

Project Number: G104239938

Date Issued: 3/13/2024

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

Test Report Number: 104239938CRT-022e



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, CMP, horizontal (solid) cable covered by ETL Verified certificate of conformance number 100324722CRT-001f. The sample was randomly selected by an Intertek inspector from your manufacturing facility, Berk-Tek LLC, on 2/13/2024 for Quarter 1 2024 follow-up testing.

The testing was performed at Intertek located in Cortland, NY from 3/13/2024 through 3/13/2024, 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 "David Ayers".

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

Summary

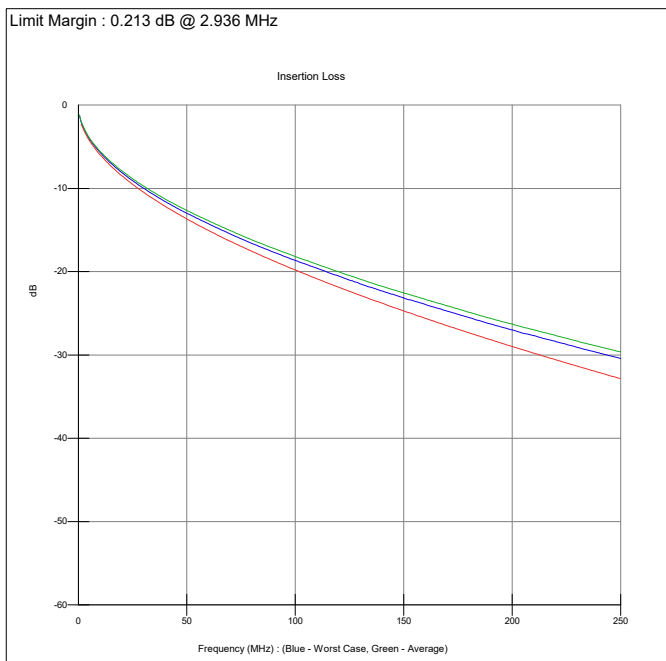
Client	Berk-Tek	Report No	104239938CRT-022e
Specification	ANSI-TIA-568-2-D Cat 6 Cable		
Part No	LM-6 CMP UTP	Length (m)	100.
Test Started	3/13/2024 9:35:52 AM	Temperature	23.4 °C
Description	4 Pair 23 AWG UUTP CMP Solid		
Operator Name	David Ayers	Test Status	Complies

DC Resistance (Ohms)		
Worst Case	Average	Spec
7.7	7.6	9.4
7.7	7.6	9.4

DC Resistance Unbalance (%)		
Worst Case	Average	Spec
0.9	0.4	5.0

DC Resistance Unbalance Pair-Pair (%)		
Worst Case	Average	Spec
0.9	0.5	5.0

Capacitance Unbalance Pair-Ground (pF/100m)		
Worst Case	Average	Spec
46.3	21.2	330.0

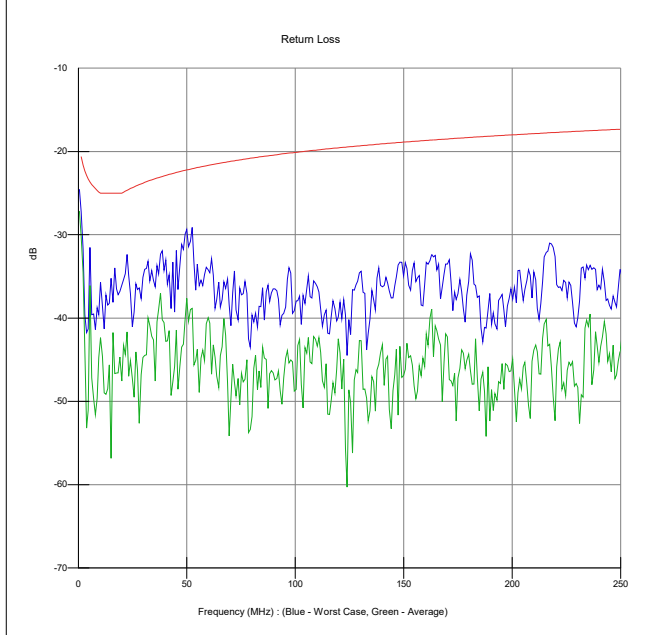


Insertion Loss			
Freq	Worst Case	Average	Spec
1.	1.7	1.7	2.1
4.	3.6	3.5	3.8
8.	5.1	4.9	5.3
10.	5.7	5.5	5.9
16.	7.2	7.0	7.6
20.	8.1	7.9	8.5
25.	9.1	8.8	9.5
31.25	10.2	9.9	10.7
62.5	14.6	14.2	15.4
100.	18.6	18.2	19.8
250.	30.4	29.6	32.8

