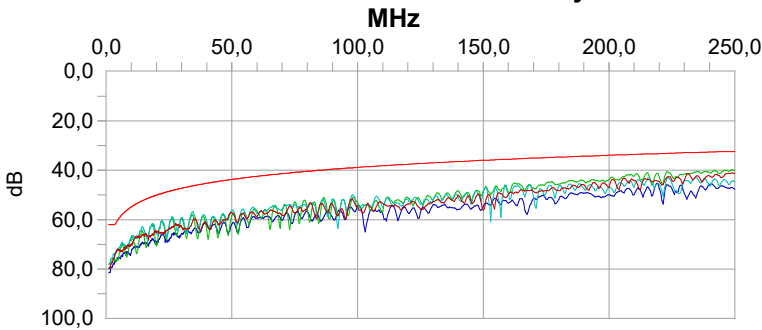
ELFEXT DH Summary



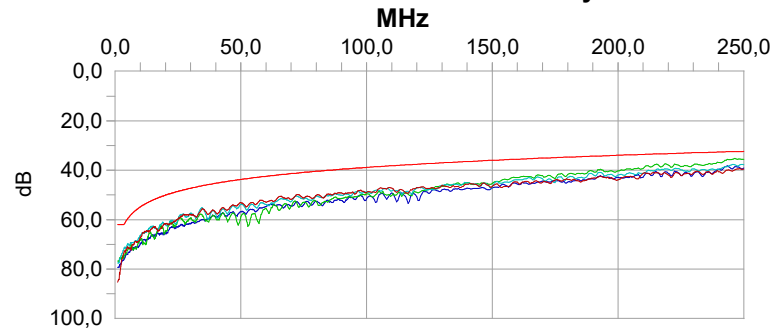
ELFEXT RH Summary



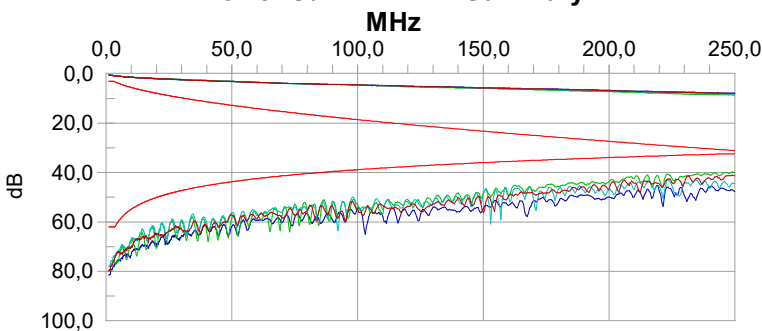
Power Sum NEXT DH Summary



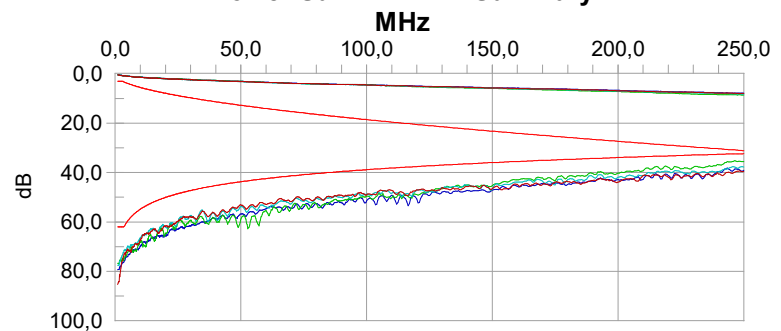
Power Sum NEXT RH Summary



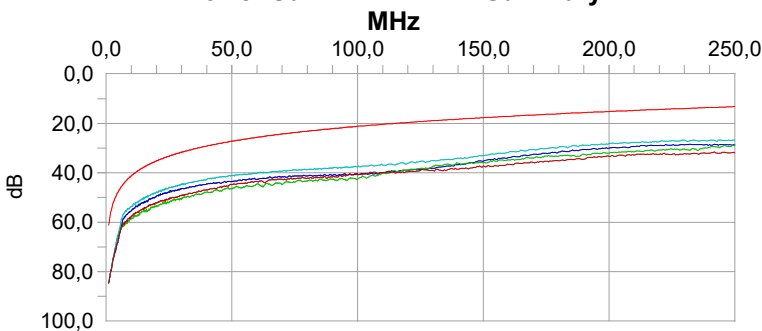
Power Sum ACR DH Summary



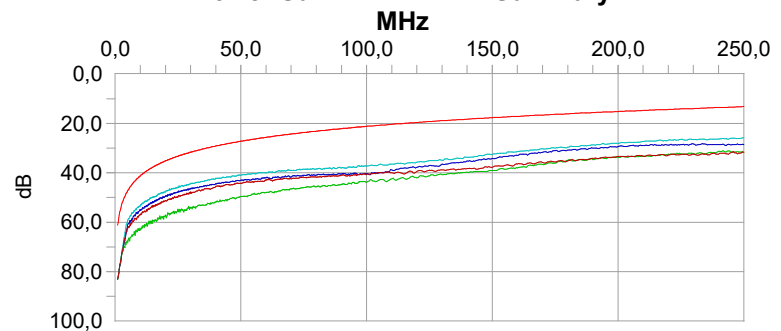
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

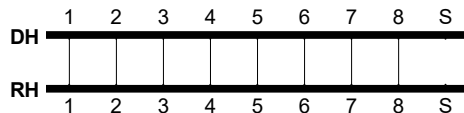
Cable ID 1: 7/19
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:45:03
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	101.0ft.	106.0ft.	105.3ft.	102.7ft.	< 295.3ft.	Pass
Prop. Delay	164.2ns	171.2ns	170.0ns	164.4ns	< 498.0ns	Pass
Delay Skew	7.0ns (Pairs 3,6 vs. 7,8)				< 44.0 ns	Pass
Headroom	34.2 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	52.0 dB @ 66.75MHz	52.0 dB	> 35.2 dB	16.8 dB
7,8-5,4	DH	Pass	60.4 dB @ 27.25MHz	52.6 dB	> 41.5 dB	18.9 dB
7,8-1,2	DH	Pass	81.0 dB @ 2.05MHz	61.4 dB	> 59.4 dB	21.6 dB
3,6-5,4	DH	Pass	51.2 dB @ 66.50MHz	50.8 dB	> 35.2 dB	16.0 dB
3,6-1,2	DH	Pass	57.8 dB @ 54.50MHz	56.2 dB	> 36.6 dB	21.2 dB
5,4-1,2	DH	Pass	55.2 dB @ 58.00MHz	55.0 dB	> 36.2 dB	19.0 dB
7,8-3,6	RH	Pass	52.3 dB @ 83.75MHz	52.3 dB	> 33.6 dB	18.7 dB
7,8-5,4	RH	Pass	63.8 dB @ 26.95MHz	58.9 dB	> 41.6 dB	22.2 dB
7,8-1,2	RH	Pass	80.6 dB @ 1.90MHz	65.2 dB	> 59.9 dB	20.7 dB
3,6-5,4	RH	Pass	76.4 dB @ 1.90MHz	55.9 dB	> 59.9 dB	16.5 dB
3,6-1,2	RH	Pass	84.0 dB @ 1.75MHz	59.6 dB	> 60.0 dB	24.0 dB
5,4-1,2	RH	Pass	78.8 dB @ 1.90MHz	57.3 dB	> 59.9 dB	18.9 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 @ 1.15MHz	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	21.2 dB	> 19.0 dB	3.9 dB
7,8	RH	Pass	22.4 dB @ 1.30MHz	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	21.3 dB @ 1.30MHz	21.3 dB	> 19.0 dB	2.3 dB
1,2	RH	Pass	22.4 dB @ 1.15MHz	22.3 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	5.2 dB	< 3.1 dB	2.4 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	5.1 dB	< 3.1 dB	2.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	47.2 dB @ 92.75MHz	N/A	>= 12.7 dB	34.5 dB
3,6	DH	Pass	46.3 dB @ 75.75MHz	N/A	>= 16.3 dB	30.0 dB
5,4	DH	Pass	46.3 dB @ 75.75MHz	N/A	>= 16.3 dB	30.0 dB
1,2	DH	Pass	50.7 dB @ 67.00MHz	N/A	>= 18.3 dB	32.4 dB
7,8	RH	Pass	47.6 dB @ 83.75MHz	N/A	>= 14.6 dB	33.0 dB
3,6	RH	Pass	47.5 dB @ 83.75MHz	N/A	>= 14.6 dB	32.9 dB
5,4	RH	Pass	51.4 dB @ 76.00MHz	N/A	>= 16.2 dB	35.2 dB
1,2	RH	Pass	53.0 dB @ 67.75MHz	N/A	>= 18.1 dB	34.9 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 7/19
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:45:03
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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 @ 58.50MHz	52.7 dB	> 23.3 dB	31.8 dB
7,8-5,4	DH	Pass	63.9 dB @ 5.95MHz	44.6 dB	> 43.1 dB	20.8 dB
7,8-1,2	DH	Pass	67.2 dB @ 9.85MHz	49.8 dB	> 38.7 dB	28.5 dB
3,6-7,8	DH	Pass	51.1 dB @ 92.75MHz	51.1 dB	> 19.3 dB	31.8 dB
3,6-5,4	DH	Pass	67.6 dB @ 14.05MHz	53.6 dB	> 35.7 dB	31.9 dB
3,6-1,2	DH	Pass	44.3 dB @ 99.25MHz	44.3 dB	> 18.7 dB	25.6 dB
5,4-7,8	DH	Pass	61.2 dB @ 7.75MHz	45.9 dB	> 40.8 dB	20.4 dB
5,4-3,6	DH	Pass	43.1 dB @ 99.00MHz	43.1 dB	> 18.7 dB	24.4 dB
5,4-1,2	DH	Pass	63.5 dB @ 5.95MHz	46.7 dB	> 43.1 dB	20.4 dB
1,2-7,8	DH	Pass	59.3 dB @ 26.65MHz	49.3 dB	> 30.1 dB	29.2 dB
1,2-3,6	DH	Pass	42.2 dB @ 78.50MHz	40.9 dB	> 20.7 dB	21.5 dB
1,2-5,4	DH	Pass	58.9 dB @ 10.45MHz	46.4 dB	> 38.2 dB	20.7 dB
7,8-3,6	RH	Pass	55.2 dB @ 58.50MHz	52.7 dB	> 23.3 dB	31.9 dB
7,8-5,4	RH	Pass	64.5 dB @ 5.50MHz	44.5 dB	> 43.8 dB	20.7 dB
7,8-1,2	RH	Pass	67.1 dB @ 9.85MHz	49.8 dB	> 38.7 dB	28.4 dB
3,6-7,8	RH	Pass	51.1 dB @ 92.75MHz	51.1 dB	> 19.3 dB	31.8 dB
3,6-5,4	RH	Pass	67.6 dB @ 14.05MHz	53.5 dB	> 35.7 dB	31.9 dB
3,6-1,2	RH	Pass	44.3 dB @ 99.25MHz	44.3 dB	> 18.7 dB	25.6 dB
5,4-7,8	RH	Pass	66.3 dB @ 4.30MHz	46.0 dB	> 45.9 dB	20.4 dB
5,4-3,6	RH	Pass	43.2 dB @ 99.00MHz	43.2 dB	> 18.7 dB	24.5 dB
5,4-1,2	RH	Pass	63.7 dB @ 5.65MHz	46.7 dB	> 43.6 dB	20.1 dB
1,2-7,8	RH	Pass	59.3 dB @ 26.65MHz	49.3 dB	> 30.1 dB	29.2 dB
1,2-3,6	RH	Pass	42.2 dB @ 78.50MHz	40.9 dB	> 20.7 dB	21.5 dB
1,2-5,4	RH	Pass	64.7 dB @ 5.05MHz	46.3 dB	> 44.5 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	51.1 dB @ 67.00MHz	49.2 dB	> 32.2 dB	18.9 dB
3,6	DH	Pass	48.1 dB @ 66.50MHz	48.1 dB	> 32.2 dB	15.9 dB
5,4	DH	Pass	48.2 dB @ 75.75MHz	48.2 dB	> 31.3 dB	16.9 dB
1,2	DH	Pass	76.3 dB @ 2.05MHz	52.7 dB	> 56.4 dB	19.9 dB
7,8	RH	Pass	76.8 dB @ 1.90MHz	52.2 dB	> 56.9 dB	19.9 dB
3,6	RH	Pass	74.6 dB @ 1.90MHz	51.8 dB	> 56.9 dB	17.7 dB
5,4	RH	Pass	73.9 dB @ 1.90MHz	54.2 dB	> 56.9 dB	17.0 dB
1,2	RH	Pass	75.9 dB @ 1.90MHz	55.7 dB	> 56.9 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	44.3 dB @ 92.75MHz	N/A	>= 9.7 dB	34.6 dB
3,6	DH	Pass	43.9 dB @ 66.50MHz	N/A	>= 15.4 dB	28.5 dB
5,4	DH	Pass	43.7 dB @ 75.75MHz	N/A	>= 13.3 dB	30.4 dB
1,2	DH	Pass	48.4 dB @ 67.00MHz	N/A	>= 15.3 dB	33.1 dB
7,8	RH	Pass	47.5 dB @ 83.75MHz	N/A	>= 11.6 dB	35.9 dB
3,6	RH	Pass	47.0 dB @ 83.75MHz	N/A	>= 11.6 dB	35.4 dB
5,4	RH	Pass	49.7 dB @ 76.00MHz	N/A	>= 13.2 dB	36.5 dB
1,2	RH	Pass	51.4 dB @ 67.25MHz	N/A	>= 15.2 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	53.2 dB @ 22.30MHz	43.6 dB	>= 28.6 dB	24.6 dB
3,6	DH	Pass	40.0 dB @ 82.75MHz	38.8 dB	>= 17.3 dB	22.7 dB
5,4	DH	Pass	53.1 dB @ 15.25MHz	42.7 dB	>= 31.9 dB	21.2 dB
1,2	DH	Pass	52.9 dB @ 20.65MHz	42.7 dB	>= 29.3 dB	23.6 dB
7,8	RH	Pass	54.2 dB @ 17.80MHz	43.3 dB	>= 30.6 dB	23.6 dB
3,6	RH	Pass	43.1 dB @ 99.25MHz	43.1 dB	>= 15.7 dB	27.4 dB
5,4	RH	Pass	55.8 dB @ 10.15MHz	40.8 dB	>= 35.5 dB	20.3 dB
1,2	RH	Pass	50.5 dB @ 24.40MHz	39.7 dB	>= 27.9 dB	22.6 dB

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

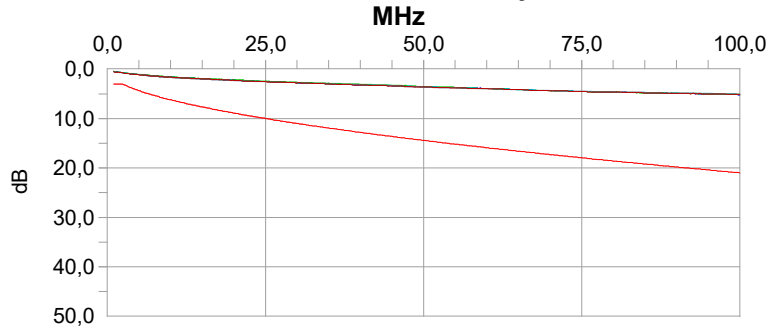
Cable ID 1: 7/19
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:45:03
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

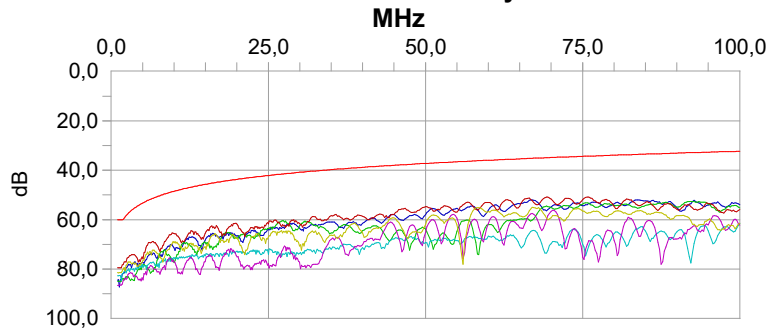
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

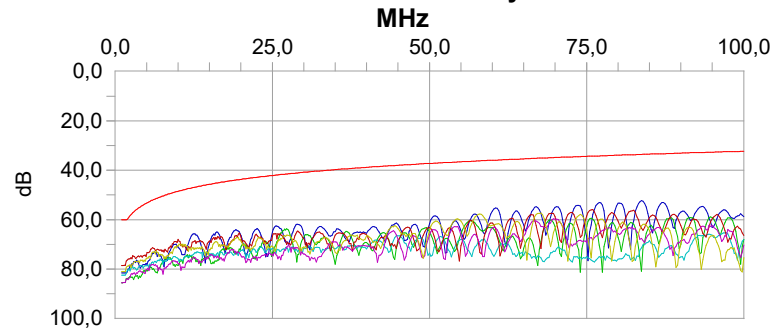
Attenuation Summary



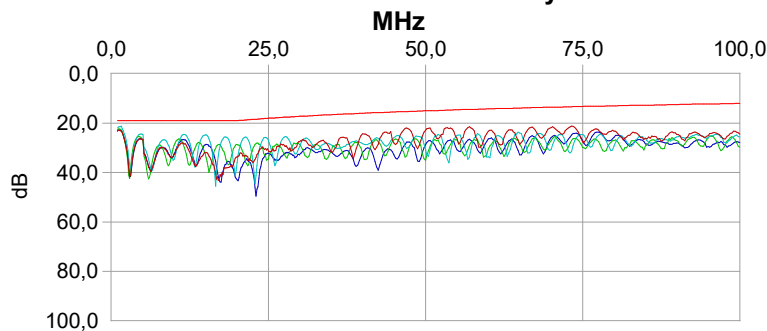
NEXT DH Summary



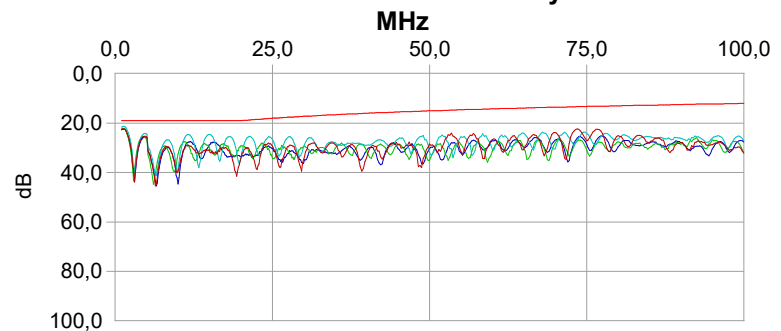
NEXT RH Summary



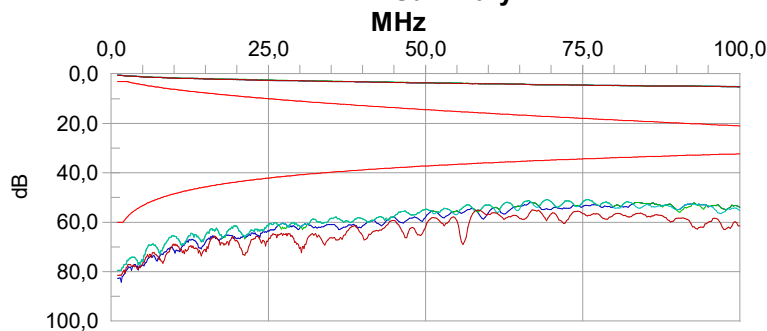
Return Loss DH Summary



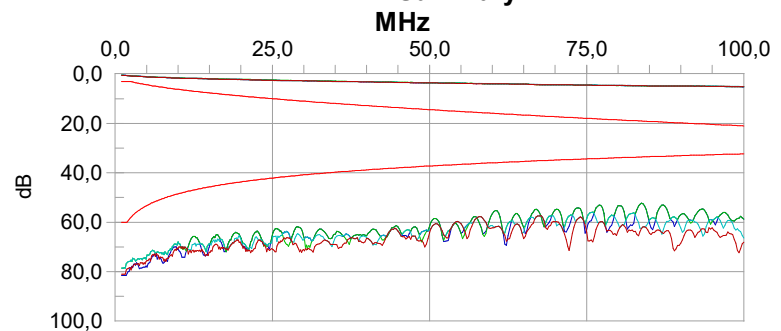
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

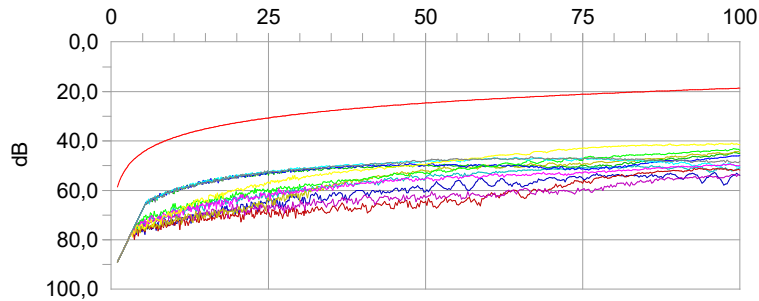
Cable ID 1: 7/19
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:45:03
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

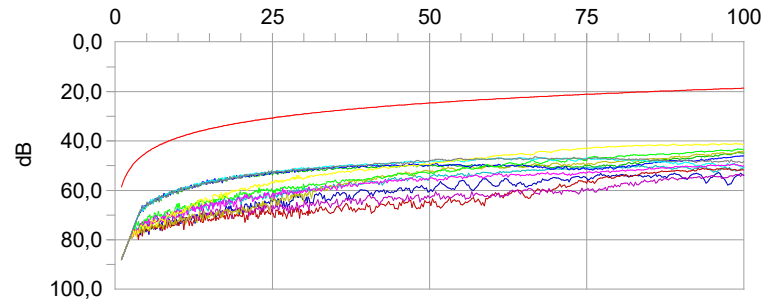
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

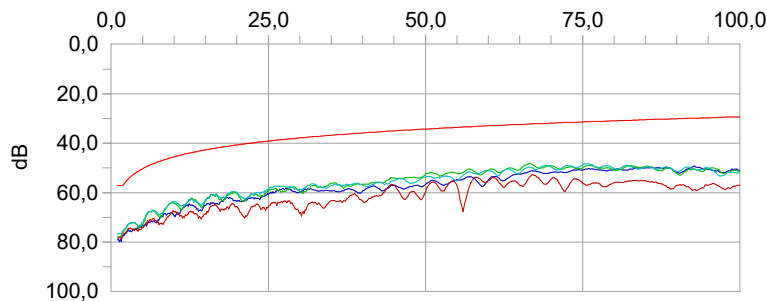
ELFEXT DH Summary
MHz



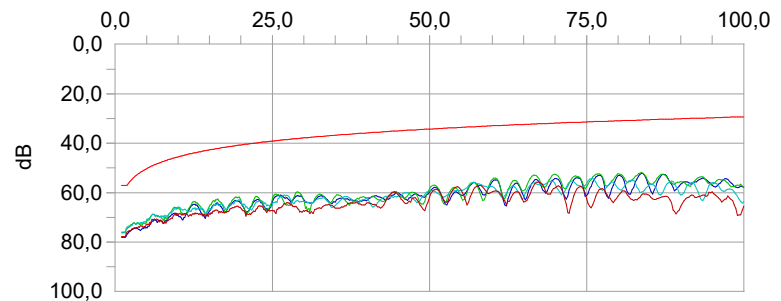
ELFEXT RH Summary
MHz



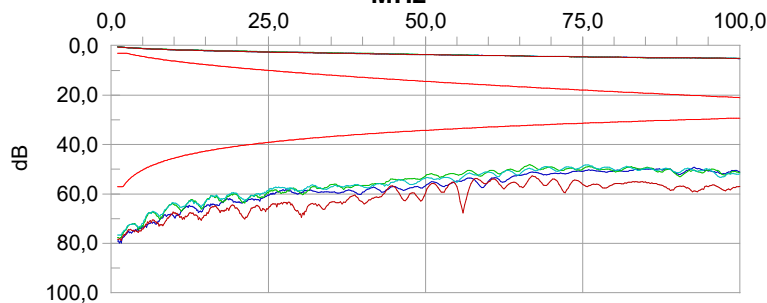
Power Sum NEXT DH Summary
MHz



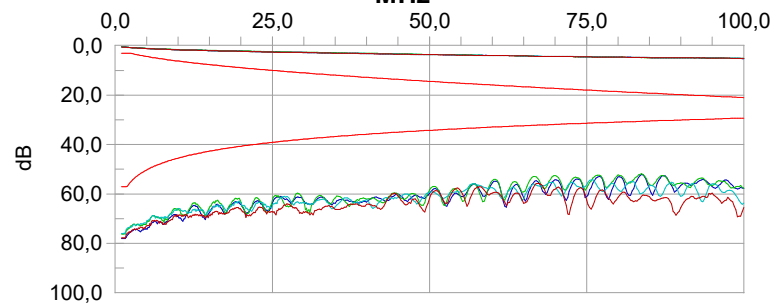
Power Sum NEXT RH Summary
MHz



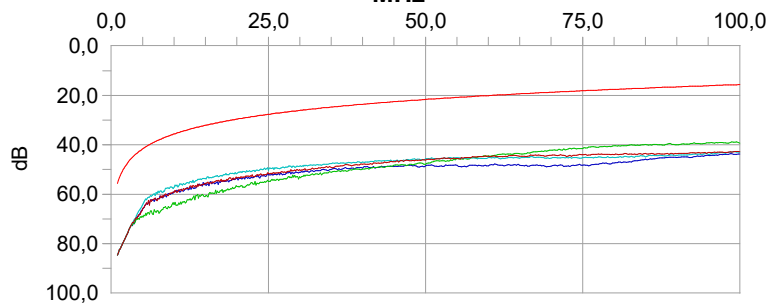
Power Sum ACR DH Summary
MHz



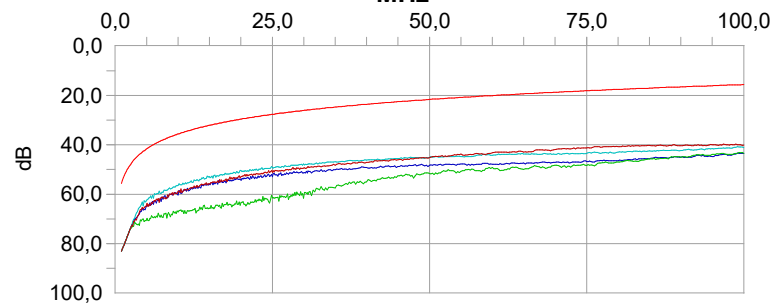
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

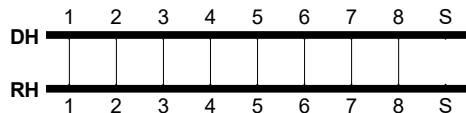
Cable ID 1: 7/21
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:46:01
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	102.4ft.	107.0ft.	106.3ft.	103.7ft.	< 295.3ft.	Pass
Prop. Delay	166.0ns	172.6ns	171.6ns	165.8ns	< 498.0ns	Pass
Delay Skew	6.8ns (Pairs 3,6 vs. 1,2)				< 44.0 ns	Pass
Headroom	30.6 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	51.0 dB @ 60.50MHz	48.5 dB	> 35.9 dB	15.1 dB
7,8-5,4	DH	Pass	50.3 dB @ 78.00MHz	50.1 dB	> 34.1 dB	16.2 dB
7,8-1,2	DH	Pass	81.5 dB @ 1.90MHz	62.2 dB	> 59.9 dB	21.6 dB
3,6-5,4	DH	Pass	50.2 dB @ 65.50MHz	50.1 dB	> 35.3 dB	14.9 dB
3,6-1,2	DH	Pass	58.5 dB @ 54.00MHz	58.5 dB	> 36.7 dB	21.8 dB
5,4-1,2	DH	Pass	74.3 dB @ 3.25MHz	55.6 dB	> 56.2 dB	18.1 dB
7,8-3,6	RH	Pass	68.4 dB @ 6.40MHz	52.2 dB	> 51.6 dB	16.8 dB
7,8-5,4	RH	Pass	60.7 dB @ 30.10MHz	54.5 dB	> 40.8 dB	19.9 dB
7,8-1,2	RH	Pass	81.1 dB @ 1.90MHz	60.1 dB	> 59.9 dB	21.2 dB
3,6-5,4	RH	Pass	73.5 dB @ 2.50MHz	54.9 dB	> 58.0 dB	15.5 dB
3,6-1,2	RH	Pass	61.7 dB @ 50.25MHz	59.5 dB	> 37.2 dB	24.5 dB
5,4-1,2	RH	Pass	73.4 dB @ 3.55MHz	57.9 dB	> 55.6 dB	17.8 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	22.2 dB @ 1.15MHz	22.2 dB	> 19.0 dB	3.2 dB
5,4	DH	Pass	21.2 dB @ 1.60MHz	21.2 dB	> 19.0 dB	2.2 dB
1,2	DH	Pass	22.8 dB @ 1.15MHz	20.3 dB	> 19.0 dB	3.8 dB
7,8	RH	Pass	22.1 dB @ 1.30MHz	22.1 dB	> 19.0 dB	3.1 dB
3,6	RH	Pass	21.8 dB @ 1.15MHz	21.8 dB	> 19.0 dB	2.8 dB
5,4	RH	Pass	21.1 dB @ 1.30MHz	21.1 dB	> 19.0 dB	2.1 dB
1,2	RH	Pass	22.1 dB @ 1.30MHz	21.9 dB	> 19.0 dB	3.1 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.7 dB @ 2.50MHz	5.2 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.50MHz	5.2 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	5.2 dB	< 3.1 dB	2.3 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	43.5 dB @ 92.25MHz	N/A	>= 12.8 dB	30.7 dB
3,6	DH	Pass	43.6 dB @ 92.25MHz	N/A	>= 12.8 dB	30.8 dB
5,4	DH	Pass	45.2 dB @ 88.00MHz	N/A	>= 13.6 dB	31.6 dB
1,2	DH	Pass	51.2 dB @ 80.25MHz	N/A	>= 15.3 dB	35.9 dB
7,8	RH	Pass	47.4 dB @ 86.50MHz	N/A	>= 13.9 dB	33.5 dB
3,6	RH	Pass	47.4 dB @ 86.50MHz	N/A	>= 13.9 dB	33.5 dB
5,4	RH	Pass	49.6 dB @ 97.50MHz	N/A	>= 11.8 dB	37.8 dB
1,2	RH	Pass	53.6 dB @ 67.25MHz	N/A	>= 18.2 dB	35.4 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 7/21
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:46:01
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	66.3 dB @ 11.20MHz	55.4 dB	> 37.6 dB	28.7 dB
7,8-5,4	DH	Pass	61.5 dB @ 7.75MHz	42.7 dB	> 40.8 dB	20.7 dB
7,8-1,2	DH	Pass	67.4 dB @ 8.65MHz	48.7 dB	> 39.9 dB	27.5 dB
3,6-7,8	DH	Pass	67.5 dB @ 7.75MHz	53.4 dB	> 40.8 dB	26.7 dB
3,6-5,4	DH	Pass	68.1 dB @ 9.10MHz	48.9 dB	> 39.4 dB	28.7 dB
3,6-1,2	DH	Pass	48.8 dB @ 66.00MHz	45.4 dB	> 22.2 dB	26.6 dB
5,4-7,8	DH	Pass	62.4 dB @ 6.40MHz	43.6 dB	> 42.5 dB	19.9 dB
5,4-3,6	DH	Pass	44.1 dB @ 72.00MHz	41.3 dB	> 21.5 dB	22.6 dB
5,4-1,2	DH	Pass	62.5 dB @ 6.70MHz	47.6 dB	> 42.1 dB	20.4 dB
1,2-7,8	DH	Pass	68.1 dB @ 5.35MHz	48.2 dB	> 44.0 dB	24.1 dB
1,2-3,6	DH	Pass	42.4 dB @ 78.75MHz	41.5 dB	> 20.7 dB	21.7 dB
1,2-5,4	DH	Pass	64.5 dB @ 5.65MHz	48.0 dB	> 43.6 dB	20.9 dB
7,8-3,6	RH	Pass	66.1 dB @ 11.20MHz	55.3 dB	> 37.6 dB	28.5 dB
7,8-5,4	RH	Pass	64.6 dB @ 5.20MHz	42.6 dB	> 44.3 dB	20.3 dB
7,8-1,2	RH	Pass	67.4 dB @ 8.65MHz	48.7 dB	> 39.9 dB	27.5 dB
3,6-7,8	RH	Pass	67.6 dB @ 7.75MHz	53.5 dB	> 40.8 dB	26.8 dB
3,6-5,4	RH	Pass	68.2 dB @ 9.10MHz	48.9 dB	> 39.4 dB	28.8 dB
3,6-1,2	RH	Pass	48.9 dB @ 66.00MHz	45.5 dB	> 22.2 dB	26.7 dB
5,4-7,8	RH	Pass	64.1 dB @ 4.90MHz	43.6 dB	> 44.8 dB	19.3 dB
5,4-3,6	RH	Pass	44.1 dB @ 72.00MHz	41.3 dB	> 21.5 dB	22.6 dB
5,4-1,2	RH	Pass	64.2 dB @ 5.35MHz	47.5 dB	> 44.0 dB	20.2 dB
1,2-7,8	RH	Pass	69.4 dB @ 4.15MHz	48.2 dB	> 46.3 dB	23.1 dB
1,2-3,6	RH	Pass	41.8 dB @ 83.00MHz	41.4 dB	> 20.2 dB	21.6 dB
1,2-5,4	RH	Pass	64.4 dB @ 5.65MHz	48.0 dB	> 43.6 dB	20.8 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	46.5 dB @ 88.25MHz	46.3 dB	> 30.2 dB	16.3 dB
3,6	DH	Pass	47.3 dB @ 69.00MHz	47.0 dB	> 31.9 dB	15.4 dB
5,4	DH	Pass	70.3 dB @ 2.80MHz	47.6 dB	> 54.2 dB	16.1 dB
1,2	DH	Pass	73.5 dB @ 2.80MHz	53.8 dB	> 54.2 dB	19.3 dB
7,8	RH	Pass	67.5 dB @ 6.40MHz	50.7 dB	> 48.6 dB	18.9 dB
3,6	RH	Pass	71.4 dB @ 2.65MHz	51.6 dB	> 54.6 dB	16.8 dB
5,4	RH	Pass	71.8 dB @ 2.50MHz	52.0 dB	> 55.0 dB	16.8 dB
1,2	RH	Pass	72.6 dB @ 3.25MHz	55.7 dB	> 53.2 dB	19.4 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	41.4 dB @ 91.00MHz	N/A	>= 10.1 dB	31.3 dB
3,6	DH	Pass	42.1 dB @ 91.00MHz	N/A	>= 10.1 dB	32.0 dB
5,4	DH	Pass	42.8 dB @ 91.00MHz	N/A	>= 10.1 dB	32.7 dB
1,2	DH	Pass	49.9 dB @ 57.50MHz	N/A	>= 17.7 dB	32.2 dB
7,8	RH	Pass	45.6 dB @ 97.50MHz	N/A	>= 8.8 dB	36.8 dB
3,6	RH	Pass	46.8 dB @ 83.50MHz	N/A	>= 11.6 dB	35.2 dB
5,4	RH	Pass	47.5 dB @ 75.00MHz	N/A	>= 13.5 dB	34.0 dB
1,2	RH	Pass	50.6 dB @ 100.00MHz	N/A	>= 8.3 dB	42.3 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	59.1 dB @ 7.90MHz	42.0 dB	>= 37.7 dB	21.4 dB
3,6	DH	Pass	40.3 dB @ 75.25MHz	38.4 dB	>= 18.1 dB	22.2 dB
5,4	DH	Pass	55.8 dB @ 10.90MHz	41.4 dB	>= 34.9 dB	20.9 dB
1,2	DH	Pass	53.3 dB @ 20.50MHz	43.7 dB	>= 29.4 dB	23.9 dB
7,8	RH	Pass	56.9 dB @ 11.65MHz	41.7 dB	>= 34.3 dB	22.6 dB
3,6	RH	Pass	43.6 dB @ 98.00MHz	43.6 dB	>= 15.8 dB	27.8 dB
5,4	RH	Pass	59.3 dB @ 6.40MHz	39.2 dB	>= 39.5 dB	19.8 dB
1,2	RH	Pass	54.9 dB @ 14.50MHz	40.2 dB	>= 32.4 dB	22.5 dB

