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October 27, 2009

Test report number 3190431CRT-004  
Project number 3190431-311

Mohawk  
9 Mohawk Drive  
Leominster, MA 01453

**TEST:**

Electrical performance testing of 100 Ω, 4 Pair telecommunication cable to the requirements of the client's custom GigaLAN specification

**STANDARD USED:**

GigaLAN specification, revision AD, dated 10/27/09

**AUTHORIZATION:**

The project was authorized by Mr. Greg Nimiera, representing the client, Mohawk, with purchase order number 21190.

**SPECIMEN DESCRIPTION:**

The client supplied 100 meters of a Category 6, 4-Pair, 23 AWG, UTP, Plenum, Horizontal (solid) cable, identified as part number M58281. The sample was received on September 17, 2009 and was in good condition.

**EQUIPMENT LIST:**

The following equipment was employed in conducting the tests.

<u>Equipment used</u>	<u>Model number</u>	<u>Control number</u>	<u>Calibration date</u>	<u>Calibration due date</u>
HP Automatic Cable Test System	46152A	E307	2/27/2009	2/27/2010

**DATE OF TEST:**

September 17, 2009

**TEST REPORT REVISION HISTORY:**

First Issue:            October 27, 2009            Original Document



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**RESULTS:** See appendix A for the test results.

**CONCLUSION:**

The 100  $\Omega$ , 4 Pair telecommunication cable, as previously described and supplied by the client, was tested in accordance with the standard listed herein, and did comply with the indicated applicable transmission requirements. The testing was performed at Intertek located in Cortland, New York.

The procedures and requirements were taken from the standard referred to on page 1.

Reviewed and Approved By:

Antoine Pelletier  
Engineer  
Global Cabling Products Testing

John Cash  
Technician  
Global Cabling Products Testing



Mohawk

Test report number 3190431CRT-004  
October 27, 2009

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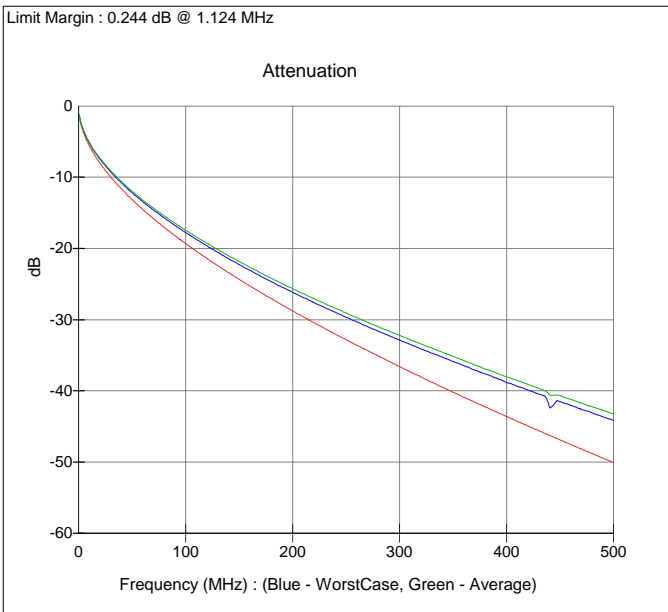
**Appendix A**  
Test results

This appendix contains 5 pages.