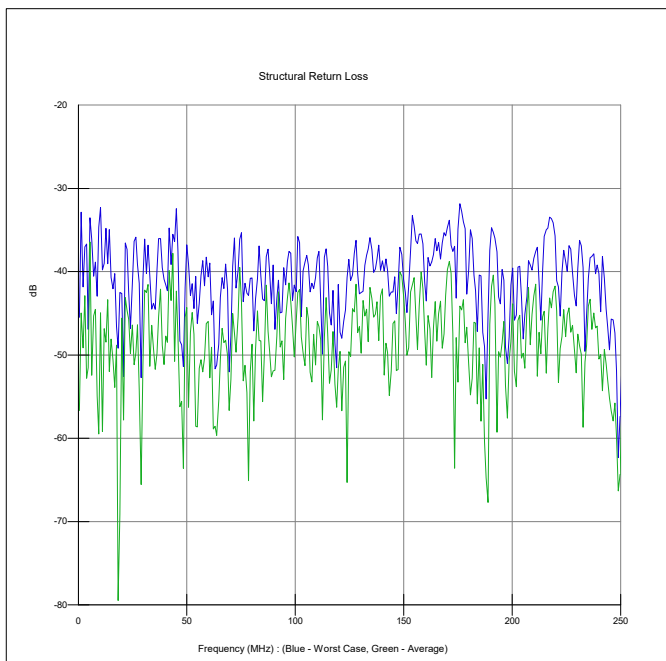
Summary

Client	Berk-Tek	Report No	104239938CRT-022e
Specification	ANSI-TIA-568-2-D Cat 6 Cable		
Part No	LM-6 CMP UTP	Length (m)	100.
Test Started	3/13/2024 9:35:52 AM	Temperature	23.4 °C
Description	4 Pair 23 AWG UUTP CMP Solid		
Operator Name	David Ayers	Test Status	Complies

Limit Margin : 6.639 dB @ 1.312 MHz



Return Loss			
Freq	Worst Case	Average	Spec
1.	26.2	29.0	20.2
4.	46.4	52.5	23.0
8.	43.2	51.2	24.5
10.	38.1	43.1	25.0
16.	37.7	42.2	25.0
20.	36.1	47.5	25.0
25.	40.9	47.7	24.3
31.25	34.0	44.4	23.6
62.5	36.3	43.8	21.5
100.	38.7	48.7	20.1
250.	34.4	43.5	17.3