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

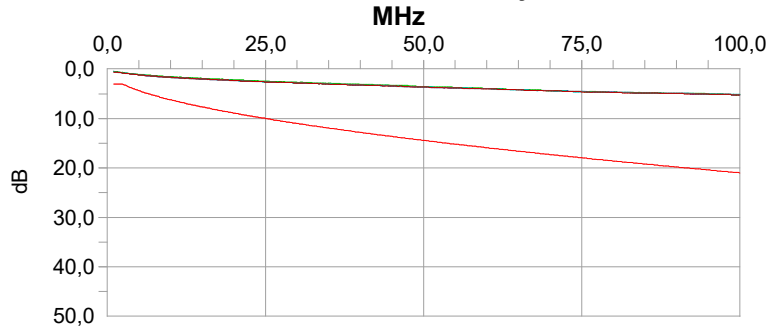
Cable ID 1: 7/21
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:46:01
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

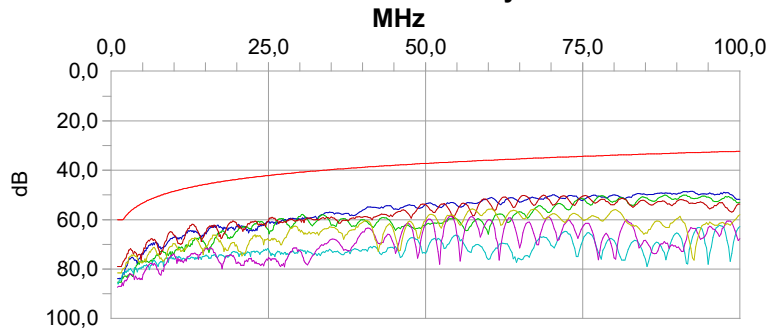
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

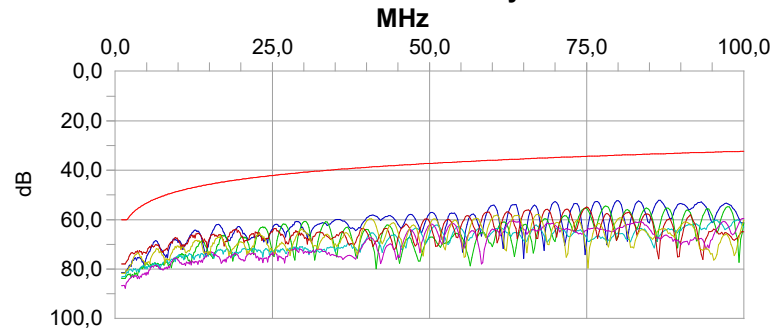
Attenuation Summary



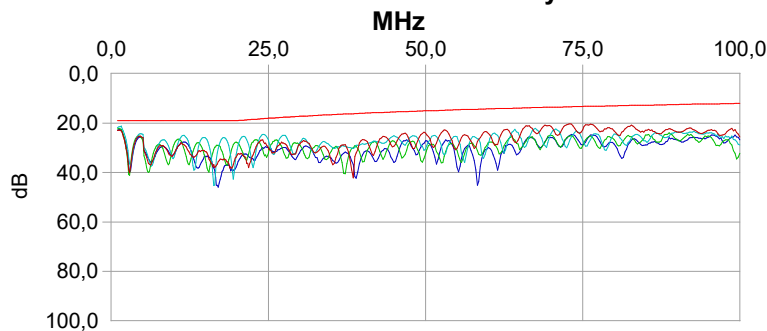
NEXT DH Summary



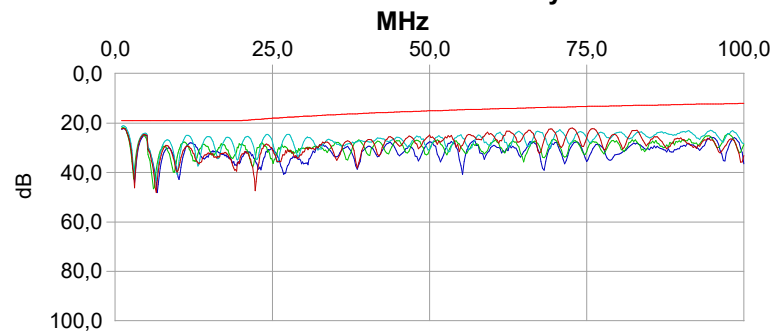
NEXT RH Summary



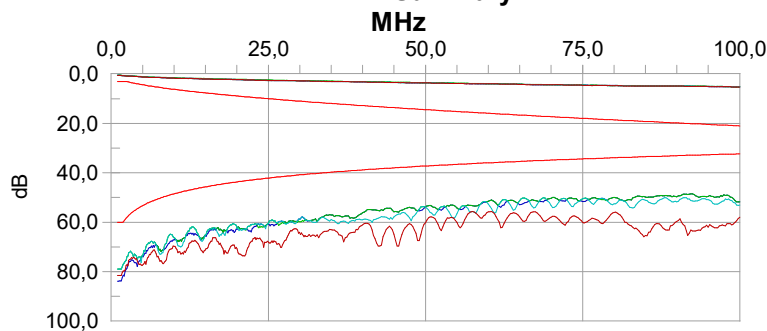
Return Loss DH Summary



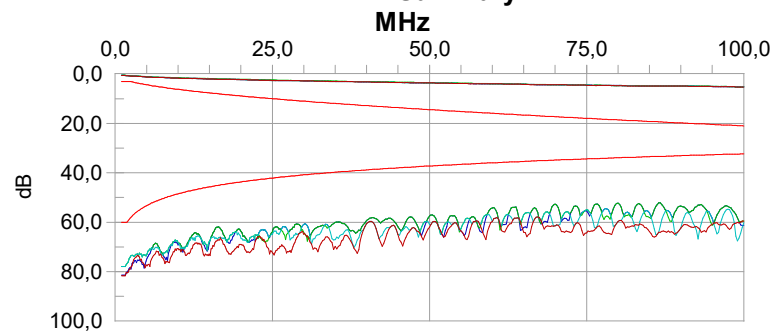
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

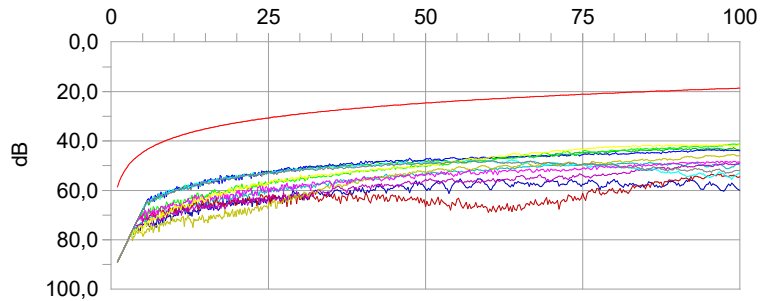
Cable ID 1: 7/21
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:46:01
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

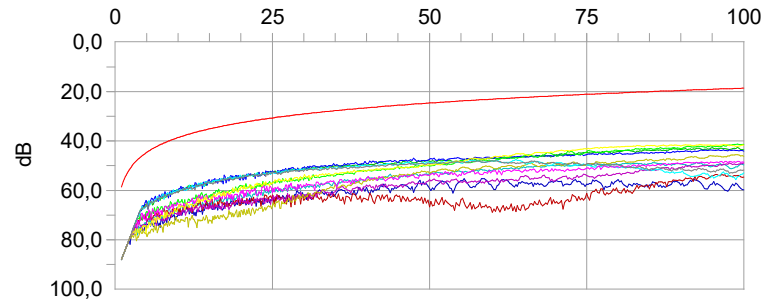
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

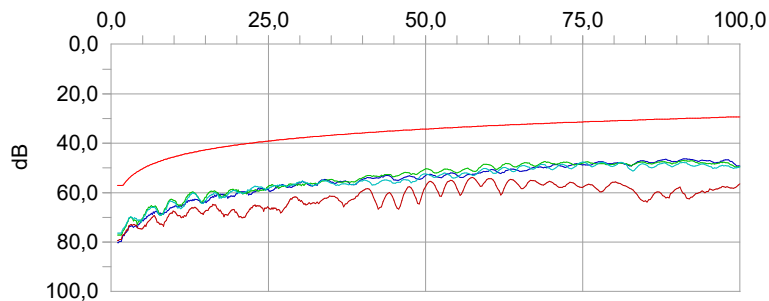
ELFEXT DH Summary
MHz



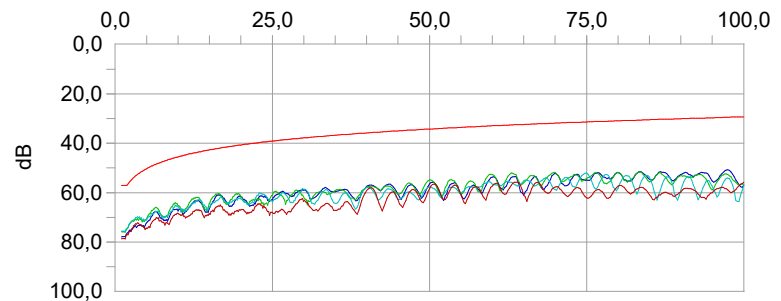
ELFEXT RH Summary
MHz



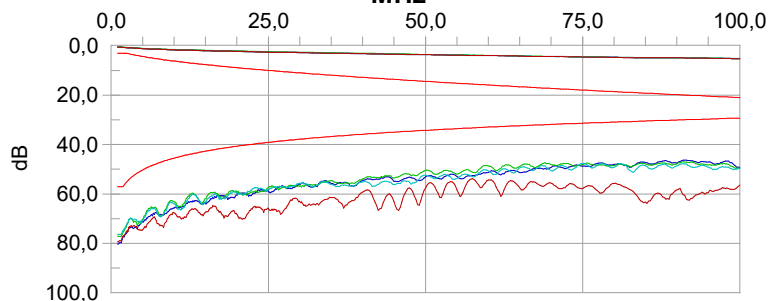
Power Sum NEXT DH Summary
MHz



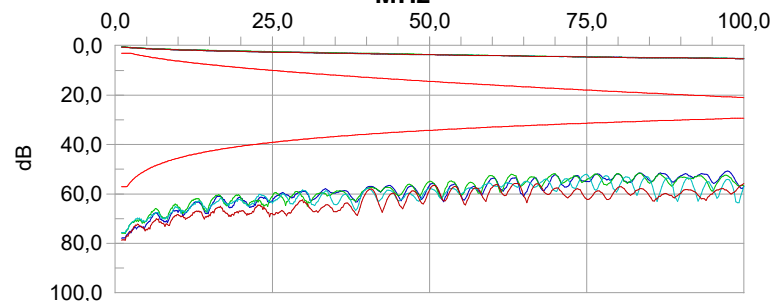
Power Sum NEXT RH Summary
MHz



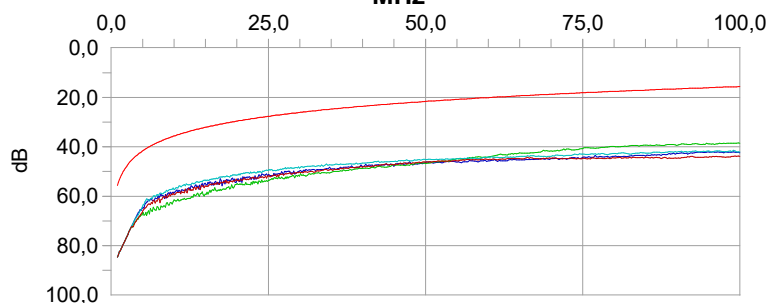
Power Sum ACR DH Summary
MHz



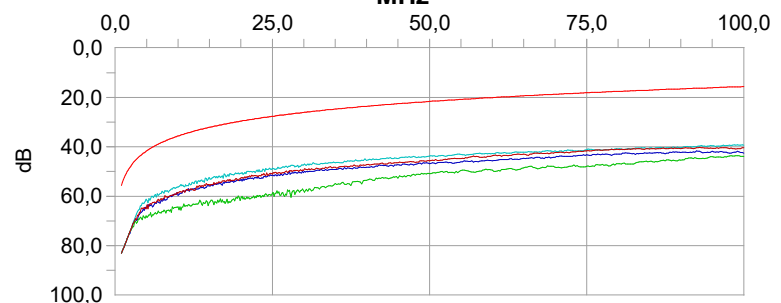
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

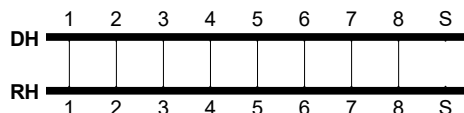
Cable ID 1: 8/10
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:39:48
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	49.5ft.	48.6ft.	49.2ft.	50.5ft.	< 295.3ft.	Pass
Prop. Delay	89.5ns	88.3ns	89.1ns	89.3ns	< 498.0ns	Pass
Delay Skew	1.2ns (Pairs 7,8 vs. 3,6)				< 44.0 ns	Pass
Headroom	27.8 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	50.0 dB @ 56.75MHz	49.9 dB	> 36.3 dB	13.7 dB
7,8-5,4	DH	Pass	49.9 dB @ 75.00MHz	48.9 dB	> 34.4 dB	15.5 dB
7,8-1,2	DH	Pass	51.5 dB @ 76.00MHz	51.5 dB	> 34.3 dB	17.2 dB
3,6-5,4	DH	Pass	49.4 dB @ 51.00MHz	49.3 dB	> 37.1 dB	12.3 dB
3,6-1,2	DH	Pass	55.6 dB @ 51.00MHz	52.1 dB	> 37.1 dB	18.5 dB
5,4-1,2	DH	Pass	49.4 dB @ 76.50MHz	49.2 dB	> 34.2 dB	15.2 dB
7,8-3,6	RH	Pass	48.4 dB @ 57.25MHz	47.7 dB	> 36.3 dB	12.1 dB
7,8-5,4	RH	Pass	49.8 dB @ 90.75MHz	49.8 dB	> 33.0 dB	16.8 dB
7,8-1,2	RH	Pass	51.9 dB @ 76.75MHz	51.9 dB	> 34.2 dB	17.7 dB
3,6-5,4	RH	Pass	62.9 dB @ 13.75MHz	53.3 dB	> 46.3 dB	16.6 dB
3,6-1,2	RH	Pass	60.7 dB @ 50.50MHz	56.4 dB	> 37.2 dB	23.5 dB
5,4-1,2	RH	Pass	51.0 dB @ 76.75MHz	51.0 dB	> 34.2 dB	16.8 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	24.1 dB @ 1.60MHz	24.1 dB	> 19.0 dB	5.1 dB
3,6	DH	Pass	23.8 dB @ 1.60MHz	22.5 dB	> 19.0 dB	4.8 dB
5,4	DH	Pass	24.4 dB @ 1.60MHz	22.5 dB	> 19.0 dB	5.4 dB
1,2	DH	Pass	25.0 dB @ 1.60MHz	21.9 dB	> 19.0 dB	6.0 dB
7,8	RH	Pass	24.0 dB @ 1.60MHz	24.0 dB	> 19.0 dB	5.0 dB
3,6	RH	Pass	23.8 dB @ 1.60MHz	23.8 dB	> 19.0 dB	4.8 dB
5,4	RH	Pass	24.8 dB @ 2.35MHz	23.4 dB	> 19.0 dB	5.8 dB
1,2	RH	Pass	24.8 dB @ 1.60MHz	22.9 dB	> 19.0 dB	5.8 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.4 dB @ 2.50MHz	3.0 dB	< 3.1 dB	2.7 dB
3,6	Pass	0.4 dB @ 2.50MHz	2.8 dB	< 3.1 dB	2.7 dB
5,4	Pass	0.5 dB @ 2.50MHz	3.0 dB	< 3.1 dB	2.6 dB
1,2	Pass	0.5 dB @ 2.50MHz	3.0 dB	< 3.1 dB	2.6 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	46.0 dB @ 90.25MHz	N/A	>= 13.2 dB	32.8 dB
3,6	DH	Pass	47.3 dB @ 51.50MHz	N/A	>= 22.4 dB	24.9 dB
5,4	DH	Pass	45.9 dB @ 90.25MHz	N/A	>= 13.2 dB	32.7 dB
1,2	DH	Pass	46.2 dB @ 99.00MHz	N/A	>= 11.5 dB	34.7 dB
7,8	RH	Pass	44.9 dB @ 83.00MHz	N/A	>= 14.7 dB	30.2 dB
3,6	RH	Pass	45.0 dB @ 84.25MHz	N/A	>= 14.4 dB	30.6 dB
5,4	RH	Pass	46.9 dB @ 90.75MHz	N/A	>= 13.1 dB	33.8 dB
1,2	RH	Pass	48.3 dB @ 76.75MHz	N/A	>= 16.0 dB	32.3 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 8/10
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:39:48
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT
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	48.1 dB @ 86.50MHz	47.4 dB	> 19.9 dB	28.2 dB
7,8-5,4	DH	Pass	56.3 dB @ 9.40MHz	36.7 dB	> 39.2 dB	17.1 dB
7,8-1,2	DH	Pass	58.1 dB @ 98.75MHz	58.1 dB	> 18.7 dB	39.4 dB
3,6-7,8	DH	Pass	51.4 dB @ 91.00MHz	51.0 dB	> 19.4 dB	32.0 dB
3,6-5,4	DH	Pass	49.7 dB @ 97.00MHz	49.6 dB	> 18.9 dB	30.8 dB
3,6-1,2	DH	Pass	67.6 dB @ 10.75MHz	49.1 dB	> 38.0 dB	29.6 dB
5,4-7,8	DH	Pass	57.8 dB @ 7.90MHz	37.2 dB	> 40.7 dB	17.1 dB
5,4-3,6	DH	Pass	67.2 dB @ 11.80MHz	54.2 dB	> 37.2 dB	30.0 dB
5,4-1,2	DH	Pass	58.2 dB @ 11.20MHz	40.9 dB	> 37.6 dB	20.6 dB
1,2-7,8	DH	Pass	66.1 dB @ 79.00MHz	65.8 dB	> 20.7 dB	45.4 dB
1,2-3,6	DH	Pass	69.0 dB @ 5.35MHz	45.0 dB	> 44.0 dB	25.0 dB
1,2-5,4	DH	Pass	63.3 dB @ 6.10MHz	40.9 dB	> 42.9 dB	20.4 dB
7,8-3,6	RH	Pass	47.9 dB @ 86.50MHz	47.1 dB	> 19.9 dB	28.0 dB
7,8-5,4	RH	Pass	62.0 dB @ 4.90MHz	36.8 dB	> 44.8 dB	17.2 dB
7,8-1,2	RH	Pass	58.2 dB @ 98.75MHz	58.2 dB	> 18.7 dB	39.5 dB
3,6-7,8	RH	Pass	51.6 dB @ 91.00MHz	51.4 dB	> 19.4 dB	32.2 dB
3,6-5,4	RH	Pass	50.0 dB @ 97.00MHz	50.0 dB	> 18.9 dB	31.1 dB
3,6-1,2	RH	Pass	67.7 dB @ 10.75MHz	49.4 dB	> 38.0 dB	29.7 dB
5,4-7,8	RH	Pass	60.7 dB @ 5.65MHz	37.2 dB	> 43.6 dB	17.1 dB
5,4-3,6	RH	Pass	67.0 dB @ 11.80MHz	53.9 dB	> 37.2 dB	29.8 dB
5,4-1,2	RH	Pass	66.0 dB @ 4.60MHz	40.9 dB	> 45.4 dB	20.6 dB
1,2-7,8	RH	Pass	66.0 dB @ 79.00MHz	65.7 dB	> 20.7 dB	45.3 dB
1,2-3,6	RH	Pass	68.9 dB @ 5.35MHz	44.7 dB	> 44.0 dB	24.9 dB
1,2-5,4	RH	Pass	64.1 dB @ 5.50MHz	40.9 dB	> 43.8 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	46.3 dB @ 76.00MHz	46.2 dB	> 31.3 dB	15.0 dB
3,6	DH	Pass	47.9 dB @ 51.00MHz	46.6 dB	> 34.1 dB	13.8 dB
5,4	DH	Pass	47.9 dB @ 51.00MHz	45.8 dB	> 34.1 dB	13.8 dB
1,2	DH	Pass	47.0 dB @ 76.00MHz	46.9 dB	> 31.3 dB	15.7 dB
7,8	RH	Pass	47.7 dB @ 57.25MHz	45.7 dB	> 33.3 dB	14.4 dB
3,6	RH	Pass	47.6 dB @ 57.25MHz	46.7 dB	> 33.3 dB	14.3 dB
5,4	RH	Pass	47.5 dB @ 76.75MHz	47.5 dB	> 31.2 dB	16.3 dB
1,2	RH	Pass	48.3 dB @ 76.75MHz	48.3 dB	> 31.2 dB	17.1 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	43.6 dB @ 76.25MHz	N/A	>= 13.1 dB	30.5 dB
3,6	DH	Pass	44.2 dB @ 70.50MHz	N/A	>= 14.5 dB	29.7 dB
5,4	DH	Pass	43.1 dB @ 76.50MHz	N/A	>= 13.1 dB	30.0 dB
1,2	DH	Pass	44.2 dB @ 76.25MHz	N/A	>= 13.1 dB	31.1 dB
7,8	RH	Pass	43.1 dB @ 77.25MHz	N/A	>= 12.9 dB	30.2 dB
3,6	RH	Pass	44.0 dB @ 84.25MHz	N/A	>= 11.4 dB	32.6 dB
5,4	RH	Pass	44.8 dB @ 76.75MHz	N/A	>= 13.0 dB	31.8 dB
1,2	RH	Pass	45.6 dB @ 76.75MHz	N/A	>= 13.0 dB	32.6 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	38.4 dB @ 79.00MHz	37.2 dB	>= 17.7 dB	20.7 dB
3,6	DH	Pass	48.5 dB @ 52.25MHz	43.2 dB	>= 21.3 dB	27.2 dB
5,4	DH	Pass	48.2 dB @ 20.05MHz	35.2 dB	>= 29.6 dB	18.6 dB
1,2	DH	Pass	43.4 dB @ 59.00MHz	40.2 dB	>= 20.2 dB	23.2 dB
7,8	RH	Pass	41.5 dB @ 52.25MHz	36.5 dB	>= 21.3 dB	20.2 dB
3,6	RH	Pass	45.4 dB @ 99.50MHz	45.4 dB	>= 15.7 dB	29.7 dB
5,4	RH	Pass	54.3 dB @ 9.70MHz	35.6 dB	>= 35.9 dB	18.4 dB
1,2	RH	Pass	40.2 dB @ 89.75MHz	39.9 dB	>= 16.6 dB	23.6 dB

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

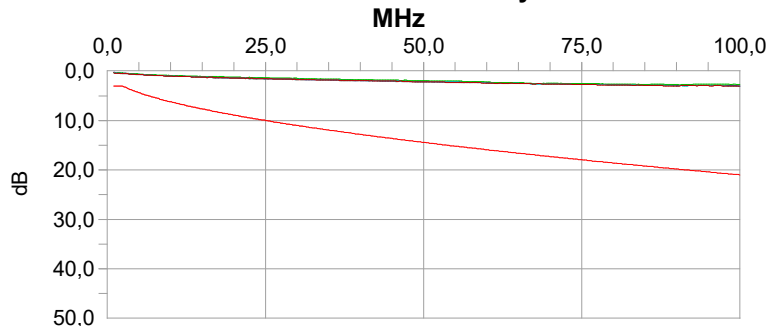
Cable ID 1: 8/10
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:39:48
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

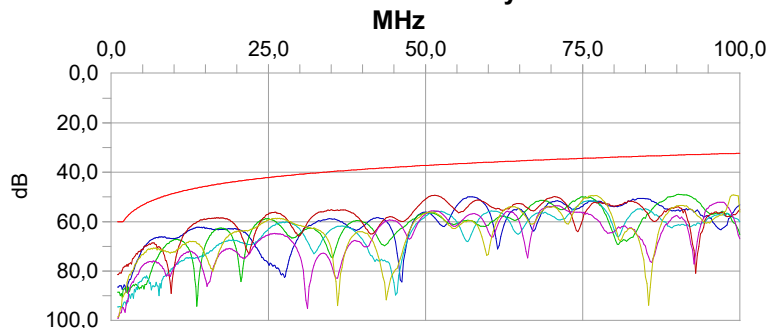
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

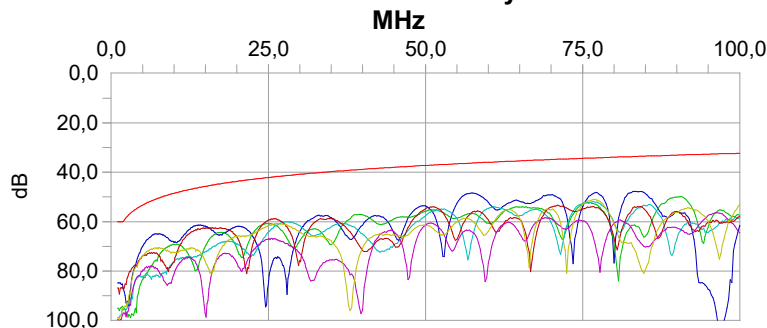
Attenuation Summary



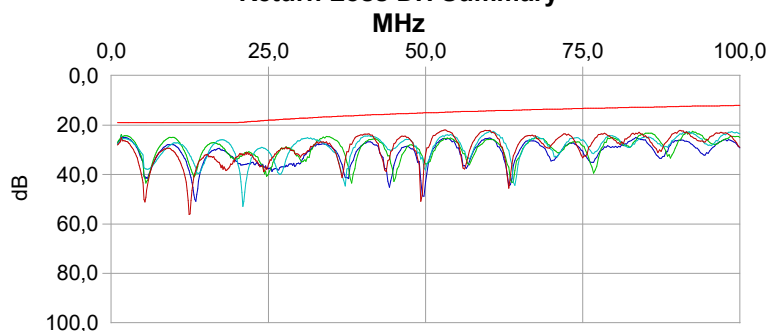
NEXT DH Summary



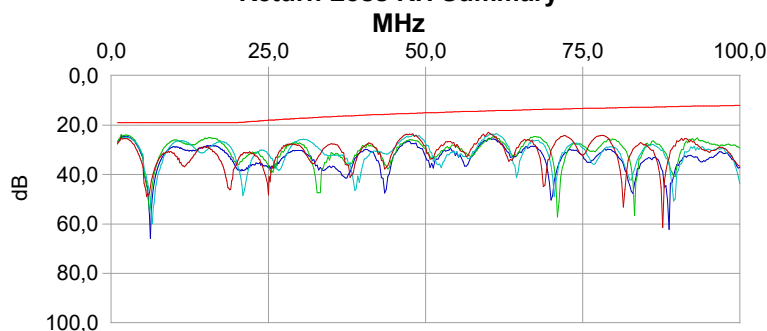
NEXT RH Summary



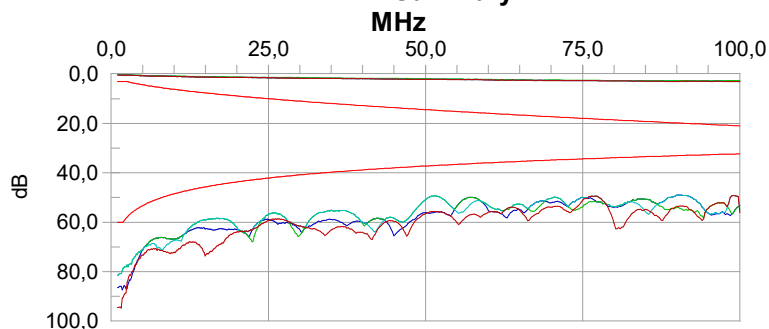
Return Loss DH Summary



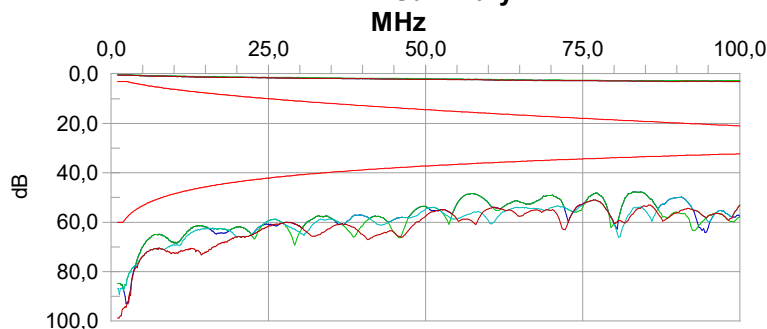
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 8/10
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:39:48
Adapter ID: 6014

