

Project Number: G104239938

Date Issued: 5/23/2024

ETL Verified Certificate of Conformance number: 100324722CRT-001e

Test Report Number: 104239938CRT-023b



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, 24 AWG, U/UTP, CMR, horizontal (solid) cable covered by ETL Verified certificate of conformance number 100324722CRT-001e. 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 5/16/2024 through 5/16/2024, to the ANSI/TIA-568.2-D standard(s) for category 6 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

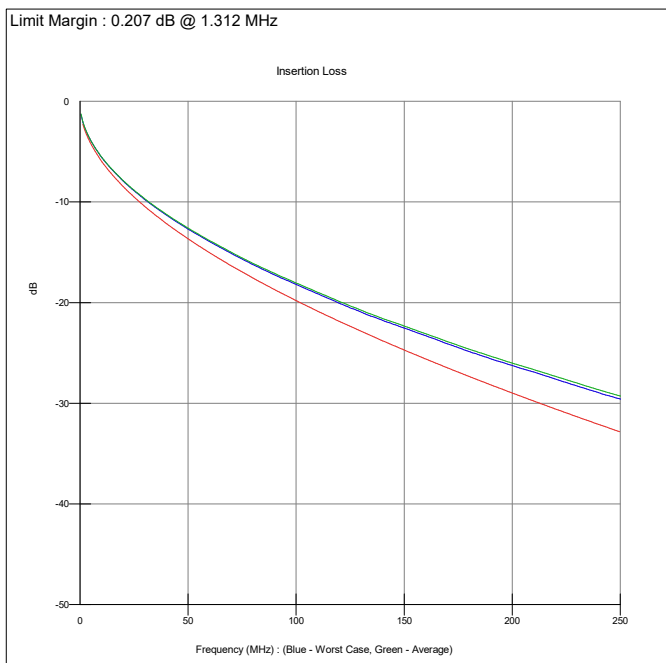
Client	Berk-Tek	Report No	104239938CRT-023b
Specification	ANSI-TIA-568-2-D Cat 6 Cable		
Part No	LM-6 CMR UTP	Length (m)	100.
Test Started	5/16/2024 11:55:03 AM	Temperature	22 °C
Description	4 Pair 24 AWG UUTP CMR Solid		
Operator Name	Craig Williams	Test Status	Complies

DC Resistance (Ohms)		
Worst Case	Average	Spec
7.5	7.4	9.4
7.5	7.4	9.4

DC Resistance Unbalance (%)		
Worst Case	Average	Spec
1.4	0.5	5.0

DC Resistance Unbalance Pair-Pair (%)		
Worst Case	Average	Spec
0.8	0.4	5.0

Capacitance Unbalance Pair-Ground (pF/100m)		
Worst Case	Average	Spec
8.2	6.2	330.0

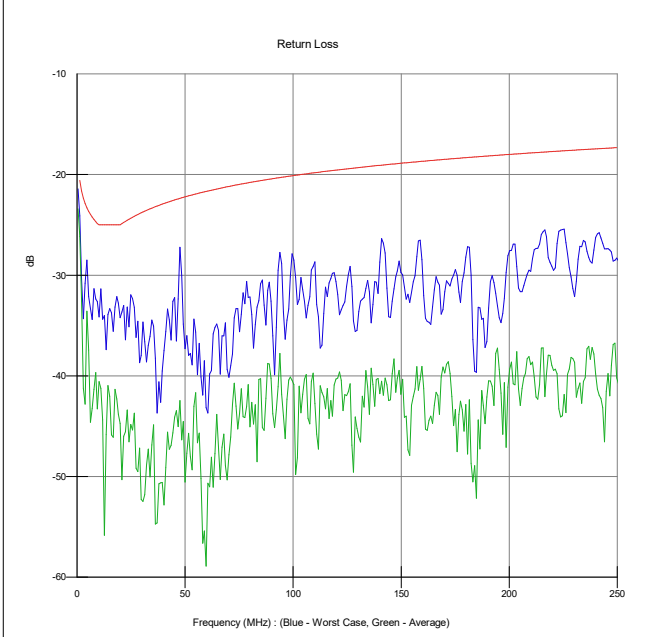


Insertion Loss			
Freq	Worst Case	Average	Spec
1.	1.8	1.7	2.1
4.	3.5	3.5	3.8
8.	5.0	4.9	5.3
10.	5.6	5.5	5.9
16.	7.1	7.0	7.6
20.	7.9	7.9	8.5
25.	8.9	8.8	9.5
31.25	10.0	9.9	10.7
62.5	14.2	14.1	15.4
100.	18.2	18.0	19.8
250.	29.6	29.3	32.8