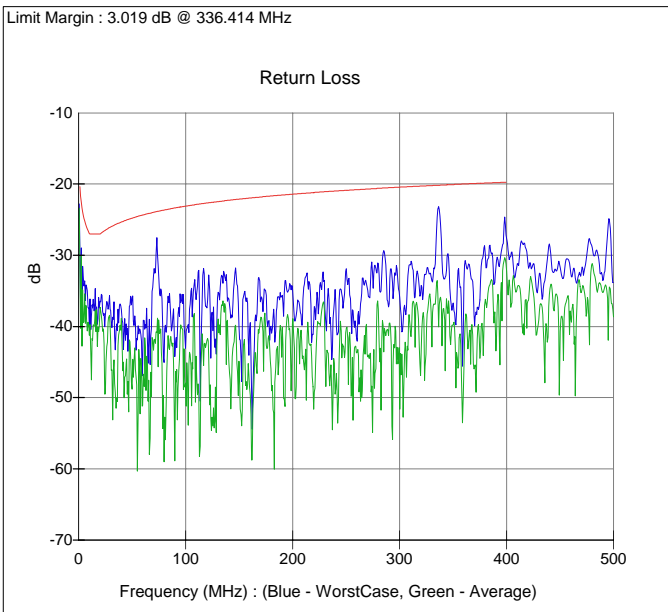


## Summary

<b>Client</b>	Mohawk	<b>Report No</b>	3190431CRT-001
<b>Specification</b>	Mohawk GigLAN	<b>Length(m)</b>	100.
<b>Part No</b>	M57415RB	<b>Temperature</b>	20 °C
<b>Test Started</b>	10/27/2009 2:19:10 PM	<b>Appendix</b>	A
<b>Description</b>	4x23 UTP-CMP-Solid	<b>Test Status</b>	Complies
<b>Operator Name</b>	John Cash		



Attenuation			
Freq	Worst Case	Average	Spec
1.	1.6	1.6	1.9
4.	3.3	3.2	3.6
8.	4.7	4.6	5.0
10.	5.2	5.1	5.6
16.	6.7	6.5	7.2
20.	7.5	7.3	8.1
25.	8.4	8.3	9.1
31.25	9.5	9.3	10.2
62.5	13.8	13.5	14.9
100.	17.8	17.4	19.3
250.	29.7	29.1	32.8
350.	35.9	35.2	40.2
400.	38.8	38.0	43.6
500.	44.1	43.3	50.1

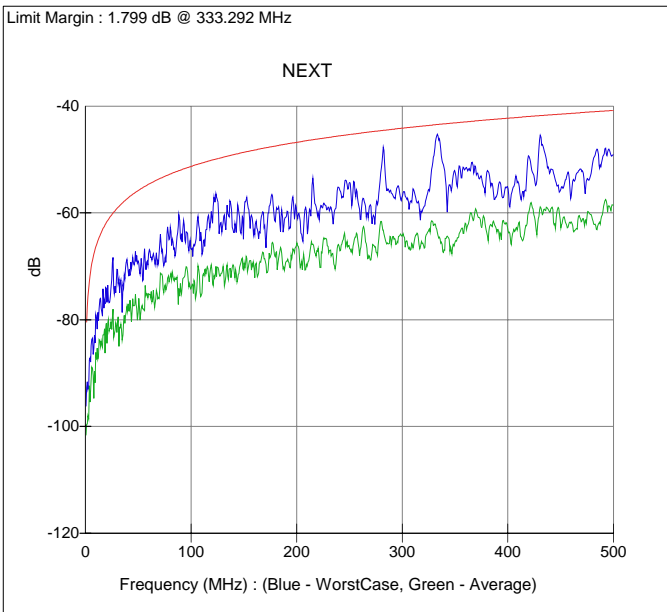


Return Loss			
Freq	Worst Case	Average	Spec
1.	28.5	30.4	20.1
4.	34.9	37.7	24.2
8.	35.0	40.6	26.3
10.	40.1	40.9	27.0
16.	39.3	40.2	27.0
20.	36.7	37.4	27.0
25.	38.2	48.4	26.5
31.25	39.8	47.9	25.9
62.5	39.9	44.7	24.2
100.	42.4	49.1	23.1
250.	32.0	40.5	20.9
350.	36.8	39.8	20.1
400.	27.6	32.1	19.7
500.	33.7	38.7	

