



3933 US Route 11  
Cortland, New York 13045

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

Project Number: G10028364

Date Issued: 2/6/2013

Certificate of Conformance Number: 3137629CRT-001b

**Test Report Number: G100283649CRT-024h**



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, CMP, Plenum, Horizontal (solid) Cable, Part Number: P/N 10130484 LANmark 10G2. The sample was selected from your manufacturer facility, Nexans Inc. DBA Berk-Tek, by the Intertek Inspector Mr. Ronald Williams on 1/30/2013, for Quarter 1 2013 Quarterly Follow-up Testing.

The testing was performed at Intertek located in Cortland, NY on 2/6/2013, to the ANSI/TIA-568-C.2 and LANmark-10G Category 6A 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,

Antoine Pelletier  
Engineer  
Global Cabling Products Testing  
Phone: (607) 758-6718

John Cash  
Technician  
Global Cabling Products Testing  
Phone: (607) 758-6677



This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only the sample tested. This report by itself does not imply that the material, product or service is or has ever been under an Intertek certification program.

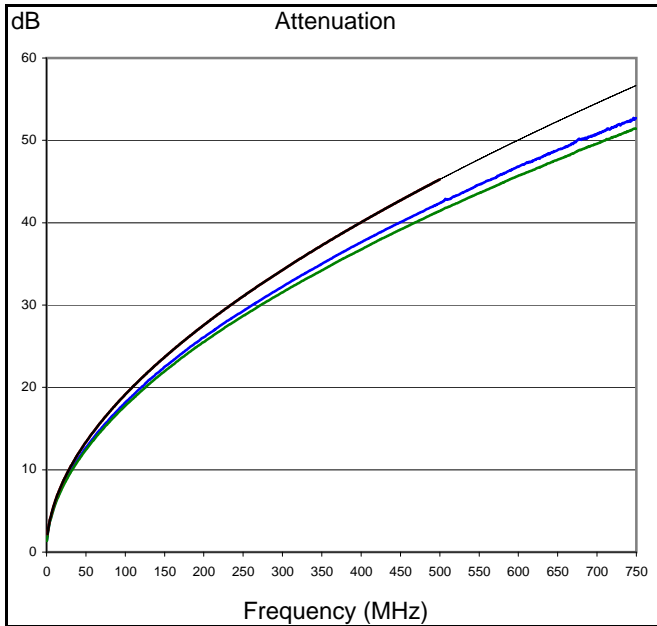
Appendix A

Test Results

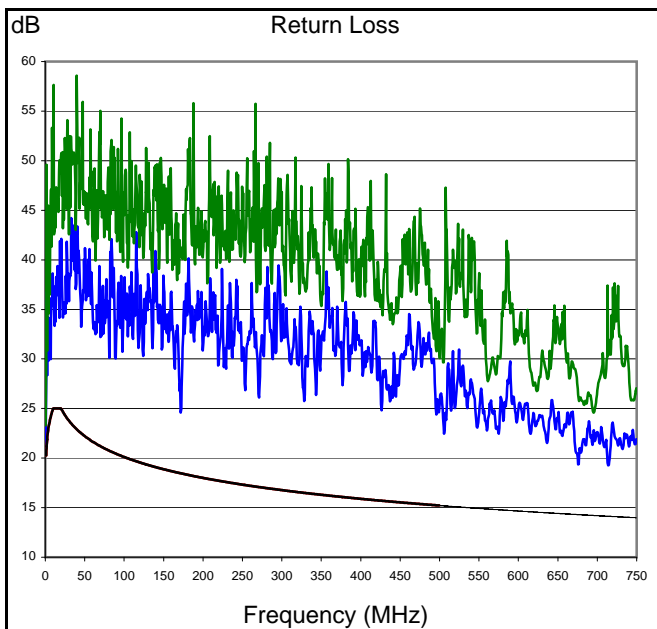
Summary

**Client** Nexans Inc., DBA Berk-Tek  
**Specifications** Berk-Tek LANmark-10G2  
 ANSI/TIA-568-C.2, Category 6A  
**Part Number** 10130484  
**Description** **Berk-Tek LANmark-10G2 CMP**  
 4X23 UTP-CMP-Solid

