

DCM Test Report

| | | |
|--------------------------------|---------------------------------------|---|
| Cable Type : 4x2x24 x PE/PVC | Factory Number : PHOENIX | Data File Name : DA112922.D3S |
| Cable I.D. : U/UTP#24X4P CABLE | Order Number : 10190 GY-265 221139952 | Specification File : CAT5epc-305M.S3S |
| Temperature : 25.00 °C | Relative Humidity : 50 % | Test Date/Time : 11/21/2022 10:45:27 AM |
| Length : 305.00 m | Number of Pairs to Test : 4 | Operator : M 221119WE301001/3 |
| Starting Position : 17 | | 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/328.1 ft)@20C | OK |
| Near End Crosstalk Loss (NEXT)(dB) | OK |
| Power Sum NEXT(PSNEXT)(dB) | OK |

| | | |
|------------|-----------|-------|
| Signature: | Approved: | Date: |
|------------|-----------|-------|

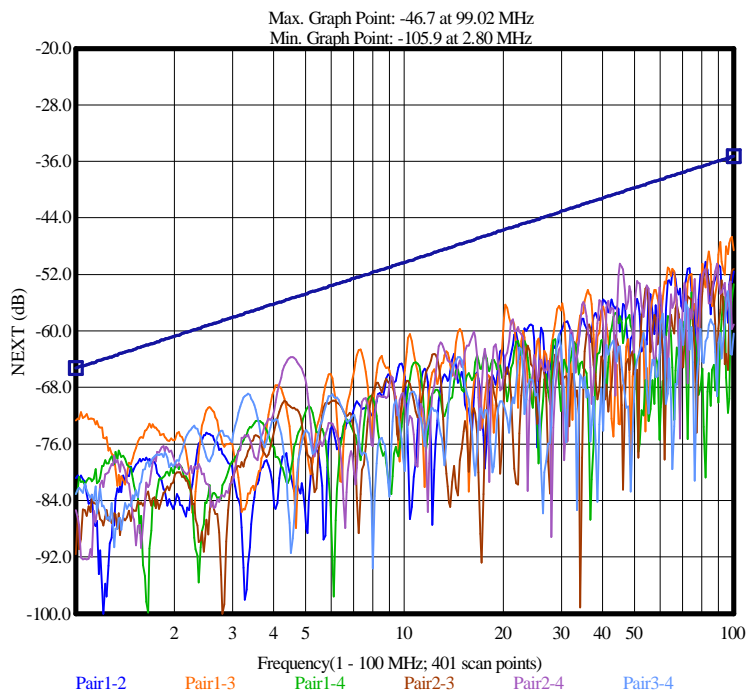
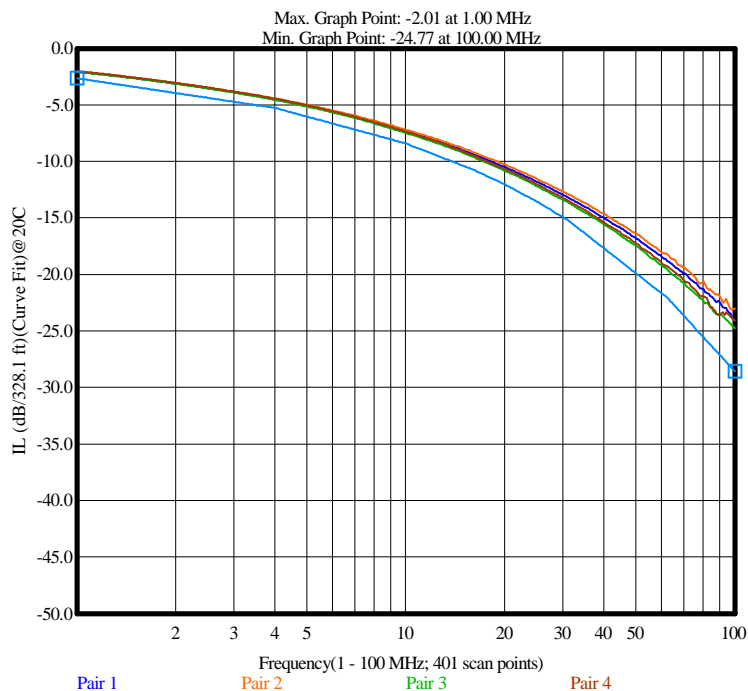
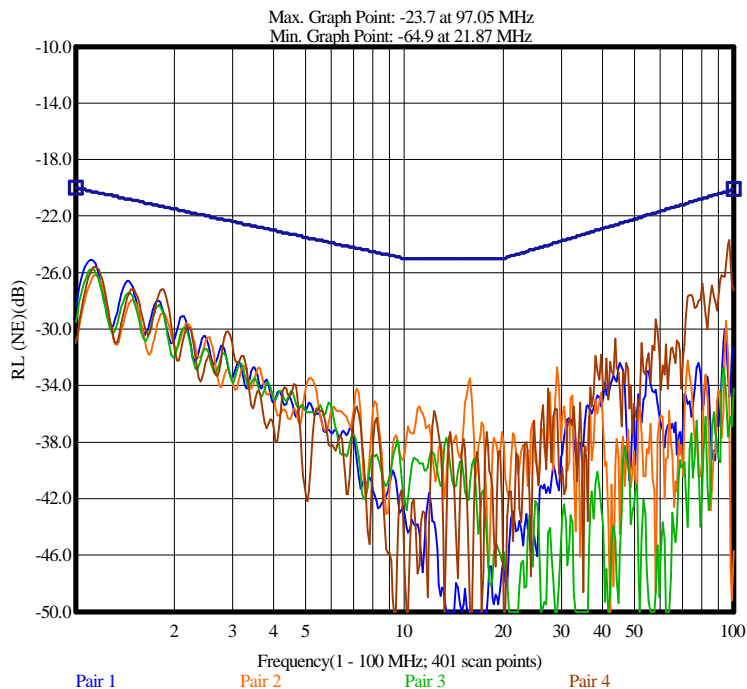
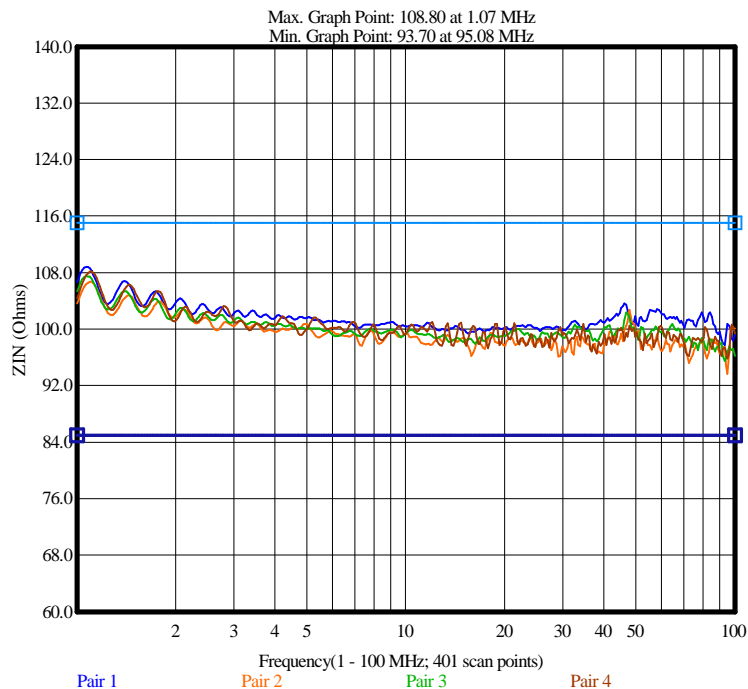
DCM Test Report