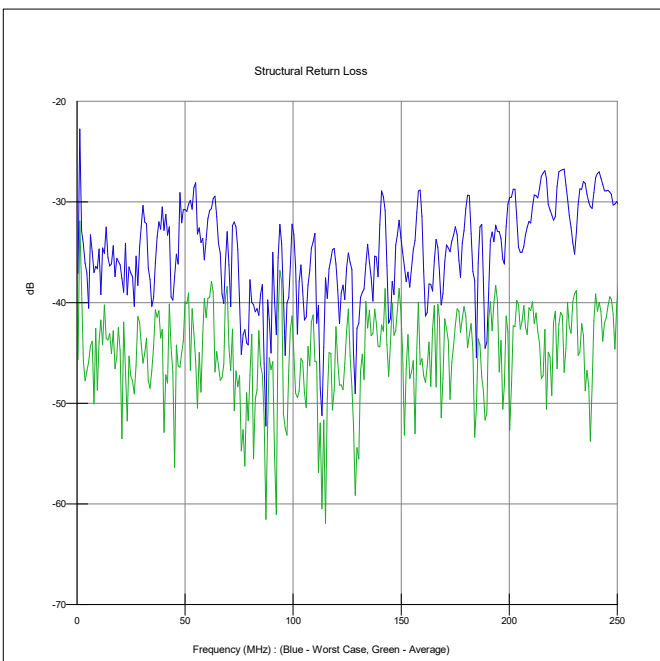
Summary

Client	Berk-Tek	Report No	104239938CRT-023b
Specification	ANSI-TIA-568-2-D Cat 6 Cable		
Part No	LM-6 CMR UTP	Length (m)	100.
Test Started	5/16/2024 11:55:03 AM	Temperature	22 °C
Description	4 Pair 24 AWG UUTP CMR Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 3.515 dB @ 1.312 MHz



Return Loss			
Freq	Worst Case	Average	Spec
1.	23.1	25.1	20.2
4.	30.1	39.9	23.0
8.	31.6	40.9	24.5
10.	33.7	41.4	25.0
16.	33.9	45.9	25.0
20.	34.2	44.8	25.0
25.	32.0	44.9	24.3
31.25	36.4	51.9	23.6
62.5	38.1	49.2	21.5
100.	28.2	40.7	20.1
250.	28.4	40.4	17.3

