DCM Test Report

Cable Type	: 4x2x24 x PE/LSZH	Factory Number	: PHOENIX	Data File Name	: DA187931.D3S
Cable I.D.	: U/UTP#24X4P CABLE	Order Number	: 1173 WH-27 260128349	Specification File	: CAT5e-305M.S3S
Temperature	: 25.00 °C	Relative Humidity	: 50 %	Test Date/Time	: 01/22/2026 03:07:13 AM
Length	: 305.00 m	Number of Pairs to Test	: 4	Operator	: L 260121WE604004/2
Starting Position	: 1			Analyzer Type	: ENA

Pass - Fail Test Certificate - 4 Pairs

High Frequency

Test Type	Test Result
Input Impedance (Zin)(Ohms)(Terminated)	**OK**
Return Loss (RL)(dB)	**OK**
Insertion Loss (IL)(Curve Fit)(dB/100.0 m)@20C	**OK**
Near End Crosstalk Loss (NEXT)(dB)	**OK**
Power Sum NEXT(PSNEXT)(dB)	**OK**

Low Frequency

Test Type	Test Result
Conductor Resistance(Ohms/100.0 m)@20C	**OK**
Resistance Unbalance(%)	**OK**
Mutual Capacitance(nF/100.0 m)@1000Hz	**OK**
Cap. Unbalance to Ground(pF/100.0 m)@1000Hz	**OK**

Signature:	Approved:	Date:

DCM Test Report

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Temperature	: 25.00 °C	Relative Humidity	: 50 %	Test Date/Time	: 01/22/2026 03:07:13 AM
Length	: 305.00 m	Number of Pairs to Test	: 4	Operator	: L 260121WE604004/2
Starting Position	: 1			Analyzer Type	: ENA

Worst Case Summary

High Frequency

Test Type	Specification	Measured (Pair)	Margin	@ Frequency (MHz)	Test Result
Input Impedance (Zin)(Terminated)	85.0 (Min)	98.0 (Pair 2)	13.0	10.95	Passed
Input Impedance (Zin)(Terminated)	115.0 (Max)	112.3 (Pair 2)	2.7	98.03	Passed
Return Loss (RL)	23.3 (Min)	26.7 (Pair 4)	3.4	4.67	Passed
Insertion Loss (IL)(Curve Fit)@20C	2.04 (Max)	1.86 (Pair 1)	0.18	1.00	Passed
Near End Crosstalk Loss (NEXT)	63.2 (Min)	75.1 (Pairs 1-4)	11.9	1.38	Passed
Power Sum NEXT(PSNEXT)	60.4 (Min)	73.3 (Pair 4)	12.9	1.34	Passed
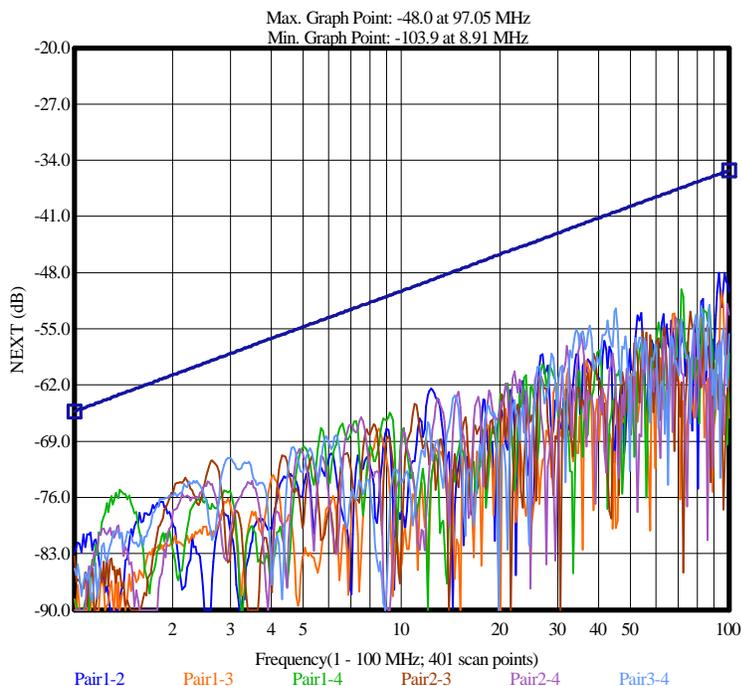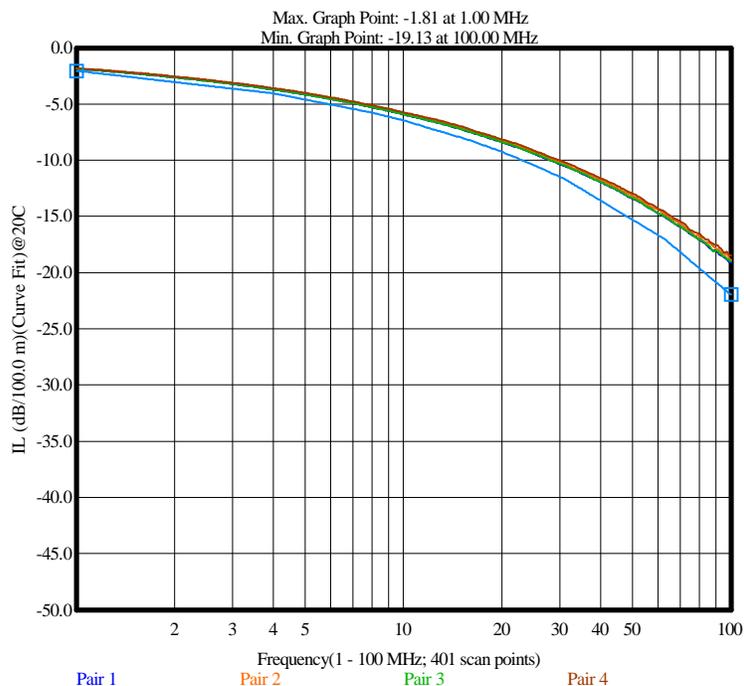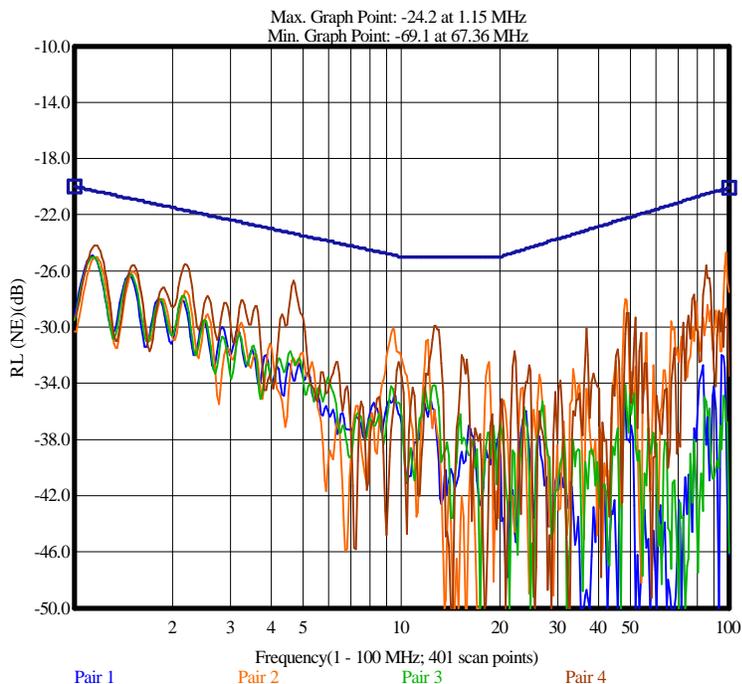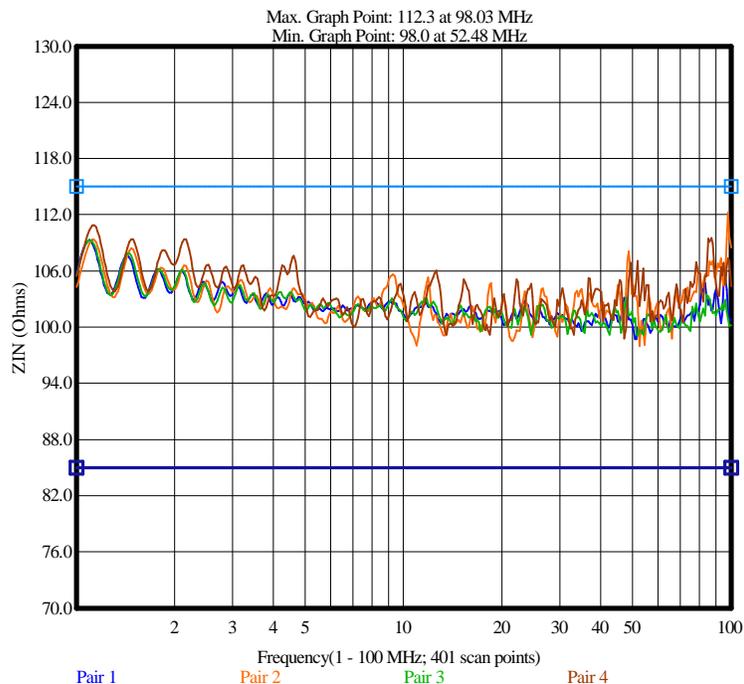
N/A = Not Applicable.
--- = Disable/Bypassed Pair.

