



3933 US ROUTE 11, CORTLAND, NEW YORK 13045
Phone Number: 1-800-345-3851 Fax Number: 607-758-3648

PROJECT NO.: 3133031-311

DATE: September 20, 2007

TEST REPORT NO.: 3133031CRT-001Sum

RENDERED TO:

Leviton Voice & Data Division
2222 222nd SE
Bothell, WA 98021

Superior Essex
150 Interstate North Pkwy
Suite 300
Atlanta, GA 30339



TEST:

Performance testing of the cabling configurations as defined in and to the requirements of TIA-568-B.2-10 draft 8.0, Transmission Performance Specification for 4 Pair 100 Ω Augmented Category 6 Cabling.

STATEMENT OF LIMITATIONS:

At the client's request, the purpose of this report is to provide electrical performance data on the test sample. It is not valid to use this report for any other purpose.

STANDARDS USED:

ASTM D4566-98, dated December 10, 1998, Standard Test Methods for Electrical Performance Properties of Insulations and Jackets for Telecommunications Wire and Cable

TIA-568-B.2-10 draft 8.0, Transmission Performance Specifications for 4 Pair, 100 Ω Augmented Category 6 Cabling, dated July 31, 2007

AUTHORIZATION:

The project was authorized by Mr. Jeff Seefried representing the client Leviton Voice & Data Division with quote number 500048444.

DATE OF TEST:

September 11 and 17, 2007

Page 1 of 2

An independent organization testing for safety, performance, and certification.

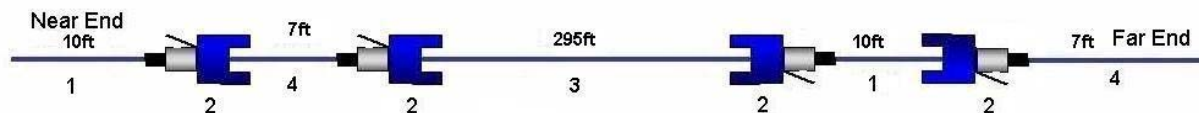
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TEST REPORT REVISION HISTORY:

First Issue: September 21, 2007 Original Document
 Second Issue October 29, 2007 Revised with Superior Essex's new Logo

SAMPLE DESCRIPTION:

Channel (4 Connector)



<u>Component ID</u>	<u>Manufacturer</u>	<u>Part Number</u>	<u>Description</u>
1	Leviton	6A10S-10S	Equipment Cord
2	Leviton	6S10G-S6A	Wall Outlet
3	Superior Essex	6S-220-4B	Horizontal Cable
4	Leviton	6A10S-07S	Equipment Cord

The Hardware samples were received from Leviton and the Horizontal Cable was received from Superior Essex.

EQUIPMENT LIST:

The following equipment was employed in conducting the tests.

<u>Equipment Used</u>	<u>Model Number</u>	<u>Control Number</u>	<u>Calibration Date</u>
Fluke Networks Field Tester	DTX 1800	N1134	3/24/2007
Hewlett Packard Automatic Cable Test System	HP46152A	E356	03/07/2007

Equipment

The testing was performed using a Hewlett Packard 46152A Automatic Cable Test System. The system was calibrated using a full 2 port calibration with 801 linearly spaced data points, 100 Hz I/F bandwidth and a 10-second sweep time.

Measurements

For the cabling configurations previously described, Attenuation, Near End Cross Talk, Far End Cross Talk and Return Loss were measured in accordance with ASTM D4566

Requirements

Attenuation, Near End Cross Talk, Power Sum NEXT, Alien Power Sum Next, PSAACRF, ACRF, PSACRF, Propagation Delay, Delay Skew and Return Loss were tested to the requirements of TIA-568-B.2-10 Draft 8.0

Results

The results for the channel test are shown in graphs 1-11. In each plot, the worst case and average readings are compared with the appropriate limits from the category 8.0 cabling specification.

