



REPORT INTERTEK / ETL SEMKO

3933 US ROUTE 11, CORTLAND, NEW YORK 13045

PROJECT NO.: 3095288-311

DATE: May 16, 2006

REPORT NO.: 3095288CRT-001SUM

RENDERED TO:

Leviton Manufacturing Company
Telecom Voice & Data Division
2222 222nd ST. SE
Bothell, WA 98021

TEST: Performance testing of the cabling configurations as defined in, and to the requirements of, TIA/EIA 568-B.1 for Category 5e Cabling Systems.

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

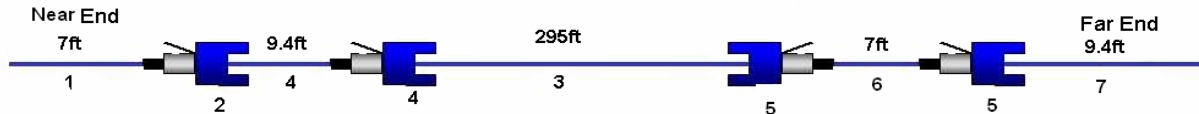
TIA/EIA-568-B.1, dated April 12, 2001, Commercial building telecommunications Cabling Standard

TIA/EIA-568-B.2, dated April 23, 2001, Commercial Building Telecommunications Cabling Standard

ISO/IEC 11801-N696 - 2001 Second Edition, Information Technology – Cabling for Customer Premises, dated April 19, 2001

AUTHORIZATION: The project was authorized by, Mr. Jeff Seefried, representing the client, Leviton Manufacturing Company.

DATE OF TEST: April 20, 2006

SAMPLE DESCRIPTION: Channel (4 Connector)

<u>Component ID</u>	<u>Manufacturer</u>	<u>Part Number</u>	<u>Description</u>
1	Leviton	002-5S460-07	Near End Equipment Cord
2	Leviton	010-5S180-SH5	Wall Outlet
3	SUPERIOR ESSEX	5F-220-45	Horizontal Cable
4	Leviton	010-5S180-SH5/002-5S460-9.4	Consolidation Point
5	Leviton	010-5S180-SH5	Patch Panel
6	Leviton	002-5S460-07	Cross Connect
7	Leviton	002-5S460-9.4	Far End Equipment Cord

The samples were received on March 30, 2005 and were in good condition. All samples were supplied by the client

EQUIPMENT LIST: The following equipment was employed in conducting the tests.

<u>Equipment Used</u>	<u>Model Number</u>	<u>Serial Number</u>	<u>Control Number</u>	<u>Calibration Date</u>
Hewlett Packard Automatic Cable Test System	HP46152A	3903U01003	E356	03/02/06

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, 300 Hz 1/F bandwidth and a 5-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. These tests were performed on three separate channels.

Requirements

Attenuation, Near End Cross Talk, Power Sum NEXT, Equal Level Far End Cross Talk (ELFEXT), Power Sum ELFEXT and Return Loss were tested to the requirements of TIA/EIA-568-B.1, Cat. 5e.

Results

The results for the channel tests are shown in graphs 1-8. In each plot, the worst case and average readings are compared with the appropriate limits from the category 5e cabling specification.

Conclusion:

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

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

Reviewed and Approved By:



Stephen R. Comer
Laboratory Supervisor
Global Cabling Products Testing



Dean Beverley
Test Engineer
Global Cabling Products Testing

APPENDIX A
Test Results

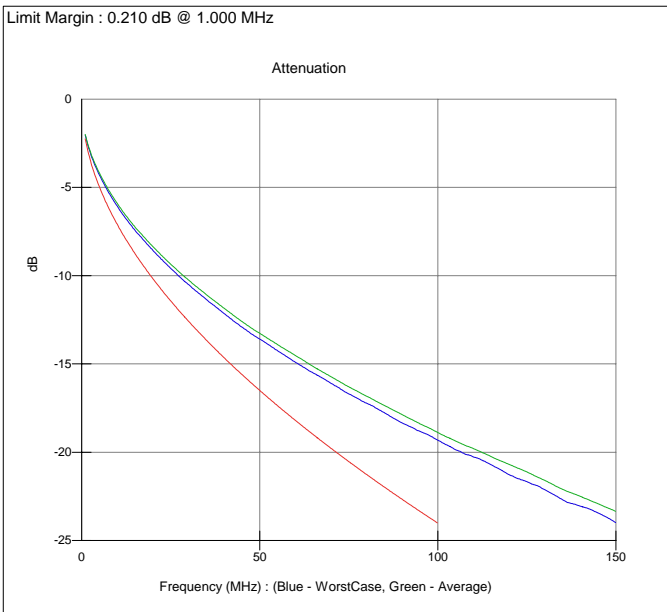
Any data reported above 100 MHz is for indication only.