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| Cable Type : 4x2x24 x PE/PVC | Factory Number : PHOENIX | Data File Name : DA112922.D3S |
| Cable I.D. : U/UTP#24X4P CABLE | Order Number : 10190 GY-265 221139952 | Specification File : CAT5epc-305M.S3S |
| Temperature : 25.00 °C | Relative Humidity : 50 % | Test Date/Time : 11/21/2022 10:45:27 AM |
| Length : 305.00 m | Number of Pairs to Test : 4 | Operator : M 221119WE301001/3 |
| Starting Position : 17 | | Analyzer Type : ENA |

Worst Case Summary

High Frequency

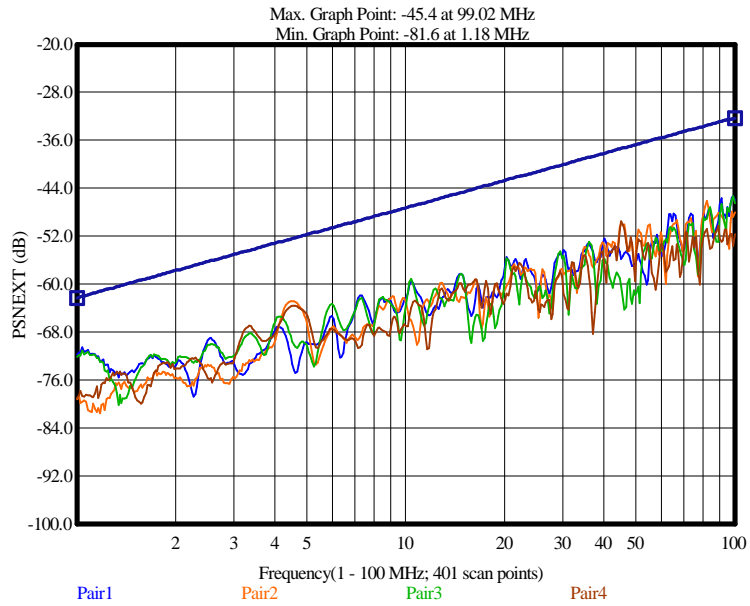
| Test Type | Specification | Measured (Pair) | Margin | @ Frequency (MHz) | Test Result |
|------------------------------------|---------------|------------------|--------|-------------------|-------------|
| Input Impedance (Zin)(Terminated) | 85.00 (Min) | 93.70 (Pair 2) | 8.70 | 95.08 | Passed |
| Input Impedance (Zin)(Terminated) | 115.00 (Max) | 108.80 (Pair 1) | 6.20 | 1.07 | Passed |
| Return Loss (RL) | 20.2 (Min) | 23.7 (Pair 4) | 3.5 | 97.05 | Passed |
| Insertion Loss (IL)(Curve Fit)@20C | 2.65 (Max) | 2.06 (Pair 1) | 0.59 | 1.00 | Passed |
| Near End Crosstalk Loss (NEXT) | 65.0 (Min) | 71.5 (Pairs 1-3) | 6.5 | 1.04 | Passed |
| Power Sum NEXT(PSNEXT) | 62.0 (Min) | 70.6 (Pair 1) | 8.6 | 1.04 | Passed |



