

Project Number: G104239938

Date Issued: 8/19/2024

ETL Verified Certificate of Conformance number: 9836071CRT-003

Test Report Number: 104239938CRT-024b



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 9836071CRT-003. 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 8/15/2024 through 8/15/2024, to the ISO/IEC 11801-1 standard(s) for category 5e 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

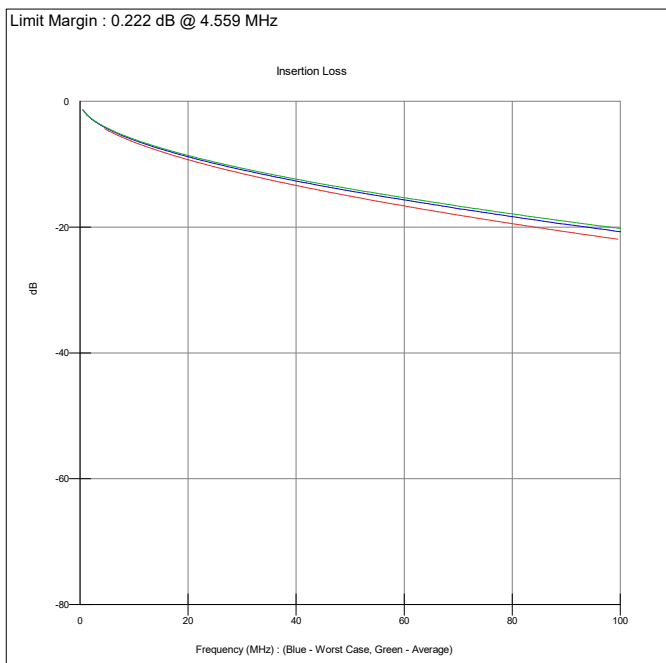
Client	Berk-Tek	Report No	104239938CRT-024b
Specification	ISO-IEC 11801-1 Cat 5e Solid Cable		
Part No	Hyper+ 5e CMP UTP	Length (m)	100.
Test Started	8/15/2024 4:39:34 PM	Temperature	21.9 °C
Description	4 Pair 24 AWG UUTP CMP Solid		
Operator Name	Craig Williams	Test Status	Complies

DC Resistance (Ohms)		
Worst Case	Average	Spec
9.0	8.8	9.5
9.0	8.8	9.5

DC Resistance Unbalance (%)		
Worst Case	Average	Spec
0.3	0.1	2.0

DC Resistance Unbalance Pair-Pair (%)		
Worst Case	Average	Spec
2.1	1.3	5.0

Capacitance Unbalance Pair-Ground (pF/100m)		
Worst Case	Average	Spec
28.8	10.6	160.0

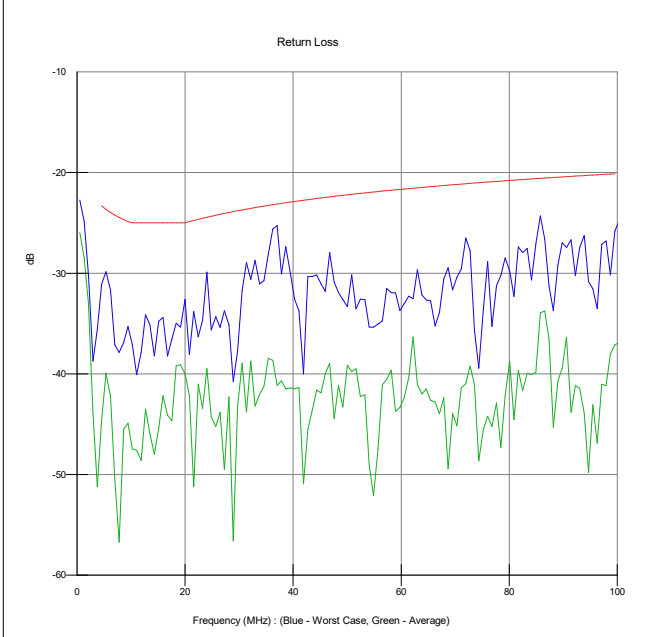


Insertion Loss			
Freq	Worst Case	Average	Spec
1.	1.9	1.8	
4.	3.9	3.8	
8.	5.5	5.4	5.8
10.	6.2	6.0	6.5
16.	7.9	7.7	8.3
20.	8.8	8.6	9.3
25.	9.9	9.7	10.4
31.25	11.1	10.9	11.7
62.5	16.0	15.6	17.0
100.	20.7	20.2	21.9