This appendix contains 4 pages.

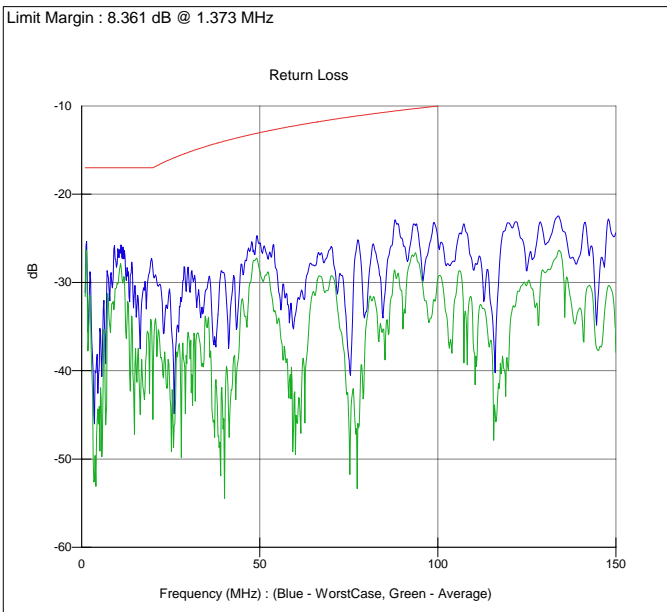


Summary

Client	Leviton	Report No	3095288CRT-001
Specification	TIA 568B1 - Cat 5e Channel 100L 150S MHz		
Part No	Leviton with Superior	Length	100
Test Started	5/16/2006 12:42:06 PM	Temperature	20 °C
Description	Performance Testing on 4 Connector Channel Configuration		
Technician	Dean Beverley	Test Status:	Complies



Attenuation			
Freq	Worst Case	Average	Spec
1.	2.0	2.0	2.2
4.	3.9	3.8	4.5
8.	5.4	5.3	6.3
10.	6.1	5.9	7.1
16.	7.7	7.5	9.1
20.	8.6	8.3	10.2
25.	9.6	9.3	11.4
31.25	10.7	10.5	12.9
62.5	15.2	14.8	18.6
100.	19.3	18.9	24.0
150.	24.0	23.3	

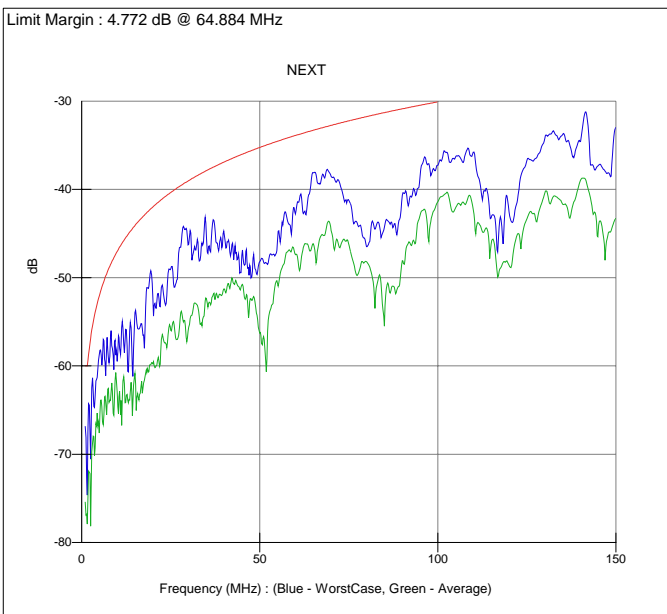


Return Loss			
Freq	Worst Case	Average	Spec
1.	31.2	31.6	17.0
4.	41.0	52.5	17.0
8.	30.4	35.4	17.0
10.	27.3	30.1	17.0
16.	33.9	39.1	17.0
20.	28.5	45.4	17.0
25.	32.9	44.1	16.0
31.25	29.6	41.3	15.1
62.5	32.0	40.9	12.1
100.	25.0	29.6	10.0
150.	24.4	37.9	

