

August 18, 2014

Test report number 101734842CRT-001b
Project number 101734842-311

Comtec Cable Accessories Ltd
Cardinal Distribution Park
Godmanchester PE292XJ
United Kingdom

TEST:

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

STANDARD USED:

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

SECTIONS:

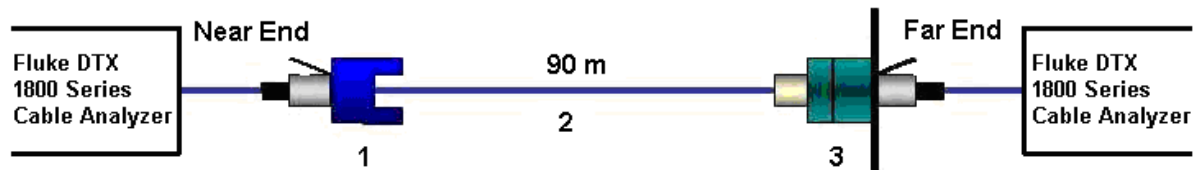
6.3 Permanent link transmission performance (6.3.1 to 6.3.26)

AUTHORIZATION:

The project was authorized by Mr. Dan Conway, representing the client, Comtec Cable Accessories Ltd, with signed quotation number 500539019.

SAMPLE DESCRIPTION:

The client supplied a 2-connector permanent link as illustrated below. The sample was received on July 14, 2014 and was in good condition.



Component Id	Manufacturer	Description	Part number
1	Comtec	Wall Outlet / Face Plate	789773 / 781936
2	Comtec	U/FTP LSOH Horizontal Cable	789924
3	Comtec	Wall Outlet/ Patch Panel	789773 / 789796

EQUIPMENT LIST:

The following equipment was employed in conducting the tests.

Equipment used	Model number	Control number	Calibration date	Calibration due date
Fluke Networks Cable Analyzer	DTX-1800	N1134	12/11/2013	12/11/2014





DATE OF TEST:

August 18, 2014

TEST REPORT REVISION HISTORY:

First Issue: August 18, 2014 Original Document

RESULTS: See appendixes A and B for the test results.

CONCLUSION:

The permanent link 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
Associate Engineer
Global Cabling Products Testing



Appendix A
Internal test results

This appendix contains 7 pages.



Cable ID: 101734842CRT-001B-1

Test Summary: PASS

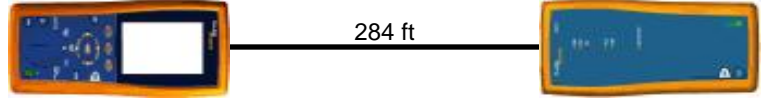
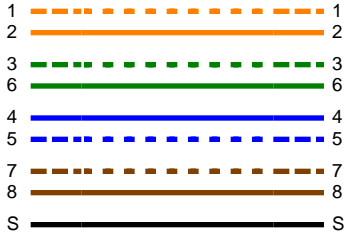
Date / Time: 08/18/2014 09:37:27am
 Headroom: 4.0 dB (NEXT 36-78)
 Test Limit: TIA Cat 6A Perm. Link
 Cable Type: Cat 6A FTP

Operator: Your Name
 Software Version: 2.7400
 Limits Version: 1.9300
 NVP: 74.0%

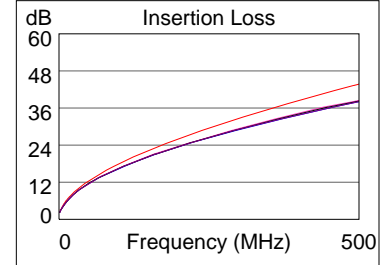
Model: DTX-1800
 Main S/N: 9385159
 Remote S/N: 9385160
 Main Adapter: DTX-PLA002
 Remote Adapter: DTX-PLA002

Wire Map (T568B)

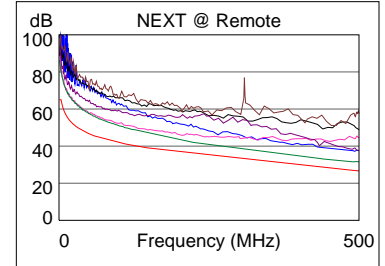
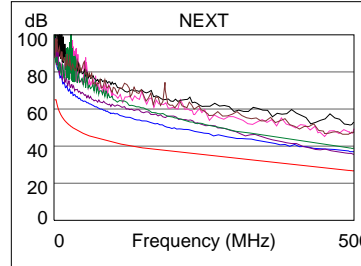
PASS



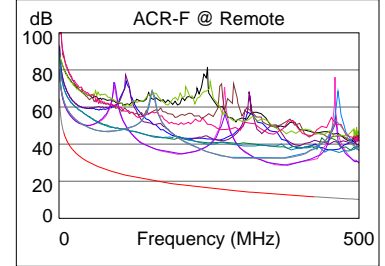
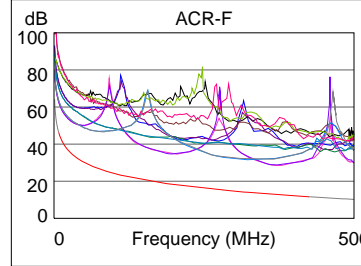
Length (ft), Limit 295	[Pair 45]	284
Prop. Delay (ns), Limit 498		397
Delay Skew (ns), Limit 44		6
Resistance (ohms)	[Pair 12]	15.7
Insertion Loss Margin (dB)	[Pair 36]	5.3
Frequency (MHz)	[Pair 36]	500.0
Limit (dB)	[Pair 36]	43.8



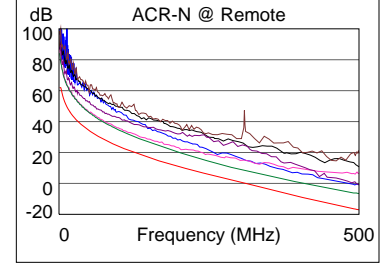
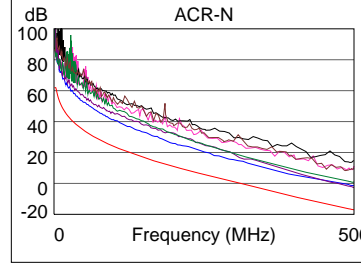
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	36-45	36-78	36-45	36-78
NEXT (dB)	8.8	4.0	8.9	4.5
Freq. (MHz)	488.0	303.0	499.0	489.0
Limit (dB)	27.0	33.9	26.7	27.0
Worst Pair	36	36	36	36
PS NEXT (dB)	8.3	5.8	8.4	6.0
Freq. (MHz)	487.0	303.0	498.0	498.0
Limit (dB)	24.2	31.3	23.8	23.8



