

Project Number: G104239938

Date Issued: 5/24/2024

ETL Verified Certificate of Conformance number: 104773926CRT-002

Test Report Number: 104239938CRT-023d



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, CMP, horizontal (solid) cable covered by ETL Verified certificate of conformance number 104773926CRT-002. The sample was randomly selected by an Intertek inspector from your manufacturing facility, Berk-Tek LLC, on 5/9/2024 for Quarter 2 2024 follow-up testing.

The testing was performed at Intertek located in Cortland, NY from 5/17/2024 through 5/22/2024, to the ANSI/TIA-568-D.2 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
Phone: (607) 758-6718

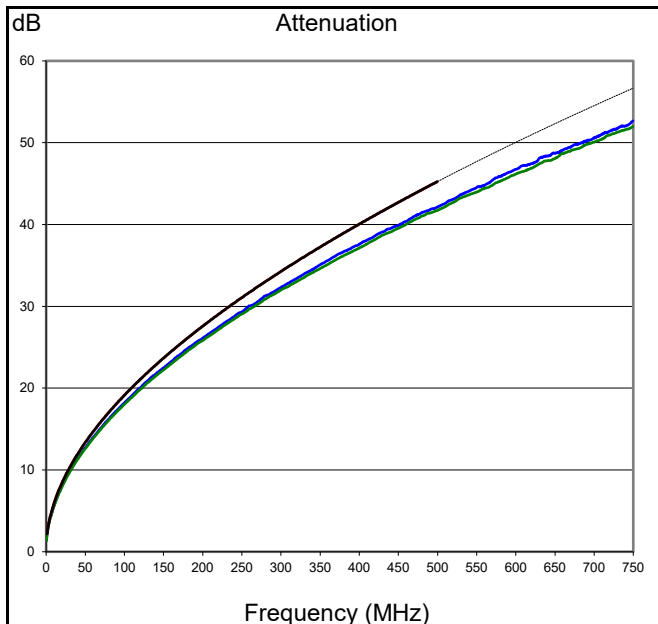
A handwritten signature in black ink that reads "Craig L. Williams".

Craig L. Williams
Technician
Global Cabling Products Testing
Phone: (607) 758-6321

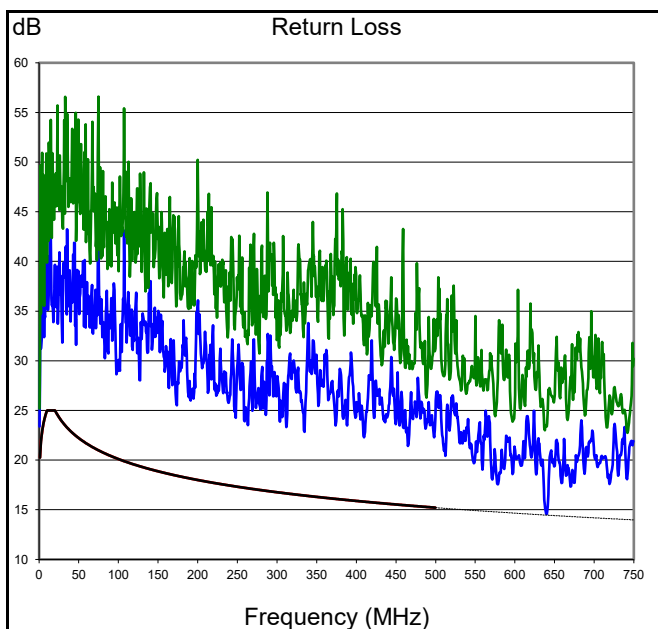
Summary

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

Test Started 5/22/2024 10:37
Technician Craig Williams
Report No. 104239938CRT-023d
Length (m) 100
Temperature 22.1 °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	3.7	3.8	3.8
8	5.0	5.0	5.3	5.3
10	5.6	5.5	5.9	5.9
16	7.1	7.1	7.5	7.5
20	7.9	7.9	8.4	8.4
25	8.9	8.8	9.4	9.4
31.25	9.4	9.3	10.5	10.5
62.5	14.3	14.1	15.0	15.0
100	18.2	18.0	19.1	19.1
250	29.3	29.0	31.1	31.1
500	42.1	41.7	45.3	45.3
600	46.8	46.2		
750	52.7	52.0		
Limit Margin (dB) :			0.14	0.14
Frequency (MHz) :			1.12	1.12



