

July 20, 2012

Test report number 100808350CRT-001b
Project number 100808350-311

Comtran Cable LLC
330A Turner Street
South Attleboro, MA 02703-7714

TEST:

Electrical performance testing of a cabling configuration to the requirements of ANSI/TIA-568-C.2 for Category 6 channel.

STANDARD USED:

ANSI/TIA-568-C.2-2009: Balanced Twisted-Pair Telecommunications Cabling and Components Standards, dated August 2009

SECTION:

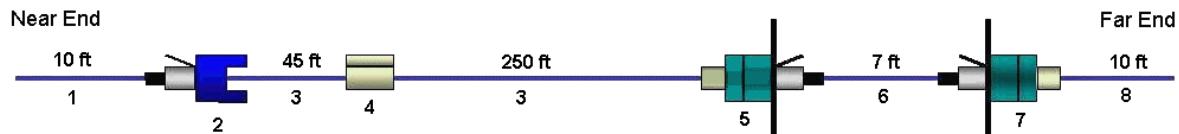
6.2: Channel transmission performance (6.2.1 to 6.2.26)

AUTHORIZATION:

The project was authorized by Mr. Louis Gaudreau, representing the client, Comtran Cable LLC, with signed quotation number 500388782.

SAMPLE DESCRIPTION:

The client supplied a 4-connector channel as illustrated below. The sample was received on July 13, 2012 and was in good condition.



<u>Component Id</u>	<u>Manufacturer</u>	<u>Description</u>	<u>Part number</u>
1, 8	Dynacom	Equipment Cord	600E10-BL
2	Dynacom	Wall Outlet	10606K-WH
3	Comtran	Horizontal Cable (CMP)	38601
4	Dynacom	110 Block	610WB-48
5, 7	Dynacom	Patch Panel	2013-24C6E
6	Dynacom	Cross Connect Cord	600E07-BL





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>	<u>Calibration due date</u>
HP Automatic Cable Test System	46152A	E307	2/23/2012	2/23/2013

DATE OF TEST:

July 20, 2012

TEST REPORT REVISION HISTORY:

First Issue: July 20, 2012 Original Document

RESULTS: See appendix A for the test results.

CONCLUSION:

The channel cabling configuration, as previously described and supplied by the client, was tested in accordance with the standard referred to on page 1, and did comply with the indicated applicable transmission requirements. The testing was performed at Intertek located in Cortland, New York.

The procedures and requirements were taken from the standard referred to on page 1.

Reviewed and Approved By:

Antoine Pelletier
Engineer
Global Cabling Products Testing

John Cash
Technician
Global Cabling Products Testing



Appendix A
Test results

This appendix contains 42 pages.



Low Frequency Report

Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		

DC Resistance (Ohms)				
Blue	Orange	Green	Brown	Limit (Ohms)
7.5183	7.6730	7.4037	7.6292	
7.5785	7.6501	7.4353	7.6564	

Resistance Unbalanced (%)				
Blue	Orange	Green	Brown	Limit (%)
0.40	0.15	0.21	0.18	3.00

Resistance Unbalanced Pair-Pair (%)						
Blue - Orange	Blue - Green	Blue - Brown	Orange - Green	Orange - Brown	Green - Brown	Limit (%)
0.74	0.86	0.62	1.61	0.12	1.48	

DC Loop Resistance (Ohms)				
Blue	Orange	Green	Brown	Limit (Ohms)
15.1020	15.3250	14.8390	15.2870	25.0000



Attenuation (Near End)

Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		

Attenuation Near End (dB)				
Frequency	Blue	Orange	Green	Brown
0.772	-1.51	-1.51	-1.34	-1.50
1.	-1.72	-1.72	-1.56	-1.71
4.	-3.49	-3.50	-3.31	-3.47
8.	-4.98	-5.00	-4.77	-4.95
10.	-5.58	-5.61	-5.38	-5.56
16.	-7.09	-7.14	-6.88	-7.07
20.	-7.95	-8.02	-7.75	-7.94
25.	-8.93	-9.01	-8.72	-8.92
31.25	-10.03	-10.14	-9.82	-10.05
62.5	-14.46	-14.63	-14.28	-14.51
100.	-18.57	-18.86	-18.39	-18.65
150.	-23.13	-23.49	-22.96	-23.17
155.	-23.57	-23.92	-23.37	-23.60
200.	-27.03	-27.46	-27.15	-27.14
250.	-30.45	-31.14	-30.55	-30.80



Near End Cross Talk (Near End)

Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel		
Part No	38601	Length(m)	98.
Test Started	7/20/2012 10:09:49 AM	Temperature	20 °C
Description	4 Connector Channel	Appendix	A
Operator Name	John Cash	Test Status	Complies

NEXT Near End (dB)						
Frequency	Blue - Orange	Blue - Green	Blue - Brown	Orange - Green	Orange - Brown	Green - Brown
0.772	-92.13	-85.53	-90.96	-90.05	-92.13	-90.87
1.	-91.07	-95.71	-87.81	-86.55	-91.95	-86.31
4.	-78.23	-80.50	-90.55	-81.66	-78.97	-82.45
8.	-75.94	-79.27	-86.68	-88.25	-75.54	-74.20
10.	-77.56	-78.03	-82.35	-77.56	-72.49	-75.25
16.	-66.80	-75.58	-83.34	-69.70	-76.77	-67.68
20.	-64.64	-67.73	-73.85	-71.90	-70.68	-66.04
25.	-68.39	-73.47	-76.02	-63.63	-61.60	-68.22
31.25	-64.02	-67.50	-67.13	-63.29	-65.80	-62.35
62.5	-60.62	-67.80	-75.29	-66.16	-59.46	-62.72
100.	-51.89	-60.96	-58.09	-55.03	-60.39	-68.18
150.	-60.65	-57.52	-56.83	-54.85	-52.02	-55.61
155.	-56.86	-61.53	-50.95	-52.55	-56.30	-56.74
200.	-49.72	-51.54	-54.51	-47.04	-56.63	-48.52
250.	-53.61	-46.43	-59.89	-52.84	-51.07	-48.92



Near End Cross Talk (Far End)

Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel		
Part No	38601	Length(m)	98.
Test Started	7/20/2012 10:09:49 AM	Temperature	20 °C
Description	4 Connector Channel	Appendix	A
Operator Name	John Cash	Test Status	Complies

NEXT Far End (dB)						
Frequency	Blue - Orange	Blue - Green	Blue - Brown	Orange - Green	Orange - Brown	Green - Brown
0.772	-97.10	-86.19	-91.63	-90.29	-88.72	-91.96
1.	-95.09	-86.77	-86.87	-86.89	-92.42	-86.50
4.	-81.97	-81.08	-85.88	-81.19	-80.51	-79.48
8.	-72.19	-69.31	-86.76	-72.36	-72.83	-72.86
10.	-74.55	-77.23	-83.29	-69.98	-68.12	-67.86
16.	-73.22	-65.50	-73.03	-73.39	-72.86	-77.57
20.	-63.63	-62.55	-73.17	-81.52	-77.83	-69.62
25.	-75.98	-60.61	-69.88	-68.51	-60.22	-67.68
31.25	-67.58	-60.92	-62.83	-62.53	-66.68	-63.16
62.5	-64.94	-53.76	-62.36	-62.27	-60.98	-58.34
100.	-55.11	-54.61	-55.94	-50.02	-57.78	-51.77
150.	-62.41	-52.08	-56.52	-52.96	-51.91	-50.05
155.	-70.38	-47.23	-58.81	-52.19	-53.94	-49.58
200.	-60.88	-53.96	-48.43	-51.00	-53.04	-42.38
250.	-58.53	-51.10	-54.69	-52.20	-52.33	-48.73



NEXT Power Sum (Near End)

Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		

PS NEXT Near End (dB)				
Frequency	Blue	Orange	Green	Brown
0.772	-83.69	-86.53	-83.24	-86.44
1.	-84.31	-84.22	-81.95	-83.23
4.	-75.85	-74.60	-76.42	-76.94
8.	-73.77	-72.50	-72.84	-71.64
10.	-73.81	-69.82	-71.70	-70.21
16.	-65.66	-64.51	-64.65	-66.81
20.	-62.50	-62.89	-63.13	-64.08
25.	-66.43	-58.91	-61.83	-60.59
31.25	-61.13	-59.46	-59.10	-59.82
62.5	-59.73	-56.49	-60.23	-57.67
100.	-50.54	-49.77	-53.86	-55.81
150.	-53.27	-49.82	-51.07	-49.54
155.	-49.64	-50.02	-50.73	-49.03
200.	-46.72	-44.85	-43.87	-47.04
250.	-45.51	-47.60	-43.90	-46.64



NEXT Power Sum (Far End)

Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		

PS NEXT Far End (dB)				
Frequency	Blue	Orange	Green	Brown
0.772	-84.50	-85.90	-83.96	-85.69
1.	-82.81	-84.82	-81.38	-82.46
4.	-77.00	-75.97	-75.61	-75.78
8.	-67.43	-67.68	-66.42	-69.73
10.	-71.92	-65.32	-65.38	-64.91
16.	-64.19	-68.11	-64.32	-68.82
20.	-59.82	-63.33	-61.73	-67.29
25.	-59.97	-59.39	-59.19	-59.12
31.25	-58.22	-60.17	-57.33	-59.11
62.5	-52.91	-57.66	-52.03	-55.46
100.	-50.41	-48.32	-46.97	-49.64
150.	-50.44	-49.18	-46.75	-47.31
155.	-46.92	-49.92	-44.43	-47.85
200.	-47.16	-48.62	-41.55	-41.12
250.	-49.01	-48.77	-45.66	-46.45



Attenuation to Cross Talk Ratio (Near End)

Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel		
Part No	38601	Length(m)	98.
Test Started	7/20/2012 10:09:49 AM	Temperature	20 °C
Description	4 Connector Channel	Appendix	A
Operator Name	John Cash	Test Status	Complies

ACR Near End (dB)						
Frequency	Blue - Orange	Blue - Green	Blue - Brown	Orange - Green	Orange - Brown	Green - Brown
0.772	90.63	84.18	89.46	88.71	90.63	89.37
1.	89.35	94.15	86.11	84.99	90.24	84.60
4.	74.73	77.20	87.08	78.36	75.49	78.97
8.	70.95	74.49	81.72	83.47	70.58	69.25
10.	71.95	72.66	76.79	72.18	66.93	69.69
16.	59.66	68.69	76.27	62.82	69.70	60.61
20.	56.62	59.98	65.91	64.15	62.74	58.10
25.	59.38	64.75	67.10	54.91	52.68	59.30
31.25	53.88	57.68	57.09	53.47	55.76	52.30
62.5	45.99	53.52	60.78	51.88	44.96	48.21
100.	33.04	42.57	39.44	36.64	41.75	49.54
150.	37.15	34.56	33.66	31.89	28.85	32.44
155.	32.94	38.16	27.35	29.18	32.70	33.13
200.	22.26	24.39	27.37	19.88	29.49	21.38
250.	22.47	15.88	29.09	22.29	20.27	18.12



Attenuation to Cross Talk Ratio (Far End)

Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel		
Part No	38601	Length(m)	98.
Test Started	7/20/2012 10:09:49 AM	Temperature	20 °C
Description	4 Connector Channel	Appendix	A
Operator Name	John Cash	Test Status	Complies

ACR Far End (dB)						
Frequency	Blue - Orange	Blue - Green	Blue - Brown	Orange - Green	Orange - Brown	Green - Brown
0.772	95.59	84.81	90.13	88.92	87.22	90.46
1.	93.37	85.18	85.16	85.30	90.71	84.79
4.	78.47	77.73	82.41	77.84	77.03	76.00
8.	67.20	64.49	81.80	67.54	67.87	67.89
10.	68.94	71.81	77.72	64.56	62.55	62.29
16.	66.08	58.58	65.95	66.48	65.78	70.49
20.	55.61	54.77	65.22	73.74	69.88	61.68
25.	66.95	51.85	60.94	59.76	51.28	58.74
31.25	57.43	51.04	52.77	52.65	56.61	53.10
62.5	50.30	39.48	47.87	47.99	46.49	43.86
100.	36.30	36.09	37.28	31.50	39.12	33.11
150.	38.89	29.10	33.31	29.98	28.69	26.84
155.	46.48	23.85	35.16	28.82	30.29	25.93
200.	33.34	26.83	21.31	23.87	25.92	15.26
250.	27.35	20.53	23.84	21.63	21.49	17.88



Power Sum ACR (Near End)

Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		

PS ACR Near End (dB)				
Frequency	Blue	Orange	Green	Brown
0.772	82.19	85.03	81.89	84.94
1.	82.59	82.50	80.40	81.52
4.	72.36	71.10	73.12	73.47
8.	68.79	67.51	68.07	66.69
10.	68.23	64.21	66.33	64.64
16.	58.57	57.37	57.76	59.73
20.	54.55	54.87	55.39	56.14
25.	57.50	49.90	53.12	51.67
31.25	51.10	49.32	49.28	49.77
62.5	45.26	41.87	45.96	43.16
100.	31.98	30.91	35.47	37.16
150.	30.14	26.32	28.12	26.37
155.	26.07	26.10	27.36	25.42
200.	19.69	17.40	16.71	19.89
250.	15.06	16.46	13.34	15.84



Power Sum ACR (Far End)

Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		

PS ACR Far End (dB)				
Frequency	Blue	Orange	Green	Brown
0.772	82.98	84.40	82.59	84.19
1.	81.08	83.10	79.79	80.74
4.	73.50	72.47	72.27	72.31
8.	62.45	62.68	61.61	64.77
10.	66.33	59.70	59.96	59.34
16.	57.09	60.97	57.41	61.74
20.	51.86	55.31	53.95	59.34
25.	51.03	50.36	50.44	50.18
31.25	48.17	50.02	47.45	49.04
62.5	38.45	43.03	37.75	40.97
100.	31.76	29.51	28.46	30.98
150.	27.33	25.65	23.77	24.10
155.	23.37	26.02	21.05	24.19
200.	20.22	21.09	14.42	14.00
250.	18.52	17.59	15.09	15.60



FEXT (Near End)

Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel		
Part No	38601	Length(m)	98.
Test Started	7/20/2012 10:09:49 AM	Temperature	20 °C
Description	4 Connector Channel	Appendix	A
Operator Name	John Cash	Test Status	Complies

FEXT Near End (dB)						
Frequency	Blue - Orange	Blue - Green	Blue - Brown	Orange - Blue	Orange - Green	Orange - Brown
0.772	-91.95	-80.04	-97.58	-91.04	-82.19	-91.40
1.	-89.50	-78.18	-95.16	-92.36	-80.45	-90.32
4.	-86.79	-68.94	-95.45	-84.80	-71.56	-78.70
8.	-78.26	-64.64	-85.87	-82.34	-68.01	-74.25
10.	-77.46	-63.18	-82.81	-82.41	-66.80	-73.23
16.	-73.14	-60.25	-73.71	-90.20	-65.26	-70.84
20.	-71.17	-59.07	-70.00	-89.38	-65.84	-70.33
25.	-71.75	-58.30	-67.93	-75.21	-67.16	-68.15
31.25	-73.13	-57.25	-68.14	-70.39	-71.26	-69.45
62.5	-68.68	-56.61	-62.38	-68.29	-59.00	-68.07
100.	-65.56	-57.53	-65.56	-66.49	-60.07	-67.18
150.	-63.37	-58.19	-77.14	-67.08	-60.56	-70.09
155.	-65.24	-57.59	-76.73	-66.32	-59.28	-72.10
200.	-65.24	-59.89	-69.37	-68.00	-72.27	-80.41
250.	-66.16	-63.19	-75.05	-69.12	-64.80	-88.21



FEXT (Near End)

Client Comtran **Project No** 100808350CRT-001b
Specification TIA-568-C2 - Cat 6 Channel
Part No 38601 **Length(m)** 98.
Test Started 7/20/2012 10:09:49 AM **Temperature** 20 °C
Description 4 Connector Channel **Appendix** A
Operator Name John Cash **Test Status** **Complies**