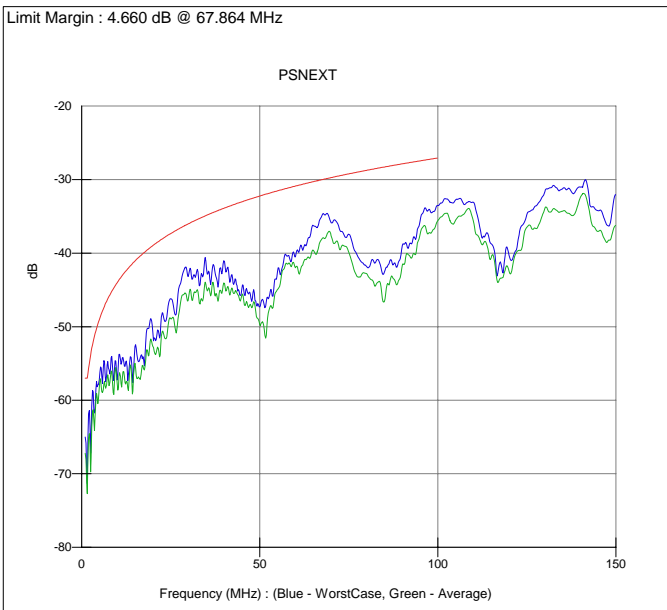


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NEXT			
Freq	Worst Case	Average	Spec
1.	66.8	75.4	60.0
4.	61.8	66.6	53.5
8.	58.3	63.9	48.6
10.	60.5	63.5	47.0
16.	55.8	63.8	43.6
20.	52.4	59.8	42.0
25.	49.0	55.9	40.3
31.25	47.4	53.7	38.7
62.5	42.5	46.2	33.6
100.	37.3	41.4	30.1
150.	33.0	43.3	

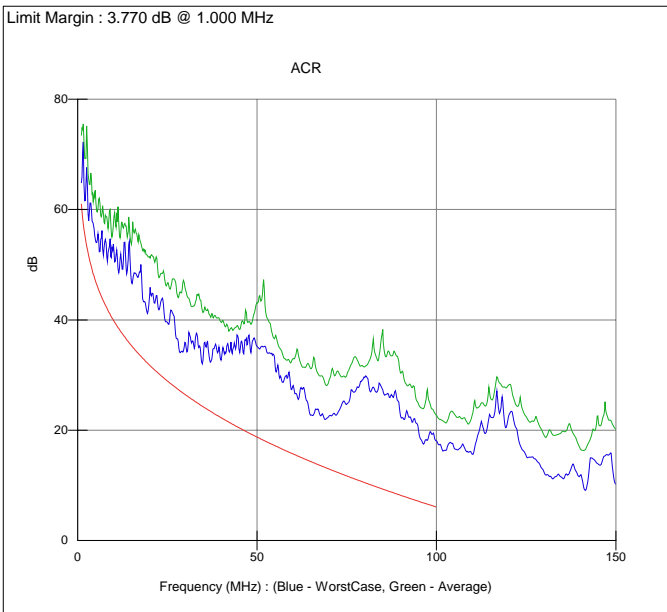


PSNEXT			
Freq	Worst Case	Average	Spec
1.	65.0	67.3	57.0
4.	58.4	59.9	50.5
8.	56.5	57.1	45.6
10.	57.0	58.0	44.0
16.	54.8	56.9	40.6
20.	50.9	52.7	39.0
25.	46.2	48.9	37.3
31.25	43.3	46.2	35.7
62.5	39.0	41.0	30.6
100.	33.5	35.6	27.1
150.	32.1	36.3	

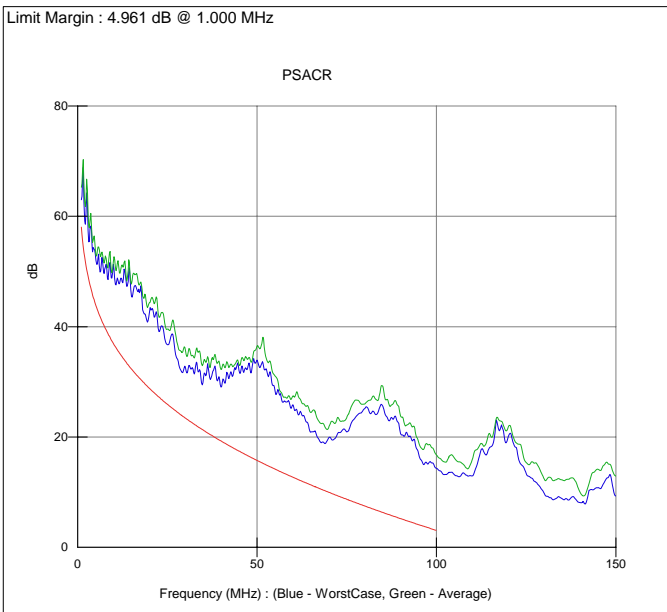


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ACR			
Freq	Worst Case	Average	Spec
1.	64.8	73.4	61.0
4.	57.9	62.8	49.1
8.	53.0	58.7	42.3
10.	54.7	57.7	39.9
16.	48.5	56.4	34.5
20.	44.2	51.5	31.8
25.	39.5	46.7	28.9
31.25	37.2	43.4	25.9
62.5	27.5	31.6	15.0
100.	18.1	22.7	6.1
150.	10.2	20.2	