**Test Started** 2/6/2013 10:27  
**Technician** John Cash  
**Report No.** 100283649CRT-024h  
**Length (m)** 100  
**Temperature** 20 °C  
**Test Status** **PASS**



Attenuation				
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec
1	2.0	1.9	2.1	2.1
4	3.7	3.6	3.8	3.8
8	5.1	4.9	5.3	5.3
10	5.6	5.5	5.9	5.9
16	7.1	7.0	7.5	7.5
20	7.9	7.8	8.4	8.4
25	8.9	8.7	9.4	9.4
31.25	9.3	9.1	10.5	10.5
62.5	14.2	13.9	15.0	15.0
100	18.1	17.7	19.1	19.1
250	29.3	28.7	31.1	31.1
500	42.3	41.4	45.3	45.3
600	46.8	45.7		
750	52.7	51.4		
Limit Margin (dB) :			0.18	0.18
Frequency (MHz) :			2.37	2.37



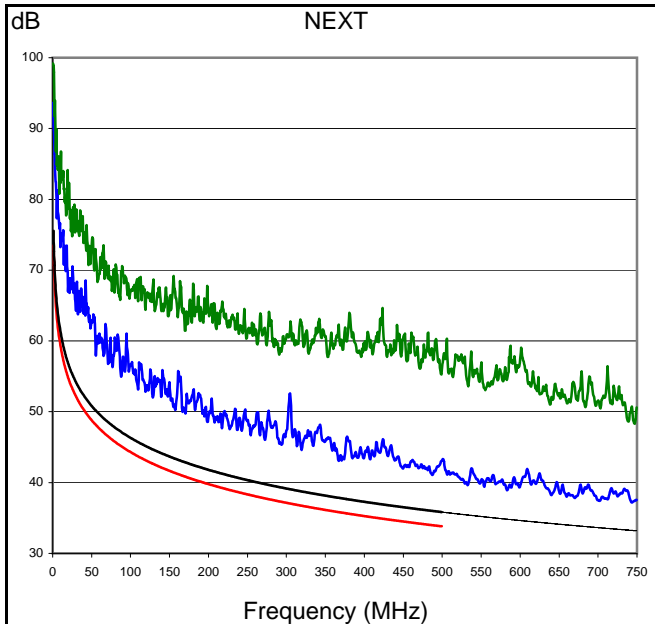
Return Loss				
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec
1	28.7	29.9	20.0	20.0
4	29.8	34.6	23.0	23.0
8	35.6	41.3	24.5	24.5
10	36.7	47.0	25.0	25.0
16	37.3	46.1	25.0	25.0
20	36.7	50.4	25.0	25.0
25	35.5	52.3	24.3	24.3
31.25	41.8	49.8	23.6	23.6
62.5	33.7	49.2	21.5	21.5
100	36.0	44.5	20.1	20.1
250	29.8	47.4	17.3	17.3
500	24.9	30.7	15.2	15.2
600	25.0	32.5		
750	21.9	27.1		
Limit Margin (dB) :			5.84	5.84
Frequency (MHz) :			6.75	6.75

Legend : Blue - Worst Case; Green - Average; Red - TIA Specification; Black - LANmark Specification

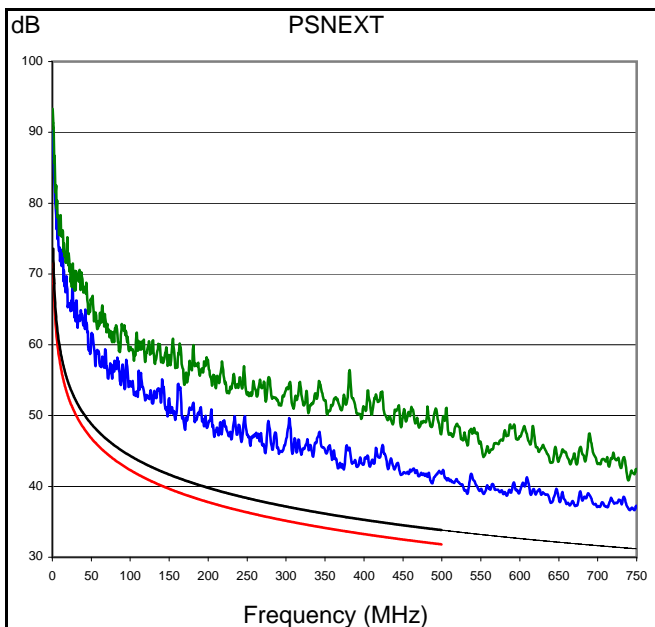
Summary

**Client** Nexans Inc., DBA Berk-Tek  
**Specifications** Berk-Tek LANmark-10G2  
 ANSI/TIA-568-C.2, Category 6A  
**Part number** 10130484  
**Description** **Berk-Tek LANmark-10G2 CMP**  
 4X23 UTP-CMP-Solid