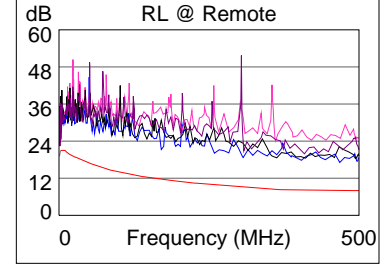
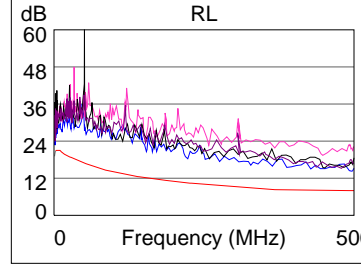
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	12-45	12-45	12-45	12-45
ACR-F (dB)	15.4	15.6	15.4	15.7
Freq. (MHz)	377.0	364.0	377.0	375.0
Limit (dB)	12.7	13.0	12.7	12.7
Worst Pair	45	45	45	45
PS ACR-F (dB)	15.6	15.7	16.8	16.7
Freq. (MHz)	1.3	1.0	375.0	360.0
Limit (dB)	59.3	61.2	9.7	10.1



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
N/A				
Worst Pair	12-36	36-78	36-45	36-78
ACR-N (dB)	13.3	7.5	14.4	10.5
Freq. (MHz)	294.0	307.0	499.0	499.0
Limit (dB)	1.9	0.6	-17.0	-17.0
Worst Pair	36	36	36	36
PS ACR-N (dB)	13.1	9.2	13.7	11.3
Freq. (MHz)	434.0	303.0	500.0	500.0
Limit (dB)	-14.4	-1.6	-20.0	-20.0



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	12	78	12	12
RL (dB)	4.1	3.4	5.8	8.0
Freq. (MHz)	2.9	3.0	450.0	465.0
Limit (dB)	20.9	21.0	8.0	8.0



Compliant Network Standards:
 10BASE-T 100BASE-TX 100BASE-T4
 1000BASE-T 10GBASE-T ATM-25
 ATM-51 ATM-155 100VG-AnyLan
 TR-4 TR-16 Active TR-16 Passive



Cable ID: 101734842CRT-001B-2

Test Summary: PASS

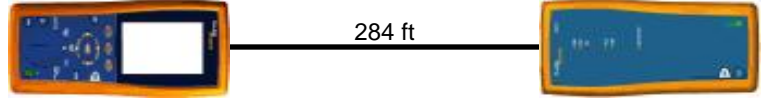
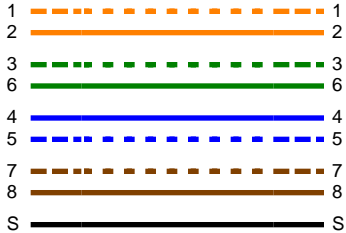
Date / Time: 08/18/2014 09:39:12am
 Headroom: 8.0 dB (NEXT 36-78)
 Test Limit: TIA Cat 6A Perm. Link
 Cable Type: Cat 6A FTP

Operator: Your Name
 Software Version: 2.7400
 Limits Version: 1.9300
 NVP: 74.0%

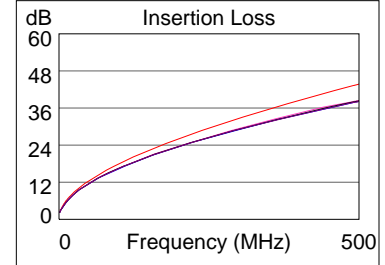
Model: DTX-1800
 Main S/N: 9385159
 Remote S/N: 9385160
 Main Adapter: DTX-PLA002
 Remote Adapter: DTX-PLA002

Wire Map (T568B)

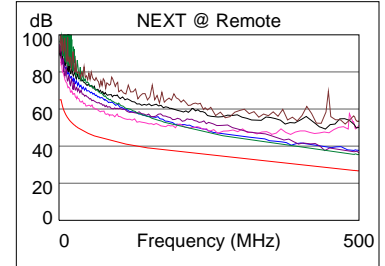
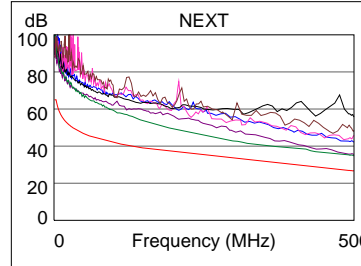
PASS



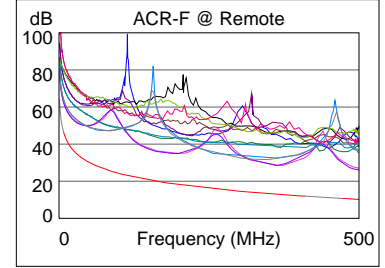
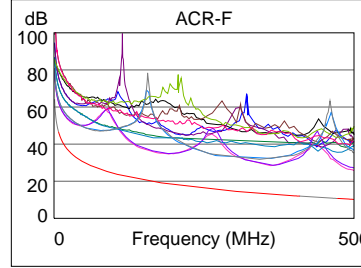
Length (ft), Limit 295	[Pair 45]	284
Prop. Delay (ns), Limit 498		397
Delay Skew (ns), Limit 44		6
Resistance (ohms)	[Pair 12]	14.2
Insertion Loss Margin (dB)	[Pair 36]	5.4
Frequency (MHz)	[Pair 36]	500.0
Limit (dB)	[Pair 36]	43.8



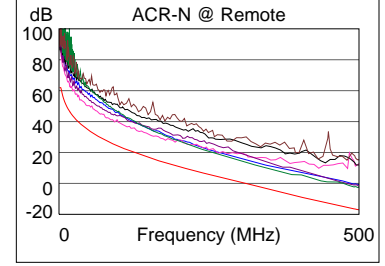
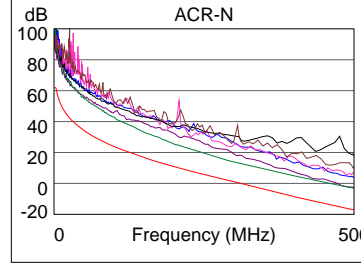
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	36-78	36-78	36-78	36-78
NEXT (dB)	8.0	8.4	8.0	8.7
Freq. (MHz)	500.0	441.0	500.0	498.0
Limit (dB)	26.7	28.5	26.7	26.7
Worst Pair	36	36	36	36
PS NEXT (dB)	7.9	7.4	7.9	7.9
Freq. (MHz)	500.0	443.0	500.0	499.0
Limit (dB)	23.8	25.6	23.8	23.8



