

Project Number: G104239938

Date Issued: 8/19/2024

ETL Verified Certificate of Conformance number: 105231382CRT-002

Test Report Number: 104239938CRT-024g



**Applicant:**

Berk-Tek LLC  
132 White Oak Rd  
New Holland, PA 17557

**Manufacturer:**

Berk-Tek LLC  
132 White Oak Rd  
New Holland, PA 17557

**Applicant Contact:** Mr. Michael Boland

**Mfg. Contact:** Mr. Michael Boland

Dear Mr. Boland

Intertek is pleased to provide this letter report covering the testing of your 4-pair, 23 AWG, U/UTP, CMR, horizontal (solid) cable covered by ETL Verified certificate of conformance number 105231382CRT-002. The sample was randomly selected by an Intertek inspector from your manufacturing facility, Berk-Tek LLC, on 7/23/2024 for Quarter 3 2024 follow-up testing.

The testing was performed at Intertek located in Cortland, NY from 8/7/2024 through 8/8/2024, to the ANSI/TIA-568.2-D and LM-RDT standard(s) for category 6A and passed the applicable requirements.

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.

Sincerely,

A handwritten signature in black ink that reads "Antoine Pelletier".

Antoine Pelletier  
Project Engineer  
Global Cabling Products Testing  
e-mail: [antoine.pelletier@intertek.com](mailto:antoine.pelletier@intertek.com)  
Phone: (607) 758-6718

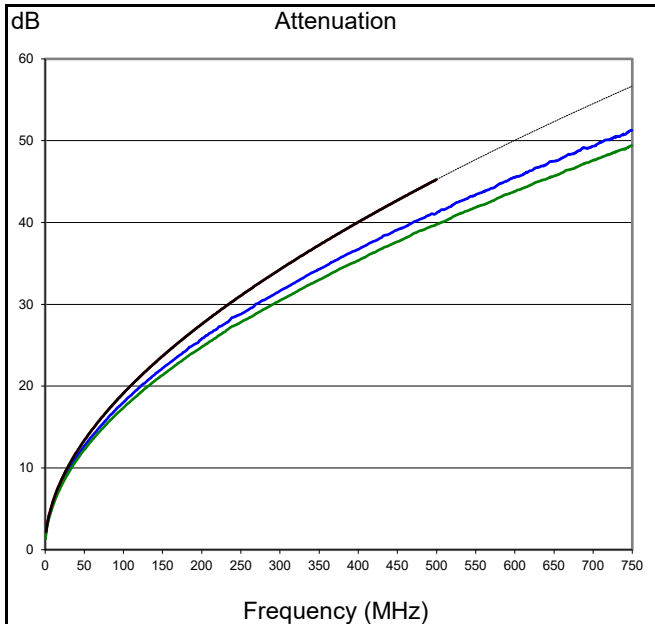
A handwritten signature in black ink that reads "David Ayers".

David Ayers  
Technician  
Global Cabling Products Testing  
Phone: (607) 758-6321

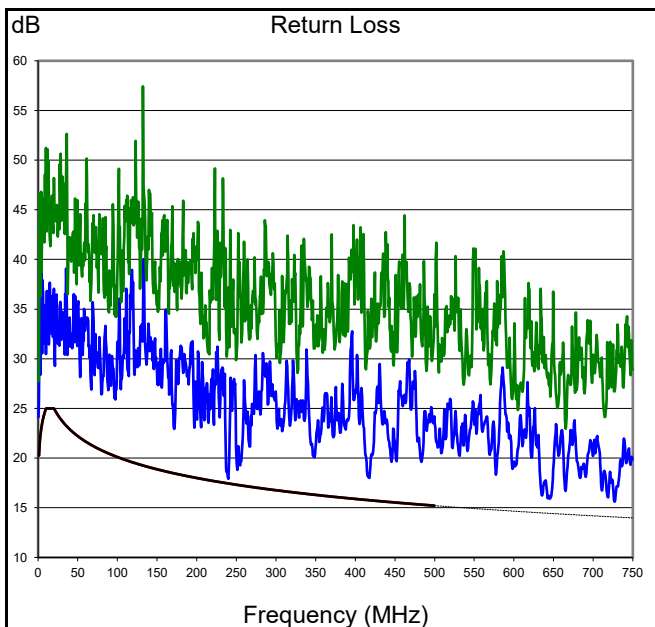
**Summary**

**Client** Berk-Tek LLC  
**Specifications** LM-RDT  
 ANSI/TIA-568.2-D, Category 6A  
**Part Number** LM RDT CMR UTP  
**Description** Leviton LM-RDT CMR  
 4X23 U/UTP-CMR-Solid

