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Melville – April 22, 2004

Signamax Connectivity Systems
Mr. Stephen Daily
1810 N.E. 144th Street
North Miami, FL 33181

Reference: E247365, 04CA18578

Subject: Category 5e/5 Channel Testing to ANSI/TIA/EIA-568-B.1 and ISO/IEC 11801 Documents

Gentlemen,

We have completed the Category 5e/5 performance testing of the submitted channel configurations. The channel configurations were tested in accordance to the Category 5e/5 requirements as stated in the following documents:

- 1) TIA/EIA 568B.2 the ANSI/TIA/EIA Standard *Commercial Building Telecommunication Cabling Standard Part 1: General Requirements* dated May 2001.
- 2) International Standard *ISO/IEC 11801* Edition 1.2 dated 2000-01

The channel configurations assembled utilizing the following components did comply with all applicable performance transmission requirements as specified in the above referenced documents.

1. Horizontal Cable: Type CMP Signamax Cable, Part No. BC5E-4PL
2. Patch Cords: Signamax 14 & 3 FT. Category 5e+ Patch Cord with Snag-Proof Boots, Part No. C5ES-114GY-14FB and C5ES-114GY-3FB.
3. Consolidation/Transition Point: Signamax Category 5e+ 4-Pair 110 Wiring Block w/Mounting Legs, Part No. 110WB-100PR-L. Category 5e+ 4-Pair 110 IDC Connecting Clip, Part No. 110CB-4PR.
4. Jack: Signamax Category 5e+ Keystone Jack, Part No. KJ458-C5E
5. Patch Panel: Signamax 24-Port Category 5e+ Patch Panel, Part No. 24458MD-C5E

Also per your request we have swept the test frequency, without a limit check, to 350 MHz. For your convenience, we have attached the corresponding test data.

It should be understood that these results apply only to the particular channel solution submitted for testing. The test results indicated in this report are not intended to imply Listing, Verification or other Recognition of any product material. UL has not established a Factory Follow-Up Service Program to determine conformance to the subsequently produced material, nor has any provision been established to apply any registered mark of UL to such material.

In no event shall Underwriters Laboratories Inc. be responsible to any one for whatever use or non-use is made of the information contained in this Report and in no event shall Underwriters Laboratories Inc., its employees, or its agents incur any obligation of liability for damages, including but not limited to, consequential damages, arising out of or in connection with the use, or inability to use, the information contained in this Report.

This letter and the attached data completes this assignment. Our Accounting Department will be notified to bill you for the charges incurred.

Should you have any questions, please do not hesitate to contact the undersigned.

Very Truly Yours,

Robert Bellasai, RCDD (Ext. 22871)
Staff Engineer
Conformity Assessment Services

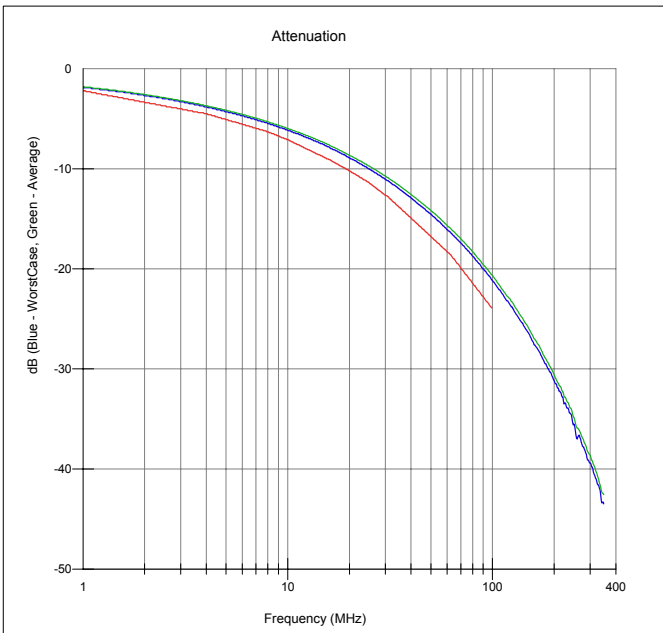
Reviewed By:

Jerry Matiatos (Ext. 22972)
Manager
Conformity Assessment Services

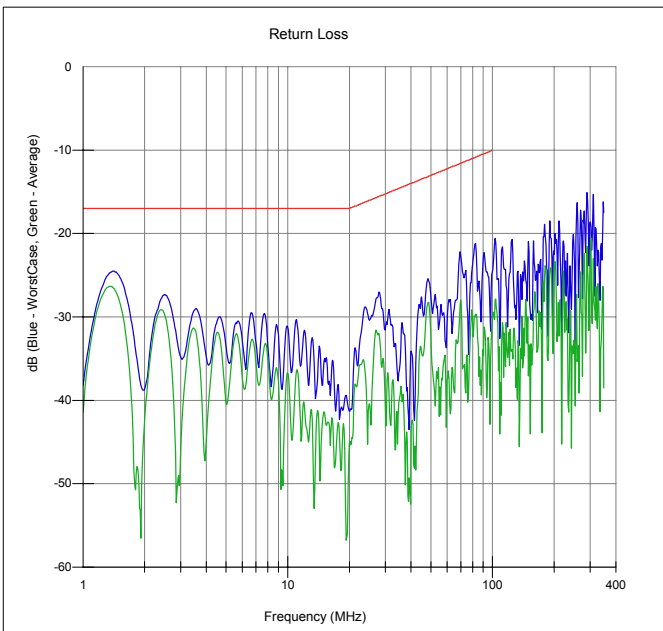


Summary

Cable Type	04 Pair	Engineer	Bellasai
Project Number	04CA18578	Test Description	Category 5E Channel 350Mhz
File Number	E247365	Test Started	4/22/2004 3:23:09 PM
Manufacture	Signamax Connectivity Systems	Length	100 m
Pre-Test Comments	Signamax CAT 5E CMP		
Technician	Andy	Test Status:	Complies



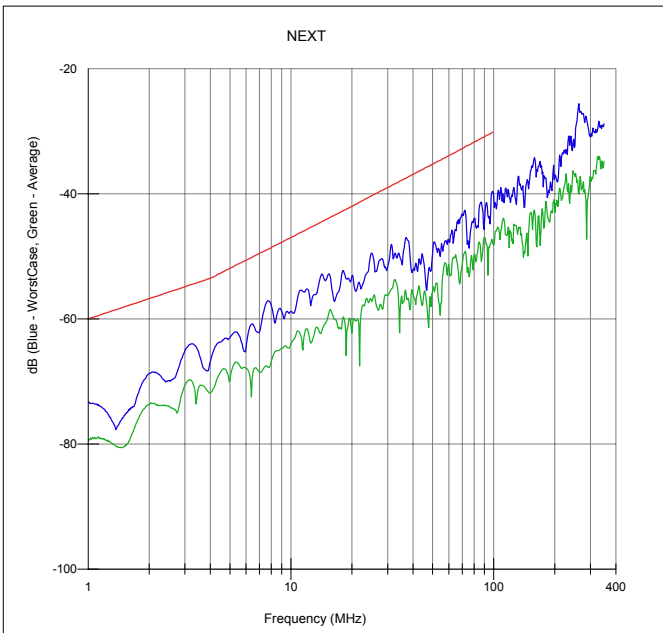
Attenuation			
Freq	Worst Case	Average	Spec
1.	-1.9	-1.8	-2.2
4.	-3.8	-3.7	-4.5
8.	-5.5	-5.3	-6.3
10.	-6.1	-6.0	-7.1
16.	-7.9	-7.6	-9.1
20.	-8.9	-8.6	-10.2
25.	-10.0	-9.7	-11.4
31.25	-11.3	-11.0	-12.9
62.5	-16.4	-16.0	-18.6
100.	-21.2	-20.7	-23.9
200.	-31.2	-30.5	
250.	-35.5	-34.8	
350.	-43.5	-42.6	



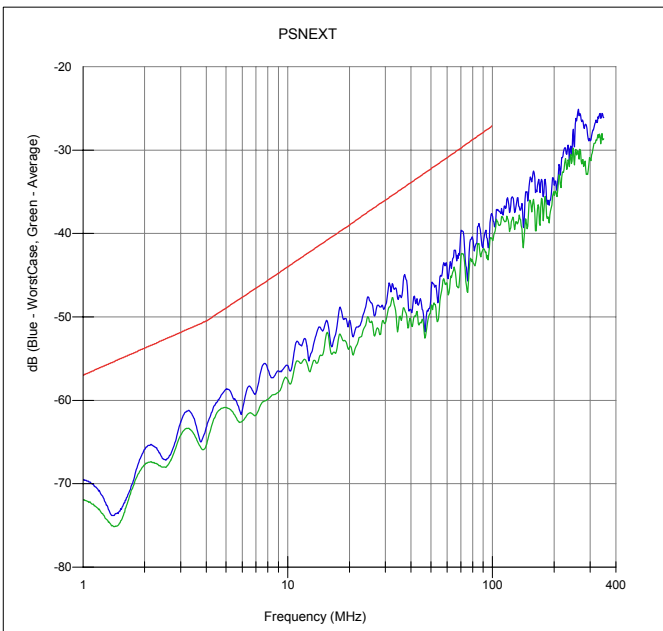
Return Loss			
Freq	Worst Case	Average	Spec
1.	-38.2	-41.4	-17.0
4.	-34.8	-44.7	-17.0
8.	-33.4	-35.0	-17.0
10.	-31.3	-36.8	-17.0
16.	-38.0	-43.1	-17.0
20.	-41.3	-45.3	-17.0
25.	-30.4	-40.5	-16.0
31.25	-29.1	-39.4	-15.1
62.5	-28.7	-41.2	-12.0
100.	-24.4	-29.9	-10.0
200.	-22.3	-25.9	
250.	-21.3	-32.8	
350.	-17.5	-38.5	