* = Measured value out of spec.
xxx = No entry.

*** = Measured value is invalid.

Max. Graph Point: -47.3 at 93.11 MHz
Min. Graph Point: -87.4 at 3.24 MHz

PSNEXT (dB)

Frequency(1 - 100 MHz; 401 scan points)

Pair1   Pair2   Pair3   Pair4

Worst Case Summary

Low Frequency

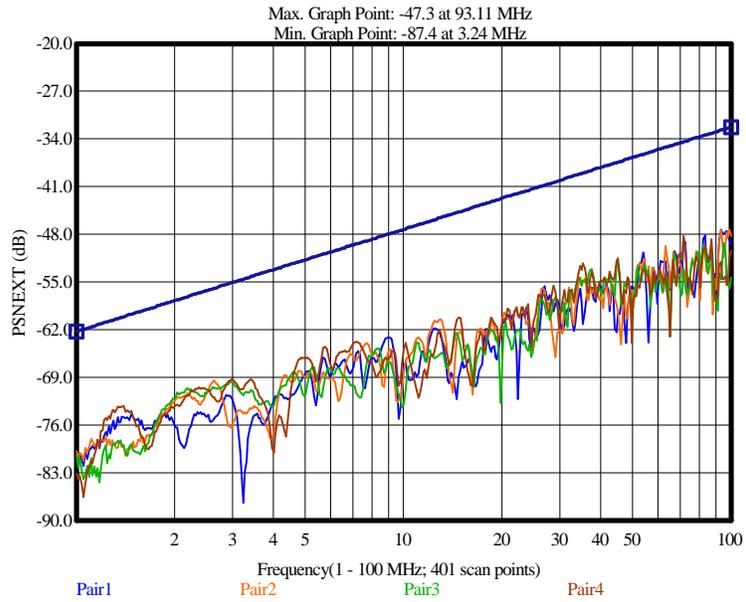| Statistical Parameter	Maximum		Minimum		Average Maximum		Standard Deviation		
Test Type	Spec Limit	Measured	Spec Limit	Measured	Spec Limit	Measured	Spec Limit	Measured	Result
Conductor Resistance(Ohms/100.0 m)@20C	9.38	8.80	xxx	8.65	xxx	8.72	xxx	0.053	Passed
Resistance Unbalance(%)	5.00	0.31	xxx	0.08	xxx	0.15	xxx	0.090	Passed
Mutual Capacitance(nF/100.0 m)@1000Hz	5.60	4.94	xxx	4.75	xxx	4.86	xxx	0.080	Passed
Cap. Unbalance to Ground(pF/100.0 m)@1000Hz	330.00	5.63	xxx	1.90	xxx	4.24	xxx	1.423	Passed

Detail: Resistance/Capacitance Measurement -Normalized

Test Types	Conductor Resistance Ra @20C	Conductor Resistance Rb @20C	Resistance Unbalance	Mutual Capacitance @1000 Hz	Capacitance Unbalance to Ground @1000 Hz	Test Result
Unit	Ohms/100.0 m	Ohms/100.0 m	%	nF/100.0 m	pF/100.0 m	
Max Spec	9.38	9.38	5.00	5.60	330.00	
Min Spec	xxx	xxx	xxx	xxx	xxx	
Pair 1 [1]	8.80	8.77	0.31	4.94	5.63	Passed
Pair 2 [2]	8.67	8.68	0.08	4.81	4.38	Passed
Pair 3 [3]	8.75	8.76	0.14	4.93	-5.06	Passed
Pair 4 [4]	8.65	8.66	0.09	4.75	1.90	Passed

N/A = Not Applicable.   * = Measured value out of spec.   *** = Measured value is invalid.
--- = Disable/Bypassed Pair.   xxx = No entry.

Summary and Graphic: Input Impedance (Zin)(Terminated)

Pair	Specification		Measured(Ohms)		Margin (Ohms)		@ Frequency (MHz)		Test Result
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	
Pair 1 [1]	85.0	115.0	98.7	109.3	13.7	5.7	50.86	1.10	Passed
Pair 2 [2]	85.0	115.0	98.0	112.3	13.0	2.7	10.95	98.03	Passed
Pair 3 [3]	85.0	115.0	99.0	109.3	14.0	5.7	51.88	1.10	Passed
Pair 4 [4]	85.0	115.0	98.8	110.9	13.8	4.1	47.28	1.12	Passed