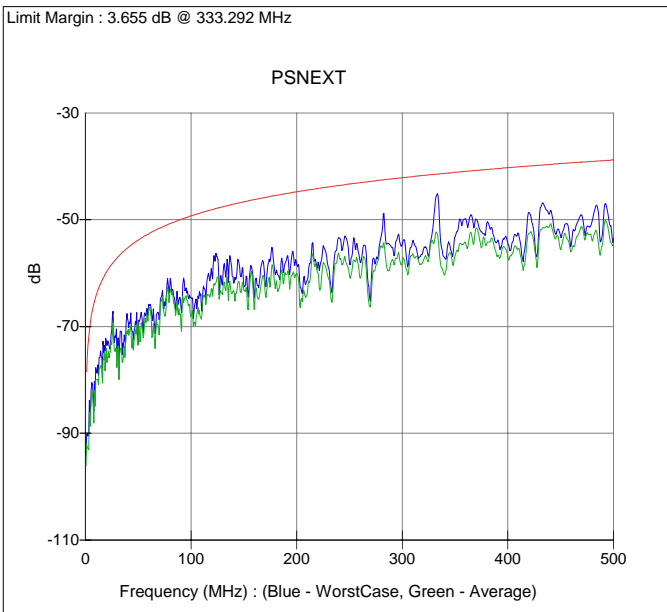


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NEXT			
Freq	Worst Case	Average	Spec
1.	93.4	100.0	81.1
4.	88.5	94.2	72.3
8.	85.5	94.7	67.8
10.	79.3	86.4	66.3
16.	82.0	85.1	63.2
20.	75.9	81.6	61.8
25.	71.7	81.3	60.3
31.25	73.0	80.8	58.9
62.5	68.9	75.3	54.4
100.	66.8	74.0	51.3
250.	54.4	66.5	45.3
350.	52.4	65.4	43.1
400.	55.4	63.2	42.3
500.	49.1	58.5	40.8

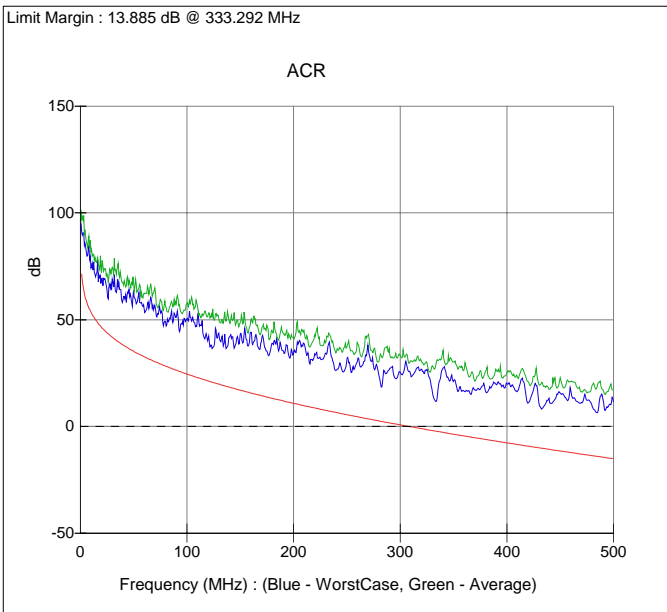


PSNEXT			
Freq	Worst Case	Average	Spec
1.	91.2	92.9	79.1
4.	85.3	87.7	70.3
8.	85.8	88.0	65.8
10.	77.9	80.0	64.3
16.	79.5	80.2	61.2
20.	73.5	74.7	59.8
25.	70.1	72.9	58.3
31.25	73.8	75.3	56.9
62.5	67.5	69.6	52.4
100.	64.7	68.1	49.3
250.	58.0	60.4	43.3
350.	53.2	56.7	41.1
400.	54.6	57.1	40.3
500.	53.5	54.5	38.8

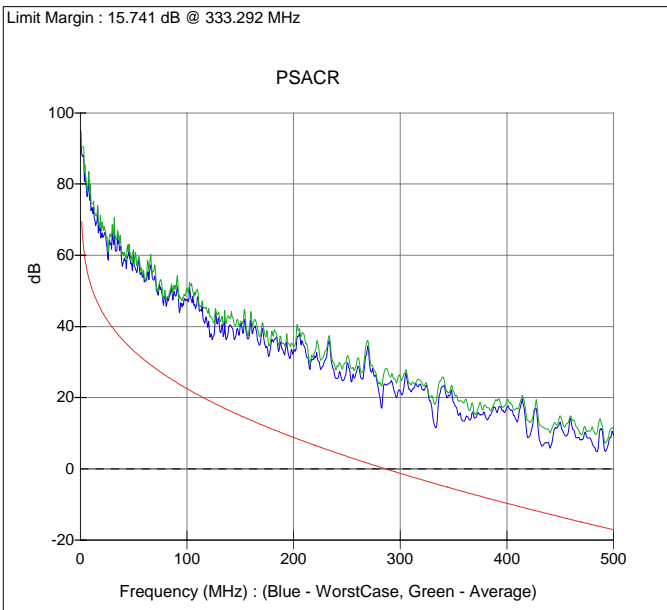


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<b>Operator Name</b>	John Cash		