**Test Started** 8/8/2024 9:56  
**Technician** David Ayers  
**Report No.** 104239938CRT-024g  
**Length (m)** 100  
**Temperature** 21.9 °C  
**Test Status** **PASS**



Attenuation				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	2.0	2.0	2.1	2.1
4	3.7	3.6	3.8	3.8
8	5.0	4.9	5.3	5.3
10	5.6	5.4	5.9	5.9
16	7.1	6.9	7.5	7.5
20	7.9	7.6	8.4	8.4
25	8.9	8.6	9.4	9.4
31.25	9.3	9.0	10.5	10.5
62.5	14.2	13.7	15.0	15.0
100	18.0	17.3	19.1	19.1
250	28.8	27.8	31.1	31.1
500	41.1	39.7	45.3	45.3
600	45.5	43.8		
750	51.3	49.4		
Limit Margin (dB) :			0.15	0.15
Frequency (MHz) :			1.75	1.75



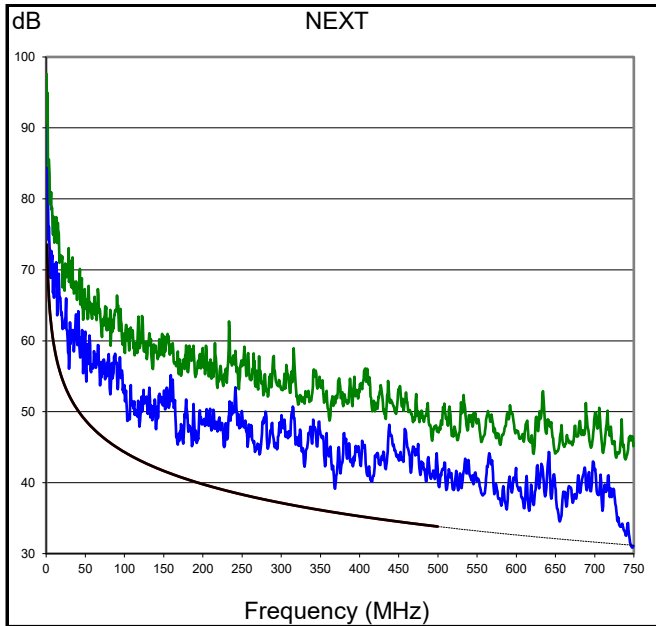
Return Loss				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	25.7	29.0	20.0	20.0
4	34.8	38.7	23.0	23.0
8	32.5	41.7	24.5	24.5
10	30.5	51.2	25.0	25.0
16	33.9	44.2	25.0	25.0
20	37.1	48.2	25.0	25.0
25	31.5	42.3	24.3	24.3
31.25	35.3	49.6	23.6	23.6
62.5	34.1	42.0	21.5	21.5
100	31.7	38.5	20.1	20.1
250	21.1	29.9	17.3	17.3
500	24.2	36.5	15.2	15.2
600	19.6	30.3		
750	19.9	28.9		
Limit Margin (dB) :			0.46	0.46
Frequency (MHz) :			239.76	239.76