CONCLUSION:

The channel, as previously described and supplied by the clients, was tested in accordance with the procedures contained herein, and did comply with the indicated applicable transmission requirements. The testing was performed at Intertek located in Cortland, New York.

These procedures and requirements were taken from the standards referred to on page 1.

Reviewed and Approved By:



Kenneth Riedl
Lab Supervisor
Global Cabling Products Testing



Dean Beverley
Technician
Global Cabling Products Testing



Kathy Heath
Project Coordinator
Global Cabling Products Testing



APPENDIX A

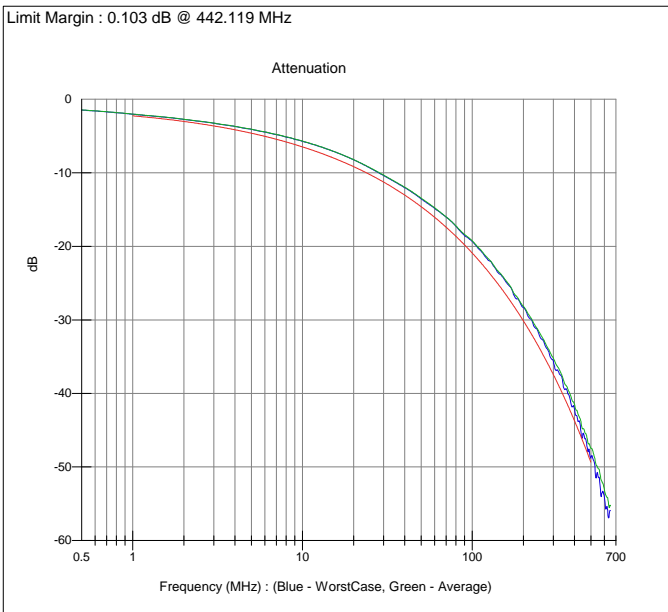
Test Results

Any data reported above 500 MHz is for indication only.

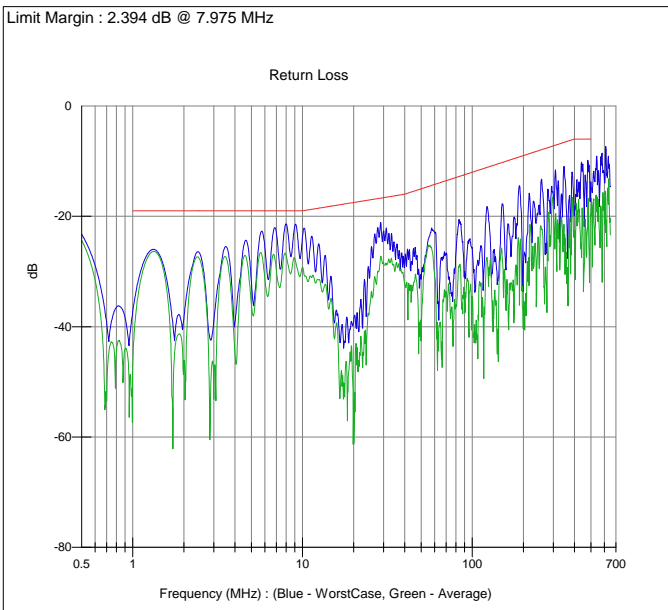


Summary

Client	Leviton	Report No	3133031CRT-001
Specification	TIA 568B2-10 - Augmented Cat 6 Draft 8_0 500Mhz Log (Channel)	Length(m)	100
Part No	H5E-00401	Temperature	20 °C
Test Started	9/20/2007 1:05:42 PM	Appendix	A
Description	Cable # 5 Channel Test	Test Status	Complies
Operator Name	Dean Beverley		



Attenuation			
Freq	Worst Case	Average	Spec
1.	2.0	2.0	2.3
4.	3.7	3.7	4.2
8.	5.1	5.1	5.8
10.	5.7	5.7	6.5
16.	7.3	7.3	8.2
20.	8.2	8.2	9.2
25.	9.4	9.3	10.3
31.25	10.6	10.5	11.5
62.5	15.2	15.1	16.4
100.	19.3	19.3	20.9
250.	32.3	31.8	33.9
350.	39.5	38.7	40.7
400.	42.2	41.5	43.7
500.	48.7	47.5	49.3