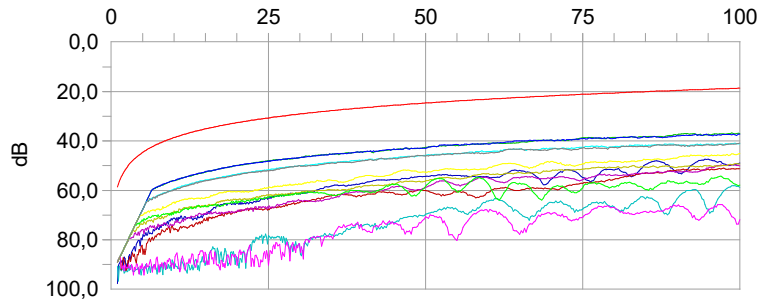
Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

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

Notes:

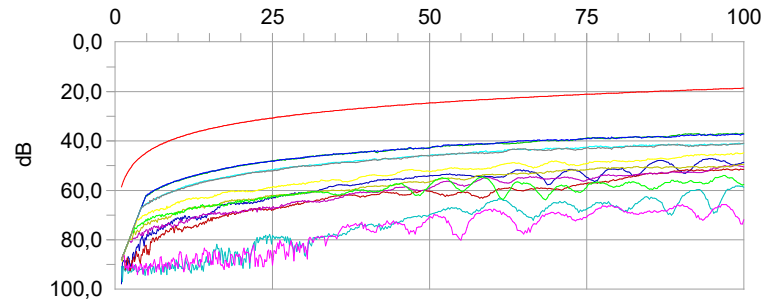
ELFEXT DH Summary

MHz



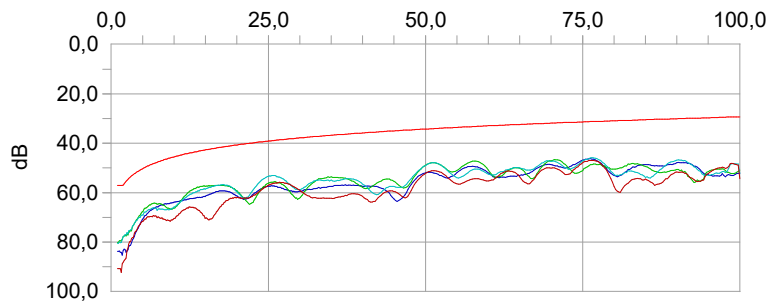
ELFEXT RH Summary

MHz



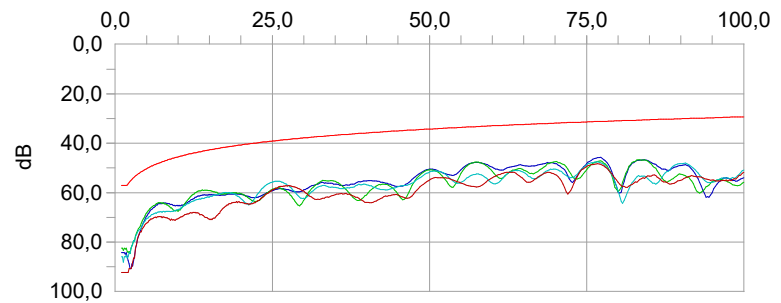
Power Sum NEXT DH Summary

MHz



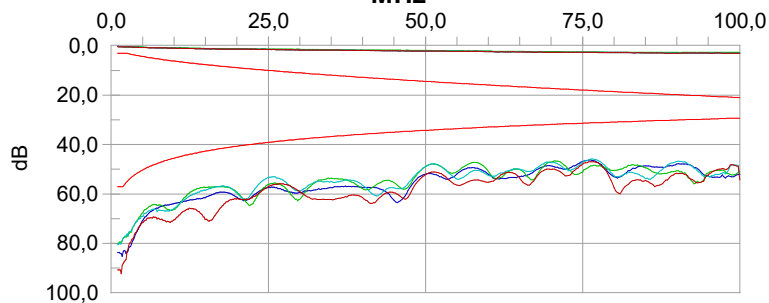
Power Sum NEXT RH Summary

MHz



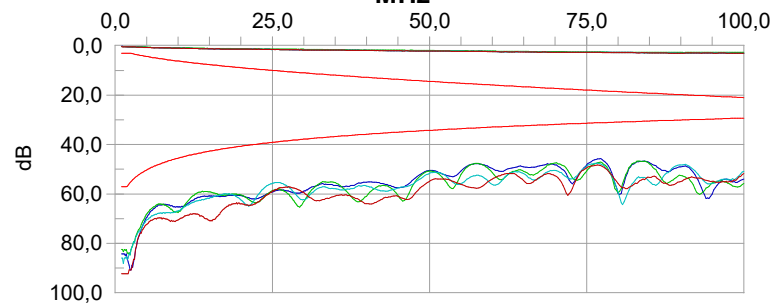
Power Sum ACR DH Summary

MHz



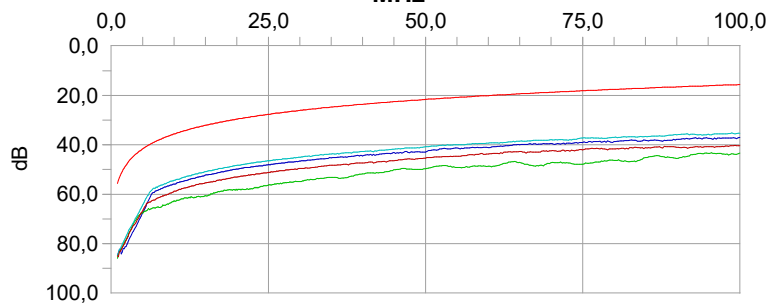
Power Sum ACR RH Summary

MHz



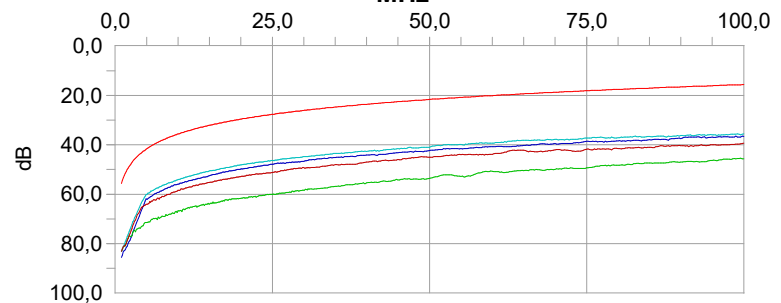
Power Sum ELFEXT DH Summary

MHz



Power Sum ELFEXT RH Summary

MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

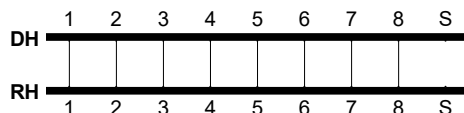
Cable ID 1: 8/11
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:41:22
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	57.4ft.	56.4ft.	57.1ft.	58.7ft.	< 295.3ft.	Pass
Prop. Delay	101.1ns	99.5ns	100.3ns	100.9ns	< 498.0ns	Pass
Delay Skew	1.6ns (Pairs 7,8 vs. 3,6)				< 44.0 ns	Pass
Headroom	24.3 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	49.5 dB @ 72.50MHz	49.5 dB	> 34.6 dB	14.9 dB
7,8-5,4	DH	Pass	57.4 dB @ 30.25MHz	50.8 dB	> 40.8 dB	16.6 dB
7,8-1,2	DH	Pass	46.0 dB @ 85.50MHz	46.0 dB	> 33.4 dB	12.6 dB
3,6-5,4	DH	Pass	42.5 dB @ 79.25MHz	42.5 dB	> 34.0 dB	8.5 dB
3,6-1,2	DH	Pass	52.4 dB @ 61.00MHz	52.3 dB	> 35.8 dB	16.6 dB
5,4-1,2	DH	Pass	52.8 dB @ 56.25MHz	52.2 dB	> 36.4 dB	16.4 dB
7,8-3,6	RH	Pass	48.7 dB @ 72.75MHz	48.3 dB	> 34.6 dB	14.1 dB
7,8-5,4	RH	Pass	57.3 dB @ 30.25MHz	50.5 dB	> 40.8 dB	16.5 dB
7,8-1,2	RH	Pass	45.6 dB @ 84.75MHz	45.6 dB	> 33.5 dB	12.1 dB
3,6-5,4	RH	Pass	45.3 dB @ 79.75MHz	45.3 dB	> 33.9 dB	11.4 dB
3,6-1,2	RH	Pass	54.3 dB @ 61.25MHz	54.2 dB	> 35.8 dB	18.5 dB
5,4-1,2	RH	Pass	51.9 dB @ 66.50MHz	51.9 dB	> 35.2 dB	16.7 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	23.7 dB @ 1.60MHz	23.4 dB	> 19.0 dB	4.7 dB
3,6	DH	Pass	23.3 dB @ 1.60MHz	22.1 dB	> 19.0 dB	4.3 dB
5,4	DH	Pass	23.9 dB @ 1.60MHz	21.6 dB	> 19.0 dB	4.9 dB
1,2	DH	Pass	20.4 dB @ 52.25MHz	19.9 dB	> 14.8 dB	5.6 dB
7,8	RH	Pass	23.4 dB @ 1.60MHz	23.4 dB	> 19.0 dB	4.4 dB
3,6	RH	Pass	23.2 dB @ 1.60MHz	23.2 dB	> 19.0 dB	4.2 dB
5,4	RH	Pass	24.6 dB @ 1.90MHz	24.1 dB	> 19.0 dB	5.6 dB
1,2	RH	Pass	24.3 dB @ 1.60MHz	21.4 dB	> 19.0 dB	5.3 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.5 dB @ 2.50MHz	3.4 dB	< 3.1 dB	2.6 dB
3,6	Pass	0.4 dB @ 2.50MHz	3.1 dB	< 3.1 dB	2.7 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	42.8 dB @ 85.50MHz	N/A	>= 14.1 dB	28.7 dB
3,6	DH	Pass	39.5 dB @ 79.25MHz	N/A	>= 15.5 dB	24.0 dB
5,4	DH	Pass	39.4 dB @ 79.25MHz	N/A	>= 15.5 dB	23.9 dB
1,2	DH	Pass	42.7 dB @ 85.50MHz	N/A	>= 14.1 dB	28.6 dB
7,8	RH	Pass	42.4 dB @ 84.75MHz	N/A	>= 14.3 dB	28.1 dB
3,6	RH	Pass	42.3 dB @ 79.75MHz	N/A	>= 15.4 dB	26.9 dB
5,4	RH	Pass	42.2 dB @ 79.75MHz	N/A	>= 15.4 dB	26.8 dB
1,2	RH	Pass	42.3 dB @ 84.75MHz	N/A	>= 14.3 dB	28.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 8/11
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:41:22
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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 @ 70.50MHz	50.7 dB	> 21.7 dB	30.3 dB
7,8-5,4	DH	Pass	59.1 dB @ 6.70MHz	36.2 dB	> 42.1 dB	17.0 dB
7,8-1,2	DH	Pass	58.4 dB @ 8.95MHz	38.4 dB	> 39.6 dB	18.8 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	61.9 dB @ 6.40MHz	39.6 dB	> 42.5 dB	19.4 dB
3,6-1,2	DH	Pass	51.5 dB @ 79.25MHz	51.0 dB	> 20.6 dB	30.9 dB
5,4-7,8	DH	Pass	56.1 dB @ 9.40MHz	37.0 dB	> 39.2 dB	16.9 dB
5,4-3,6	DH	Pass	56.8 dB @ 7.15MHz	36.1 dB	> 41.5 dB	15.3 dB
5,4-1,2	DH	Pass	46.9 dB @ 57.00MHz	43.7 dB	> 23.5 dB	23.4 dB
1,2-7,8	DH	Pass	58.1 dB @ 9.25MHz	38.5 dB	> 39.3 dB	18.8 dB
1,2-3,6	DH	Pass	47.0 dB @ 98.25MHz	46.9 dB	> 18.8 dB	28.2 dB
1,2-5,4	DH	Pass	45.5 dB @ 67.00MHz	44.0 dB	> 22.1 dB	23.4 dB
7,8-3,6	RH	Pass	51.9 dB @ 70.50MHz	50.5 dB	> 21.7 dB	30.2 dB
7,8-5,4	RH	Pass	59.1 dB @ 6.70MHz	36.2 dB	> 42.1 dB	17.0 dB
7,8-1,2	RH	Pass	64.3 dB @ 4.60MHz	38.4 dB	> 45.4 dB	18.9 dB
3,6-7,8	RH	Pass	52.0 dB @ 95.00MHz	51.9 dB	> 19.1 dB	32.9 dB
3,6-5,4	RH	Pass	62.6 dB @ 5.80MHz	39.9 dB	> 43.3 dB	19.3 dB
3,6-1,2	RH	Pass	51.7 dB @ 79.25MHz	51.3 dB	> 20.6 dB	31.1 dB
5,4-7,8	RH	Pass	55.3 dB @ 10.15MHz	37.0 dB	> 38.5 dB	16.8 dB
5,4-3,6	RH	Pass	57.4 dB @ 6.40MHz	35.8 dB	> 42.5 dB	14.9 dB
5,4-1,2	RH	Pass	47.2 dB @ 55.75MHz	43.7 dB	> 23.7 dB	23.5 dB
1,2-7,8	RH	Pass	61.3 dB @ 6.40MHz	38.5 dB	> 42.5 dB	18.8 dB
1,2-3,6	RH	Pass	46.7 dB @ 98.25MHz	46.6 dB	> 18.8 dB	27.9 dB
1,2-5,4	RH	Pass	68.2 dB @ 4.90MHz	44.0 dB	> 44.8 dB	23.4 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 @ 72.50MHz	44.6 dB	> 31.6 dB	13.7 dB
3,6	DH	Pass	41.7 dB @ 79.25MHz	41.7 dB	> 31.0 dB	10.7 dB
5,4	DH	Pass	42.1 dB @ 79.25MHz	42.1 dB	> 31.0 dB	11.1 dB
1,2	DH	Pass	46.2 dB @ 72.00MHz	45.8 dB	> 31.6 dB	14.6 dB
7,8	RH	Pass	45.7 dB @ 72.50MHz	44.5 dB	> 31.6 dB	14.1 dB
3,6	RH	Pass	43.6 dB @ 79.75MHz	43.6 dB	> 30.9 dB	12.7 dB
5,4	RH	Pass	44.3 dB @ 79.75MHz	44.3 dB	> 30.9 dB	13.4 dB
1,2	RH	Pass	45.0 dB @ 84.75MHz	45.0 dB	> 30.5 dB	14.5 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	41.3 dB @ 93.25MHz	N/A	>= 9.6 dB	31.7 dB
3,6	DH	Pass	38.7 dB @ 79.25MHz	N/A	>= 12.5 dB	26.2 dB
5,4	DH	Pass	38.9 dB @ 80.00MHz	N/A	>= 12.3 dB	26.6 dB
1,2	DH	Pass	42.5 dB @ 85.50MHz	N/A	>= 11.1 dB	31.4 dB
7,8	RH	Pass	41.2 dB @ 93.25MHz	N/A	>= 9.6 dB	31.6 dB
3,6	RH	Pass	40.6 dB @ 79.75MHz	N/A	>= 12.4 dB	28.2 dB
5,4	RH	Pass	41.2 dB @ 79.75MHz	N/A	>= 12.4 dB	28.8 dB
1,2	RH	Pass	41.7 dB @ 84.75MHz	N/A	>= 11.3 dB	30.4 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	36.7 dB @ 72.00MHz	34.7 dB	>= 18.5 dB	18.2 dB
3,6	DH	Pass	41.2 dB @ 45.50MHz	35.7 dB	>= 22.5 dB	18.7 dB
5,4	DH	Pass	56.6 dB @ 6.70MHz	34.1 dB	>= 39.1 dB	17.5 dB
1,2	DH	Pass	40.1 dB @ 63.00MHz	37.1 dB	>= 19.6 dB	20.5 dB
7,8	RH	Pass	37.7 dB @ 65.00MHz	34.2 dB	>= 19.4 dB	18.3 dB
3,6	RH	Pass	42.0 dB @ 67.75MHz	39.4 dB	>= 19.0 dB	23.0 dB
5,4	RH	Pass	55.0 dB @ 6.40MHz	33.0 dB	>= 39.5 dB	15.5 dB
1,2	RH	Pass	53.2 dB @ 14.05MHz	37.0 dB	>= 32.7 dB	20.5 dB

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

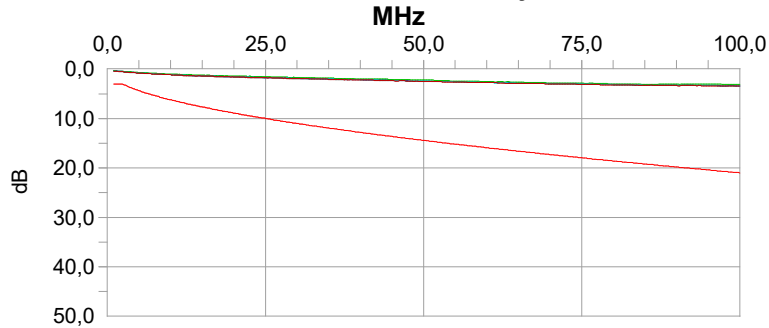
Cable ID 1: 8/11
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:41:22
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

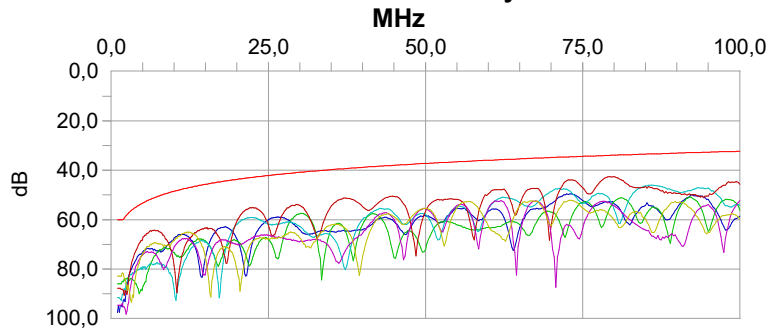
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

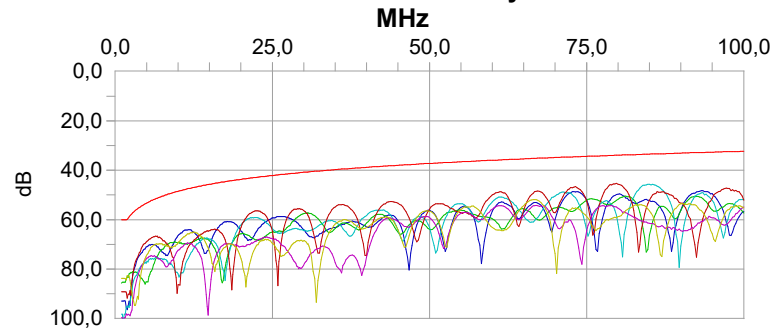
Attenuation Summary



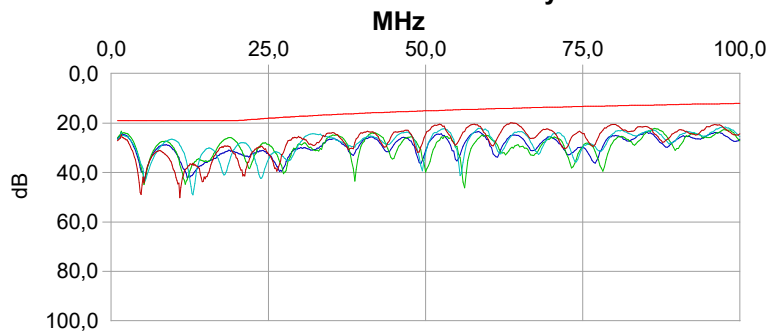
NEXT DH Summary



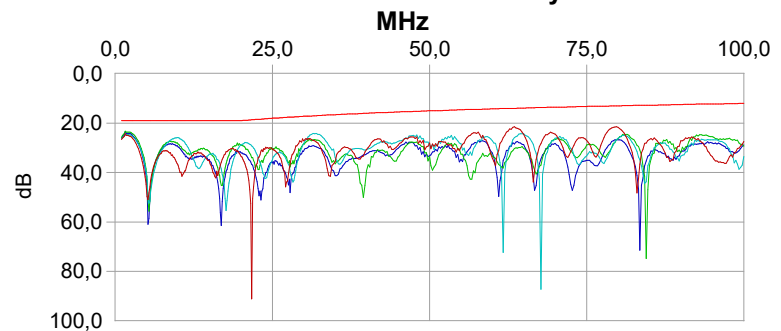
NEXT RH Summary



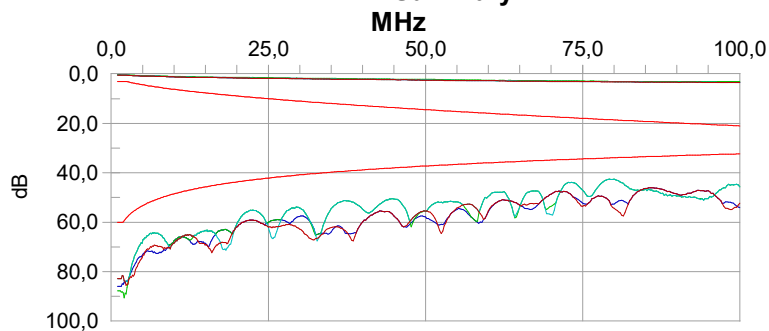
Return Loss DH Summary



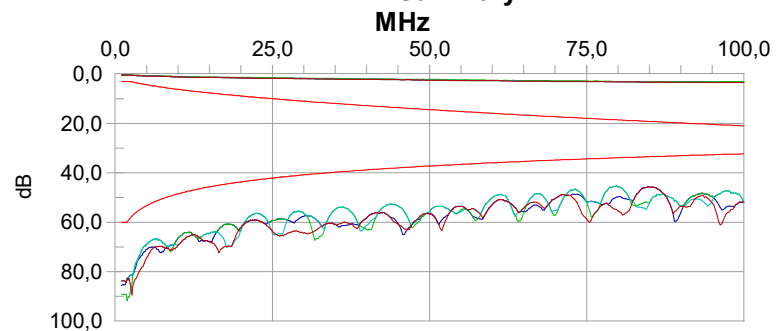
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

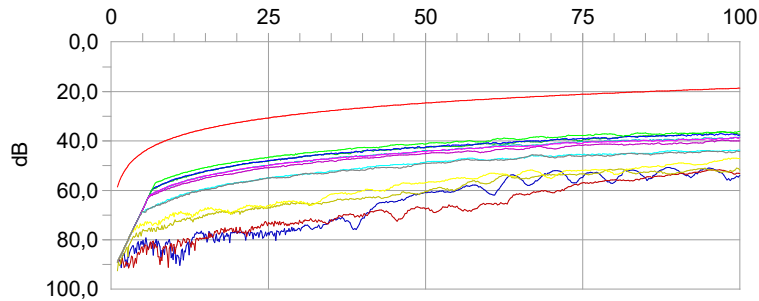
Cable ID 1: 8/11
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:41:22
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

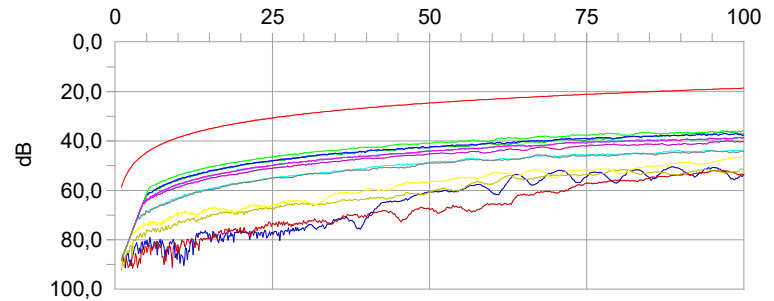
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

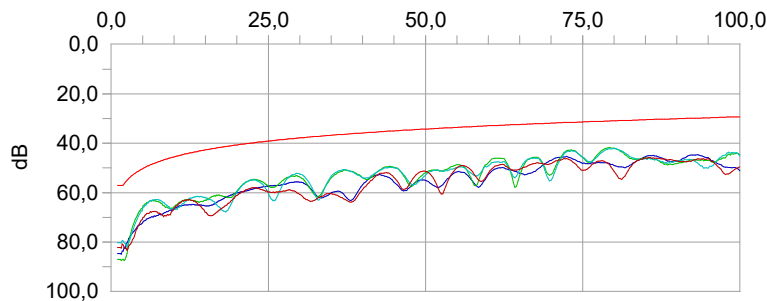
ELFEXT DH Summary
MHz



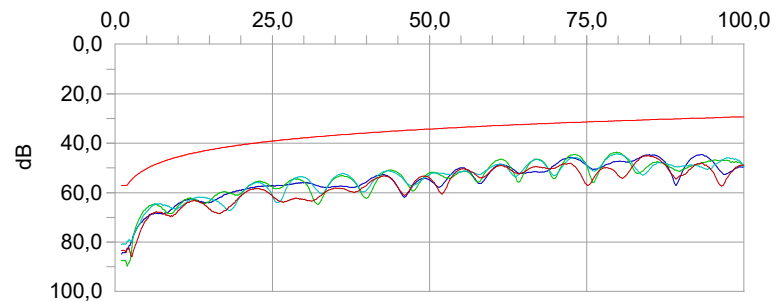
ELFEXT RH Summary
MHz



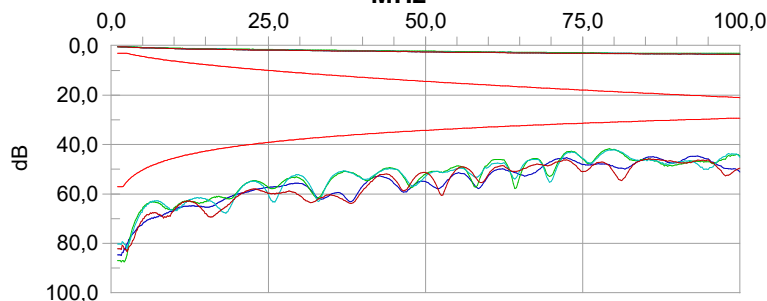
Power Sum NEXT DH Summary
MHz



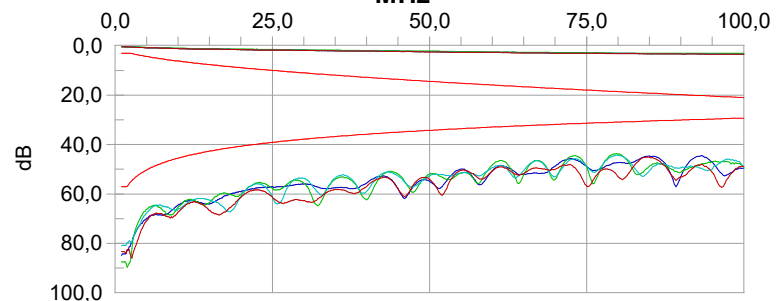
Power Sum NEXT RH Summary
MHz



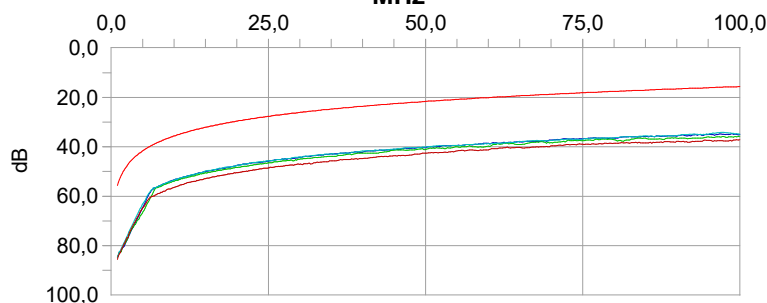
Power Sum ACR DH Summary
MHz



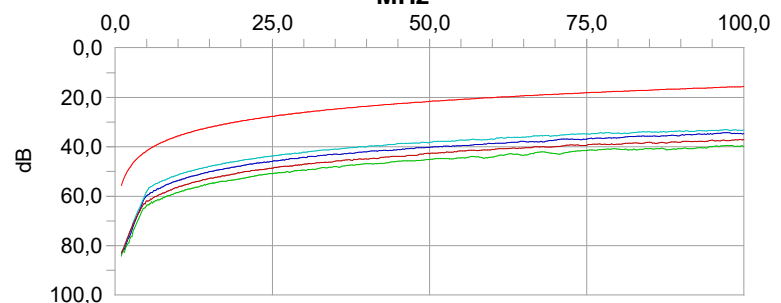
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

