



3933 US Route 11  
Cortland, New York 13045

Telephone: +1 (800) 345-3851  
Facsimile: +1 (607) 758-6637  
www.intertek.com

Project Number: G100283649  
Certificate of Conformance Number: 9911244CRT-002

Date Issued: 10/19/2011

**Test Report Number: G100283649CRT-012e**



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: 10032451. The sample was selected from your manufacturer facility, Nexans Inc. DBA Berk-Tek, by the Intertek Inspector Mr. Ronald Williams on 10/13/2011, for Q411 Quarterly Follow-up Testing.

The testing was performed at Intertek located in Cortland, NY on 10/18/2011, to the TIA-568-C.2; ISO/IEC 11801 and LANmark-1000 Category 6 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*  
Kathy Heath  
Program Coordinator  
Global Cabling Products Testing  
Phone: (607) 758-6641  
Email: kathy.heath@intertek.com

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

*Antoine Pelletier*  
Antoine Pelletier  
Engineer  
Global Cabling Products Testing  
Phone: (607) 758-6718  
Email: antoine.pelletier@intertek.com



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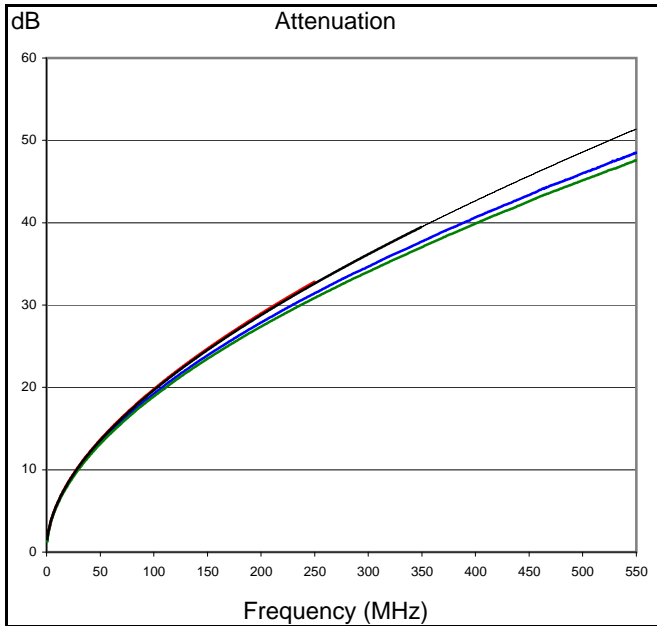
Appendix A

Test Results

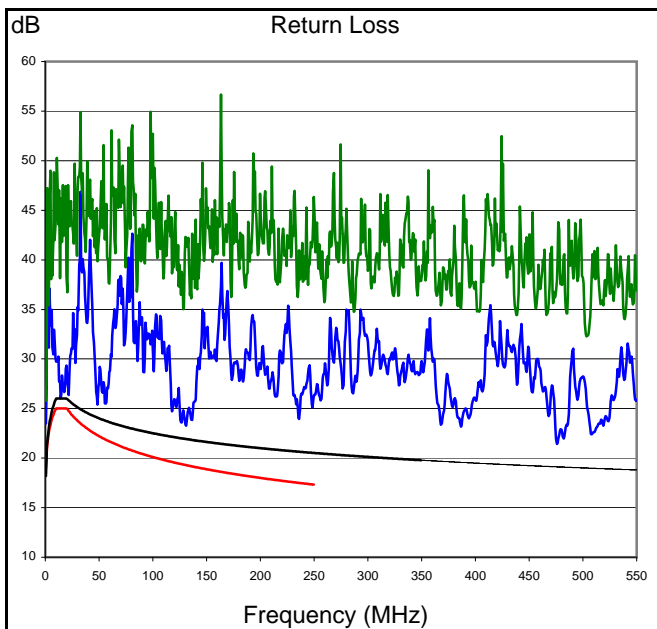
Summary

**Client** Nexans Inc., DBA Berk-Tek  
**Specifications** Berk-Tek LANmark-1000  
 ANSI/TIA-568-C.2, Category 6  
 ISO/IEC 11801, Category 6  
**Part Number** 10032451  
**Description** **Berk-Tek LANmark-1000 CMP**  
 4X23 UTP-CMP-Solid