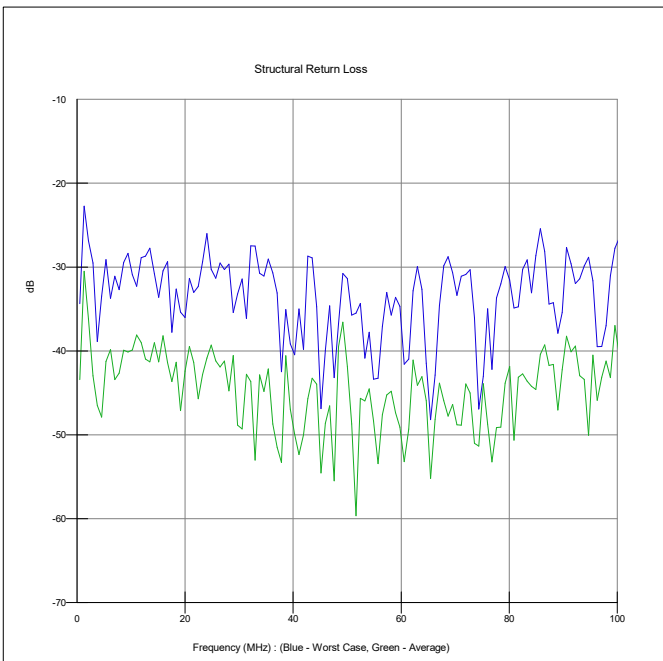
Summary

Client	Berk-Tek	Report No	104239938CRT-024b
Specification	ISO-IEC 11801-1 Cat 5e Solid Cable		
Part No	Hyper+ 5e CMP UTP	Length (m)	100.
Test Started	8/15/2024 4:39:34 PM	Temperature	21.9 °C
Description	4 Pair 24 AWG UUTP CMP Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 2.143 dB @ 37.034 MHz



Return Loss			
Freq	Worst Case	Average	Spec
1.	24.1	27.5	
4.	34.2	49.1	
8.	37.8	54.1	24.5
10.	37.3	46.7	25.0
16.	35.0	42.4	25.0
20.	32.8	40.0	25.0
25.	35.9	44.5	24.3
31.25	29.8	43.2	23.6
62.5	31.5	38.1	21.5
100.	25.2	37.0	20.1