FEXT Near End (dB)						
Frequency	Green - Blue	Green - Orange	Green - Brown	Brown - Blue	Brown - Orange	Brown - Green
0.772	-79.56	-83.03	-83.03	-108.33	-90.90	-83.26
1.	-77.68	-81.35	-81.19	-99.28	-90.34	-81.83
4.	-68.79	-71.69	-71.74	-93.75	-78.93	-72.29
8.	-64.73	-67.54	-67.39	-81.69	-74.64	-67.28
10.	-63.38	-66.85	-65.76	-77.81	-73.20	-65.59
16.	-60.51	-65.34	-63.38	-74.60	-71.34	-63.13
20.	-59.18	-65.06	-62.83	-72.75	-70.56	-62.70
25.	-58.37	-65.69	-63.08	-70.34	-68.68	-64.11
31.25	-57.80	-69.77	-64.18	-66.55	-68.70	-65.80
62.5	-56.65	-61.25	-59.55	-62.56	-68.06	-59.83
100.	-56.66	-57.99	-59.34	-62.89	-71.08	-61.16
150.	-60.16	-60.35	-59.45	-74.74	-70.56	-59.70
155.	-61.05	-61.15	-58.99	-77.78	-75.96	-58.11
200.	-60.78	-68.39	-60.20	-69.76	-74.57	-62.70
250.	-62.77	-62.89	-57.96	-71.36	-72.14	-60.59



ELFEXT/ACRF (Near End)

Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel		
Part No	38601	Length(m)	98.
Test Started	7/20/2012 10:09:49 AM	Temperature	20 °C
Description	4 Connector Channel	Appendix	A
Operator Name	John Cash	Test Status	Complies

ELFEXT/ACRF Near End (dB)						
Frequency	Blue - Orange	Blue - Green	Blue - Brown	Orange - Blue	Orange - Green	Orange - Brown
0.772	-90.45	-78.70	-96.09	-89.54	-80.84	-89.90
1.	-87.78	-76.63	-93.46	-90.64	-78.90	-88.61
4.	-83.29	-65.64	-91.98	-81.30	-68.25	-75.23
8.	-73.26	-59.86	-80.92	-77.36	-63.24	-69.30
10.	-71.85	-57.80	-77.25	-76.83	-61.42	-67.67
16.	-66.00	-53.36	-66.64	-83.11	-58.38	-63.77
20.	-63.15	-51.32	-62.06	-81.43	-58.09	-62.39
25.	-62.74	-49.59	-59.01	-66.28	-58.44	-59.23
31.25	-62.99	-47.43	-58.09	-60.36	-61.44	-59.40
62.5	-54.06	-42.33	-47.88	-53.83	-44.72	-53.56
100.	-46.70	-39.14	-46.91	-47.92	-41.67	-48.53
150.	-39.87	-35.23	-53.97	-43.94	-37.60	-46.92
155.	-41.32	-34.21	-53.12	-42.75	-35.90	-48.49
200.	-37.78	-32.73	-42.22	-40.97	-45.11	-53.26
250.	-35.02	-32.64	-44.25	-38.67	-34.25	-57.40



ELFEXT/ACRF (Near End)

Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel		
Part No	38601	Length(m)	98.
Test Started	7/20/2012 10:09:49 AM	Temperature	20 °C
Description	4 Connector Channel	Appendix	A
Operator Name	John Cash	Test Status	Complies

ELFEXT/ACRF Near End (dB)						
Frequency	Green - Blue	Green - Orange	Green - Brown	Brown - Blue	Brown - Orange	Brown - Green
0.772	-78.06	-81.52	-81.54	-106.82	-89.39	-81.92
1.	-75.96	-79.63	-79.49	-97.55	-88.62	-80.27
4.	-65.30	-68.19	-68.27	-90.26	-75.43	-68.98
8.	-59.75	-62.55	-62.44	-76.72	-69.64	-62.50
10.	-57.80	-61.24	-60.19	-72.23	-67.59	-60.21
16.	-53.42	-58.20	-56.30	-67.51	-64.20	-56.25
20.	-51.22	-57.04	-54.89	-64.79	-62.54	-54.96
25.	-49.44	-56.67	-54.16	-61.41	-59.66	-55.40
31.25	-47.76	-59.63	-54.14	-56.52	-58.56	-55.98
62.5	-42.18	-46.62	-45.05	-48.09	-53.43	-45.56
100.	-38.10	-39.14	-40.69	-44.32	-52.22	-42.77
150.	-37.02	-36.85	-36.27	-51.61	-47.07	-36.74
155.	-37.48	-37.23	-35.38	-54.21	-52.04	-34.74
200.	-33.75	-40.94	-33.05	-42.73	-47.11	-35.54
250.	-32.32	-31.75	-27.16	-40.90	-41.00	-30.03



Power Sum ELFEXT/PSACRF (Near End)

Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel		
Part No	38601	Length(m)	98.
Test Started	7/20/2012 10:09:49 AM	Temperature	20 °C
Description	4 Connector Channel	Appendix	A
Operator Name	John Cash	Test Status	Complies

PS ELFEXT/PSACRF Near End (dB)				
Frequency	Blue	Orange	Green	Brown
0.772	-78.19	-79.65	-75.43	-81.00
1.	-76.07	-78.00	-73.40	-79.42
4.	-65.37	-67.12	-62.43	-67.93
8.	-59.45	-61.96	-56.80	-61.46
10.	-57.40	-60.19	-54.93	-59.11
16.	-52.75	-57.05	-50.96	-55.19
20.	-50.54	-56.48	-49.15	-53.75
25.	-48.75	-55.24	-47.82	-53.18
31.25	-46.77	-55.38	-46.86	-52.04
62.5	-40.92	-43.43	-39.68	-43.06
100.	-37.78	-39.68	-34.70	-40.02
150.	-33.86	-35.81	-32.24	-36.06
155.	-33.28	-34.39	-32.13	-34.38
200.	-31.38	-38.98	-29.97	-34.55
250.	-30.78	-32.28	-25.23	-29.17



Return Loss (Near End)

Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		

Return Loss (dB)				
Frequency	Blue	Orange	Green	Brown
0.772	-33.77	-35.32	-34.59	-33.77
1.	-33.52	-34.12	-37.59	-32.98
4.	-32.16	-31.85	-31.40	-30.79
8.	-39.06	-36.51	-42.05	-34.67
10.	-40.88	-36.42	-50.18	-35.60
16.	-45.06	-37.75	-48.21	-37.48
20.	-37.71	-35.17	-53.22	-38.39
25.	-36.28	-30.02	-44.85	-33.88
31.25	-33.65	-33.50	-38.44	-35.38
62.5	-36.83	-37.69	-36.29	-40.54
100.	-26.75	-34.08	-39.71	-41.05
150.	-32.68	-30.90	-48.99	-32.05
155.	-79.54	-33.23	-27.80	-36.39
200.	-33.64	-31.39	-47.06	-32.68
250.	-29.88	-47.17	-58.78	-25.95



Return Loss (Far End)

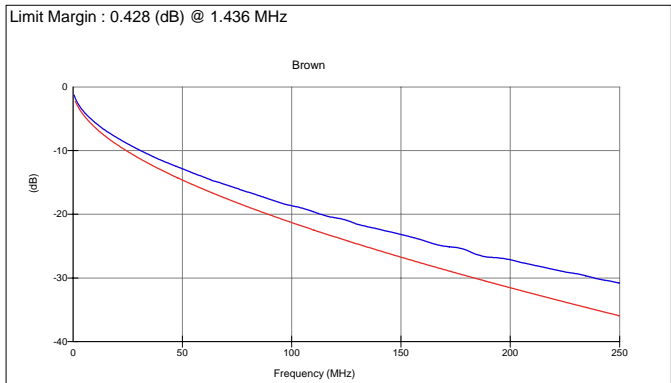
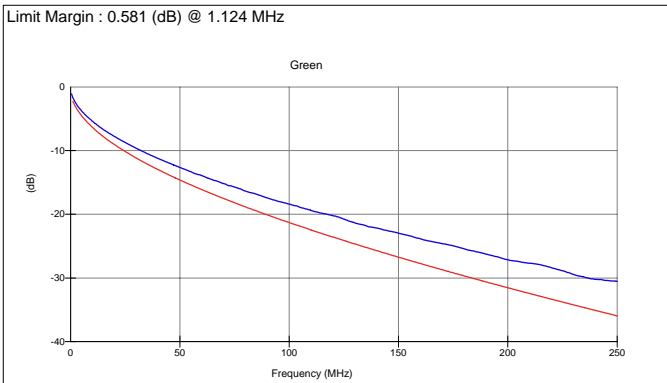
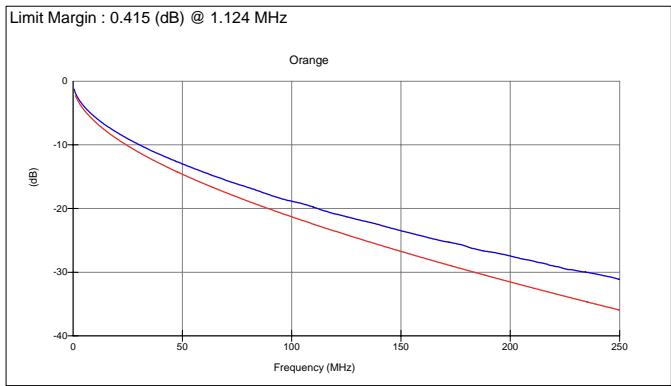
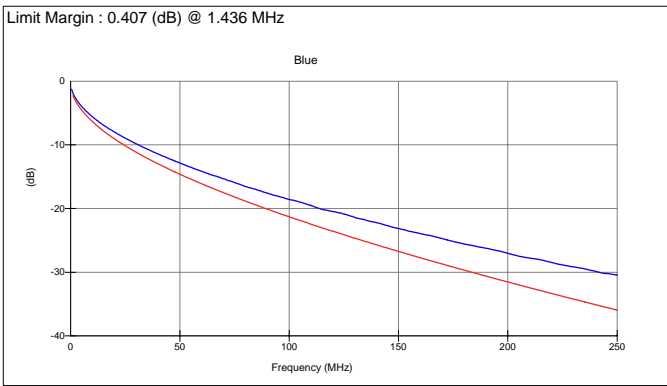
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		

Return Loss (dB)				
Frequency	Blue	Orange	Green	Brown
0.772	-33.41	-34.92	-33.27	-33.12
1.	-33.15	-33.63	-35.41	-32.33
4.	-42.37	-38.81	-36.86	-35.16
8.	-35.51	-59.51	-33.65	-56.66
10.	-35.43	-43.01	-34.11	-47.53
16.	-44.17	-50.40	-38.71	-61.16
20.	-49.12	-46.75	-41.29	-40.86
25.	-38.78	-41.98	-33.28	-32.41
31.25	-34.12	-43.42	-33.98	-34.45
62.5	-41.23	-38.69	-32.15	-31.56
100.	-27.21	-69.73	-28.87	-29.47
150.	-36.05	-41.82	-28.73	-22.46
155.	-31.06	-34.69	-35.85	-23.76
200.	-27.04	-41.40	-35.68	-29.70
250.	-25.10	-45.40	-38.27	-22.72



Attenuation (Near End)

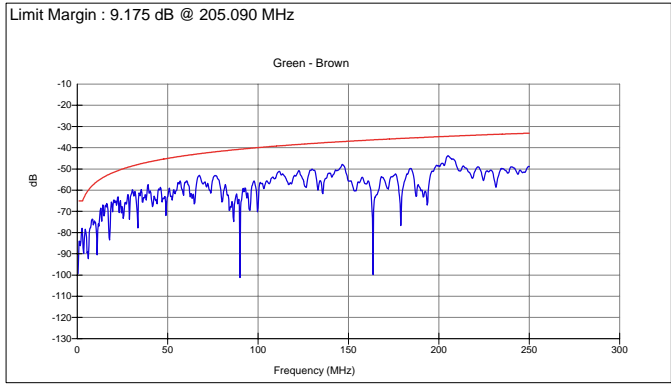
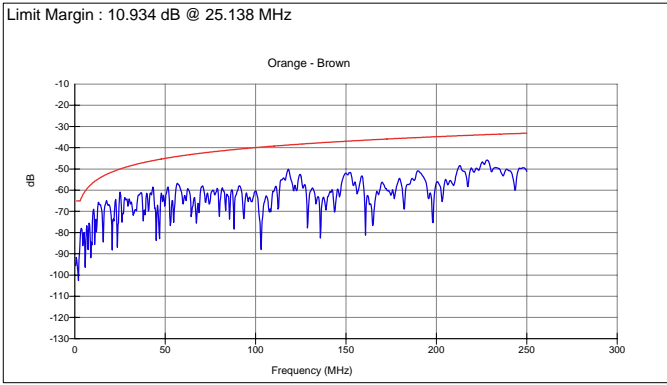
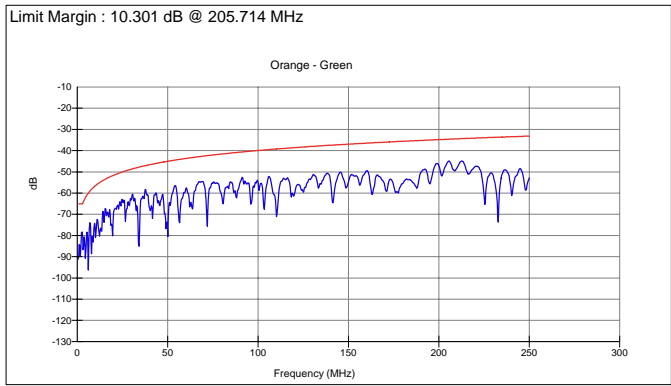
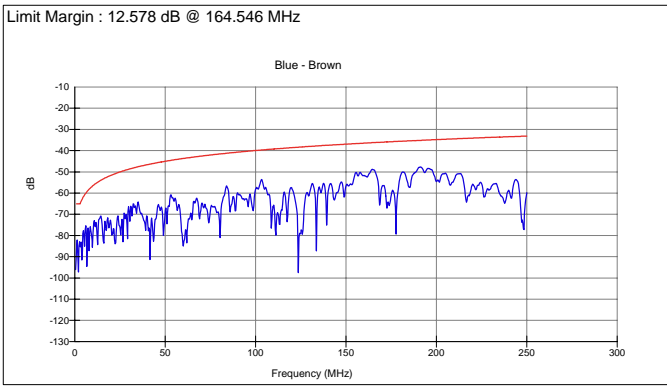
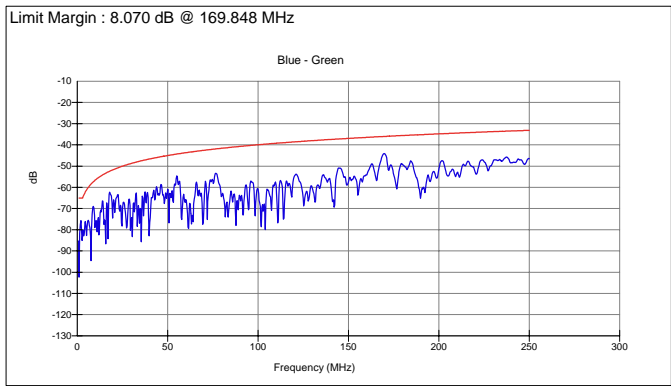
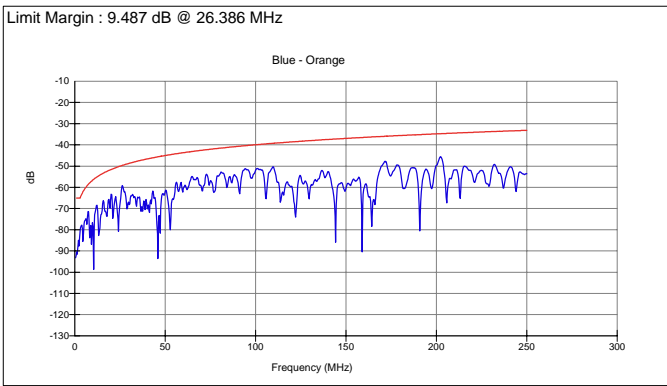
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