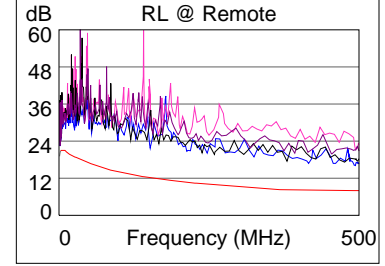
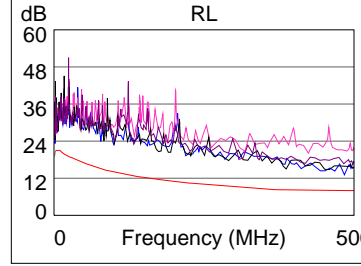
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	12-45	45-12	12-45	45-12
ACR-F (dB)	15.2	15.3	15.6	15.8
Freq. (MHz)	362.0	356.0	499.0	499.0
Limit (dB)	13.0	13.2	10.2	10.2
Worst Pair	45	45	45	12
PS ACR-F (dB)	15.5	15.4	18.0	18.4
Freq. (MHz)	1.0	1.1	499.0	500.0
Limit (dB)	61.2	60.2	7.2	7.2



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
N/A				
Worst Pair	36-78	36-78	36-78	36-78
ACR-N (dB)	12.0	12.8	13.7	14.3
Freq. (MHz)	303.0	317.0	500.0	498.0
Limit (dB)	1.0	-0.5	-17.1	-16.9
Worst Pair	36	36	36	36
PS ACR-N (dB)	12.8	11.9	13.3	13.2
Freq. (MHz)	432.0	442.0	500.0	499.0
Limit (dB)	-14.2	-15.1	-20.0	-19.9



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	12	78	12	12
RL (dB)	5.1	3.2	5.1	8.1
Freq. (MHz)	484.0	3.0	484.0	494.0
Limit (dB)	8.0	21.0	8.0	8.0



Compliant Network Standards:
 10BASE-T 100BASE-TX 100BASE-T4
 1000BASE-T 10GBASE-T ATM-25
 ATM-51 ATM-155 100VG-AnyLan
 TR-4 TR-16 Active TR-16 Passive



Cable ID: 101734842CRT-001B-3

Test Summary: PASS

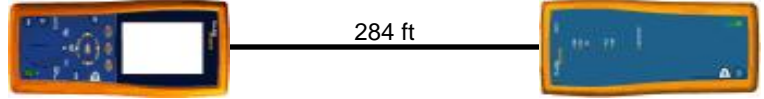
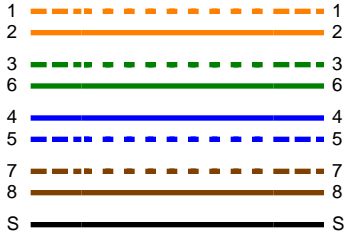
Date / Time: 08/18/2014 09:39:49am
Headroom: 7.4 dB (NEXT 36-78)
Test Limit: TIA Cat 6A Perm. Link
 Cable Type: Cat 6A FTP

Operator: Your Name
 Software Version: 2.7400
 Limits Version: 1.9300
 NVP: 74.0%

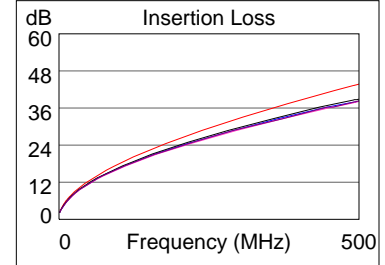
Model: DTX-1800
 Main S/N: 9385159
 Remote S/N: 9385160
 Main Adapter: DTX-PLA002
 Remote Adapter: DTX-PLA002

Wire Map (T568B)

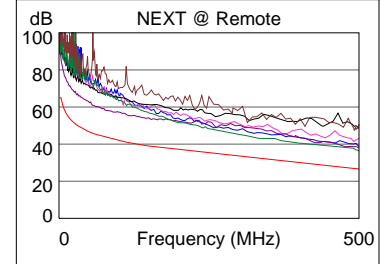
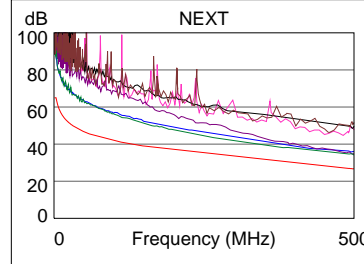
PASS



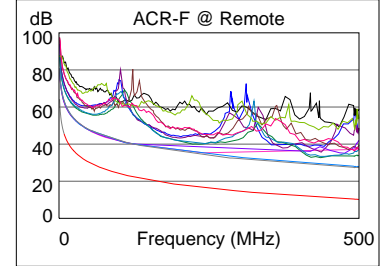
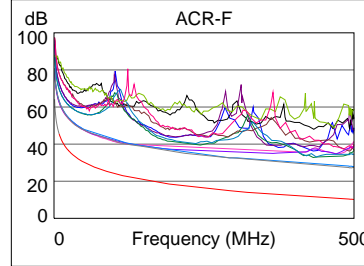
Length (ft), Limit 295	[Pair 36]	284
Prop. Delay (ns), Limit 498		396
Delay Skew (ns), Limit 44		6
Resistance (ohms)	[Pair 12]	14.2
Insertion Loss Margin (dB)	[Pair 45]	4.9
Frequency (MHz)	[Pair 45]	500.0
Limit (dB)	[Pair 45]	43.8



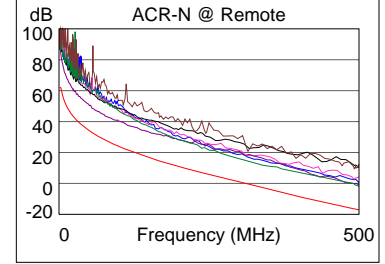
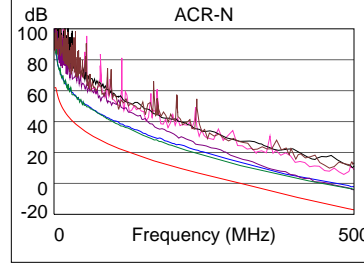
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	36-78	36-78	36-78	36-78
NEXT (dB)	7.4	9.6	7.5	9.6
Freq. (MHz)	440.0	500.0	500.0	500.0
Limit (dB)	28.5	26.7	26.7	26.7
Worst Pair	36	36	36	36
PS NEXT (dB)	6.3	9.0	6.4	9.0
Freq. (MHz)	486.0	500.0	499.0	500.0
Limit (dB)	24.2	23.8	23.8	23.8



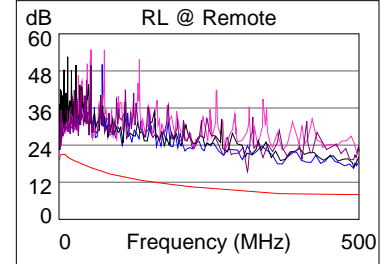
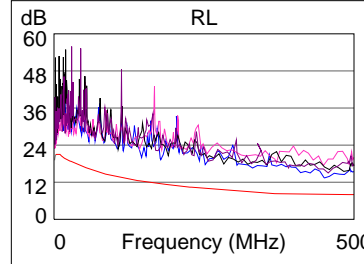
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	78-45	78-45	78-45	78-45
ACR-F (dB)	16.6	16.6	16.6	16.6
Freq. (MHz)	478.0	469.0	478.0	471.0
Limit (dB)	10.6	10.8	10.6	10.7
Worst Pair	45	45	45	45
PS ACR-F (dB)	16.0	16.0	18.1	18.7
Freq. (MHz)	1.1	1.0	478.0	472.0
Limit (dB)	60.2	61.2	7.6	7.7



