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Project Number: 3193544

Date Issued: 2/12/2010

Certificate of Conformance Number: 2034143CRT-003

Test Report Number: 3193544CRT-041c



Applicant:

Nexans Inc.
dba Berk-Tek
132 White Oak Road
New Holland, PA 17557

Applicant Contact: Mr. Joel Fasnacht

Manufacturer:

Nexans Inc.
dba Berk-Tek
132 White Oak Road
New Holland, PA 17557USA

Mfg. Contact: Mr. Joel Fasnacht

Dear Mr. Joel Fasnacht;

Intertek is pleased to provide this letter report covering the testing of one (1) 4 Pair, 23 AWG, UTP, CMR, Non-Plenum Riser, Horizontal (solid) Cable, Part Number: LANmark 2000 p/n 10167477. The sample was selected from your manufacturer facility, Nexans Inc. DBA Berk-Tek, by the Intertek Inspector Mr. Ronald Williams on 2/4/2010, for Quarter 1 2010 Quarterly Follow-up Testing.

The testing was performed at Intertek located in Cortland, NY on 2/11/2010, to the TIA 568-C.2, ISO 11801 Category 6, and the Berk-Tek LanMark 2000 specifications and did comply with the applicable requirements of the specifications.

We have appreciated this opportunity to be of service to you. If there are any questions regarding this letter or any other services offered by Intertek, Please do not hesitate to contact us.

Refer to Appendix A for test summary results

Sincerely,

Kathy Heath
Program Coordinator
Global Cabling Products Testing
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Email: kathy.heath@intertek.com

John Cash
Technician
Global Cabling Products Testing
Phone: (607) 758-6677
Email: john.cash@intertek.com

Antoine Pelletier
Engineer
Global Cabling Products Testing
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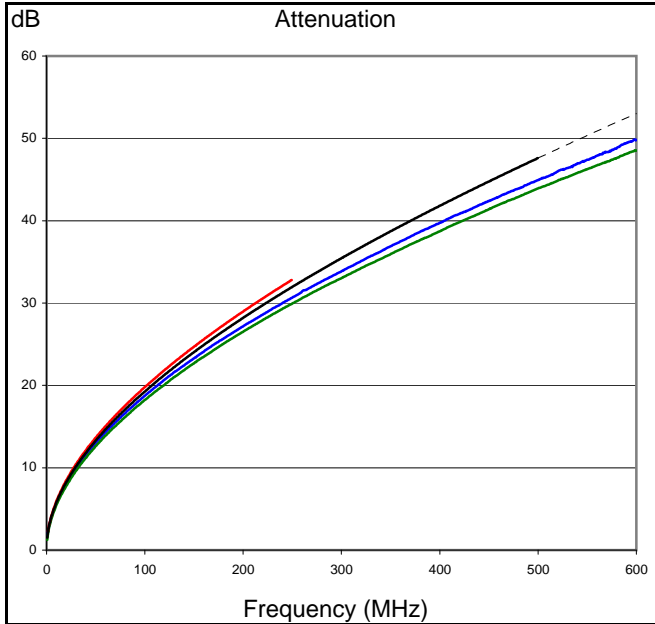
Appendix A

Test Results

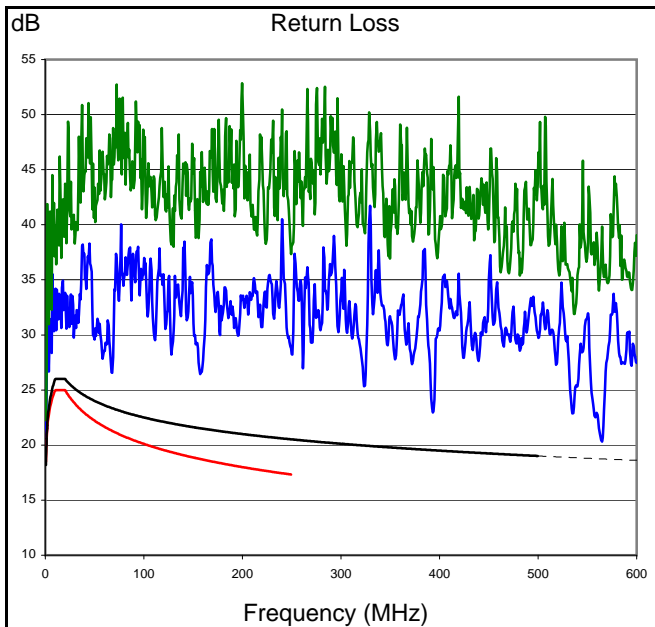
Summary

Client Nexans, INC, DBA Berk-Tek
Specifications Berk-Tek LANmark-2000
 ANSI/TIA-568-C.2 Category 6
 ISO/IEC 11801, Category 6
Part number 10167477
Description **Berk-Tek LANmark-2000 CMR**
 4X23 UTP-CMR-Solid