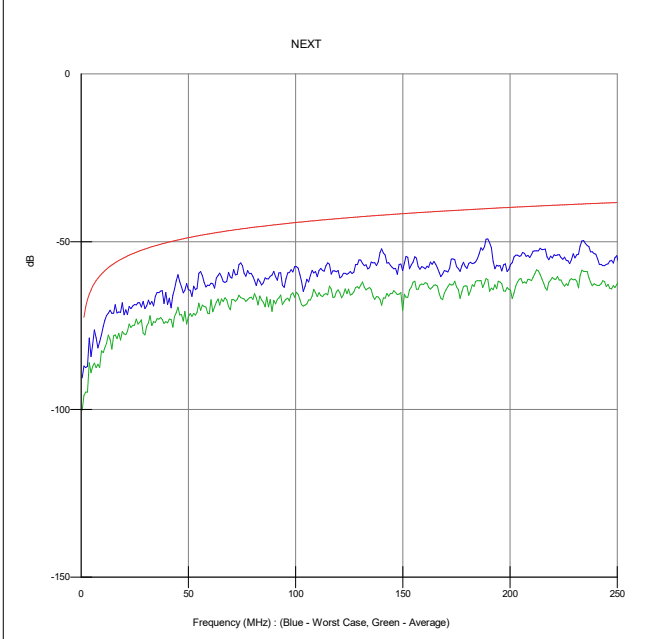


Structural Return Loss			
Freq	Worst Case	Average	Spec
1.	28.3	37.2	
4.	41.9	47.5	
8.	36.9	48.3	
10.	35.3	45.3	
16.	36.0	44.9	
20.	36.3	44.9	
25.	37.1	47.4	
31.25	31.8	45.1	
62.5	30.3	38.3	
100.	32.8	43.4	
250.	30.0	39.6	

Summary

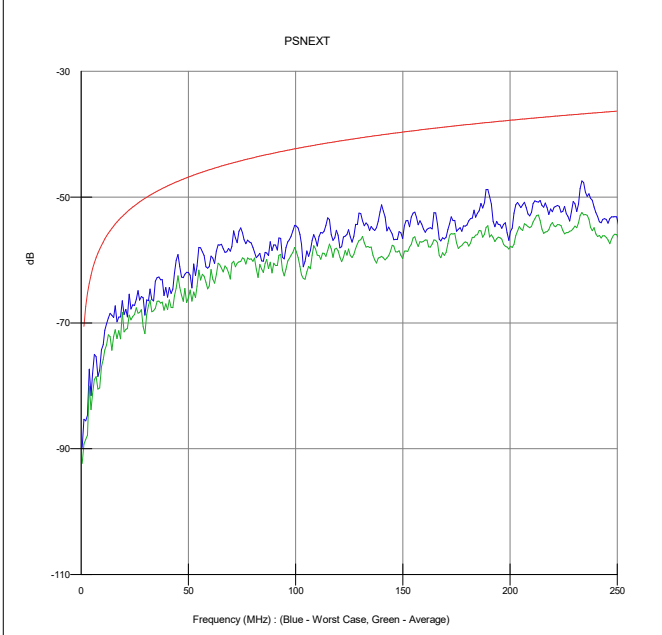
Client	Berk-Tek	Report No	104239938CRT-023b
Specification	ANSI-TIA-568-2-D Cat 6 Cable		
Part No	LM-6 CMR UTP	Length (m)	100.
Test Started	5/16/2024 11:55:03 AM	Temperature	22 °C
Description	4 Pair 24 AWG UUTP CMR Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 9.096 dB @ 189.667 MHz



NEXT			
Freq	Worst Case	Average	Spec
1.	89.7	97.6	73.7
4.	81.3	87.0	65.3
8.	82.2	86.8	60.8
10.	76.1	82.9	59.3
16.	70.7	77.9	56.2
20.	71.7	77.5	54.8
25.	68.7	74.6	53.3
31.25	68.1	74.3	51.9
62.5	62.7	69.0	47.4
100.	57.4	65.7	44.3
250.	54.8	62.6	38.3