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

* = Measured value out of spec.
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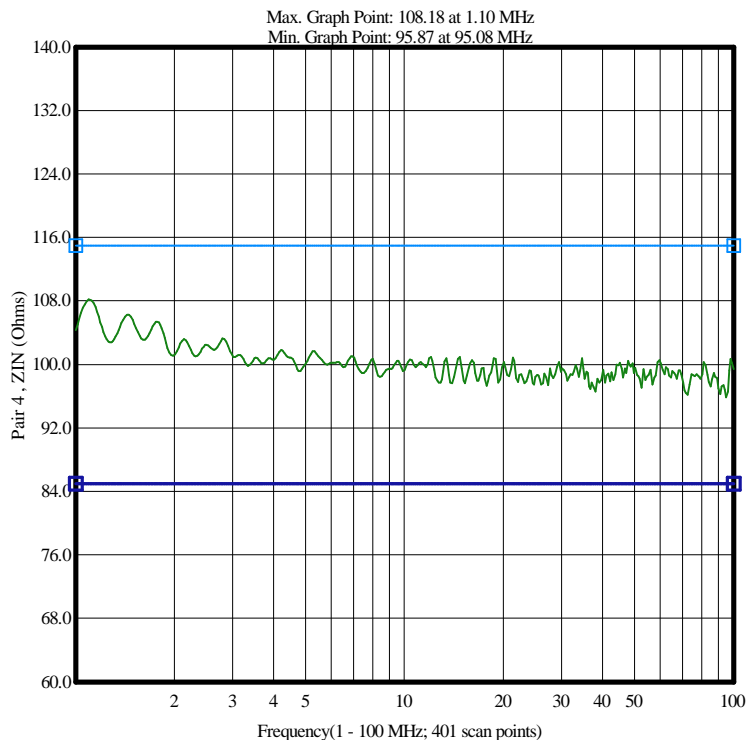
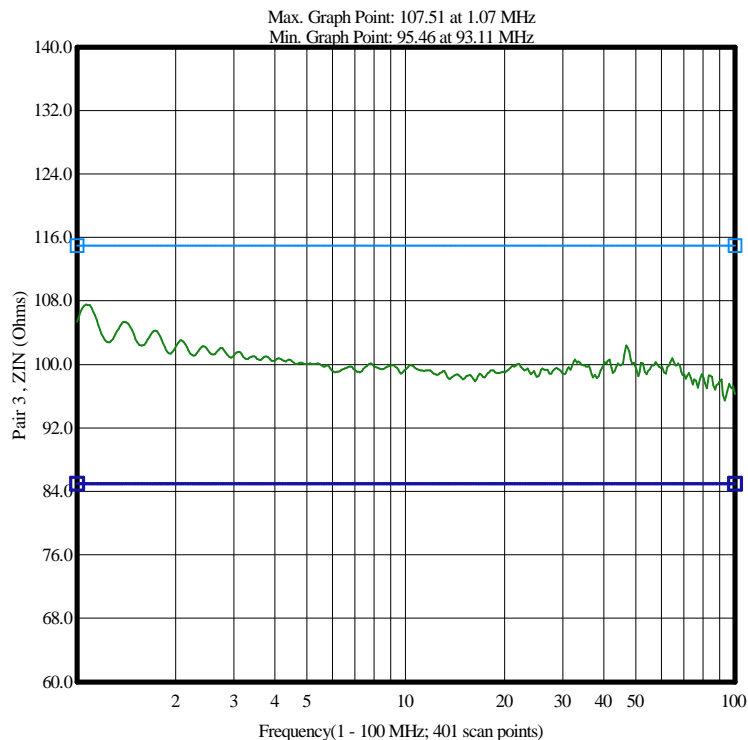
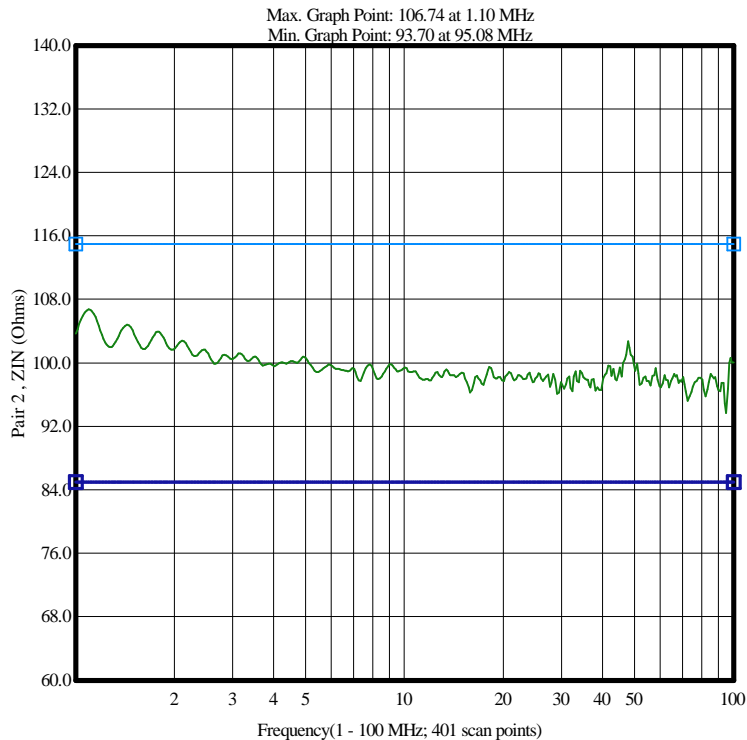
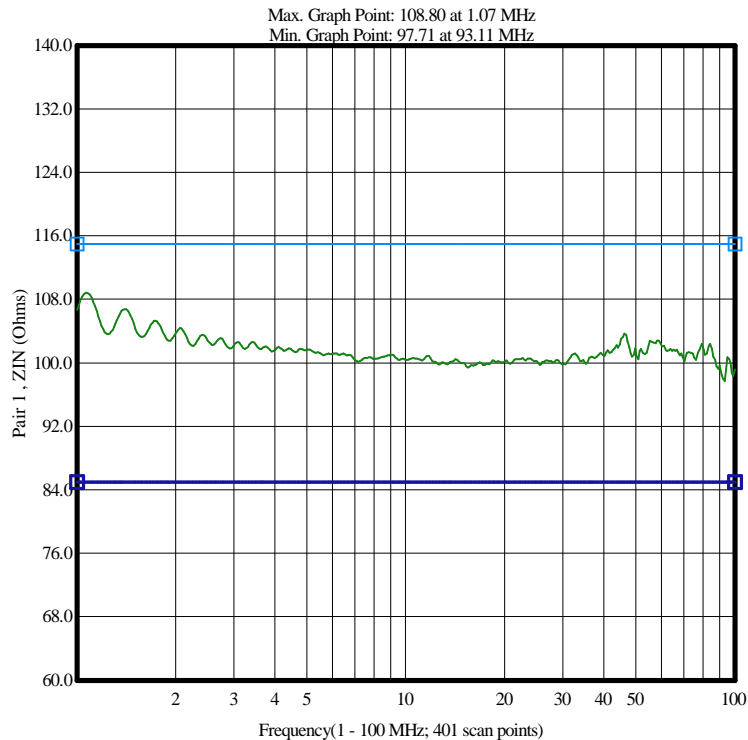
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Summary and Graphic: Input Impedance (Zin)(Terminated)

| Pair | Specification | | Measured(Ohms) | | Margin (Ohms) | | @ Frequency (MHz) | | Test Result |
|-------------|---------------|---------|----------------|---------|---------------|---------|-------------------|---------|-------------|
| | Minimum | Maximum | Minimum | Maximum | Minimum | Maximum | Minimum | Maximum | |
| Pair 1 [17] | 85.00 | 115.00 | 97.71 | 108.80 | 12.71 | 6.20 | 93.11 | 1.07 | Passed |
| Pair 2 [18] | 85.00 | 115.00 | 93.70 | 106.74 | 8.70 | 8.26 | 95.08 | 1.10 | Passed |
| Pair 3 [19] | 85.00 | 115.00 | 95.46 | 107.51 | 10.46 | 7.49 | 93.11 | 1.07 | Passed |
| Pair 4 [20] | 85.00 | 115.00 | 95.87 | 108.18 | 10.87 | 6.82 | 95.08 | 1.10 | Passed |