Test Started 2/11/2010 13:54
Technician John Cash
Report No. 3193544CRT-041c
Length (m) 100
Temperature 20 °C
Test Status **PASS**



Attenuation					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	2.2	1.9	2.2	2.2	N/A
4	3.7	3.5	3.8	3.9	3.9
8	5.1	4.9	5.2	5.3	5.4
10	5.8	5.5	5.9	6.0	6.1
16	7.2	7.0	7.4	7.6	7.7
20	8.1	7.8	8.2	8.5	8.5
25	9.1	8.8	9.3	9.6	9.6
31.25	10.2	9.8	10.4	10.7	10.7
62.5	14.6	14.2	15.0	15.4	15.5
100	18.8	18.3	19.3	19.8	19.9
250	30.6	29.9	31.9	32.8	33.0
350	36.9	35.9	38.7		
500	45.0	43.9	47.6		
600	49.8	48.5			
Limit Margin (dB) :			0.00	0.06	0.24
Frequency (MHz) :			1.25	1.25	5.00



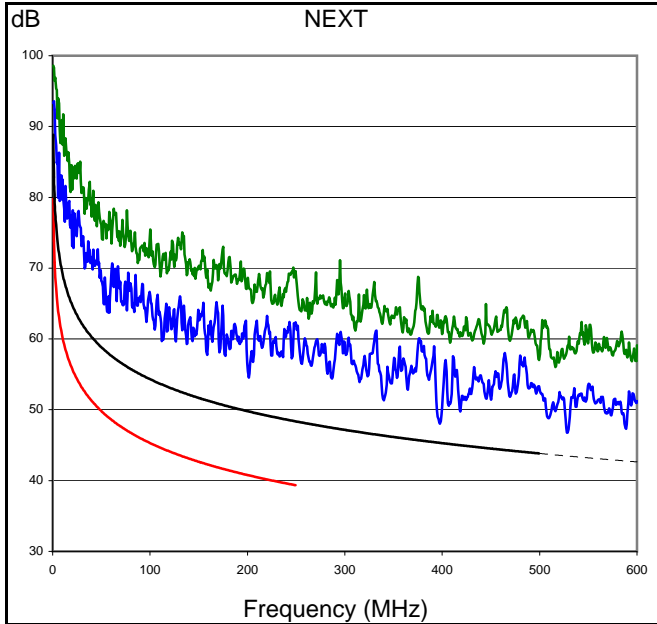
Return Loss					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	24.8	26.4	20.6	20.5	N/A
4	29.4	38.0	23.8	23.1	23.1
8	32.5	37.6	25.4	24.5	24.5
10	34.2	39.9	26.0	25.0	25.0
16	30.6	37.0	26.0	25.0	25.0
20	33.8	43.7	26.0	25.0	25.0
25	32.6	40.8	25.5	24.3	24.3
31.25	30.6	40.2	25.0	23.6	23.6
62.5	29.2	46.2	23.5	21.5	21.5
100	37.0	47.6	22.5	20.1	20.1
250	28.8	37.3	20.5	17.3	17.3
350	31.7	36.9	19.8		
500	29.7	46.6	19.0		
600	27.5	39.1			
Limit Margin (dB) :			3.22	3.96	4.31
Frequency (MHz) :			67.94	3.50	6.50

Legend : Blue - Worst Case; Green - Average; Red - TIA and ISO/IEC Specifications; Black - LANmark Specification