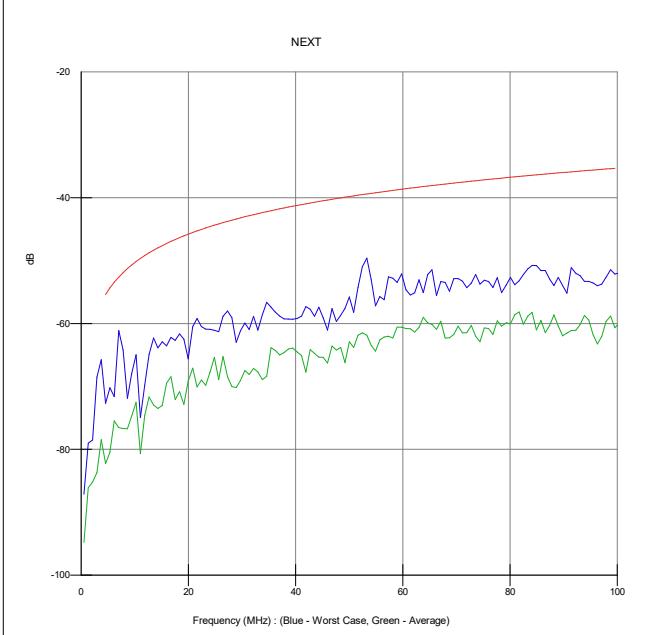


Structural Return Loss			
Freq	Worst Case	Average	Spec
1.	27.2	35.5	
4.	41.3	46.9	
8.	31.9	42.0	
10.	30.1	40.0	
16.	30.4	38.5	
20.	35.9	42.4	
25.	30.4	39.6	
31.25	35.5	43.6	
62.5	31.8	42.2	
100.	27.1	38.9	

Summary

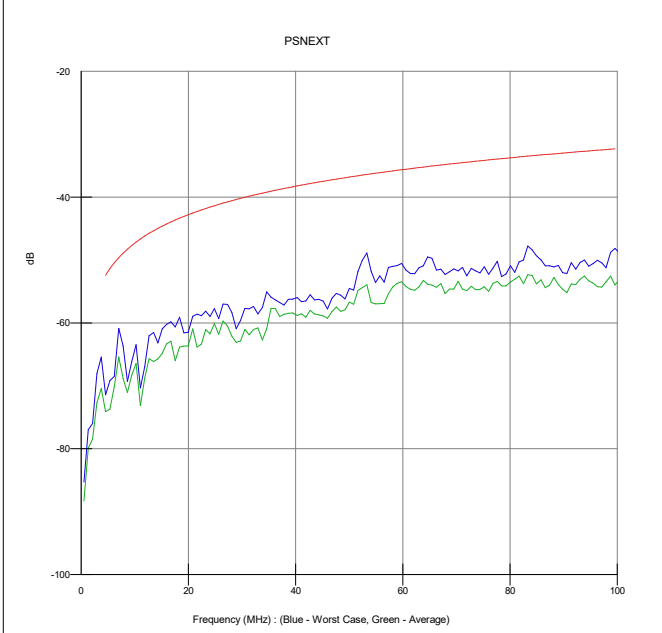
Client	Berk-Tek	Report No	104239938CRT-024b
Specification	ISO-IEC 11801-1 Cat 5e Solid Cable		
Part No	Hyper+ 5e CMP UTP	Length (m)	100.
Test Started	8/15/2024 4:39:34 PM	Temperature	21.9 °C
Description	4 Pair 24 AWG UUTP CMP Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 8.477 dB @ 6.995 MHz



NEXT			
Freq	Worst Case	Average	Spec
1.	82.1	89.5	
4.	67.9	79.6	
8.	66.6	76.7	51.8
10.	66.7	73.2	50.3
16.	63.4	69.4	47.2
20.	65.6	69.1	45.8
25.	61.9	66.0	44.3
31.25	60.8	68.0	42.9
62.5	54.4	61.1	38.4
100.	52.0	60.3	35.3