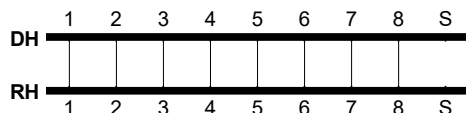
Cable ID 1: 8/12
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:46:10
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	85.3ft.	83.7ft.	84.6ft.	86.6ft.	< 295.3ft.	Pass
Prop. Delay	141.3ns	139.0ns	140.1ns	141.1ns	< 498.0ns	Pass
Delay Skew	2.3ns (Pairs 7,8 vs. 3,6)				< 44.0 ns	Pass
DC Resistance	7.8 Ohm	7.9 Ohm	7.9 Ohm	8.3 Ohm	< 20.0 Ohm	Pass
Headroom	5.0 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	43.0 dB @ 128.50MHz	40.7 dB	> 40.1 dB	2.9 dB
7,8-5,4	DH	Pass	43.8 dB @ 184.00MHz	43.7 dB	> 37.5 dB	6.3 dB
7,8-1,2	DH	Pass	55.8 dB @ 26.20MHz	43.1 dB	> 51.2 dB	4.6 dB
3,6-5,4	DH	Pass	52.0 dB @ 32.75MHz	43.2 dB	> 49.7 dB	2.3 dB
3,6-1,2	DH	Pass	40.0 dB @ 242.00MHz	40.0 dB	> 35.6 dB	4.4 dB
5,4-1,2	DH	Pass	63.8 dB @ 11.50MHz	45.9 dB	> 56.9 dB	6.9 dB
7,8-3,6	RH	Pass	39.2 dB @ 215.50MHz	38.9 dB	> 36.4 dB	2.8 dB
7,8-5,4	RH	Pass	44.4 dB @ 228.00MHz	44.4 dB	> 36.0 dB	8.4 dB
7,8-1,2	RH	Pass	56.4 dB @ 25.90MHz	44.8 dB	> 51.3 dB	5.1 dB
3,6-5,4	RH	Pass	51.6 dB @ 32.75MHz	44.8 dB	> 49.7 dB	1.9 dB
3,6-1,2	RH	Pass	56.1 dB @ 62.25MHz	49.1 dB	> 45.2 dB	10.9 dB
5,4-1,2	RH	Pass	64.2 dB @ 11.80MHz	48.4 dB	> 56.7 dB	7.5 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.9 dB @ 1.60MHz	19.7 dB	> 19.9 dB	3.0 dB
3,6	DH	Pass	22.4 dB @ 1.60MHz	22.3 dB	> 19.9 dB	2.5 dB
5,4	DH	Pass	22.8 dB @ 1.60MHz	19.3 dB	> 19.9 dB	2.9 dB
1,2	DH	Pass	24.2 dB @ 1.60MHz	21.3 dB	> 19.9 dB	4.3 dB
7,8	RH	Pass	22.6 dB @ 1.60MHz	20.6 dB	> 19.9 dB	2.7 dB
3,6	RH	Pass	22.3 dB @ 1.60MHz	22.0 dB	> 19.9 dB	2.4 dB
5,4	RH	Pass	23.2 dB @ 1.60MHz	20.8 dB	> 19.9 dB	3.3 dB
1,2	RH	Pass	23.6 dB @ 1.60MHz	23.2 dB	> 19.9 dB	3.7 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.8 dB @ 3.10MHz	8.2 dB	< 3.1 dB	2.3 dB
3,6	Pass	0.8 dB @ 3.10MHz	8.5 dB	< 3.1 dB	2.3 dB
5,4	Pass	0.8 dB @ 3.10MHz	8.3 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.9 dB @ 3.10MHz	8.3 dB	< 3.1 dB	2.2 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	33.0 dB @ 230.00MHz	N/A	>= 6.3 dB	26.7 dB
3,6	DH	Pass	31.5 dB @ 242.00MHz	N/A	>= 5.1 dB	26.4 dB
5,4	DH	Pass	35.2 dB @ 236.00MHz	N/A	>= 5.6 dB	29.6 dB
1,2	DH	Pass	31.8 dB @ 242.00MHz	N/A	>= 5.1 dB	26.7 dB
7,8	RH	Pass	31.2 dB @ 229.50MHz	N/A	>= 6.3 dB	24.9 dB
3,6	RH	Pass	30.8 dB @ 229.50MHz	N/A	>= 6.3 dB	24.5 dB
5,4	RH	Pass	36.6 dB @ 228.00MHz	N/A	>= 6.5 dB	30.1 dB
1,2	RH	Pass	36.5 dB @ 250.00MHz	N/A	>= 4.2 dB	32.3 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 8/12
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:46:10
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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 @ 240.50MHz	40.0 dB	> 16.6 dB	23.4 dB
7,8-5,4	DH	Pass	55.8 dB @ 14.35MHz	33.8 dB	> 41.1 dB	14.7 dB
7,8-1,2	DH	Pass	58.1 dB @ 8.20MHz	30.5 dB	> 45.9 dB	12.2 dB
3,6-7,8	DH	Pass	43.5 dB @ 236.50MHz	43.5 dB	> 16.7 dB	26.8 dB
3,6-5,4	DH	Pass	63.1 dB @ 6.70MHz	32.5 dB	> 47.7 dB	15.4 dB
3,6-1,2	DH	Pass	36.8 dB @ 166.50MHz	34.8 dB	> 19.8 dB	17.0 dB
5,4-7,8	DH	Pass	60.6 dB @ 8.35MHz	35.0 dB	> 45.8 dB	14.8 dB
5,4-3,6	DH	Pass	58.3 dB @ 7.00MHz	29.7 dB	> 47.3 dB	11.0 dB
5,4-1,2	DH	Pass	60.0 dB @ 11.65MHz	38.7 dB	> 42.9 dB	17.1 dB
1,2-7,8	DH	Pass	59.8 dB @ 6.85MHz	30.3 dB	> 47.5 dB	12.3 dB
1,2-3,6	DH	Pass	29.5 dB @ 227.00MHz	29.1 dB	> 17.1 dB	12.4 dB
1,2-5,4	DH	Pass	67.2 dB @ 5.20MHz	39.5 dB	> 49.9 dB	17.3 dB
7,8-3,6	RH	Pass	40.4 dB @ 240.50MHz	40.4 dB	> 16.6 dB	23.8 dB
7,8-5,4	RH	Pass	55.9 dB @ 14.35MHz	33.9 dB	> 41.1 dB	14.8 dB
7,8-1,2	RH	Pass	58.4 dB @ 8.05MHz	30.7 dB	> 46.1 dB	12.3 dB
3,6-7,8	RH	Pass	43.2 dB @ 236.50MHz	43.2 dB	> 16.7 dB	26.5 dB
3,6-5,4	RH	Pass	67.0 dB @ 4.15MHz	32.4 dB	> 51.8 dB	15.2 dB
3,6-1,2	RH	Pass	36.7 dB @ 166.50MHz	34.6 dB	> 19.8 dB	16.9 dB
5,4-7,8	RH	Pass	60.3 dB @ 8.50MHz	34.9 dB	> 45.6 dB	14.7 dB
5,4-3,6	RH	Pass	60.7 dB @ 5.20MHz	30.1 dB	> 49.9 dB	10.8 dB
5,4-1,2	RH	Pass	60.0 dB @ 11.65MHz	38.7 dB	> 42.9 dB	17.1 dB
1,2-7,8	RH	Pass	62.3 dB @ 5.05MHz	30.2 dB	> 50.1 dB	12.2 dB
1,2-3,6	RH	Pass	29.5 dB @ 230.50MHz	29.3 dB	> 16.9 dB	12.6 dB
1,2-5,4	RH	Pass	67.1 dB @ 5.20MHz	39.5 dB	> 49.9 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	42.3 dB @ 128.50MHz	38.6 dB	> 37.1 dB	5.2 dB
3,6	DH	Pass	45.7 dB @ 66.75MHz	38.3 dB	> 41.7 dB	4.0 dB
5,4	DH	Pass	50.8 dB @ 32.75MHz	41.6 dB	> 46.7 dB	4.1 dB
1,2	DH	Pass	54.8 dB @ 26.35MHz	39.2 dB	> 48.2 dB	6.6 dB
7,8	RH	Pass	38.4 dB @ 215.50MHz	37.9 dB	> 33.4 dB	5.0 dB
3,6	RH	Pass	51.4 dB @ 32.75MHz	38.3 dB	> 46.7 dB	4.7 dB
5,4	RH	Pass	51.1 dB @ 32.75MHz	42.4 dB	> 46.7 dB	4.4 dB
1,2	RH	Pass	55.8 dB @ 25.75MHz	43.3 dB	> 48.3 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	30.9 dB @ 229.00MHz	N/A	>= 3.4 dB	27.5 dB
3,6	DH	Pass	29.8 dB @ 242.00MHz	N/A	>= 2.1 dB	27.7 dB
5,4	DH	Pass	33.4 dB @ 248.00MHz	N/A	>= 1.4 dB	32.0 dB
1,2	DH	Pass	31.0 dB @ 242.00MHz	N/A	>= 2.1 dB	28.9 dB
7,8	RH	Pass	30.2 dB @ 229.50MHz	N/A	>= 3.3 dB	26.9 dB
3,6	RH	Pass	30.2 dB @ 230.50MHz	N/A	>= 3.2 dB	27.0 dB
5,4	RH	Pass	34.6 dB @ 228.50MHz	N/A	>= 3.5 dB	31.1 dB
1,2	RH	Pass	35.0 dB @ 249.50MHz	N/A	>= 1.3 dB	33.7 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	40.0 dB @ 55.25MHz	29.0 dB	>= 26.3 dB	13.7 dB
3,6	DH	Pass	27.0 dB @ 226.50MHz	26.6 dB	>= 14.1 dB	12.9 dB
5,4	DH	Pass	58.7 dB @ 6.70MHz	29.8 dB	>= 44.7 dB	14.0 dB
1,2	DH	Pass	54.5 dB @ 10.60MHz	28.8 dB	>= 40.7 dB	13.8 dB
7,8	RH	Pass	44.8 dB @ 31.00MHz	28.9 dB	>= 31.4 dB	13.4 dB
3,6	RH	Pass	30.3 dB @ 238.50MHz	30.3 dB	>= 13.6 dB	16.7 dB
5,4	RH	Pass	58.7 dB @ 5.20MHz	28.7 dB	>= 46.9 dB	11.8 dB
1,2	RH	Pass	27.6 dB @ 214.50MHz	26.6 dB	>= 14.6 dB	13.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

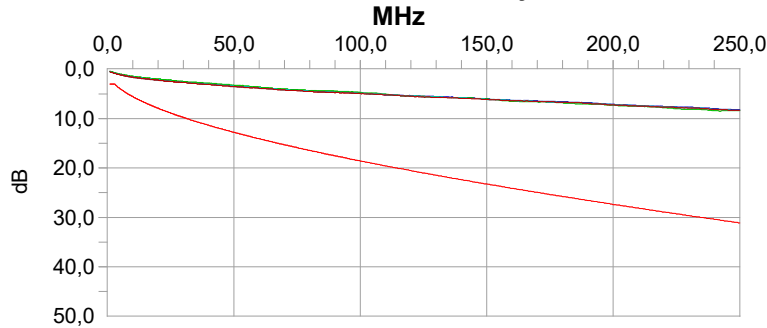
Cable ID 1: 8/12
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:46:10
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

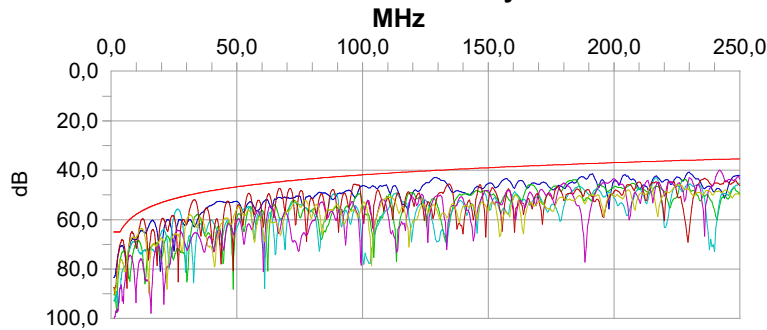
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

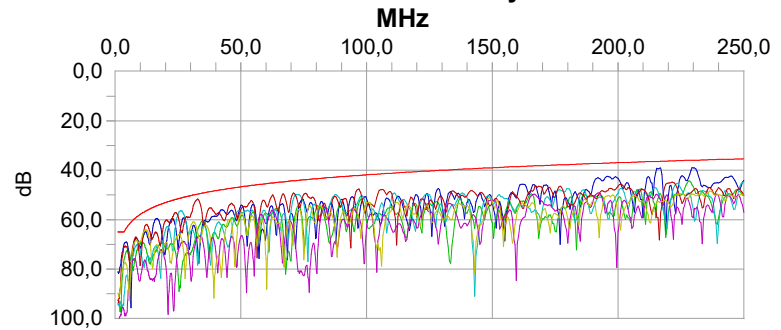
Attenuation Summary



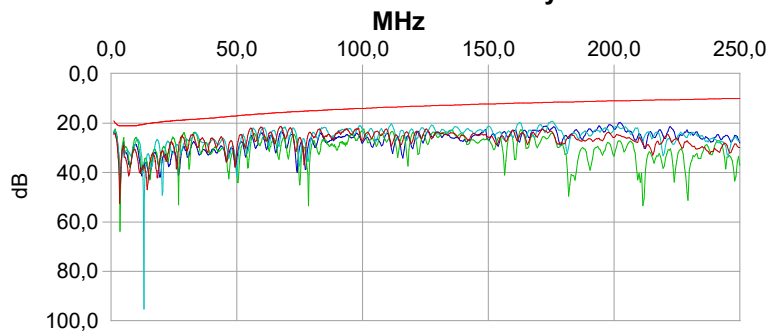
NEXT DH Summary



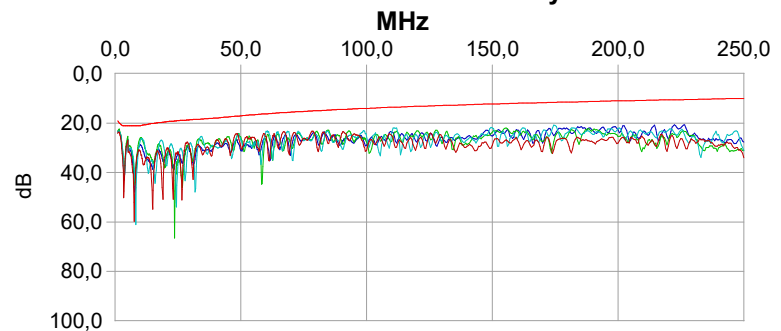
NEXT RH Summary



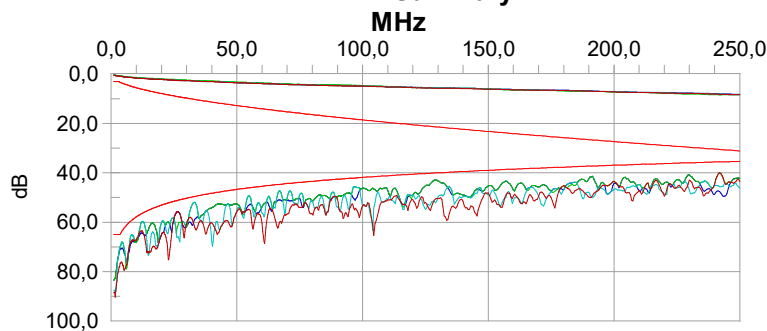
Return Loss DH Summary



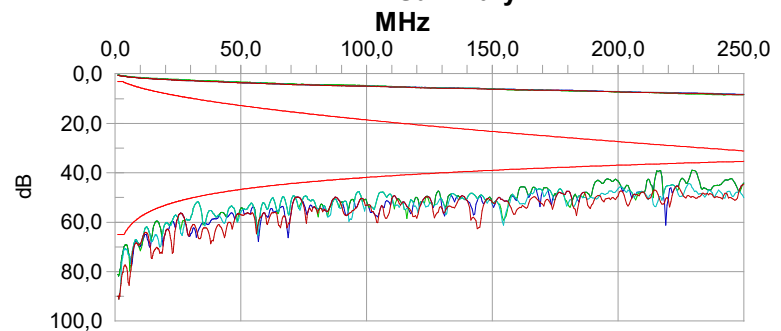
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

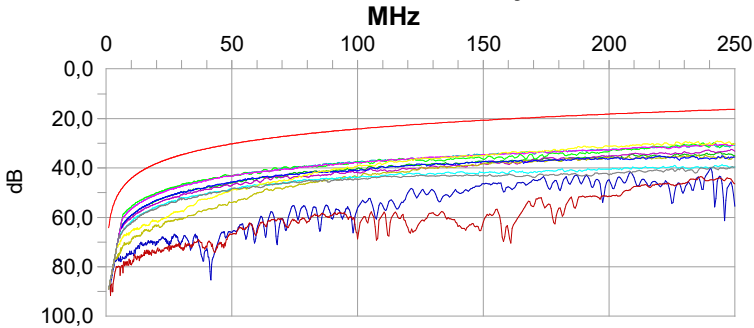
Cable ID 1: 8/12
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:46:10
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

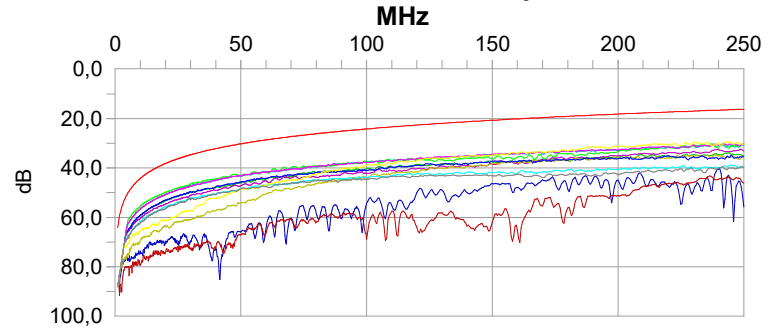
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

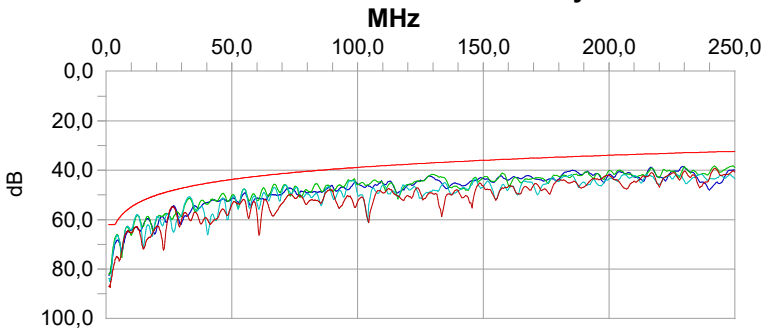
ELFEXT DH Summary



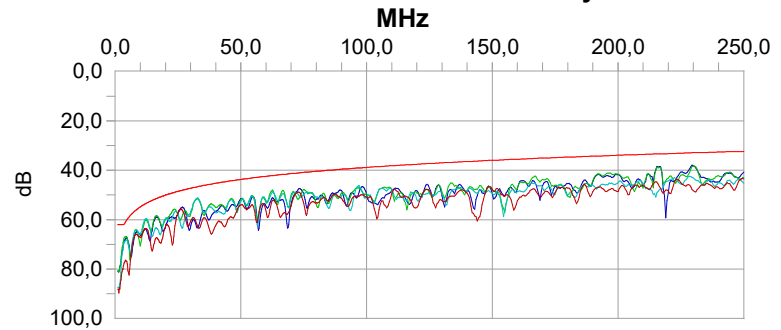
ELFEXT RH Summary



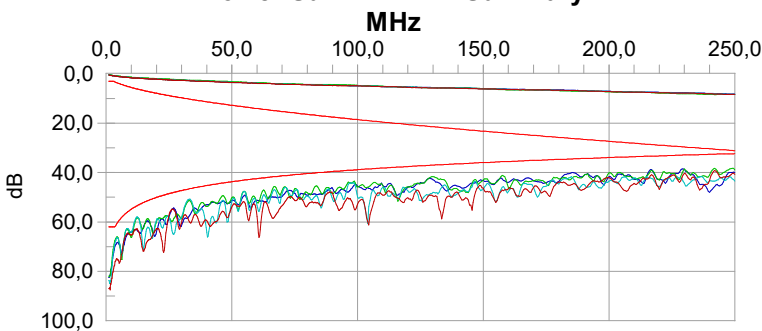
Power Sum NEXT DH Summary



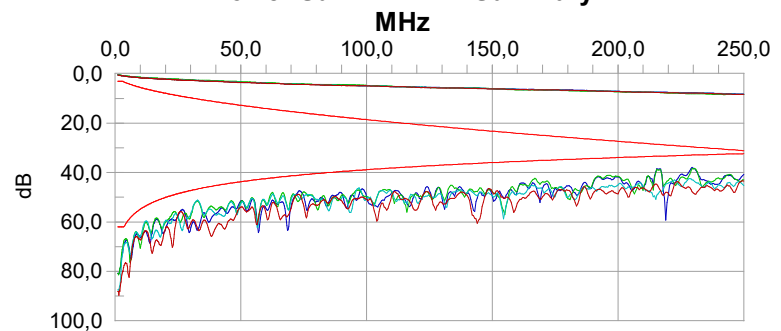
Power Sum NEXT RH Summary



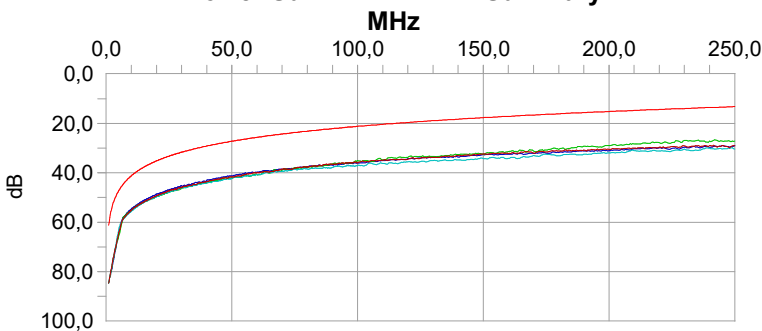
Power Sum ACR DH Summary



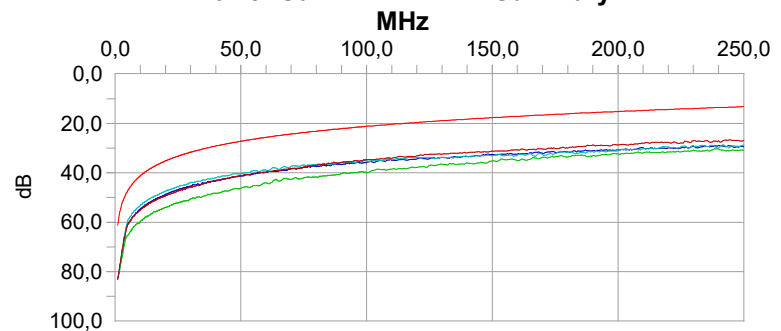
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

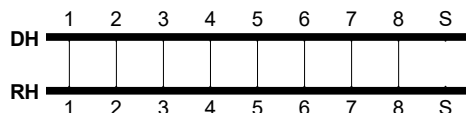
Cable ID 1: 8/13
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:44:52
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	105.6ft.	104.0ft.	104.7ft.	107.3ft.	< 295.3ft.	Pass
Prop. Delay	170.8ns	168.1ns	169.1ns	171.0ns	< 498.0ns	Pass
Delay Skew	2.9ns (Pairs 1,2 vs. 3,6)				< 44.0 ns	Pass
DC Resistance	8.8 Ohm	8.8 Ohm	8.9 Ohm	9.3 Ohm	< 20.0 Ohm	Pass
Headroom	6.2 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	39.1 dB @ 177.50MHz	39.1 dB	> 37.8 dB	1.3 dB
7,8-5,4	DH	Pass	49.7 dB @ 87.75MHz	44.4 dB	> 42.8 dB	6.9 dB
7,8-1,2	DH	Pass	53.7 dB @ 52.25MHz	45.1 dB	> 46.4 dB	7.3 dB
3,6-5,4	DH	Pass	47.8 dB @ 61.00MHz	43.1 dB	> 45.3 dB	2.5 dB
3,6-1,2	DH	Pass	42.0 dB @ 202.00MHz	41.5 dB	> 36.9 dB	5.1 dB
5,4-1,2	DH	Pass	67.4 dB @ 5.80MHz	43.7 dB	> 61.6 dB	5.8 dB
7,8-3,6	RH	Pass	38.4 dB @ 202.00MHz	38.4 dB	> 36.9 dB	1.5 dB
7,8-5,4	RH	Pass	44.7 dB @ 187.00MHz	44.1 dB	> 37.4 dB	7.3 dB
7,8-1,2	RH	Pass	50.8 dB @ 78.25MHz	44.7 dB	> 43.6 dB	7.2 dB
3,6-5,4	RH	Pass	41.9 dB @ 234.00MHz	41.7 dB	> 35.8 dB	6.1 dB
3,6-1,2	RH	Pass	44.5 dB @ 239.00MHz	44.5 dB	> 35.7 dB	8.8 dB
5,4-1,2	RH	Pass	62.6 dB @ 9.85MHz	45.3 dB	> 57.9 dB	4.7 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.7 dB @ 1.30MHz	20.1 dB	> 19.5 dB	3.2 dB
3,6	DH	Pass	22.1 dB @ 1.30MHz	21.6 dB	> 19.5 dB	2.6 dB
5,4	DH	Pass	22.7 dB @ 1.60MHz	20.5 dB	> 19.9 dB	2.8 dB
1,2	DH	Pass	23.5 dB @ 1.15MHz	21.7 dB	> 19.3 dB	4.2 dB
7,8	RH	Pass	22.3 dB @ 1.30MHz	22.3 dB	> 19.5 dB	2.8 dB
3,6	RH	Pass	21.7 dB @ 1.30MHz	21.7 dB	> 19.5 dB	2.2 dB
5,4	RH	Pass	22.3 dB @ 1.30MHz	20.3 dB	> 19.5 dB	2.8 dB
1,2	RH	Pass	22.9 dB @ 1.15MHz	22.9 dB	> 19.3 dB	3.6 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	1.0 dB @ 3.10MHz	10.3 dB	< 3.1 dB	2.1 dB
3,6	Pass	1.0 dB @ 3.10MHz	10.4 dB	< 3.1 dB	2.1 dB
5,4	Pass	1.0 dB @ 3.10MHz	10.3 dB	< 3.1 dB	2.1 dB
1,2	Pass	1.1 dB @ 3.10MHz	10.4 dB	< 3.1 dB	2.0 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	30.2 dB @ 202.50MHz	N/A	>= 9.3 dB	20.9 dB
3,6	DH	Pass	30.0 dB @ 202.50MHz	N/A	>= 9.3 dB	20.7 dB
5,4	DH	Pass	33.1 dB @ 242.00MHz	N/A	>= 5.1 dB	28.0 dB
1,2	DH	Pass	31.1 dB @ 249.00MHz	N/A	>= 4.4 dB	26.7 dB
7,8	RH	Pass	29.5 dB @ 202.00MHz	N/A	>= 9.4 dB	20.1 dB
3,6	RH	Pass	29.3 dB @ 202.00MHz	N/A	>= 9.4 dB	19.9 dB
5,4	RH	Pass	31.7 dB @ 241.00MHz	N/A	>= 5.2 dB	26.5 dB
1,2	RH	Pass	34.4 dB @ 239.00MHz	N/A	>= 5.4 dB	29.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 8/13
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:44:52
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT
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	36.4 dB @ 226.50MHz	36.4 dB	> 17.1 dB	19.3 dB
7,8-5,4	DH	Pass	58.0 dB @ 7.75MHz	35.9 dB	> 46.4 dB	11.6 dB
7,8-1,2	DH	Pass	46.7 dB @ 36.75MHz	30.2 dB	> 32.9 dB	13.8 dB
3,6-7,8	DH	Pass	36.9 dB @ 243.00MHz	36.8 dB	> 16.5 dB	20.4 dB
3,6-5,4	DH	Pass	62.2 dB @ 7.75MHz	34.4 dB	> 46.4 dB	15.8 dB
3,6-1,2	DH	Pass	39.9 dB @ 174.00MHz	38.8 dB	> 19.4 dB	20.5 dB
5,4-7,8	DH	Pass	59.1 dB @ 6.70MHz	35.8 dB	> 47.7 dB	11.4 dB
5,4-3,6	DH	Pass	59.4 dB @ 6.55MHz	31.7 dB	> 47.9 dB	11.5 dB
5,4-1,2	DH	Pass	61.7 dB @ 6.25MHz	36.5 dB	> 48.3 dB	13.4 dB
1,2-7,8	DH	Pass	62.6 dB @ 5.95MHz	31.6 dB	> 48.7 dB	13.9 dB
1,2-3,6	DH	Pass	32.6 dB @ 213.50MHz	32.0 dB	> 17.6 dB	15.0 dB
1,2-5,4	DH	Pass	60.0 dB @ 7.60MHz	37.7 dB	> 46.6 dB	13.4 dB
7,8-3,6	RH	Pass	36.9 dB @ 226.50MHz	36.9 dB	> 17.1 dB	19.8 dB
7,8-5,4	RH	Pass	60.6 dB @ 5.65MHz	35.9 dB	> 49.1 dB	11.5 dB
7,8-1,2	RH	Pass	46.8 dB @ 36.75MHz	30.4 dB	> 32.9 dB	13.9 dB
3,6-7,8	RH	Pass	36.6 dB @ 243.00MHz	36.6 dB	> 16.5 dB	20.1 dB
3,6-5,4	RH	Pass	66.9 dB @ 4.45MHz	34.2 dB	> 51.2 dB	15.7 dB
3,6-1,2	RH	Pass	39.9 dB @ 174.00MHz	38.6 dB	> 19.4 dB	20.5 dB
5,4-7,8	RH	Pass	60.8 dB @ 5.50MHz	35.8 dB	> 49.4 dB	11.4 dB
5,4-3,6	RH	Pass	61.0 dB @ 5.20MHz	31.9 dB	> 49.9 dB	11.1 dB
5,4-1,2	RH	Pass	63.2 dB @ 5.20MHz	36.6 dB	> 49.9 dB	13.3 dB
1,2-7,8	RH	Pass	62.5 dB @ 5.95MHz	31.5 dB	> 48.7 dB	13.8 dB
1,2-3,6	RH	Pass	32.6 dB @ 213.50MHz	32.0 dB	> 17.6 dB	15.0 dB
1,2-5,4	RH	Pass	60.0 dB @ 7.60MHz	37.5 dB	> 46.6 dB	13.4 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	39.7 dB @ 154.50MHz	38.2 dB	> 35.8 dB	3.9 dB
3,6	DH	Pass	39.3 dB @ 125.00MHz	37.1 dB	> 37.3 dB	2.0 dB
5,4	DH	Pass	58.3 dB @ 12.85MHz	40.9 dB	> 53.1 dB	5.2 dB
1,2	DH	Pass	39.8 dB @ 219.00MHz	39.8 dB	> 33.3 dB	6.5 dB
7,8	RH	Pass	37.5 dB @ 202.00MHz	37.5 dB	> 33.9 dB	3.6 dB
3,6	RH	Pass	37.6 dB @ 202.00MHz	37.6 dB	> 33.9 dB	3.7 dB
5,4	RH	Pass	63.9 dB @ 6.10MHz	39.4 dB	> 58.2 dB	5.7 dB
1,2	RH	Pass	61.3 dB @ 9.85MHz	41.6 dB	> 54.9 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	29.2 dB @ 203.50MHz	N/A	>= 6.2 dB	23.0 dB
3,6	DH	Pass	27.7 dB @ 227.00MHz	N/A	>= 3.6 dB	24.1 dB
5,4	DH	Pass	31.4 dB @ 242.00MHz	N/A	>= 2.1 dB	29.3 dB
1,2	DH	Pass	29.4 dB @ 249.00MHz	N/A	>= 1.4 dB	28.0 dB
7,8	RH	Pass	28.6 dB @ 202.00MHz	N/A	>= 6.4 dB	22.2 dB
3,6	RH	Pass	28.5 dB @ 202.00MHz	N/A	>= 6.4 dB	22.1 dB
5,4	RH	Pass	29.4 dB @ 241.00MHz	N/A	>= 2.2 dB	27.2 dB
1,2	RH	Pass	31.2 dB @ 248.00MHz	N/A	>= 1.4 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	45.4 dB @ 26.80MHz	30.3 dB	>= 32.6 dB	12.8 dB
3,6	DH	Pass	33.9 dB @ 122.00MHz	28.6 dB	>= 19.5 dB	14.4 dB
5,4	DH	Pass	54.9 dB @ 7.75MHz	32.4 dB	>= 43.4 dB	11.5 dB
1,2	DH	Pass	43.7 dB @ 36.75MHz	28.9 dB	>= 29.9 dB	13.8 dB
7,8	RH	Pass	48.3 dB @ 19.30MHz	29.5 dB	>= 35.5 dB	12.8 dB
3,6	RH	Pass	32.8 dB @ 201.50MHz	31.5 dB	>= 15.1 dB	17.7 dB
5,4	RH	Pass	56.5 dB @ 5.50MHz	30.5 dB	>= 46.4 dB	10.1 dB
1,2	RH	Pass	47.8 dB @ 23.50MHz	28.3 dB	>= 33.8 dB	14.0 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