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

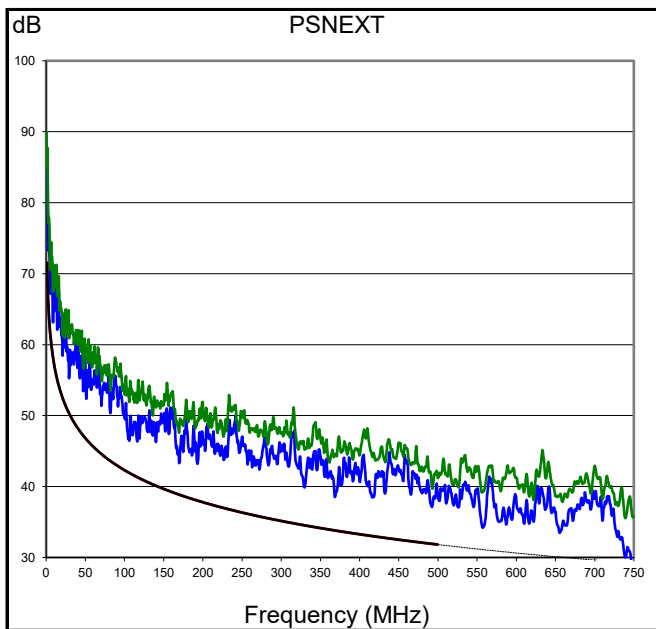
**Summary**

**Client** Berk-Tek LLC  
**Specifications** LM-RDT  
 ANSI/TIA-568.2-D, Category 6A  
**Part Number** LM RDT CMR UTP  
**Description** Leviton LM-RDT CMR  
 4X23 U/UTP-CMR-Solid

**Test Started** 8/8/2024 9:56  
**Technician** David Ayers  
**Report No.** 104239938CRT-024g  
**Length (m)** 100  
**Temperature** 21.9 °C  
**Test Status** **PASS**



NEXT				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	85.3	90.8	74.3	74.3
4	73.2	83.5	65.3	65.3
8	72.0	77.3	60.8	60.8
10	66.1	75.4	59.3	59.3
16	69.5	75.2	56.2	56.2
20	64.0	71.4	54.8	54.8
25	63.3	70.8	53.3	53.3
31.25	59.9	69.3	51.9	51.9
62.5	57.1	63.7	47.4	47.4
100	53.8	58.4	44.3	44.3
250	50.1	56.4	38.3	38.3
500	42.0	47.6	33.8	33.8
600	40.6	47.4		
750	31.1	45.2		
Limit Margin (dB) :			3.32	3.32
Frequency (MHz) :			368.44	368.44



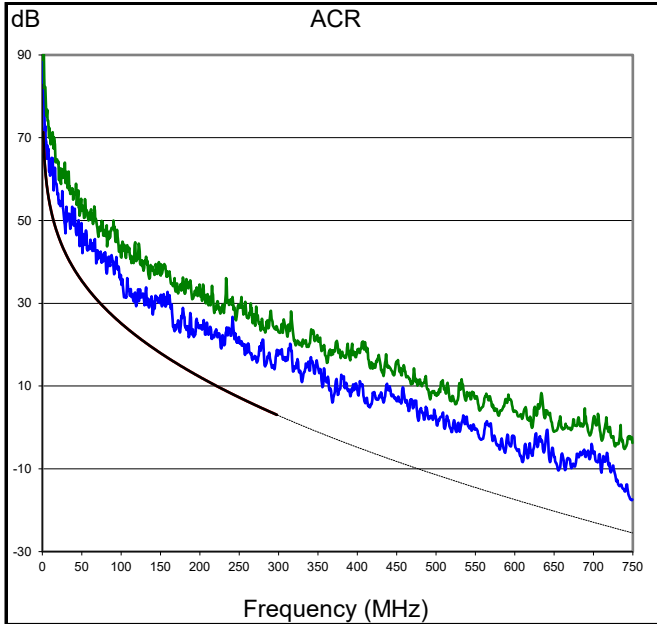
PSNEXT				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	82.8	85.1	72.3	72.3
4	72.2	76.5	63.3	63.3
8	68.1	71.5	58.8	58.8
10	64.6	68.3	57.3	57.3
16	67.6	69.6	54.2	54.2
20	61.2	64.5	52.8	52.8
25	61.7	64.9	51.3	51.3
31.25	58.6	62.6	49.9	49.9
62.5	54.5	57.5	45.4	45.4
100	50.1	53.1	42.3	42.3
250	46.9	50.2	36.3	36.3
500	39.2	41.4	31.8	31.8
600	37.7	41.3		
750	29.0	35.8		
Limit Margin (dB) :			4.44	4.44
Frequency (MHz) :			169.79	169.79