**Test Started** 2/6/2013 10:27  
**Technician** John Cash  
**Report No.** 100283649CRT-024h  
**Length (m)** 100  
**Temperature** 20 °C  
**Test Status** **PASS**



NEXT				
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec
1	90.4	98.9	76.3	74.3
4	82.4	86.8	67.3	65.3
8	77.3	86.0	62.8	60.8
10	73.2	82.3	61.3	59.3
16	73.4	80.4	58.3	56.2
20	66.9	79.3	56.8	54.8
25	67.3	74.8	55.3	53.3
31.25	67.7	79.0	53.9	51.9
62.5	60.4	71.6	49.4	47.4
100	56.6	67.3	46.3	44.3
250	48.6	61.1	40.3	38.3
500	43.1	55.9	35.8	33.8
600	39.6	57.5		
750	37.5	50.6		
Limit Margin (dB) :		5.09	7.10	
Frequency (MHz) :		487.13	487.13	



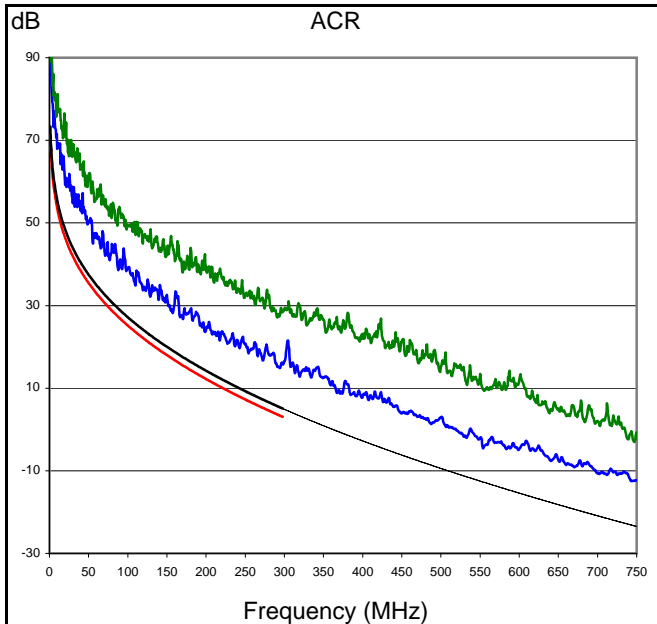
PSNEXT				
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec
1	87.4	91.3	74.3	72.3
4	79.7	81.5	65.3	63.3
8	74.1	78.2	60.8	58.8
10	71.8	75.5	59.3	57.3
16	68.9	73.1	56.3	54.2
20	65.3	71.9	54.8	52.8
25	64.8	68.2	53.3	51.3
31.25	65.9	69.8	51.9	49.9
62.5	57.5	64.3	47.4	45.4
100	54.9	59.6	44.3	42.3
250	47.3	53.0	38.3	36.3
500	41.8	47.6	33.8	31.8
600	39.3	47.1		
750	37.3	42.5		
Limit Margin (dB) :		6.43	8.44	
Frequency (MHz) :		487.13	487.13	

Legend : Blue - Worst Case; Green - Average; Red - TIA Specification; Black - LANmark Specification

