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Phone Number: 1-800-345-3851 Fax Number: 607-758-3648

PROJECT NO.: 3022866-311

DATE: February 19, 2009

TEST REPORT NO.: 3022866CRT-084

**RENDERED TO:**

Hubbell Premise Wiring  
14 Lord's Hill Road  
Stonington, CT. 06378

**TEST:**

C6 Permanent Link testing of the cabling configuration as defined in and to the requirements of TIA-568-C.2 (Draft 2.2), *Balanced Twisted Pair Telecommunications Cabling And Components Standard*

**STATEMENT OF LIMITATIONS:**

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.

**STANDARD USED:**

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

TIA-568-C.2 (Draft 2.2): *Balanced Twisted Pair Telecommunications Cabling And Components Standard*, dated December 2008.

**AUTHORIZATION:**

The project was authorized by, Dr. Shadi AbuGhazaleh, representing Hubbell Premise Wiring.

**DATE OF TEST:**

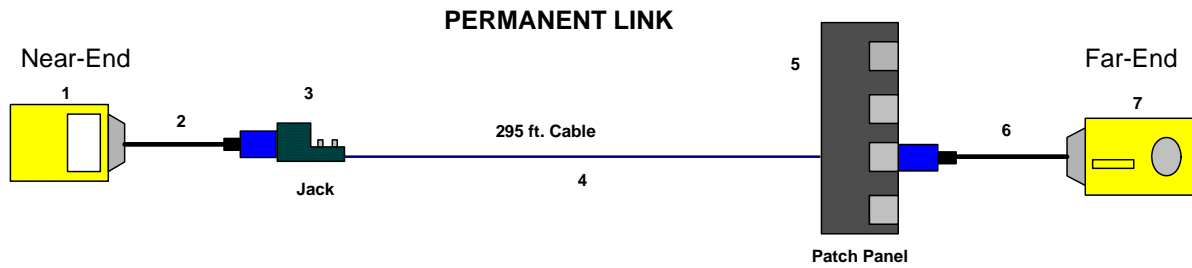
10/24/2008

**TEST REPORT REVISION HISTORY:**

First Issue: February 19, 2009 Original Document

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Permanent Link (2 connectors)

**SAMPLE DESCRIPTION:**

<u>Component ID</u>	<u>Manufacturer</u>	<u>Part Number</u>	<u>Description</u>
1, 7	Fluke Networks	DTX-1800	Fluke MAIN & REMOTE Units
2,6	Fluke Networks	DTX-PLA002	FlukeC6A Permanent Link Adapters
3	Hubbell	HXJ6	C6 Jack
4	Hubbell	C6RPEX <sup>1</sup>	NEXTSPEED Link6 CMP Cable
5	Hubbell	P6E**U <sup>2</sup>	C6 Patch Panel

- 1. X is cable color (blue, grey, etc.)
- 2. '\*\*' is the number of ports in the panel (24, 48)

**EQUIPMENT LIST:**

The following equipment was employed in conducting the tests.

<u>Equipment Used</u>	<u>Model Number</u>	<u>Serial Number</u>	<u>Calibration Date</u>
Fluke Networks (Portable Cable Analyzer)	DTX-1800	8582073	04/29/08

**RESULTS:**

See appendix A for the test results.

**CONCLUSION:**

The channel configuration, as previously described, was tested under the SAT program of Intertek in accordance with the standard contained herein, and did comply with the indicated applicable transmission requirements.

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

Reviewed and approved by:

*Antoine Pelletier*  
 Antoine Pelletier  
 Engineer  
 Global Cabling Products Testing

*Kathy Heath*  
 Kathy Heath  
 Project Coordinator  
 Global Cabling Products Testing

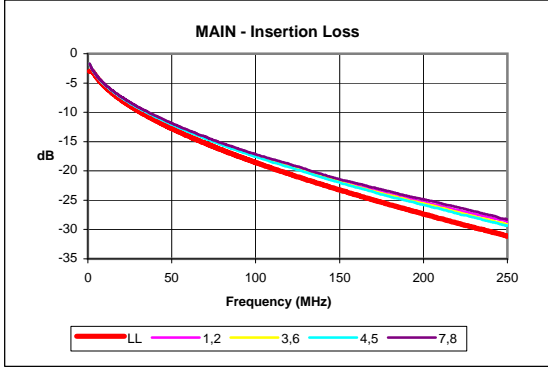
**Appendix A**

Test results

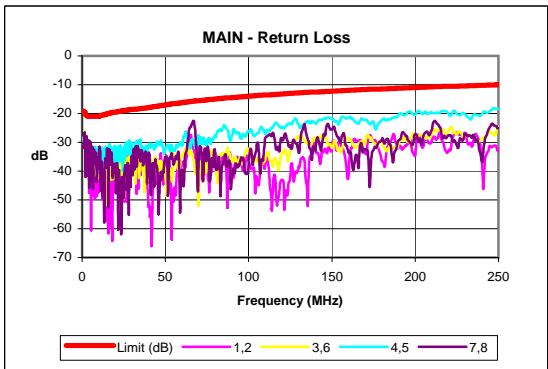
Any data reported above 250 MHz is for indication only.