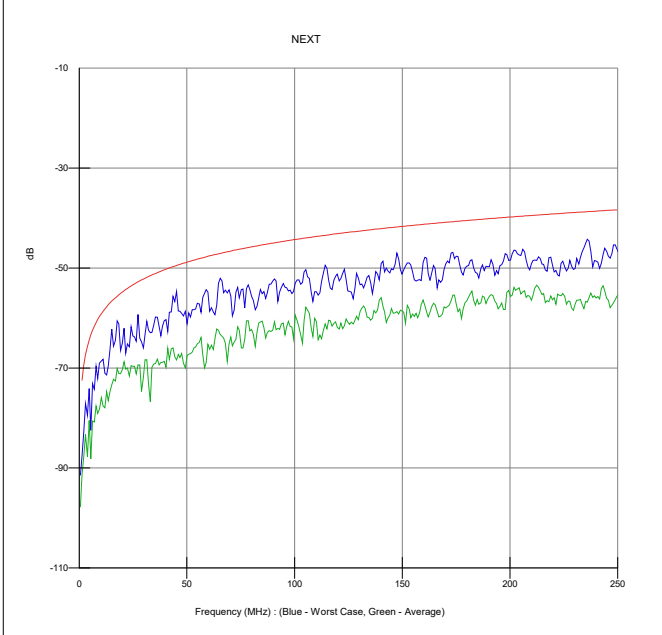


Structural Return Loss			
Freq	Worst Case	Average	Spec
1.	37.7	49.5	
4.	39.9	52.4	
8.	39.8	47.0	
10.	33.0	49.3	
16.	43.6	50.9	
20.	43.0	45.8	
25.	40.6	47.3	
31.25	40.5	42.5	
62.5	49.6	58.8	
100.	42.0	47.9	
250.	55.5	62.0	

Summary

Client	Berk-Tek	Report No	104239938CRT-022e
Specification	ANSI-TIA-568-2-D Cat 6 Cable		
Part No	LM-6 CMP UTP	Length (m)	100.
Test Started	3/13/2024 9:35:52 AM	Temperature	23.4 °C
Description	4 Pair 23 AWG UUTP CMP Solid		
Operator Name	David Ayers	Test Status	Complies

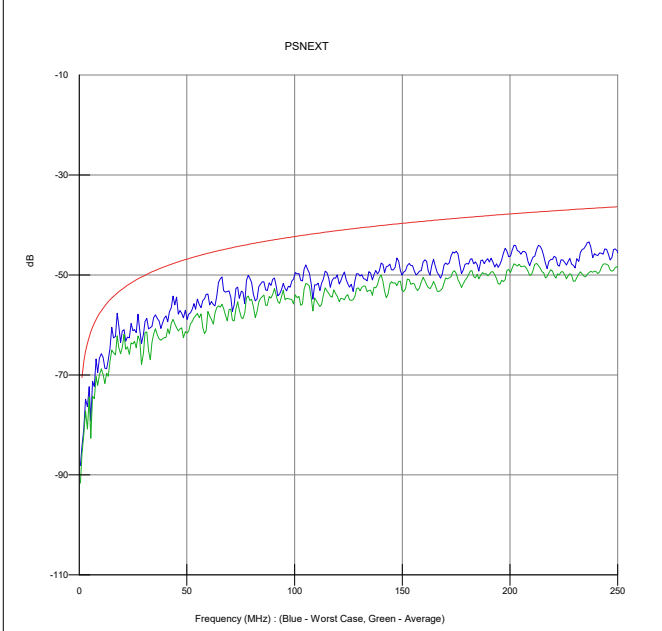
Limit Margin : 4.950 dB @ 17.549 MHz



NEXT

Freq	Worst Case	Average	Spec
1.	90.9	93.9	73.7
4.	77.9	85.5	65.3
8.	70.7	78.0	60.8
10.	69.8	76.6	59.3
16.	65.8	72.3	56.2
20.	65.0	70.3	54.8
25.	63.6	69.7	53.3
31.25	61.1	68.3	51.9
62.5	59.5	65.5	47.4
100.	53.7	61.5	44.3
250.	46.5	55.4	38.3