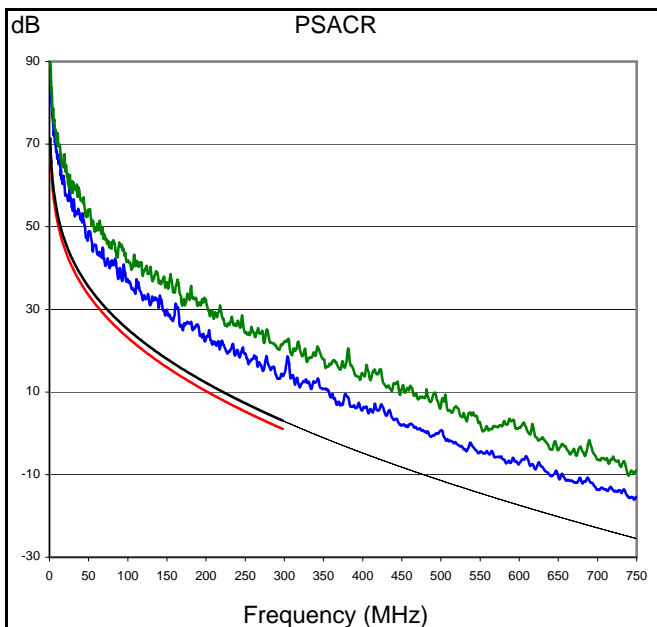
Summary

**Client** Nexans Inc., DBA Berk-Tek  
**Specifications** Berk-Tek LANmark-10G2  
 ANSI/TIA-568-C.2, Category 6A  
**Part number** 10130484  
**Description** **Berk-Tek LANmark-10G2 CMP**  
 4X23 UTP-CMP-Solid

**Test Started** 2/6/2013 10:27  
**Technician** John Cash  
**Report No.** 100283649CRT-024h  
**Length (m)** 100  
**Temperature** 20 °C  
**Test Status** **PASS**



ACR				
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec
1	88.4	97.0	74.2	72.2
4	78.8	83.2	63.5	61.5
8	72.5	81.1	57.5	55.4
10	67.9	76.8	55.4	53.4
16	66.5	73.4	50.8	48.8
20	59.2	71.6	48.4	46.4
25	58.6	66.2	46.0	44.0
31.25	58.5	69.9	43.4	41.4
62.5	46.7	57.8	34.4	32.4
100	39.2	49.6	27.2	25.2
250	20.6	32.5	9.3	7.3
500	2.9	14.5		
600	-4.8	11.9		
750	-12.3	-0.7		
Limit Margin (dB) :			8.92	10.93
Frequency (MHz) :			55.47	55.47



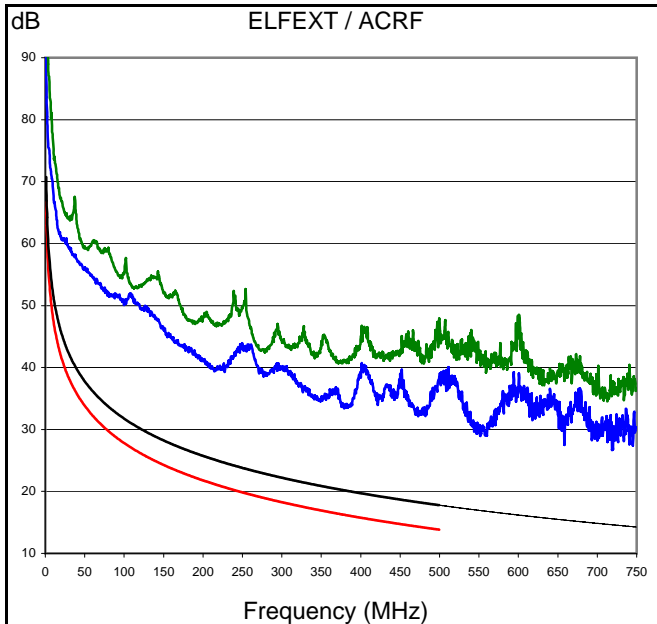
PSACR				
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec
1	85.4	89.4	72.2	70.2
4	76.1	77.8	61.5	59.5
8	69.1	73.3	55.5	53.4
10	66.5	70.0	53.4	51.4
16	61.9	66.1	48.8	46.8
20	57.6	64.2	46.4	44.4
25	56.2	59.5	44.0	42.0
31.25	56.8	60.7	41.4	39.4
62.5	43.8	50.4	32.4	30.4
100	37.3	41.9	25.2	23.2
250	19.2	24.3	7.3	5.3
500	0.6	6.2		
600	-7.3	1.4		
750	-15.4	-9.0		
Limit Margin (dB) :			9.42	11.43
Frequency (MHz) :			170.42	170.42