This appendix contains 4 Pages.

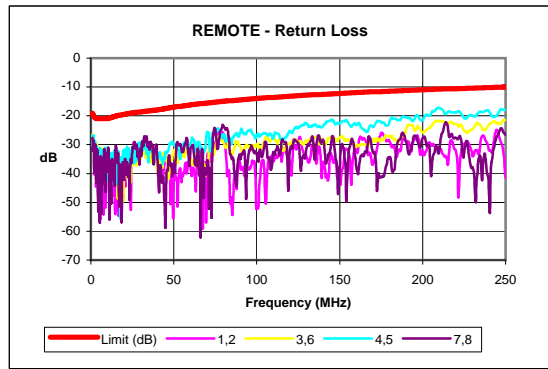
**TEST REPORT 3022866-084**



Frequency	Worst Case	TIA Spec
1	-1.7	-3
10	-5.2	-5.5
31.3	-9.4	-10
62.5	-13.6	-14.4
100	-17.6	-18.6
155	-22.4	-23.7
200	-25.8	-27.4
250	-29.3	-31.1



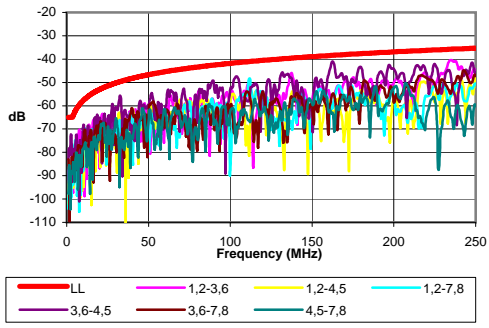
Frequency	Worst Case	TIA Spec
1.0	-28.2	-19.1
10.0	-32.0	-21.0
31.3	-34.2	-18.5
62.5	-26.5	-16.0
100.0	-26.3	-14.0
155.0	-22.3	-12.1
200.0	-20.6	-11.0
250.0	-18.3	-10.0



Frequency	Worst Case	TIA Spec
1.0	-26.4	-19.1
10.0	-33.3	-21.0
31.3	-29.2	-18.5
62.5	-30.1	-16.0
100.0	-27.0	-14.0
155.0	-22.4	-12.1
200.0	-21.4	-11.0
250.0	-18.0	-10.0

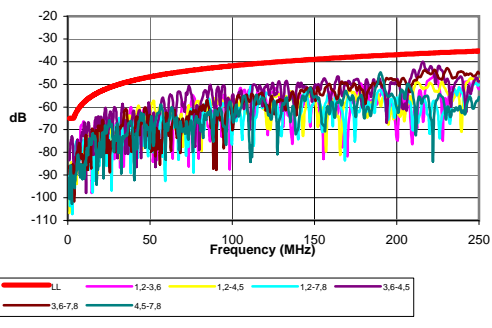
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MAIN - NEXT



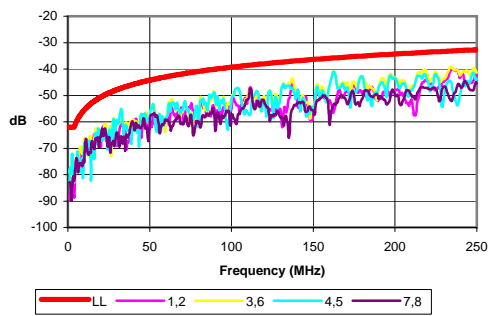
Frequency	Worst Case	TIA Spec
1	-82.9	-65
10	-69.2	-57.8
31.3	-61.6	-50
62.5	-55.2	-45.1
100	-53.1	-41.8
155	-49.3	-38.7
200	-44.1	-36.9
250	-44.8	-35.3