Limit Margin : 11.245 dB @ 6.995 MHz

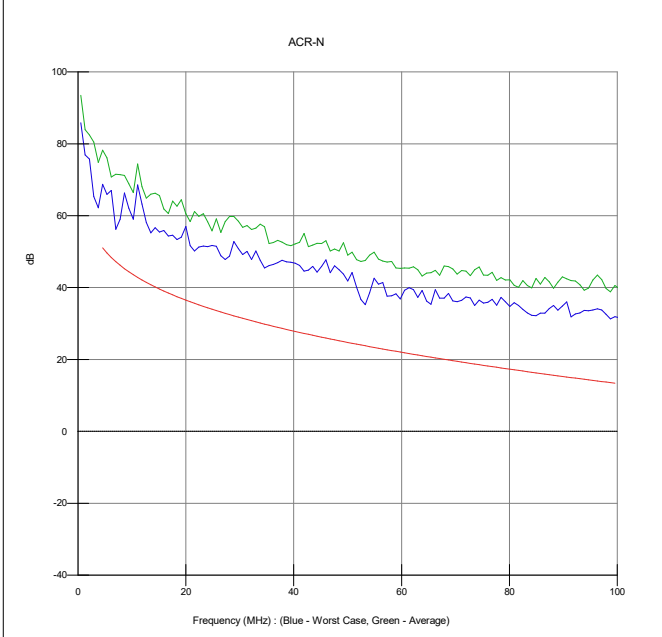


PSNEXT			
Freq	Worst Case	Average	Spec
1.	80.2	83.1	
4.	67.3	71.6	
8.	65.1	69.4	48.8
10.	64.6	67.0	47.3
16.	60.2	63.3	44.2
20.	61.5	63.6	42.8
25.	58.0	60.4	41.3
31.25	57.8	61.8	39.9
62.5	51.8	54.6	35.4
100.	48.5	53.5	32.3

Summary

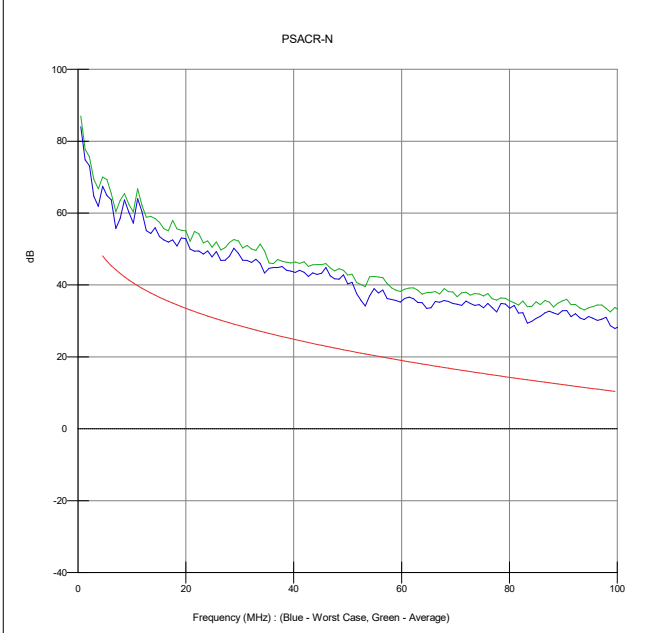
Client	Berk-Tek	Report No	104239938CRT-024b
Specification	ISO-IEC 11801-1 Cat 5e Solid Cable		
Part No	Hyper+ 5e CMP UTP	Length (m)	100.
Test Started	8/15/2024 4:39:34 PM	Temperature	21.9 °C
Description	4 Pair 24 AWG UUTP CMP Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 8.981 dB @ 6.995 MHz



ACR-N			
Freq	Worst Case	Average	Spec
1.	80.3	87.6	
4.	64.2	75.9	
8.	61.4	71.4	46.0
10.	60.8	67.2	43.8
16.	55.8	61.8	39.0
20.	56.9	60.5	36.5
25.	52.5	56.4	33.9
31.25	50.0	57.2	31.1
62.5	38.6	45.5	21.4
100.	31.7	40.1	13.4