Legend : Blue - Worst Case; Green - Average; Red - TIA Specification; Black - LANmark Specification

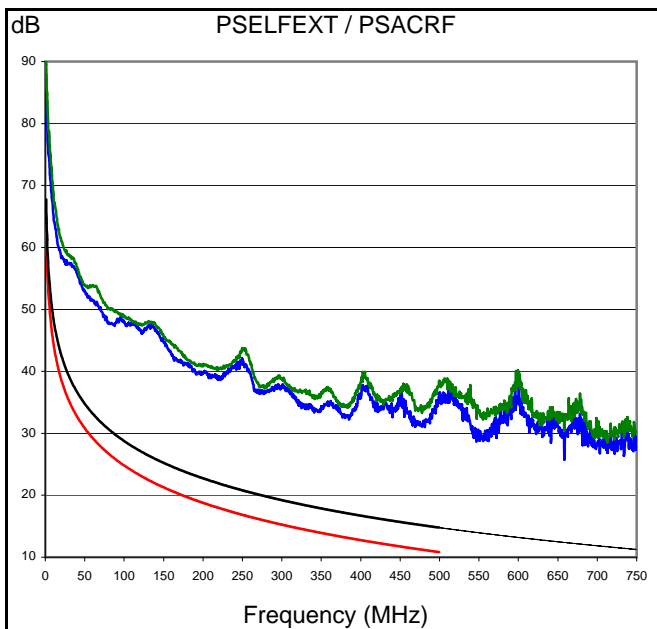
Summary

**Client** Nexans Inc., DBA Berk-Tek  
**Specifications** Berk-Tek LANmark-10G2  
 ANSI/TIA-568-C.2, Category 6A  
**Part number** 10130484  
**Description** **Berk-Tek LANmark-10G2 CMP**  
 4X23 UTP-CMP-Solid

**Test Started** 2/6/2013 10:27  
**Technician** John Cash  
**Report No.** 100283649CRT-024h  
**Length (m)** 100  
**Temperature** 20 °C  
**Test Status** **PASS**



ELFEXT / ACRF				
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec
1	88.9	96.3	71.8	67.8
4	75.4	87.2	59.7	55.8
8	70.5	81.0	53.7	49.7
10	68.8	76.5	51.8	47.8
16	62.3	69.7	47.7	43.7
20	61.2	67.4	45.7	41.8
25	60.5	65.0	43.8	39.8
31.25	60.0	64.4	41.9	37.9
62.5	54.1	60.4	35.8	31.9
100	50.1	55.1	31.8	27.8
250	44.0	49.8	23.8	19.8
500	38.4	47.9	17.8	13.8
600	36.2	44.8		
750	30.2	36.7		
Limit Margin (dB) :		13.24	17.19	
Frequency (MHz) :		379.06	379.06	



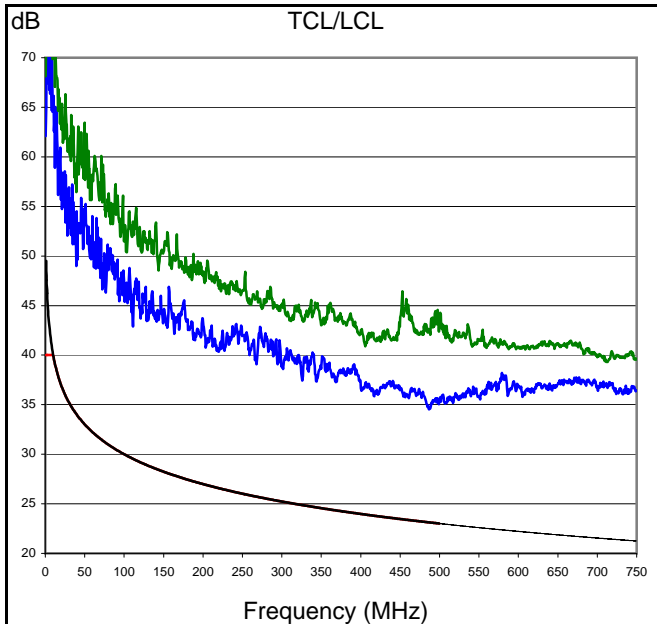
PSELFEXT / PSACRF				
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec
1	87.1	89.5	68.8	64.8
4	75.0	78.7	56.7	52.8
8	68.2	72.9	50.7	46.7
10	65.9	69.7	48.8	44.8
16	60.2	63.6	44.7	40.7
20	58.7	61.5	42.7	38.8
25	58.0	59.5	40.8	36.8
31.25	57.3	59.1	38.9	34.9
62.5	51.1	53.7	32.8	28.9
100	47.9	48.7	28.8	24.8
250	42.1	43.8	20.8	16.8
500	36.3	38.5	14.8	10.8
600	35.9	37.7		
750	27.3	30.2		
Limit Margin (dB) :		15.15	19.10	
Frequency (MHz) :		385.31	385.31	