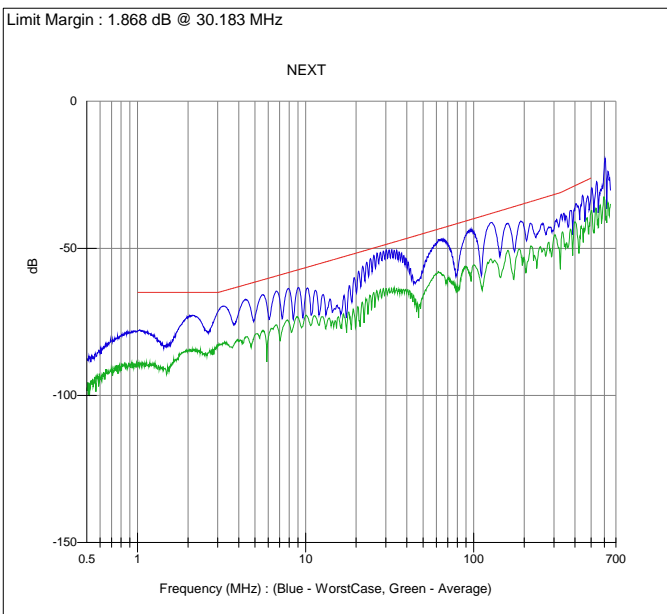


Return Loss			
Freq	Worst Case	Average	Spec
1.	37.2	47.0	19.0
4.	39.2	45.1	19.0
8.	21.4	27.1	19.0
10.	23.6	29.3	19.0
16.	37.8	39.9	18.0
20.	39.0	54.5	17.5
25.	30.0	36.0	17.0
31.25	22.4	28.7	16.5
62.5	35.8	45.3	14.0
100.	26.0	34.7	12.0
250.	19.6	24.9	8.0
350.	12.8	23.6	6.6
400.	19.5	22.6	6.0
500.	14.2	19.3	6.0

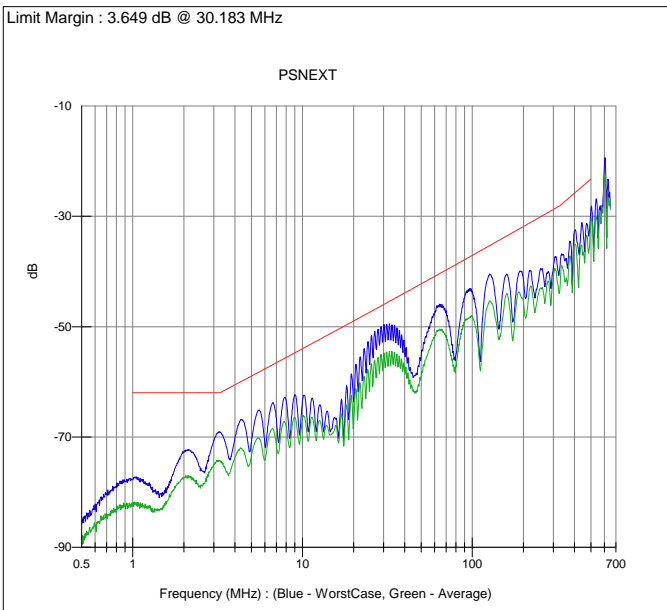


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Test Started	9/20/2007 1:05:42 PM	Appendix	A
Description	Cable # 5 Channel Test	Test Status	Complies
Operator Name	Dean Beverley		



NEXT			
Freq	Worst Case	Average	Spec
1.	78.2	89.9	65.0
4.	71.8	81.8	63.0
8.	64.0	75.4	58.2
10.	65.4	72.9	56.6
16.	71.1	75.5	53.2
20.	64.7	74.6	51.6
25.	57.2	66.8	50.0
31.25	50.7	63.8	48.4
62.5	47.3	58.3	43.4
100.	44.7	55.7	39.9
250.	42.5	49.6	33.1
350.	40.3	49.1	30.3
400.	36.5	41.0	28.7
500.	30.8	37.3	26.1