**Test Started** 10/18/2011 13:41  
**Technician** John Cash  
**Report No.** 100283649CRT-012e  
**Length (m)** 100  
**Temperature** 20 °C  
**Test Status** **PASS**



Attenuation					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	2.0	1.9	2.0	2.0	N/A
4	3.6	3.6	3.8	3.8	3.8
8	5.2	5.1	5.3	5.3	5.4
10	5.9	5.8	5.9	6.0	6.0
16	7.5	7.3	7.5	7.6	7.6
20	8.2	8.1	8.4	8.5	8.5
25	9.4	9.2	9.4	9.5	9.6
31.25	10.5	10.3	10.6	10.7	10.7
62.5	14.9	14.6	15.3	15.4	15.5
100	19.2	18.9	19.7	19.8	19.9
250	31.4	30.9	32.6	32.8	33.0
350	37.7	37.0	39.5		
550	48.5	47.6			
Limit Margin (dB) :			0.07	0.10	0.15
Frequency (MHz) :			12.86	6.00	6.00



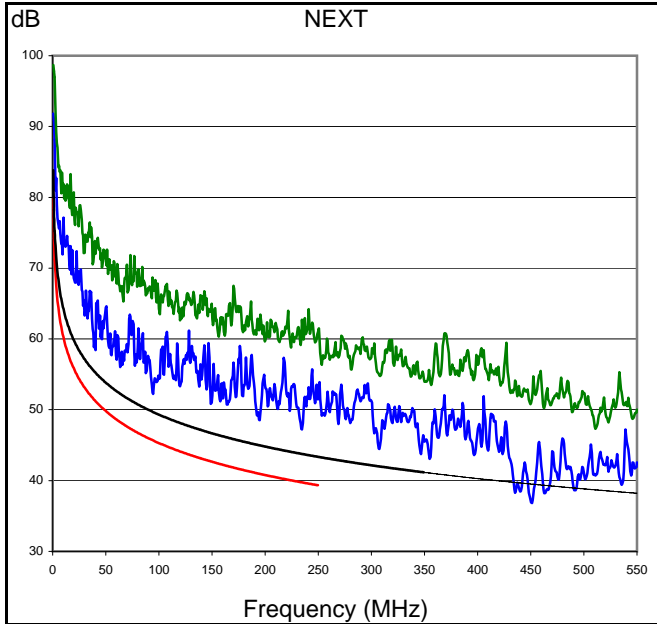
Return Loss					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	27.0	28.3	20.0	20.0	N/A
4	37.1	45.8	23.6	23.0	23.0
8	32.9	48.8	25.4	24.5	24.5
10	29.7	45.0	26.0	25.0	25.0
16	27.3	47.5	26.0	25.0	25.0
20	29.3	38.4	26.0	25.0	25.0
25	31.0	43.4	25.5	24.3	24.3
31.25	39.5	48.4	25.0	23.6	23.6
62.5	30.2	53.1	23.5	21.5	21.5
100	30.9	52.7	22.5	20.1	20.1
250	26.3	46.4	20.5	17.3	17.3
350	29.4	37.9	19.8		
550	25.9	36.9			
Limit Margin (dB) :			0.04	1.04	1.04
Frequency (MHz) :			14.24	14.24	14.24