Max. Graph Point: 109.3 at 1.10 MHz
Min. Graph Point: 98.7 at 50.86 MHz

Max. Graph Point: 112.3 at 98.03 MHz
Min. Graph Point: 98.0 at 10.95 MHz

Max. Graph Point: 109.3 at 1.10 MHz
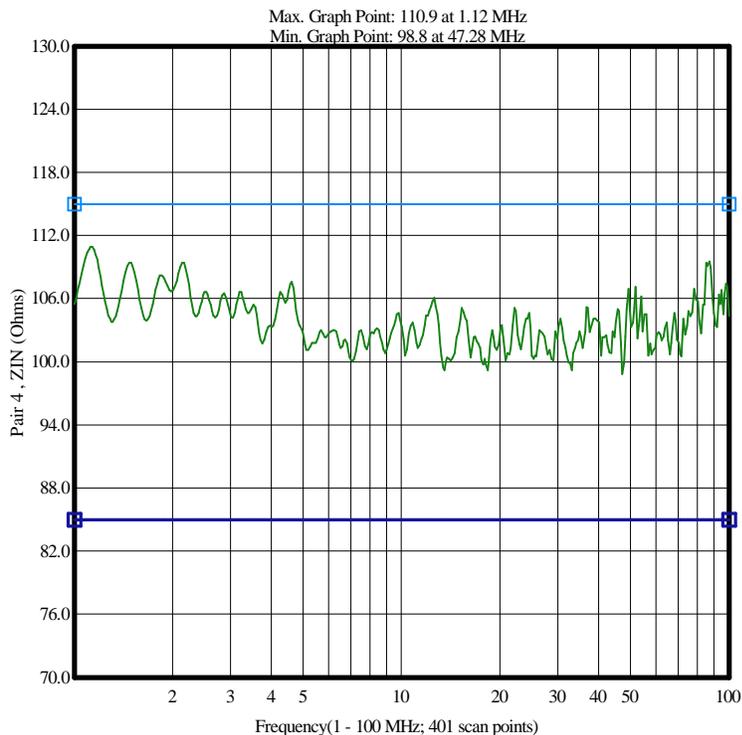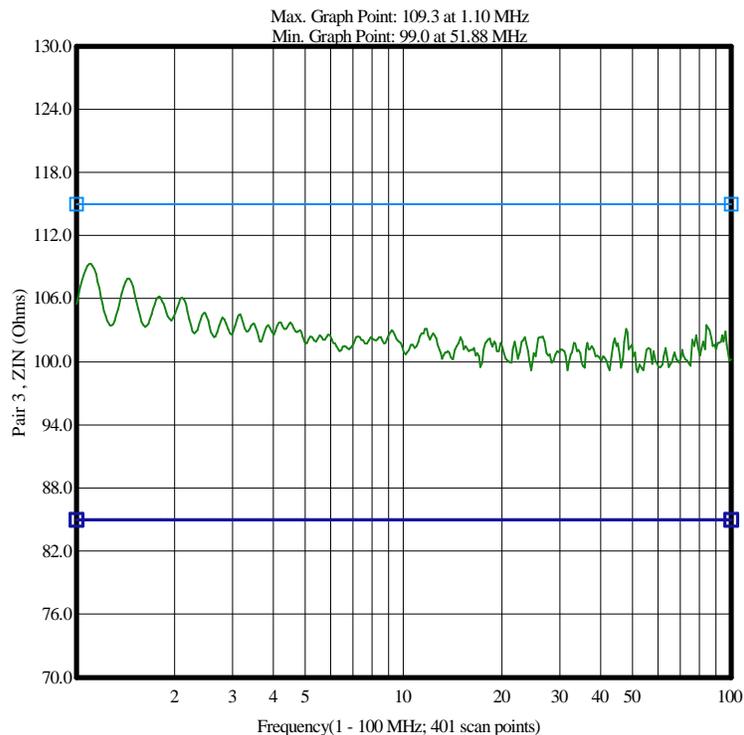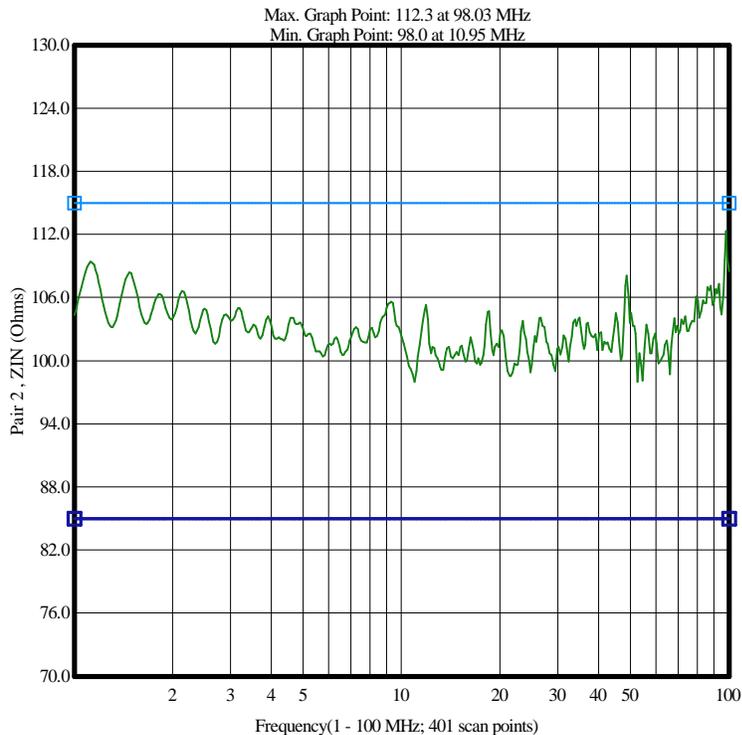Min. Graph Point: 99.0 at 51.88 MHz

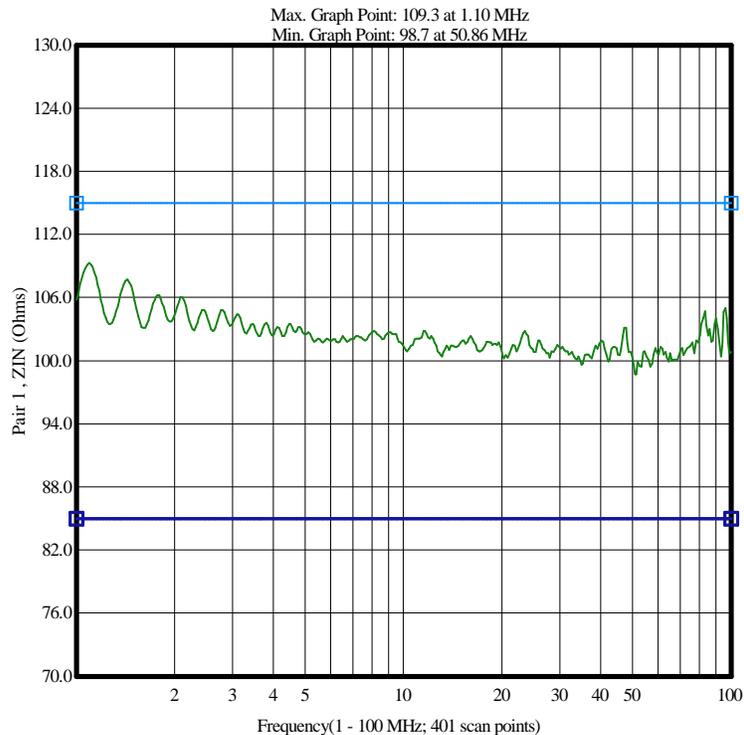Max. Graph Point: 110.9 at 1.12 MHz
Min. Graph Point: 98.8 at 47.28 MHz

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Summary and Graphic: Return Loss (RL)

Pair	Spec (Min)(dB)	Measured(dB)	Margin (dB)	@ Frequency (MHz)	Test Result
Pair 1 [1]	20.3	24.9	4.6	1.14	Passed
Pair 2 [2]	20.2	24.7	4.5	98.03	Passed
Pair 3 [3]	20.3	25.0	4.7	1.14	Passed
Pair 4 [4]	23.3	26.7	3.4	4.67	Passed