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

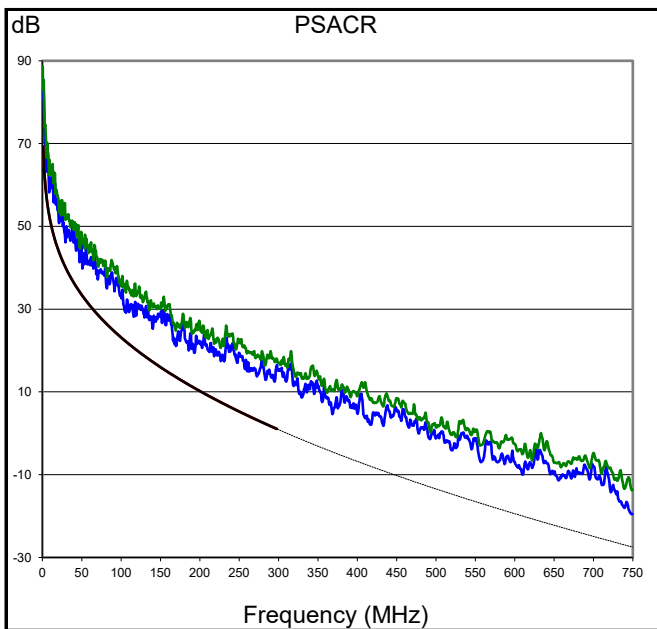
**Summary**

**Client** Berk-Tek LLC  
**Specifications** LM-RDT  
 ANSI/TIA-568.2-D, Category 6A  
**Part Number** LM RDT CMR UTP  
**Description** Leviton LM-RDT CMR  
 4X23 U/UTP-CMR-Solid

**Test Started** 8/8/2024 9:56  
**Technician** David Ayers  
**Report No.** 104239938CRT-024g  
**Length (m)** 100  
**Temperature** 21.9 °C  
**Test Status** **PASS**



ACR				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	83.4	88.9	72.2	72.2
4	69.7	80.0	61.5	61.5
8	67.3	72.5	55.4	55.4
10	60.8	70.1	53.4	53.4
16	62.8	68.4	48.8	48.8
20	56.6	63.8	46.4	46.4
25	54.6	62.4	44.0	44.0
31.25	51.1	60.4	41.4	41.4
62.5	43.2	50.2	32.4	32.4
100	36.8	41.3	25.2	25.2
250	21.8	28.9	7.3	7.3
500	2.7	8.2		
600	-3.8	4.1		
750	-17.4	-3.8		
Limit Margin (dB) :			4.77	4.77
Frequency (MHz) :			29.24	29.24



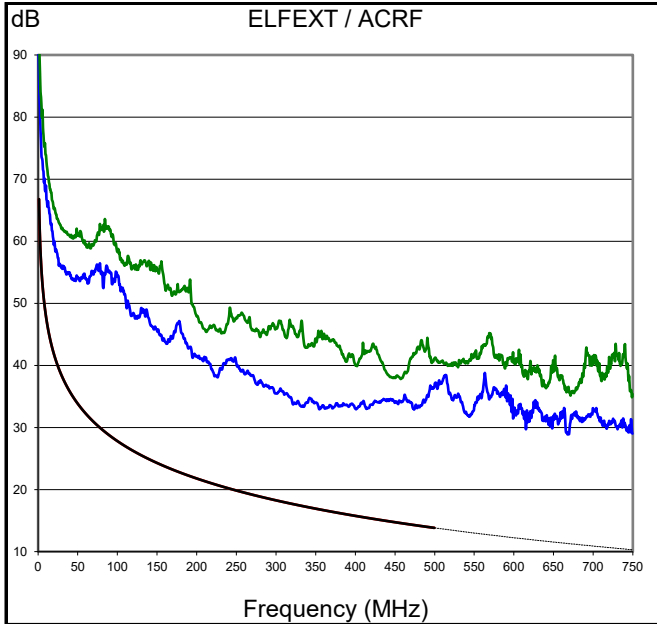
PSACR				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	80.8	83.1	70.2	70.2
4	68.6	73.0	59.5	59.5
8	63.3	66.7	53.4	53.4
10	59.1	62.9	51.4	51.4
16	60.4	62.8	46.8	46.8
20	53.8	56.9	44.4	44.4
25	53.4	56.4	42.0	42.0
31.25	49.8	53.6	39.4	39.4
62.5	40.6	43.8	30.4	30.4
100	33.3	35.8	23.2	23.2
250	19.5	22.4	5.3	5.3
500	-1.3	1.6		
600	-6.9	-2.6		
750	-19.5	-13.6		
Limit Margin (dB) :			5.47	5.47
Frequency (MHz) :			8.62	8.62