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
N/A				
Worst Pair	36-78	36-78	36-45	36-78
ACR-N (dB)	11.1	14.3	13.0	15.1
Freq. (MHz)	305.0	302.0	500.0	500.0
Limit (dB)	0.8	1.1	-17.1	-17.1
Worst Pair	36	36	36	36
PS ACR-N (dB)	11.2	14.4	12.0	14.7
Freq. (MHz)	303.0	325.0	499.0	500.0
Limit (dB)	-1.6	-4.0	-19.9	-20.0



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	36	36	12	78
RL (dB)	3.5	2.9	5.4	6.4
Freq. (MHz)	3.1	3.1	451.0	314.0
Limit (dB)	21.0	21.0	8.0	9.0



Compliant Network Standards:
 10BASE-T 100BASE-TX 100BASE-T4
 1000BASE-T 10GBASE-T ATM-25
 ATM-51 ATM-155 100VG-AnyLan
 TR-4 TR-16 Active TR-16 Passive



Cable ID: 101734842CRT-001B-4

Test Summary: PASS

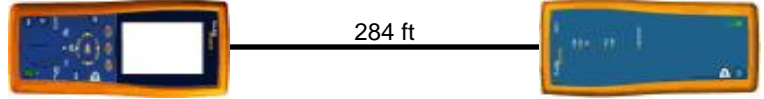
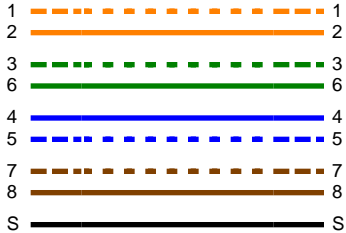
Date / Time: 08/18/2014 09:40:22am
Headroom: 5.5 dB (NEXT 12-36)
Test Limit: TIA Cat 6A Perm. Link
 Cable Type: Cat 6A FTP

Operator: Your Name
 Software Version: 2.7400
 Limits Version: 1.9300
 NVP: 74.0%

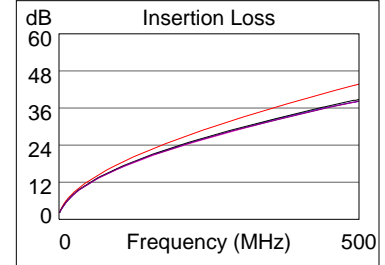
Model: DTX-1800
 Main S/N: 9385159
 Remote S/N: 9385160
 Main Adapter: DTX-PLA002
 Remote Adapter: DTX-PLA002

Wire Map (T568B)

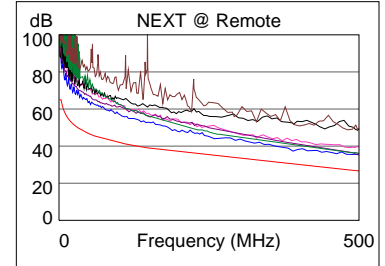
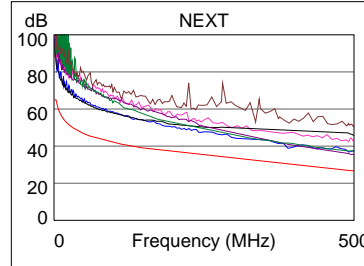
PASS



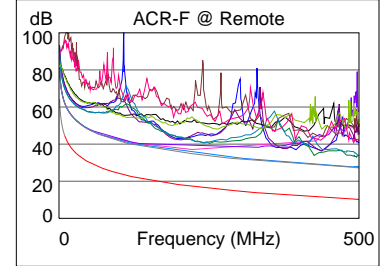
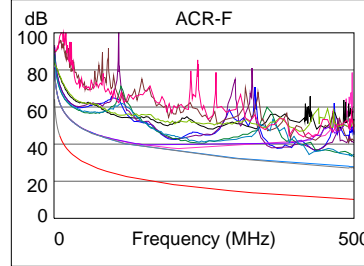
Length (ft), Limit 295	[Pair 36]	284
Prop. Delay (ns), Limit 498		396
Delay Skew (ns), Limit 44		6
Resistance (ohms)	[Pair 12]	14.1
Insertion Loss Margin (dB)	[Pair 45]	5.0
Frequency (MHz)	[Pair 45]	500.0
Limit (dB)	[Pair 45]	43.8



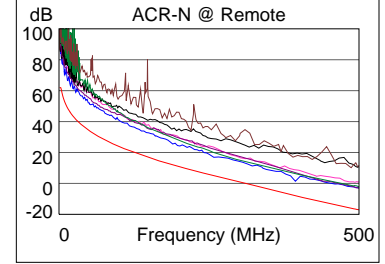
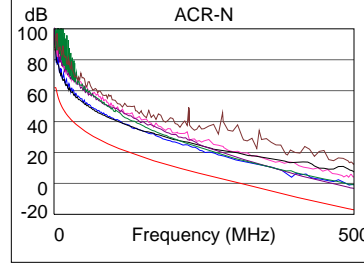
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	12-36	12-36	36-45	12-36
NEXT (dB)	6.8	5.5	8.8	8.5
Freq. (MHz)	392.0	393.0	500.0	500.0
Limit (dB)	30.2	30.1	26.7	26.7
Worst Pair	36	36	36	36
PS NEXT (dB)	7.3	6.3	7.9	7.1
Freq. (MHz)	393.0	393.0	491.0	499.0
Limit (dB)	27.4	27.4	24.0	23.8



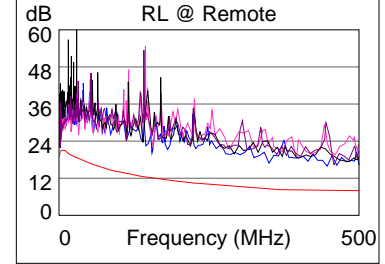
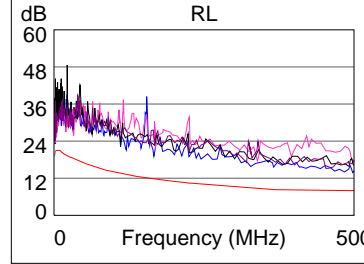
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	78-45	78-45	78-45	78-45
ACR-F (dB)	16.5	16.7	16.7	16.9
Freq. (MHz)	414.0	415.0	491.0	500.0
Limit (dB)	11.8	11.8	10.4	10.2
Worst Pair	45	45	45	45
PS ACR-F (dB)	16.1	16.3	19.0	19.5
Freq. (MHz)	1.3	1.0	499.0	494.0
Limit (dB)	59.3	61.2	7.2	7.3