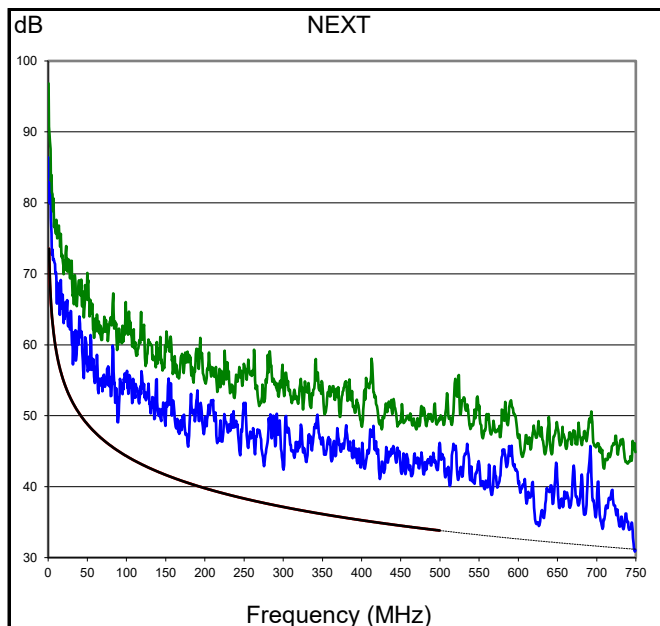
Return Loss				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	27.3	29.9	20.0	20.0
4	33.2	38.7	23.0	23.0
8	37.5	45.6	24.5	24.5
10	35.8	39.9	25.0	25.0
16	35.6	42.4	25.0	25.0
20	39.7	47.6	25.0	25.0
25	37.6	46.3	24.3	24.3
31.25	36.7	45.9	23.6	23.6
62.5	36.5	42.7	21.5	21.5
100	30.0	45.4	20.1	20.1
250	29.1	38.4	17.3	17.3
500	24.3	31.2	15.2	15.2
600	21.0	26.5		
750	21.9	30.2		
Limit Margin (dB) :			5.99	5.99
Frequency (MHz) :			465.27	465.27

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

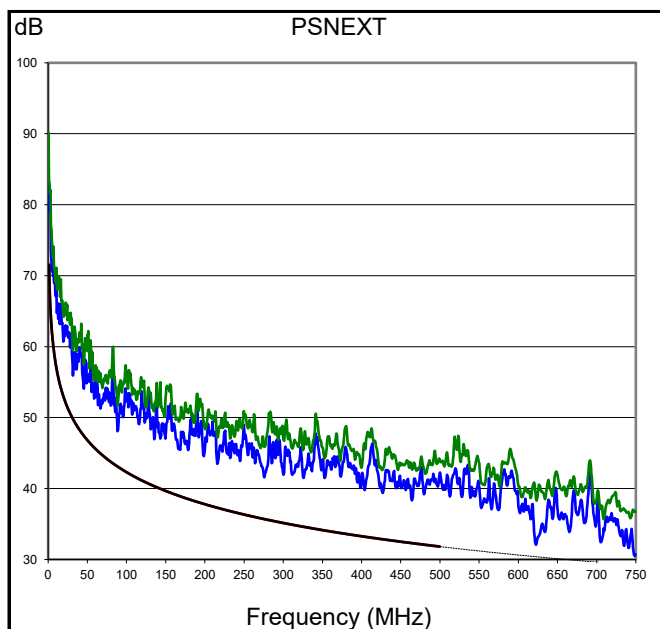
Summary

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

Test Started 5/22/2024 10:37
Technician Craig Williams
Report No. 104239938CRT-023d
Length (m) 100
Temperature 22.1 °C
Test Status **PASS**



NEXT				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	83.3	90.7	74.3	74.3
4	75.7	83.9	65.3	65.3
8	71.6	77.6	60.8	60.8
10	70.2	75.6	59.3	59.3
16	69.1	75.6	56.2	56.2
20	63.0	69.9	54.8	54.8
25	63.9	70.3	53.3	53.3
31.25	63.0	70.3	51.9	51.9
62.5	58.6	64.3	47.4	47.4
100	55.4	61.8	44.3	44.3
250	51.8	57.3	38.3	38.3
500	46.2	49.4	33.8	33.8
600	40.4	46.8		
750	31.0	44.9		
Limit Margin (dB) :			4.01	4.01
Frequency (MHz) :			89.21	89.21