Near End Cross Talk (Near End)

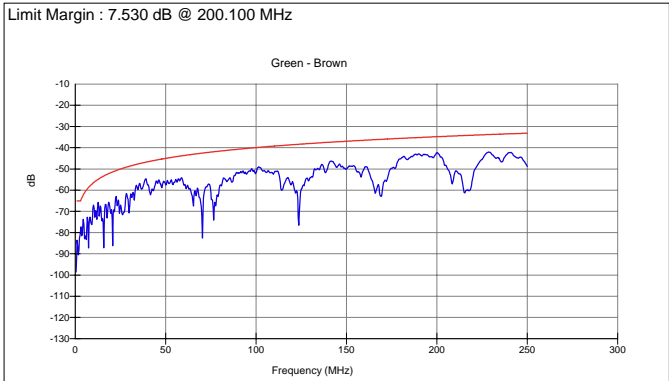
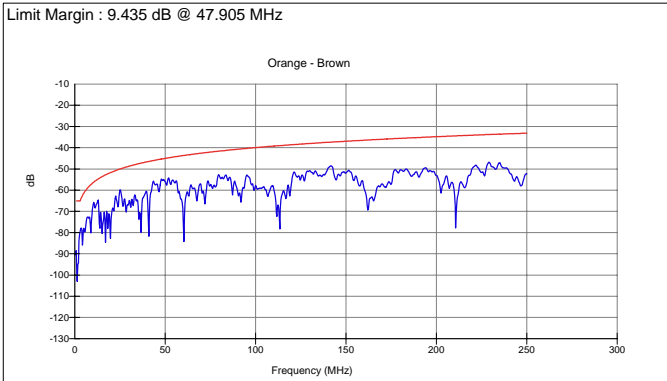
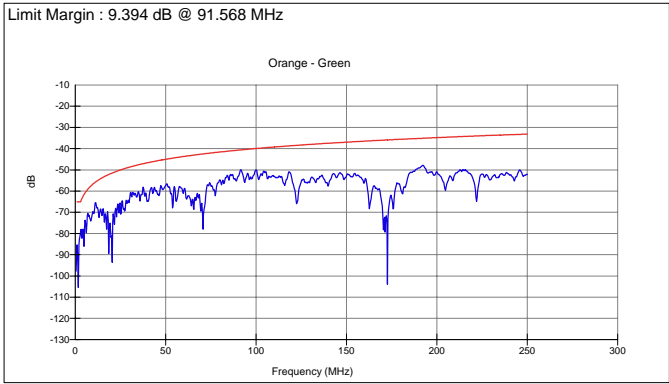
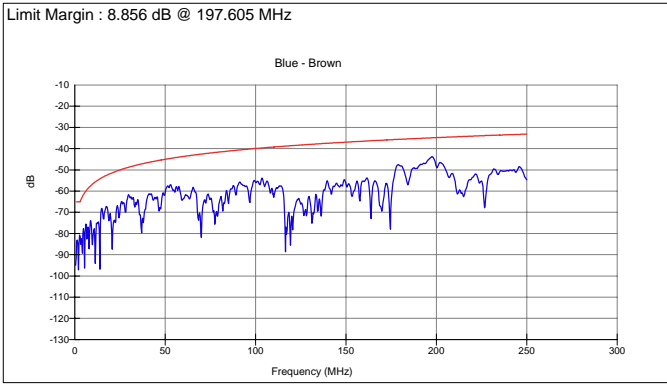
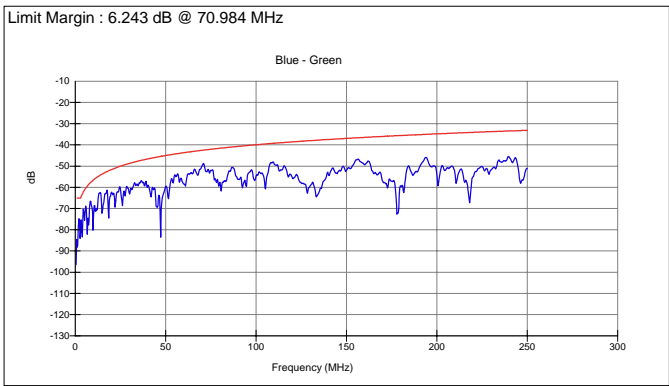
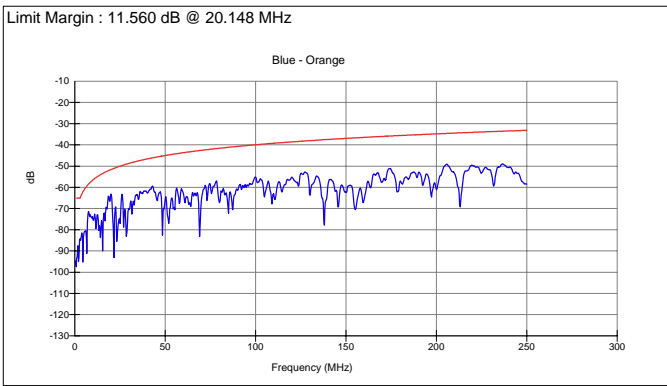
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





Near End Cross Talk (Far End)

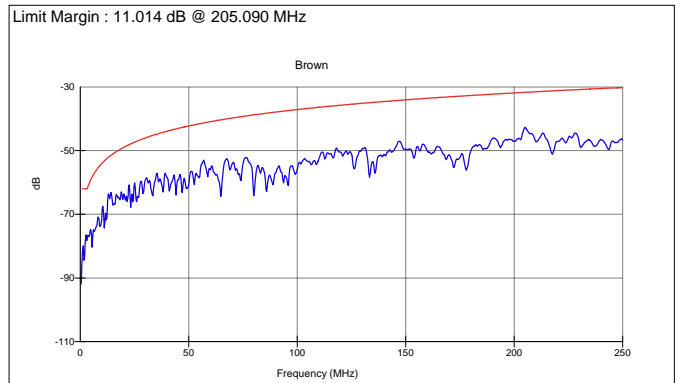
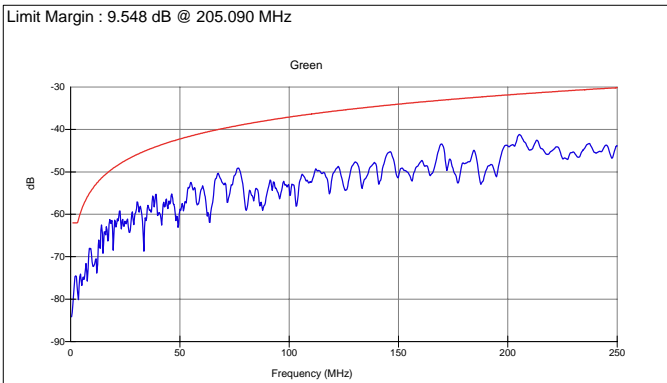
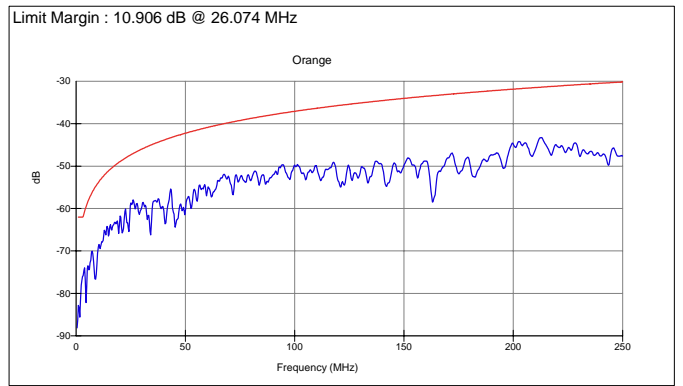
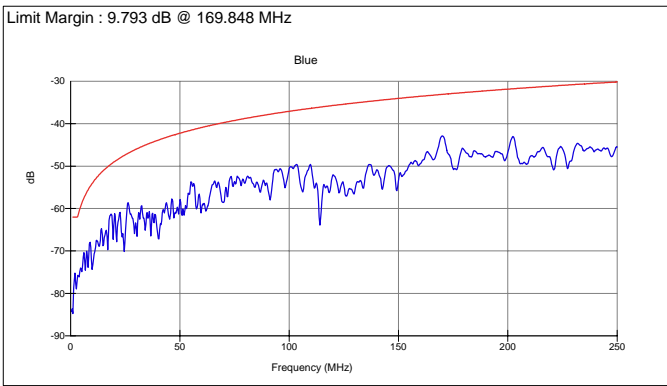
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





Power Sum NEXT (Near End)

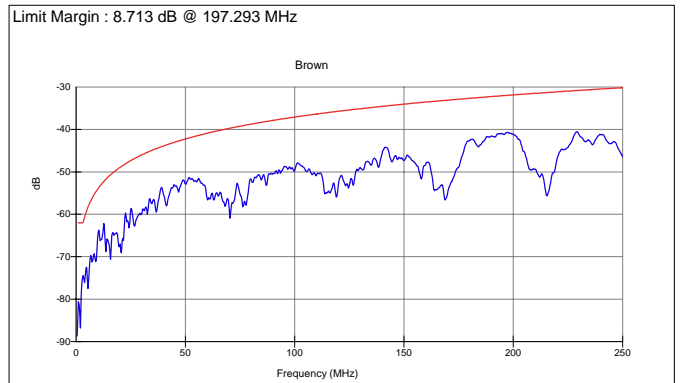
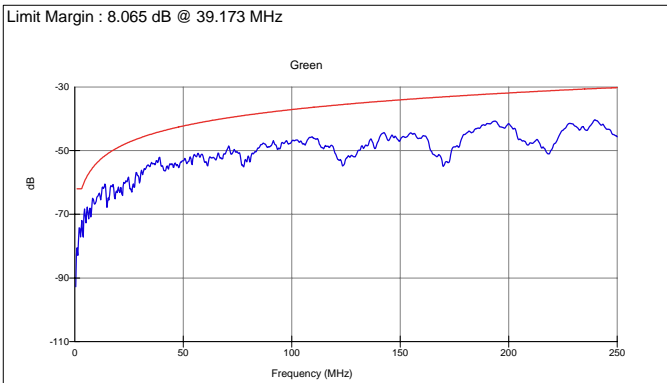
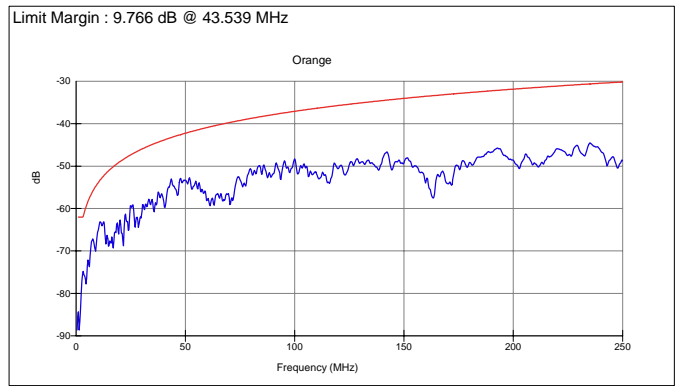
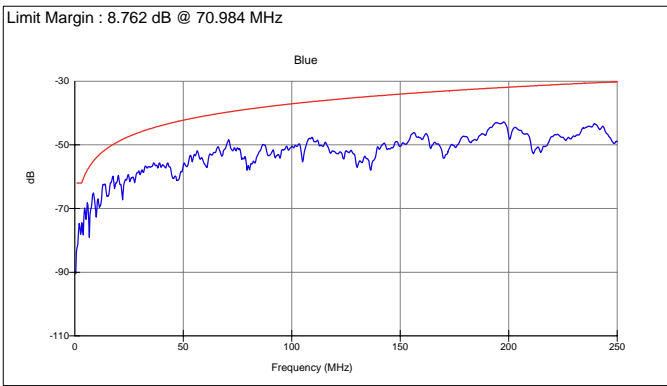
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





Power Sum NEXT (Far End)

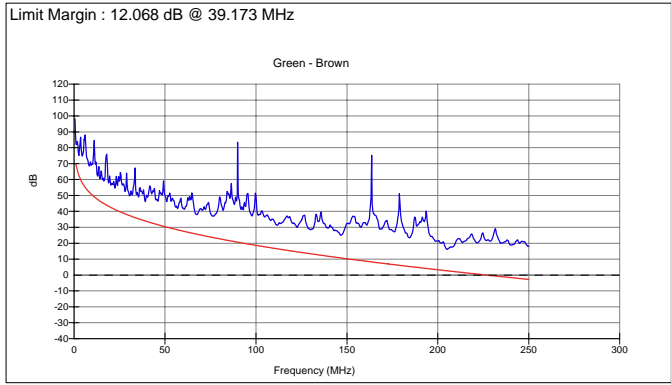
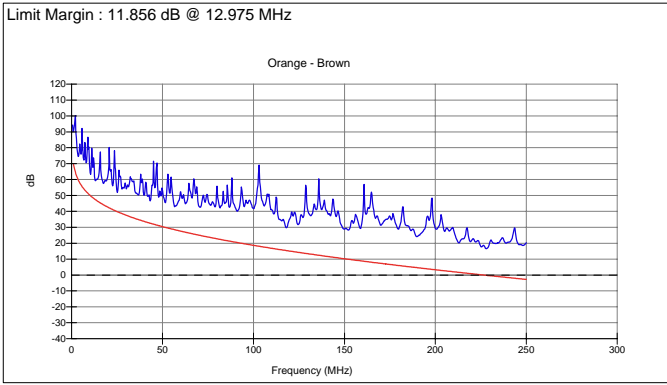
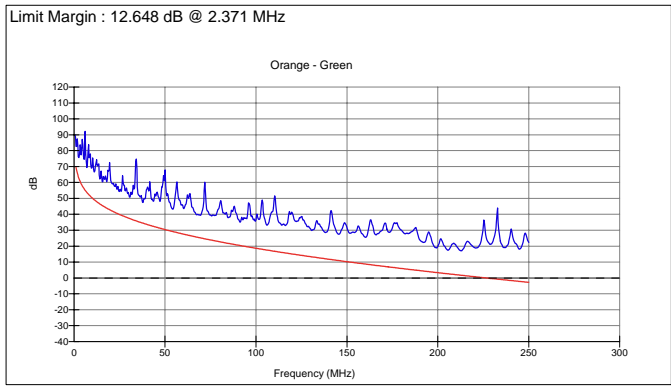
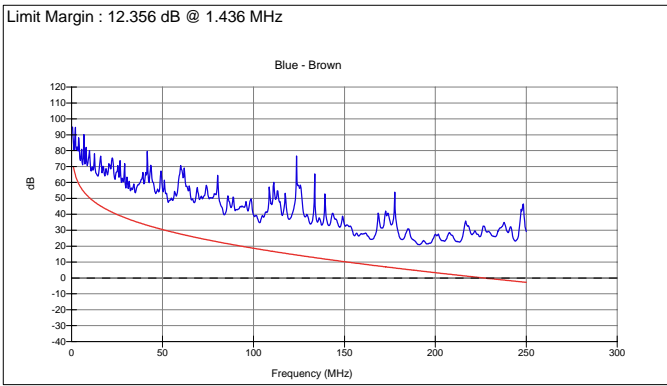
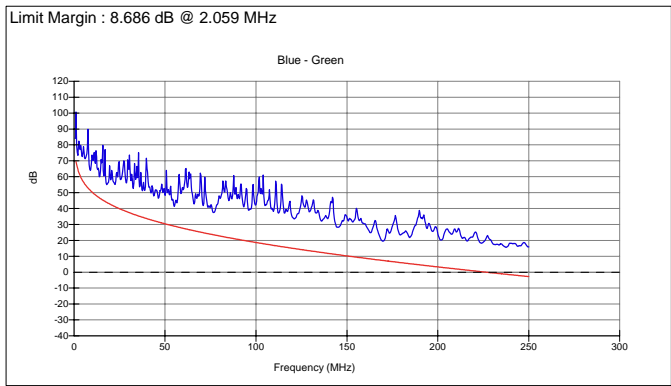
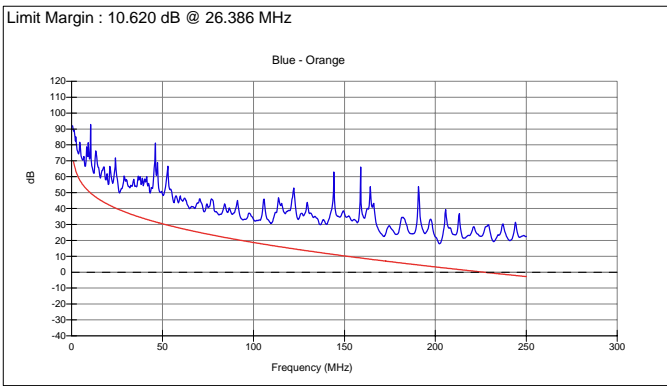
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