ACR			
Freq	Worst Case	Average	Spec
1.	91.9	97.8	72.1
4.	85.3	91.1	61.5
8.	84.2	89.1	55.4
10.	74.3	82.0	53.4
16.	77.1	78.9	48.7
20.	70.1	73.4	46.3
25.	63.3	71.1	43.8
31.25	67.7	72.7	41.2
62.5	55.6	63.3	32.0
100.	50.5	57.7	24.5
250.	31.4	37.3	5.5
350.	21.5	30.1	-3.6
400.	20.2	25.1	-7.7
500.	11.6	17.1	-15.1

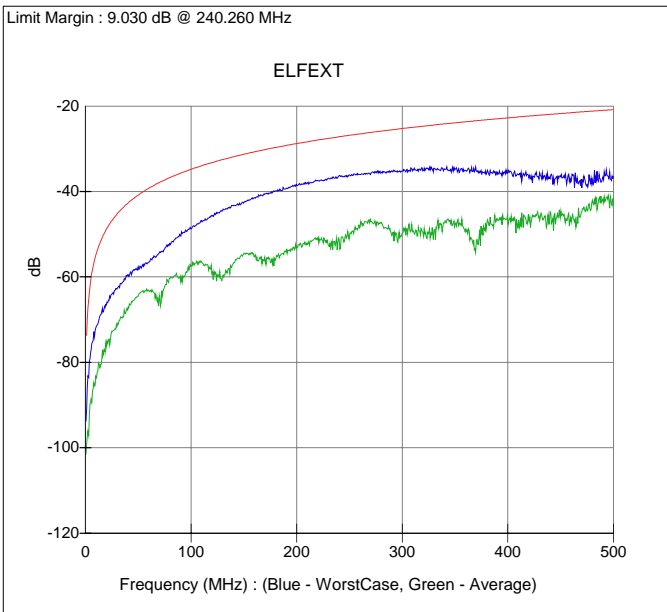


PSACR			
Freq	Worst Case	Average	Spec
1.	89.6	91.3	70.1
4.	82.0	84.5	59.5
8.	81.3	83.4	53.4
10.	72.7	74.9	51.4
16.	73.1	73.6	46.7
20.	66.3	67.4	44.3
25.	61.7	64.7	41.8
31.25	64.6	66.0	39.2
62.5	53.8	56.1	30.0
100.	47.5	50.6	22.5
250.	29.3	31.3	3.5
350.	18.6	21.6	-5.6
400.	17.2	19.1	-9.7
500.	9.4	11.2	-17.1

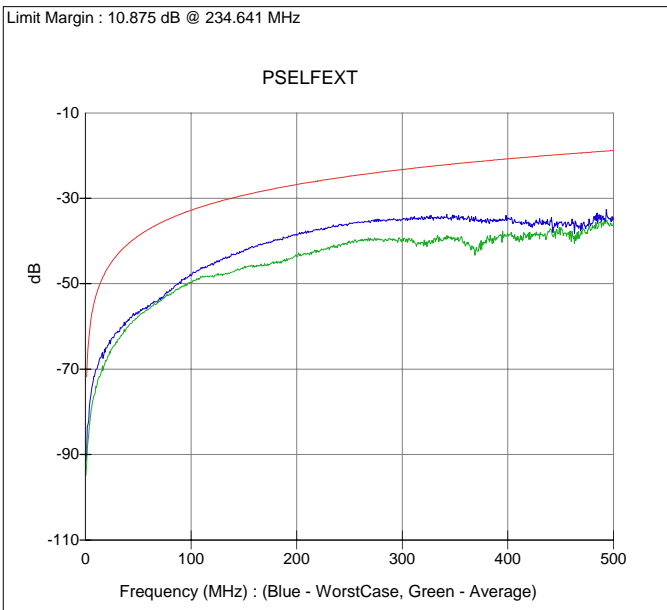


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ELFEXT			
Freq	Worst Case	Average	Spec
1.	91.4	99.6	74.5
4.	79.8	90.8	62.8
8.	72.9	84.8	56.7
10.	71.8	83.3	54.8
16.	67.6	77.4	50.7
20.	66.4	76.0	48.8
25.	64.0	72.8	46.8
31.25	62.4	70.8	44.9
62.5	55.9	63.4	38.9
100.	48.8	57.5	34.8
250.	36.2	50.4	26.8
350.	34.8	47.8	23.9
400.	35.1	47.4	22.8
500.	36.4	42.9	20.8