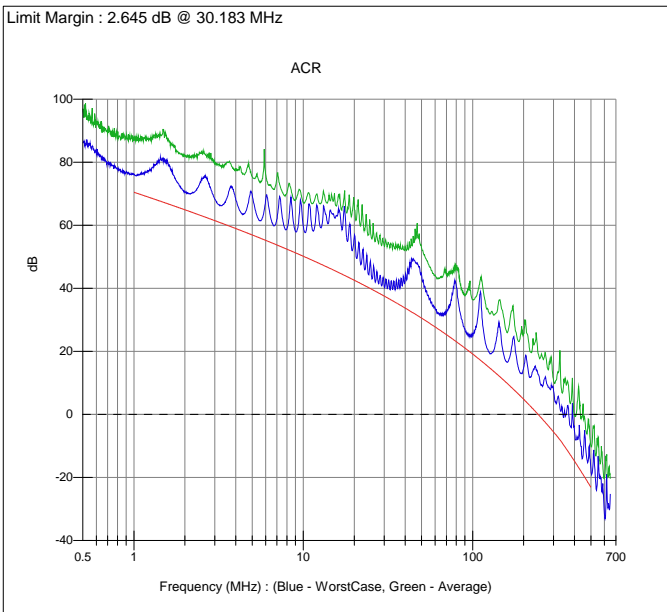


PSNEXT			
Freq	Worst Case	Average	Spec
1.	77.7	82.4	62.0
4.	70.1	73.7	60.5
8.	63.4	68.0	55.6
10.	63.4	66.6	54.0
16.	68.1	69.2	50.6
20.	63.5	67.5	49.0
25.	55.8	59.4	47.3
31.25	49.7	54.7	45.7
62.5	46.4	50.8	40.6
100.	43.9	48.2	37.1
250.	39.9	43.1	30.2
350.	38.0	41.6	27.3
400.	32.6	35.1	25.8
500.	28.7	31.0	23.3

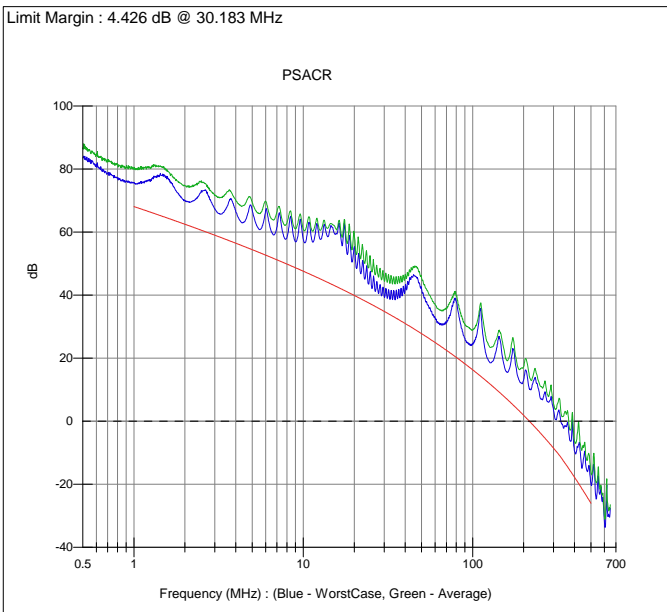


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Operator Name	Dean Beverley		



ACR			
Freq	Worst Case	Average	Spec
1.	76.2	87.8	70.5
4.	68.1	78.1	59.0
8.	58.9	70.3	52.4
10.	59.7	67.2	50.2
16.	63.8	68.2	45.1
20.	56.5	66.3	42.6
25.	47.8	57.5	39.9
31.25	40.1	53.2	37.0
62.5	32.2	43.3	27.1
100.	25.3	36.5	19.2
250.	10.2	17.8	-0.7
350.	0.9	10.6	-10.2
400.	-5.7	-0.5	-14.9
500.	-18.0	-10.2	-23.1