Limit Margin : 4.006 dB @ 17.549 MHz



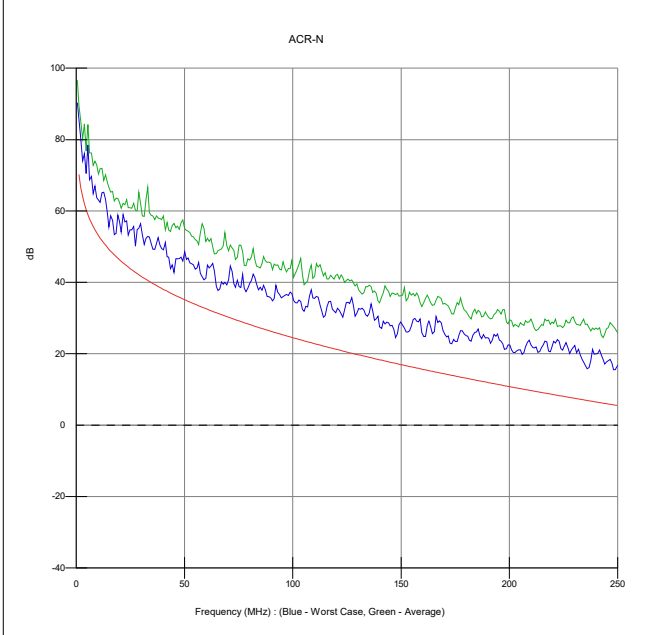
PSNEXT

Freq	Worst Case	Average	Spec
1.	86.0	88.1	71.7
4.	75.1	78.8	63.3
8.	67.9	70.7	58.8
10.	66.7	69.1	57.3
16.	62.7	65.6	54.2
20.	61.2	64.4	52.8
25.	61.4	63.7	51.3
31.25	59.1	61.4	49.9
62.5	56.8	59.1	45.4
100.	50.1	54.8	42.3
250.	45.4	48.4	36.3

Summary

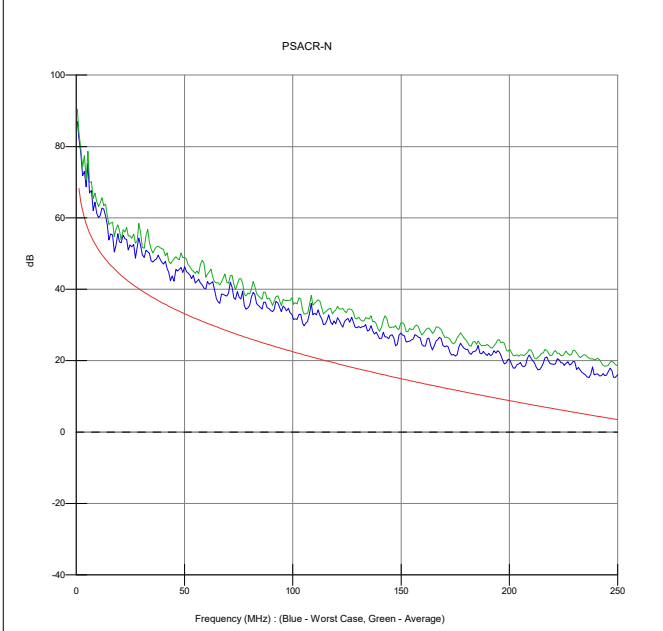
Client	Berk-Tek	Report No	104239938CRT-022e
Specification	ANSI-TIA-568-2-D Cat 6 Cable		
Part No	LM-6 CMP UTP	Length (m)	100.
Test Started	3/13/2024 9:35:52 AM	Temperature	23.4 °C
Description	4 Pair 23 AWG UUTP CMP Solid		
Operator Name	David Ayers	Test Status	Complies

Limit Margin : 5.614 dB @ 17.549 MHz



ACR-N			
Freq	Worst Case	Average	Spec
1.	89.3	92.2	71.7
4.	74.5	82.0	61.5
8.	65.8	73.1	55.4
10.	64.4	71.1	53.4
16.	58.9	65.3	48.7
20.	57.1	62.5	46.3
25.	54.7	60.9	43.8
31.25	51.2	58.5	41.2
62.5	45.5	51.4	32.0
100.	35.8	43.5	24.5
250.	16.7	26.0	5.5