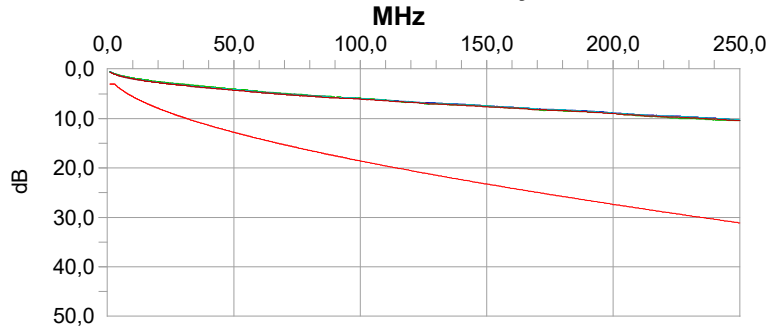
Cable ID 1: 8/13
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:44:52
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

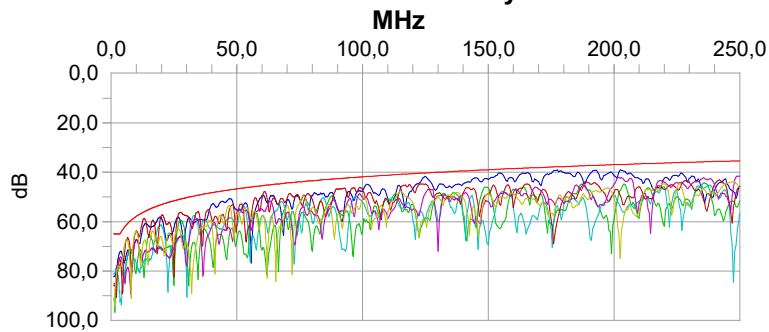
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

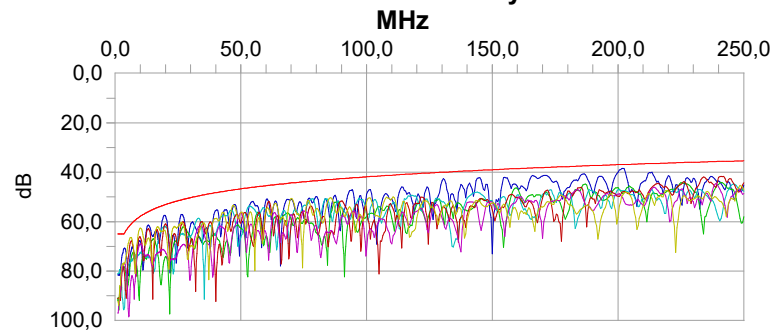
Attenuation Summary



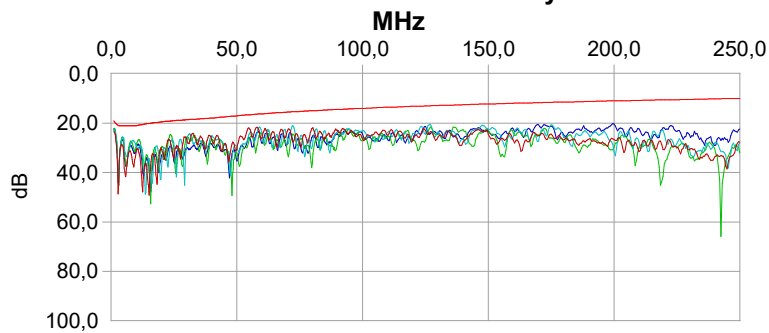
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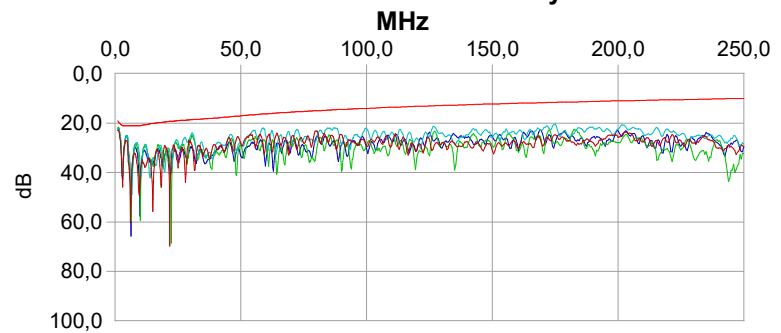
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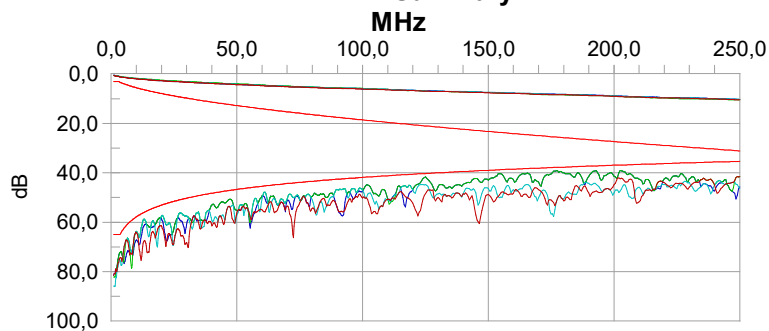
Return Loss DH Summary



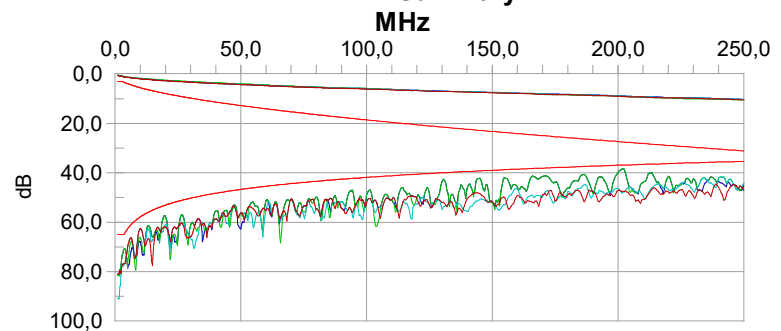
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

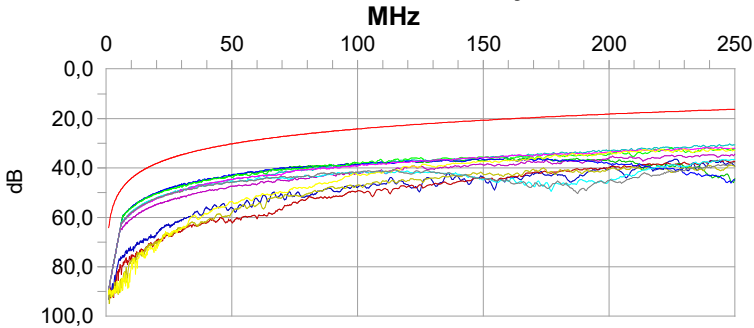
Cable ID 1: 8/13
Cable ID 2:
Test Date: 2017-12-13
Test Time: 11:44:52
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

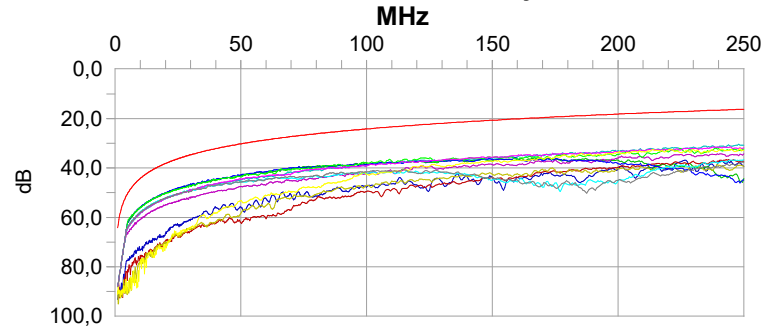
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

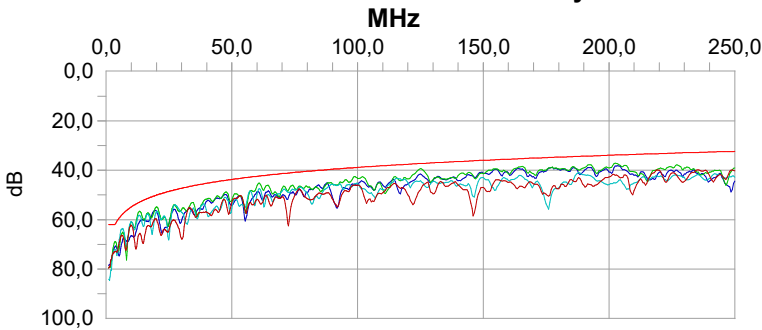
ELFEXT DH Summary



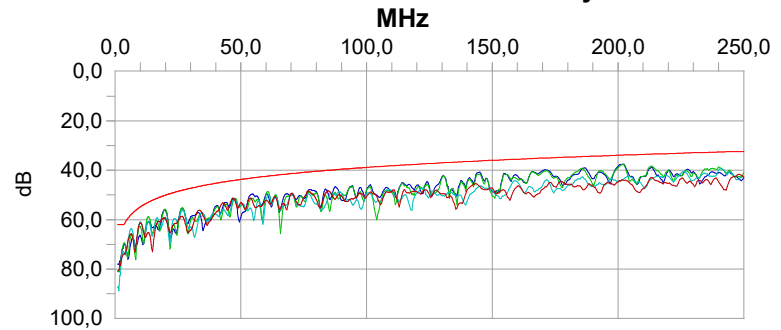
ELFEXT RH Summary



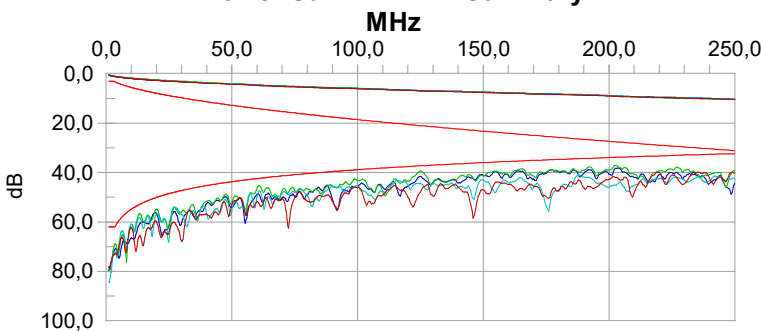
Power Sum NEXT DH Summary



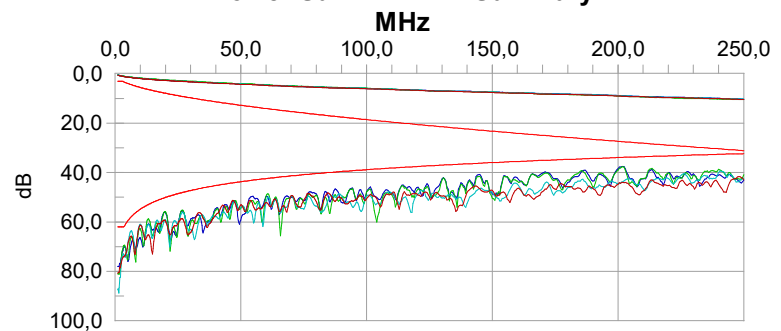
Power Sum NEXT RH Summary



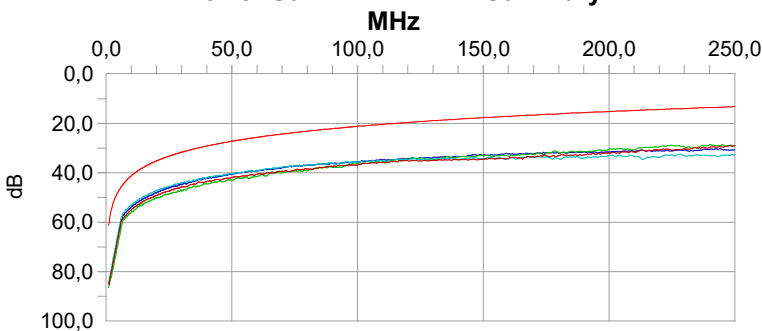
Power Sum ACR DH Summary



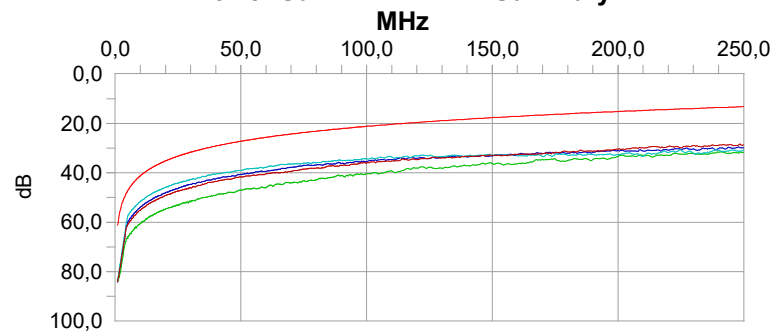
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

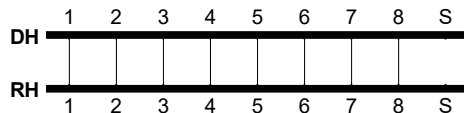
Cable ID 1: 8/14
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:26:31
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	110.6ft.	108.6ft.	109.3ft.	111.9ft.	< 295.3ft.	Pass
Prop. Delay	177.7ns	174.8ns	176.1ns	177.9ns	< 498.0ns	Pass
Delay Skew	3.1ns (Pairs 1,2 vs. 3,6)				< 44.0 ns	Pass
Headroom	25.3 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	51.3 dB @ 34.00MHz	47.3 dB	> 40.0 dB	11.3 dB
7,8-5,4	DH	Pass	62.1 dB @ 17.80MHz	52.9 dB	> 44.5 dB	17.6 dB
7,8-1,2	DH	Pass	63.4 dB @ 8.95MHz	49.8 dB	> 49.3 dB	14.1 dB
3,6-5,4	DH	Pass	52.9 dB @ 24.85MHz	51.1 dB	> 42.2 dB	10.7 dB
3,6-1,2	DH	Pass	54.5 dB @ 43.75MHz	50.2 dB	> 38.2 dB	16.3 dB
5,4-1,2	DH	Pass	54.0 dB @ 27.25MHz	52.4 dB	> 41.5 dB	12.5 dB
7,8-3,6	RH	Pass	48.7 dB @ 34.00MHz	44.8 dB	> 40.0 dB	8.7 dB
7,8-5,4	RH	Pass	69.9 dB @ 5.95MHz	53.5 dB	> 52.1 dB	17.8 dB
7,8-1,2	RH	Pass	61.4 dB @ 8.95MHz	46.9 dB	> 49.3 dB	12.1 dB
3,6-5,4	RH	Pass	59.3 dB @ 24.70MHz	52.0 dB	> 42.2 dB	17.1 dB
3,6-1,2	RH	Pass	52.7 dB @ 78.50MHz	51.4 dB	> 34.0 dB	18.7 dB
5,4-1,2	RH	Pass	52.8 dB @ 27.40MHz	44.4 dB	> 41.5 dB	11.3 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.4 dB @ 1.00MHz	22.4 dB	> 19.0 dB	3.4 dB
3,6	DH	Pass	21.9 dB @ 1.15MHz	21.6 dB	> 19.0 dB	2.9 dB
5,4	DH	Pass	22.4 dB @ 1.15MHz	22.0 dB	> 19.0 dB	3.4 dB
1,2	DH	Pass	23.2 dB @ 1.00MHz	21.6 dB	> 19.0 dB	4.2 dB
7,8	RH	Pass	22.1 dB @ 1.15MHz	22.1 dB	> 19.0 dB	3.1 dB
3,6	RH	Pass	21.5 dB @ 1.15MHz	21.5 dB	> 19.0 dB	2.5 dB
5,4	RH	Pass	22.2 dB @ 1.00MHz	21.8 dB	> 19.0 dB	3.2 dB
1,2	RH	Pass	22.8 dB @ 1.00MHz	22.3 dB	> 19.0 dB	3.8 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.9 dB @ 2.50MHz	6.2 dB	< 3.1 dB	2.2 dB
3,6	Pass	0.9 dB @ 2.50MHz	6.1 dB	< 3.1 dB	2.2 dB
5,4	Pass	1.0 dB @ 2.50MHz	6.2 dB	< 3.1 dB	2.1 dB
1,2	Pass	1.0 dB @ 2.50MHz	6.3 dB	< 3.1 dB	2.1 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	42.1 dB @ 69.50MHz	N/A	>= 17.7 dB	24.4 dB
3,6	DH	Pass	42.1 dB @ 69.50MHz	N/A	>= 17.7 dB	24.4 dB
5,4	DH	Pass	46.3 dB @ 60.75MHz	N/A	>= 19.9 dB	26.4 dB
1,2	DH	Pass	44.0 dB @ 97.50MHz	N/A	>= 11.8 dB	32.2 dB
7,8	RH	Pass	38.9 dB @ 88.75MHz	N/A	>= 13.6 dB	25.3 dB
3,6	RH	Pass	39.0 dB @ 88.75MHz	N/A	>= 13.6 dB	25.4 dB
5,4	RH	Pass	38.3 dB @ 98.50MHz	N/A	>= 11.6 dB	26.7 dB
1,2	RH	Pass	38.1 dB @ 98.50MHz	N/A	>= 11.6 dB	26.5 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 8/14
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:26:31
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	52.1 dB @ 37.50MHz	47.6 dB	> 27.1 dB	25.0 dB
7,8-5,4	DH	Pass	58.6 dB @ 6.70MHz	38.1 dB	> 42.1 dB	16.5 dB
7,8-1,2	DH	Pass	55.5 dB @ 7.90MHz	34.9 dB	> 40.7 dB	14.8 dB
3,6-7,8	DH	Pass	57.3 dB @ 36.75MHz	50.5 dB	> 27.3 dB	30.0 dB
3,6-5,4	DH	Pass	43.3 dB @ 70.50MHz	41.5 dB	> 21.7 dB	21.6 dB
3,6-1,2	DH	Pass	51.7 dB @ 79.75MHz	51.4 dB	> 20.6 dB	31.1 dB
5,4-7,8	DH	Pass	58.3 dB @ 6.85MHz	38.4 dB	> 41.9 dB	16.4 dB
5,4-3,6	DH	Pass	38.4 dB @ 70.25MHz	36.9 dB	> 21.7 dB	16.7 dB
5,4-1,2	DH	Pass	58.0 dB @ 7.45MHz	39.5 dB	> 41.2 dB	16.8 dB
1,2-7,8	DH	Pass	55.5 dB @ 7.75MHz	35.1 dB	> 40.8 dB	14.7 dB
1,2-3,6	DH	Pass	46.2 dB @ 98.00MHz	46.2 dB	> 18.8 dB	27.4 dB
1,2-5,4	DH	Pass	57.9 dB @ 7.75MHz	40.0 dB	> 40.8 dB	17.1 dB
7,8-3,6	RH	Pass	52.0 dB @ 37.25MHz	47.5 dB	> 27.2 dB	24.8 dB
7,8-5,4	RH	Pass	60.1 dB @ 5.65MHz	38.1 dB	> 43.6 dB	16.5 dB
7,8-1,2	RH	Pass	57.0 dB @ 6.70MHz	35.0 dB	> 42.1 dB	14.9 dB
3,6-7,8	RH	Pass	57.5 dB @ 36.75MHz	50.6 dB	> 27.3 dB	30.2 dB
3,6-5,4	RH	Pass	43.4 dB @ 70.50MHz	41.7 dB	> 21.7 dB	21.7 dB
3,6-1,2	RH	Pass	51.9 dB @ 79.75MHz	51.6 dB	> 20.6 dB	31.3 dB
5,4-7,8	RH	Pass	59.9 dB @ 5.65MHz	38.4 dB	> 43.6 dB	16.3 dB
5,4-3,6	RH	Pass	38.3 dB @ 70.25MHz	36.8 dB	> 21.7 dB	16.6 dB
5,4-1,2	RH	Pass	58.1 dB @ 7.45MHz	39.6 dB	> 41.2 dB	16.9 dB
1,2-7,8	RH	Pass	55.4 dB @ 7.75MHz	35.0 dB	> 40.8 dB	14.6 dB
1,2-3,6	RH	Pass	46.0 dB @ 98.00MHz	46.0 dB	> 18.8 dB	27.2 dB
1,2-5,4	RH	Pass	57.8 dB @ 7.75MHz	39.9 dB	> 40.8 dB	17.0 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	44.7 dB @ 69.75MHz	44.7 dB	> 31.9 dB	12.8 dB
3,6	DH	Pass	52.1 dB @ 24.85MHz	45.7 dB	> 39.2 dB	12.9 dB
5,4	DH	Pass	50.7 dB @ 26.95MHz	49.0 dB	> 38.6 dB	12.1 dB
1,2	DH	Pass	53.0 dB @ 27.55MHz	46.7 dB	> 38.4 dB	14.6 dB
7,8	RH	Pass	48.2 dB @ 34.00MHz	42.8 dB	> 37.0 dB	11.2 dB
3,6	RH	Pass	48.2 dB @ 34.00MHz	43.9 dB	> 37.0 dB	11.2 dB
5,4	RH	Pass	51.9 dB @ 27.40MHz	43.7 dB	> 38.5 dB	13.4 dB
1,2	RH	Pass	51.7 dB @ 27.40MHz	43.5 dB	> 38.5 dB	13.2 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	39.5 dB @ 69.75MHz	N/A	>= 14.7 dB	24.8 dB
3,6	DH	Pass	40.5 dB @ 69.25MHz	N/A	>= 14.7 dB	25.8 dB
5,4	DH	Pass	43.0 dB @ 97.25MHz	N/A	>= 8.8 dB	34.2 dB
1,2	DH	Pass	40.5 dB @ 97.00MHz	N/A	>= 8.9 dB	31.6 dB
7,8	RH	Pass	36.9 dB @ 88.75MHz	N/A	>= 10.6 dB	26.3 dB
3,6	RH	Pass	38.1 dB @ 88.75MHz	N/A	>= 10.6 dB	27.5 dB
5,4	RH	Pass	37.6 dB @ 98.50MHz	N/A	>= 8.6 dB	29.0 dB
1,2	RH	Pass	37.2 dB @ 98.50MHz	N/A	>= 8.6 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	48.1 dB @ 14.20MHz	33.4 dB	>= 32.6 dB	15.5 dB
3,6	DH	Pass	37.8 dB @ 70.25MHz	36.2 dB	>= 18.7 dB	19.1 dB
5,4	DH	Pass	55.5 dB @ 6.70MHz	35.0 dB	>= 39.1 dB	16.4 dB
1,2	DH	Pass	43.8 dB @ 25.30MHz	33.8 dB	>= 27.6 dB	16.2 dB
7,8	RH	Pass	54.5 dB @ 6.70MHz	33.2 dB	>= 39.1 dB	15.4 dB
3,6	RH	Pass	42.8 dB @ 70.25MHz	41.0 dB	>= 18.7 dB	24.1 dB
5,4	RH	Pass	53.6 dB @ 7.45MHz	33.6 dB	>= 38.2 dB	15.4 dB
1,2	RH	Pass	43.0 dB @ 27.25MHz	33.6 dB	>= 26.9 dB	16.1 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

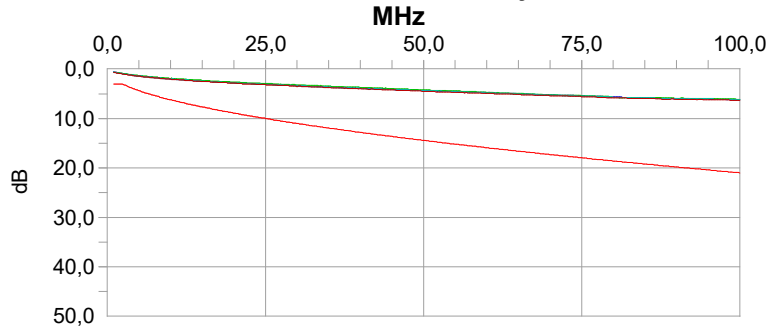
Cable ID 1: 8/14
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:26:31
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

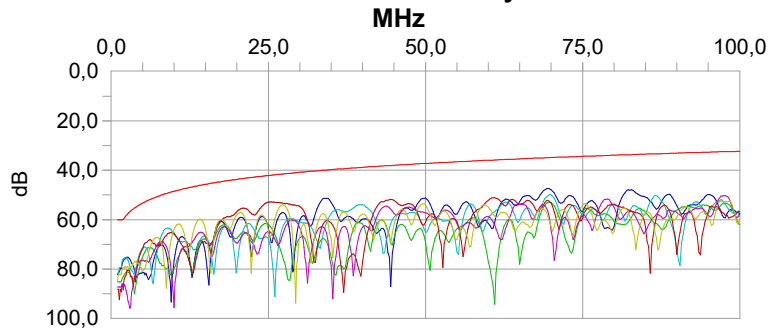
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

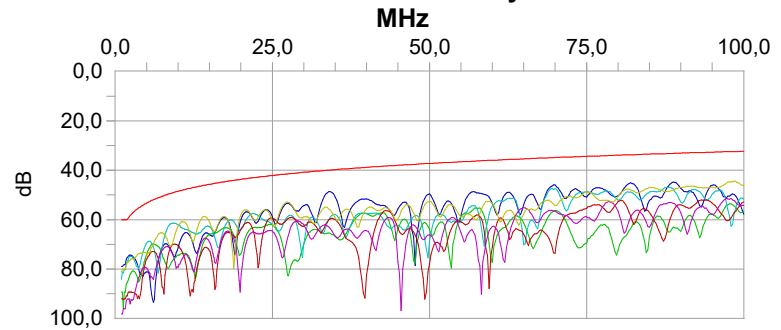
Attenuation Summary



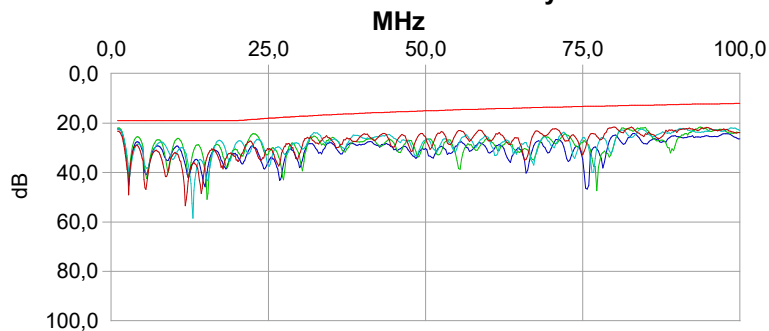
NEXT DH Summary



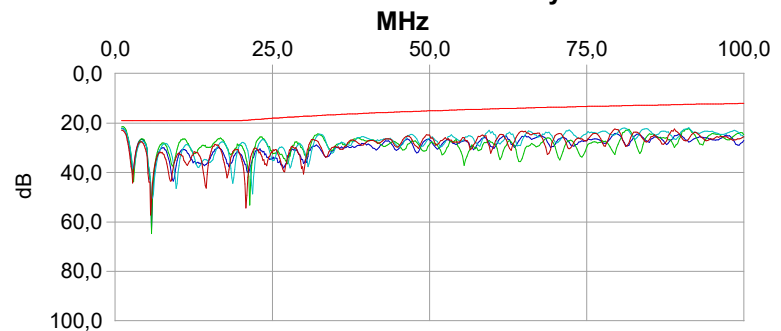
NEXT RH Summary



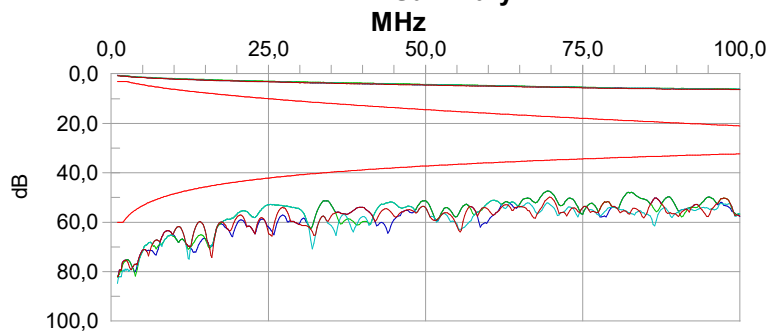
Return Loss DH Summary



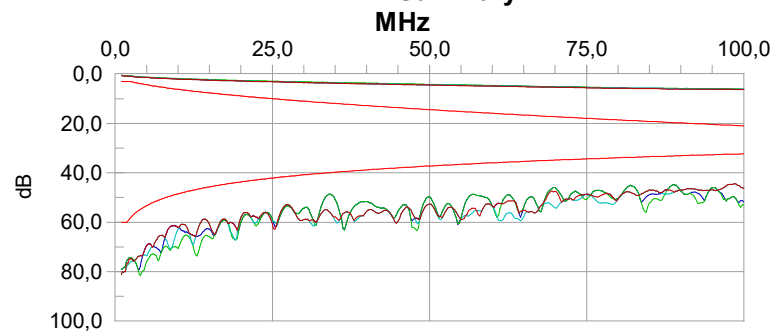
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

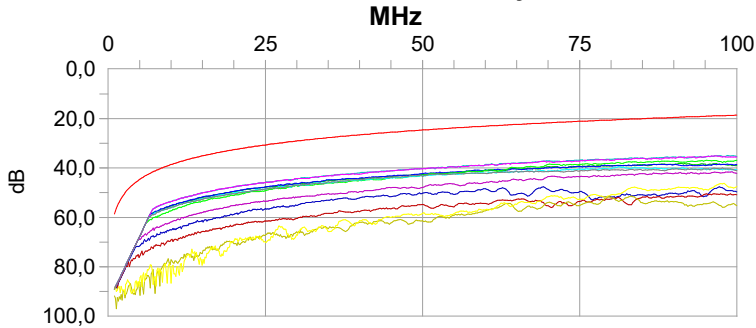
Cable ID 1: 8/14
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:26:31
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

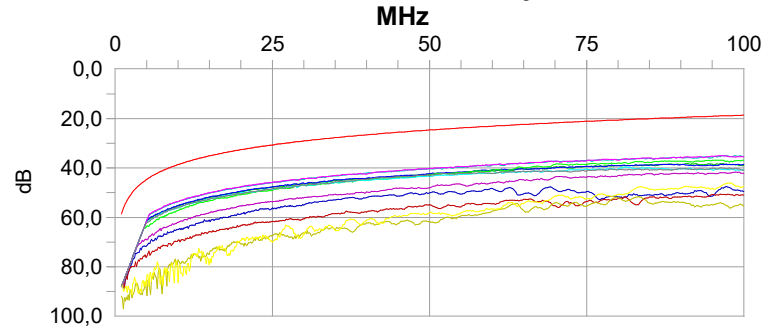
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