Max. Graph Point: -24.9 at 1.14 MHz
Min. Graph Point: -69.1 at 67.36 MHz

Max. Graph Point: -24.7 at 98.03 MHz
Min. Graph Point: -63.3 at 13.53 MHz

Max. Graph Point: -25.0 at 1.14 MHz
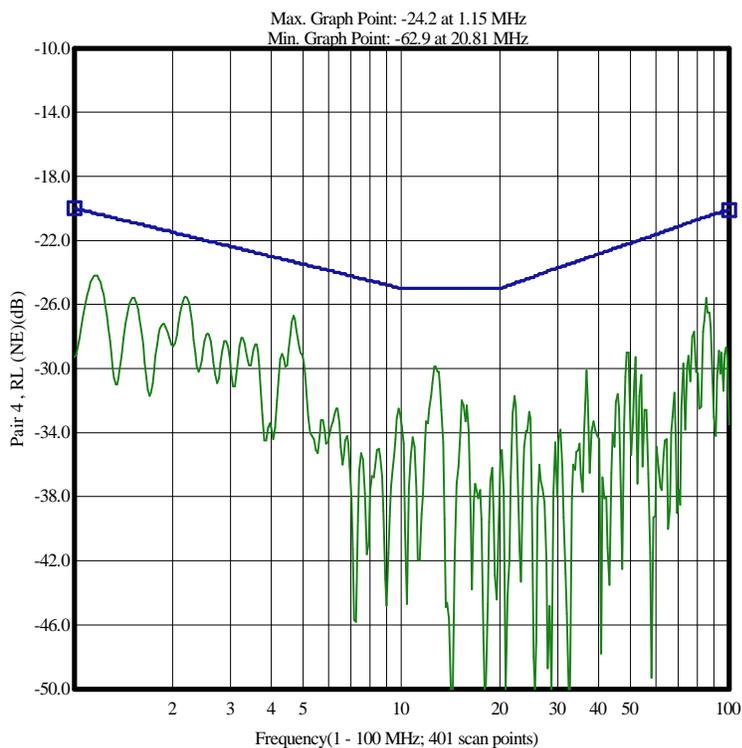Min. Graph Point: -57.4 at 24.76 MHz

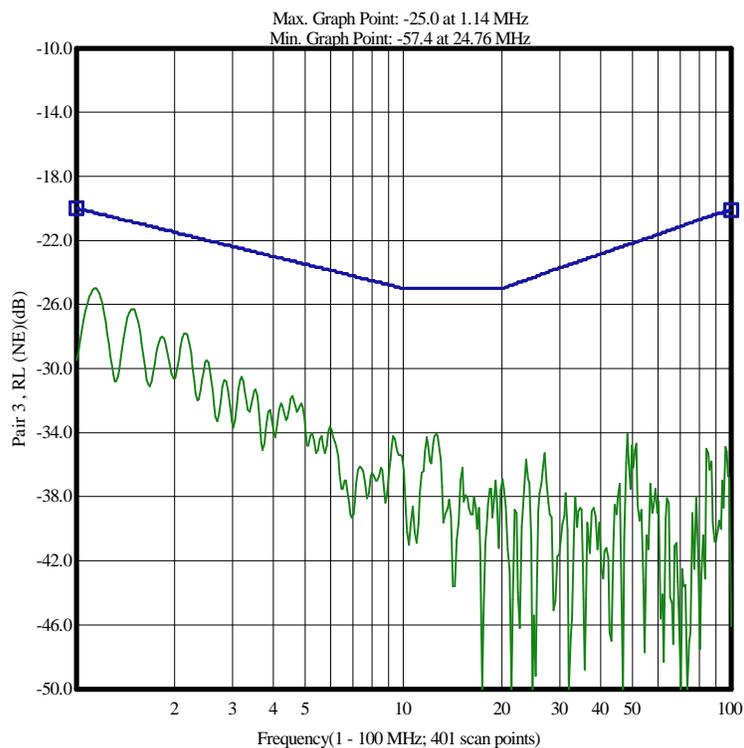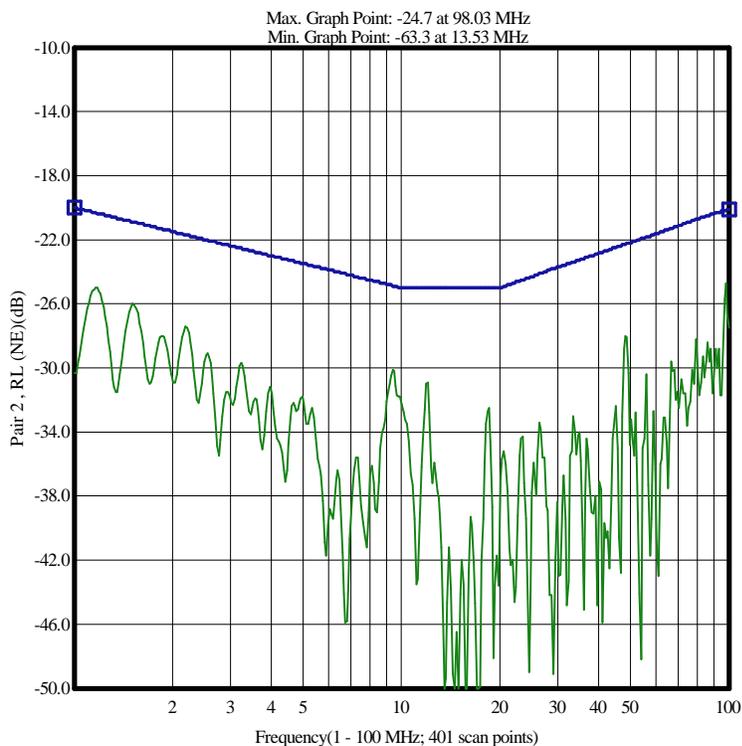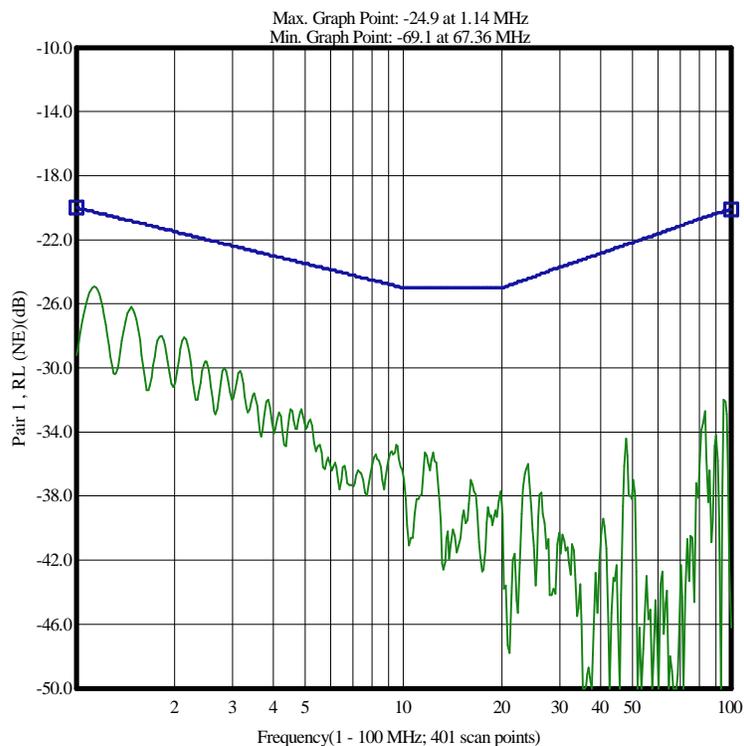Max. Graph Point: -24.2 at 1.15 MHz
Min. Graph Point: -62.9 at 20.81 MHz

N/A = Not Applicable.
--- = Disable/Bypassed Pair.