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

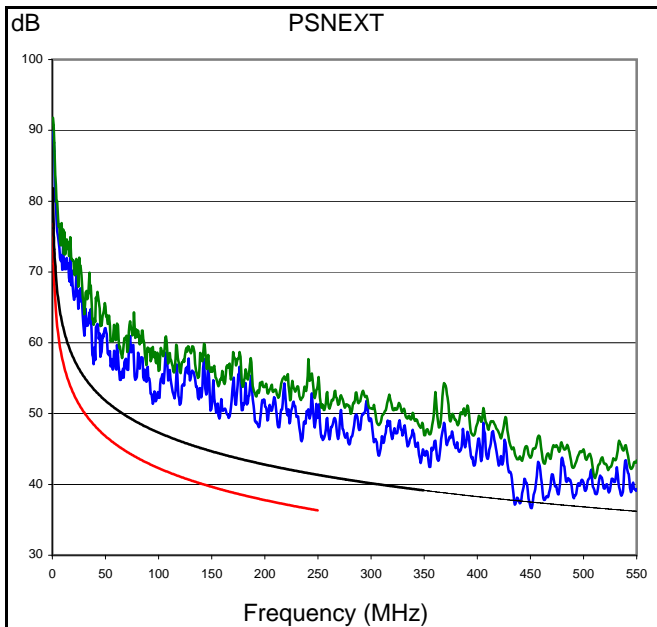
Summary

**Client** Nexans Inc., DBA Berk-Tek  
**Specifications** Berk-Tek LANmark-1000  
 ANSI/TIA-568-C.2, Category 6  
 ISO/IEC 11801, Category 6  
**Part Number** 10032451  
**Description** **Berk-Tek LANmark-1000 CMP**  
 4X23 UTP-CMP-Solid

**Test Started** 10/18/2011 13:41  
**Technician** John Cash  
**Report No.** 100283649CRT-012e  
**Length (m)** 100  
**Temperature** 20 °C  
**Test Status** **PASS**



NEXT					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	90.8	97.8	79.3	74.3	N/A
4	79.0	87.6	70.3	65.3	66.3
8	73.4	80.6	65.8	60.8	61.8
10	77.2	81.9	64.3	59.3	60.3
16	69.8	78.5	61.3	56.2	57.2
20	68.6	80.7	59.8	54.8	55.8
25	69.4	78.8	58.3	53.3	54.3
31.25	66.8	73.8	56.9	51.9	52.9
62.5	60.2	69.3	52.4	47.4	48.4
100	54.3	64.3	49.3	44.3	45.3
250	51.5	61.0	43.3	38.3	39.3
350	45.8	54.4	41.2		
550	42.6	50.0			
Limit Margin (dB) :			2.46	7.58	6.58
Frequency (MHz) :			307.53	94.60	94.60



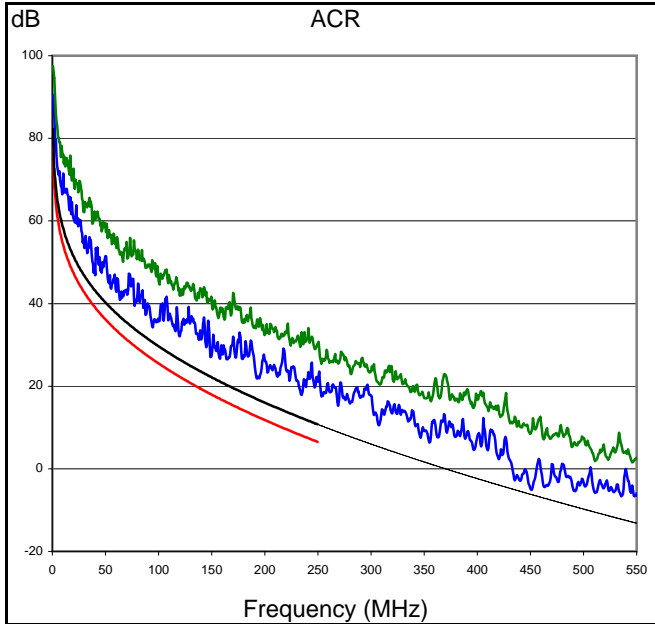
PSNEXT					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	88.8	90.8	77.3	72.3	N/A
4	77.5	79.8	68.3	63.3	63.3
8	71.6	73.7	63.8	58.8	58.8
10	74.1	76.0	62.3	57.3	57.3
16	68.6	72.4	59.3	54.2	54.2
20	66.7	71.6	57.8	52.8	52.8
25	66.9	72.0	56.3	51.3	51.3
31.25	64.8	67.1	54.9	49.9	49.9
62.5	58.2	62.4	50.4	45.4	45.4
100	52.2	56.0	47.3	42.3	42.3
250	49.4	53.9	41.3	36.3	36.3
350	44.7	47.6	39.2		
550	39.3	43.4			
Limit Margin (dB) :			3.55	8.56	8.56
Frequency (MHz) :			38.97	38.97	38.97