Limit Margin : 11.509 dB @ 6.995 MHz

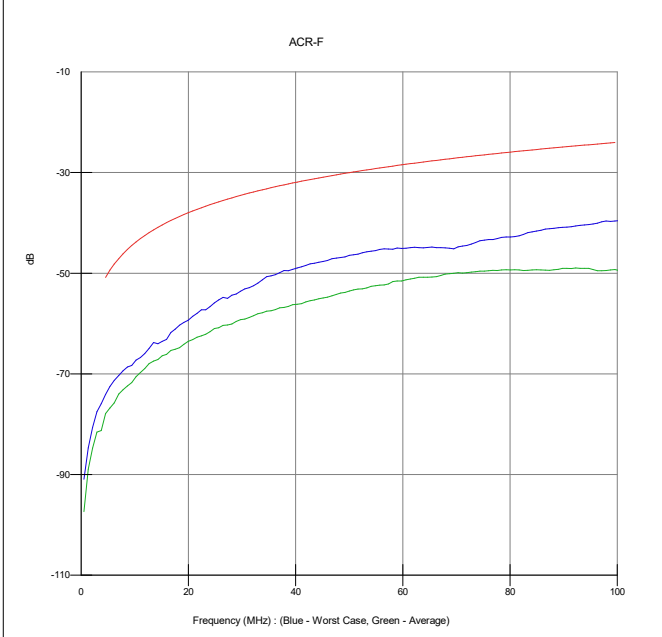


PSACR-N			
Freq	Worst Case	Average	Spec
1.	78.4	81.3	
4.	63.6	67.8	
8.	59.9	64.0	43.0
10.	58.4	61.0	40.8
16.	52.5	55.6	36.0
20.	52.8	55.0	33.5
25.	48.1	50.7	30.9
31.25	46.8	50.9	28.1
62.5	35.8	39.0	18.4
100.	28.2	33.3	10.4

Summary

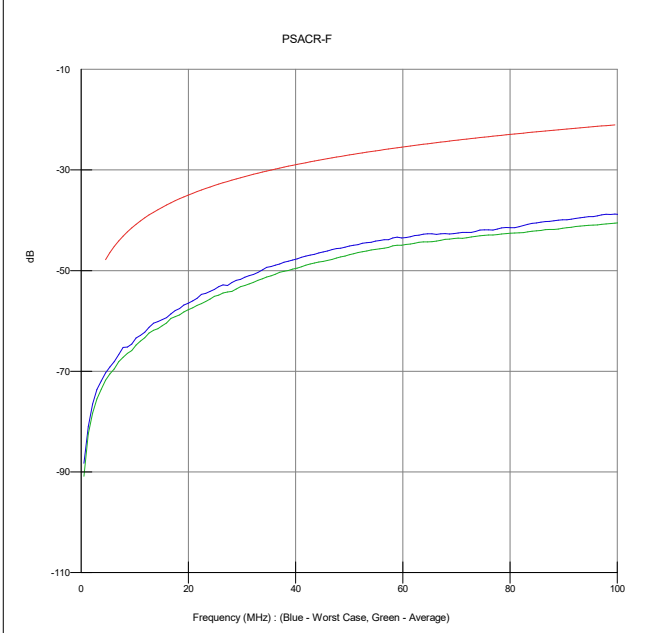
Client	Berk-Tek	Report No	104239938CRT-024b
Specification	ISO-IEC 11801-1 Cat 5e Solid Cable		
Part No	Hyper+ 5e CMP UTP	Length (m)	100.
Test Started	8/15/2024 4:39:34 PM	Temperature	21.9 °C
Description	4 Pair 24 AWG UUTP CMP Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 15.465 dB @ 97.925 MHz



ACR-F			
Freq	Worst Case	Average	Spec
1.	87.1	92.2	
4.	75.4	80.2	
8.	69.2	73.0	45.9
10.	67.6	70.9	44.0
16.	63.1	66.1	39.9
20.	59.3	63.6	38.0
25.	55.9	61.0	36.0
31.25	52.9	58.8	34.1
62.5	44.9	50.9	28.1
100.	39.6	49.4	24.0