Legend : Blue - Worst Case; Green - Average; Red - TIA Specification; Black - LANmark Specification

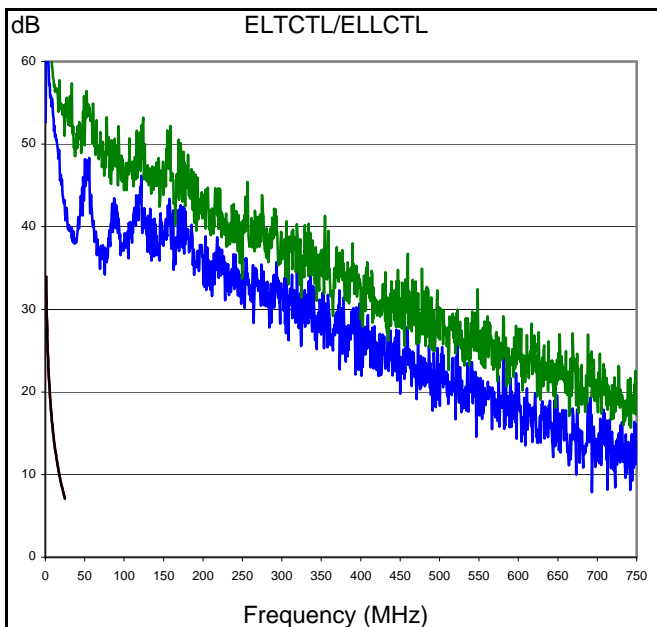
Summary

**Client** Nexans Inc., DBA Berk-Tek  
**Specifications** Berk-Tek LANmark-10G2  
 ANSI/TIA-568-C.2, Category 6A  
**Part number** 10130484  
**Description** **Berk-Tek LANmark-10G2 CMP**  
 4X23 UTP-CMP-Solid

**Test Started** 2/6/2013 10:27  
**Technician** John Cash  
**Report No.** 100283649CRT-024h  
**Length (m)** 100  
**Temperature** 20 °C  
**Test Status** **PASS**



TCL/LCL				
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec
1	65.0	71.3	50.0	40.0
4	70.4	76.0	44.0	40.0
8	64.7	74.1	41.0	40.0
10	65.0	71.9	40.0	40.0
16	56.2	64.6	38.0	38.0
20	55.7	63.5	37.0	37.0
25	58.5	63.8	36.0	36.0
31.25	56.7	63.3	35.1	35.1
62.5	51.4	60.1	32.0	32.0
100	47.5	51.5	30.0	30.0
250	41.9	46.5	26.0	26.0
500	35.5	42.9	23.0	23.0
600	36.8	40.8		
750	36.4	39.6		
Limit Margin (dB) :		11.39	11.39	
Frequency (MHz) :		486.51	486.51	