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Summary and Graphic: Insertion Loss (IL)(Curve Fit)@20C

Pair	Spec (Max)(dB/100.0 m)	Measured(dB/100.0 m)	Margin (dB/100.0 m)	@ Frequency (MHz)	Test Result
Pair 1 [1]	2.04	1.86	0.18	1.00	Passed
Pair 2 [2]	2.04	1.83	0.21	1.00	Passed
Pair 3 [3]	2.04	1.86	0.18	1.00	Passed
Pair 4 [4]	2.04	1.81	0.23	1.00	Passed

Max. Graph Point: -1.86 at 1.00 MHz
Min. Graph Point: -19.13 at 100.00 MHz

Max. Graph Point: -1.83 at 1.00 MHz
Min. Graph Point: -18.91 at 100.00 MHz

Max. Graph Point: -1.86 at 1.00 MHz
Min. Graph Point: -19.01 at 100.00 MHz
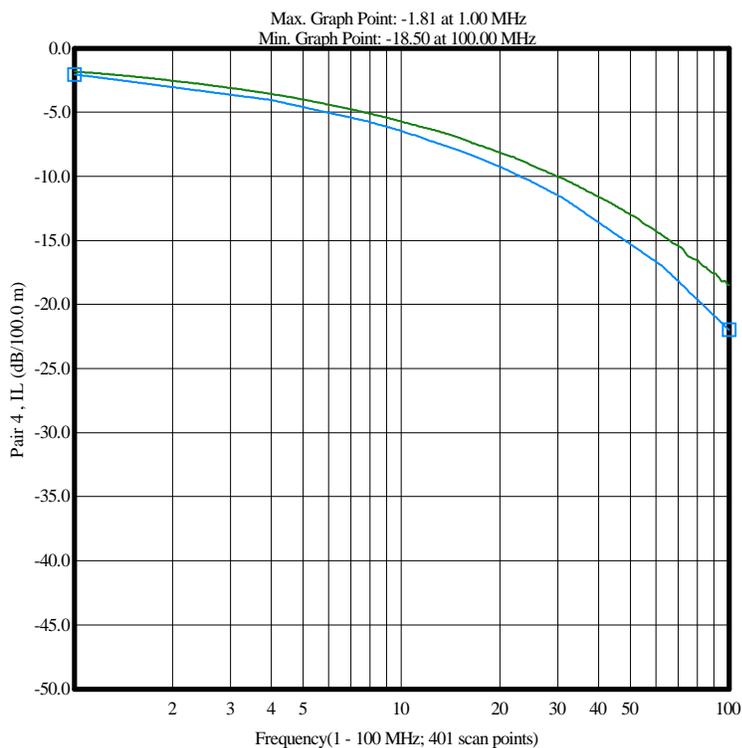
Max. Graph Point: -1.81 at 1.00 MHz
Min. Graph Point: -18.50 at 100.00 MHz
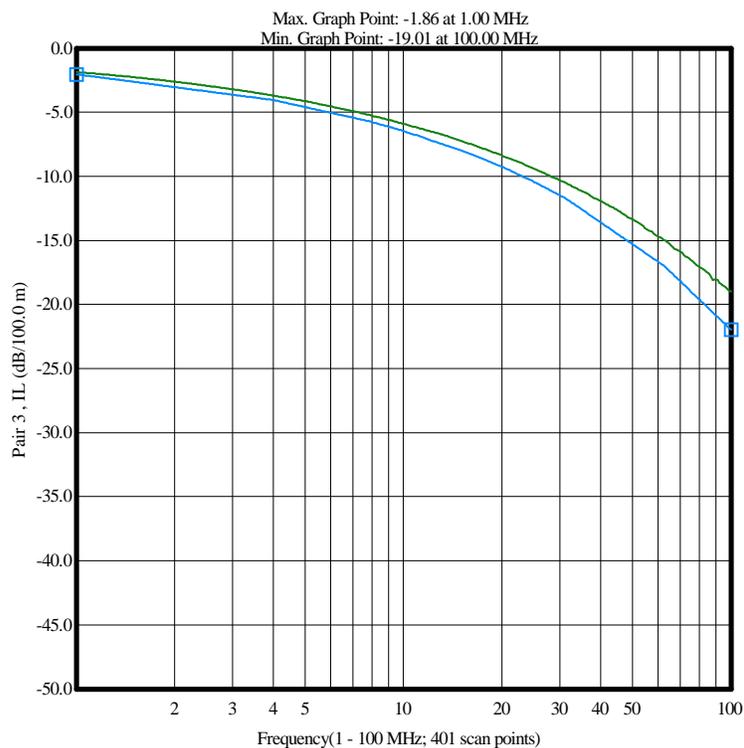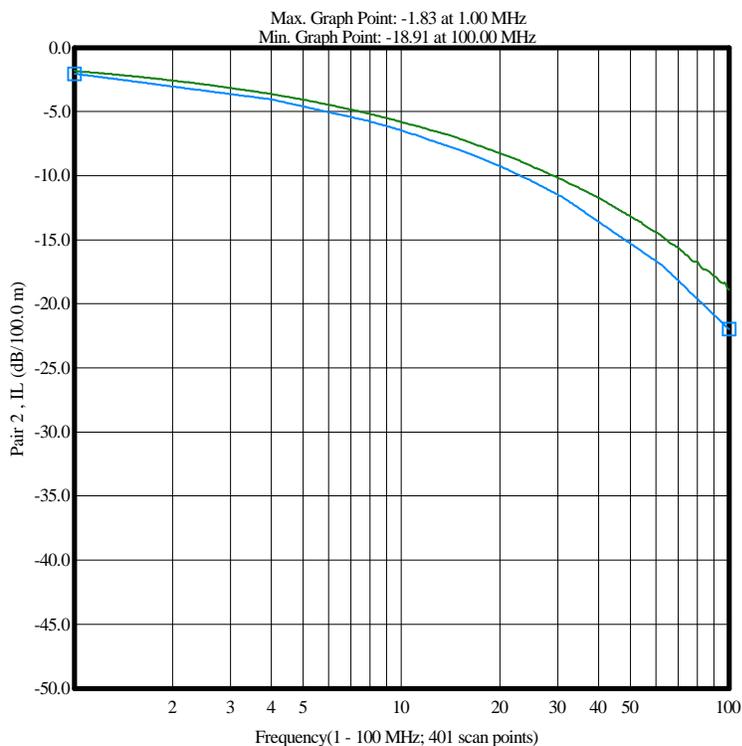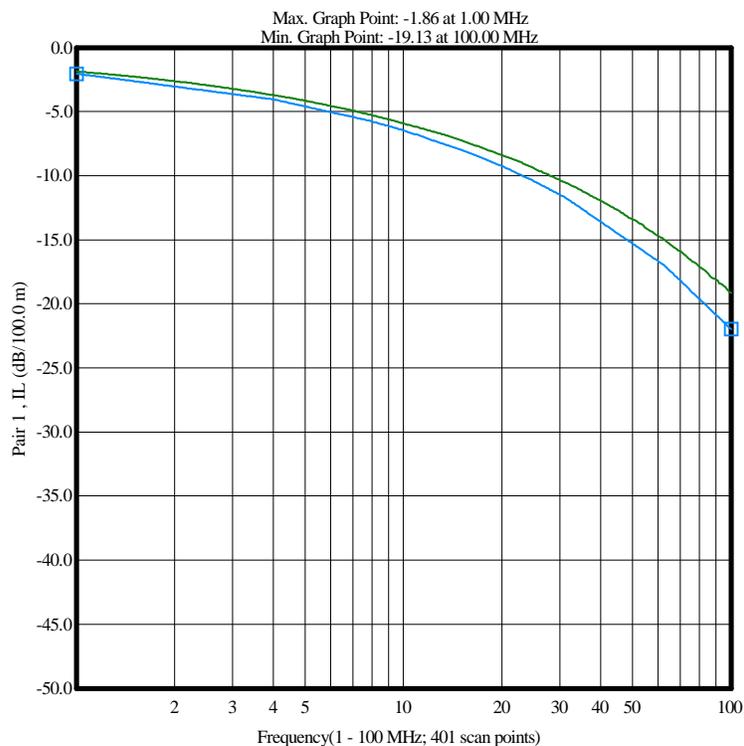
N/A = Not Applicable.
--- = Disable/Bypassed Pair.