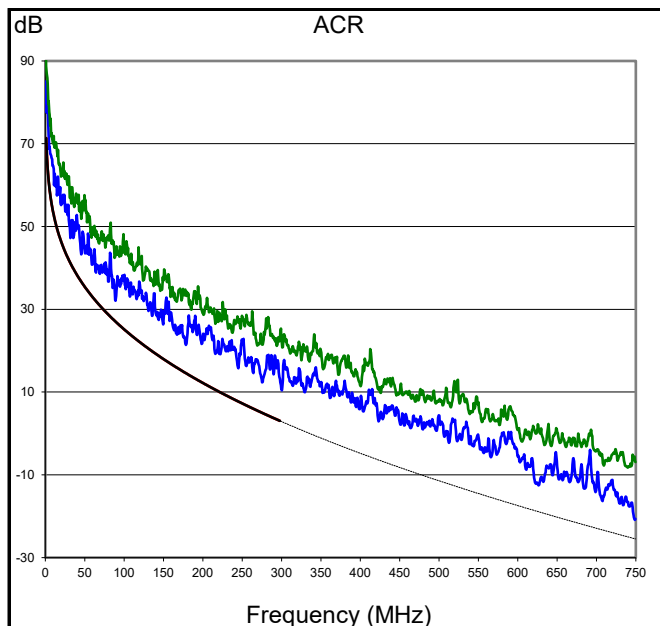
PSNEXT				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	81.3	83.4	72.3	72.3
4	71.9	76.4	63.3	63.3
8	69.1	70.9	58.8	58.8
10	67.1	69.1	57.3	57.3
16	66.0	69.5	54.2	54.2
20	60.8	64.2	52.8	52.8
25	61.6	63.7	51.3	51.3
31.25	61.1	64.5	49.9	49.9
62.5	54.9	56.9	45.4	45.4
100	52.3	55.3	42.3	42.3
250	49.0	50.9	36.3	36.3
500	42.0	44.1	31.8	31.8
600	37.4	40.3		
750	30.7	36.7		
Limit Margin (dB) :			4.97	4.97
Frequency (MHz) :			88.58	88.58

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

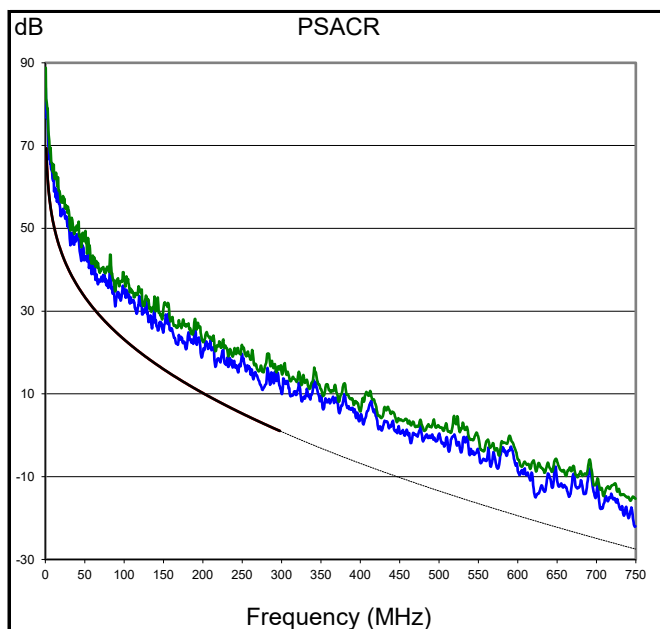
Summary

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

Test Started 5/22/2024 10:37
Technician Craig Williams
Report No. 104239938CRT-023d
Length (m) 100
Temperature 22.1 °C
Test Status **PASS**



ACR				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	81.4	88.7	72.2	72.2
4	72.0	80.2	61.5	61.5
8	66.6	72.6	55.4	55.4
10	64.7	70.1	53.4	53.4
16	62.1	68.6	48.8	48.8
20	55.2	62.1	46.4	46.4
25	55.1	61.5	44.0	44.0
31.25	53.7	61.1	41.4	41.4
62.5	44.5	50.2	32.4	32.4
100	37.3	43.8	25.2	25.2
250	22.7	28.4	7.3	7.3
500	4.4	7.7		
600	-5.6	0.8		
750	-20.7	-6.9		
Limit Margin (dB) :			5.05	5.05
Frequency (MHz) :			89.21	89.21