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

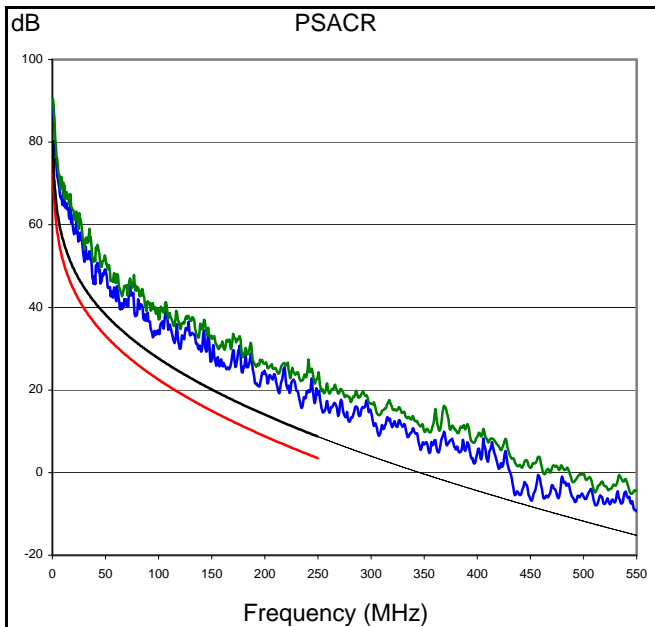
Summary

**Client** Nexans Inc., DBA Berk-Tek  
**Specifications** Berk-Tek LANmark-1000  
 ANSI/TIA-568-C.2, Category 6  
 ISO/IEC 11801, Category 6  
**Part Number** 10032451  
**Description** **Berk-Tek LANmark-1000 CMP**  
 4X23 UTP-CMP-Solid

**Test Started** 10/18/2011 13:41  
**Technician** John Cash  
**Report No.** 100283649CRT-012e  
**Length (m)** 100  
**Temperature** 20 °C  
**Test Status** **PASS**



ACR					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	88.9	95.9	77.3	72.3	N/A
4	75.5	84.1	66.5	61.5	62.4
8	68.4	75.5	60.5	55.4	56.4
10	71.5	76.1	58.4	53.3	54.3
16	62.6	71.2	53.7	48.7	49.6
20	60.6	72.6	51.4	46.3	47.3
25	60.3	69.7	48.9	43.8	44.8
31.25	56.4	63.5	46.3	41.2	42.1
62.5	45.8	54.8	37.1	32.0	32.9
100	35.7	45.4	29.6	24.5	25.4
250	21.1	30.3	10.7	5.5	6.3
350	9.4	17.6			
550	-5.9	2.7			
Limit Margin (dB) :			3.60	8.75	7.86
Frequency (MHz) :			94.60	94.60	94.60



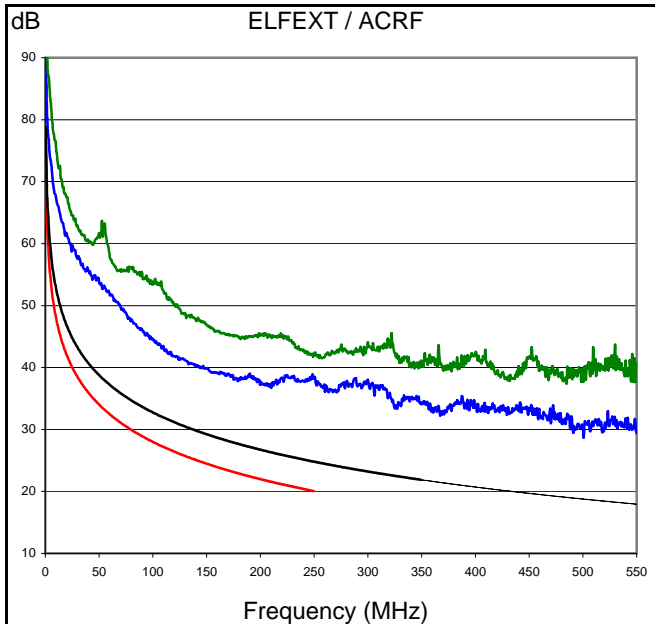
PSACR					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	86.9	88.8	75.3	70.3	N/A
4	73.9	76.3	64.5	59.5	59.4
8	66.3	68.6	58.5	53.4	53.4
10	68.3	70.2	56.4	51.3	51.3
16	61.4	65.1	51.7	46.7	46.6
20	58.4	63.5	49.4	44.3	44.3
25	57.7	62.8	46.9	41.8	41.8
31.25	54.7	56.8	44.3	39.2	39.1
62.5	43.8	47.8	35.1	30.0	29.9
100	33.6	37.1	27.6	22.5	22.4
250	18.8	23.1	8.7	3.5	3.3
350	7.0	10.6			
550	-9.1	-4.2			
Limit Margin (dB) :			4.12	9.21	9.29
Frequency (MHz) :			38.97	38.97	38.97