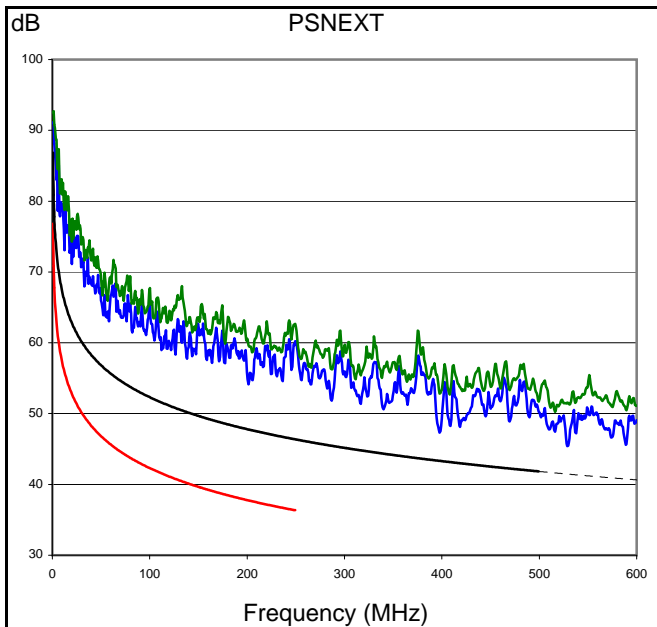
Summary

Client Nexans, INC, DBA Berk-Tek
Specifications Berk-Tek LANmark-2000
 ANSI/TIA-568-C.2 Category 6
 ISO/IEC 11801, Category 6
Part number 10167477
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 4X23 UTP-CMR-Solid

Test Started 2/11/2010 13:54
Technician John Cash
Report No. 3193544CRT-041c
Length (m) 100
Temperature 20 °C
Test Status **PASS**



NEXT					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	93.6	98.3	82.9	72.8	N/A
4	84.8	95.2	74.9	64.9	65.9
8	79.8	87.7	70.8	60.8	61.8
10	82.5	87.4	69.2	59.1	60.1
16	79.2	86.4	66.2	56.1	57.1
20	73.1	81.1	64.8	54.8	55.8
25	76.1	84.7	63.3	53.3	54.3
31.25	74.5	81.4	61.9	51.9	52.9
62.5	67.3	78.4	57.4	47.3	48.3
100	66.1	75.4	54.3	44.3	45.3
250	62.4	69.6	48.4	38.3	39.3
350	55.9	63.2	46.2		
500	52.6	57.9	43.8		
600	51.2	59.1			
Limit Margin (dB) :			2.70	14.80	13.80
Frequency (MHz) :			397.67	201.33	201.33



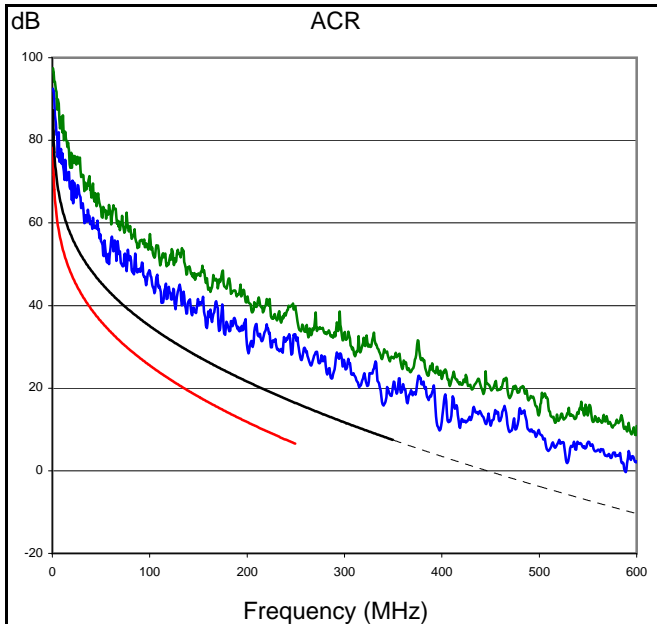
PSNEXT					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	91.2	92.7	80.9	70.8	N/A
4	83.0	88.7	72.9	62.9	62.9
8	77.9	81.1	68.8	58.8	58.8
10	79.6	80.9	67.2	57.1	57.1
16	76.6	80.7	64.2	54.1	54.1
20	71.1	74.3	62.8	52.8	52.8
25	75.1	77.8	61.3	51.3	51.3
31.25	71.2	74.9	59.9	49.9	49.9
62.5	66.5	71.7	55.4	45.3	45.3
100	64.9	67.7	52.3	42.3	42.3
250	60.2	62.7	46.4	36.3	36.3
350	52.5	57.3	44.2		
500	50.1	52.1	41.8		
600	49.1	51.1			
Limit Margin (dB) :			4.00	16.40	16.40
Frequency (MHz) :			397.67	201.33	201.33