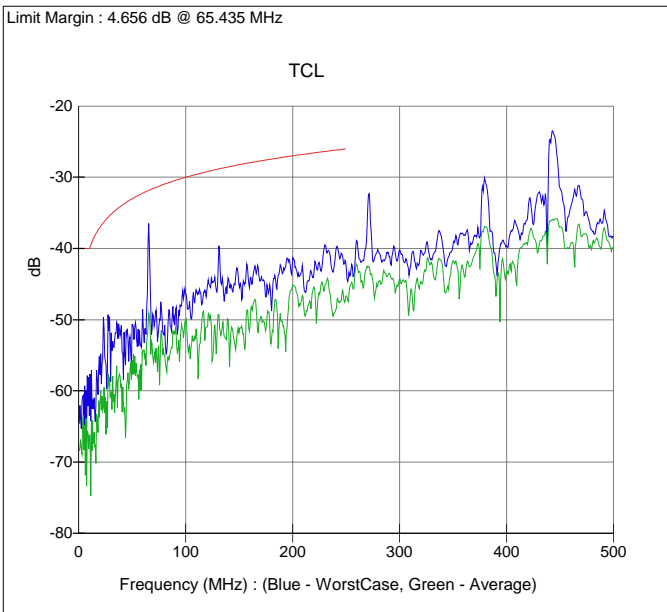


PSELFEXT			
Freq	Worst Case	Average	Spec
1.	90.4	92.8	72.5
4.	78.0	82.6	60.8
8.	71.6	76.2	54.7
10.	70.1	74.1	52.8
16.	66.1	69.4	48.7
20.	65.1	68.0	46.8
25.	62.8	65.2	44.8
31.25	61.3	62.9	42.9
62.5	54.7	55.4	36.9
100.	48.1	49.7	32.8
250.	35.8	40.1	24.8
350.	34.6	39.9	21.9
400.	34.9	38.5	20.8
500.	34.5	35.8	18.8

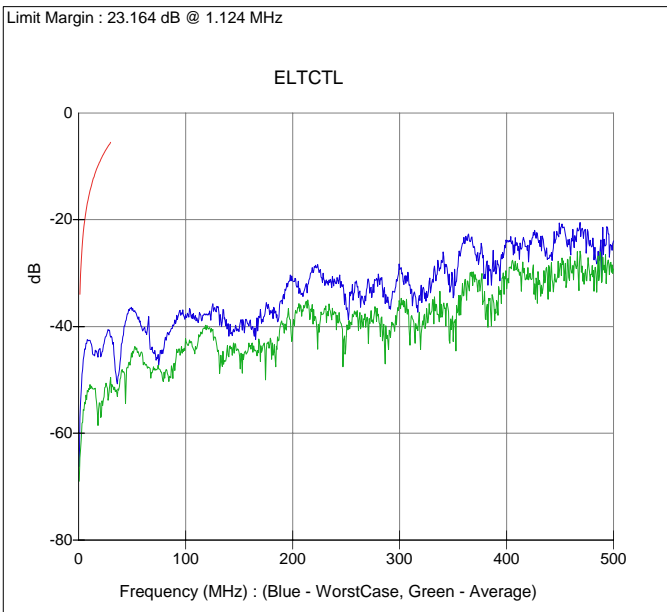


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TCL			
Freq	Worst Case	Average	Spec
1.	63.8	68.0	40.0
4.	61.9	63.8	40.0
8.	57.9	65.7	40.0
10.	62.8	66.2	40.0
16.	63.0	69.7	38.0
20.	58.0	61.2	37.0
25.	55.9	62.1	36.0
31.25	54.1	61.4	35.1
62.5	51.5	55.4	32.0
100.	46.4	50.1	30.0
250.	42.4	46.7	26.0
350.	39.6	41.7	
400.	39.6	43.3	
500.	38.4	40.0	



ELTCTL			
Freq	Worst Case	Average	Spec
1.	59.0	65.5	34.7
4.	46.9	56.5	23.0
8.	42.5	52.0	16.9
10.	42.6	51.6	15.0
16.	44.7	53.0	10.9
20.	44.5	55.0	9.0
25.	41.9	51.2	7.0
31.25	42.4	51.0	
62.5	41.1	47.2	
100.	38.0	42.5	
250.	36.0	42.9	
350.	33.8	41.7	
400.	24.2	32.4	
500.	24.0	29.2	