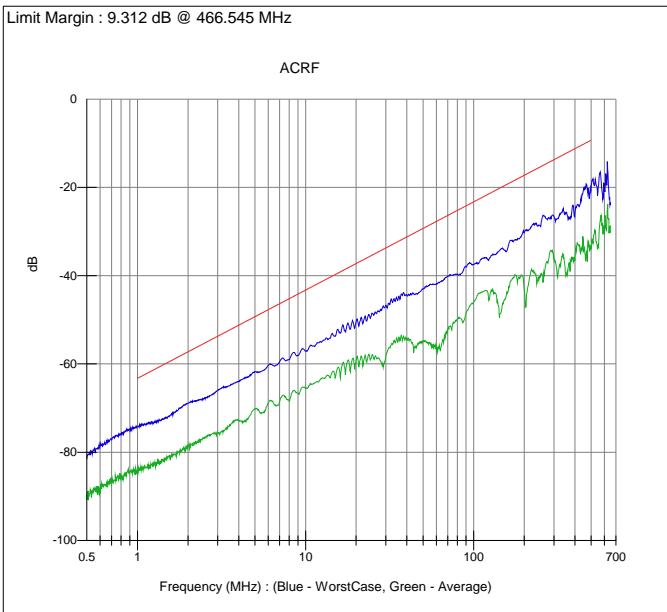


PSACR			
Freq	Worst Case	Average	Spec
1.	75.7	80.4	68.1
4.	66.4	70.0	56.5
8.	58.2	62.9	49.9
10.	57.7	60.9	47.6
16.	60.8	61.9	42.5
20.	55.3	59.3	39.9
25.	46.4	50.1	37.2
31.25	39.1	44.1	34.3
62.5	31.3	35.7	24.3
100.	24.6	29.0	16.3
250.	7.6	11.3	-3.6
350.	-1.4	2.9	-13.2
400.	-9.6	-6.5	-17.8
500.	-20.1	-16.4	-26.0

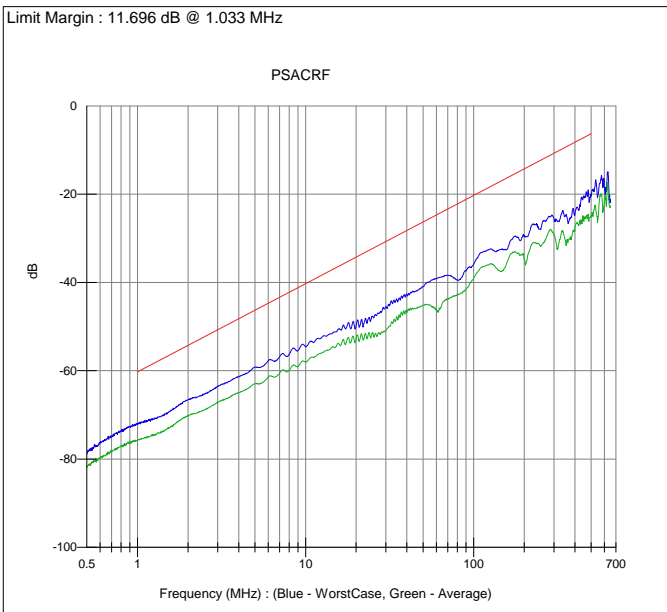


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Operator Name	Dean Beverley		



ACRF			
Freq	Worst Case	Average	Spec
1.	74.2	84.0	63.3
4.	64.0	72.7	51.2
8.	59.0	68.4	45.2
10.	57.1	65.5	43.3
16.	53.0	62.1	39.2
20.	50.3	59.1	37.2
25.	48.5	57.9	35.3
31.25	46.2	56.3	33.4
62.5	41.6	56.0	27.3
100.	37.5	46.0	23.3
250.	28.8	39.8	15.3
350.	25.8	38.9	12.4
400.	26.1	36.3	11.2
500.	20.0	33.7	9.3