Attenuation to Cross Talk Ratio (Near End)

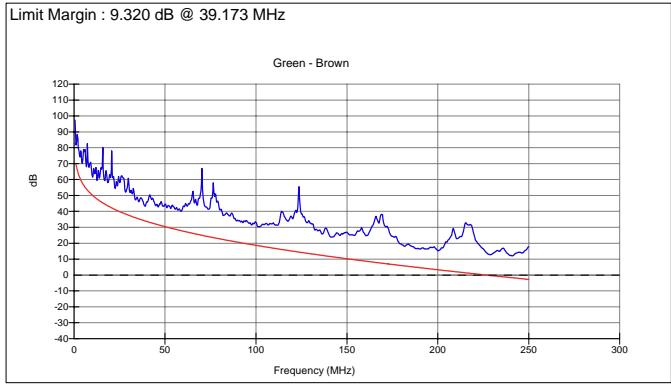
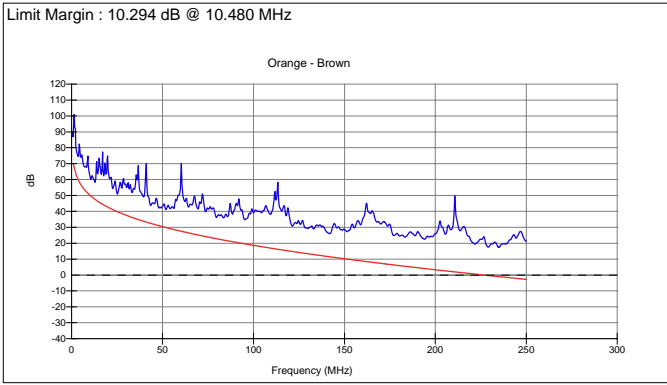
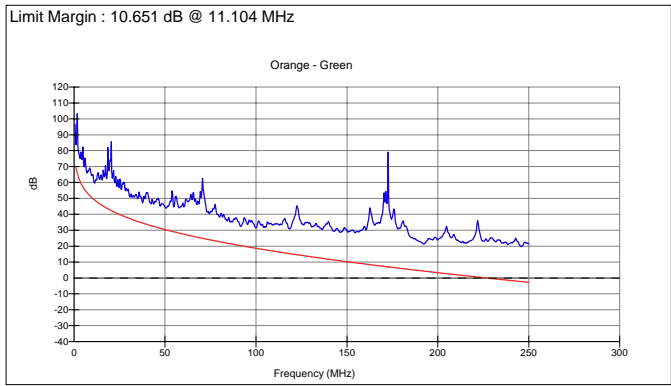
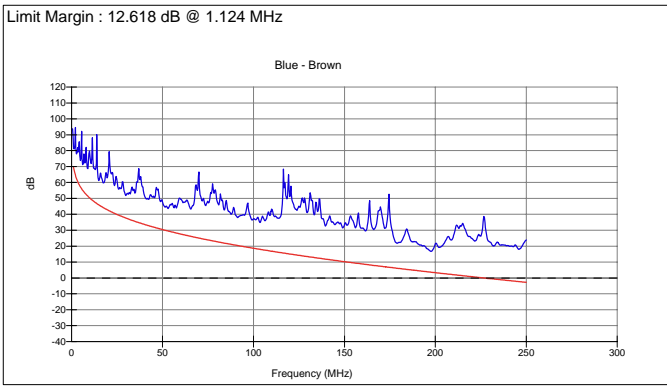
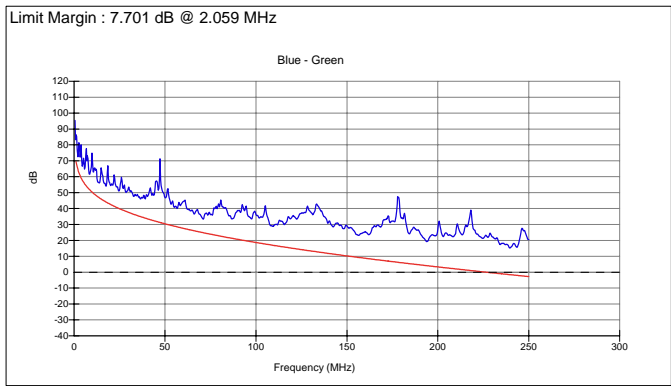
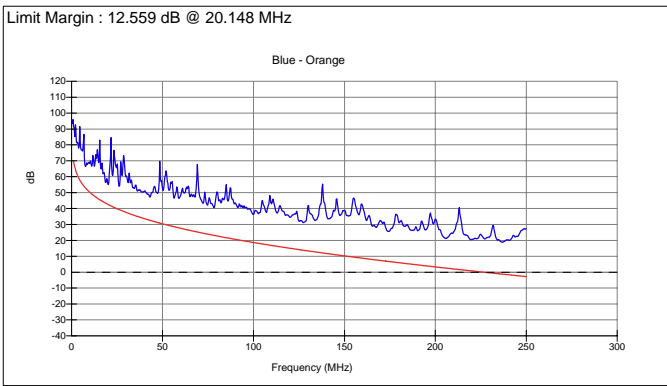
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





Attenuation to Cross Talk Ratio (Far End)

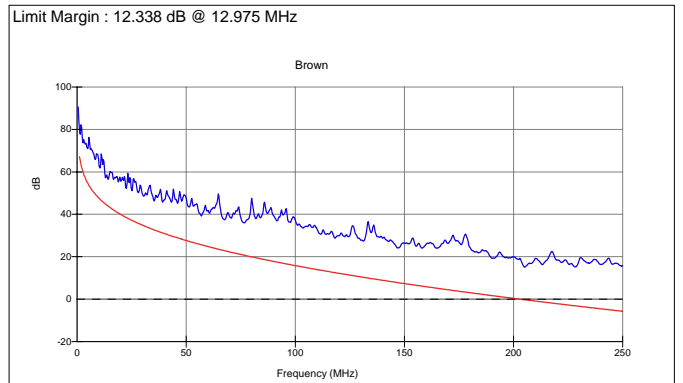
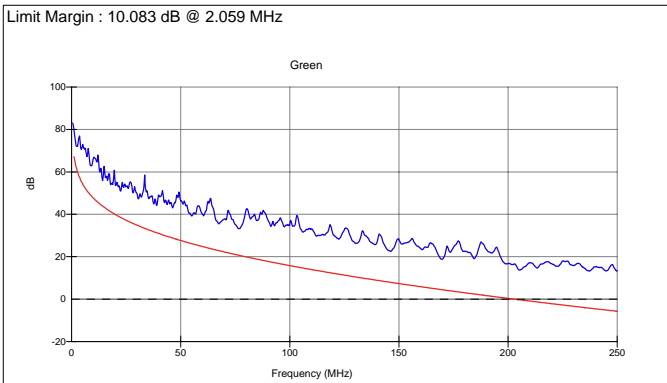
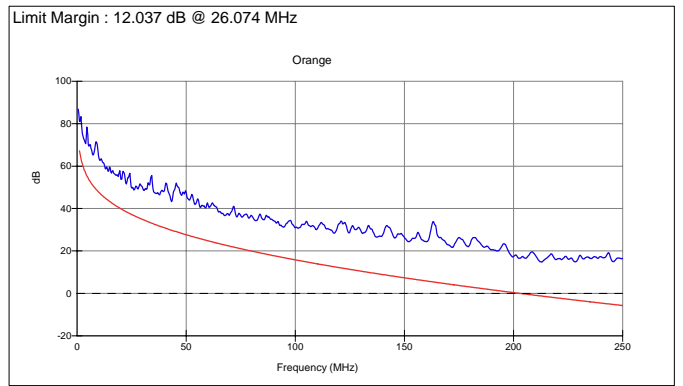
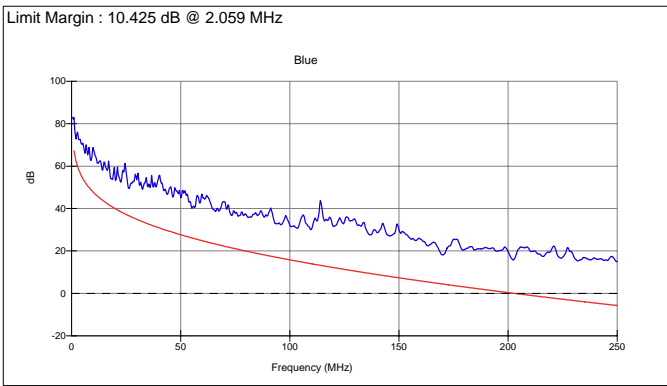
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





Power Sum ACR (Near End)

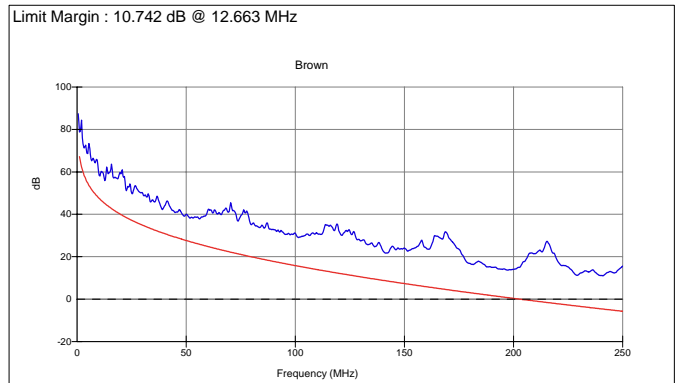
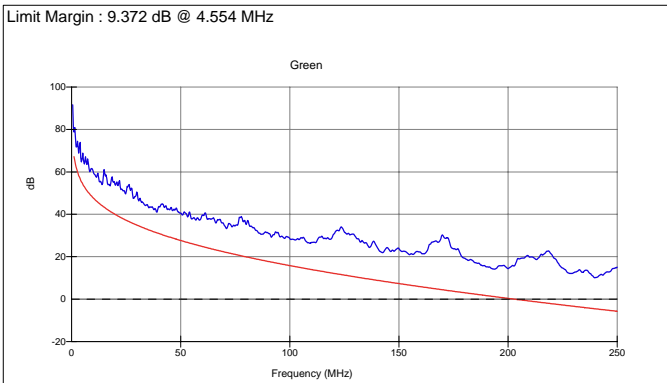
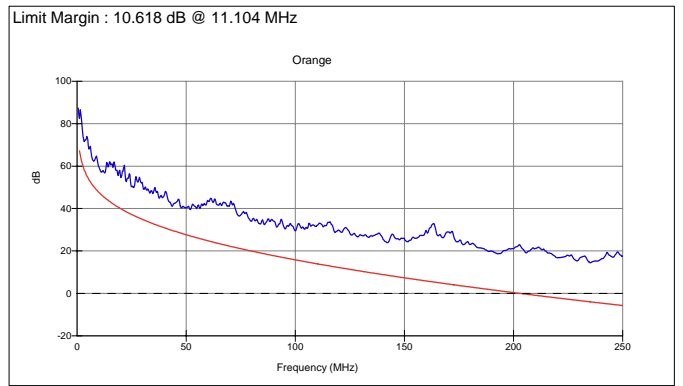
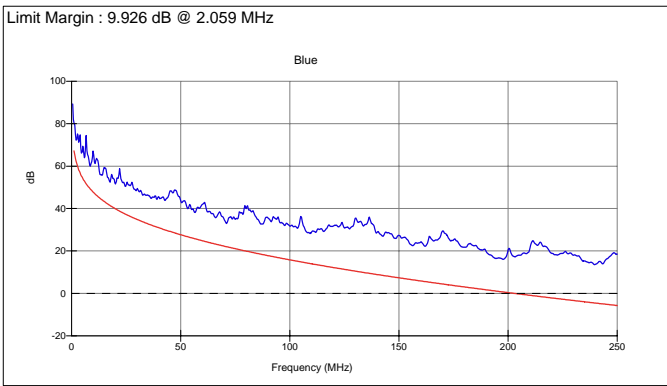
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





Power Sum ACR (Far End)

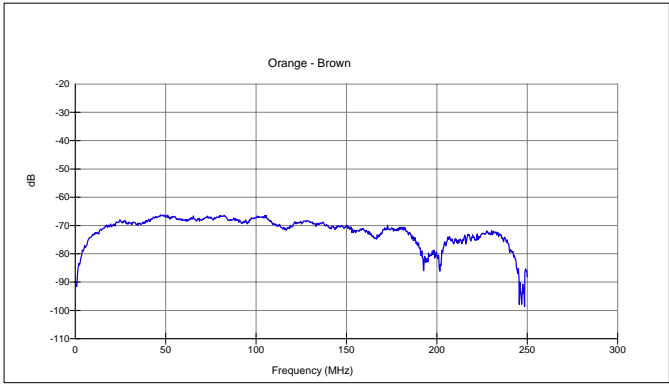
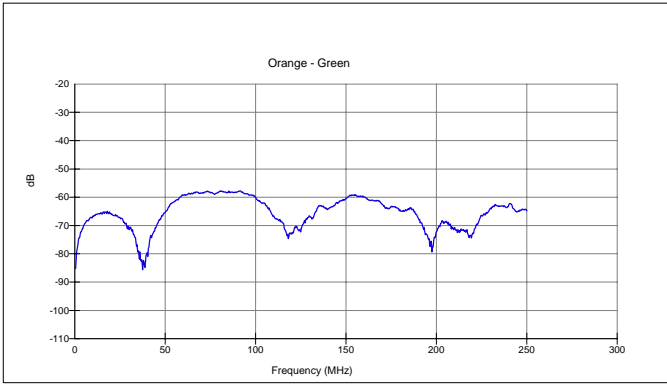
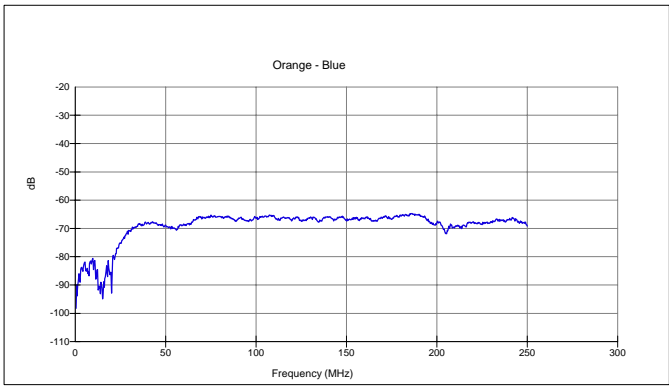
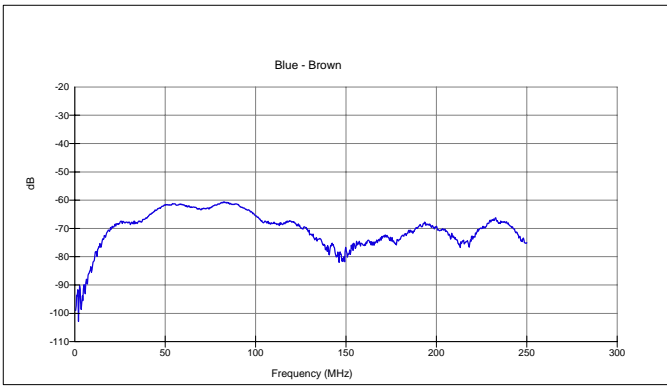
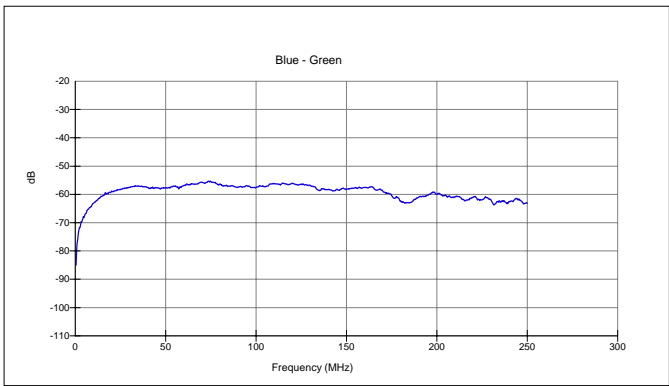
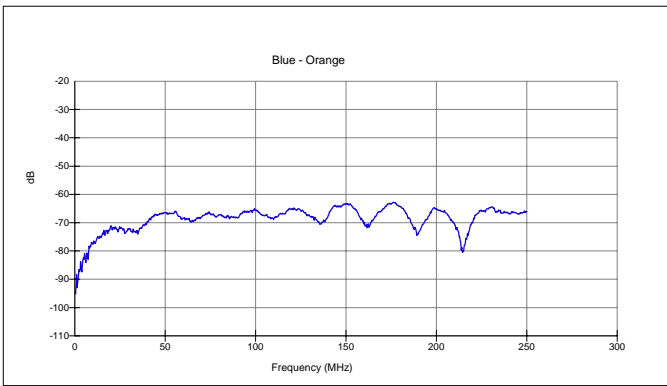
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