REMOTE - NEXT



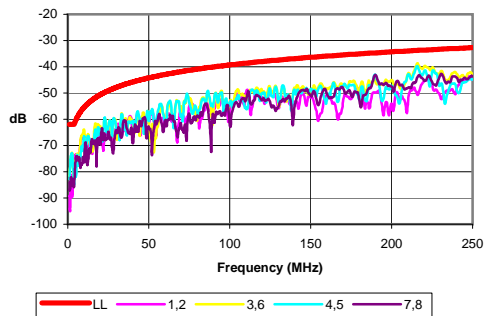
Frequency	Worst Case	TIA Spec
1	-83.5	-65
10	-66.9	-57.8
31.3	-65	-50
62.5	-54.8	-45.1
100	-54.8	-41.8
155	-48.5	-38.7
200	-47.7	-36.9
250	-45.2	-35.3

MAIN - PSNEXT



Frequency	Worst Case	TIA Spec
1	-79.2	-62
10	-67.1	-55.5
31.3	-59.9	-47.5
62.5	-53.1	-42.7
100	-51.3	-39.3
155	-47.3	-36.2
200	-43.0	-34.3
250	-41.3	-32.7

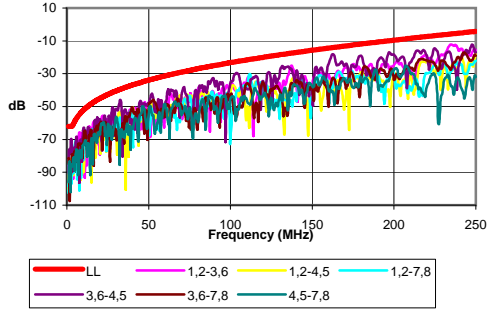
REMOTE - PSNEXT



Frequency	Worst Case	TIA Spec
1	-81.6	-62
10	-63.9	-55.5
31.3	-61.7	-47.5
62.5	-53.4	-42.7
100	-53.5	-39.3
155	-47.6	-36.2
200	-45.0	-34.3
250	-43.0	-32.7

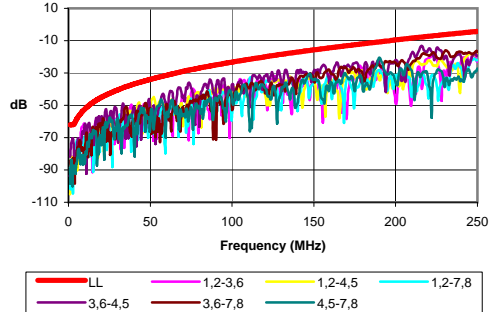
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MAIN - ACR



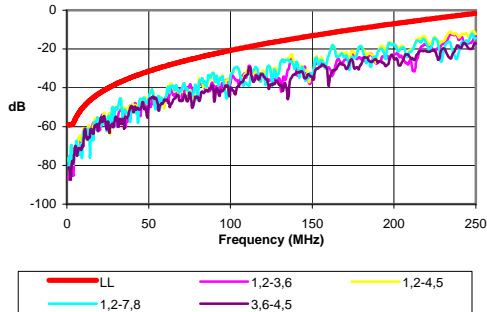
Frequency	Worst Case	TIA Spec
1	-81.2	-62.0
10	-64.0	-52.3
31.3	-52.2	-40.0
62.5	-41.6	-30.7
100	-35.5	-23.2
155	-26.9	-15.0
200	-18.3	-9.5
250	-15.7	-4.2

REMOTE - ACR



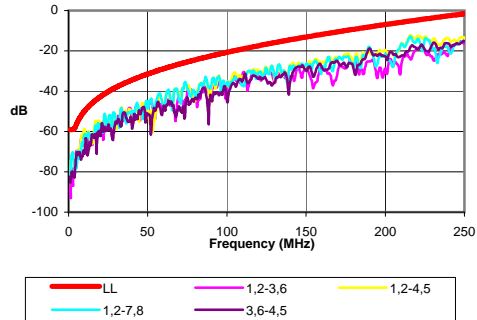
Frequency	Worst Case	TIA Spec
1	-81.8	-62.0
10	-61.7	-52.3
31.3	-55.7	-40.0
62.5	-41.2	-30.7
100	-37.2	-23.2
155	-26.1	-15.0
200	-21.9	-9.5
250	-16.9	-4.2