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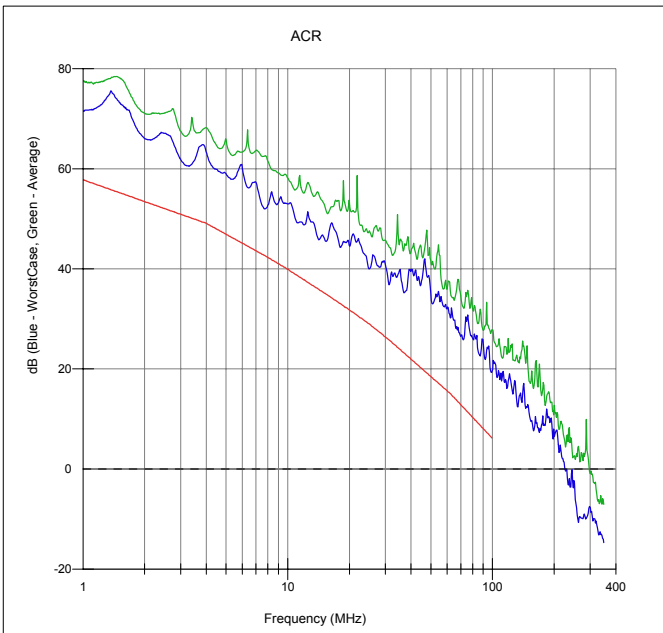
NEXT			
Freq	Worst Case	Average	Spec
1.	-73.4	-79.4	-60.0
4.	-66.9	-71.9	-53.5
8.	-57.9	-66.8	-48.6
10.	-58.8	-64.0	-47.0
16.	-55.7	-59.2	-43.6
20.	-53.1	-62.1	-42.0
25.	-49.5	-57.1	-40.3
31.25	-48.1	-55.2	-38.7
62.5	-45.9	-50.6	-33.6
100.	-40.2	-48.2	-30.1
200.	-37.6	-42.1	
250.	-32.6	-36.9	
350.	-28.8	-34.8	



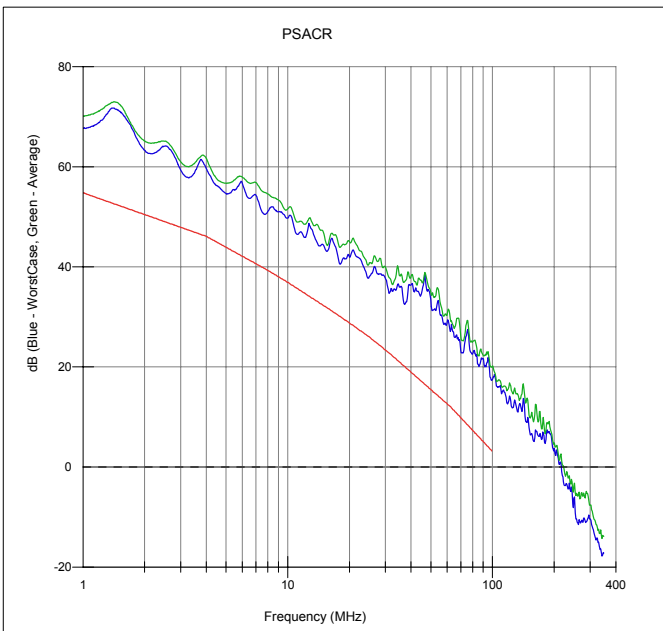
PSNEXT			
Freq	Worst Case	Average	Spec
1.	-69.6	-72.0	-57.0
4.	-63.2	-65.4	-50.5
8.	-56.3	-59.9	-45.6
10.	-55.8	-57.5	-44.0
16.	-52.1	-53.2	-40.6
20.	-50.5	-53.7	-39.0
25.	-47.9	-50.4	-37.3
31.25	-45.9	-48.8	-35.7
62.5	-43.7	-45.2	-30.6
100.	-38.0	-40.8	-27.1
200.	-33.9	-35.2	
250.	-29.2	-31.1	
350.	-26.1	-28.7	