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

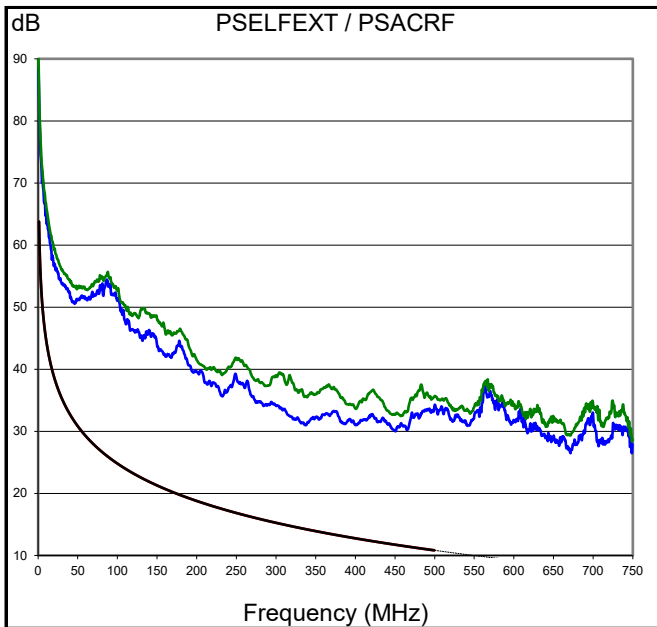
**Summary**

**Client** Berk-Tek LLC  
**Specifications** LM-RDT  
 ANSI/TIA-568.2-D, Category 6A  
**Part Number** LM RDT CMR UTP  
**Description** Leviton LM-RDT CMR  
 4X23 U/UTP-CMR-Solid

**Test Started** 8/8/2024 9:56  
**Technician** David Ayers  
**Report No.** 104239938CRT-024g  
**Length (m)** 100  
**Temperature** 21.9 °C  
**Test Status** **PASS**



ELFEXT / ACRF				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	86.6	93.1	67.8	67.8
4	73.6	81.7	55.8	55.8
8	70.1	75.2	49.7	49.7
10	69.0	73.9	47.8	47.8
16	62.6	67.8	43.7	43.7
20	59.4	65.2	41.8	41.8
25	57.3	63.5	39.8	39.8
31.25	56.1	62.7	37.9	37.9
62.5	53.2	59.0	31.9	31.9
100	54.3	58.3	27.8	27.8
250	40.5	47.7	19.8	19.8
500	36.5	41.1	13.8	13.8
600	32.3	40.4		
750	29.0	35.4		
Limit Margin (dB) :			15.97	15.97
Frequency (MHz) :			332.21	332.21