Legend : Blue - Worst Case; Green - Average; Red - TIA and ISO/IEC Specifications; Black - LANmark Specification

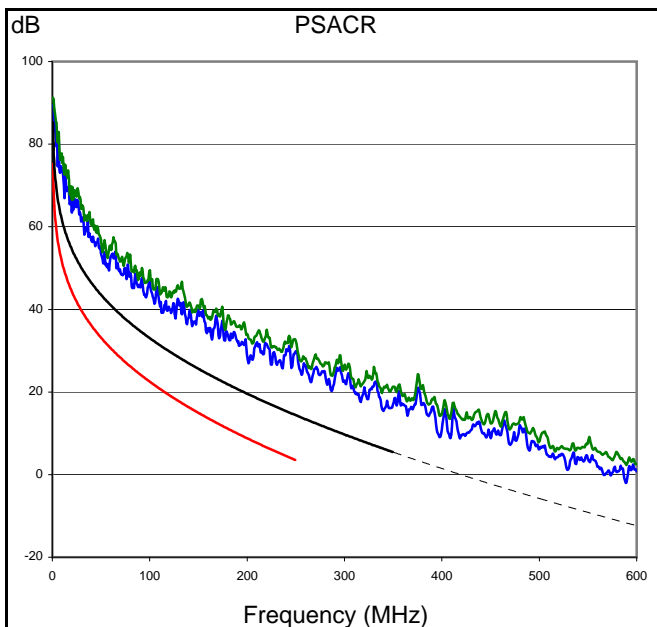
Summary

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 ISO/IEC 11801, Category 6
Part number 10167477
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 4X23 UTP-CMR-Solid

Test Started 2/11/2010 13:54
Technician John Cash
Report No. 3193544CRT-041c
Length (m) 100
Temperature 20 °C
Test Status **PASS**



ACR					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	91.9	96.4	80.7	70.6	N/A
4	81.3	91.7	71.1	61.0	61.9
8	74.9	82.9	65.6	55.4	56.4
10	76.9	82.0	63.3	53.1	54.1
16	72.2	79.5	58.7	48.5	49.5
20	65.6	73.4	56.6	46.3	47.3
25	67.5	76.0	54.0	43.7	44.7
31.25	64.7	71.7	51.5	41.2	42.1
62.5	53.2	64.3	42.4	31.9	32.8
100	48.2	57.3	35.0	24.5	25.4
250	33.0	39.9	16.4	5.6	6.4
350	20.2	27.5	7.5		
500	9.1	14.2			
600	2.3	10.8			
Limit Margin (dB) :			6.52	16.92	16.01
Frequency (MHz) :			56.70	56.70	56.70



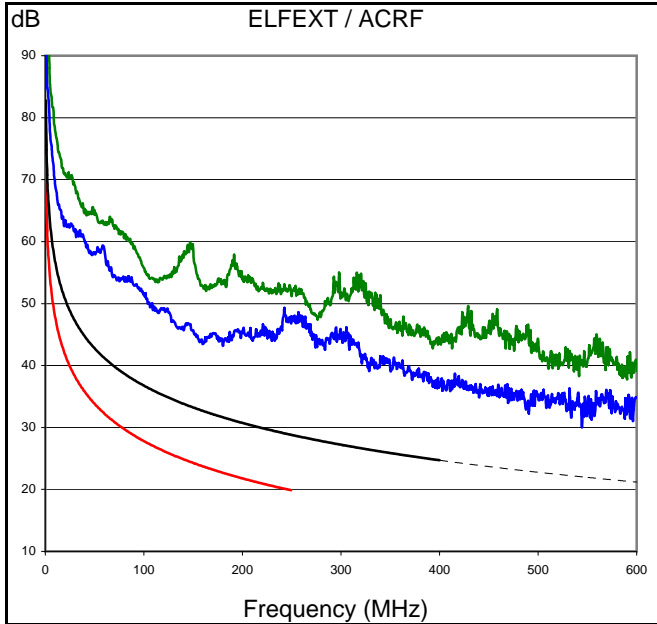
PSACR					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	89.1	90.8	78.7	68.6	N/A
4	79.4	85.2	69.1	59.0	58.9
8	73.0	76.2	63.6	53.4	53.4
10	74.0	75.4	61.3	51.1	51.1
16	69.6	73.7	56.7	46.5	46.5
20	63.4	66.5	54.6	44.3	44.3
25	66.5	69.0	52.0	41.7	41.7
31.25	61.4	65.1	49.5	39.2	39.1
62.5	52.3	57.5	40.4	29.9	29.8
100	46.9	49.5	33.0	22.5	22.4
250	29.6	32.8	14.4	3.6	3.4
350	16.9	21.3	5.5		
500	6.2	8.2			
600	0.8	2.6			
Limit Margin (dB) :			7.49	17.73	17.78
Frequency (MHz) :			201.33	12.49	12.49