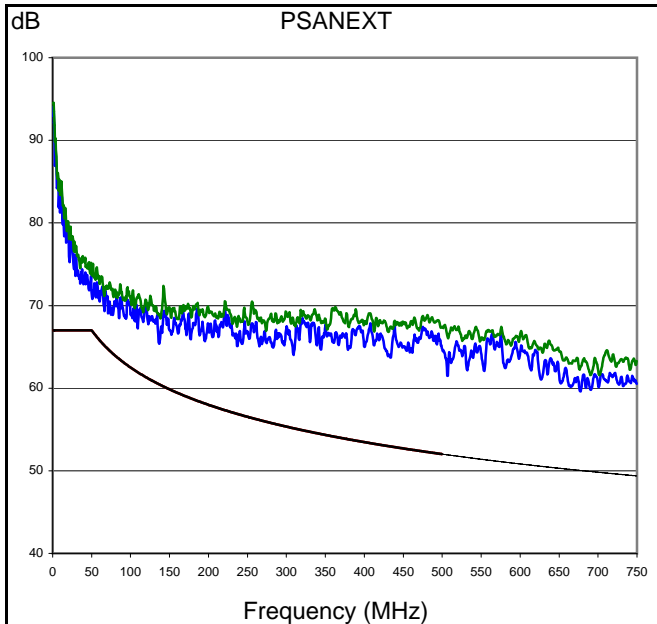
ELTCTL/ELLCTL				
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec
1	62.2	69.8	35.0	35.0
4	59.6	65.5	23.0	23.0
8	54.5	60.1	16.9	16.9
10	53.6	58.1	15.0	15.0
16	49.0	55.2	10.9	10.9
20	46.3	54.5	9.0	9.0
25	42.1	54.8	7.0	7.0
31.25	42.3	55.6		
62.5	38.2	49.7		
100	38.0	44.4		
250	31.4	33.7		
500	23.4	30.3		
600	21.0	25.9		
750	16.1	21.6		
Limit Margin (dB) :		28.26	28.26	
Frequency (MHz) :		1.12	1.12	

Legend : Blue - Worst Case; Green - Average; Red - TIA Specification; Black - LANmark Specification

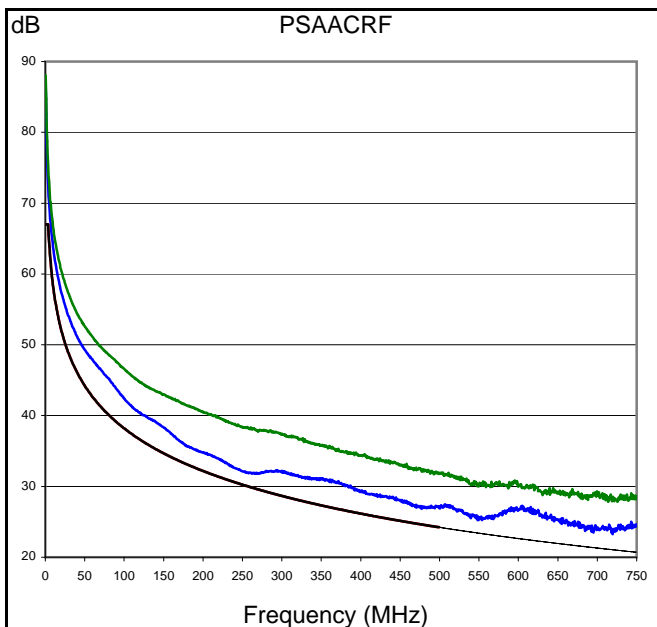
Summary

**Client** Nexans Inc., DBA Berk-Tek  
**Specifications** Berk-Tek LANmark-10G2  
 ANSI/TIA-568-C.2, Category 6A  
**Part number** 10130484  
**Description** **Berk-Tek LANmark-10G2 CMP**  
 4X23 UTP-CMP-Solid

**Test Started** 2/6/2013 10:27  
**Technician** John Cash  
**Report No.** 100283649CRT-024h  
**Length (m)** 100  
**Temperature** 20 °C  
**Test Status** **PASS**



PSANEXT				
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec
1	94.1	94.5	67.0	67.0
4	87.6	88.8	67.0	67.0
8	81.9	83.9	67.0	67.0
10	82.0	83.6	67.0	67.0
16	79.6	81.8	67.0	67.0
20	79.8	80.2	67.0	67.0
25	77.3	78.0	67.0	67.0
31.25	74.4	76.5	67.0	67.0
62.5	71.8	73.6	65.6	65.6
100	68.9	70.9	62.5	62.5
250	66.9	68.2	56.5	56.5
500	64.9	67.4	52.0	52.0
600	64.4	66.6		
750	60.5	63.3		
Limit Margin (dB) :			3.93	3.93
Frequency (MHz) :			51.10	51.10