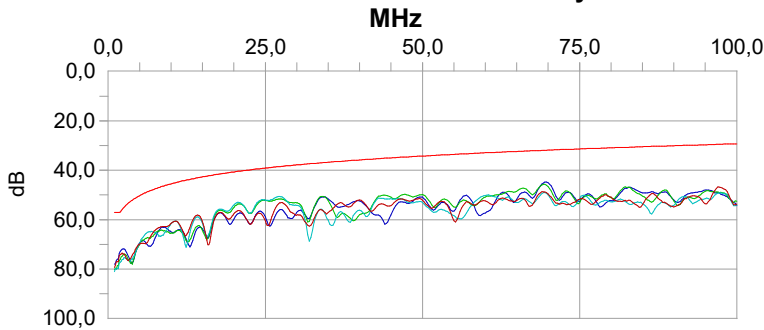
ELFEXT DH Summary



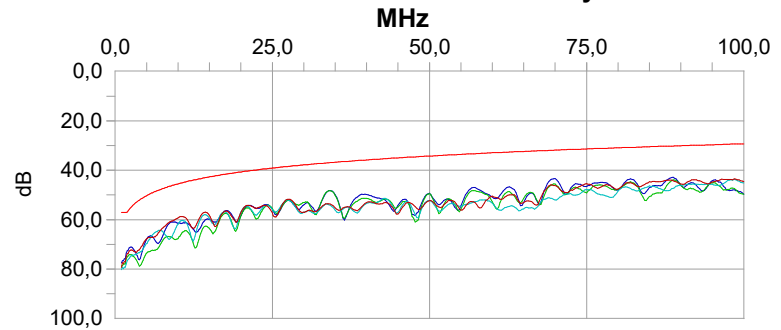
ELFEXT RH Summary



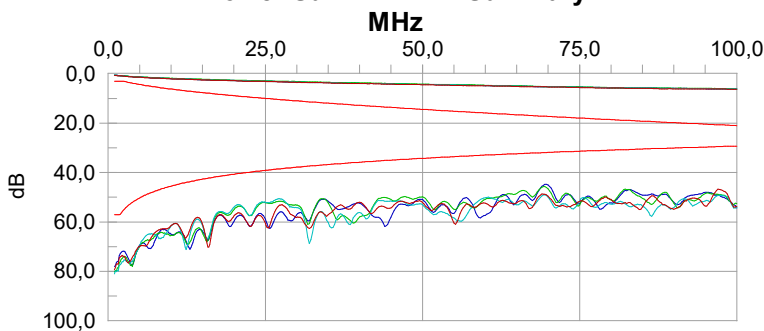
Power Sum NEXT DH Summary



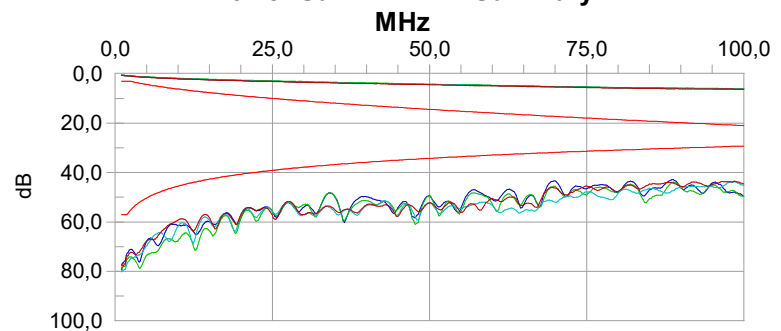
Power Sum NEXT RH Summary



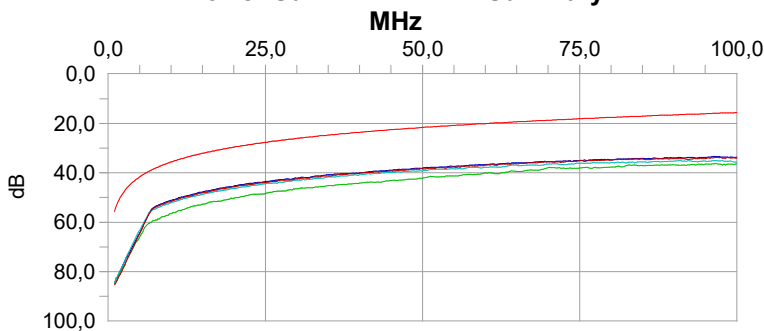
Power Sum ACR DH Summary



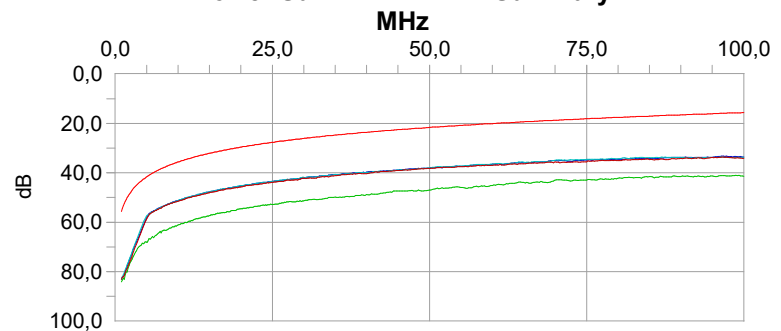
Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

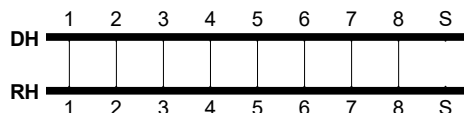
Cable ID 1: 8/15
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:27:18
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	85.0ft.	83.3ft.	84.3ft.	86.3ft.	< 295.3ft.	Pass
Prop. Delay	140.9ns	138.6ns	139.7ns	140.9ns	< 498.0ns	Pass
Delay Skew	2.3ns (Pairs 1,2 vs. 3,6)				< 44.0 ns	Pass
Headroom	25.6 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	49.8 dB @ 53.50MHz	46.3 dB	> 36.8 dB	13.0 dB
7,8-5,4	DH	Pass	64.4 dB @ 10.45MHz	52.3 dB	> 48.2 dB	16.2 dB
7,8-1,2	DH	Pass	54.5 dB @ 68.25MHz	54.5 dB	> 35.0 dB	19.5 dB
3,6-5,4	DH	Pass	63.1 dB @ 8.05MHz	49.3 dB	> 50.0 dB	13.1 dB
3,6-1,2	DH	Pass	49.7 dB @ 93.50MHz	49.7 dB	> 32.8 dB	16.9 dB
5,4-1,2	DH	Pass	48.1 dB @ 69.75MHz	47.6 dB	> 34.9 dB	13.2 dB
7,8-3,6	RH	Pass	53.6 dB @ 27.85MHz	46.0 dB	> 41.4 dB	12.2 dB
7,8-5,4	RH	Pass	54.0 dB @ 47.25MHz	52.4 dB	> 37.6 dB	16.4 dB
7,8-1,2	RH	Pass	55.6 dB @ 54.75MHz	53.7 dB	> 36.6 dB	19.0 dB
3,6-5,4	RH	Pass	66.3 dB @ 7.90MHz	52.2 dB	> 50.1 dB	16.2 dB
3,6-1,2	RH	Pass	57.4 dB @ 61.50MHz	55.4 dB	> 35.8 dB	21.6 dB
5,4-1,2	RH	Pass	47.4 dB @ 70.25MHz	47.4 dB	> 34.8 dB	12.6 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	22.4 dB @ 1.60MHz	22.3 dB	> 19.0 dB	3.4 dB
5,4	DH	Pass	22.5 dB @ 1.60MHz	21.6 dB	> 19.0 dB	3.5 dB
1,2	DH	Pass	24.1 dB @ 1.60MHz	20.6 dB	> 19.0 dB	5.1 dB
7,8	RH	Pass	22.4 dB @ 1.60MHz	22.4 dB	> 19.0 dB	3.4 dB
3,6	RH	Pass	21.9 dB @ 1.60MHz	21.9 dB	> 19.0 dB	2.9 dB
5,4	RH	Pass	22.8 dB @ 1.45MHz	22.8 dB	> 19.0 dB	3.8 dB
1,2	RH	Pass	23.6 dB @ 1.45MHz	23.2 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	4.9 dB	< 3.1 dB	2.4 dB
3,6	Pass	0.7 dB @ 2.50MHz	4.7 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.8 dB @ 2.50MHz	4.9 dB	< 3.1 dB	2.3 dB
1,2	Pass	0.8 dB @ 2.50MHz	4.9 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	41.6 dB @ 100.00MHz	N/A	>= 11.3 dB	30.3 dB
5,4	DH	Pass	43.0 dB @ 92.00MHz	N/A	>= 12.9 dB	30.1 dB
1,2	DH	Pass	42.9 dB @ 92.00MHz	N/A	>= 12.9 dB	30.0 dB
7,8	RH	Pass	41.1 dB @ 100.00MHz	N/A	>= 11.3 dB	29.8 dB
3,6	RH	Pass	41.3 dB @ 100.00MHz	N/A	>= 11.3 dB	30.0 dB
5,4	RH	Pass	43.3 dB @ 70.25MHz	N/A	>= 17.5 dB	25.8 dB
1,2	RH	Pass	43.2 dB @ 70.25MHz	N/A	>= 17.5 dB	25.7 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 8/15
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:27:18
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	48.7 dB @ 64.50MHz	44.9 dB	> 22.4 dB	26.3 dB
7,8-5,4	DH	Pass	58.7 dB @ 7.90MHz	38.4 dB	> 40.7 dB	18.0 dB
7,8-1,2	DH	Pass	65.9 dB @ 6.70MHz	43.3 dB	> 42.1 dB	23.8 dB
3,6-7,8	DH	Pass	49.7 dB @ 92.75MHz	49.3 dB	> 19.3 dB	30.4 dB
3,6-5,4	DH	Pass	52.3 dB @ 64.50MHz	49.7 dB	> 22.4 dB	29.9 dB
3,6-1,2	DH	Pass	48.5 dB @ 85.50MHz	47.6 dB	> 20.0 dB	28.5 dB
5,4-7,8	DH	Pass	59.1 dB @ 7.45MHz	38.4 dB	> 41.2 dB	17.9 dB
5,4-3,6	DH	Pass	55.0 dB @ 65.75MHz	52.0 dB	> 22.3 dB	32.7 dB
5,4-1,2	DH	Pass	52.7 dB @ 51.00MHz	48.5 dB	> 24.5 dB	28.2 dB
1,2-7,8	DH	Pass	56.9 dB @ 18.70MHz	43.4 dB	> 33.2 dB	23.7 dB
1,2-3,6	DH	Pass	43.0 dB @ 97.75MHz	43.0 dB	> 18.8 dB	24.0 dB
1,2-5,4	DH	Pass	49.2 dB @ 70.25MHz	49.0 dB	> 21.7 dB	27.5 dB
7,8-3,6	RH	Pass	44.7 dB @ 99.75MHz	44.7 dB	> 18.6 dB	26.1 dB
7,8-5,4	RH	Pass	58.7 dB @ 7.90MHz	38.3 dB	> 40.7 dB	18.0 dB
7,8-1,2	RH	Pass	57.1 dB @ 18.40MHz	43.3 dB	> 33.3 dB	23.8 dB
3,6-7,8	RH	Pass	50.8 dB @ 83.50MHz	49.6 dB	> 20.2 dB	30.6 dB
3,6-5,4	RH	Pass	52.4 dB @ 64.50MHz	49.9 dB	> 22.4 dB	30.0 dB
3,6-1,2	RH	Pass	48.7 dB @ 85.50MHz	47.9 dB	> 20.0 dB	28.7 dB
5,4-7,8	RH	Pass	59.0 dB @ 7.45MHz	38.4 dB	> 41.2 dB	17.8 dB
5,4-3,6	RH	Pass	54.8 dB @ 65.25MHz	51.8 dB	> 22.3 dB	32.5 dB
5,4-1,2	RH	Pass	52.7 dB @ 51.00MHz	48.6 dB	> 24.5 dB	28.2 dB
1,2-7,8	RH	Pass	56.8 dB @ 18.70MHz	43.4 dB	> 33.2 dB	23.6 dB
1,2-3,6	RH	Pass	42.8 dB @ 97.75MHz	42.8 dB	> 18.8 dB	24.0 dB
1,2-5,4	RH	Pass	49.1 dB @ 70.25MHz	48.9 dB	> 21.7 dB	27.4 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	52.1 dB @ 34.00MHz	45.9 dB	> 37.0 dB	15.1 dB
3,6	DH	Pass	45.9 dB @ 66.75MHz	44.4 dB	> 32.2 dB	13.7 dB
5,4	DH	Pass	55.6 dB @ 16.45MHz	45.1 dB	> 42.0 dB	13.6 dB
1,2	DH	Pass	46.5 dB @ 69.75MHz	45.5 dB	> 31.9 dB	14.6 dB
7,8	RH	Pass	52.8 dB @ 27.70MHz	44.5 dB	> 38.4 dB	14.4 dB
3,6	RH	Pass	52.9 dB @ 28.00MHz	45.5 dB	> 38.3 dB	14.6 dB
5,4	RH	Pass	56.7 dB @ 16.30MHz	46.9 dB	> 42.1 dB	14.6 dB
1,2	RH	Pass	46.7 dB @ 69.75MHz	46.6 dB	> 31.9 dB	14.8 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	41.0 dB @ 100.00MHz	N/A	>= 8.3 dB	32.7 dB
3,6	DH	Pass	39.9 dB @ 93.25MHz	N/A	>= 9.6 dB	30.3 dB
5,4	DH	Pass	40.5 dB @ 92.00MHz	N/A	>= 9.9 dB	30.6 dB
1,2	DH	Pass	40.7 dB @ 93.50MHz	N/A	>= 9.6 dB	31.1 dB
7,8	RH	Pass	39.6 dB @ 100.00MHz	N/A	>= 8.3 dB	31.3 dB
3,6	RH	Pass	40.8 dB @ 100.00MHz	N/A	>= 8.3 dB	32.5 dB
5,4	RH	Pass	42.8 dB @ 70.25MHz	N/A	>= 14.5 dB	28.3 dB
1,2	RH	Pass	42.4 dB @ 70.00MHz	N/A	>= 14.5 dB	27.9 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	49.6 dB @ 20.05MHz	36.9 dB	>= 29.6 dB	20.0 dB
3,6	DH	Pass	40.8 dB @ 99.50MHz	40.7 dB	>= 15.7 dB	25.1 dB
5,4	DH	Pass	47.8 dB @ 27.55MHz	37.8 dB	>= 26.8 dB	21.0 dB
1,2	DH	Pass	44.8 dB @ 62.75MHz	41.1 dB	>= 19.7 dB	25.1 dB
7,8	RH	Pass	51.9 dB @ 15.40MHz	36.5 dB	>= 31.9 dB	20.0 dB
3,6	RH	Pass	44.6 dB @ 94.50MHz	44.2 dB	>= 16.1 dB	28.5 dB
5,4	RH	Pass	40.8 dB @ 61.25MHz	37.8 dB	>= 19.9 dB	20.9 dB
1,2	RH	Pass	39.7 dB @ 97.75MHz	39.7 dB	>= 15.8 dB	23.9 dB

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

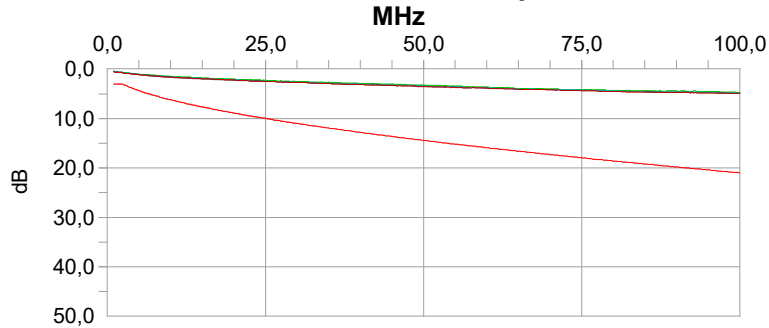
Cable ID 1: 8/15
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:27:18
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

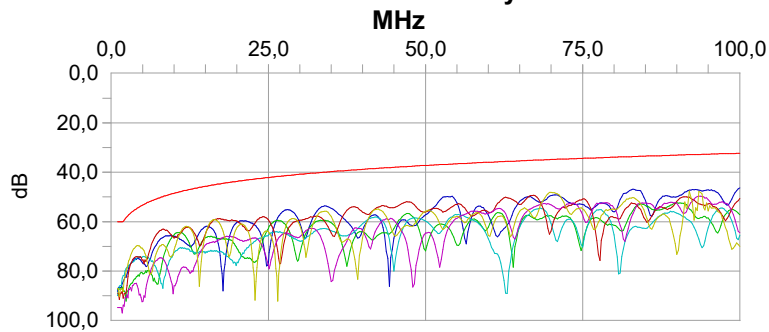
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

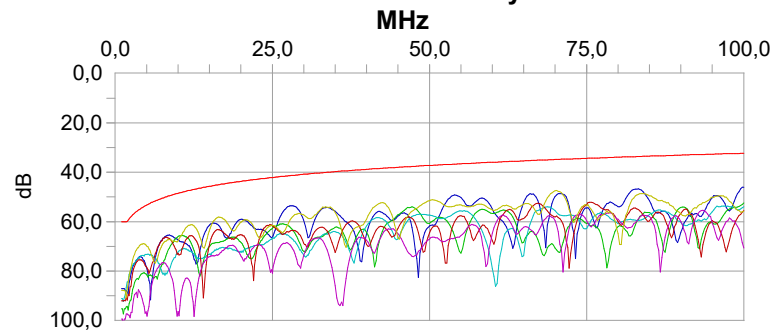
Attenuation Summary



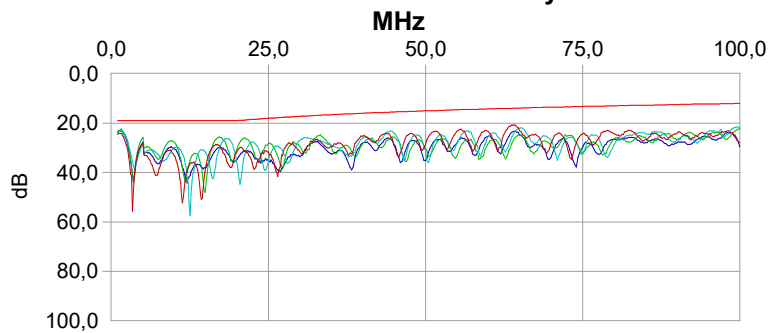
NEXT DH Summary



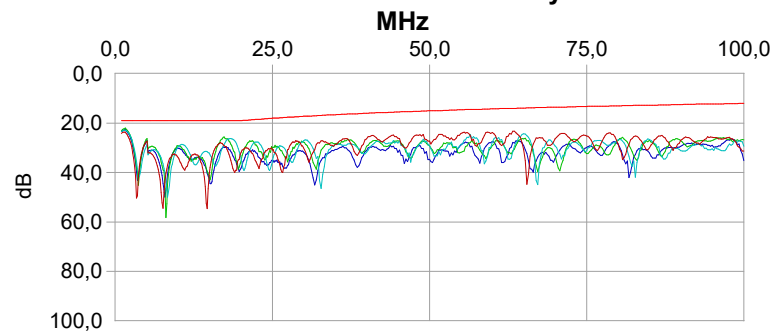
NEXT RH Summary



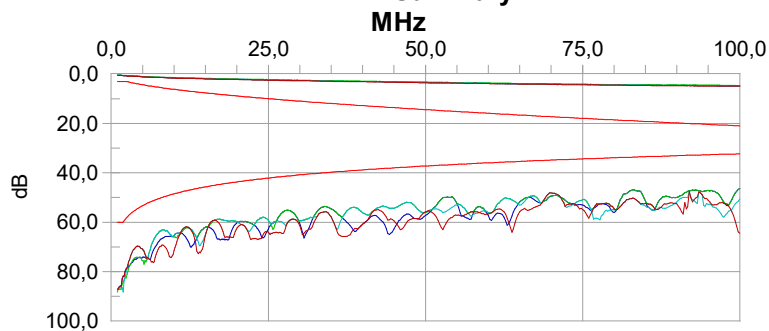
Return Loss DH Summary



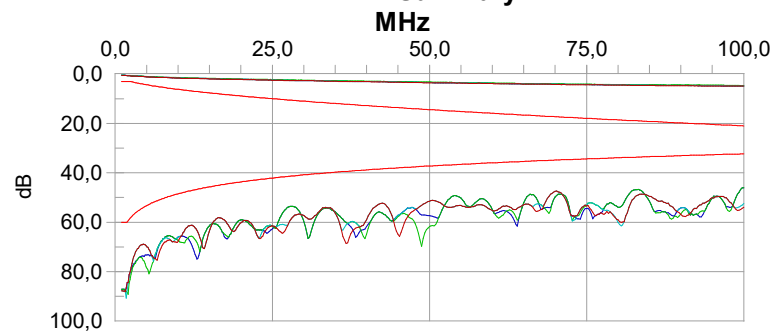
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

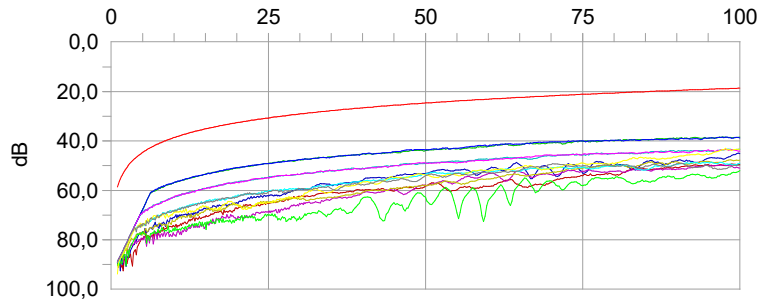
Cable ID 1: 8/15
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:27:18
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

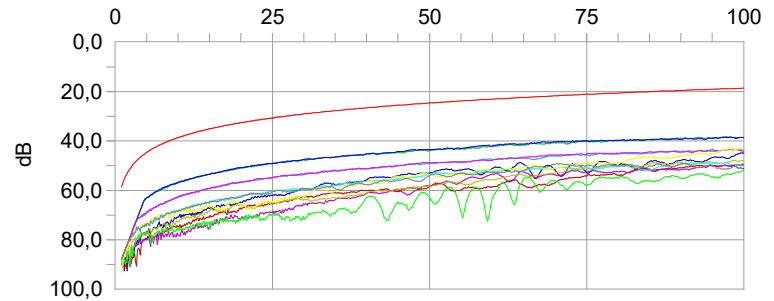
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

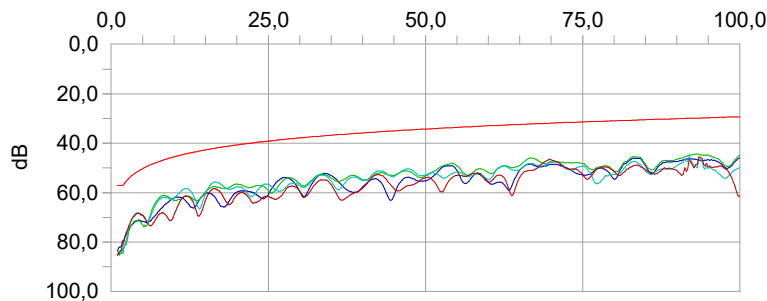
ELFEXT DH Summary
MHz



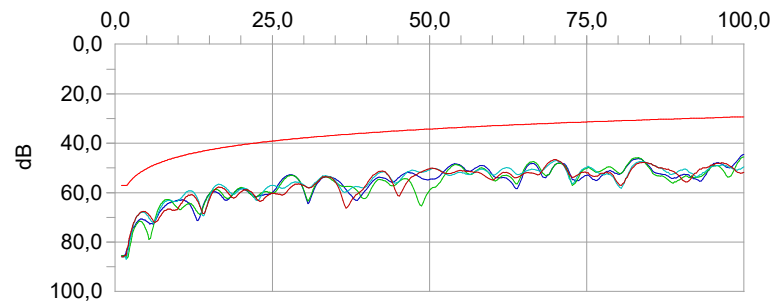
ELFEXT RH Summary
MHz



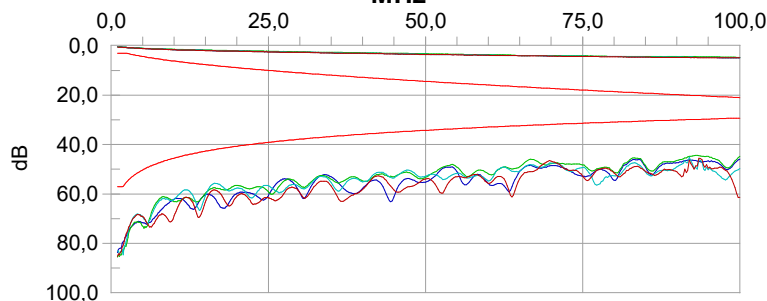
Power Sum NEXT DH Summary
MHz



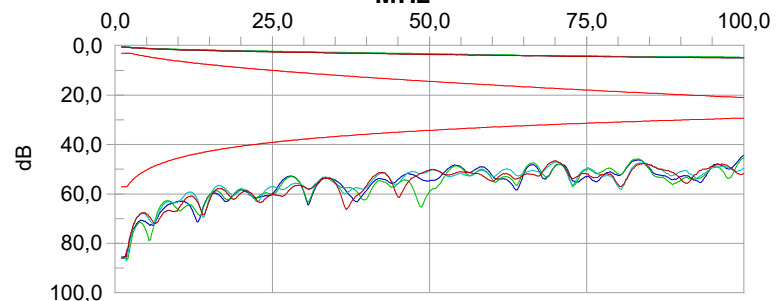
Power Sum NEXT RH Summary
MHz



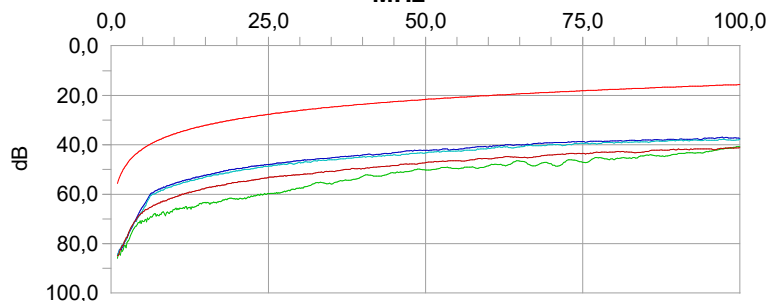
Power Sum ACR DH Summary
MHz



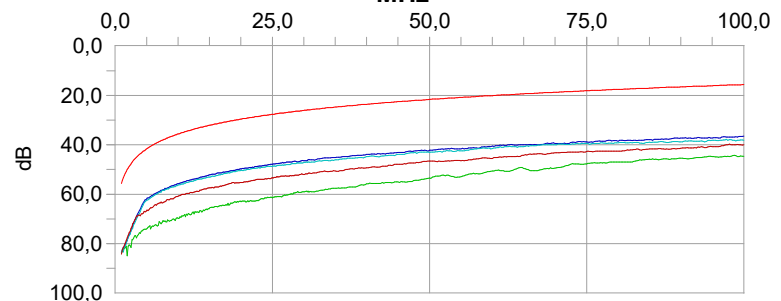
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

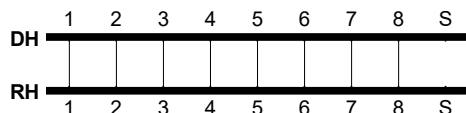
Cable ID 1: 8/16
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:28:31
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	127.0ft.	124.7ft.	125.7ft.	128.6ft.	< 295.3ft.	Pass
Prop. Delay	201.4ns	198.1ns	199.4ns	201.8ns	< 498.0ns	Pass
Delay Skew	3.7ns (Pairs 1,2 vs. 3,6)				< 44.0 ns	Pass
Headroom	24.2 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	46.8 dB @ 64.25MHz	46.0 dB	> 35.5 dB	11.3 dB
7,8-5,4	DH	Pass	56.8 dB @ 18.55MHz	48.6 dB	> 44.2 dB	12.6 dB
7,8-1,2	DH	Pass	49.6 dB @ 62.75MHz	48.9 dB	> 35.6 dB	14.0 dB
3,6-5,4	DH	Pass	58.9 dB @ 7.60MHz	45.7 dB	> 50.4 dB	8.5 dB
3,6-1,2	DH	Pass	47.1 dB @ 97.75MHz	47.0 dB	> 32.5 dB	14.6 dB
5,4-1,2	DH	Pass	67.3 dB @ 3.25MHz	49.5 dB	> 56.2 dB	11.1 dB
7,8-3,6	RH	Pass	44.9 dB @ 64.75MHz	43.8 dB	> 35.4 dB	9.5 dB
7,8-5,4	RH	Pass	56.0 dB @ 18.85MHz	51.2 dB	> 44.1 dB	11.9 dB
7,8-1,2	RH	Pass	48.4 dB @ 63.00MHz	48.4 dB	> 35.6 dB	12.8 dB
3,6-5,4	RH	Pass	61.1 dB @ 7.45MHz	46.0 dB	> 50.5 dB	10.6 dB
3,6-1,2	RH	Pass	54.3 dB @ 49.50MHz	51.3 dB	> 37.3 dB	17.0 dB
5,4-1,2	RH	Pass	66.4 dB @ 3.25MHz	45.0 dB	> 56.2 dB	10.2 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.4 dB @ 1.30MHz	22.0 dB	> 19.0 dB	3.4 dB
3,6	DH	Pass	21.8 dB @ 1.00MHz	21.8 dB	> 19.0 dB	2.8 dB
5,4	DH	Pass	21.9 dB @ 1.00MHz	20.7 dB	> 19.0 dB	2.9 dB
1,2	DH	Pass	24.2 dB @ 1.30MHz	21.1 dB	> 19.0 dB	5.2 dB
7,8	RH	Pass	22.1 dB @ 1.00MHz	21.9 dB	> 19.0 dB	3.1 dB
3,6	RH	Pass	21.5 dB @ 1.00MHz	21.5 dB	> 19.0 dB	2.5 dB
5,4	RH	Pass	21.6 dB @ 1.00MHz	19.4 dB	> 19.0 dB	2.6 dB
1,2	RH	Pass	23.7 dB @ 1.30MHz	19.7 dB	> 19.0 dB	4.7 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	7.2 dB	< 3.1 dB	2.1 dB
5,4	Pass	1.1 dB @ 2.50MHz	7.3 dB	< 3.1 dB	2.0 dB
1,2	Pass	1.1 dB @ 2.50MHz	7.4 dB	< 3.1 dB	2.0 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	39.3 dB @ 85.50MHz	N/A	>= 14.1 dB	25.2 dB
3,6	DH	Pass	38.9 dB @ 89.00MHz	N/A	>= 13.4 dB	25.5 dB
5,4	DH	Pass	38.8 dB @ 89.00MHz	N/A	>= 13.4 dB	25.4 dB
1,2	DH	Pass	39.7 dB @ 98.25MHz	N/A	>= 11.6 dB	28.1 dB
7,8	RH	Pass	37.0 dB @ 86.50MHz	N/A	>= 13.9 dB	23.1 dB
3,6	RH	Pass	37.0 dB @ 84.75MHz	N/A	>= 14.3 dB	22.7 dB
5,4	RH	Pass	38.3 dB @ 80.75MHz	N/A	>= 15.1 dB	23.2 dB
1,2	RH	Pass	38.3 dB @ 80.75MHz	N/A	>= 15.1 dB	23.2 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 8/16
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:28:31
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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 @ 87.00MHz	41.8 dB	> 19.8 dB	22.0 dB
7,8-5,4	DH	Pass	54.6 dB @ 8.35MHz	35.8 dB	> 40.2 dB	14.4 dB
7,8-1,2	DH	Pass	51.4 dB @ 68.00MHz	51.4 dB	> 22.0 dB	29.4 dB
3,6-7,8	DH	Pass	46.4 dB @ 90.75MHz	46.4 dB	> 19.5 dB	26.9 dB
3,6-5,4	DH	Pass	39.5 dB @ 95.75MHz	39.4 dB	> 19.0 dB	20.5 dB
3,6-1,2	DH	Pass	46.4 dB @ 80.75MHz	45.4 dB	> 20.5 dB	25.9 dB
5,4-7,8	DH	Pass	54.9 dB @ 7.90MHz	36.0 dB	> 40.7 dB	14.2 dB
5,4-3,6	DH	Pass	39.6 dB @ 59.50MHz	36.4 dB	> 23.1 dB	16.5 dB
5,4-1,2	DH	Pass	59.5 dB @ 12.55MHz	47.9 dB	> 36.6 dB	22.9 dB
1,2-7,8	DH	Pass	52.0 dB @ 66.25MHz	49.8 dB	> 22.2 dB	29.8 dB
1,2-3,6	DH	Pass	43.0 dB @ 81.50MHz	41.6 dB	> 20.4 dB	22.6 dB
1,2-5,4	DH	Pass	54.4 dB @ 24.10MHz	44.5 dB	> 31.0 dB	23.4 dB
7,8-3,6	RH	Pass	41.9 dB @ 87.00MHz	41.9 dB	> 19.8 dB	22.1 dB
7,8-5,4	RH	Pass	55.3 dB @ 7.75MHz	35.9 dB	> 40.8 dB	14.5 dB
7,8-1,2	RH	Pass	51.5 dB @ 68.00MHz	51.5 dB	> 22.0 dB	29.5 dB
3,6-7,8	RH	Pass	46.5 dB @ 90.75MHz	46.5 dB	> 19.5 dB	27.0 dB
3,6-5,4	RH	Pass	39.6 dB @ 95.75MHz	39.5 dB	> 19.0 dB	20.6 dB
3,6-1,2	RH	Pass	46.6 dB @ 80.75MHz	45.6 dB	> 20.5 dB	26.1 dB
5,4-7,8	RH	Pass	55.4 dB @ 7.45MHz	35.7 dB	> 41.2 dB	14.2 dB
5,4-3,6	RH	Pass	39.0 dB @ 63.25MHz	36.3 dB	> 22.6 dB	16.4 dB
5,4-1,2	RH	Pass	59.6 dB @ 12.55MHz	47.9 dB	> 36.6 dB	23.0 dB
1,2-7,8	RH	Pass	51.9 dB @ 66.25MHz	49.7 dB	> 22.2 dB	29.7 dB
1,2-3,6	RH	Pass	43.0 dB @ 81.50MHz	41.3 dB	> 20.4 dB	22.6 dB
1,2-5,4	RH	Pass	54.3 dB @ 24.10MHz	44.5 dB	> 31.0 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	51.8 dB @ 26.20MHz	43.5 dB	> 38.8 dB	13.0 dB
3,6	DH	Pass	57.4 dB @ 7.75MHz	43.0 dB	> 47.3 dB	10.1 dB
5,4	DH	Pass	58.5 dB @ 7.30MHz	45.1 dB	> 47.7 dB	10.8 dB
1,2	DH	Pass	66.7 dB @ 3.25MHz	45.5 dB	> 53.2 dB	13.5 dB
7,8	RH	Pass	43.4 dB @ 64.25MHz	43.2 dB	> 32.5 dB	10.9 dB
3,6	RH	Pass	55.7 dB @ 10.60MHz	42.3 dB	> 45.1 dB	10.6 dB
5,4	RH	Pass	52.0 dB @ 18.40MHz	42.8 dB	> 41.3 dB	10.7 dB
1,2	RH	Pass	54.0 dB @ 18.10MHz	43.4 dB	> 41.4 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	36.8 dB @ 85.25MHz	N/A	>= 11.2 dB	25.6 dB
3,6	DH	Pass	35.9 dB @ 99.00MHz	N/A	>= 8.5 dB	27.4 dB
5,4	DH	Pass	38.4 dB @ 89.00MHz	N/A	>= 10.4 dB	28.0 dB
1,2	DH	Pass	38.2 dB @ 98.50MHz	N/A	>= 8.6 dB	29.6 dB
7,8	RH	Pass	36.4 dB @ 86.50MHz	N/A	>= 10.9 dB	25.5 dB
3,6	RH	Pass	35.4 dB @ 91.50MHz	N/A	>= 9.9 dB	25.5 dB
5,4	RH	Pass	36.1 dB @ 80.75MHz	N/A	>= 12.1 dB	24.0 dB
1,2	RH	Pass	36.7 dB @ 81.25MHz	N/A	>= 12.1 dB	24.6 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	43.3 dB @ 31.00MHz	35.5 dB	>= 25.8 dB	17.5 dB
3,6	DH	Pass	35.7 dB @ 78.75MHz	34.8 dB	>= 17.7 dB	18.0 dB
5,4	DH	Pass	53.5 dB @ 8.35MHz	34.2 dB	>= 37.2 dB	16.3 dB
1,2	DH	Pass	55.2 dB @ 19.30MHz	43.7 dB	>= 29.9 dB	25.3 dB
7,8	RH	Pass	47.7 dB @ 18.70MHz	34.9 dB	>= 30.2 dB	17.5 dB
3,6	RH	Pass	38.8 dB @ 88.75MHz	38.1 dB	>= 16.7 dB	22.1 dB
5,4	RH	Pass	52.4 dB @ 8.35MHz	33.1 dB	>= 37.2 dB	15.2 dB
1,2	RH	Pass	40.6 dB @ 80.75MHz	39.6 dB	>= 17.5 dB	23.1 dB