Far End Cross Talk (Near End)

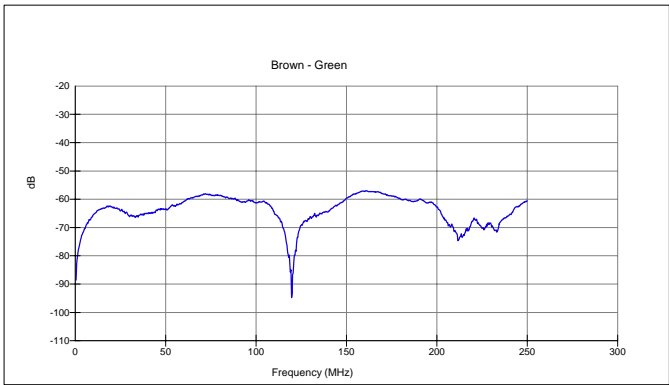
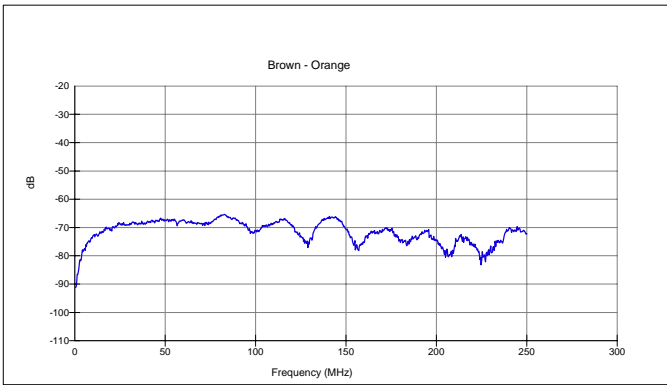
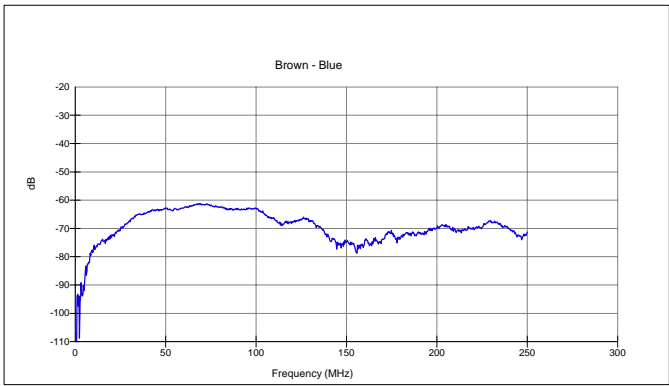
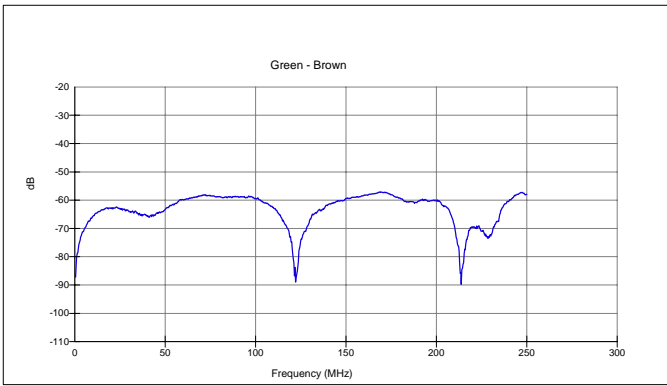
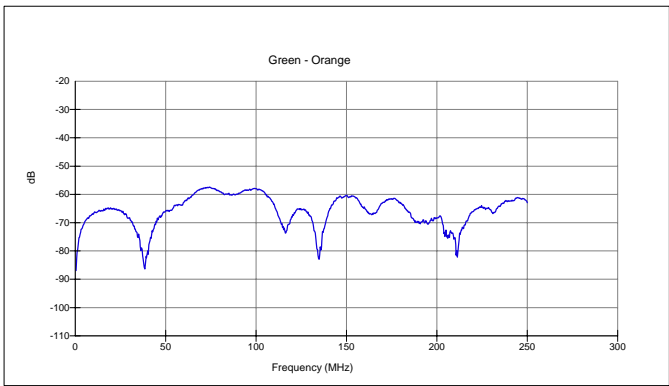
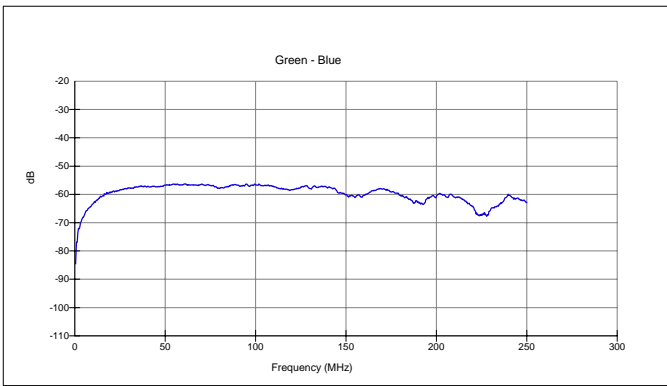
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





Far End Cross Talk (Near End)

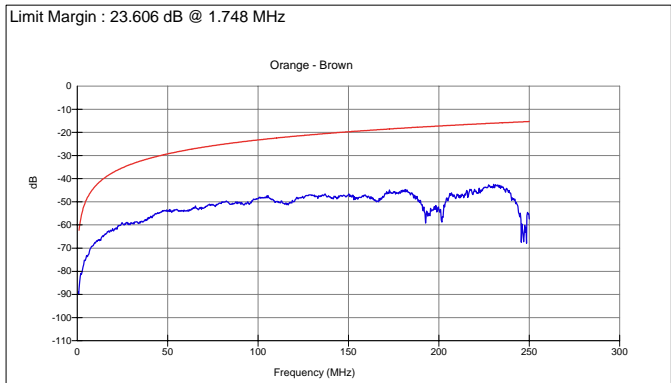
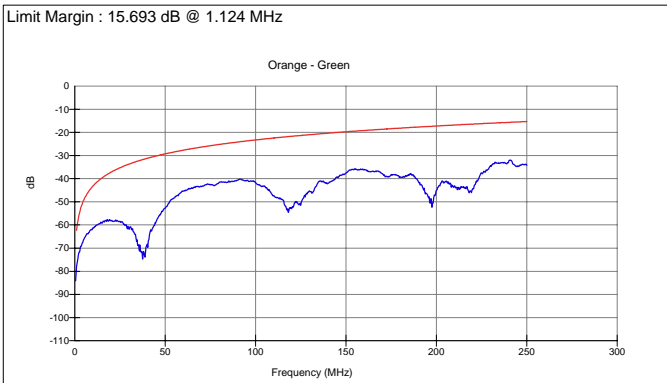
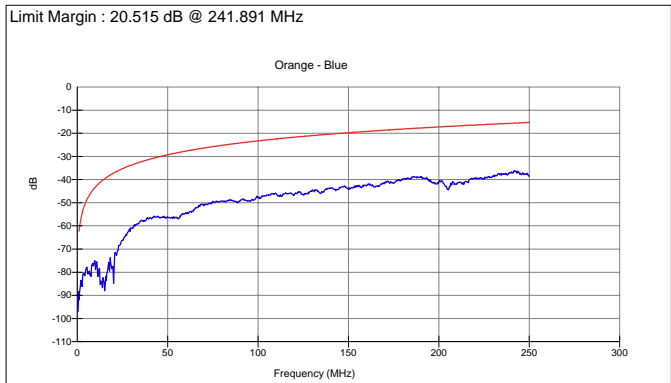
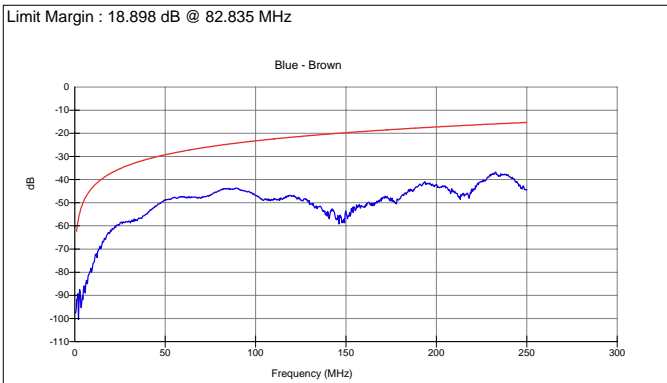
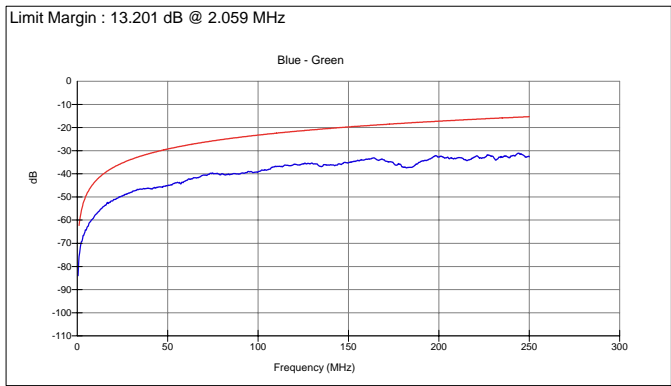
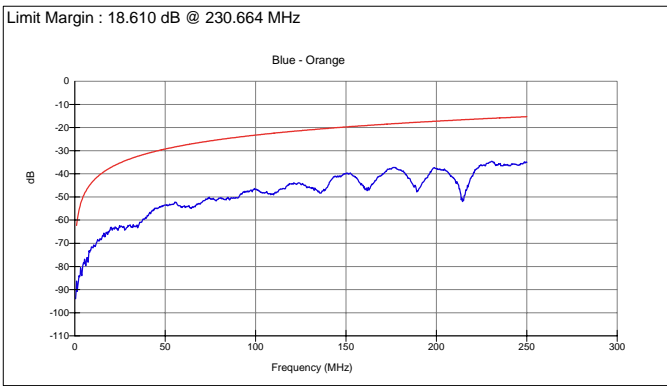
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





ELFEXT/ACRF (Near End)

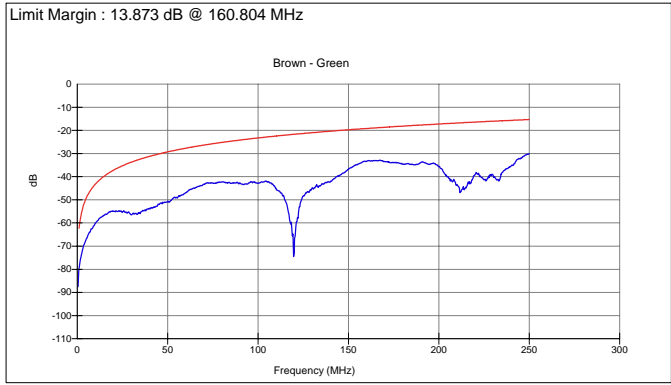
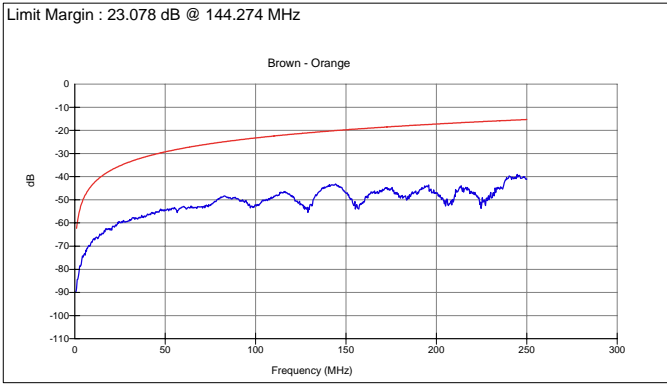
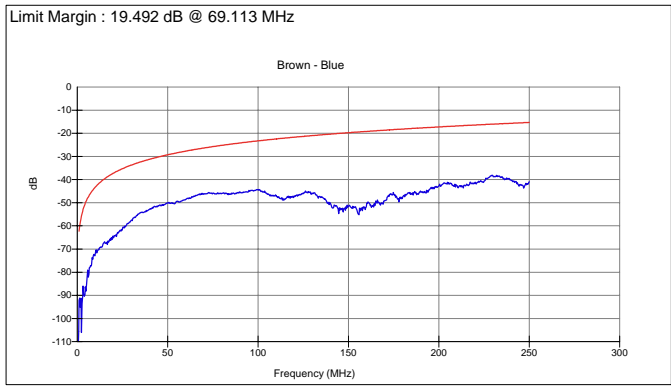
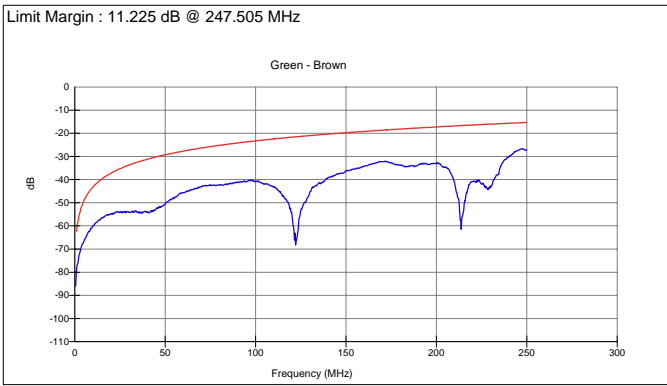
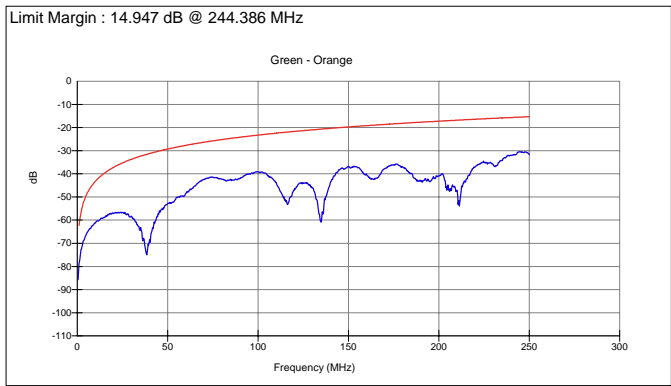
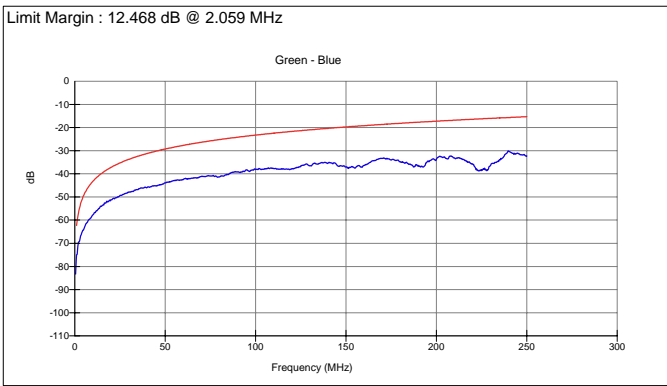
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