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
N/A				
Worst Pair	12-36	12-36	36-45	12-36
ACR-N (dB)	10.4	8.9	13.8	14.1
Freq. (MHz)	392.0	393.0	500.0	500.0
Limit (dB)	-7.9	-7.9	-17.1	-17.1
Worst Pair	36	36	36	36
PS ACR-N (dB)	10.8	9.8	13.4	12.6
Freq. (MHz)	393.0	393.0	497.0	499.0
Limit (dB)	-10.7	-10.7	-19.7	-19.9



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	36	78	12	12
RL (dB)	3.8	2.9	5.6	7.7
Freq. (MHz)	3.1	3.0	482.0	448.0
Limit (dB)	21.0	21.0	8.0	8.0



Compliant Network Standards:
 10BASE-T 100BASE-TX 100BASE-T4
 1000BASE-T 10GBASE-T ATM-25
 ATM-51 ATM-155 100VG-AnyLan
 TR-4 TR-16 Active TR-16 Passive



Cable ID: 101734842CRT-001B-5

Test Summary: PASS

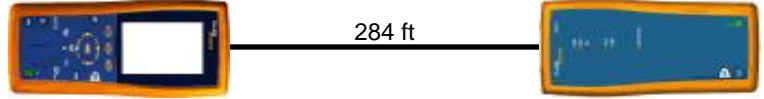
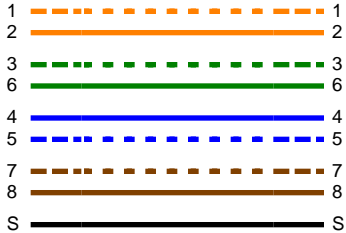
Date / Time: 08/18/2014 09:40:59am
 Headroom: 7.9 dB (NEXT 12-36)
 Test Limit: TIA Cat 6A Perm. Link
 Cable Type: Cat 6A FTP

Operator: Your Name
 Software Version: 2.7400
 Limits Version: 1.9300
 NVP: 74.0%

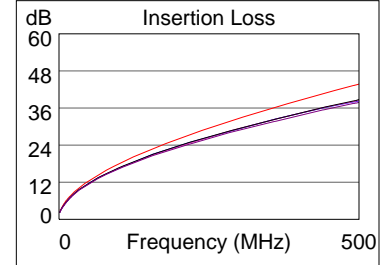
Model: DTX-1800
 Main S/N: 9385159
 Remote S/N: 9385160
 Main Adapter: DTX-PLA002
 Remote Adapter: DTX-PLA002

Wire Map (T568B)

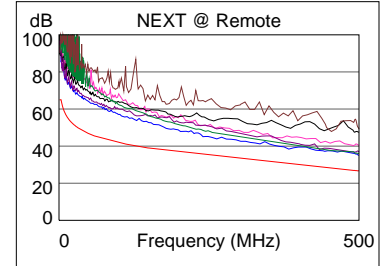
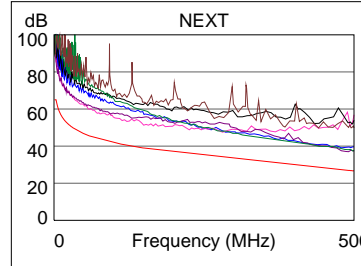
PASS



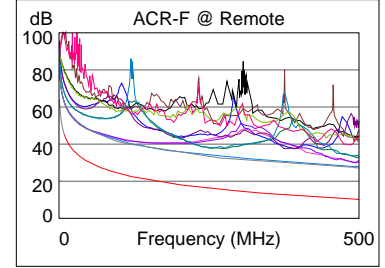
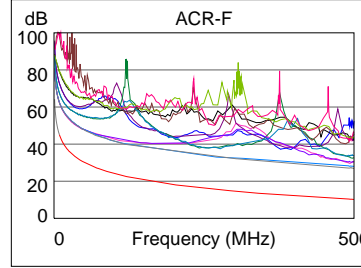
Length (ft), Limit 295	[Pair 36]	284
Prop. Delay (ns), Limit 498		397
Delay Skew (ns), Limit 44		7
Resistance (ohms)	[Pair 12]	14.1
Insertion Loss Margin (dB)	[Pair 45]	5.0
Frequency (MHz)	[Pair 45]	500.0
Limit (dB)	[Pair 45]	43.8



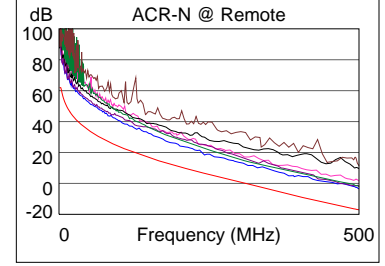
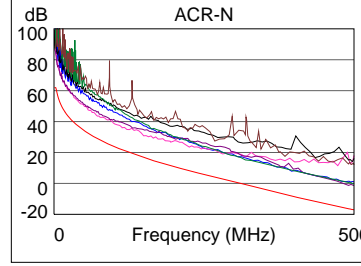
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	36-45	12-36	36-45	12-36
NEXT (dB)	9.6	7.9	9.6	8.4
Freq. (MHz)	481.0	383.0	481.0	499.0
Limit (dB)	27.2	30.5	27.2	26.7
Worst Pair	36	36	36	36
PS NEXT (dB)	9.0	7.3	9.0	7.3
Freq. (MHz)	480.0	500.0	487.0	500.0
Limit (dB)	24.4	23.8	24.2	23.8



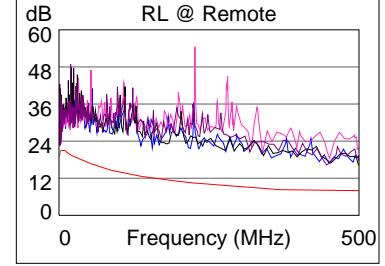
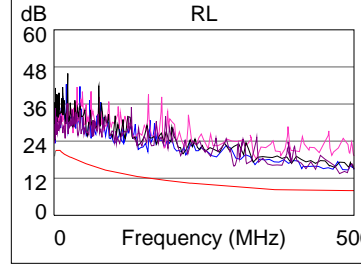
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	78-45	78-45	78-45	78-45
ACR-F (dB)	16.4	16.5	16.7	16.9
Freq. (MHz)	409.0	399.0	499.0	499.0
Limit (dB)	12.0	12.2	10.2	10.2
Worst Pair	45	45	45	45
PS ACR-F (dB)	15.8	15.9	17.1	18.0
Freq. (MHz)	1.1	1.1	492.0	488.0
Limit (dB)	60.2	60.2	7.4	7.4