Legend : Blue - Worst Case; Green - Average; Red - TIA and ISO/IEC Specifications; Black - LANmark Specification

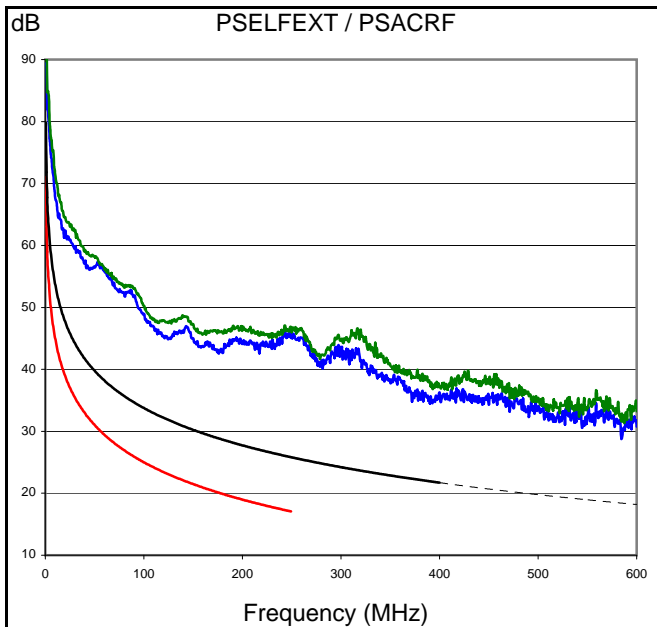
Summary

Client Nexans, INC, DBA Berk-Tek
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 ISO/IEC 11801, Category 6
Part number 10167477
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 4X23 UTP-CMR-Solid

Test Started 2/11/2010 13:54
Technician John Cash
Report No. 3193544CRT-041c
Length (m) 100
Temperature 20 °C
Test Status **PASS**



ELFEXT / ACRF					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	90.2	100.0	74.8	65.9	N/A
4	80.1	88.0	64.2	55.2	49.4
8	72.5	81.6	58.7	49.7	43.9
10	68.7	77.6	56.5	47.6	41.8
16	64.8	73.2	52.5	43.6	37.8
20	63.5	71.0	50.7	41.8	36.0
25	62.4	70.3	48.7	39.8	34.0
31.25	60.7	67.8	46.9	37.9	32.1
62.5	56.2	62.8	40.8	31.9	26.1
100	51.4	55.7	36.7	27.8	22.0
250	46.8	51.9	28.8	19.9	14.1
350	40.1	47.1	25.9		
500	34.5	43.5			
600	34.8	39.1			
Limit Margin (dB) :			10.77	19.72	25.52
Frequency (MHz) :			159.37	159.37	159.37