ELFEXT/ACRF (Near End)

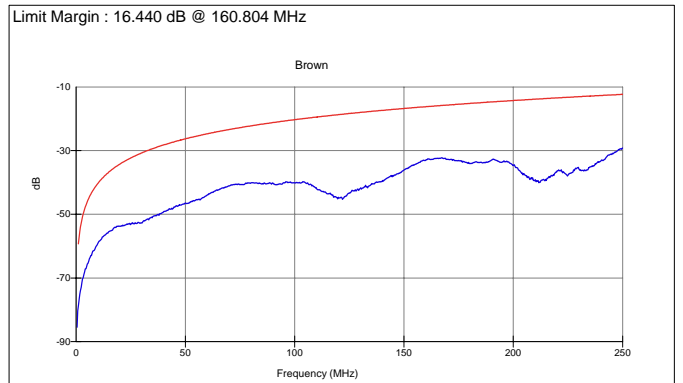
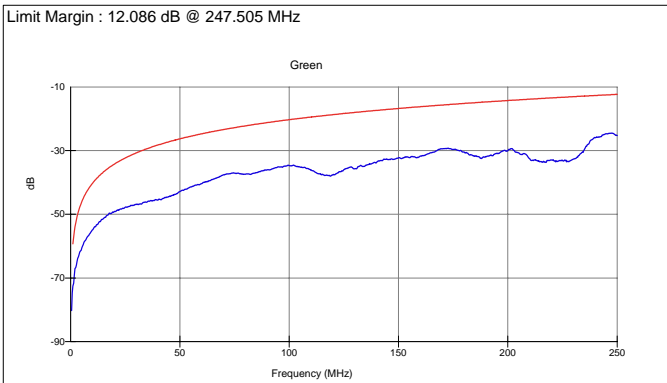
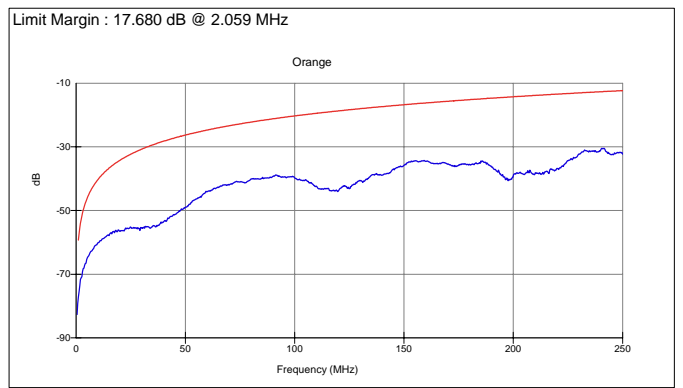
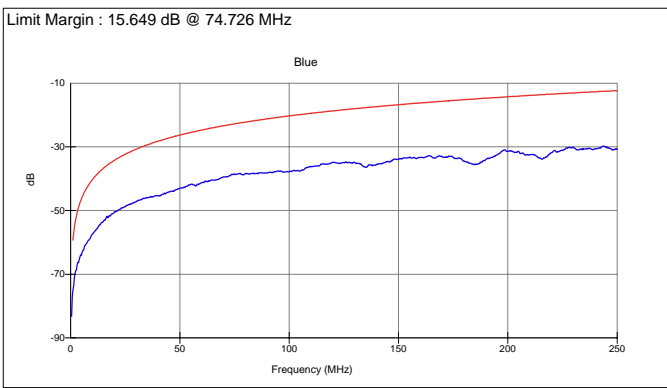
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





Power Sum ELFEXT/PSACRF (Near End)

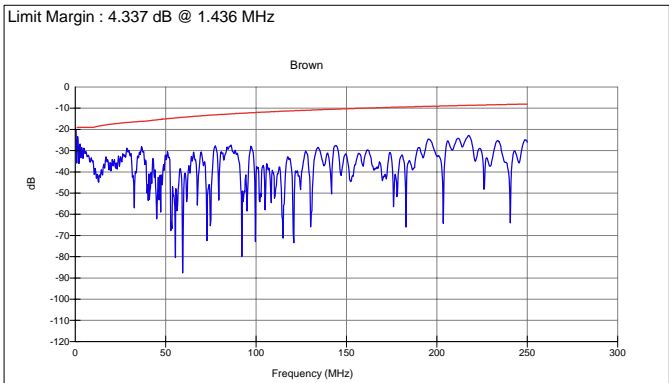
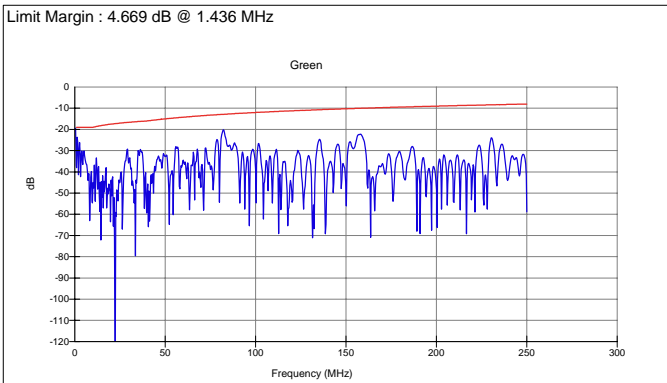
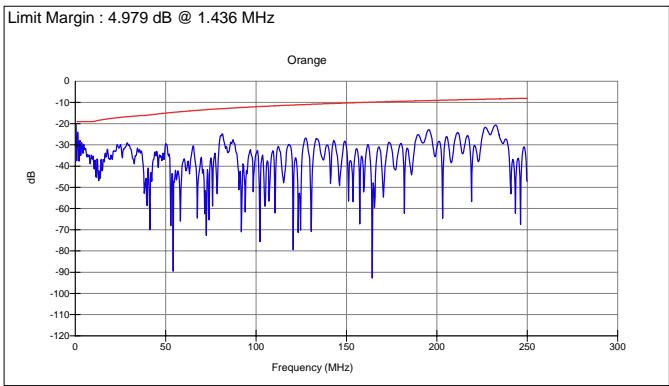
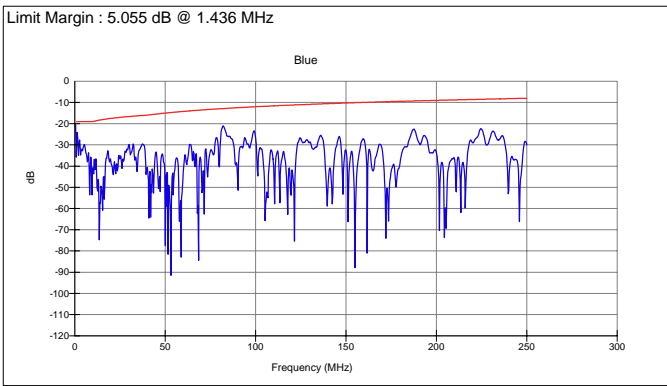
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





Return Loss (Near End)

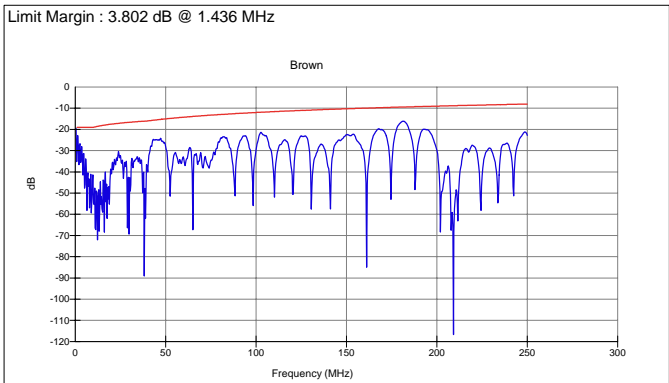
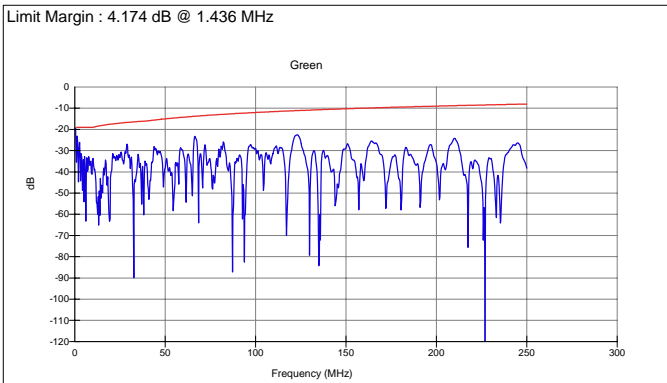
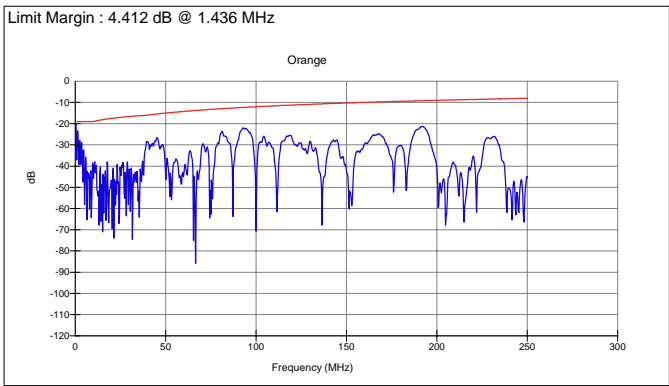
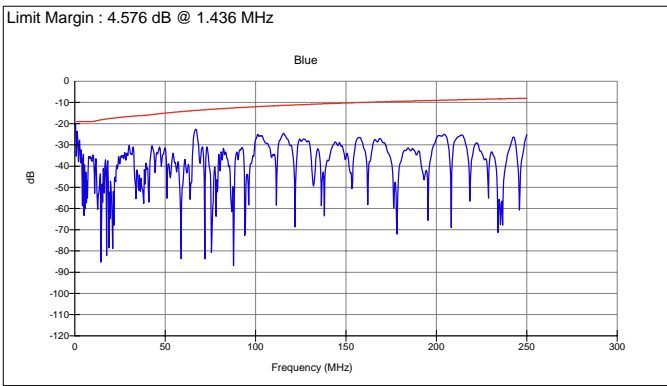
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





Return Loss (Far End)

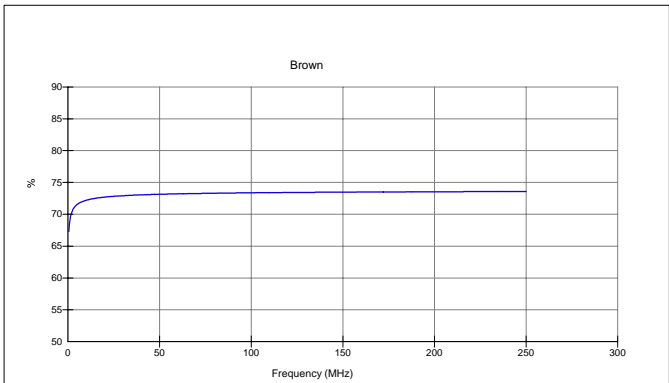
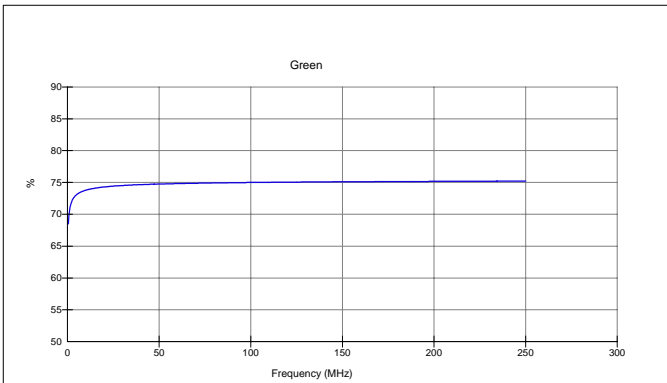
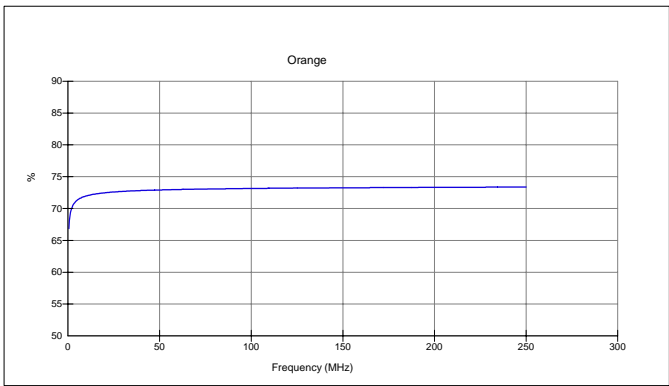
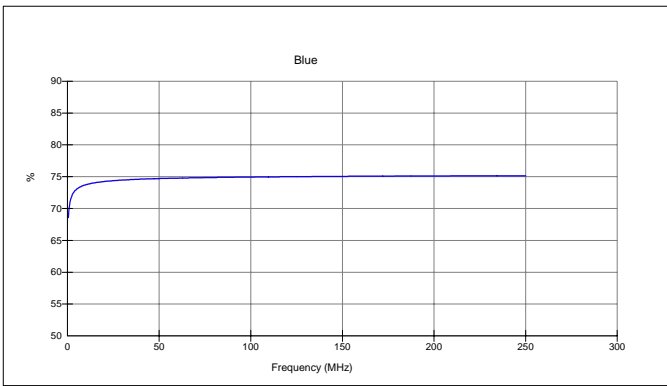
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





Propagation Velocity (Near End)