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
N/A				
Worst Pair	12-45	12-36	36-45	12-36
ACR-N (dB)	14.1	11.7	15.1	13.6
Freq. (MHz)	149.5	242.0	491.0	499.0
Limit (dB)	16.7	6.6	-16.4	-17.0
Worst Pair	36	36	36	36
PS ACR-N (dB)	13.9	11.3	14.7	12.6
Freq. (MHz)	481.0	333.0	499.0	500.0
Limit (dB)	-18.4	-4.8	-19.9	-20.0



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	36	78	78	45
RL (dB)	5.0	2.9	5.5	8.2
Freq. (MHz)	3.0	3.1	476.0	500.0
Limit (dB)	21.0	21.0	8.0	8.0



Compliant Network Standards:
 10BASE-T 100BASE-TX 100BASE-T4
 1000BASE-T 10GBASE-T ATM-25
 ATM-51 ATM-155 100VG-AnyLan
 TR-4 TR-16 Active TR-16 Passive



Cable ID: 101734842CRT-001B-6

Test Summary: PASS

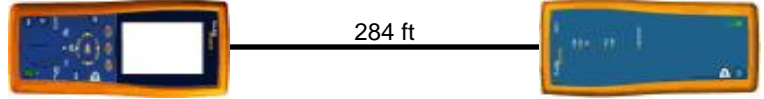
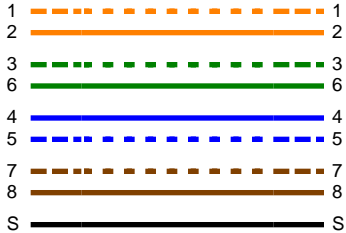
Date / Time: 08/18/2014 09:41:30am
 Headroom: 2.7 dB (NEXT 12-45)
 Test Limit: TIA Cat 6A Perm. Link
 Cable Type: Cat 6A FTP

Operator: Your Name
 Software Version: 2.7400
 Limits Version: 1.9300
 NVP: 74.0%

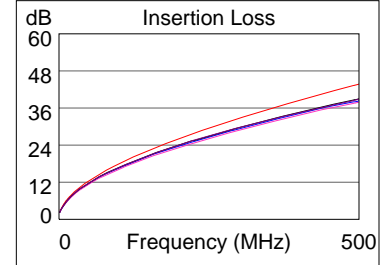
Model: DTX-1800
 Main S/N: 9385159
 Remote S/N: 9385160
 Main Adapter: DTX-PLA002
 Remote Adapter: DTX-PLA002

Wire Map (T568B)

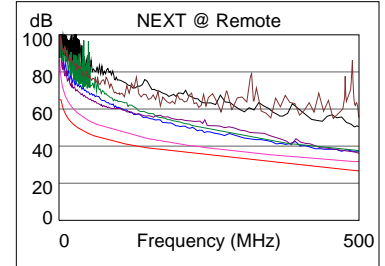
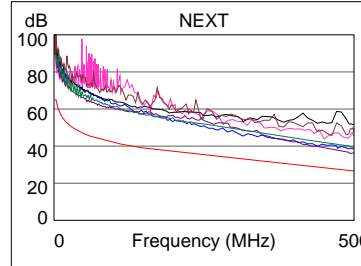
PASS



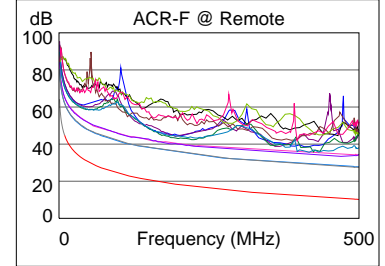
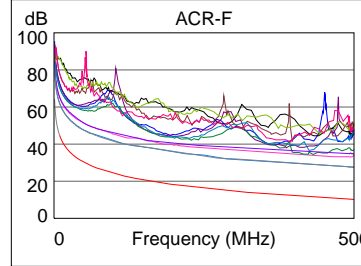
Length (ft), Limit 295	[Pair 36]	284
Prop. Delay (ns), Limit 498		396
Delay Skew (ns), Limit 44		6
Resistance (ohms)	[Pair 12]	14.1
Insertion Loss Margin (dB)	[Pair 45]	4.8
Frequency (MHz)	[Pair 45]	500.0
Limit (dB)	[Pair 45]	43.8



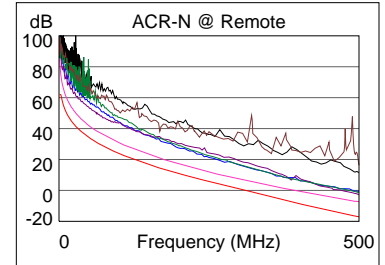
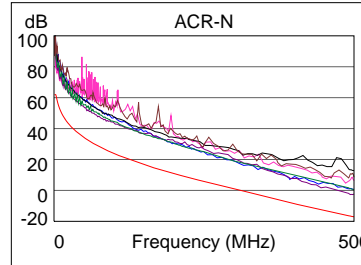
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	36-45	12-45	36-45	12-45
NEXT (dB)	9.2	2.7	9.2	4.7
Freq. (MHz)	494.0	299.0	494.0	492.0
Limit (dB)	26.8	34.1	26.8	26.9
Worst Pair	36	12	36	45
PS NEXT (dB)	9.2	4.7	9.2	6.6
Freq. (MHz)	493.0	301.0	494.0	498.0
Limit (dB)	24.0	31.4	23.9	23.8



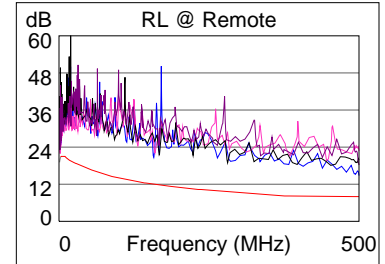
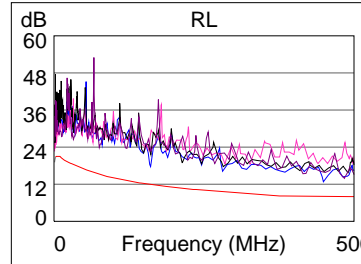
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	78-45	78-45	45-78	78-45
ACR-F (dB)	16.5	16.5	17.2	16.5
Freq. (MHz)	453.0	458.0	500.0	461.0
Limit (dB)	11.1	11.0	10.2	10.9
Worst Pair	78	78	45	45
PS ACR-F (dB)	16.6	16.7	18.3	19.4
Freq. (MHz)	1.0	1.0	474.0	499.0
Limit (dB)	61.2	61.2	7.7	7.2



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
N/A				
Worst Pair	36-45	12-45	36-45	12-45
ACR-N (dB)	13.9	5.7	13.9	9.8
Freq. (MHz)	494.0	279.0	494.0	500.0
Limit (dB)	-16.6	3.2	-16.6	-17.1
Worst Pair	36	12	36	45
PS ACR-N (dB)	14.3	8.0	15.0	11.4
Freq. (MHz)	394.0	280.0	497.0	500.0
Limit (dB)	-10.8	0.5	-19.7	-20.0