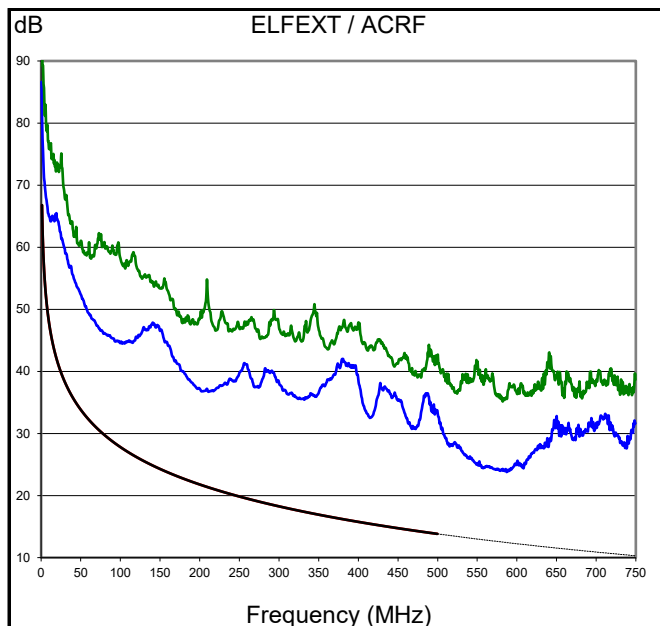
PSACR				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	79.3	81.4	70.2	70.2
4	68.2	72.7	59.5	59.5
8	64.2	65.9	53.4	53.4
10	61.5	63.6	51.4	51.4
16	58.9	62.4	46.8	46.8
20	53.0	56.4	44.4	44.4
25	52.8	54.9	42.0	42.0
31.25	51.9	55.3	39.4	39.4
62.5	40.7	42.7	30.4	30.4
100	34.3	37.3	23.2	23.2
250	19.7	21.9	5.3	5.3
500	0.2	2.3		
600	-8.6	-5.9		
750	-22.0	-15.3		
Limit Margin (dB) :			6.00	6.00
Frequency (MHz) :			88.58	88.58

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

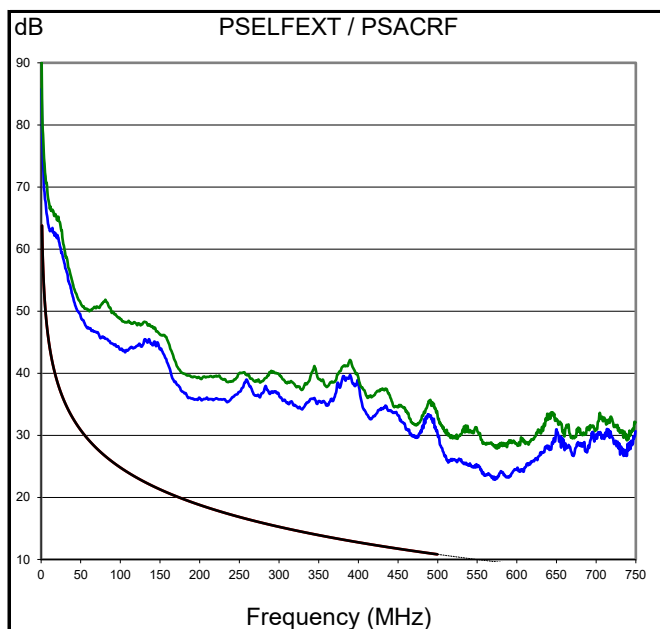
Summary

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

Test Started 5/22/2024 10:37
Technician Craig Williams
Report No. 104239938CRT-023d
Length (m) 100
Temperature 22.1 °C
Test Status **PASS**



ELFEXT / ACRF				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	81.6	93.9	67.8	67.8
4	70.6	82.2	55.8	55.8
8	66.5	79.7	49.7	49.7
10	65.0	75.8	47.8	47.8
16	64.8	73.5	43.7	43.7
20	64.5	73.7	41.8	41.8
25	62.1	73.6	39.8	39.8
31.25	60.8	71.2	37.9	37.9
62.5	49.1	58.3	31.9	31.9
100	44.6	58.3	27.8	27.8
250	39.6	47.1	19.8	19.8
500	33.7	41.9	13.8	13.8
600	25.4	36.4		
750	31.6	38.7		
Limit Margin (dB) :			14.58	14.58
Frequency (MHz) :			3.62	3.62