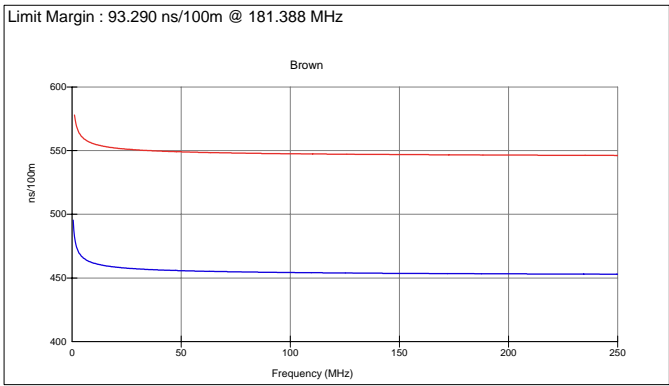
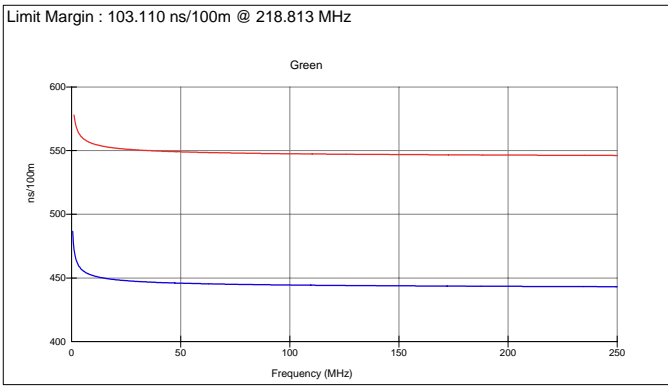
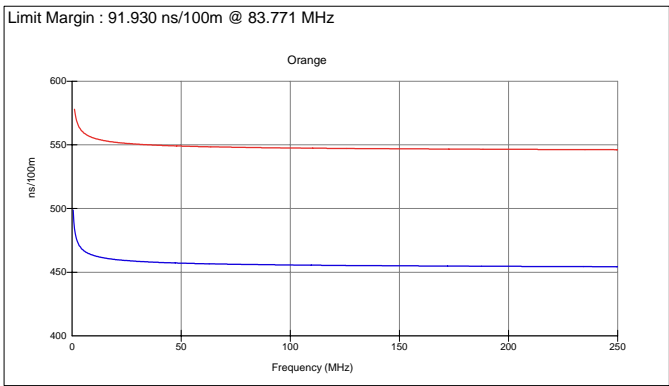
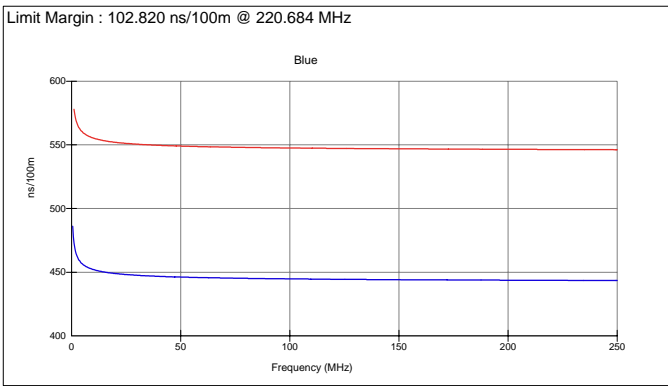
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





Propagation Delay (Near End)

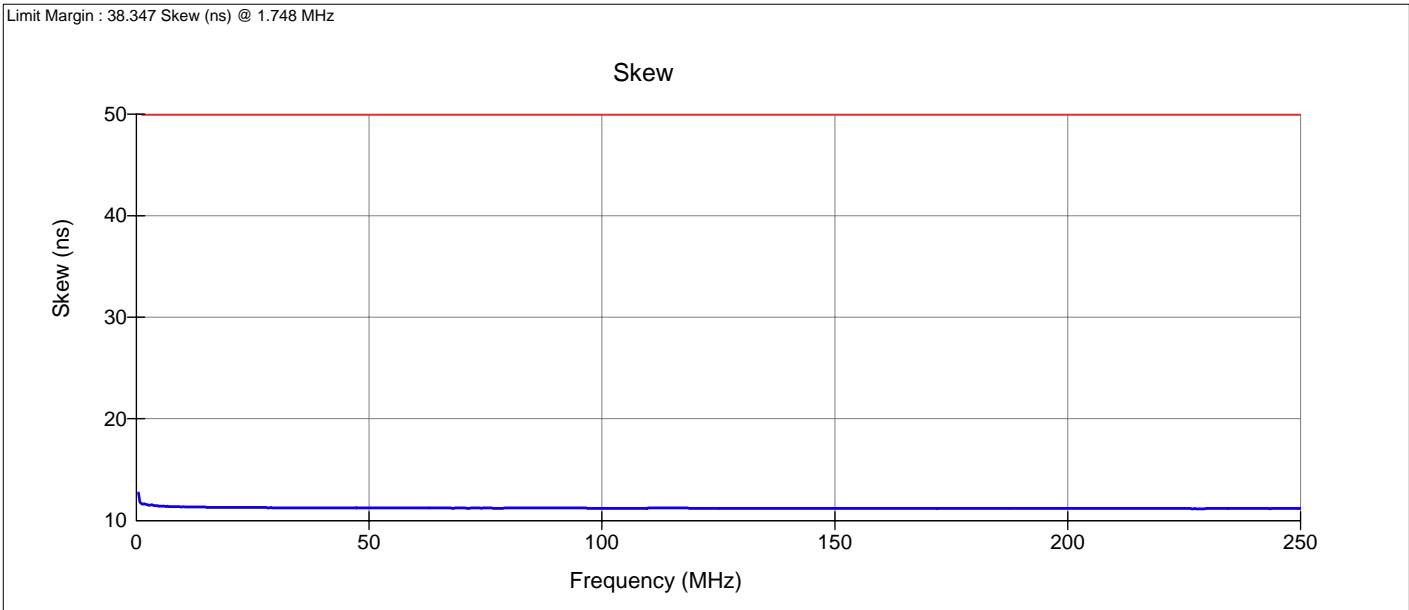
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





Delay Skew (Near End)

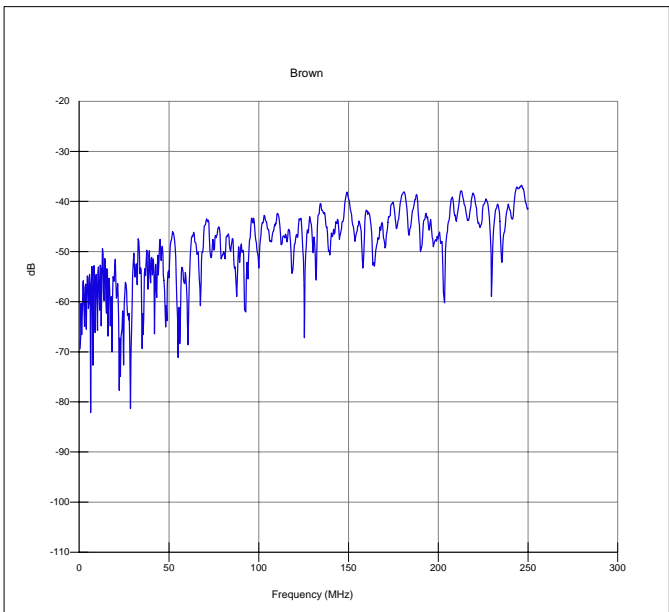
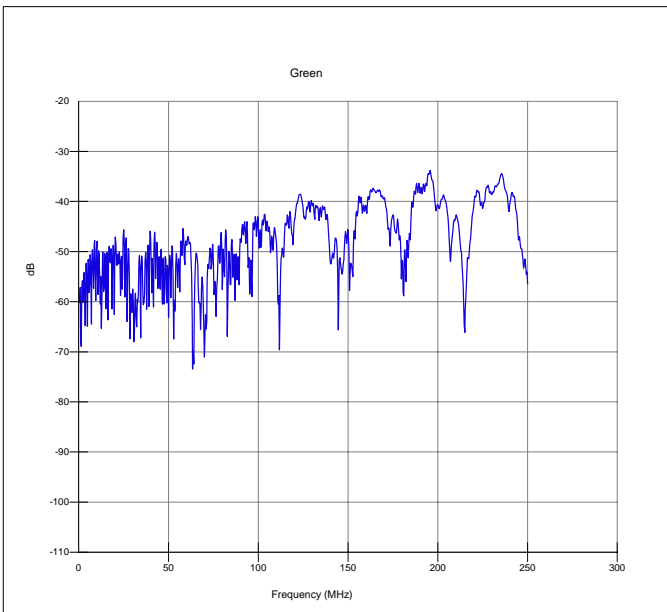
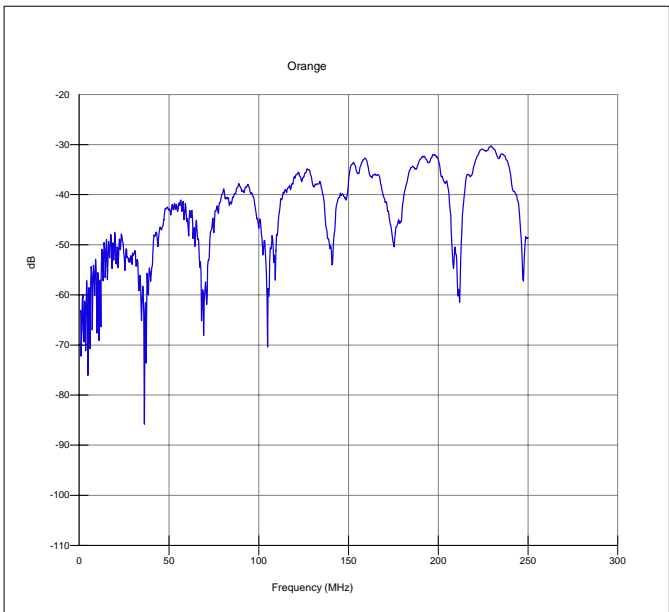
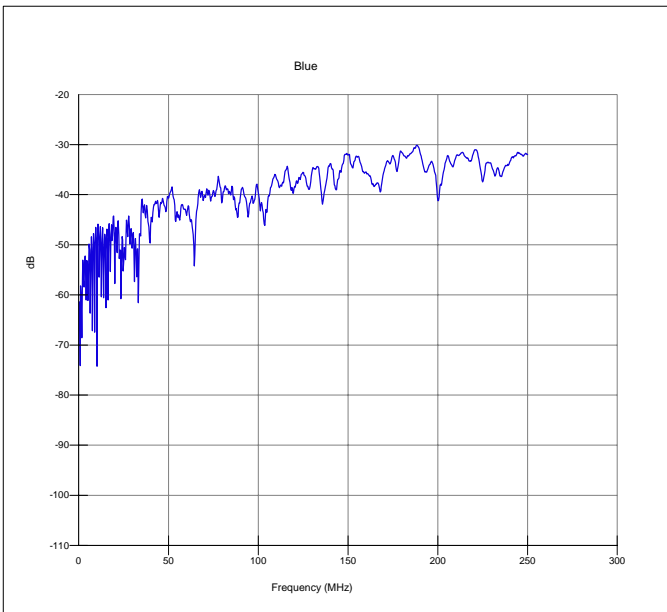
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





TCL Near

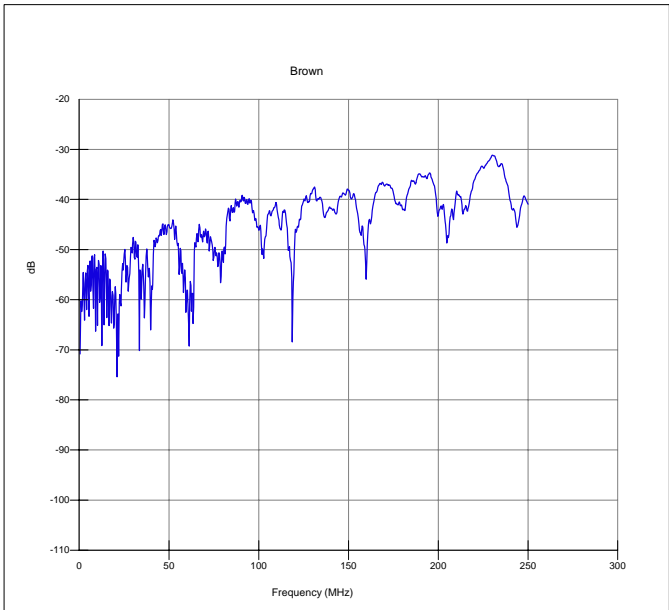
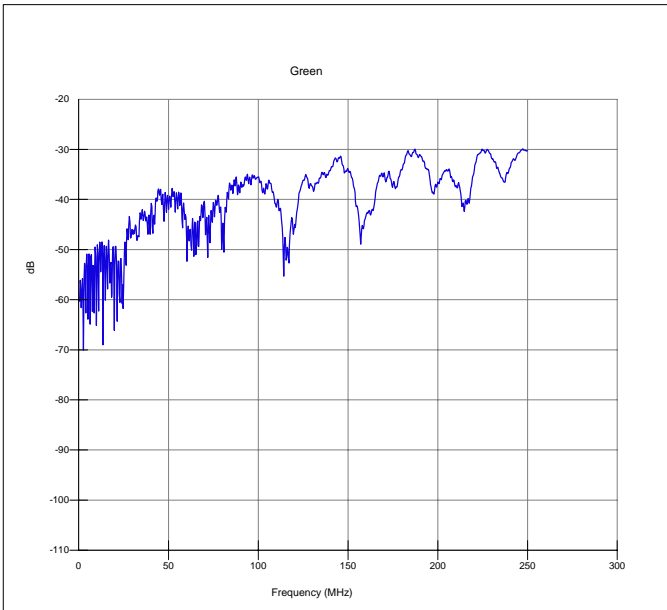
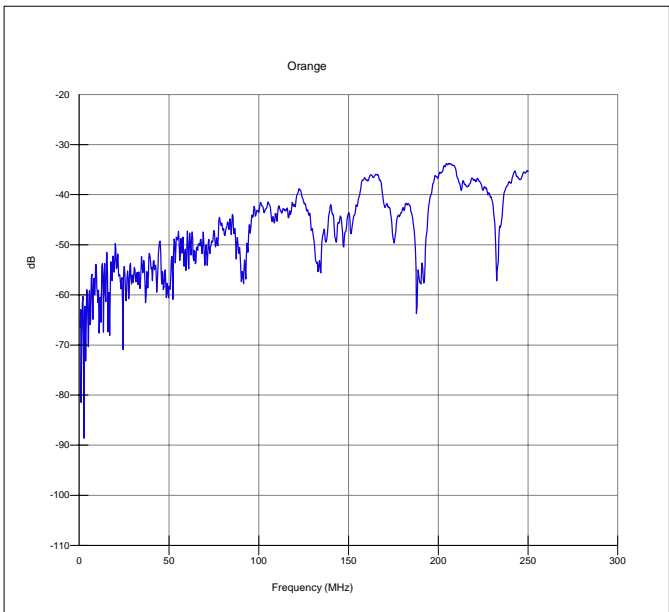
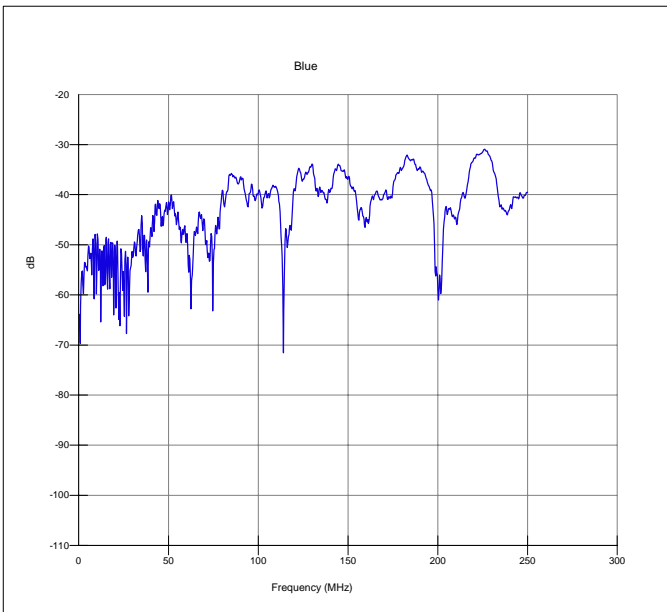
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