Limit Margin : 10.645 dB @ 189.667 MHz

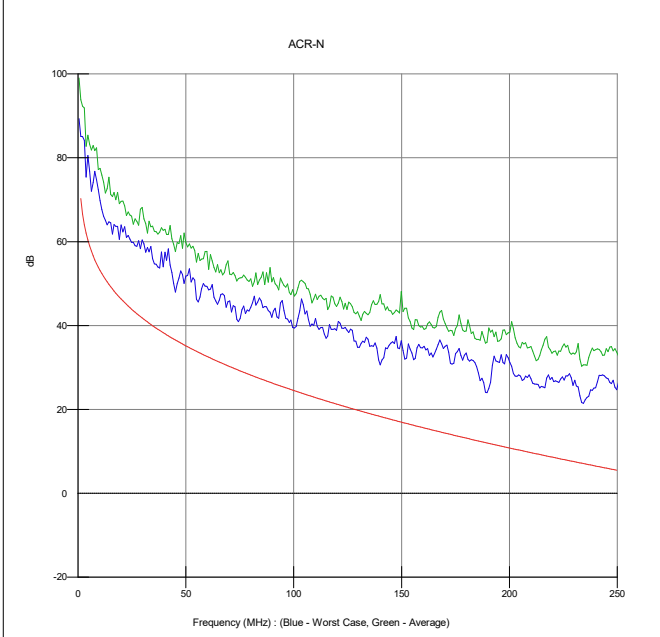


PSNEXT			
Freq	Worst Case	Average	Spec
1.	88.1	90.4	71.7
4.	78.7	81.2	63.3
8.	78.4	80.5	58.8
10.	74.3	76.2	57.3
16.	67.9	71.2	54.2
20.	68.7	71.4	52.8
25.	67.2	68.5	51.3
31.25	66.8	67.4	49.9
62.5	59.8	63.2	45.4
100.	54.6	58.4	42.3
250.	53.5	56.1	36.3

Summary

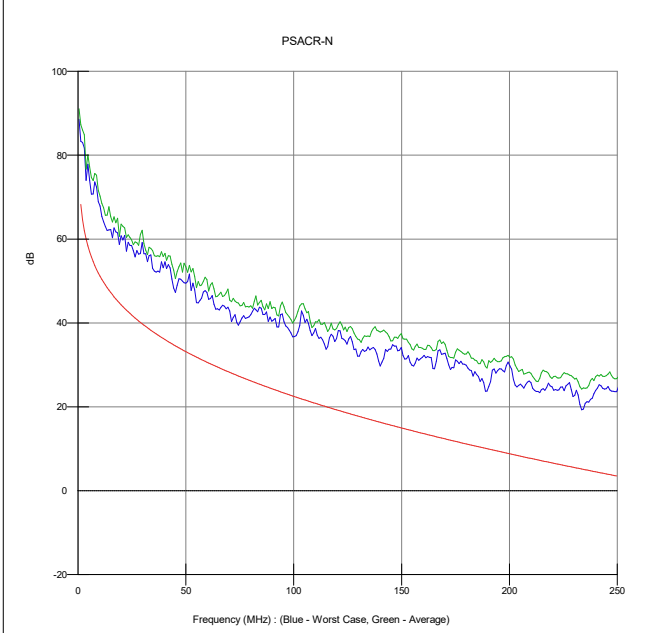
Client	Berk-Tek	Report No	104239938CRT-023b
Specification	ANSI-TIA-568-2-D Cat 6 Cable		
Part No	LM-6 CMR UTP	Length (m)	100.
Test Started	5/16/2024 11:55:03 AM	Temperature	22 °C
Description	4 Pair 24 AWG UUTP CMR Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 11.461 dB @ 45.153 MHz



ACR-N			
Freq	Worst Case	Average	Spec
1.	88.0	95.8	71.7
4.	77.9	83.6	61.5
8.	77.2	81.9	55.4
10.	70.5	77.4	53.4
16.	63.7	70.9	48.7
20.	63.9	69.6	46.3
25.	59.8	65.7	43.8
31.25	58.2	64.4	41.2
62.5	48.7	54.8	32.0
100.	39.4	47.7	24.5
250.	25.2	33.4	5.5