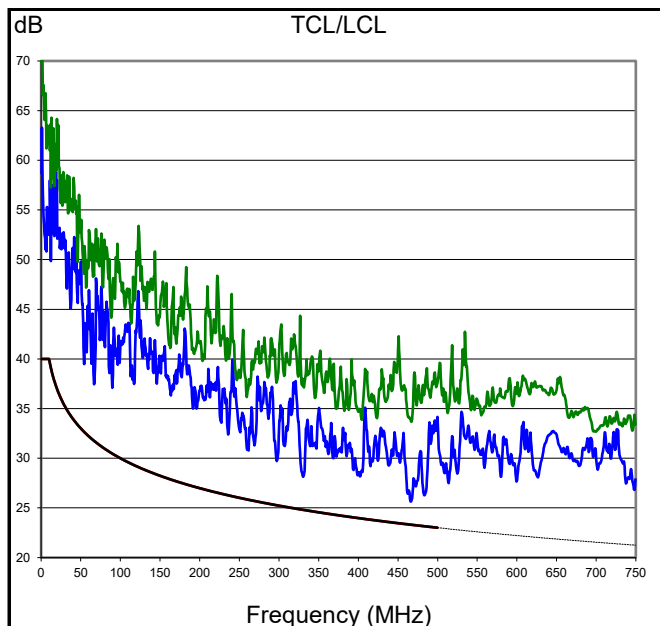
PSELFEXT / PSACRF				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	80.6	84.4	64.8	64.8
4	69.2	73.8	52.8	52.8
8	64.9	69.1	46.7	46.7
10	63.4	67.5	44.8	44.8
16	62.7	65.5	40.7	40.7
20	61.8	64.7	38.8	38.8
25	59.9	63.4	36.8	36.8
31.25	58.7	61.4	34.9	34.9
62.5	47.2	50.2	28.9	28.9
100	43.8	48.7	24.8	24.8
250	37.0	40.0	16.8	16.8
500	30.6	33.5	10.8	10.8
600	24.7	28.5		
750	30.7	32.1		
Limit Margin (dB) :			16.15	16.15
Frequency (MHz) :			3.62	3.62

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

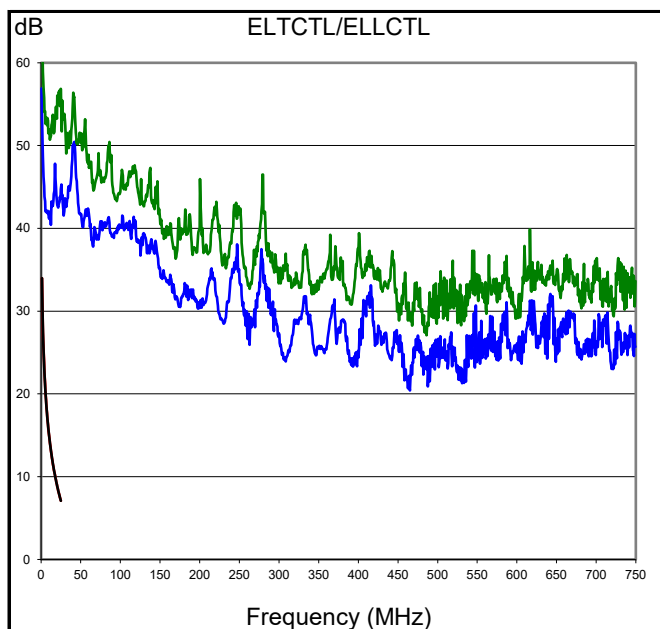
Summary

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

Test Started 5/22/2024 10:37
Technician Craig Williams
Report No. 104239938CRT-023d
Length (m) 100
Temperature 22.1 °C
Test Status **PASS**



TCL/LCL				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	63.3	76.0	40.0	40.0
4	52.6	64.1	40.0	40.0
8	52.7	63.5	40.0	40.0
10	55.0	62.8	40.0	40.0
16	55.0	58.2	38.0	38.0
20	58.0	64.2	37.0	37.0
25	52.6	55.7	36.0	36.0
31.25	52.6	55.6	35.1	35.1
62.5	42.9	51.1	32.0	32.0
100	41.2	47.8	30.0	30.0
250	33.1	38.9	26.0	26.0
500	34.2	37.6	23.0	23.0
600	27.8	37.0		
750	27.9	33.4		
Limit Margin (dB) :			2.33	2.33
Frequency (MHz) :			465.89	465.89