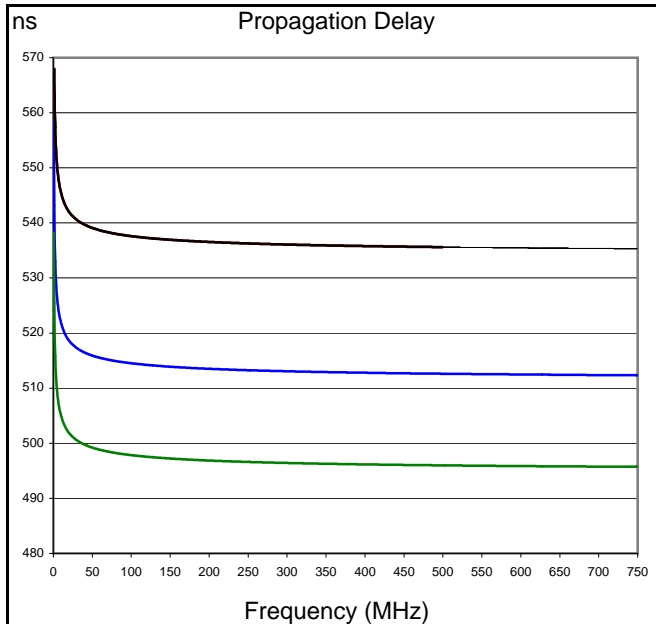
PSAACRF				
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec
1	82.5	84.7	67.0	67.0
4	71.0	73.9	66.2	66.2
8	65.5	68.3	60.1	60.1
10	63.8	66.7	58.2	58.2
16	59.5	62.5	54.1	54.1
20	57.5	60.6	52.2	52.2
25	55.7	58.7	50.2	50.2
31.25	54.7	57.9	48.3	48.3
62.5	47.5	50.7	42.3	42.3
100	42.4	46.6	38.2	38.2
250	32.1	38.4	30.2	30.2
500	27.2	31.9	24.2	24.2
600	26.8	30.2		
750	24.7	28.2		
Limit Margin (dB) :			1.84	1.84
Frequency (MHz) :			254.12	254.12

Legend : Blue - Worst Case; Green - Average; Red - TIA Specification; Black - LANmark Specification



### Summary

<b>Client</b>	Nexans Inc., DBA Berk-Tek	<b>Test Started</b>	2/6/2013 10:27
<b>Specifications</b>	Berk-Tek LANmark-10G2 ANSI/TIA-568-C.2, Category 6A	<b>Technician</b>	John Cash
<b>Part number</b>	10130484	<b>Report No.</b>	100283649CRT-024h
<b>Description</b>	<b>Berk-Tek LANmark-10G2 CMP</b> 4X23 UTP-CMP-Solid	<b>Length (m)</b>	100
		<b>Temperature</b>	20 °C
		<b>Test Status</b>	<b>PASS</b>



Propagation Delay				
Freq. MHz	Worst Case	Average	LANmark Spec	TIA Spec
1	543.2	525.5	570.0	570.0
4	527.4	510.5	552.0	552.0
8	523.0	506.2	546.7	546.7
10	521.8	505.0	545.4	545.4
16	519.5	502.7	543.0	543.0
20	518.7	501.9	542.0	542.0
25	517.9	501.1	541.2	541.2
31.25	517.6	500.8	540.4	540.4
62.5	515.4	498.7	538.6	538.6
100	514.5	497.8	537.6	537.6
250	513.3	496.6	536.3	536.3
500	512.6	496.0	535.6	535.6
600	512.5	495.9		
750	512.3	495.7		
Limit Margin (dB) :			22.99	22.99
Frequency (MHz) :			496.50	496.50

Delay Skew			
Freq. MHz	Worst case	LANmark Spec	TIA Spec
1-500	40.88	45	45

Low frequency measurements						
Parameter	Worst Case	Average	LANmark		TIA	
			Spec	Margin	Spec	Margin
Mutual capacitance (nF/100m)	4.50	4.30	5.60	1.10	5.60	1.10
Maximum Capacitance Unbalance Pair-to-Ground (pF/100m)	32.38	21.17	330.00	297.62	330.00	297.62
Conductor DC resistance (Ω)	7.43	7.05	9.38	1.95	9.38	1.95
DC Resistance Unbalance within a pair (%) using IEC calculation method	0.49%	0.17%	1.50%	1.01%	2.00%	1.51%

Legend : Blue - Worst Case; Green - Average; Red - TIA Specification; Black - LANmark Specification