Limit Margin : 4.670 dB @ 17.549 MHz

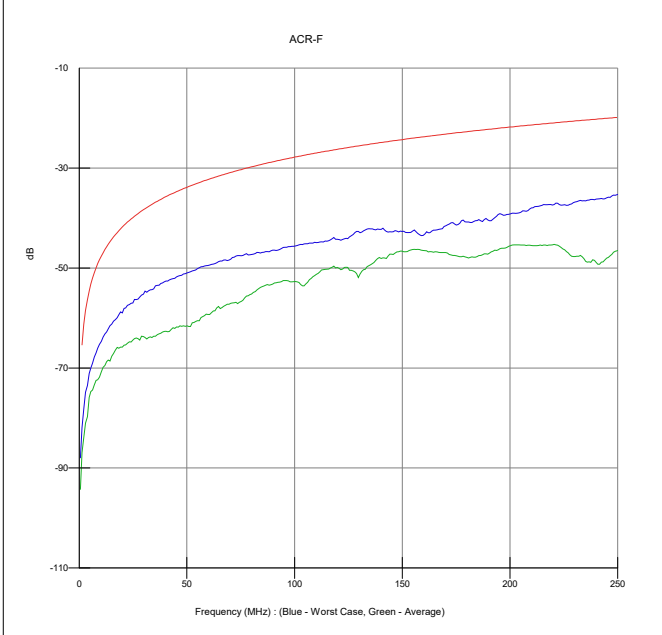


PSACR-N			
Freq	Worst Case	Average	Spec
1.	84.4	86.4	69.7
4.	71.7	75.4	59.5
8.	63.0	65.8	53.4
10.	61.3	63.6	51.4
16.	55.7	58.6	46.7
20.	53.3	56.5	44.3
25.	52.6	54.9	41.8
31.25	49.3	51.5	39.2
62.5	42.5	44.9	30.0
100.	32.2	36.6	22.5
250.	16.1	18.8	3.5

Summary

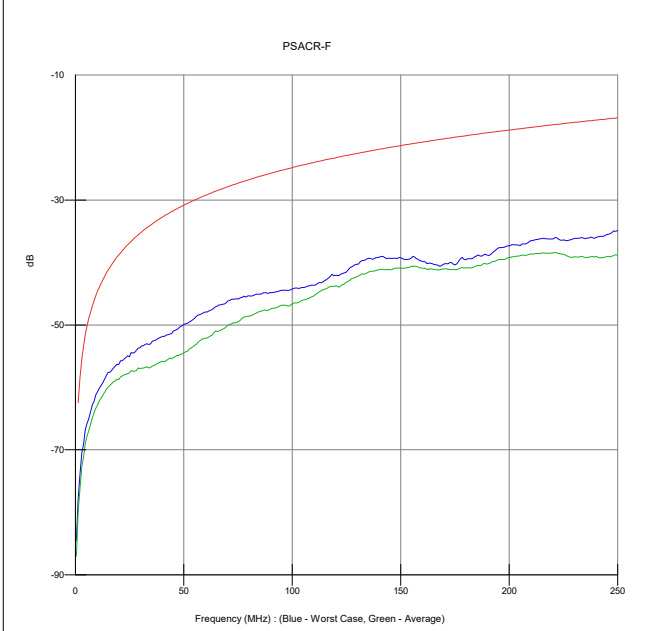
Client	Berk-Tek	Report No	104239938CRT-022e
Specification	ANSI-TIA-568-2-D Cat 6 Cable		
Part No	LM-6 CMP UTP	Length (m)	100.
Test Started	3/13/2024 9:35:52 AM	Temperature	23.4 °C
Description	4 Pair 23 AWG UUTP CMP Solid		
Operator Name	David Ayers	Test Status	Complies

Limit Margin : 15.456 dB @ 249.746 MHz



ACR-F			
Freq	Worst Case	Average	Spec
1.	85.2	89.8	67.0
4.	72.8	78.6	55.8
8.	66.7	72.4	49.7
10.	64.8	71.1	47.8
16.	60.6	67.0	43.7
20.	58.9	65.8	41.8
25.	56.9	64.4	39.8
31.25	54.8	64.1	37.9
62.5	49.1	58.6	31.9
100.	45.6	52.7	27.8
250.	35.3	46.5	19.9