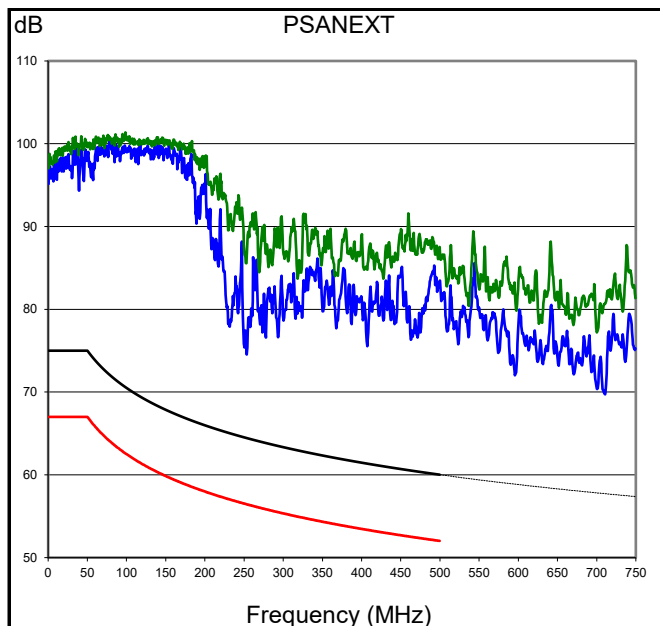
ELTCTL/ELLCTL				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	54.2	64.8	35.0	35.0
4	43.8	54.0	23.0	23.0
8	42.1	53.3	16.9	16.9
10	41.2	51.9	15.0	15.0
16	44.1	51.5	10.9	10.9
20	43.2	53.3	9.0	9.0
25	44.7	56.9	7.0	7.0
31.25	43.1	53.5		
62.5	40.5	48.0		
100	40.2	44.4		
250	35.1	41.7		
500	26.5	31.1		
600	26.1	30.2		
750	25.7	33.6		
Limit Margin (dB) :			20.14	20.14
Frequency (MHz) :			1.75	1.75

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

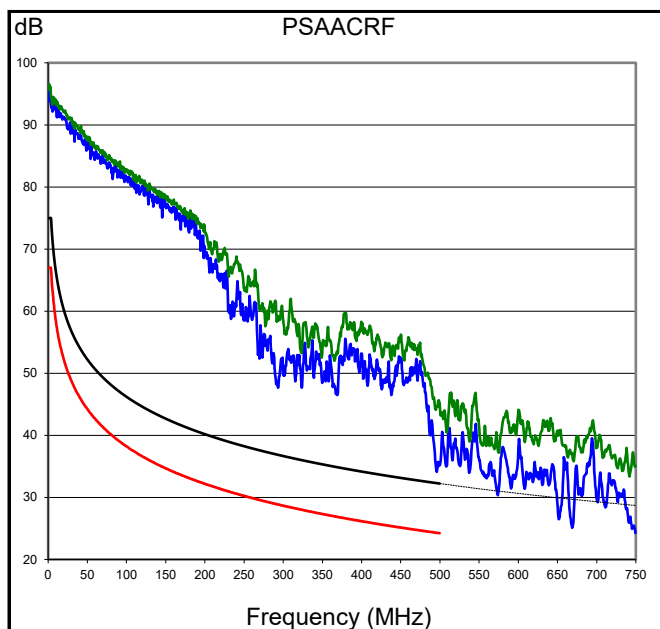
Summary

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

Test Started 5/22/2024 10:37
Technician Craig Williams
Report No. 104239938CRT-023d
Length (m) 100
Temperature 22.1 °C
Test Status **PASS**



PSANEXT				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	97.0	98.2	75.0	67.0
4	95.9	97.6	75.0	67.0
8	96.0	98.0	75.0	67.0
10	97.4	98.0	75.0	67.0
16	98.3	99.3	75.0	67.0
20	96.6	99.4	75.0	67.0
25	97.2	99.2	75.0	67.0
31.25	97.0	99.2	75.0	67.0
62.5	99.5	100.5	73.6	65.6
100	99.0	100.9	70.5	62.5
250	75.8	87.7	64.5	56.5
500	83.4	87.5	60.0	52.0
600	78.1	83.4		
750	75.3	81.3		
Limit Margin (dB) : 10.08 18.08				
Frequency (MHz) : 253.50 253.50				