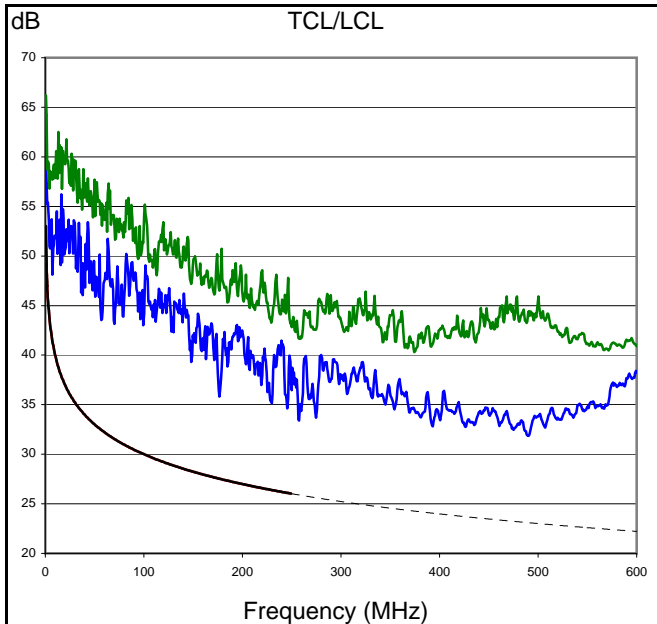
PSELFEXT / PSACRF					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	89.0	92.9	71.8	62.9	N/A
4	77.6	80.7	61.2	52.2	52.4
8	71.3	75.3	55.7	46.7	46.9
10	67.3	71.1	53.5	44.6	44.8
16	63.9	66.9	49.5	40.6	40.8
20	62.4	64.6	47.7	38.8	39.0
25	60.9	63.0	45.7	36.8	37.0
31.25	58.8	61.3	43.9	34.9	35.1
62.5	55.1	55.6	37.8	28.9	29.1
100	48.9	50.3	33.7	24.8	25.0
250	45.1	46.5	25.8	16.9	17.1
350	38.4	41.0	22.9		
500	34.1	35.4			
600	30.8	33.3			
Limit Margin (dB) :			12.44	21.87	21.67
Frequency (MHz) :			372.19	121.15	121.15

Legend : Blue - Worst Case; Green - Average; Red - TIA and ISO/IEC Specifications; Black - LANmark Specification

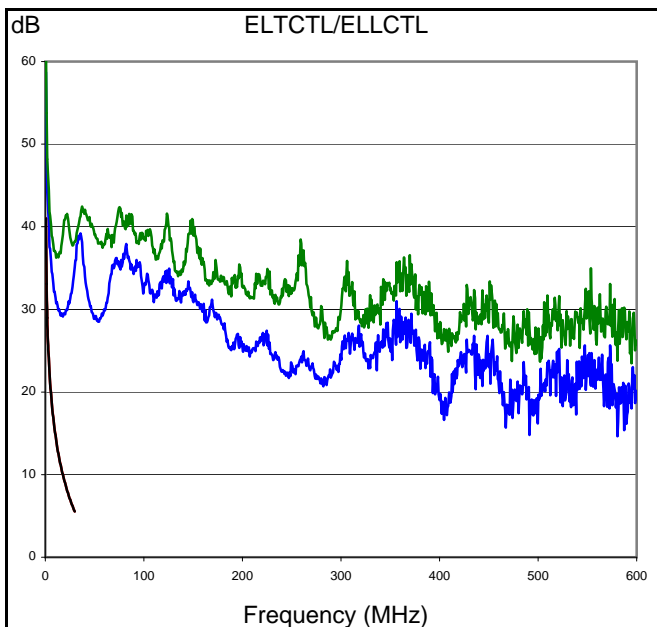
Summary

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 4X23 UTP-CMR-Solid

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Length (m) 100
Temperature 20 °C
Test Status **PASS**



TCL/LCL					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	57.3	64.2	49.0	40.0	49.0
4	50.9	56.8	43.7	40.0	43.7
8	50.8	58.8	41.0	40.0	41.0
10	52.0	59.1	39.9	39.9	39.9
16	56.2	61.0	37.9	37.9	37.9
20	50.6	59.2	37.0	37.0	37.0
25	52.6	57.6	36.0	36.0	36.0
31.25	48.7	58.1	35.1	35.1	35.1
62.5	47.6	52.5	32.0	32.0	32.0
100	44.2	54.2	30.0	30.0	30.0
250	37.0	43.3	26.0	26.0	26.0
350	36.2	44.1			
500	33.8	45.9			
600	38.2	40.9			
Limit Margin (dB) :			6.71	8.11	6.71
Frequency (MHz) :			7.24	7.24	7.24