Limit Margin : 14.980 dB @ 2.936 MHz

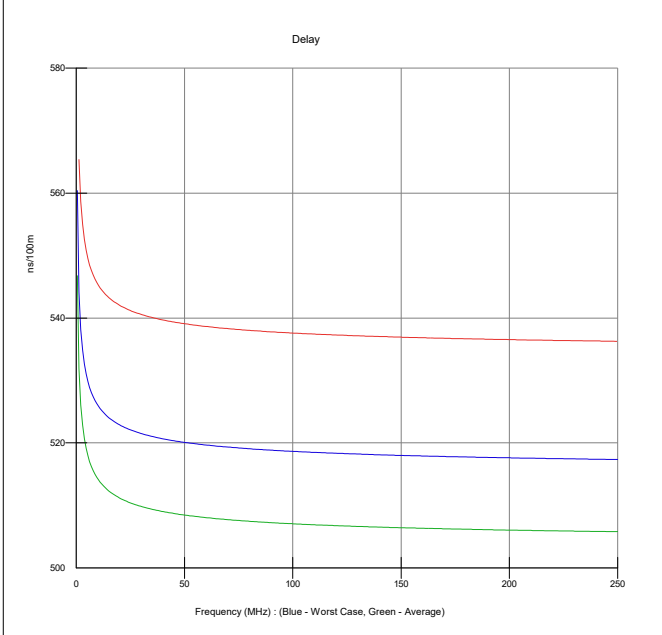


PSACR-F			
Freq	Worst Case	Average	Spec
1.	80.4	82.6	64.0
4.	68.4	70.5	52.8
8.	62.6	64.7	46.7
10.	60.9	63.0	44.8
16.	57.5	59.6	40.7
20.	56.3	58.7	38.8
25.	55.0	57.6	36.8
31.25	53.3	56.9	34.9
62.5	47.6	51.7	28.9
100.	44.2	46.6	24.8
250.	34.9	38.8	16.9

Summary

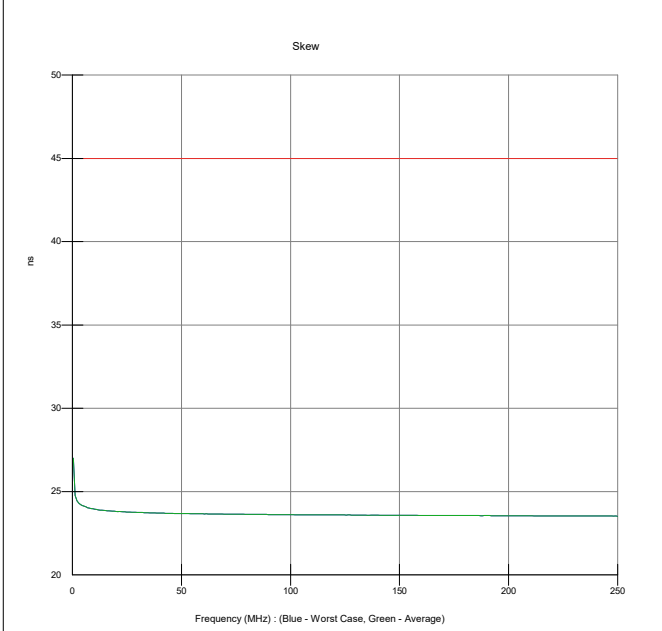
Client	Berk-Tek	Report No	104239938CRT-022e
Specification	ANSI-TIA-568-2-D Cat 6 Cable		
Part No	LM-6 CMP UTP	Length (m)	100.
Test Started	3/13/2024 9:35:52 AM	Temperature	23.4 °C
Description	4 Pair 23 AWG UUTP CMP Solid		
Operator Name	David Ayers	Test Status	Complies

Limit Margin : 18.920 ns/100m @ 179.924 MHz



Delay			
Freq	Worst Case	Average	Spec
1.	550.4	537.6	568.0
4.	532.2	520.2	552.1
8.	527.3	515.4	546.7
10.	526.0	514.2	545.4
16.	523.8	512.1	543.0
20.	522.9	511.2	542.0
25.	522.1	510.4	541.2
31.25	521.4	509.7	540.4
62.5	519.6	508.0	538.6
100.	518.7	507.1	537.6
250.	517.4	505.8	536.3