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Summary and Graphic: Near End Crosstalk Loss (NEXT)

Pair	Spec (Min)(dB)	Measured(dB)	Margin (dB)	@ Frequency (MHz)	Test Result
Pair 1 - 2	35.7	48.0	12.3	93.11	Passed
Pair 1 - 3	35.6	50.4	14.8	95.08	Passed
Pair 1 - 4	63.2	75.1	11.9	1.38	Passed
Pair 2 - 3	59.0	71.5	12.5	2.61	Passed
Pair 2 - 4	42.0	55.6	13.6	35.33	Passed
Pair 3 - 4	40.4	52.5	12.1	45.24	Passed
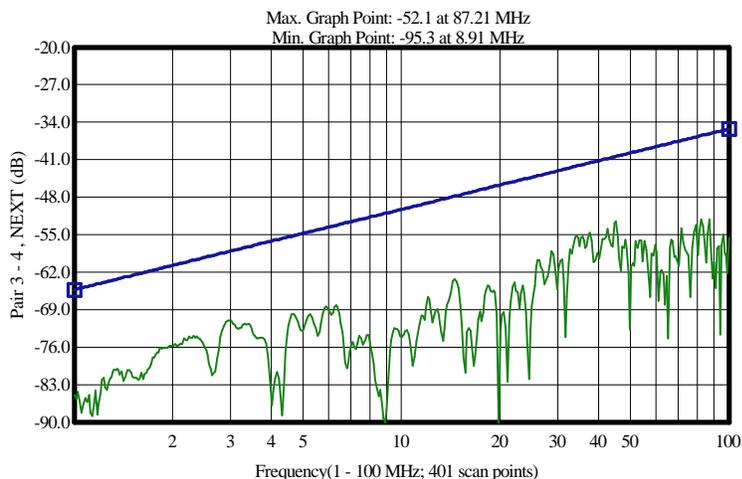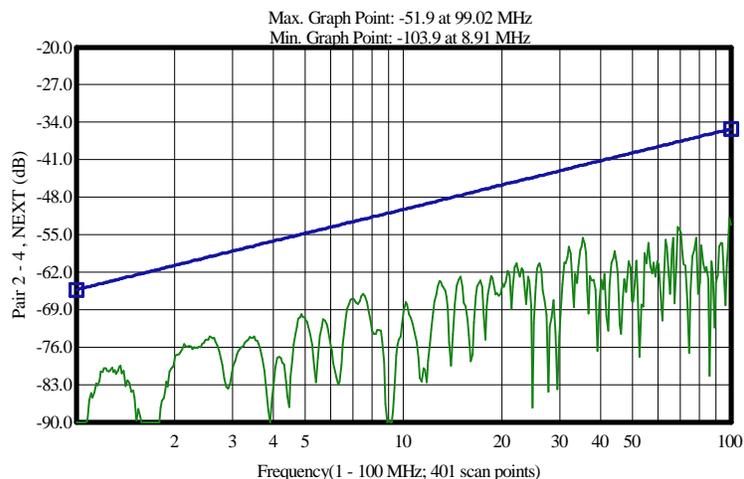
Max. Graph Point: -48.0 at 93.11 MHz
Min. Graph Point: -101.0 at 2.56 MHz

Max. Graph Point: -50.4 at 95.08 MHz
Min. Graph Point: -97.3 at 15.10 MHz

Max. Graph Point: -50.1 at 71.61 MHz
Min. Graph Point: -100.1 at 3.24 MHz

Max. Graph Point: -52.8 at 76.38 MHz
Min. Graph Point: -97.9 at 21.60 MHz

Max. Graph Point: -51.9 at 99.02 MHz
Min. Graph Point: -103.9 at 8.91 MHz

Max. Graph Point: -52.1 at 87.21 MHz
Min. Graph Point: -95.3 at 8.91 MHz

N/A = Not Applicable.
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Summary and Graphic: Power Sum NEXT(PSNEXT)