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

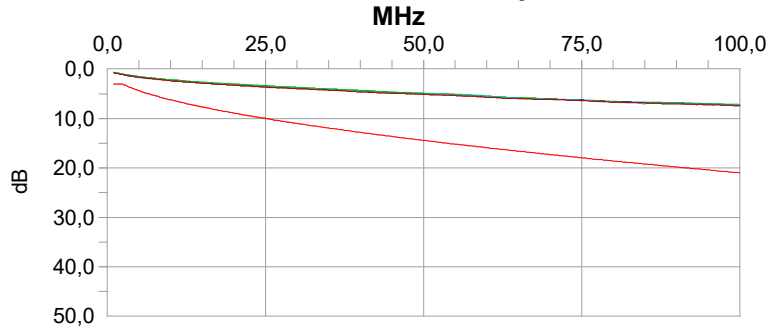
Cable ID 1: 8/16
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:28:31
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

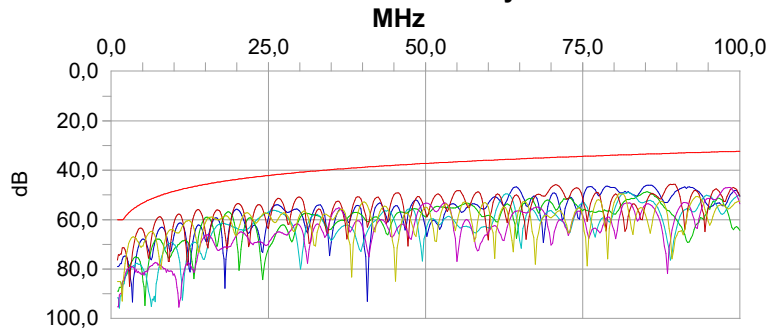
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

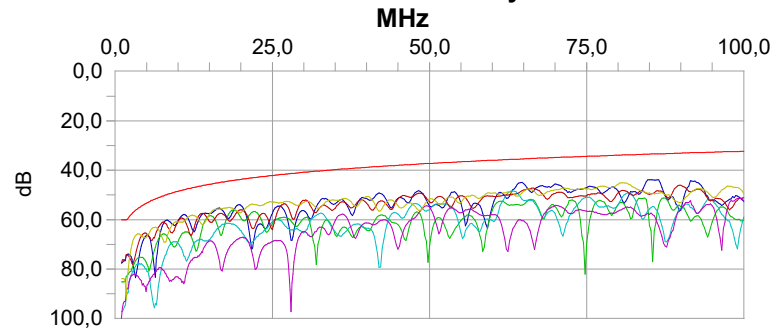
Attenuation Summary



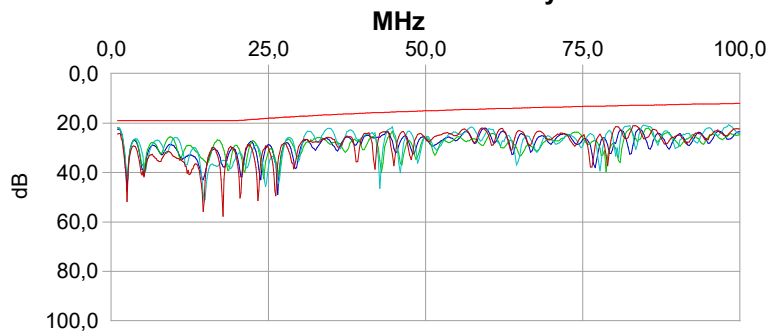
NEXT DH Summary



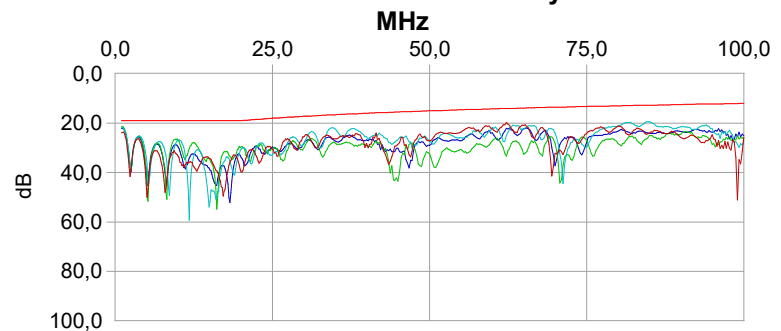
NEXT RH Summary



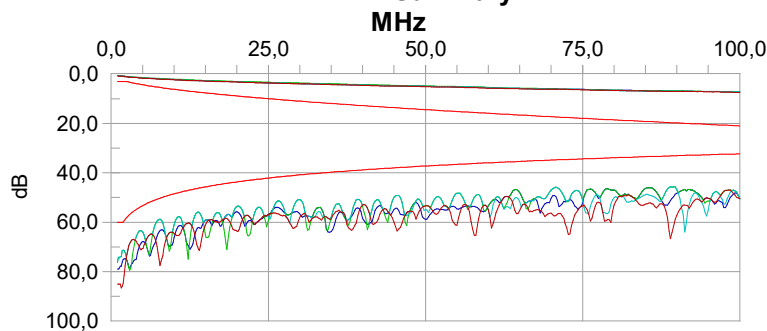
Return Loss DH Summary



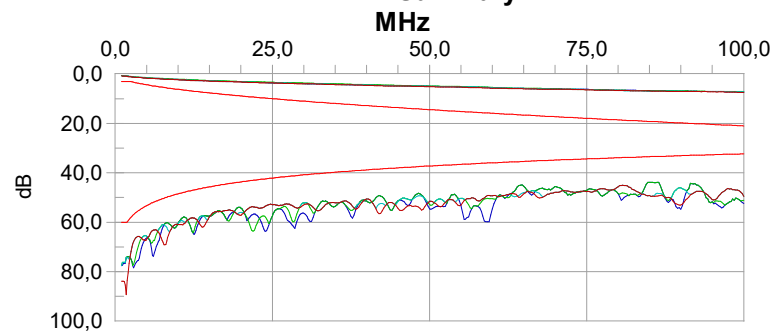
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

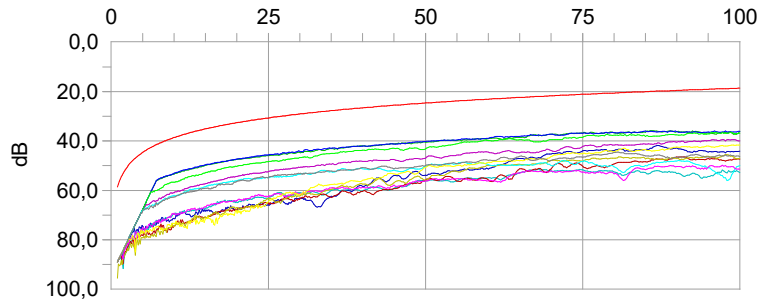
Cable ID 1: 8/16
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:28:31
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

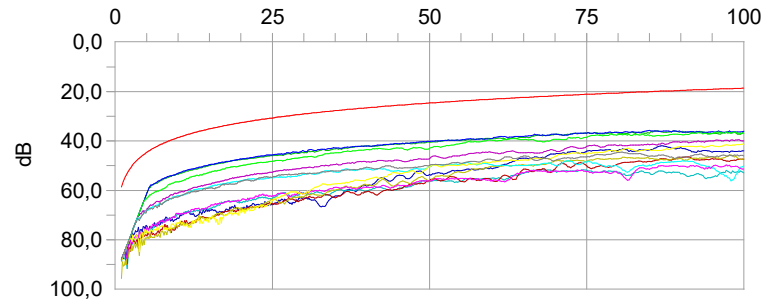
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

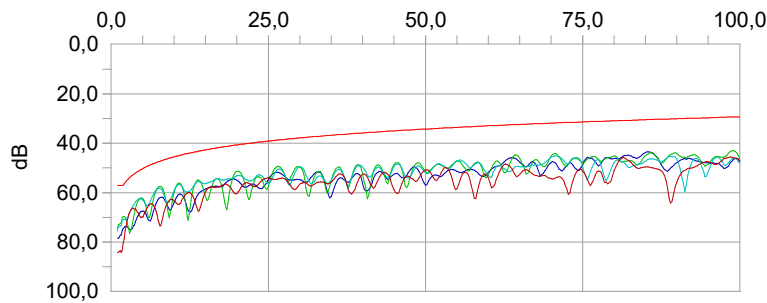
ELFEXT DH Summary
MHz



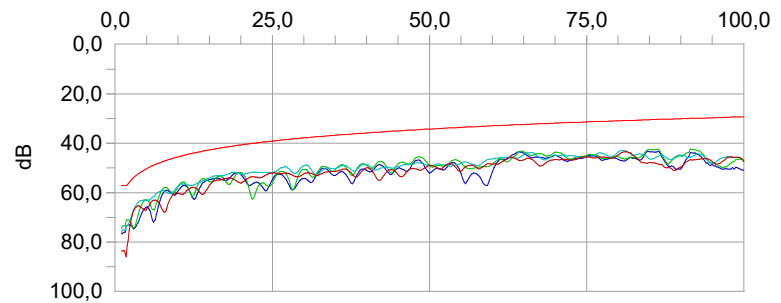
ELFEXT RH Summary
MHz



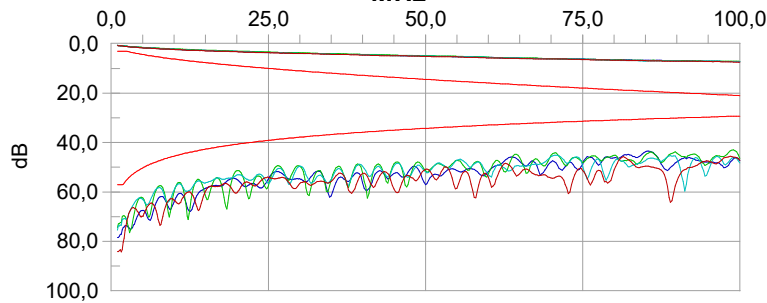
Power Sum NEXT DH Summary
MHz



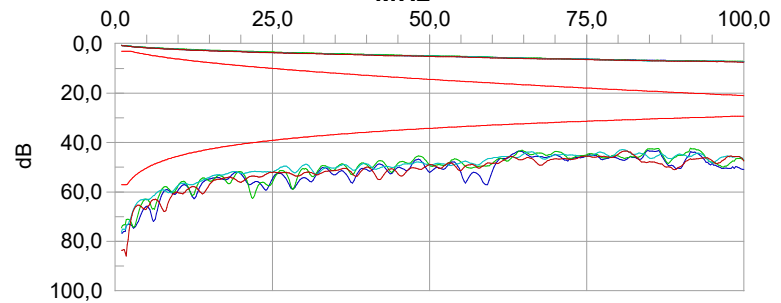
Power Sum NEXT RH Summary
MHz



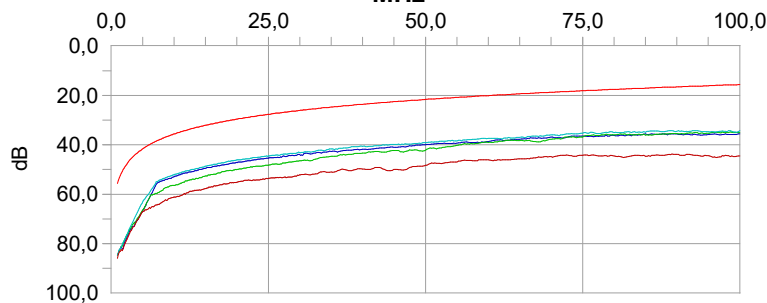
Power Sum ACR DH Summary
MHz



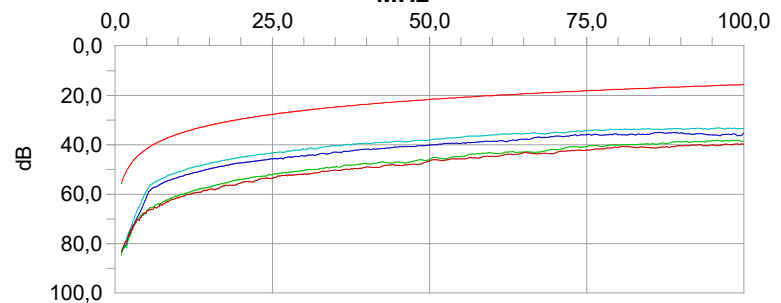
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

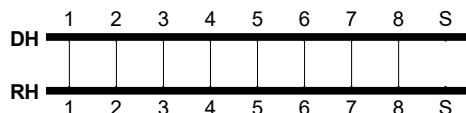
Cable ID 1: 8/17
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:29:24
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	96.8ft.	94.8ft.	95.1ft.	98.1ft.	< 295.3ft.	Pass
Prop. Delay	157.7ns	155.2ns	155.7ns	157.7ns	< 498.0ns	Pass
Delay Skew	2.5ns (Pairs 1,2 vs. 3,6)				< 44.0 ns	Pass
Headroom	27.5 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	47.6 dB @ 59.00MHz	47.0 dB	> 36.1 dB	11.5 dB
7,8-5,4	DH	Pass	53.1 dB @ 62.00MHz	53.0 dB	> 35.7 dB	17.4 dB
7,8-1,2	DH	Pass	56.6 dB @ 24.85MHz	52.5 dB	> 42.2 dB	14.4 dB
3,6-5,4	DH	Pass	55.3 dB @ 24.40MHz	49.4 dB	> 42.3 dB	13.0 dB
3,6-1,2	DH	Pass	50.2 dB @ 65.75MHz	50.2 dB	> 35.3 dB	14.9 dB
5,4-1,2	DH	Pass	49.1 dB @ 65.50MHz	49.1 dB	> 35.3 dB	13.8 dB
7,8-3,6	RH	Pass	46.6 dB @ 59.00MHz	46.2 dB	> 36.1 dB	10.5 dB
7,8-5,4	RH	Pass	57.5 dB @ 39.00MHz	54.5 dB	> 39.0 dB	18.5 dB
7,8-1,2	RH	Pass	56.4 dB @ 25.00MHz	51.9 dB	> 42.1 dB	14.3 dB
3,6-5,4	RH	Pass	59.6 dB @ 24.70MHz	53.9 dB	> 42.2 dB	17.4 dB
3,6-1,2	RH	Pass	55.8 dB @ 52.75MHz	51.9 dB	> 36.9 dB	18.9 dB
5,4-1,2	RH	Pass	50.2 dB @ 65.00MHz	50.2 dB	> 35.4 dB	14.8 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.5 dB @ 1.30MHz	22.5 dB	> 19.0 dB	3.5 dB
3,6	DH	Pass	22.1 dB @ 1.30MHz	22.1 dB	> 19.0 dB	3.1 dB
5,4	DH	Pass	22.0 dB @ 1.60MHz	21.8 dB	> 19.0 dB	3.0 dB
1,2	DH	Pass	23.6 dB @ 1.15MHz	21.3 dB	> 19.0 dB	4.6 dB
7,8	RH	Pass	22.2 dB @ 1.60MHz	22.2 dB	> 19.0 dB	3.2 dB
3,6	RH	Pass	21.8 dB @ 1.60MHz	21.8 dB	> 19.0 dB	2.8 dB
5,4	RH	Pass	22.1 dB @ 1.30MHz	22.1 dB	> 19.0 dB	3.1 dB
1,2	RH	Pass	23.3 dB @ 1.15MHz	22.9 dB	> 19.0 dB	4.3 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.8 dB @ 2.50MHz	5.5 dB	< 3.1 dB	2.3 dB
3,6	Pass	0.7 dB @ 2.50MHz	5.3 dB	< 3.1 dB	2.4 dB
5,4	Pass	0.9 dB @ 2.50MHz	5.4 dB	< 3.1 dB	2.2 dB
1,2	Pass	0.9 dB @ 2.50MHz	5.6 dB	< 3.1 dB	2.2 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	42.0 dB @ 81.25MHz	N/A	>= 15.1 dB	26.9 dB
3,6	DH	Pass	42.1 dB @ 81.00MHz	N/A	>= 15.1 dB	27.0 dB
5,4	DH	Pass	44.0 dB @ 99.50MHz	N/A	>= 11.4 dB	32.6 dB
1,2	DH	Pass	44.5 dB @ 65.50MHz	N/A	>= 18.6 dB	25.9 dB
7,8	RH	Pass	40.8 dB @ 98.50MHz	N/A	>= 11.6 dB	29.2 dB
3,6	RH	Pass	40.9 dB @ 98.50MHz	N/A	>= 11.6 dB	29.3 dB
5,4	RH	Pass	45.7 dB @ 65.00MHz	N/A	>= 18.8 dB	26.9 dB
1,2	RH	Pass	45.7 dB @ 65.00MHz	N/A	>= 18.8 dB	26.9 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 8/17
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:29:24
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator:DAMIAN WAGROWSKI
Contractor: FRACHT
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	48.7 dB @ 46.50MHz	44.2 dB	> 25.3 dB	23.4 dB
7,8-5,4	DH	Pass	56.9 dB @ 7.45MHz	36.3 dB	> 41.2 dB	15.7 dB
7,8-1,2	DH	Pass	45.8 dB @ 86.75MHz	45.2 dB	> 19.8 dB	26.0 dB
3,6-7,8	DH	Pass	47.1 dB @ 94.75MHz	46.6 dB	> 19.1 dB	28.0 dB
3,6-5,4	DH	Pass	47.2 dB @ 65.00MHz	43.8 dB	> 22.4 dB	24.8 dB
3,6-1,2	DH	Pass	45.4 dB @ 82.75MHz	44.1 dB	> 20.3 dB	25.1 dB
5,4-7,8	DH	Pass	56.8 dB @ 7.45MHz	36.8 dB	> 41.2 dB	15.6 dB
5,4-3,6	DH	Pass	40.1 dB @ 89.25MHz	39.4 dB	> 19.6 dB	20.5 dB
5,4-1,2	DH	Pass	48.1 dB @ 65.75MHz	46.4 dB	> 22.3 dB	25.8 dB
1,2-7,8	DH	Pass	58.6 dB @ 19.90MHz	46.1 dB	> 32.6 dB	26.0 dB
1,2-3,6	DH	Pass	43.8 dB @ 80.50MHz	42.7 dB	> 20.5 dB	22.3 dB
1,2-5,4	DH	Pass	63.6 dB @ 11.65MHz	46.1 dB	> 37.3 dB	26.3 dB
7,8-3,6	RH	Pass	48.6 dB @ 46.00MHz	44.1 dB	> 25.4 dB	23.2 dB
7,8-5,4	RH	Pass	58.2 dB @ 6.40MHz	36.3 dB	> 42.5 dB	15.7 dB
7,8-1,2	RH	Pass	46.0 dB @ 86.75MHz	45.3 dB	> 19.8 dB	26.2 dB
3,6-7,8	RH	Pass	46.7 dB @ 99.75MHz	46.7 dB	> 18.6 dB	28.1 dB
3,6-5,4	RH	Pass	47.3 dB @ 65.00MHz	43.9 dB	> 22.4 dB	24.9 dB
3,6-1,2	RH	Pass	45.7 dB @ 82.75MHz	44.4 dB	> 20.3 dB	25.4 dB
5,4-7,8	RH	Pass	58.4 dB @ 6.10MHz	36.8 dB	> 42.9 dB	15.5 dB
5,4-3,6	RH	Pass	40.0 dB @ 89.25MHz	39.2 dB	> 19.6 dB	20.4 dB
5,4-1,2	RH	Pass	48.2 dB @ 65.75MHz	46.6 dB	> 22.3 dB	25.9 dB
1,2-7,8	RH	Pass	58.5 dB @ 19.90MHz	46.0 dB	> 32.6 dB	25.9 dB
1,2-3,6	RH	Pass	43.6 dB @ 80.50MHz	42.4 dB	> 20.5 dB	23.1 dB
1,2-5,4	RH	Pass	63.5 dB @ 11.65MHz	46.0 dB	> 37.3 dB	26.2 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	47.0 dB @ 59.00MHz	46.7 dB	> 33.1 dB	13.9 dB
3,6	DH	Pass	47.0 dB @ 52.00MHz	45.6 dB	> 34.0 dB	13.0 dB
5,4	DH	Pass	50.7 dB @ 40.75MHz	47.3 dB	> 35.7 dB	15.0 dB
1,2	DH	Pass	46.6 dB @ 65.50MHz	46.6 dB	> 32.3 dB	14.3 dB
7,8	RH	Pass	45.6 dB @ 59.00MHz	45.6 dB	> 33.1 dB	12.5 dB
3,6	RH	Pass	46.8 dB @ 51.50MHz	45.6 dB	> 34.0 dB	12.8 dB
5,4	RH	Pass	49.1 dB @ 65.00MHz	49.1 dB	> 32.4 dB	16.7 dB
1,2	RH	Pass	55.7 dB @ 25.45MHz	48.8 dB	> 39.0 dB	16.7 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 @ 81.25MHz	N/A	>= 12.1 dB	29.6 dB
3,6	DH	Pass	40.7 dB @ 81.00MHz	N/A	>= 12.1 dB	28.6 dB
5,4	DH	Pass	42.4 dB @ 79.00MHz	N/A	>= 12.6 dB	29.8 dB
1,2	DH	Pass	42.0 dB @ 65.50MHz	N/A	>= 15.6 dB	26.4 dB
7,8	RH	Pass	40.4 dB @ 98.50MHz	N/A	>= 8.6 dB	31.8 dB
3,6	RH	Pass	40.4 dB @ 98.50MHz	N/A	>= 8.6 dB	31.8 dB
5,4	RH	Pass	44.4 dB @ 79.25MHz	N/A	>= 12.5 dB	31.9 dB
1,2	RH	Pass	43.6 dB @ 84.75MHz	N/A	>= 11.3 dB	32.3 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	51.4 dB @ 13.15MHz	35.9 dB	>= 33.2 dB	18.2 dB
3,6	DH	Pass	37.7 dB @ 89.25MHz	36.9 dB	>= 16.6 dB	21.1 dB
5,4	DH	Pass	50.8 dB @ 14.05MHz	35.3 dB	>= 32.7 dB	18.1 dB
1,2	DH	Pass	41.7 dB @ 82.50MHz	40.6 dB	>= 17.3 dB	24.4 dB
7,8	RH	Pass	56.2 dB @ 7.45MHz	35.3 dB	>= 38.2 dB	18.0 dB
3,6	RH	Pass	41.7 dB @ 82.75MHz	40.3 dB	>= 17.3 dB	24.4 dB
5,4	RH	Pass	49.4 dB @ 15.40MHz	34.5 dB	>= 31.9 dB	17.5 dB
1,2	RH	Pass	41.1 dB @ 79.75MHz	39.8 dB	>= 17.6 dB	23.5 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

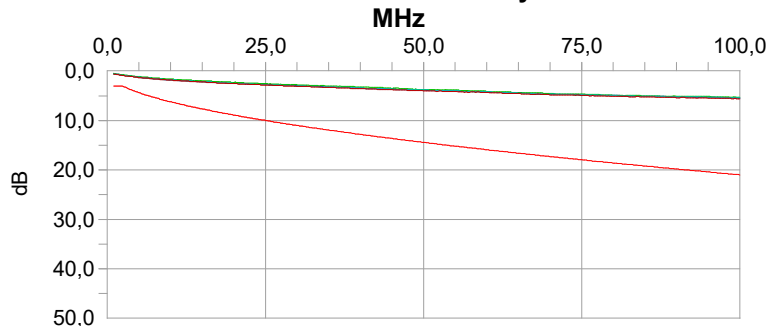
Cable ID 1: 8/17
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:29:24
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

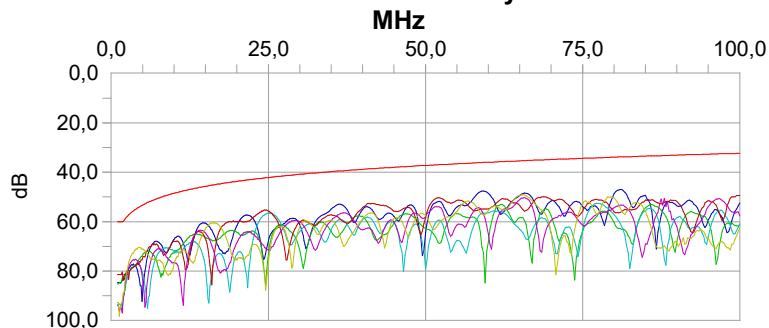
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

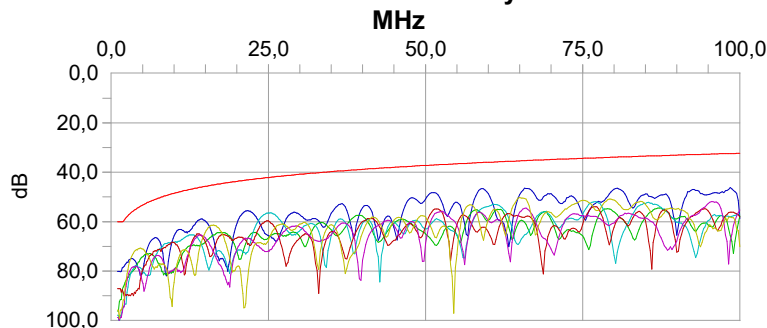
Attenuation Summary



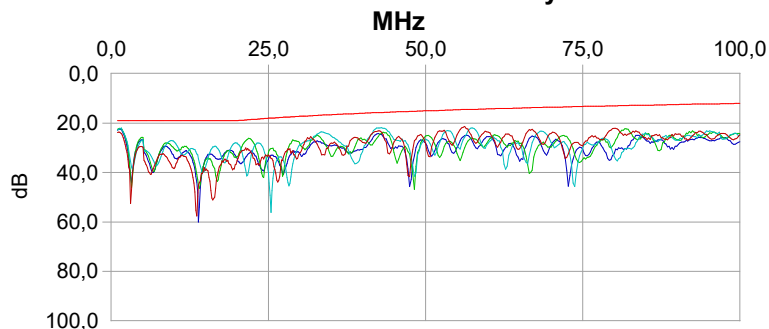
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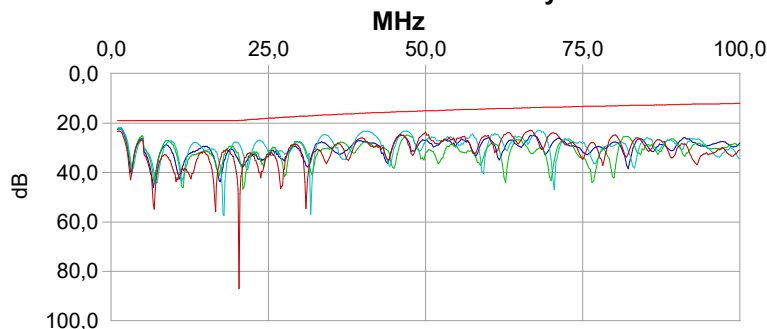
NEXT RH Summary