Limit Margin : 20.240 ns @ 1.312 MHz

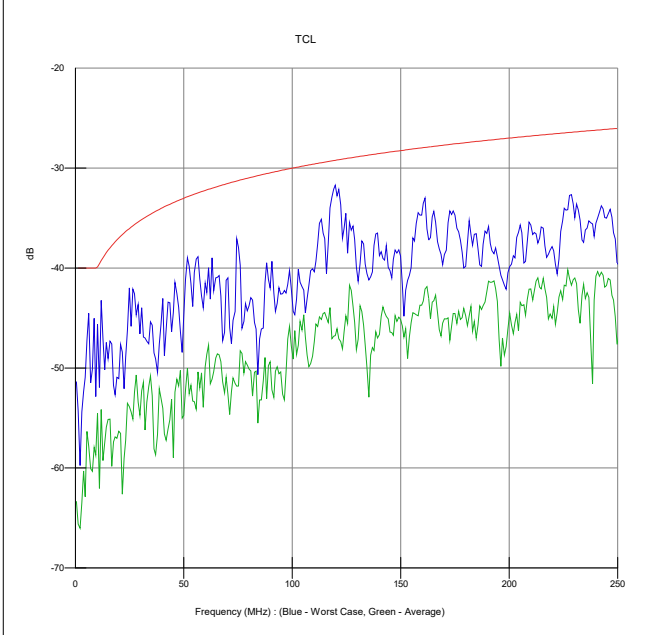


Skew			
Freq	Worst Case	Average	Spec
1.	25.6	25.6	45.0
4.	24.2	24.2	45.0
8.	24.0	24.0	45.0
10.	23.9	23.9	45.0
16.	23.8	23.8	45.0
20.	23.8	23.8	45.0
25.	23.8	23.8	45.0
31.25	23.7	23.7	45.0
62.5	23.7	23.7	45.0
100.	23.6	23.6	45.0
250.	23.5	23.5	45.0

Summary

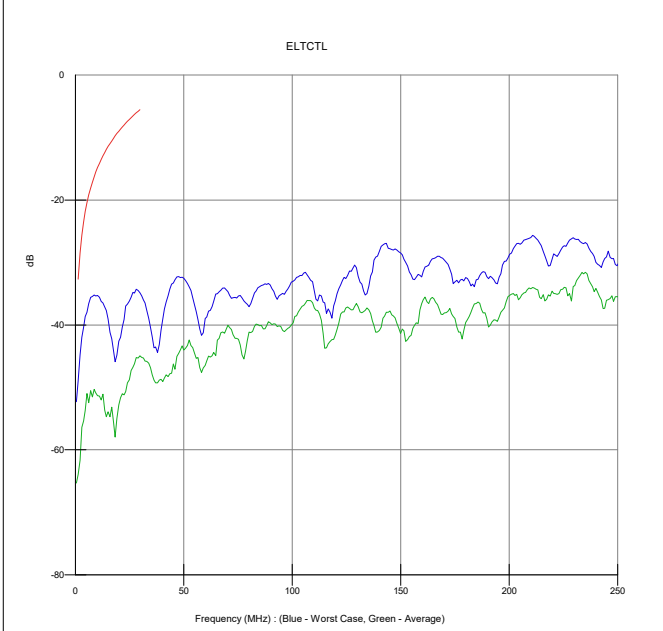
Client	Berk-Tek	Report No	104239938CRT-022e
Specification	ANSI-TIA-568-2-D Cat 6 Cable		
Part No	LM-6 CMP UTP	Length (m)	100.
Test Started	3/13/2024 9:35:52 AM	Temperature	23.4 °C
Description	4 Pair 23 AWG UUTP CMP Solid		
Operator Name	David Ayers	Test Status	Complies

Limit Margin : 2.495 dB @ 119.846 MHz



TCL			
Freq	Worst Case	Average	Spec
1.	53.3	64.7	40.0
4.	52.1	61.1	40.0
8.	48.9	59.8	40.0
10.	47.8	55.8	39.9
16.	47.3	55.5	38.0
20.	51.0	56.3	37.0
25.	42.7	54.0	36.0
31.25	46.6	51.5	35.1
62.5	41.6	51.4	32.0
100.	44.8	48.5	30.0
250.	39.9	47.3	26.0

Limit Margin : 16.312 dB @ 1.312 MHz



ELTCTL			
Freq	Worst Case	Average	Spec
1.	50.2	64.5	34.2
4.	39.8	54.9	23.0
8.	35.4	51.2	16.9
10.	35.3	51.2	15.0
16.	41.3	54.6	10.9
20.	42.6	52.8	9.0
25.	36.1	48.5	7.0
31.25	36.0	45.3	
62.5	37.5	45.1	
100.	33.1	39.8	
250.	30.5	35.5	