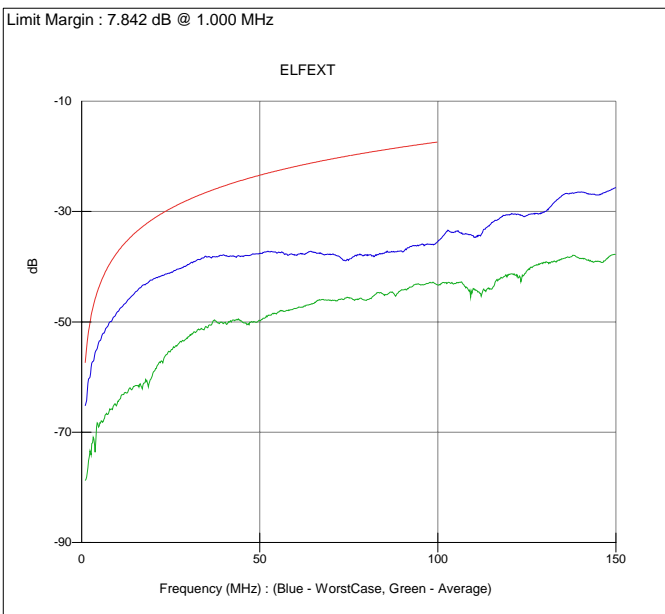


PSACR			
Freq	Worst Case	Average	Spec
1.	63.0	65.3	58.0
4.	54.5	56.1	46.1
8.	51.2	51.8	39.3
10.	51.0	52.1	36.9
16.	47.4	49.4	31.5
20.	42.7	44.4	28.8
25.	36.8	39.6	25.9
31.25	32.8	35.7	22.9
62.5	24.0	26.1	12.0
100.	14.3	16.7	3.1
150.	9.3	12.9	

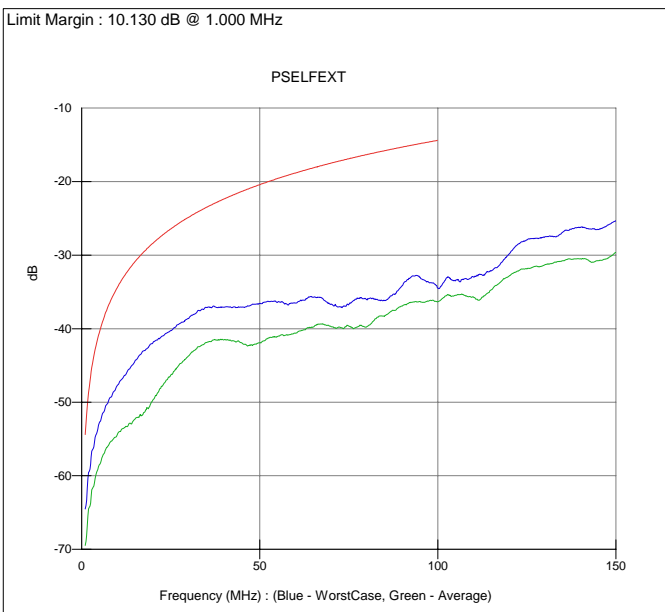


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ELFEXT			
Freq	Worst Case	Average	Spec
1.	65.2	78.7	57.4
4.	55.2	71.0	45.4
8.	50.0	65.8	39.3
10.	48.2	64.7	37.4
16.	44.0	61.7	33.3
20.	42.3	59.3	31.4
25.	41.1	55.2	29.4
31.25	39.2	52.1	27.5
62.5	37.8	47.1	21.5
100.	35.4	43.3	17.4
150.	25.7	37.7	



PSELFEXT			
Freq	Worst Case	Average	Spec
1.	64.5	69.5	54.4
4.	54.4	59.8	42.4
8.	49.4	55.4	36.3
10.	47.7	54.4	34.4
16.	43.8	52.0	30.3
20.	41.9	49.7	28.4
25.	40.3	46.3	26.4
31.25	38.1	43.1	24.5
62.5	36.1	40.2	18.5
100.	34.5	36.3	14.4
150.	25.3	29.6	