Limit Margin : 12.119 dB @ 74.381 MHz

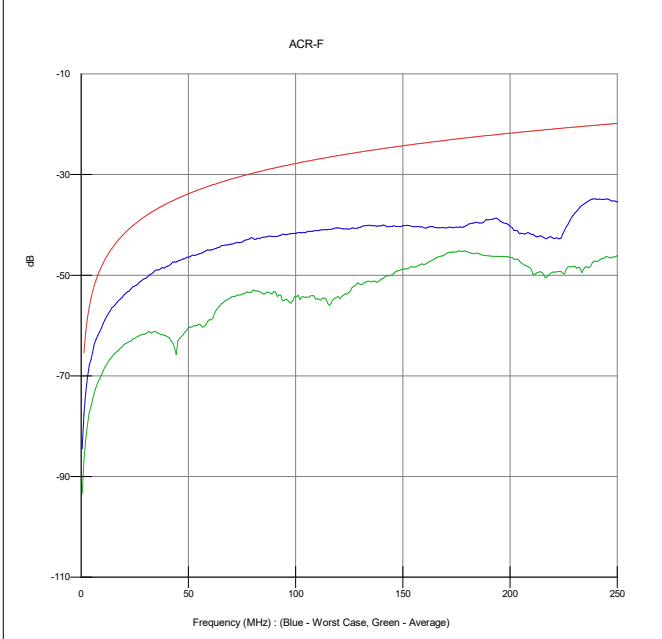


PSACR-N			
Freq	Worst Case	Average	Spec
1.	86.4	88.7	69.7
4.	75.3	77.7	59.5
8.	73.4	75.5	53.4
10.	68.8	70.6	51.4
16.	60.8	64.2	46.7
20.	60.8	63.6	44.3
25.	58.4	59.6	41.8
31.25	56.9	57.5	39.2
62.5	45.8	49.0	30.0
100.	36.7	40.4	22.5
250.	24.0	26.9	3.5

Summary

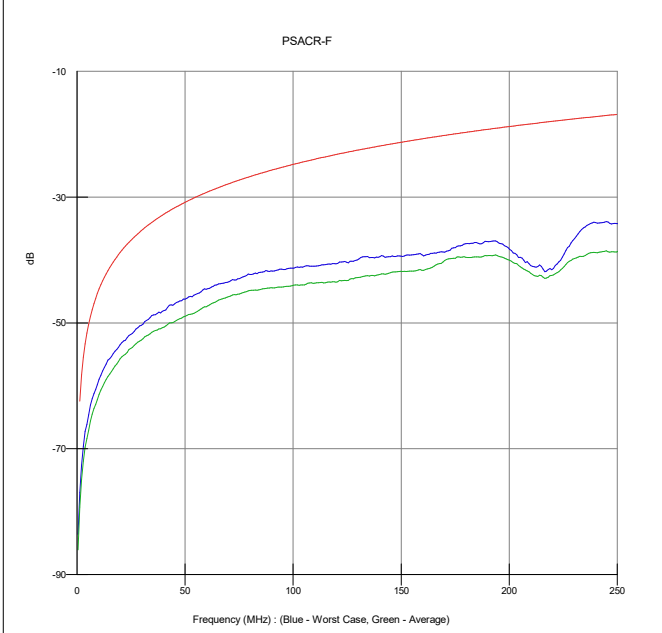
Client	Berk-Tek	Report No	104239938CRT-023b
Specification	ANSI-TIA-568-2-D Cat 6 Cable		
Part No	LM-6 CMR UTP	Length (m)	100.
Test Started	5/16/2024 11:55:03 AM	Temperature	22 °C
Description	4 Pair 24 AWG UUTP CMR Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 11.564 dB @ 3.748 MHz



ACR-F			
Freq	Worst Case	Average	Spec
1.	80.5	89.4	67.0
4.	67.6	76.9	55.8
8.	61.8	71.1	49.7
10.	59.9	69.2	47.8
16.	55.8	65.4	43.7
20.	53.9	63.8	41.8
25.	52.1	62.5	39.8
31.25	50.2	61.2	37.9
62.5	44.7	57.3	31.9
100.	41.7	54.3	27.8
250.	35.4	46.1	19.9