PSACRF			
Freq	Worst Case	Average	Spec
1.	72.0	75.7	60.3
4.	61.4	65.0	48.2
8.	56.2	59.8	42.2
10.	54.5	58.0	40.3
16.	50.6	54.3	36.2
20.	49.8	52.6	34.2
25.	47.6	51.3	32.3
31.25	44.9	50.0	30.4
62.5	38.9	45.9	24.3
100.	35.8	39.0	20.3
250.	28.0	31.9	12.3
350.	24.9	30.4	9.4
400.	24.6	28.0	8.2
500.	20.1	24.9	6.3

Cable ID: L-1 (End 1)

Date / Time: 09/17/2007 03:37:40pm

Test Limit: TIA Cat 6A Ch dr 8.0

Measurement Bias Correction: On

Leviton

Operator: Dean

Overall Status: **Pass**

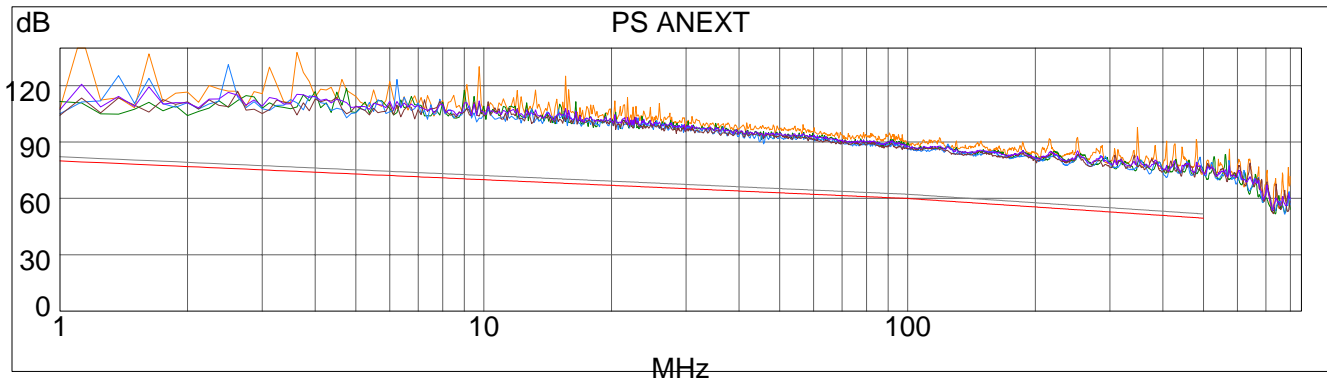
SW Version: 2.2

PS ANEXT

Pair	Frequency	Value	Limit	Margin	Status
12		* All test data above limit caps			Pass
36		* All test data above limit caps			Pass
45		* All test data above limit caps			Pass
78		* All test data above limit caps			Pass
Average		* All test data above limit caps			Pass