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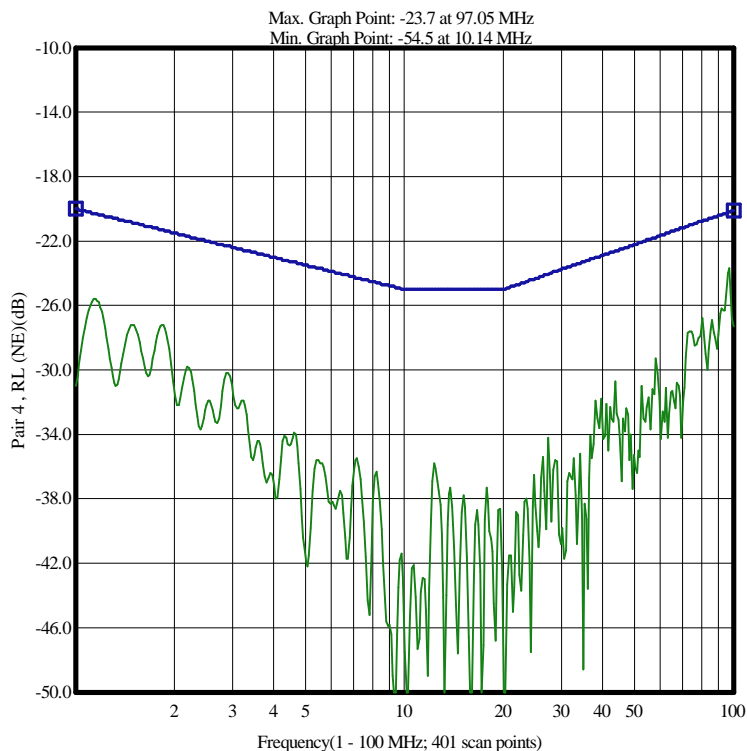
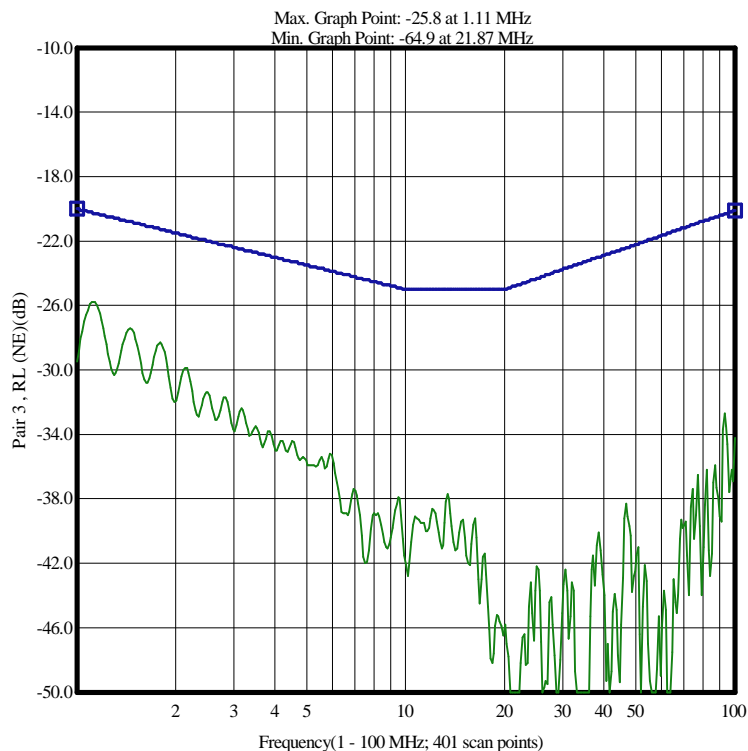
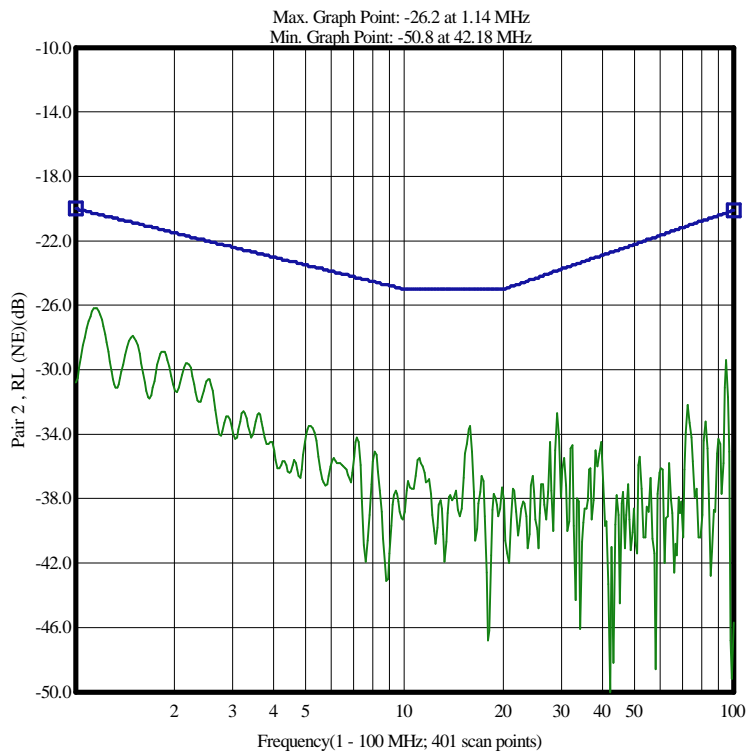
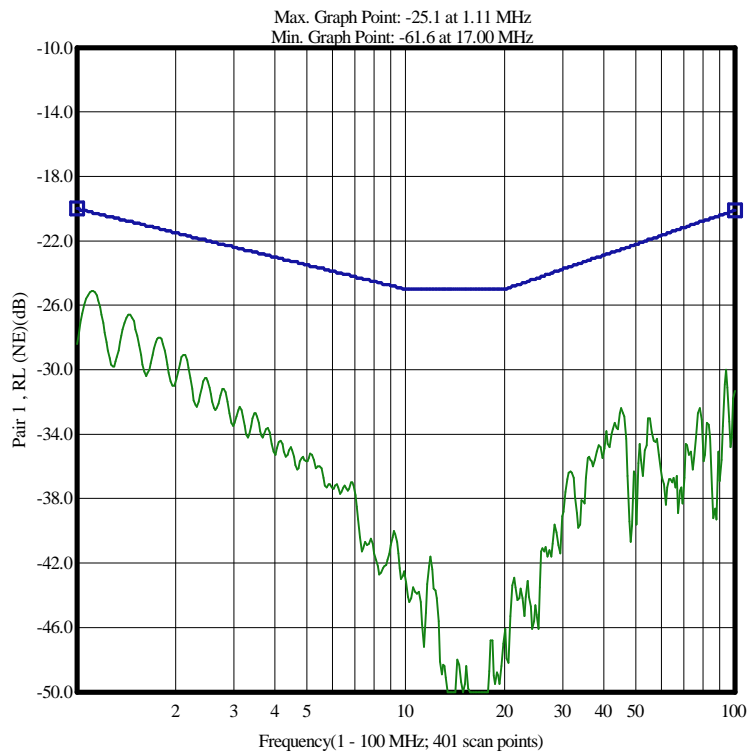
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Summary and Graphic: Return Loss (RL)