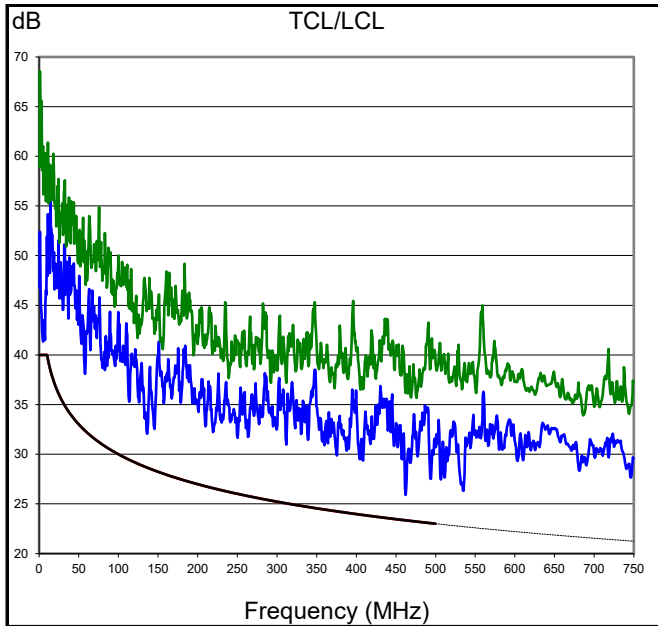


PSELFEXT / PSACRF				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	83.9	85.7	64.8	64.8
4	72.3	73.7	52.8	52.8
8	66.7	68.6	46.7	46.7
10	65.4	66.7	44.8	44.8
16	59.4	61.6	40.7	40.7
20	56.6	59.2	38.8	38.8
25	55.5	57.6	36.8	36.8
31.25	54.4	56.7	34.9	34.9
62.5	51.2	52.8	28.9	28.9
100	51.0	52.6	24.8	24.8
250	38.9	41.8	16.8	16.8
500	33.8	35.6	10.8	10.8
600	31.6	34.4		
750	27.9	28.8		
Limit Margin (dB) :			16.75	16.75
Frequency (MHz) :			337.83	337.83

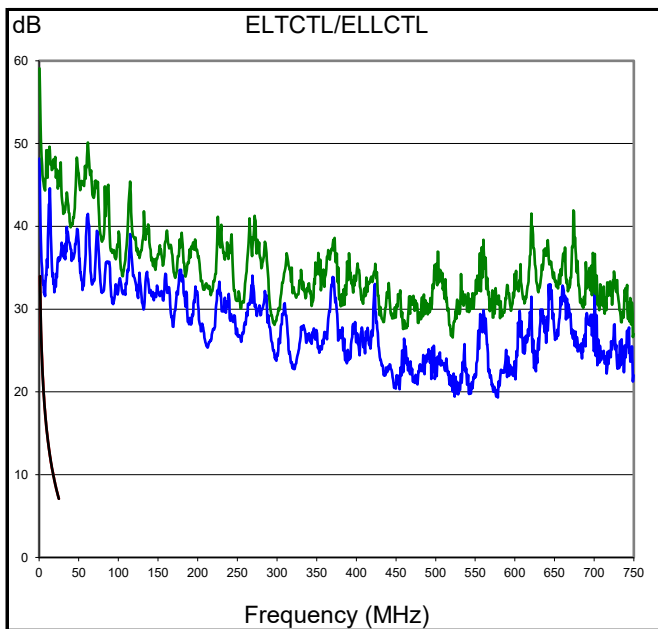
Legend : Blue - Worst Case; Green - Average; Red - TIA Specification; Black - LM-RDT Specification

**Summary**

<b>Client</b>	Berk-Tek LLC	<b>Test Started</b>	8/8/2024 9:56
<b>Specifications</b>	LM-RDT ANSI/TIA-568.2-D, Category 6A	<b>Technician</b>	David Ayers
<b>Part Number</b>	LM RDT CMR UTP	<b>Report No.</b>	104239938CRT-024g
<b>Description</b>	<b>Leviton LM-RDT CMR</b> 4X23 U/UTP-CMR-Solid	<b>Length (m)</b>	100
		<b>Temperature</b>	21.9 °C
		<b>Test Status</b>	<b>PASS</b>



TCL/LCL				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	52.4	68.6	40.0	40.0
4	42.1	59.6	40.0	40.0
8	45.1	60.3	40.0	40.0
10	51.9	57.6	40.0	40.0
16	52.1	55.6	38.0	38.0
20	49.2	55.0	37.0	37.0
25	49.0	54.6	36.0	36.0
31.25	49.3	53.9	35.1	35.1
62.5	45.6	51.1	32.0	32.0
100	44.3	49.3	30.0	30.0
250	31.9	41.5	26.0	26.0
500	31.0	39.6	23.0	23.0
600	31.2	37.3		
750	29.5	37.3		
Limit Margin (dB) :			1.35	1.35
Frequency (MHz) :			4.87	4.87