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	36	36	12	12
RL (dB)	4.1	3.4	4.6	6.8
Freq. (MHz)	3.1	3.1	450.0	500.0
Limit (dB)	21.0	21.0	8.0	8.0



Compliant Network Standards:
 10BASE-T 100BASE-TX 100BASE-T4
 1000BASE-T 10GBASE-T ATM-25
 ATM-51 ATM-155 100VG-AnyLan
 TR-4 TR-16 Active TR-16 Passive



Cable ID: 101734842CRT-001B-7

Test Summary: PASS

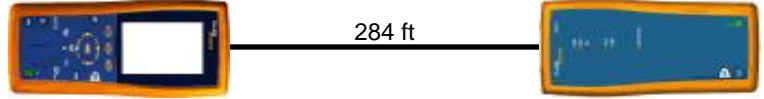
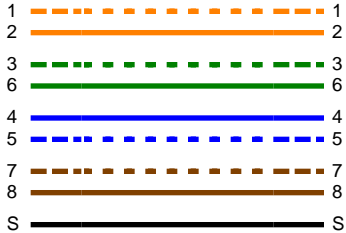
Date / Time: 08/18/2014 09:42:03am
 Headroom: 7.1 dB (NEXT 36-78)
 Test Limit: TIA Cat 6A Perm. Link
 Cable Type: Cat 6A FTP

Operator: Your Name
 Software Version: 2.7400
 Limits Version: 1.9300
 NVP: 74.0%

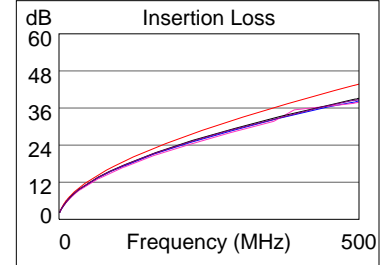
Model: DTX-1800
 Main S/N: 9385159
 Remote S/N: 9385160
 Main Adapter: DTX-PLA002
 Remote Adapter: DTX-PLA002

Wire Map (T568B)

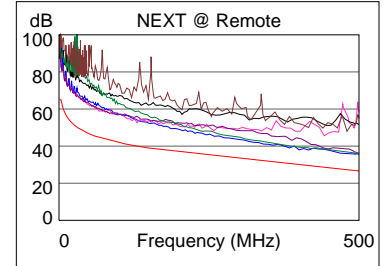
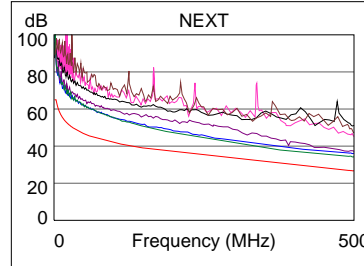
PASS



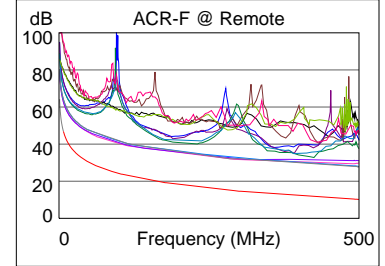
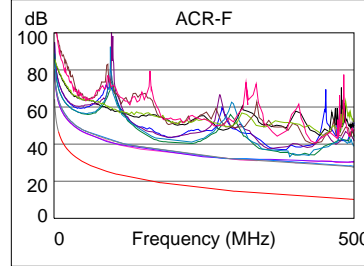
Length (ft), Limit 295	[Pair 36]	284
Prop. Delay (ns), Limit 498		396
Delay Skew (ns), Limit 44		6
Resistance (ohms)	[Pair 12]	14.1
Insertion Loss Margin (dB)	[Pair 45]	4.6
Frequency (MHz)	[Pair 45]	500.0
Limit (dB)	[Pair 45]	43.8



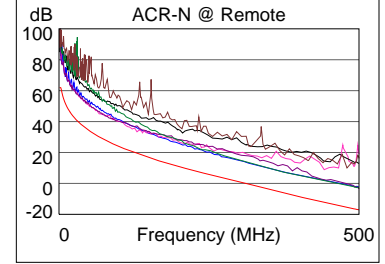
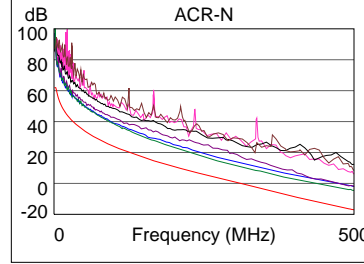
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	36-78	12-36	36-78	12-36
NEXT (dB)	7.1	7.6	7.5	8.2
Freq. (MHz)	390.0	397.0	497.0	475.0
Limit (dB)	30.2	30.0	26.7	27.4
Worst Pair	36	36	36	36
PS NEXT (dB)	6.7	7.2	7.1	7.2
Freq. (MHz)	390.0	500.0	497.0	500.0
Limit (dB)	27.5	23.8	23.8	23.8



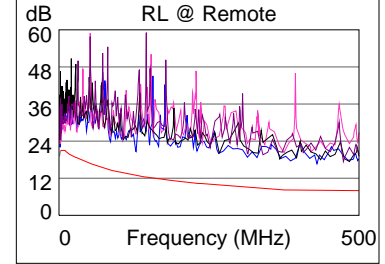
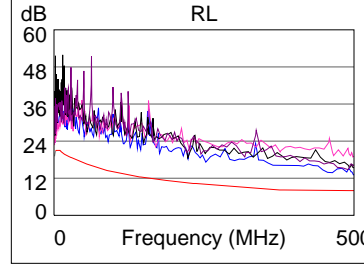
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	12-45	12-45	78-45	78-45
ACR-F (dB)	15.7	15.6	17.3	16.4
Freq. (MHz)	7.5	77.5	500.0	448.0
Limit (dB)	46.7	26.4	10.2	11.2
Worst Pair	45	45	45	45
PS ACR-F (dB)	15.3	15.4	18.3	17.9
Freq. (MHz)	1.0	1.0	500.0	475.0
Limit (dB)	61.2	61.2	7.2	7.7



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
N/A				
Worst Pair	36-78	12-36	36-78	36-45
ACR-N (dB)	10.3	10.4	12.4	13.6
Freq. (MHz)	310.0	394.0	498.0	500.0
Limit (dB)	0.3	-8.0	-16.9	-17.1
Worst Pair	36	36	36	36
PS ACR-N (dB)	9.8	10.5	12.9	13.1
Freq. (MHz)	391.0	394.0	499.0	500.0
Limit (dB)	-10.5	-10.8	-19.9	-20.0



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
PASS				
Worst Pair	36	12	12	12
RL (dB)	3.5	3.2	5.1	8.2
Freq. (MHz)	3.1	2.9	499.0	439.0
Limit (dB)	21.0	20.9	8.0	8.0