Limit Margin : 13.920 dB @ 3.748 MHz

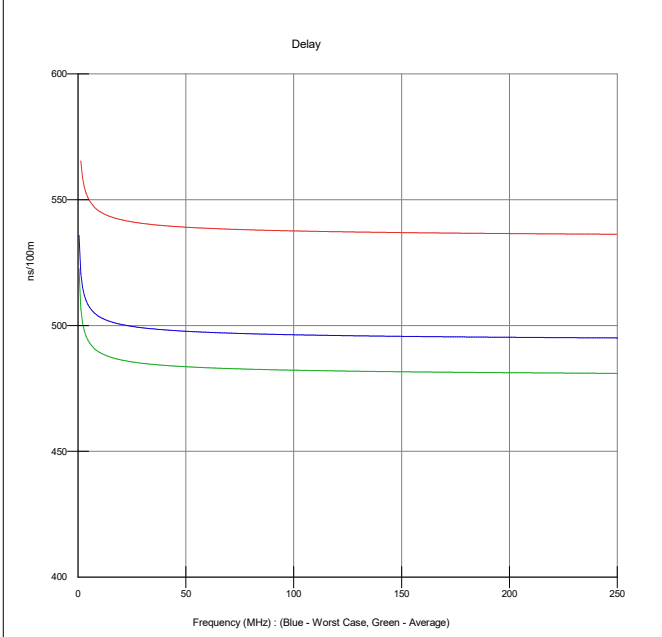


PSACR-F			
Freq	Worst Case	Average	Spec
1.	79.6	81.9	64.0
4.	66.9	69.3	52.8
8.	61.1	63.4	46.7
10.	59.2	61.6	44.8
16.	55.3	57.7	40.7
20.	53.4	55.7	38.8
25.	51.8	54.0	36.8
31.25	49.8	52.3	34.9
62.5	44.3	46.9	28.9
100.	41.3	44.0	24.8
250.	34.2	38.7	16.9

Summary

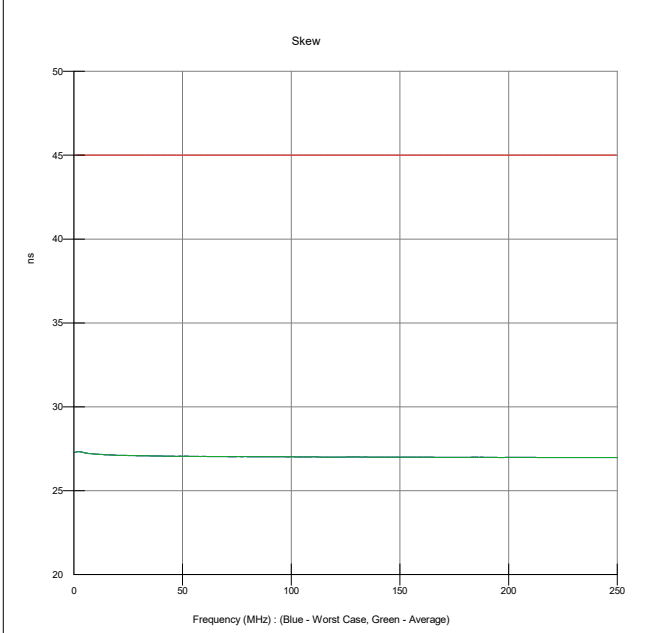
Client	Berk-Tek	Report No	104239938CRT-023b
Specification	ANSI-TIA-568-2-D Cat 6 Cable		
Part No	LM-6 CMR UTP	Length (m)	100.
Test Started	5/16/2024 11:55:03 AM	Temperature	22 °C
Description	4 Pair 24 AWG UUTP CMR Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 41.210 ns/100m @ 226.201 MHz



Delay			
Freq	Worst Case	Average	Spec
1.	526.6	512.9	568.0
4.	509.4	495.3	552.1
8.	504.7	490.5	546.7
10.	503.5	489.3	545.4
16.	501.3	487.2	543.0
20.	500.4	486.3	542.0
25.	499.7	485.6	541.2
31.25	499.0	484.9	540.4
62.5	497.2	483.1	538.6
100.	496.3	482.2	537.6
250.	495.1	481.0	536.3