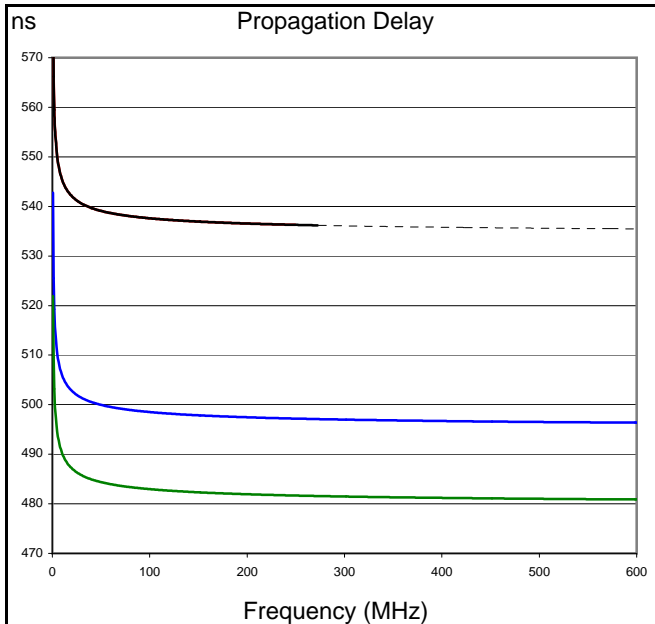
ELTCTL/ELLCTL					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	49.8	53.8	33.1	33.1	33.1
4	37.5	41.9	22.4	22.4	22.4
8	33.1	37.9	16.9	16.9	16.9
10	31.4	36.9	14.8	14.8	14.8
16	29.5	37.7	10.8	10.8	10.8
20	29.4	40.9	9.0	9.0	9.0
25	31.3	38.7	7.0	7.0	7.0
31.25	36.0	38.6			
62.5	30.8	38.5			
100	32.9	38.5			
250	23.6	31.9			
350	26.5	32.3			
500	19.7	27.7			
600	20.1	25.7			
Limit Margin (dB) :			15.10	15.10	15.10
Frequency (MHz) :			4.25	4.25	4.25

Legend : Blue - Worst Case; Green - Average; Red - TIA and ISO/IEC Specifications; Black - LANmark Specification

Summary

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 ISO/IEC 11801, Category 6
Part number 10167477
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Test Status **PASS**



Propagation Delay						
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec	
1	525.5	509.6	566.2	566.2	N/A	
4	511.7	495.9	551.5	551.5	551.5	
8	507.2	491.4	546.7	546.7	546.7	
10	505.8	490.1	545.2	545.2	545.2	
16	503.6	488.0	542.9	542.9	542.9	
20	502.8	487.1	542.1	542.1	542.1	
25	502.0	486.3	541.2	541.2	541.2	
31.25	501.3	485.6	540.4	540.4	540.4	
62.5	499.4	483.9	538.5	538.5	538.5	
100	498.5	483.0	537.6	537.6	537.6	
250	497.2	481.7	536.3	536.3	536.3	
350	496.8	481.3	535.9			
500	496.5	481.0	535.6			
600	496.4	480.9				
Limit Margin (dB) :				39.08	39.08	39.08
Frequency (MHz) :				162.37	162.37	162.37

Delay Skew				
Freq. MHz	Worst case	LANmark Spec	TIA Spec	ISO/IEC Spec
1-250	29.57	35	45	45

Low frequency measurements								
Parameter	Worst Case	Average	LANmark		TIA		ISO/IEC	
			Spec	Margin	Spec	Margin	Spec	Margin
Mutual capacitance (nF/100m)	4.76	4.58	5.60	0.84	5.60	0.84	N/A	N/A
Maximum Capacitance Unbalance Pair-to-Ground (pF/100m)	40.69	22.67	160.00	119.31	330.00	289.31	160.00	119.31
Conductor DC resistance (Ω)	7.45	7.40	9.38	1.93	9.38	1.93	9.50	2.05
DC Resistance Unbalance within a pair (%) using IEC calculation method	0.22%	0.16%	1.50%	1.28%	2.50%	2.28%	2.00%	1.78%
DC Resistance Unbalance between pairs (%)	0.80%	0.45%	4.00%	3.20%	N/A	N/A	4.00%	3.20%

Legend : Blue - Worst Case; Green - Average; Red - TIA and ISO/IEC Specifications; Black - LANmark Specification