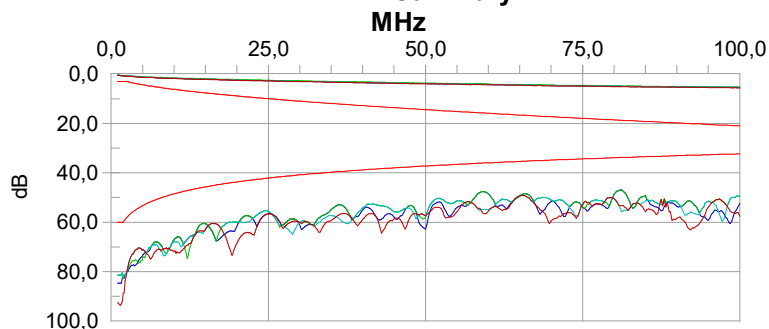
Return Loss DH Summary



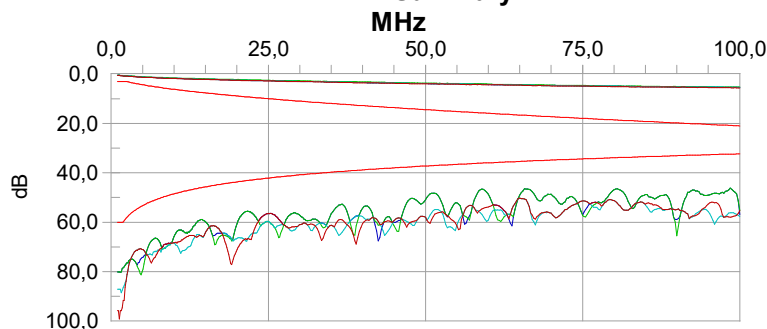
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

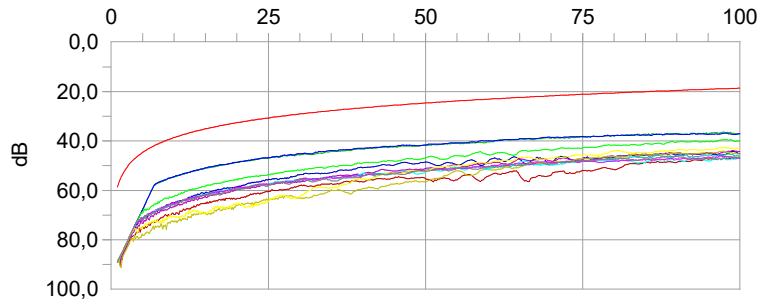
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Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:29:24
Adapter ID: 6014

Cable Type: Cat 5E UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

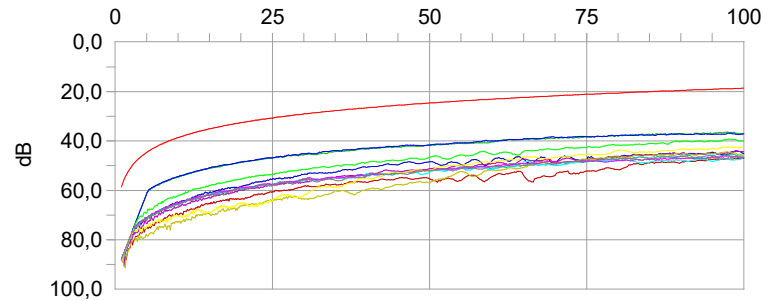
Test Standard: TIA 568-C.2
Frequency Range: 1-100 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

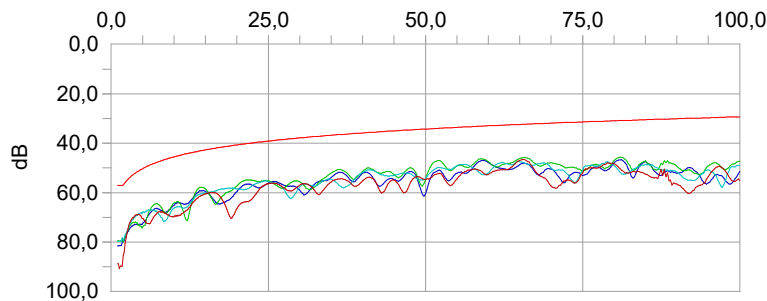
ELFEXT DH Summary
MHz



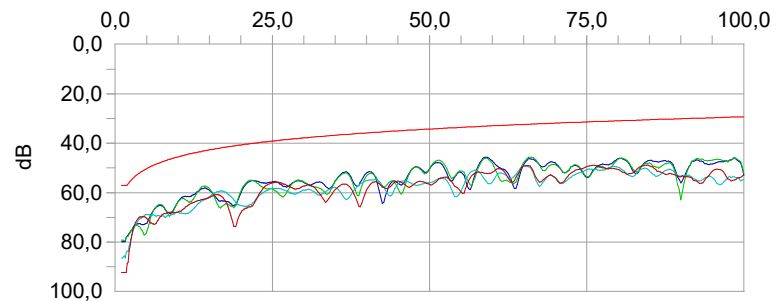
ELFEXT RH Summary
MHz



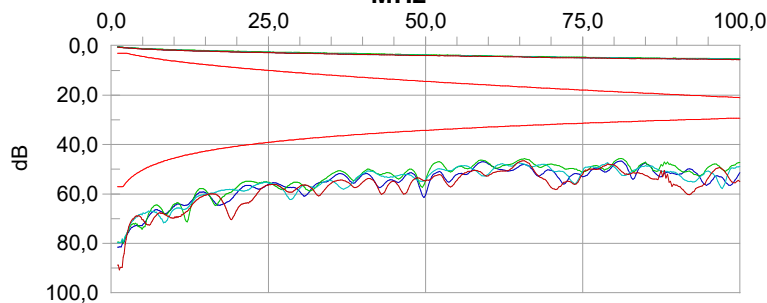
Power Sum NEXT DH Summary
MHz



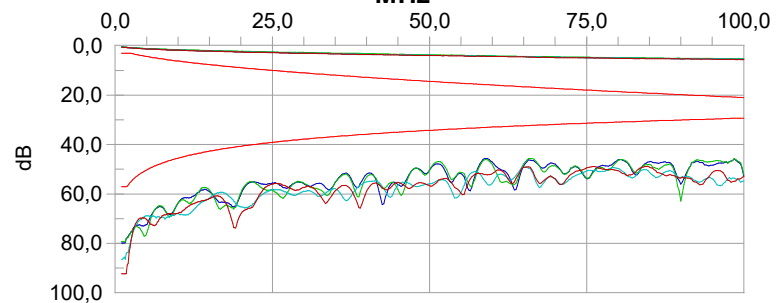
Power Sum NEXT RH Summary
MHz



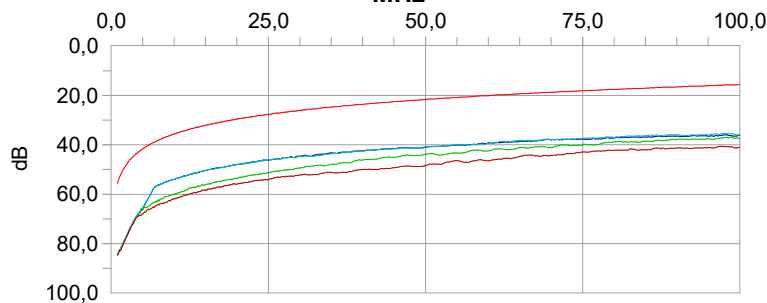
Power Sum ACR DH Summary
MHz



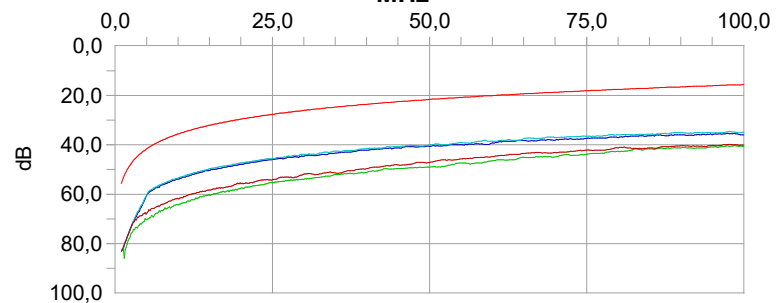
Power Sum ACR RH Summary
MHz



Power Sum ELFEXT DH Summary
MHz



Power Sum ELFEXT RH Summary
MHz



IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

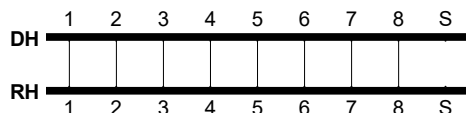
Cable ID 1: 8/24
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:37:01
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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	56.4ft.	56.1ft.	56.1ft.	58.1ft.	< 295.3ft.	Pass
Prop. Delay	99.7ns	99.3ns	99.1ns	100.1ns	< 498.0ns	Pass
Delay Skew	1.0ns (Pairs 1,2 vs. 5,4)				< 44.0 ns	Pass
DC Resistance	5.6 Ohm	5.8 Ohm	5.8 Ohm	6.2 Ohm	< 20.0 Ohm	Pass
Headroom	8.7 dB					Pass

NEXT: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8-3,6	DH	Pass	43.1 dB @ 216.00MHz	42.9 dB	> 36.4 dB	6.7 dB
7,8-5,4	DH	Pass	46.9 dB @ 215.50MHz	46.9 dB	> 36.4 dB	10.5 dB
7,8-1,2	DH	Pass	57.7 dB @ 241.50MHz	57.7 dB	> 35.6 dB	22.1 dB
3,6-5,4	DH	Pass	42.6 dB @ 217.50MHz	42.6 dB	> 36.3 dB	6.3 dB
3,6-1,2	DH	Pass	42.0 dB @ 248.50MHz	42.0 dB	> 35.4 dB	6.6 dB
5,4-1,2	DH	Pass	47.3 dB @ 215.00MHz	47.3 dB	> 36.4 dB	10.9 dB
7,8-3,6	RH	Pass	49.4 dB @ 92.25MHz	45.3 dB	> 42.4 dB	7.0 dB
7,8-5,4	RH	Pass	56.6 dB @ 97.50MHz	51.2 dB	> 42.0 dB	14.6 dB
7,8-1,2	RH	Pass	53.9 dB @ 237.50MHz	53.9 dB	> 35.7 dB	18.2 dB
3,6-5,4	RH	Pass	69.0 dB @ 11.35MHz	48.9 dB	> 57.0 dB	12.0 dB
3,6-1,2	RH	Pass	49.1 dB @ 249.00MHz	49.1 dB	> 35.4 dB	13.7 dB
5,4-1,2	RH	Pass	66.6 dB @ 13.45MHz	53.7 dB	> 55.8 dB	10.8 dB

Return Loss: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	22.6 dB @ 1.60MHz	20.7 dB	> 19.9 dB	2.7 dB
3,6	DH	Pass	23.1 dB @ 2.35MHz	22.2 dB	> 20.6 dB	2.5 dB
5,4	DH	Pass	23.1 dB @ 1.60MHz	19.9 dB	> 19.9 dB	3.2 dB
1,2	DH	Pass	22.5 dB @ 1.60MHz	22.1 dB	> 19.9 dB	2.6 dB
7,8	RH	Pass	22.8 dB @ 1.60MHz	20.8 dB	> 19.9 dB	2.9 dB
3,6	RH	Pass	23.1 dB @ 2.20MHz	22.7 dB	> 20.5 dB	2.6 dB
5,4	RH	Pass	24.6 dB @ 2.05MHz	21.4 dB	> 20.3 dB	4.3 dB
1,2	RH	Pass	23.3 dB @ 2.20MHz	21.1 dB	> 20.5 dB	2.8 dB

Attenuation: PASS

Pairs	Result	Worst Margin	Worst dB	Limit	Margin
7,8	Pass	0.6 dB @ 3.10MHz	5.1 dB	< 3.1 dB	2.5 dB
3,6	Pass	0.5 dB @ 3.10MHz	5.2 dB	< 3.1 dB	2.6 dB
5,4	Pass	0.6 dB @ 3.10MHz	5.1 dB	< 3.1 dB	2.5 dB
1,2	Pass	0.6 dB @ 3.10MHz	5.1 dB	< 3.1 dB	2.5 dB

ACR: PASS

Pairs	DH/RH	Result	Worst Margin	Worst dB	Limit	Margin
7,8	DH	Pass	38.2 dB @ 221.50MHz	N/A	>= 7.2 dB	31.0 dB
3,6	DH	Pass	36.9 dB @ 248.50MHz	N/A	>= 4.4 dB	32.5 dB
5,4	DH	Pass	37.9 dB @ 217.50MHz	N/A	>= 7.6 dB	30.3 dB
1,2	DH	Pass	36.9 dB @ 248.50MHz	N/A	>= 4.4 dB	32.5 dB
7,8	RH	Pass	40.3 dB @ 244.00MHz	N/A	>= 4.8 dB	35.5 dB
3,6	RH	Pass	40.2 dB @ 244.00MHz	N/A	>= 4.8 dB	35.4 dB
5,4	RH	Pass	43.8 dB @ 247.50MHz	N/A	>= 4.5 dB	39.3 dB
1,2	RH	Pass	44.0 dB @ 249.00MHz	N/A	>= 4.4 dB	39.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

Cable ID 1: 8/24
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:37:01
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
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 @ 40.25MHz	33.4 dB	> 32.1 dB	14.4 dB
7,8-5,4	DH	Pass	60.0 dB @ 6.85MHz	30.7 dB	> 47.5 dB	12.5 dB
7,8-1,2	DH	Pass	59.6 dB @ 46.00MHz	46.7 dB	> 30.9 dB	28.7 dB
3,6-7,8	DH	Pass	43.6 dB @ 92.50MHz	35.1 dB	> 24.9 dB	18.7 dB
3,6-5,4	DH	Pass	37.6 dB @ 170.50MHz	34.9 dB	> 19.6 dB	18.0 dB
3,6-1,2	DH	Pass	66.2 dB @ 24.85MHz	53.0 dB	> 36.3 dB	29.9 dB
5,4-7,8	DH	Pass	60.0 dB @ 6.85MHz	31.9 dB	> 47.5 dB	12.5 dB
5,4-3,6	DH	Pass	32.8 dB @ 188.50MHz	30.9 dB	> 18.7 dB	14.1 dB
5,4-1,2	DH	Pass	59.2 dB @ 11.35MHz	34.8 dB	> 43.1 dB	16.1 dB
1,2-7,8	DH	Pass	43.9 dB @ 241.50MHz	43.9 dB	> 16.5 dB	27.4 dB
1,2-3,6	DH	Pass	58.6 dB @ 32.75MHz	42.0 dB	> 33.9 dB	24.7 dB
1,2-5,4	DH	Pass	62.0 dB @ 8.35MHz	36.8 dB	> 45.8 dB	16.2 dB
7,8-3,6	RH	Pass	46.6 dB @ 39.50MHz	33.5 dB	> 32.3 dB	14.3 dB
7,8-5,4	RH	Pass	61.2 dB @ 5.95MHz	30.7 dB	> 48.7 dB	12.5 dB
7,8-1,2	RH	Pass	59.6 dB @ 46.00MHz	46.7 dB	> 30.9 dB	28.7 dB
3,6-7,8	RH	Pass	35.9 dB @ 226.50MHz	35.1 dB	> 17.1 dB	18.8 dB
3,6-5,4	RH	Pass	37.0 dB @ 182.50MHz	34.8 dB	> 19.0 dB	18.0 dB
3,6-1,2	RH	Pass	66.3 dB @ 24.85MHz	52.9 dB	> 36.3 dB	30.0 dB
5,4-7,8	RH	Pass	61.7 dB @ 5.50MHz	31.9 dB	> 49.4 dB	12.3 dB
5,4-3,6	RH	Pass	32.8 dB @ 188.50MHz	31.0 dB	> 18.7 dB	14.1 dB
5,4-1,2	RH	Pass	67.7 dB @ 4.15MHz	34.8 dB	> 51.8 dB	15.9 dB
1,2-7,8	RH	Pass	43.9 dB @ 241.50MHz	43.9 dB	> 16.5 dB	27.4 dB
1,2-3,6	RH	Pass	58.5 dB @ 32.75MHz	42.1 dB	> 33.9 dB	24.6 dB
1,2-5,4	RH	Pass	68.2 dB @ 4.00MHz	36.8 dB	> 52.1 dB	16.1 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	41.5 dB @ 216.00MHz	41.4 dB	> 33.4 dB	8.1 dB
3,6	DH	Pass	39.1 dB @ 216.50MHz	38.5 dB	> 33.4 dB	5.7 dB
5,4	DH	Pass	41.1 dB @ 216.50MHz	41.1 dB	> 33.4 dB	7.7 dB
1,2	DH	Pass	42.0 dB @ 215.00MHz	41.0 dB	> 33.4 dB	8.6 dB
7,8	RH	Pass	48.6 dB @ 92.25MHz	44.1 dB	> 39.4 dB	9.2 dB
3,6	RH	Pass	48.5 dB @ 97.50MHz	43.8 dB	> 39.0 dB	9.5 dB
5,4	RH	Pass	63.5 dB @ 19.15MHz	47.7 dB	> 50.4 dB	13.1 dB
1,2	RH	Pass	65.5 dB @ 13.60MHz	47.6 dB	> 52.7 dB	12.8 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	36.7 dB @ 221.50MHz	N/A	>= 4.2 dB	32.5 dB
3,6	DH	Pass	33.4 dB @ 243.00MHz	N/A	>= 1.9 dB	31.5 dB
5,4	DH	Pass	36.3 dB @ 216.50MHz	N/A	>= 4.8 dB	31.5 dB
1,2	DH	Pass	35.9 dB @ 248.00MHz	N/A	>= 1.4 dB	34.5 dB
7,8	RH	Pass	39.1 dB @ 244.00MHz	N/A	>= 1.8 dB	37.3 dB
3,6	RH	Pass	38.7 dB @ 244.00MHz	N/A	>= 1.8 dB	36.9 dB
5,4	RH	Pass	42.6 dB @ 247.50MHz	N/A	>= 1.5 dB	41.1 dB
1,2	RH	Pass	42.6 dB @ 237.50MHz	N/A	>= 2.5 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	48.9 dB @ 22.15MHz	30.1 dB	>= 34.3 dB	14.6 dB
3,6	DH	Pass	43.5 dB @ 40.25MHz	28.9 dB	>= 29.1 dB	14.4 dB
5,4	DH	Pass	56.0 dB @ 8.50MHz	28.6 dB	>= 42.6 dB	13.4 dB
1,2	DH	Pass	53.8 dB @ 20.95MHz	34.6 dB	>= 34.8 dB	19.0 dB
7,8	RH	Pass	48.9 dB @ 19.45MHz	29.0 dB	>= 35.4 dB	13.5 dB
3,6	RH	Pass	32.7 dB @ 226.50MHz	32.1 dB	>= 14.1 dB	18.6 dB
5,4	RH	Pass	50.2 dB @ 14.80MHz	27.6 dB	>= 37.8 dB	12.4 dB
1,2	RH	Pass	53.6 dB @ 20.50MHz	35.0 dB	>= 35.0 dB	18.6 dB

IDEAL Industries, Inc. Certified - Detailed Report

Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

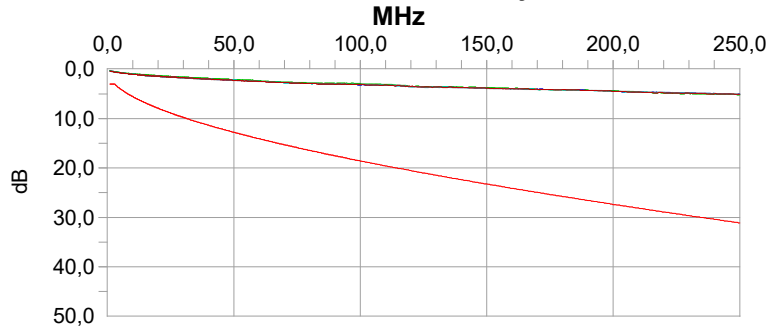
Cable ID 1: 8/24
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:37:01
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

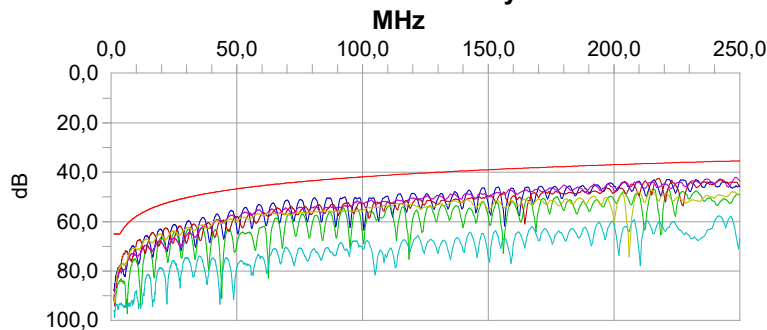
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

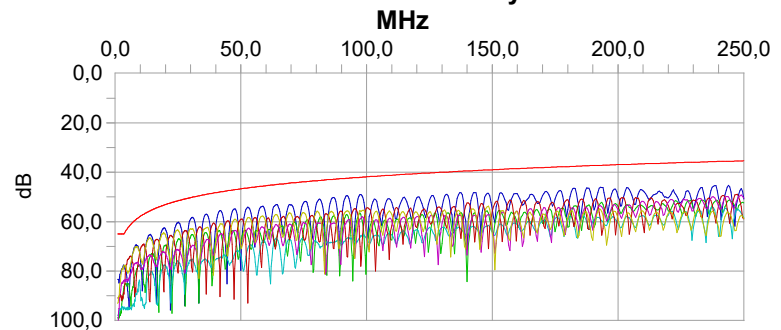
Attenuation Summary



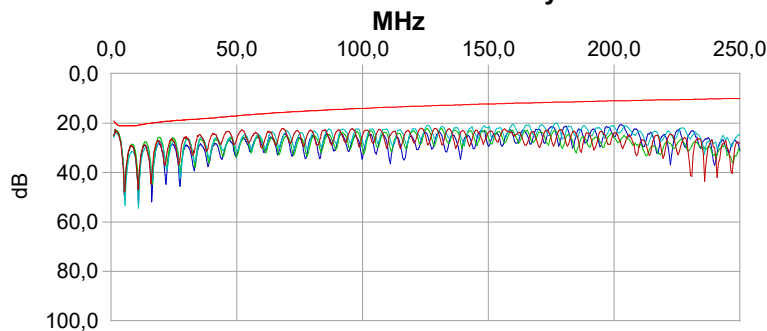
NEXT DH Summary



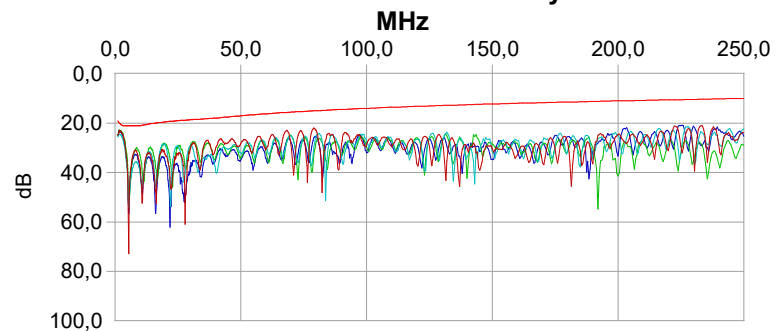
NEXT RH Summary



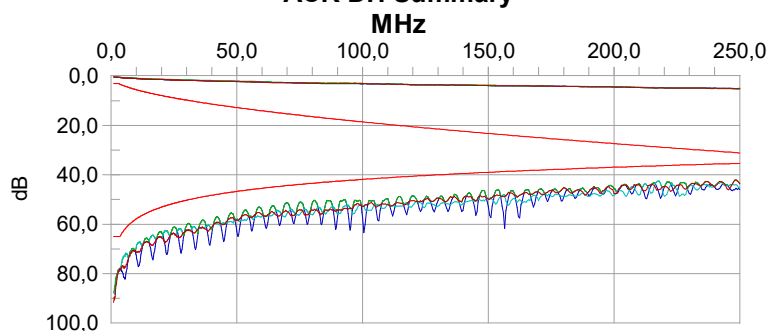
Return Loss DH Summary



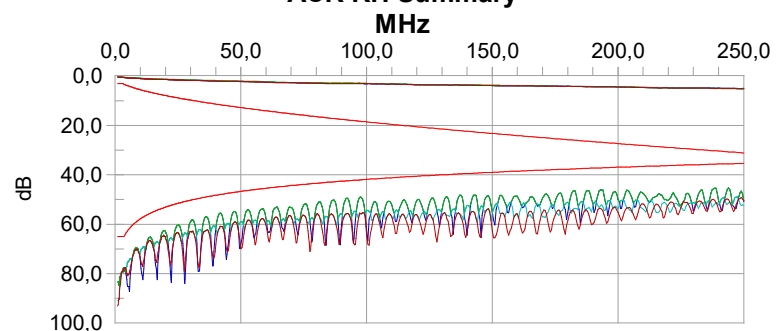
Return Loss RH Summary



ACR DH Summary



ACR RH Summary



Job Name: FRACHT
Customer:

Report Date: 2017-12-14
S/W Version: 3.274

PASS

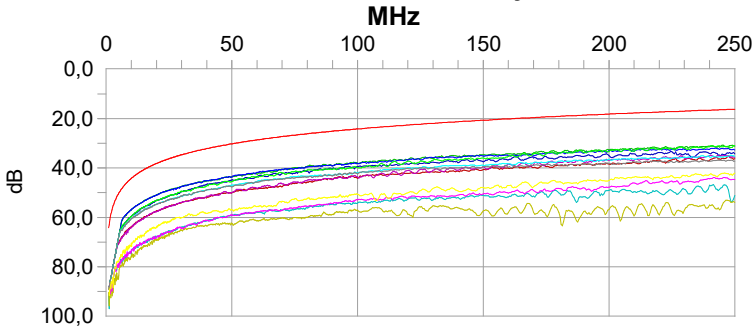
Cable ID 1: 8/24
Cable ID 2:
Test Date: 2017-12-13
Test Time: 12:37:01
Adapter ID: 6014

Cable Type: Cat 6-250 UTP Perm
NVP: 0.72c
LANTEK 7G [740001/740028]
F/W Version: 3.006
Temperature Setting: 68.0° F

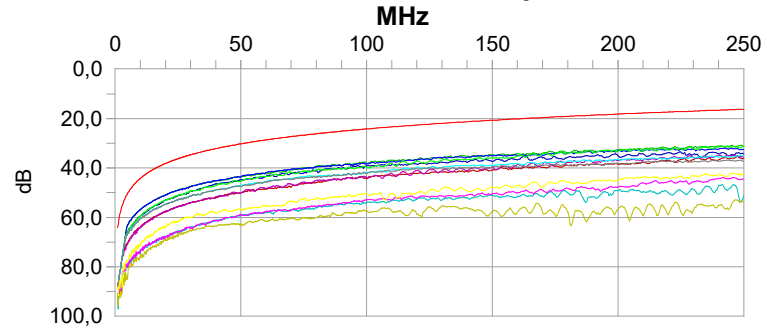
Test Standard: TIA 568-C.2
Frequency Range: 1-250 MHz
Operator: DAMIAN WAGROWSKI
Contractor: FRACHT
Company: ASSET

Notes:

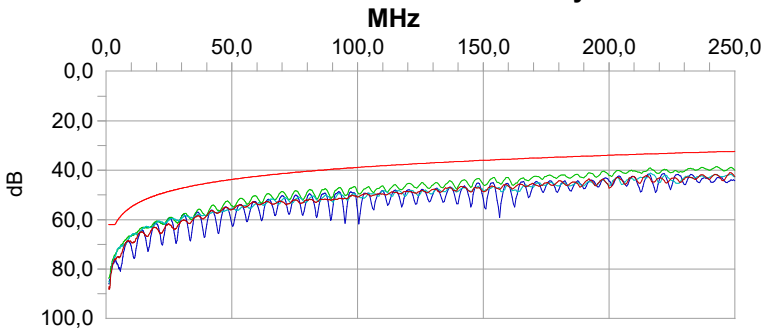
ELFEXT DH Summary



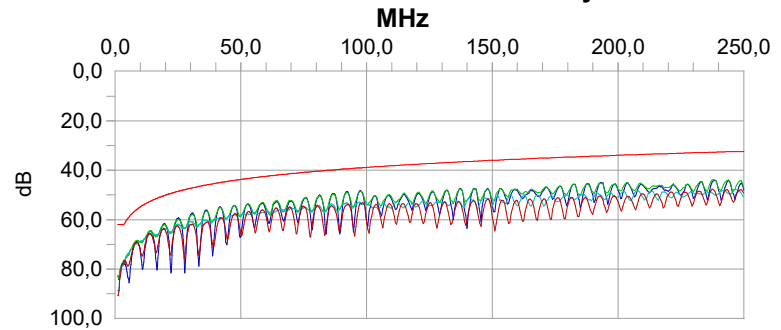
ELFEXT RH Summary



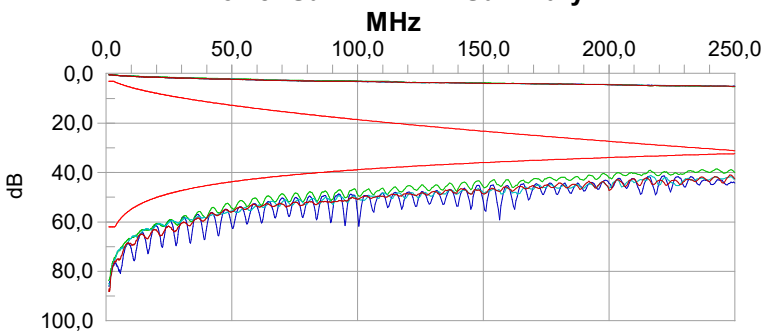
Power Sum NEXT DH Summary



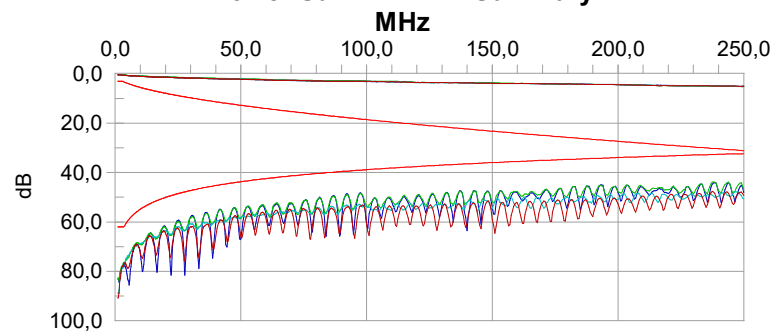
Power Sum NEXT RH Summary



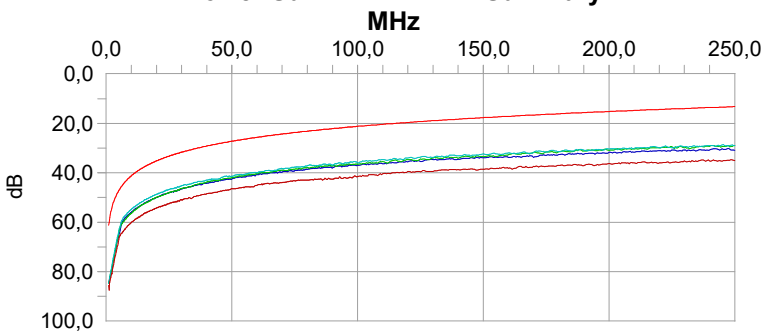
Power Sum ACR DH Summary



Power Sum ACR RH Summary



Power Sum ELFEXT DH Summary



Power Sum ELFEXT RH Summary