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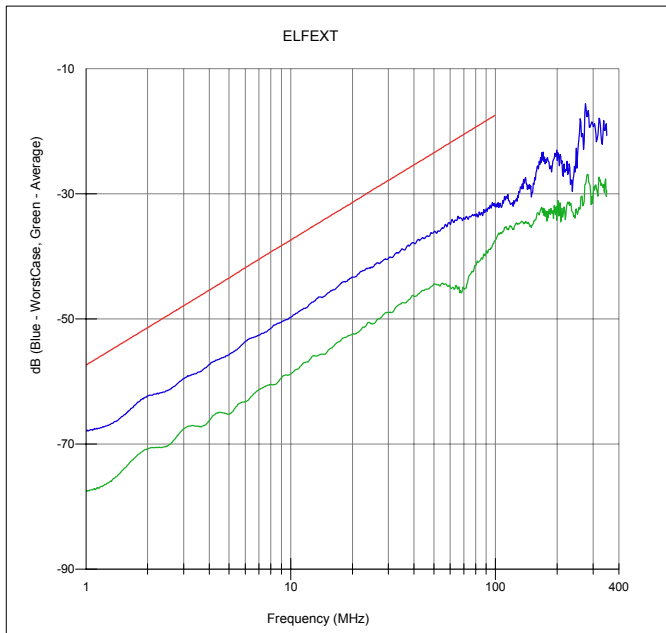
ACR				
Freq	Worst Case	Average	Spec	
1.	71.6	77.6	57.8	
4.	63.3	68.2	49.1	
8.	52.7	61.6	42.3	
10.	53.0	58.2	39.9	
16.	47.8	51.7	34.5	
20.	44.7	53.6	31.8	
25.	40.0	47.5	29.0	
31.25	36.8	44.4	25.8	
62.5	30.3	34.9	15.0	
100.	19.8	27.8	6.2	
200.	7.1	11.9		
250.	-2.3	2.5		
350.	-14.7	-7.1		



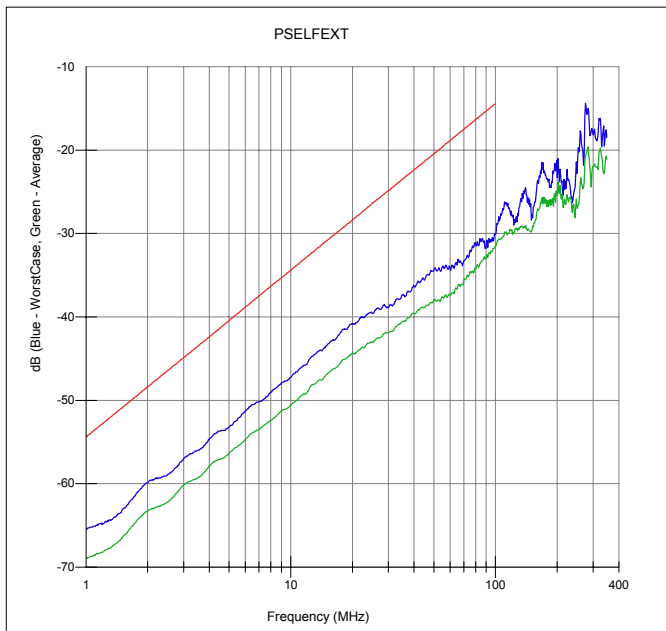
PSACR				
Freq	Worst Case	Average	Spec	
1.	67.8	70.2	54.8	
4.	59.6	61.7	46.1	
8.	51.1	54.6	39.3	
10.	49.7	51.6	36.9	
16.	44.3	45.6	31.5	
20.	42.1	45.1	28.8	
25.	38.0	40.7	26.0	
31.25	34.7	37.8	22.8	
62.5	27.4	29.2	12.0	
100.	17.6	20.2	3.2	
200.	3.5	4.7		
250.	-6.3	-3.7		
350.	-17.2	-13.9		

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ELFEXT			
Freq	Worst Case	Average	Spec
1.	-67.8	-77.4	-57.4
4.	-57.3	-66.3	-45.4
8.	-51.5	-60.5	-39.3
10.	-49.8	-58.8	-37.4
16.	-45.4	-54.6	-33.3
20.	-43.3	-52.5	-31.4
25.	-41.8	-50.8	-29.4
31.25	-40.2	-49.0	-27.5
62.5	-34.6	-45.1	-21.5
100.	-32.1	-37.4	-17.5
200.	-24.0	-33.1	
250.	-25.9	-32.9	
350.	-20.7	-29.5	



PSELFEXT			
Freq	Worst Case	Average	Spec
1.	-65.5	-69.0	-54.4
4.	-54.7	-57.9	-42.4
8.	-49.0	-52.4	-36.3
10.	-47.3	-50.6	-34.4
16.	-42.8	-46.3	-30.3
20.	-40.8	-44.4	-28.4
25.	-39.6	-43.1	-26.4
31.25	-38.6	-41.7	-24.5
62.5	-34.1	-37.2	-18.5
100.	-30.1	-31.5	-14.5
200.	-22.4	-25.4	
250.	-22.7	-26.7	
350.	-18.5	-21.1	