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

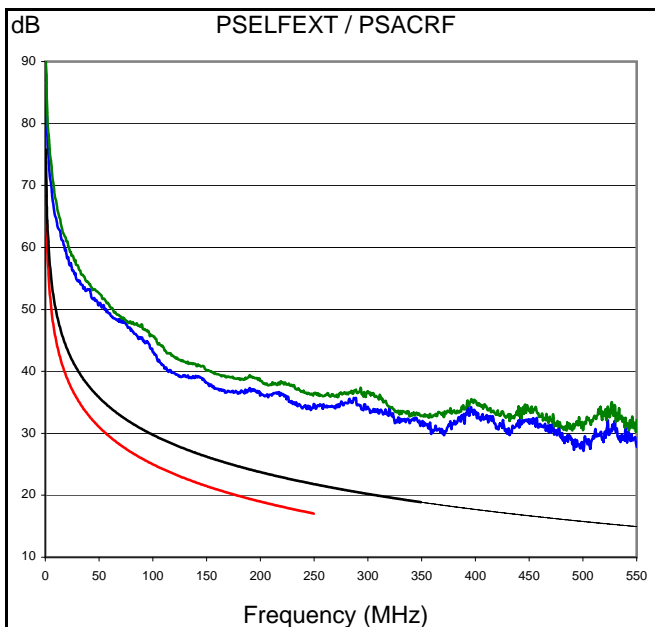
Summary

**Client** Nexans Inc., DBA Berk-Tek  
**Specifications** Berk-Tek LANmark-1000  
 ANSI/TIA-568-C.2, Category 6  
 ISO/IEC 11801, Category 6  
**Part Number** 10032451  
**Description** **Berk-Tek LANmark-1000 CMP**  
 4X23 UTP-CMP-Solid

**Test Started** 10/18/2011 13:41  
**Technician** John Cash  
**Report No.** 100283649CRT-012e  
**Length (m)** 100  
**Temperature** 20 °C  
**Test Status** **PASS**



ELFEXT / ACRF					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	84.1	93.7	72.8	67.8	N/A
4	74.6	85.4	60.7	55.8	56.0
8	68.7	77.7	54.7	49.7	49.9
10	67.2	75.0	52.8	47.8	48.0
16	63.3	69.0	48.7	43.7	43.9
20	61.7	67.5	46.7	41.8	42.0
25	59.7	64.5	44.8	39.8	40.0
31.25	57.7	62.0	42.9	37.9	38.1
62.5	51.8	57.4	36.8	31.9	32.1
100	44.6	53.5	32.8	27.8	28.0
250	38.3	42.2	24.8	19.8	20.0
350	34.1	41.1	21.9		
550	29.4	40.7			
Limit Margin (dB) :			10.08	15.04	14.84
Frequency (MHz) :			179.09	179.09	179.09