TCL Far

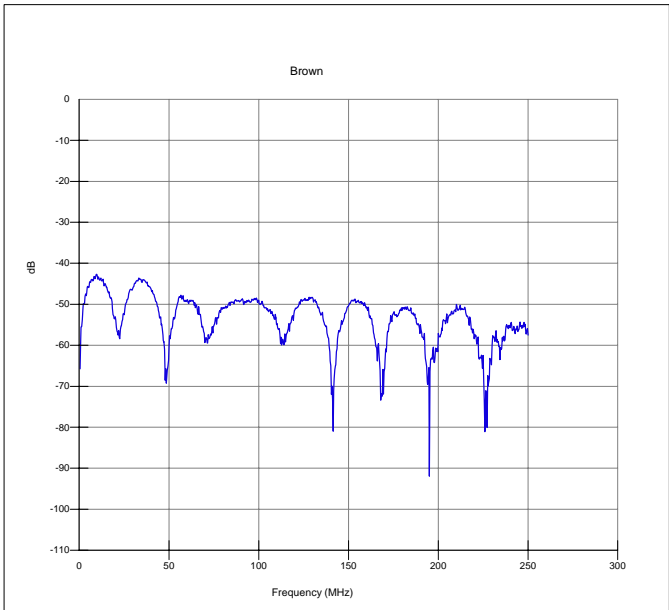
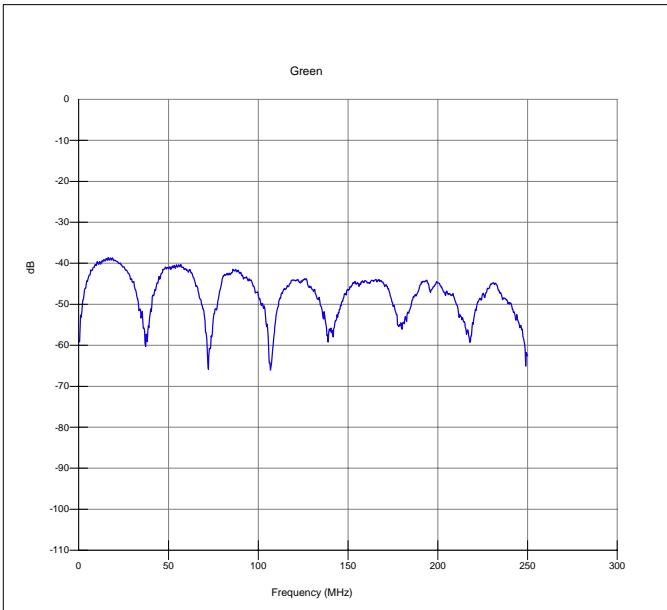
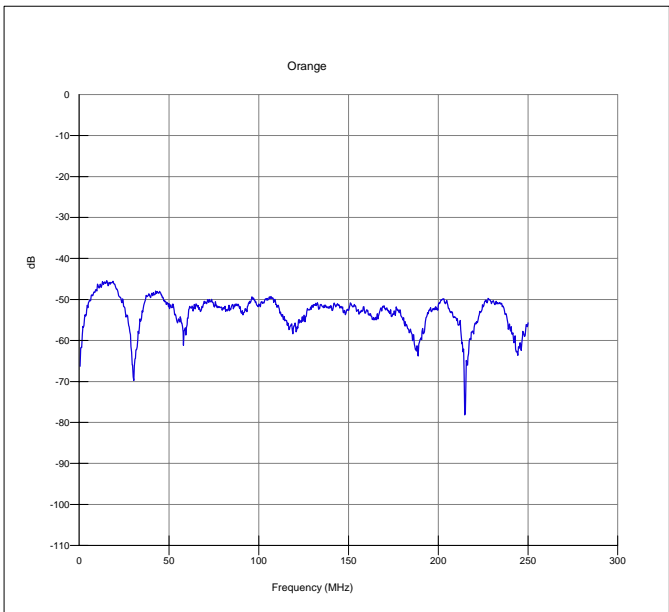
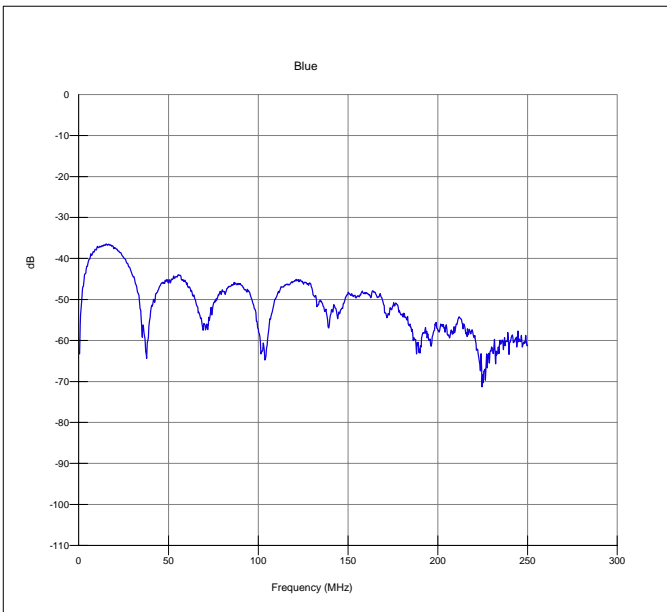
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





TCTL Near

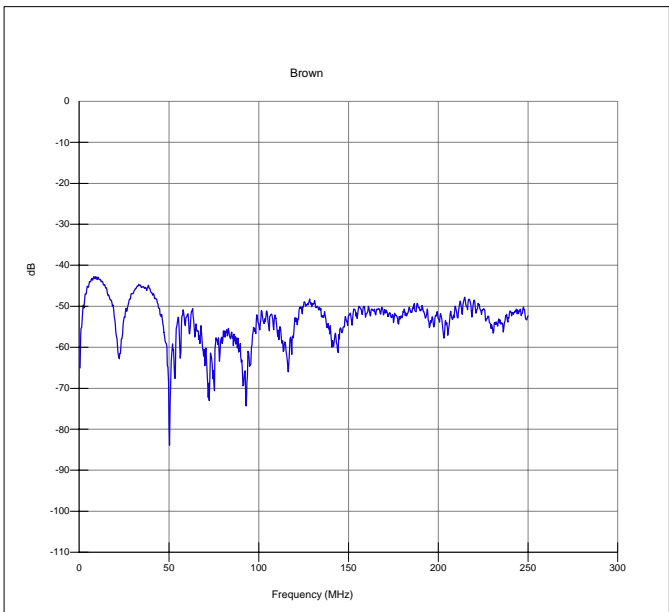
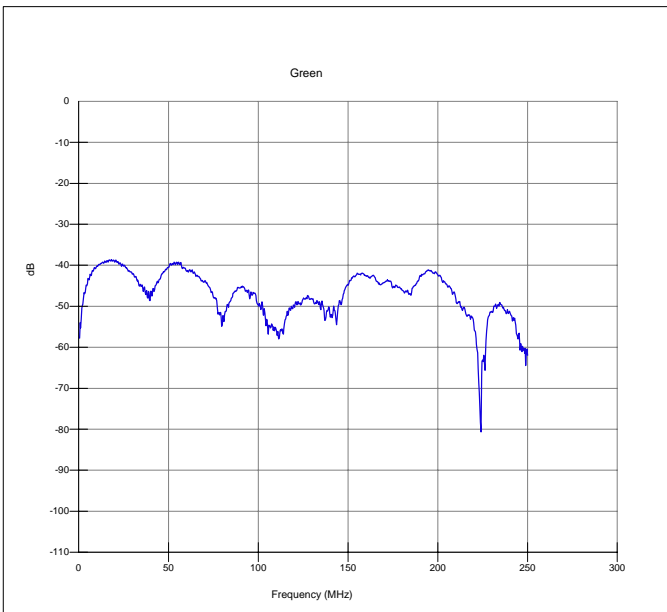
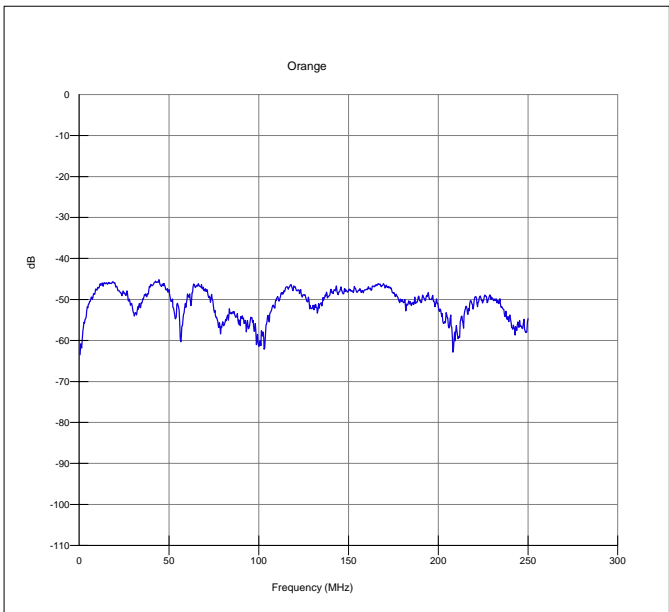
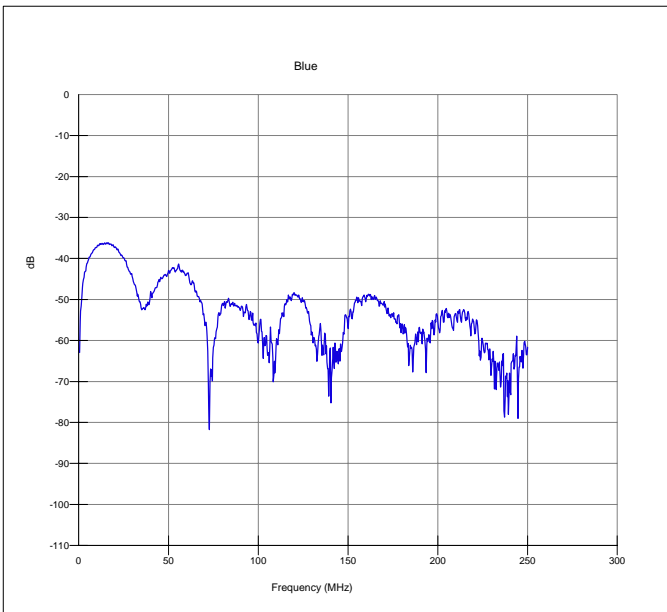
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





TCTL Far

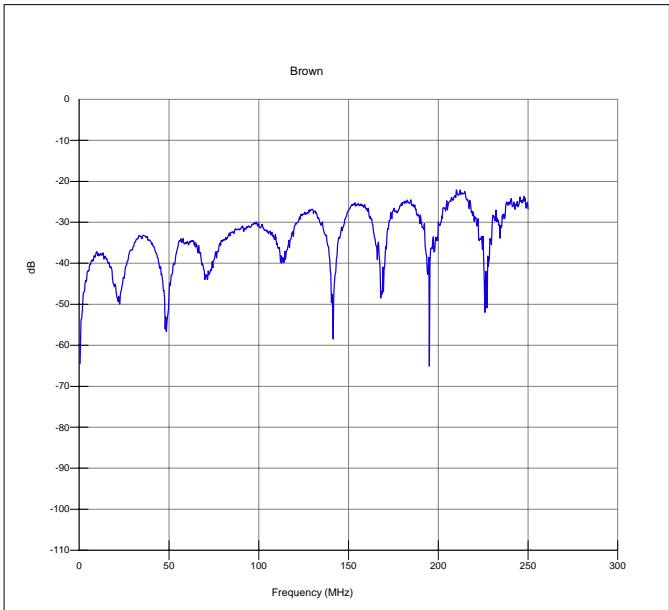
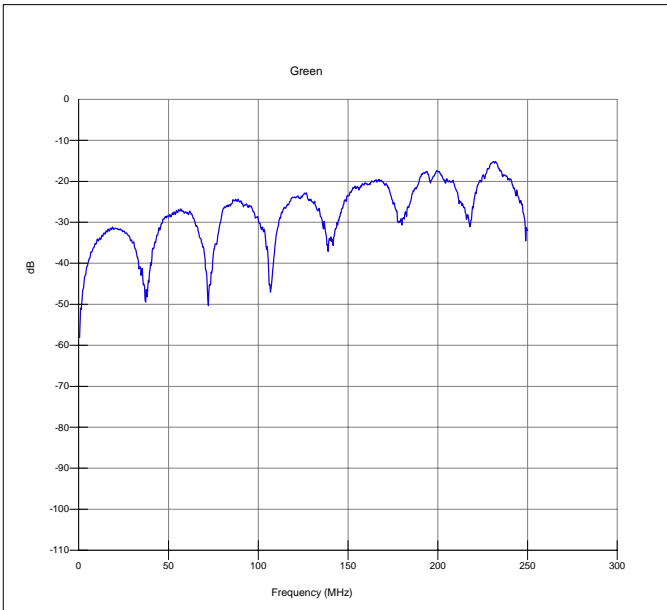
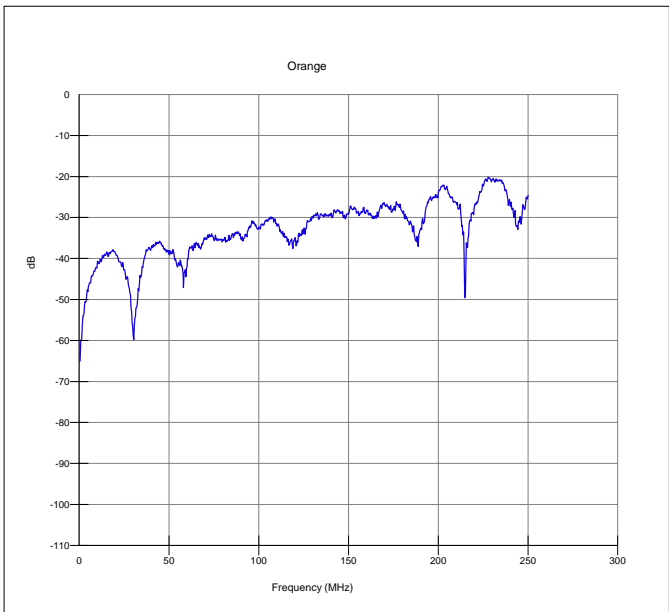
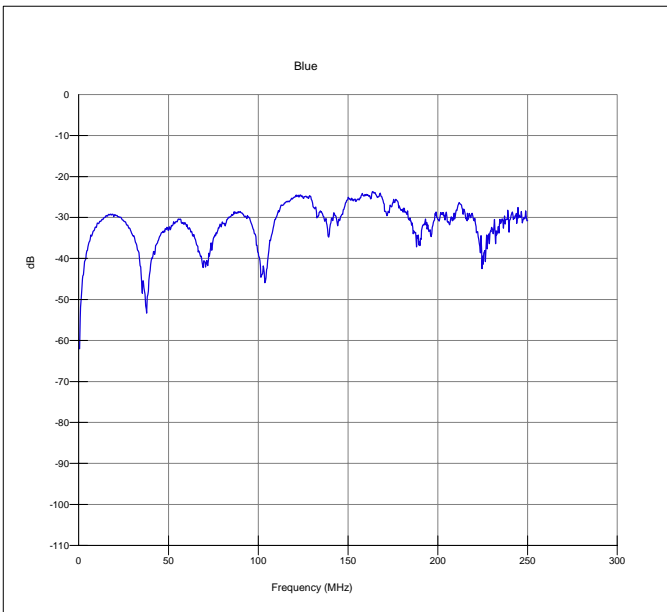
Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





ELTCTL Near

Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		





ELTCTL Far

Client	Comtran	Project No	100808350CRT-001b
Specification	TIA-568-C2 - Cat 6 Channel	Length(m)	98.
Part No	38601	Temperature	20 °C
Test Started	7/20/2012 10:09:49 AM	Appendix	A
Description	4 Connector Channel	Test Status	Complies
Operator Name	John Cash		