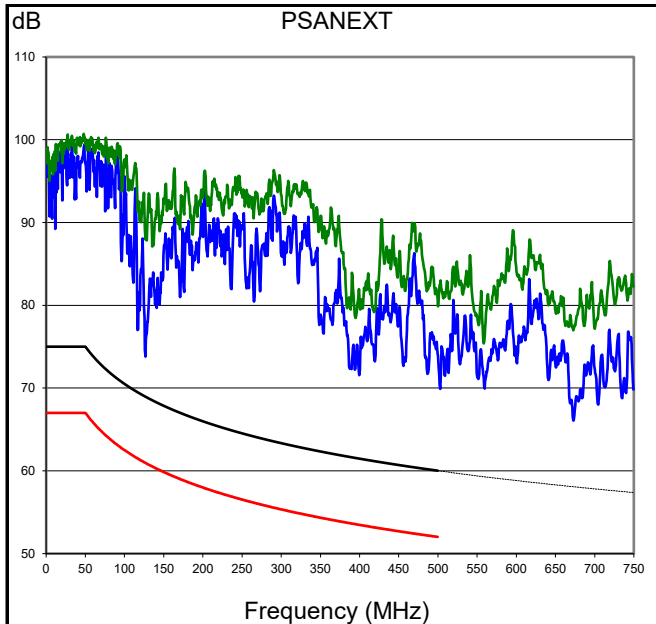
ELTCTL/ELLCTL				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	44.6	56.7	35.0	35.0
4	33.4	46.2	23.0	23.0
8	33.1	45.7	16.9	16.9
10	36.0	47.7	15.0	15.0
16	35.6	46.8	10.9	10.9
20	32.7	48.2	9.0	9.0
25	35.8	45.7	7.0	7.0
31.25	36.6	47.7		
62.5	40.4	48.8		
100	32.2	37.8		
250	27.6	31.1		
500	22.3	33.6		
600	22.9	32.3		
750	22.0	27.0		
Limit Margin (dB) :			9.80	9.80
Frequency (MHz) :			1.75	1.75

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

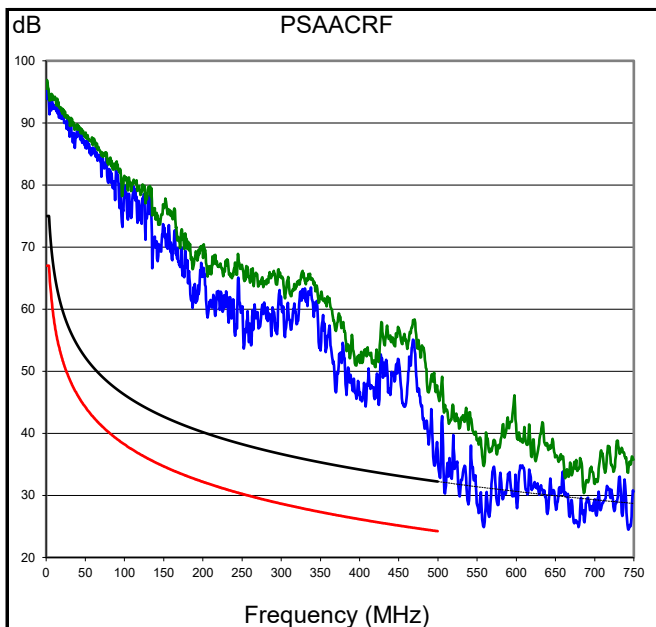
**Summary**

**Client** Berk-Tek LLC  
**Specifications** LM-RDT  
 ANSI/TIA-568.2-D, Category 6A  
**Part Number** LM RDT CMR UTP  
**Description** Leviton LM-RDT CMR  
 4X23 U/UTP-CMR-Solid

**Test Started** 8/8/2024 9:56  
**Technician** David Ayers  
**Report No.** 104239938CRT-024g  
**Length (m)** 100  
**Temperature** 21.9 °C  
**Test Status** **PASS**



PSANEXT				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	96.1	97.9	75.0	67.0
4	90.7	95.0	75.0	67.0
8	94.9	97.9	75.0	67.0
10	96.4	98.1	75.0	67.0
16	98.1	99.4	75.0	67.0
20	98.4	100.0	75.0	67.0
25	98.0	99.2	75.0	67.0
31.25	99.6	100.6	75.0	67.0
62.5	94.3	98.4	73.6	65.6
100	95.6	97.6	70.5	62.5
250	89.7	93.7	64.5	56.5
500	74.1	80.7	60.0	52.0
600	73.3	84.2		
750	69.8	82.3		
Limit Margin (dB) :			4.85	12.85
Frequency (MHz) :			126.69	126.69