Limit Margin : 17.636 dB @ 97.925 MHz

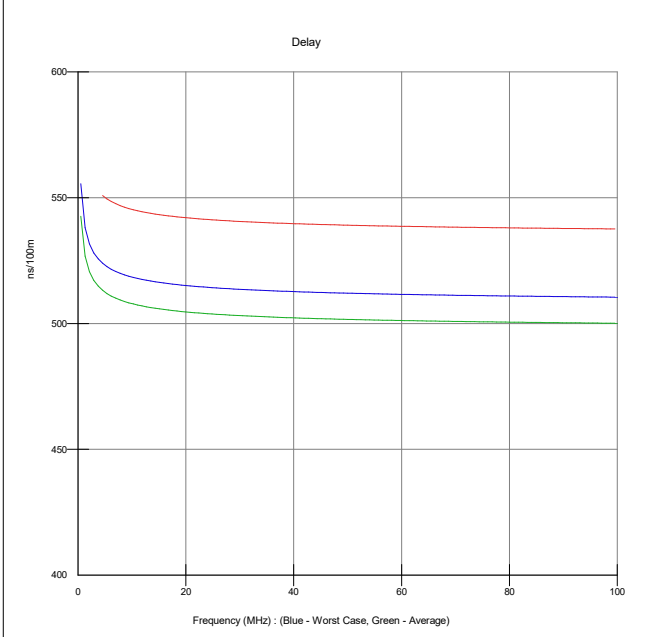


PSACR-F			
Freq	Worst Case	Average	Spec
1.	83.8	85.7	
4.	71.4	73.0	
8.	65.3	67.0	42.9
10.	63.8	65.1	41.0
16.	59.3	60.3	36.9
20.	56.5	57.8	35.0
25.	53.7	55.1	33.0
31.25	51.0	52.7	31.1
62.5	43.0	44.5	25.1
100.	38.8	40.5	21.0

Summary

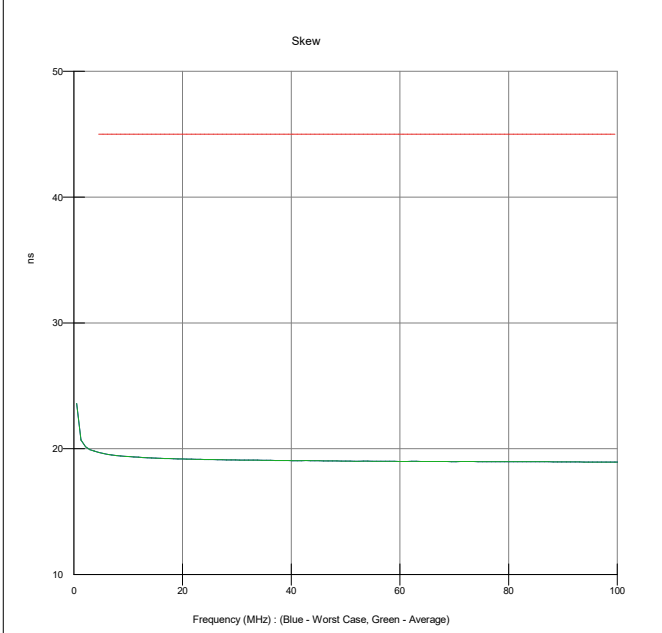
Client	Berk-Tek	Report No	104239938CRT-024b
Specification	ISO-IEC 11801-1 Cat 5e Solid Cable		
Part No	Hyper+ 5e CMP UTP	Length (m)	100.
Test Started	8/15/2024 4:39:34 PM	Temperature	21.9 °C
Description	4 Pair 24 AWG UUTP CMP Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 26.900 ns/100m @ 7.807 MHz



Delay			
Freq	Worst Case	Average	Spec
1.	544.8	532.8	
4.	525.1	514.3	
8.	519.8	509.2	546.7
10.	518.5	507.9	545.4
16.	516.1	505.6	543.0
20.	515.1	504.6	542.0
25.	514.2	503.8	541.2
31.25	513.5	503.0	540.4
62.5	511.5	501.1	538.6
100.	510.5	500.1	537.6