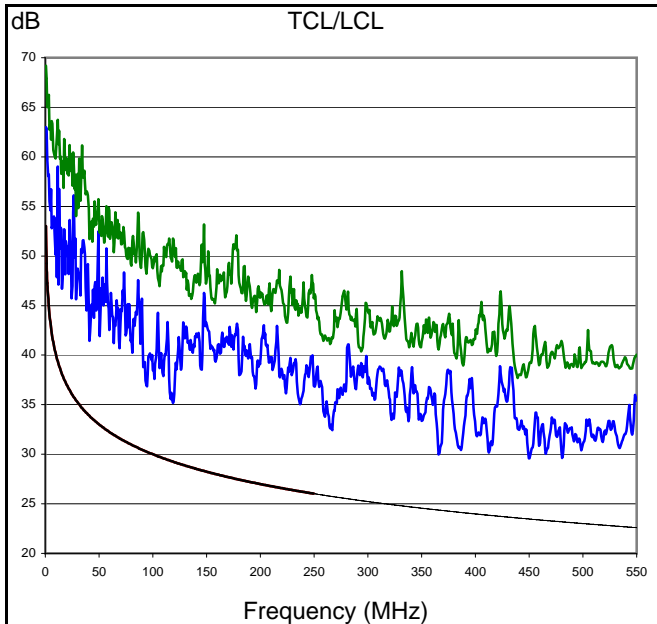
PSELFEXT / PSACRF					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	82.1	86.5	69.8	64.8	N/A
4	72.2	76.5	57.7	52.8	53.0
8	66.2	69.6	51.7	46.7	46.9
10	64.6	67.4	49.8	44.8	45.0
16	61.1	62.4	45.7	40.7	40.9
20	58.9	61.0	43.7	38.8	39.0
25	56.2	58.7	41.8	36.8	37.0
31.25	54.4	56.4	39.9	34.9	35.1
62.5	48.9	50.2	33.8	28.9	29.1
100	43.1	45.7	29.8	24.8	25.0
250	34.7	36.4	21.8	16.8	17.0
350	31.7	32.8	18.9		
550	27.8	32.2			
Limit Margin (dB) :			11.28	16.23	16.03
Frequency (MHz) :			167.41	167.41	167.41

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

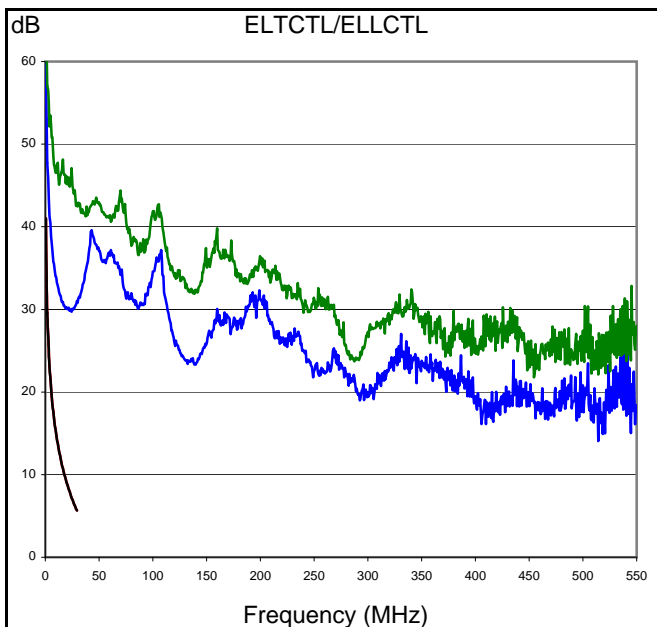
Summary

**Client** Nexans Inc., DBA Berk-Tek  
**Specifications** Berk-Tek LANmark-1000  
 ANSI/TIA-568-C.2, Category 6  
 ISO/IEC 11801, Category 6  
**Part Number** 10032451  
**Description** **Berk-Tek LANmark-1000 CMP**  
 4X23 UTP-CMP-Solid

**Test Started** 10/18/2011 13:41  
**Technician** John Cash  
**Report No.** 100283649CRT-012e  
**Length (m)** 100  
**Temperature** 20 °C  
**Test Status** **PASS**



TCL/LCL					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	62.8	67.9	50.0	40.0	50.0
4	55.5	62.7	44.0	40.0	44.0
8	54.0	60.4	41.0	40.0	41.0
10	53.8	60.9	40.0	40.0	40.0
16	48.3	59.6	38.0	38.0	38.0
20	51.0	59.9	37.0	37.0	37.0
25	47.0	57.1	36.0	36.0	36.0
31.25	48.1	59.8	35.1	35.1	35.1
62.5	45.2	53.4	32.0	32.0	32.0
100	38.5	48.8	30.0	30.0	30.0
250	36.9	45.7	26.0	26.0	26.0
350	33.9	40.8			
550	35.7	40.1			
Limit Margin (dB) :			5.90	5.90	5.90
Frequency (MHz) :			118.64	118.64	118.64