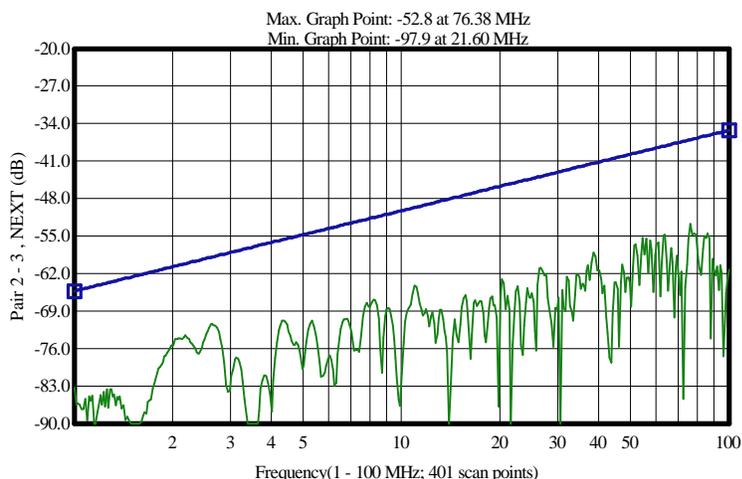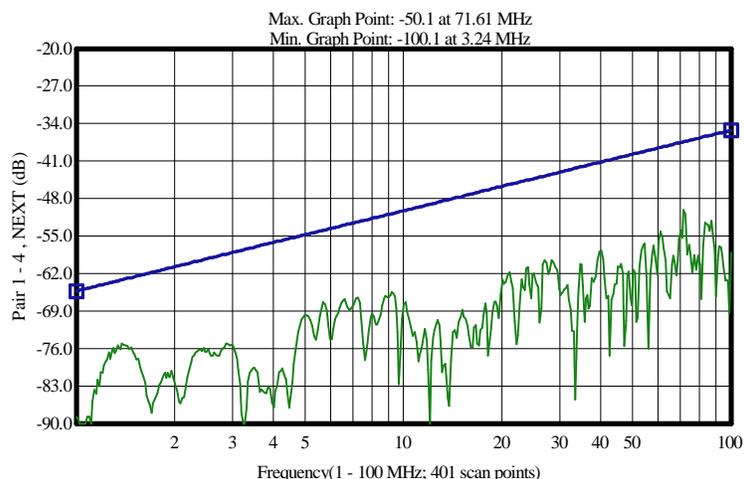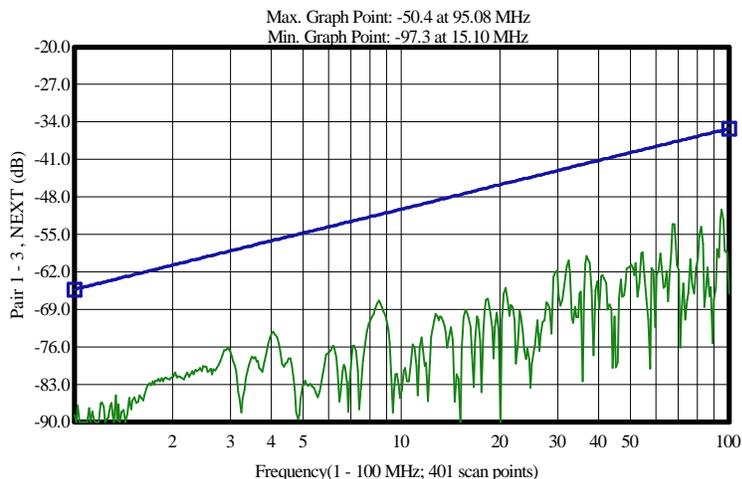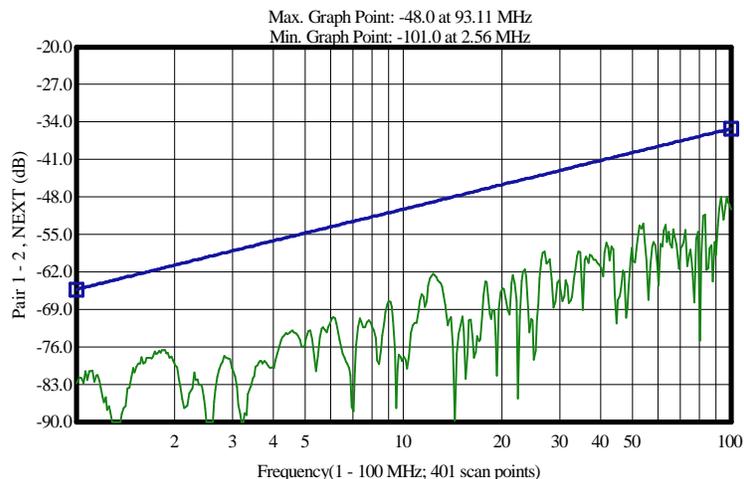| Pair	Spec (Min)(dB)	Measured(dB)	Margin (dB)	@ Frequency (MHz)	Test Result
Pair 1 [1]	36.3	50.7	14.4	53.90	Passed
Pair 2 [2]	55.9	69.5	13.6	2.63	Passed
Pair 3 [3]	57.2	70.6	13.4	2.19	Passed
Pair 4 [4]	60.4	73.3	12.9	1.34	Passed

Max. Graph Point: -47.3 at 93.11 MHz
Min. Graph Point: -87.4 at 3.24 MHz

Max. Graph Point: -47.3 at 99.02 MHz
Min. Graph Point: -81.3 at 1.05 MHz

Max. Graph Point: -49.3 at 95.08 MHz
Min. Graph Point: -84.4 at 1.18 MHz
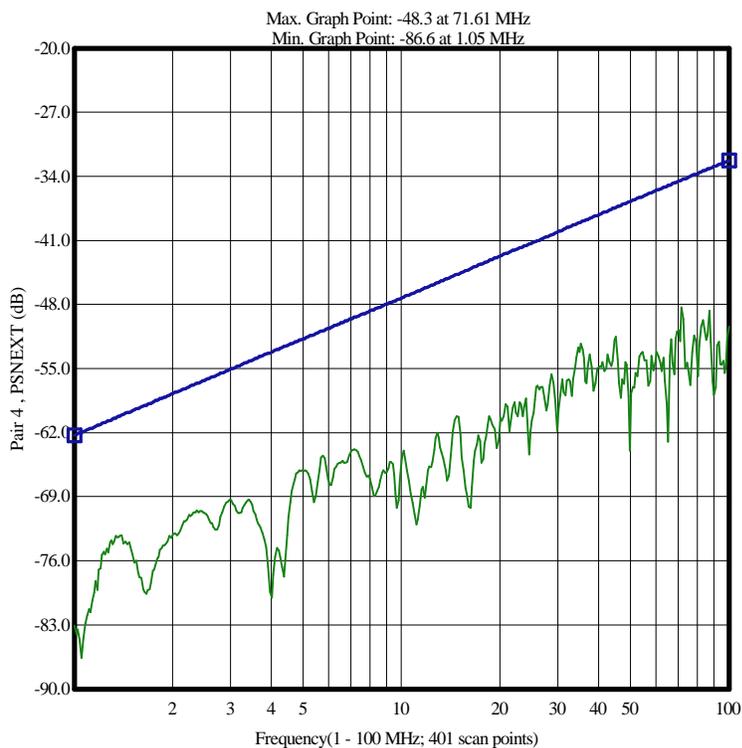
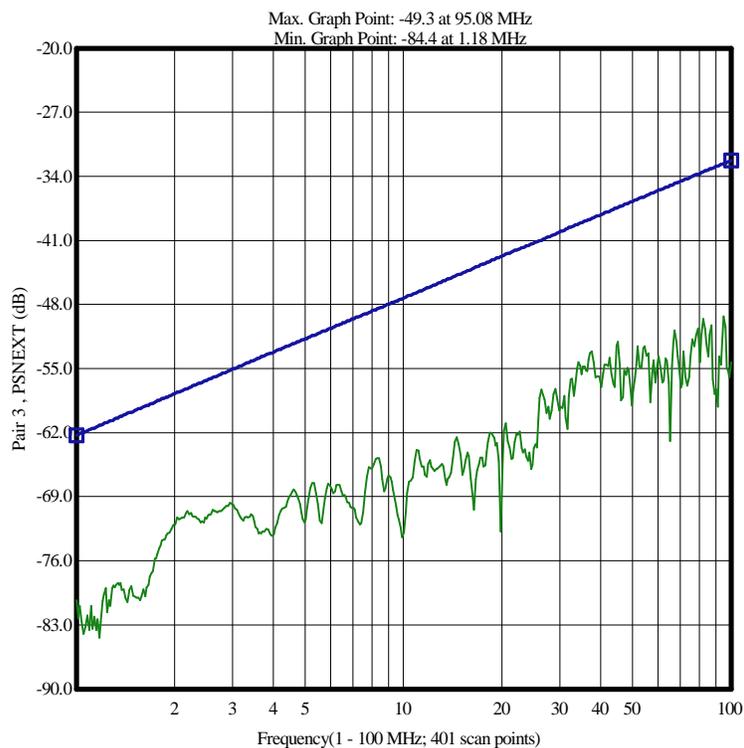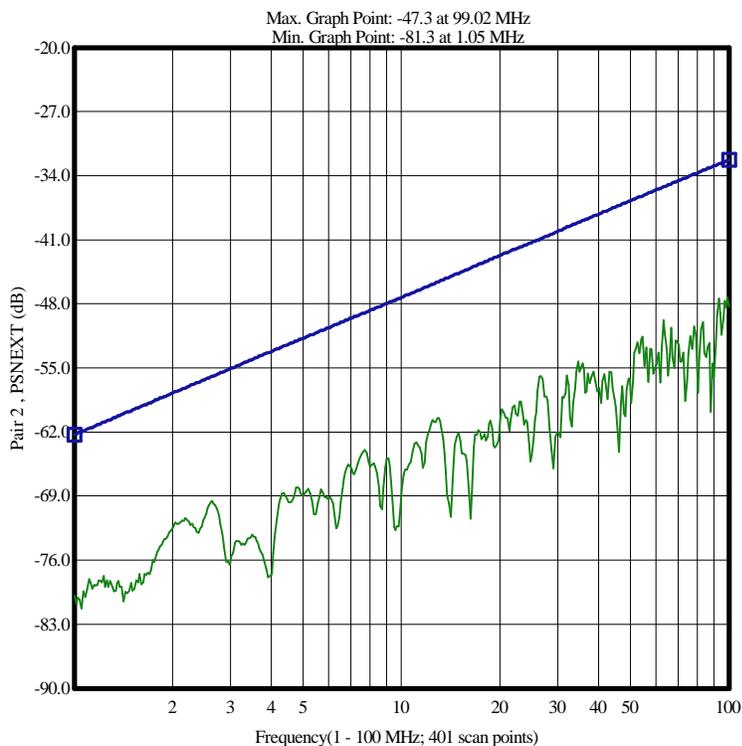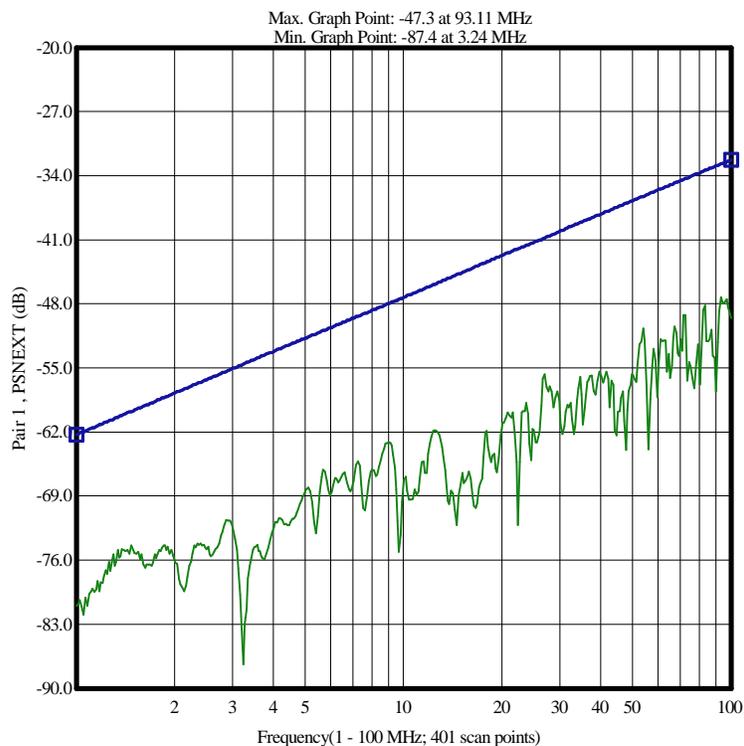Max. Graph Point: -48.3 at 71.61 MHz
Min. Graph Point: -86.6 at 1.05 MHz