(Cat 5e): $RL \geq 20 + 5 * \log(f)$; 25 ; $25 - 7 * \log(f/20)$;

| Pair | Spec (Min)(dB) | Measured(dB) | Margin (dB) | @ Frequency (MHz) | Test Result |
|-------------|----------------|--------------|-------------|-------------------|-------------|
| Pair 1 [17] | 20.3 | 25.1 | 4.8 | 1.12 | Passed |
| Pair 2 [18] | 20.3 | 26.2 | 5.9 | 1.14 | Passed |
| Pair 3 [19] | 20.3 | 25.8 | 5.5 | 1.12 | Passed |
| Pair 4 [20] | 20.2 | 23.7 | 3.5 | 97.05 | Passed |



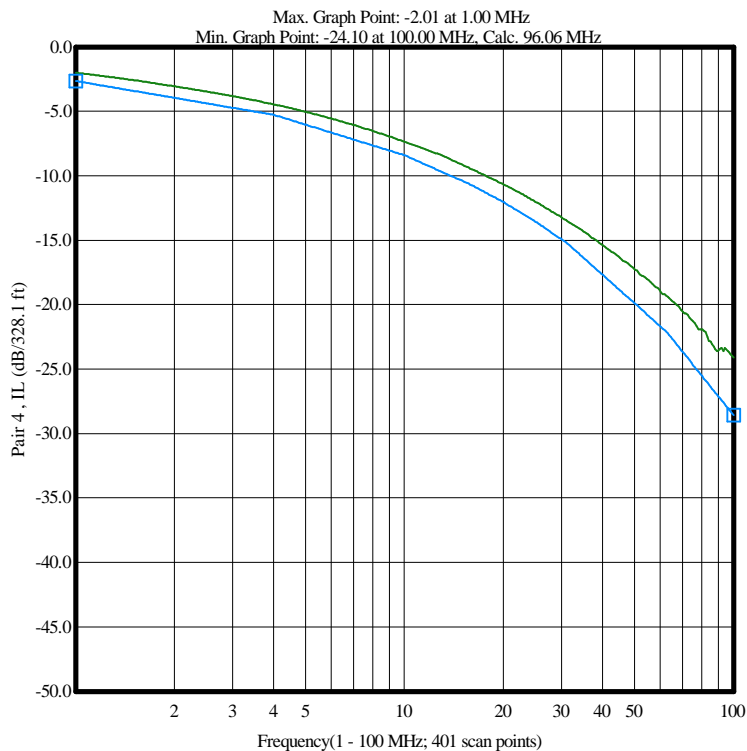
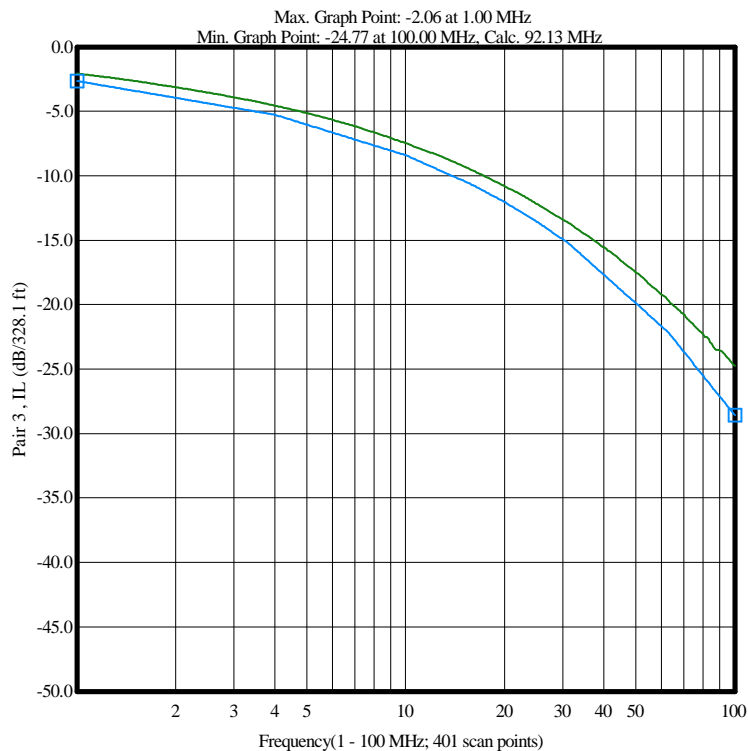
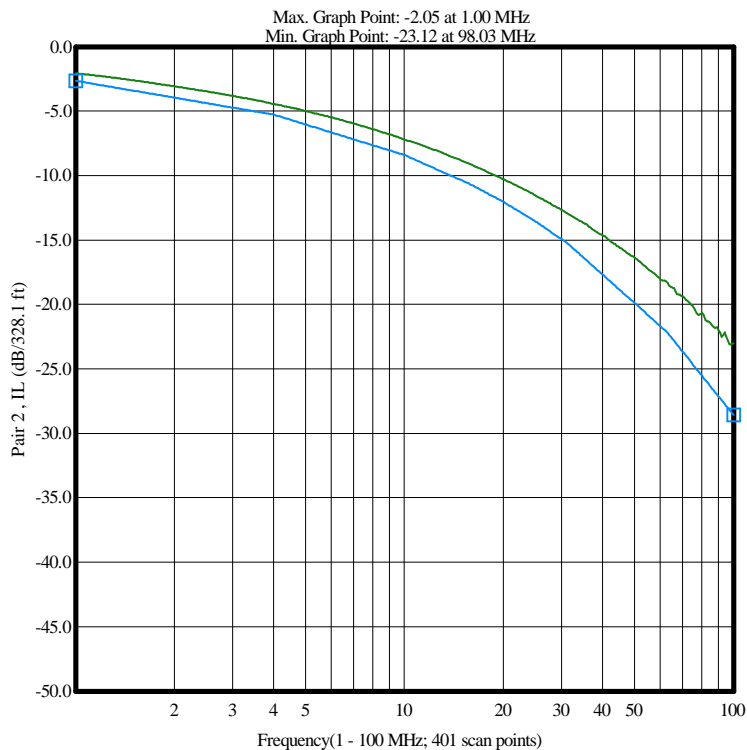
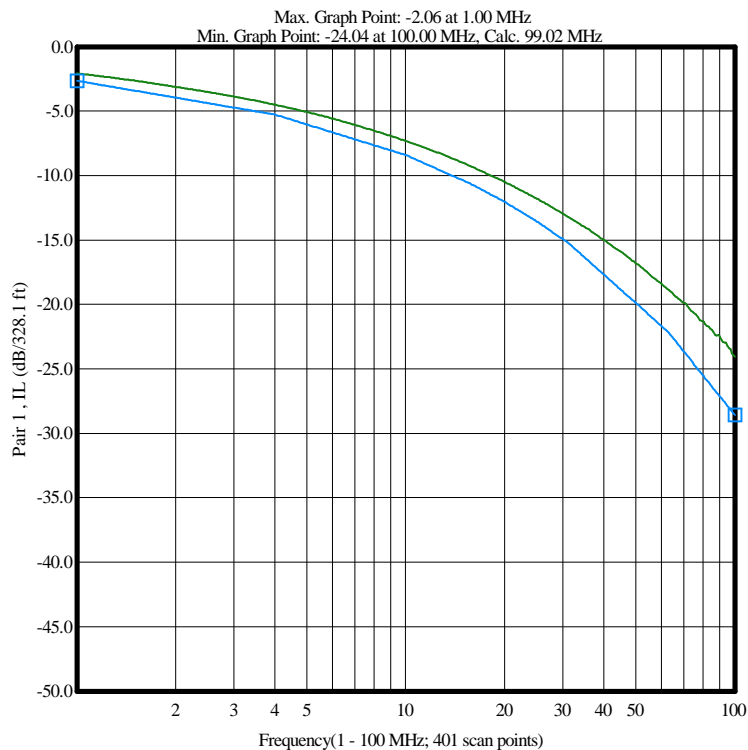
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Summary and Graphic: Insertion Loss (IL)(Curve Fit)@20C