MAIN - PSACR



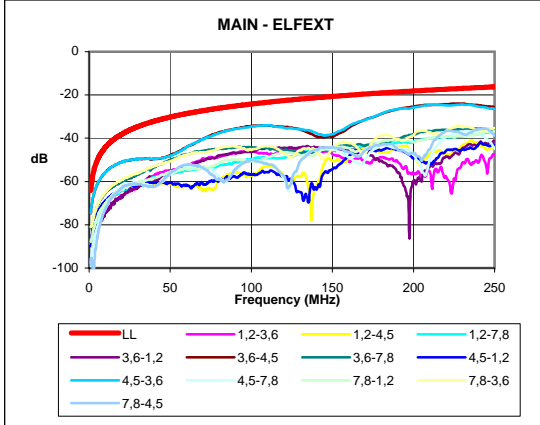
Frequency	Worst Case	TIA Spec
1	-77.5	-59.0
10	-61.9	-50.0
31.3	-50.5	-37.5
62.5	-39.6	-28.3
100	-33.8	-20.7
155	-25.0	-12.5
200	-17.5	-6.9
250	-12.2	-1.6

REMOTE - PSACR

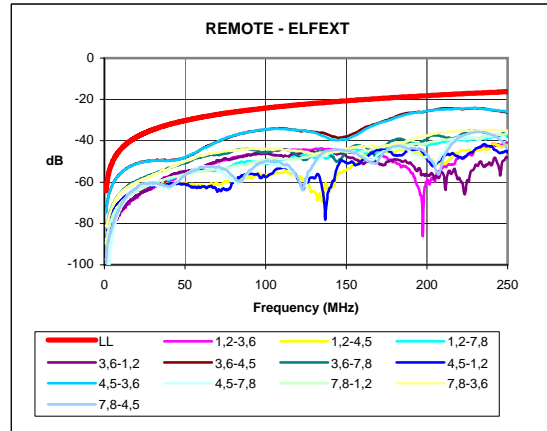


Frequency	Worst Case	TIA Spec
1	-79.9	-59.0
10	-58.7	-50.0
31.3	-52.3	-37.5
62.5	-39.8	-28.3
100	-36.0	-20.7
155	-25.3	-12.5
200	-19.5	-6.9
250	-13.9	-1.6

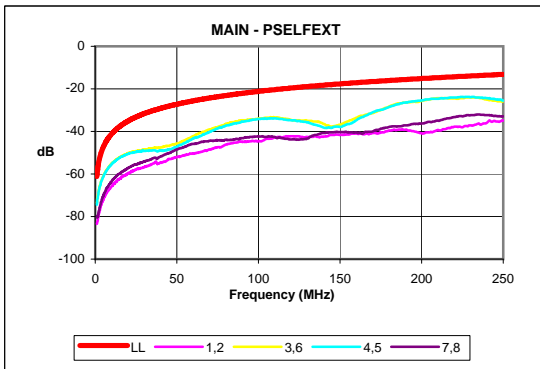
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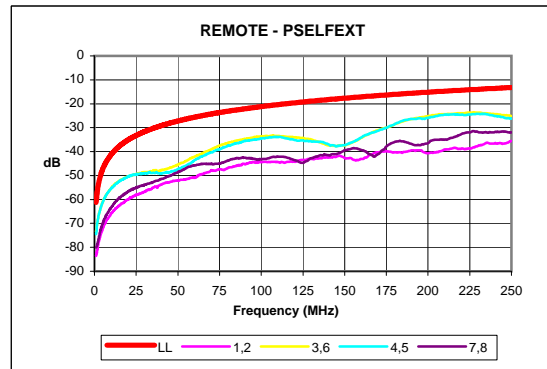
Frequency	Worst Case	TIA Spec
1	-74.6	-64.2
10	-55.7	-44.2
31.3	-49.6	-34.3
62.5	-43.2	-28.3
100	-34.3	-24.2
155	-36.5	-20.4
200	-25.4	-18.2
250	-25.7	-16.2



Frequency	Worst Case	TIA Spec
1	-74.6	-64.2
10	-55.7	-44.2
31.3	-49.6	-34.3
62.5	-43.1	-28.3
100	-34.4	-24.2
155	-36.4	-20.4
200	-25.6	-18.2
250	-25.9	-16.2



Frequency	Worst Case	TIA Spec
1	-73.5	-61.2
10	-55.1	-41.2
31.3	-48.4	-31.3
62.5	-41.4	-25.3
100	-34.0	-21.2
155	-35.2	-17.4
200	-25.4	-15.2
250	-25.5	-13.2



Frequency	Worst Case	TIA Spec
1	-73.6	-61.2
10	-55.3	-41.2
31.3	-48.6	-31.3
62.5	-41.4	-25.3
100	-33.7	-21.2
155	-36.0	-17.4
200	-25.2	-15.2
250	-25.2	-13.2