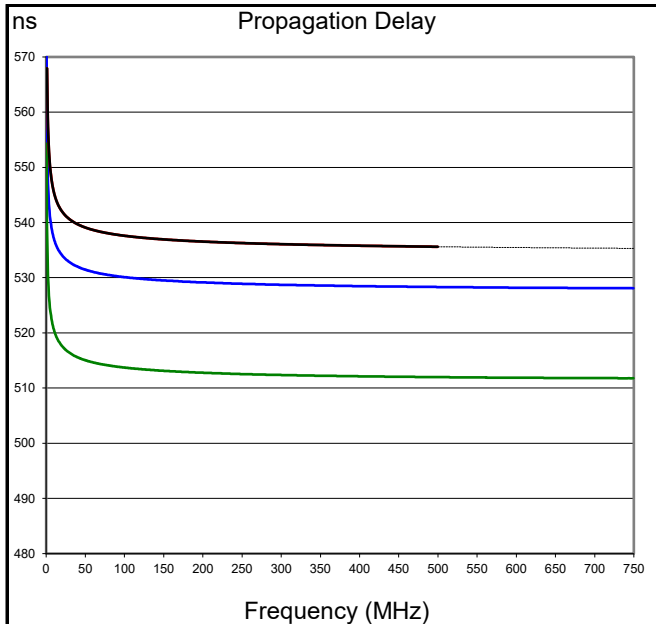


PSAACRF				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	95.8	96.9	75.0	67.0
4	91.4	93.6	74.2	66.2
8	93.3	94.5	68.1	60.1
10	92.9	93.9	66.2	58.2
16	90.9	92.6	62.1	54.1
20	91.3	92.3	60.2	52.2
25	90.0	91.0	58.2	50.2
31.25	90.6	91.2	56.3	48.3
62.5	85.8	87.0	50.3	42.3
100	78.3	81.5	46.2	38.2
250	59.9	67.2	38.2	30.2
500	37.1	46.8	32.2	24.2
600	28.9	40.3		
750	30.6	35.7		
Limit Margin (dB) :			2.49	10.49
Frequency (MHz) :			495.88	495.88

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

**Summary**

<b>Client</b>	Berk-Tek LLC	<b>Test Started</b>	8/8/2024 9:56
<b>Specifications</b>	LM-RDT ANSI/TIA-568.2-D, Category 6A	<b>Technician</b>	David Ayers
<b>Part Number</b>	LM RDT CMR UTP	<b>Report No.</b>	104239938CRT-024g
<b>Description</b>	<b>Leviton LM-RDT CMR</b> 4X23 U/UTP-CMR-Solid	<b>Length (m)</b>	100
		<b>Temperature</b>	21.9 °C
		<b>Test Status</b>	<b>PASS</b>



Propagation Delay				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	556.4	539.6	570.0	570.0
4	542.1	525.5	552.0	552.0
8	538.1	521.6	546.7	546.7
10	537.1	520.6	545.4	545.4
16	534.9	518.5	543.0	543.0
20	534.1	517.7	542.0	542.0
25	533.4	516.9	541.2	541.2
31.25	533.1	516.6	540.4	540.4
62.5	531.0	514.6	538.6	538.6
100	530.1	513.7	537.6	537.6
250	528.9	512.5	536.3	536.3
500	528.3	512.0	535.6	535.6
600	528.2	511.9		
750	528.1	511.8		

Limit Margin (dB) : 7.29      7.29  
Frequency (MHz) : 497.75      497.75

Delay Skew			
Freq. MHz	Worst case	LM-RDT Spec	TIA Spec
1-500	34.12	45	45

Low frequency measurements						
Parameter	Worst Case	Average	LM-RDT		TIA	
			Spec	Margin	Spec	Margin
Mutual capacitance (nF/100m)	5.15	4.89	5.30	0.15	5.60	0.45
Maximum Capacitance Unbalance Pair-to-Ground (pF/100m)	54.69	25.68	330.00	275.31	330.00	275.31
Conductor DC resistance (Ω)	7.56	7.26	9.38	1.82	9.38	1.82
DC Resistance Unbalance within a pair (%) using IEC calculation method	0.45%	0.19%	2.00%	1.55%	2.00%	1.55%

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