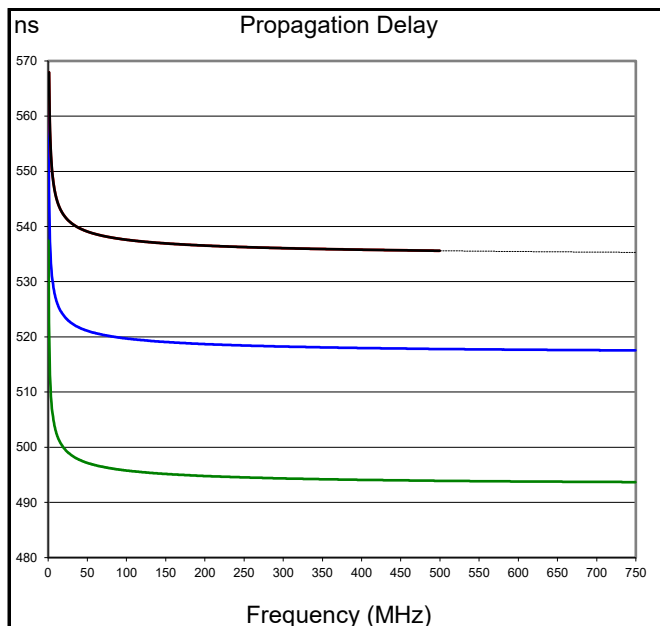


PSAACRF				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	95.4	96.6	75.0	67.0
4	92.8	94.2	74.2	66.2
8	93.3	94.1	68.1	60.1
10	93.0	94.0	66.2	58.2
16	91.8	93.0	62.1	54.1
20	91.2	92.2	60.2	52.2
25	89.6	91.2	58.2	50.2
31.25	89.8	91.2	56.3	48.3
62.5	85.2	86.2	50.3	42.3
100	81.5	82.9	46.2	38.2
250	58.9	63.7	38.2	30.2
500	35.2	45.2	32.2	24.2
600	38.0	44.1		
750	24.3	35.0		
Limit Margin (dB) : 1.82 9.82				
Frequency (MHz) : 495.88 495.88				

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

Summary

Client	Berk-Tek LLC	Test Started	5/22/2024 10:37
Specifications	LM-RDT ANSI/TIA-568.2-D, Category 6A	Technician	Craig Williams
Part Number	LM-RDT CMP UTP	Report No.	104239938CRT-023d
Description	Leviton LM-RDT CMP 4X23 U/UTP-CMP-Solid	Length (m)	100
		Temperature	22.1 °C
		Test Status	PASS



Propagation Delay				
Freq. MHz	Worst Case	Average	LM-RDT Spec	TIA Spec
1	546.7	522.6	570.0	570.0
4	532.1	508.0	552.0	552.0
8	528.0	503.9	546.7	546.7
10	526.9	502.8	545.4	545.4
16	524.7	500.7	543.0	543.0
20	523.9	499.9	542.0	542.0
25	523.1	499.1	541.2	541.2
31.25	522.8	498.8	540.4	540.4
62.5	520.6	496.7	538.6	538.6
100	519.7	495.8	537.6	537.6
250	518.4	494.5	536.3	536.3
500	517.8	493.9	535.6	535.6
600	517.7	493.8		
750	517.6	493.7		
Limit Margin (dB) : 17.80 17.80				
Frequency (MHz) : 499.63 499.63				

Delay Skew			
Freq. MHz	Worst case	LM-RDT Spec	TIA Spec
1-500	42.97	45	45

Low frequency measurements						
Parameter	Worst Case	Average	LM-RDT		TIA	
			Spec	Margin	Spec	Margin
Mutual capacitance (nF/100m)	4.92	4.73	5.10	0.18	5.60	0.68
Maximum Capacitance Unbalance Pair-to-Ground (pF/100m)	17.29	8.91	330.00	312.71	330.00	312.71
Conductor DC resistance (Ω)	7.60	7.36	9.38	1.78	9.38	1.78
DC Resistance Unbalance within a pair (%) using IEC calculation method	0.60%	0.28%	2.00%	1.40%	2.00%	1.40%

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