Disturber List

- L-2
- L-3
- L-4
- L-5
- L-6
- L-7

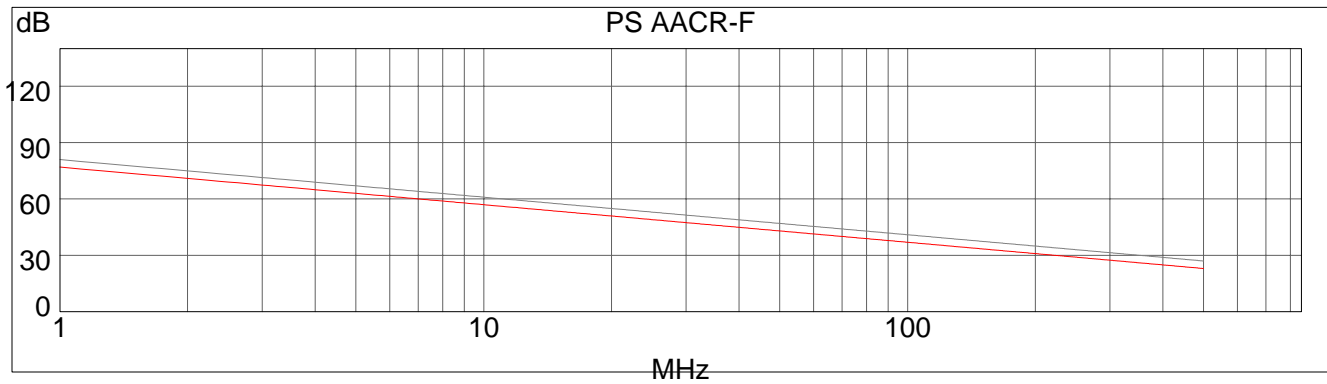


PS AACR-F

Pair	Frequency	Value	Limit	Margin	Status
12		* All test data above significance condition			Pass
36		* All test data above significance condition			Pass
45		* All test data above significance condition			Pass
78		* All test data above significance condition			Pass
Average		* All test data above significance condition			Pass

Disturber List

- L-2
- L-3
- L-4
- L-5
- L-6
- L-7



Cable ID: L-1 (End 2)

Date / Time: 09/17/2007 03:37:40pm

Test Limit: TIA Cat 6A Ch dr 8.0

Measurement Bias Correction: On

Leviton

Operator: Dean

Overall Status: **Pass**

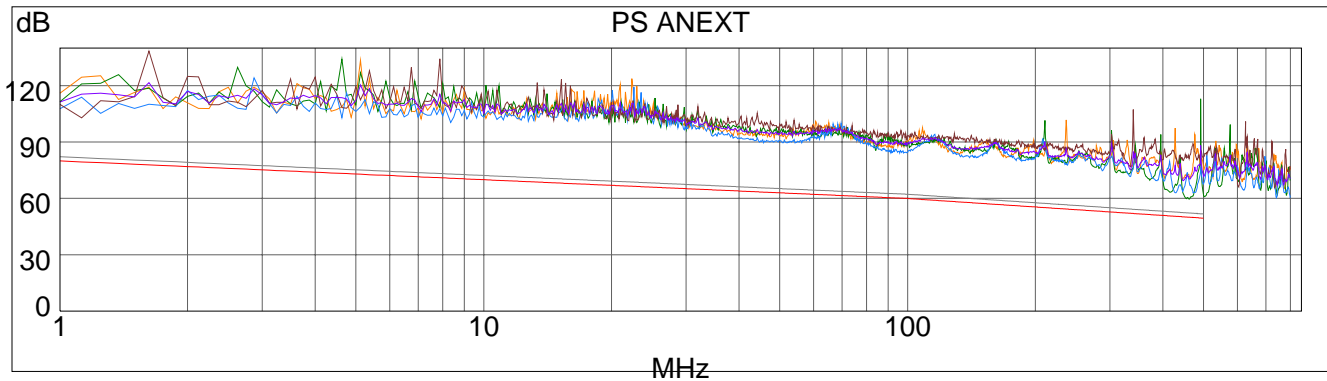
SW Version: 2.2

PS ANEXT

Pair	Frequency	Value	Limit	Margin	Status	
12	* All test data above limit caps					Pass
36	462.0 MHz	59.69 dB	50.03 dB	9.66 dB	Pass	
45	429.0 MHz	63.02 dB	50.51 dB	12.51 dB	Pass	
78	* All test data above limit caps					Pass
Average	* All test data above limit caps					Pass

Disturber List

- L-2
- L-3
- L-4
- L-5
- L-6
- L-7



PS AACR-F

Pair	Frequency	Value	Limit	Margin	Status	
12	* All test data above significance condition					Pass
36	* All test data above significance condition					Pass
45	* All test data above significance condition					Pass
78	* All test data above significance condition					Pass
Average	* All test data above significance condition					Pass

Disturber List

- L-2
- L-3
- L-4
- L-5
- L-6
- L-7