N/A = Not Applicable.
--- = Disable/Bypassed Pair.

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Detail Discrete Frequencies ---Return Loss (RL)(dB)

Frequency	1.00	4.00	10.00	16.00	20.00	25.00	30.00	31.25	62.50	80.00
Min Spec	20.0	23.0	25.0	25.0	25.0	24.3	23.7	23.6	21.5	20.7
Pair 1 [1]	29.2	33.9	36.9	37.4	39.1	41.0	40.9	41.3	46.3	36.3
Pair 2 [2]	30.3	31.5	32.3	45.6	37.6	38.5	40.4	37.0	35.3	29.7
Pair 3 [3]	29.5	33.9	36.4	39.0	37.0	46.7	41.3	38.0	47.1	45.5
Pair 4 [4]	29.3	33.8	33.6	33.5	35.9	37.4	36.5	38.8	37.3	30.3

Continue:Return Loss (RL)(dB)

Frequency	100.00									
Min Spec	20.1									
Pair 1 [1]	46.2									
Pair 2 [2]	27.5									
Pair 3 [3]	46.1									
Pair 4 [4]	33.5									

Detail Discrete Frequencies ---Insertion Loss (IL)(dB/100.0 m)(Curve Fit)@20C

Frequency	1.00	4.00	8.00	10.00	16.00	20.00	25.00	31.25	62.50	100.00
Max Spec	2.04	4.05	5.76	6.46	8.24	9.26	10.42	11.72	16.99	21.97
Pair 1 [1]	1.86	3.72	5.29	5.93	7.50	8.42	9.43	10.55	14.99	19.13
Pair 2 [2]	1.83	3.64	5.19	5.82	7.36	8.26	9.27	10.35	14.76	18.91
Pair 3 [3]	1.86	3.70	5.27	5.91	7.48	8.39	9.40	10.51	14.97	19.01
Pair 4 [4]	1.81	3.58	5.11	5.74	7.28	8.16	9.13	10.21	14.56	18.50

Detail Discrete Frequencies ---Near End Crosstalk Loss (NEXT)(dB)

Frequency	1.00	4.00	10.00	16.00	20.00	25.00	30.00	31.25	62.50	80.00
Min Spec	65.3	56.2	50.3	47.2	45.7	44.3	43.1	42.8	38.3	36.7
Pair 1 - 2	82.8	79.9	77.8	70.9	65.2	77.6	64.4	64.0	54.2	68.3
Pair 1 - 3	88.7	73.6	84.1	70.4	88.9	79.7	63.8	65.7	61.8	60.0
Pair 1 - 4	88.8	86.8	67.7	75.1	63.4	62.1	65.4	64.9	57.7	59.8
Pair 2 - 3	83.3	87.0	80.7	71.0	68.3	65.8	67.7	67.9	59.7	57.6
Pair 2 - 4	94.5	83.1	69.0	77.3	64.3	73.2	72.2	60.4	62.9	64.6
Pair 3 - 4	84.9	85.7	74.1	72.7	74.7	68.7	63.5	62.7	61.7	57.0

Continue:Near End Crosstalk Loss (NEXT)(dB)

Frequency	100.00									
Min Spec	35.3									
Pair 1 - 2	50.4									
Pair 1 - 3	66.1									
Pair 1 - 4	58.1									
Pair 2 - 3	61.3									
Pair 2 - 4	53.2									
Pair 3 - 4	55.6									

Detail Discrete Frequencies ---Power Sum NEXT(PSNEXT)(dB)

Frequency	1.00	4.00	10.00	16.00	20.00	25.00	30.00	31.25	62.50	80.00
Min Spec	62.3	53.2	47.3	44.2	42.7	41.3	40.1	39.8	35.3	33.7
Pair 1 [1]	81.0	72.5	67.2	66.9	61.1	61.8	59.7	60.0	52.0	55.4
Pair 2 [2]	79.9	77.5	68.2	67.3	60.5	64.6	62.1	58.3	52.6	55.7
Pair 3 [3]	80.3	73.1	72.9	66.4	66.2	63.9	59.4	60.1	56.0	53.1
Pair 4 [4]	83.1	79.9	64.8	69.7	60.6	60.8	60.8	57.4	55.1	54.6

Continue:Power Sum NEXT(PSNEXT)(dB)

Frequency	100.00									
Min Spec	32.3									
Pair 1 [1]	49.6									
Pair 2 [2]	48.3									
Pair 3 [3]	54.3									
Pair 4 [4]	50.4									

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--- = Disable/Bypassed Pair.   xxx = No entry.