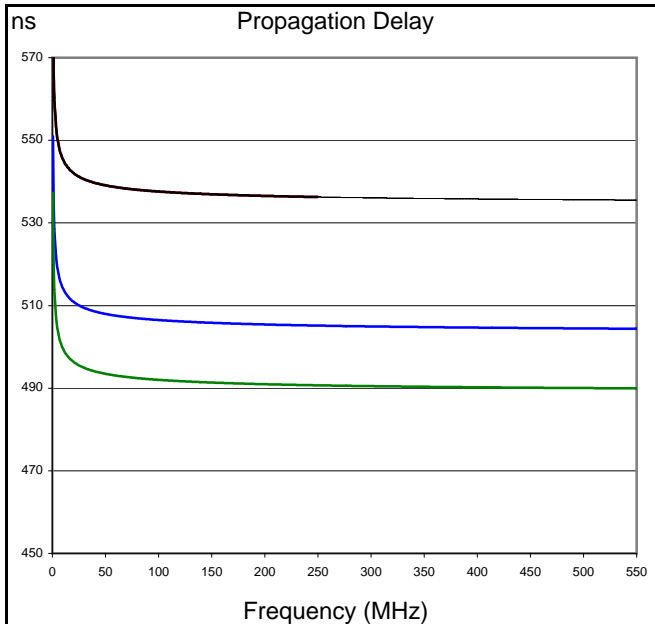
ELTCTL/ELLCTL					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	53.1	61.6	35.0	35.0	35.0
4	41.3	52.1	23.0	23.0	23.0
8	35.5	47.5	16.9	16.9	16.9
10	33.9	46.5	15.0	15.0	15.0
16	30.9	48.1	10.9	10.9	10.9
20	30.2	46.1	9.0	9.0	9.0
25	30.1	44.9	7.0	7.0	7.0
31.25	31.6	42.8			
62.5	36.6	40.7			
100	34.6	41.9			
250	22.5	31.4			
350	22.5	29.2			
550	18.4	28.0			
Limit Margin (dB) :			18.14	18.14	18.14
Frequency (MHz) :			7.37	7.37	7.37

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-1000  
 ANSI/TIA-568-C.2, Category 6  
 ISO/IEC 11801, Category 6  
**Part Number** 10032451  
**Description** **Berk-Tek LANmark-1000 CMP**  
 4X23 UTP-CMP-Solid

**Test Started** 10/18/2011 13:41  
**Technician** John Cash  
**Report No.** 100283649CRT-012e  
**Length (m)** 100  
**Temperature** 20 °C  
**Test Status** **PASS**



Propagation Delay					
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec	ISO/IEC Spec
1	535.0	520.3	570.0	570.0	N/A
4	520.7	506.1	552.0	552.0	552.0
8	515.4	500.8	546.7	546.7	546.7
10	514.1	499.5	545.4	545.4	545.4
16	511.7	497.2	543.0	543.0	543.0
20	510.9	496.4	542.0	542.0	542.0
25	510.0	495.5	541.2	541.2	541.2
31.25	509.3	494.8	540.4	540.4	540.4
62.5	507.5	493.0	538.6	538.6	538.6
100	506.5	492.0	537.6	537.6	537.6
250	505.2	490.7	536.3	536.3	536.3
350	504.8	490.3			
550	504.4	490.0			
Limit Margin (dB) :			31.09	31.09	31.09
Frequency (MHz) :			86.36	86.36	86.36

Delay Skew				
Freq. MHz	Worst case	LANmark Spec	TIA Spec	ISO/IEC Spec
1-250	27.80	35	45	45

Low frequency measurements								
Parameter	Worst Case	Average	LANmark		TIA		ISO/IEC	
			Spec	Margin	Spec	Margin	Spec	Margin
Mutual capacitance (nF/100m)	4.97	3.54	5.60	0.63	5.60	0.63	N/A	N/A
Maximum Capacitance Unbalance Pair-to-Ground (pF/100m)	9.55	5.51	160.00	150.45	330.00	320.45	160.00	150.45
Conductor DC resistance (Ω)	7.49	5.58	9.38	1.89	9.38	1.89	9.50	2.01
DC Resistance Unbalance within a pair (%) using IEC calculation method	0.55%	2.11E-03	1.50%	0.95%	2.50%	1.95%	2.00%	1.45%
DC Resistance Unbalance between pairs (%)	0.38%	1.80E-03	4.00%	3.62%	N/A	N/A	4.00%	3.62%

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