Compliant Network Standards:
 10BASE-T 100BASE-TX 100BASE-T4
 1000BASE-T 10GBASE-T ATM-25
 ATM-51 ATM-155 100VG-AnyLan
 TR-4 TR-16 Active TR-16 Passive



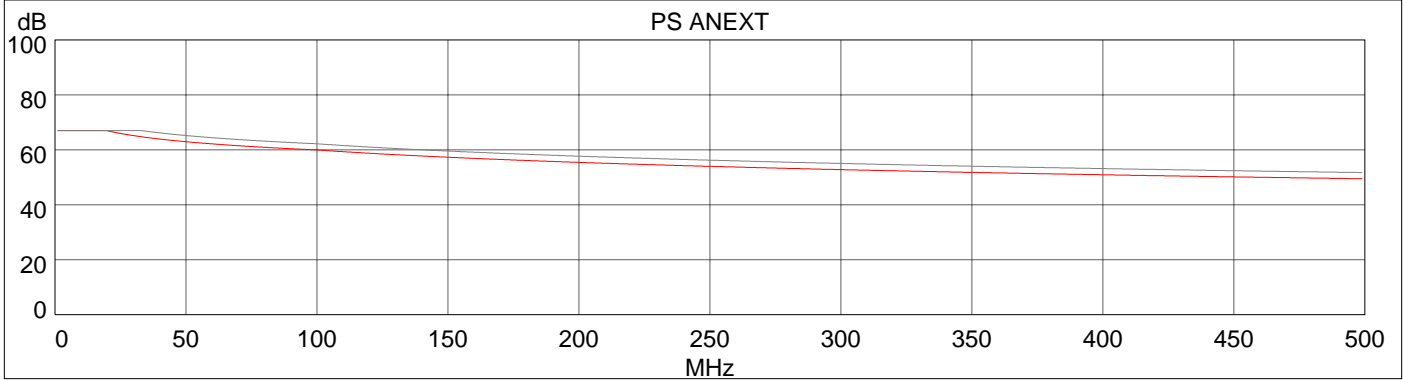
Appendix B
External (alien) test results

This appendix contains 2 pages.

PS ANEXT

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
Avg.	* All test data above significance condition				Pass

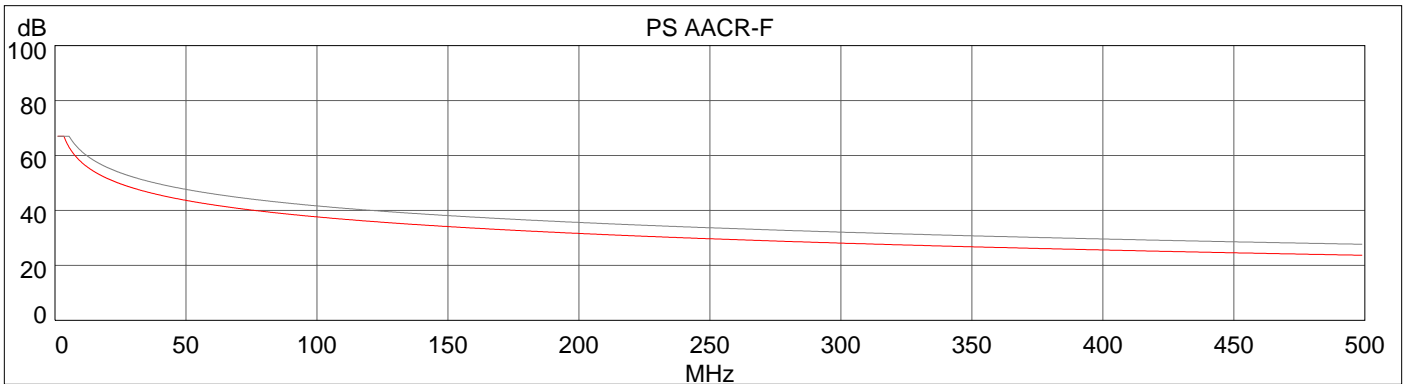
Disturber List
 101734842CRT-001B-1
 101734842CRT-001B-2
 101734842CRT-001B-3
 101734842CRT-001B-4
 101734842CRT-001B-5
 101734842CRT-001B-6



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
Avg.	* All test data above significance condition				Pass

Disturber List
 101734842CRT-001B-1
 101734842CRT-001B-2
 101734842CRT-001B-3
 101734842CRT-001B-4
 101734842CRT-001B-5
 101734842CRT-001B-6

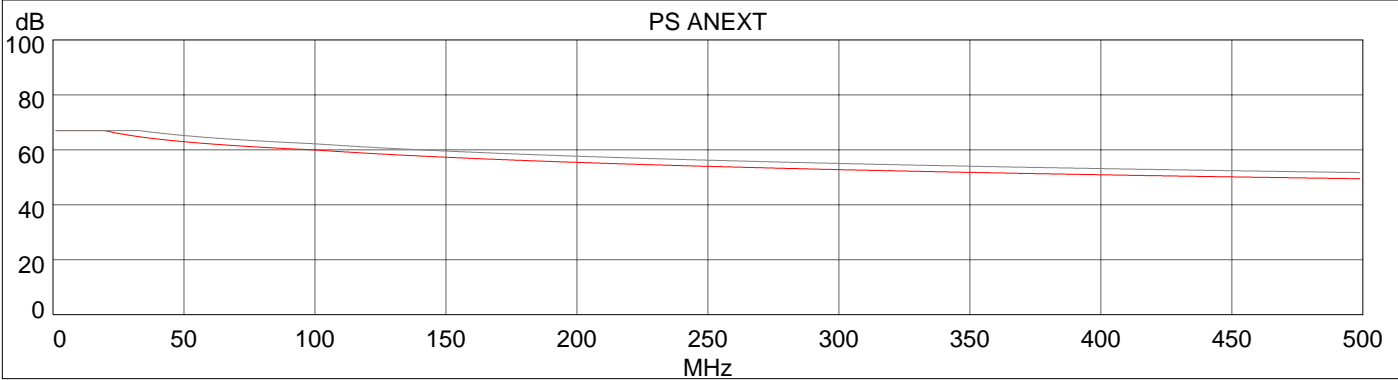


PS ANEXT

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
Avg.	* All test data above significance condition				Pass

Disturber List

101734842CRT-001B-1
 101734842CRT-001B-2
 101734842CRT-001B-3
 101734842CRT-001B-4
 101734842CRT-001B-5
 101734842CRT-001B-6



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
Avg.	* All test data above significance condition				Pass

Disturber List

101734842CRT-001B-1
 101734842CRT-001B-2
 101734842CRT-001B-3
 101734842CRT-001B-4
 101734842CRT-001B-5
 101734842CRT-001B-6