Limit Margin : 25.288 ns @ 4.559 MHz

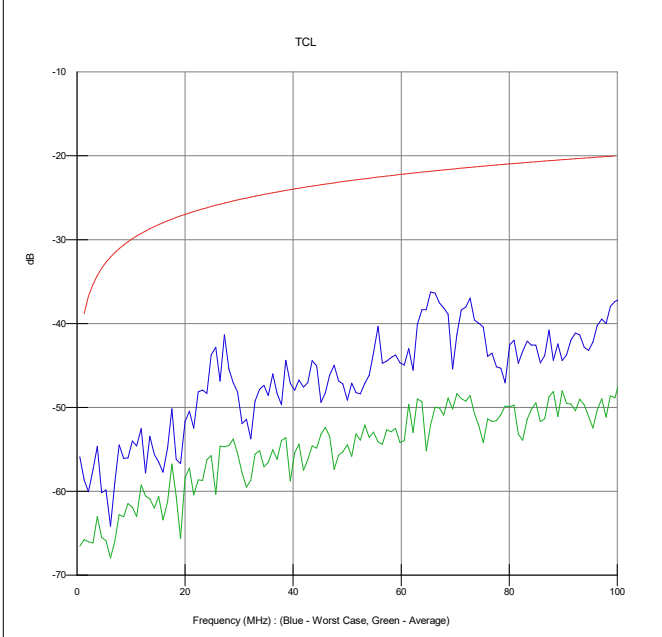


Skew			
Freq	Worst Case	Average	Spec
1.	21.8	21.8	
4.	19.8	19.8	
8.	19.5	19.5	45.0
10.	19.4	19.4	45.0
16.	19.2	19.2	45.0
20.	19.2	19.2	45.0
25.	19.1	19.1	45.0
31.25	19.1	19.1	45.0
62.5	19.0	19.0	45.0
100.	18.9	18.9	45.0

Summary

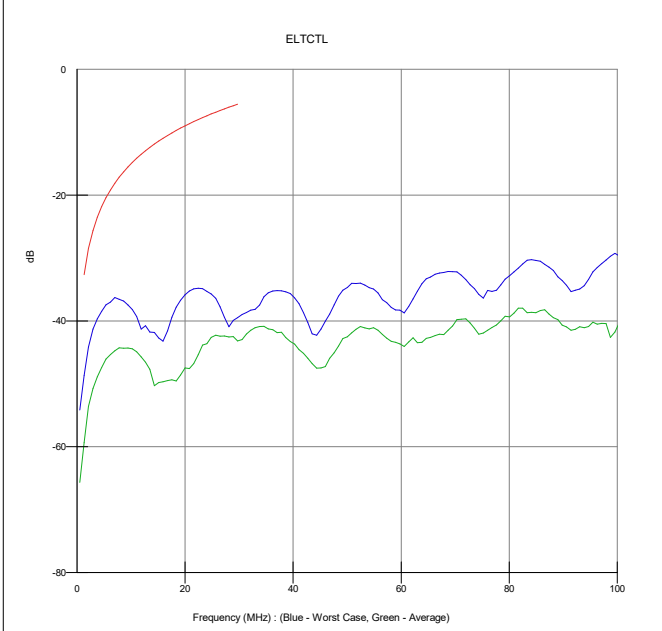
Client	Berk-Tek	Report No	104239938CRT-024b
Specification	ISO-IEC 11801-1 Cat 5e Solid Cable		
Part No	Hyper+ 5e CMP UTP	Length (m)	100.
Test Started	8/15/2024 4:39:34 PM	Temperature	21.9 °C
Description	4 Pair 24 AWG UUTP CMP Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 14.413 dB @ 65.450 MHz



TCL			
Freq	Worst Case	Average	Spec
1.	57.6	66.1	39.6
4.	57.2	63.8	34.0
8.	54.9	62.8	31.0
10.	54.8	61.8	30.0
16.	57.5	63.2	28.0
20.	51.7	58.4	27.0
25.	43.6	56.6	26.0
31.25	52.2	59.3	25.1
62.5	43.9	51.5	22.0
100.	37.4	47.8	20.0

Limit Margin : 15.667 dB @ 2.936 MHz



ELTCTL			
Freq	Worst Case	Average	Spec
1.	50.8	61.8	34.2
4.	39.3	48.4	23.0
8.	36.6	44.3	16.9
10.	38.0	44.4	15.0
16.	43.2	49.7	10.9
20.	35.8	47.5	9.0
25.	35.8	42.6	7.0
31.25	38.7	42.2	
62.5	36.1	43.0	
100.	29.5	40.9	