Limit Margin : 17.670 ns @ 2.124 MHz

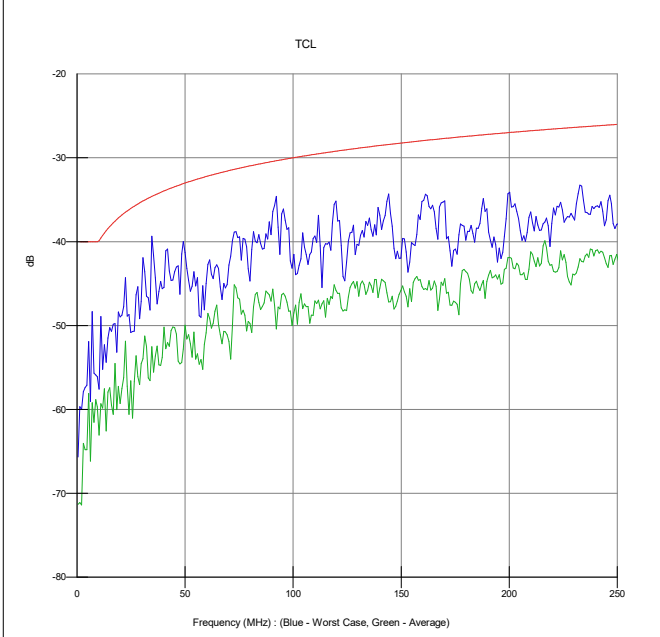


Skew			
Freq	Worst Case	Average	Spec
1.	27.3	27.3	45.0
4.	27.3	27.3	45.0
8.	27.2	27.2	45.0
10.	27.2	27.2	45.0
16.	27.1	27.1	45.0
20.	27.1	27.1	45.0
25.	27.1	27.1	45.0
31.25	27.1	27.1	45.0
62.5	27.0	27.0	45.0
100.	27.0	27.0	45.0
250.	27.0	27.0	45.0

Summary

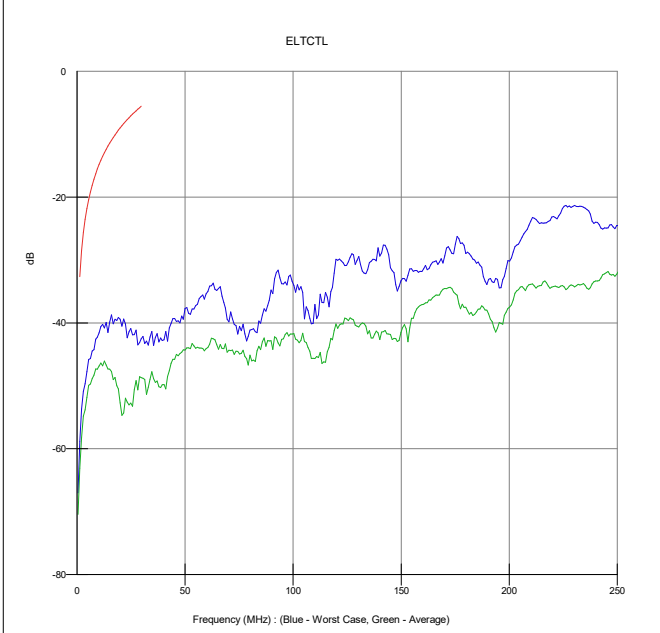
Client	Berk-Tek	Report No	104239938CRT-023b
Specification	ANSI-TIA-568-2-D Cat 6 Cable		
Part No	LM-6 CMR UTP	Length (m)	100.
Test Started	5/16/2024 11:55:03 AM	Temperature	22 °C
Description	4 Pair 24 AWG UUTP CMR Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 4.243 dB @ 92.242 MHz



TCL			
Freq	Worst Case	Average	Spec
1.	62.9	71.2	40.0
4.	57.3	64.8	40.0
8.	56.9	60.9	40.0
10.	57.9	62.1	39.9
16.	51.2	59.6	38.0
20.	49.0	59.3	37.0
25.	50.9	57.4	36.0
31.25	43.4	51.6	35.1
62.5	44.1	50.1	32.0
100.	42.2	49.2	30.0
250.	38.1	41.8	26.0

Limit Margin : 25.218 dB @ 2.124 MHz



ELTCTL			
Freq	Worst Case	Average	Spec
1.	62.4	65.9	34.2
4.	49.1	53.2	23.0
8.	43.8	48.1	16.9
10.	41.8	47.0	15.0
16.	38.9	47.8	10.9
20.	39.4	52.8	9.0
25.	41.1	52.8	7.0
31.25	43.1	49.0	
62.5	33.9	42.5	
100.	34.0	41.7	
250.	24.5	32.1	