| Pair | Spec (Max)(dB/328.1 ft) | Measured(dB/328.1 ft) | Margin (dB/328.1 ft) | @ Frequency (MHz) | Test Result |
|-------------|-------------------------|-----------------------|----------------------|-------------------|-------------|
| Pair 1 [17] | 2.65 | 2.06 | 0.59 | 1.00 | Passed |
| Pair 2 [18] | 2.65 | 2.05 | 0.60 | 1.00 | Passed |
| Pair 3 [19] | 2.65 | 2.06 | 0.59 | 1.00 | Passed |
| Pair 4 [20] | 2.65 | 2.01 | 0.64 | 1.00 | Passed |



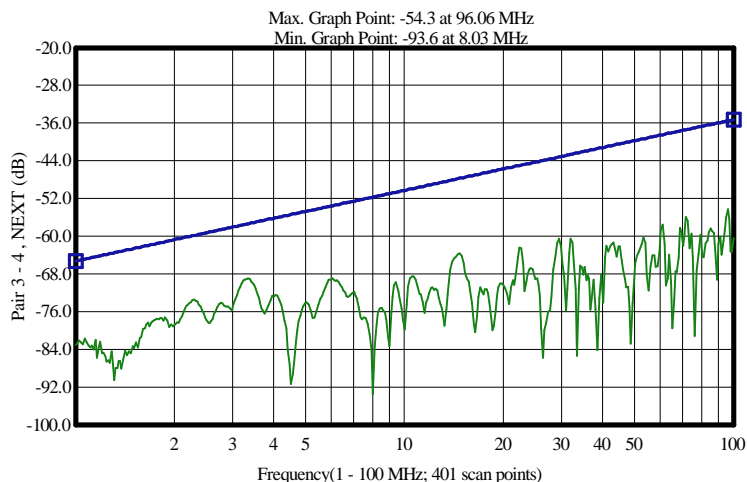
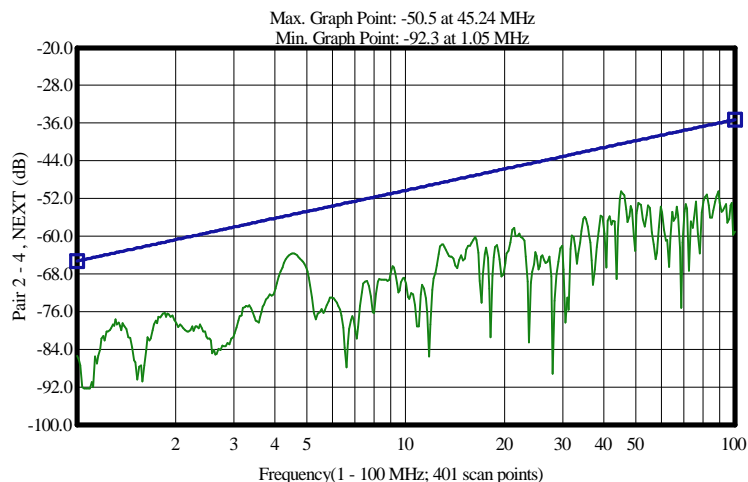
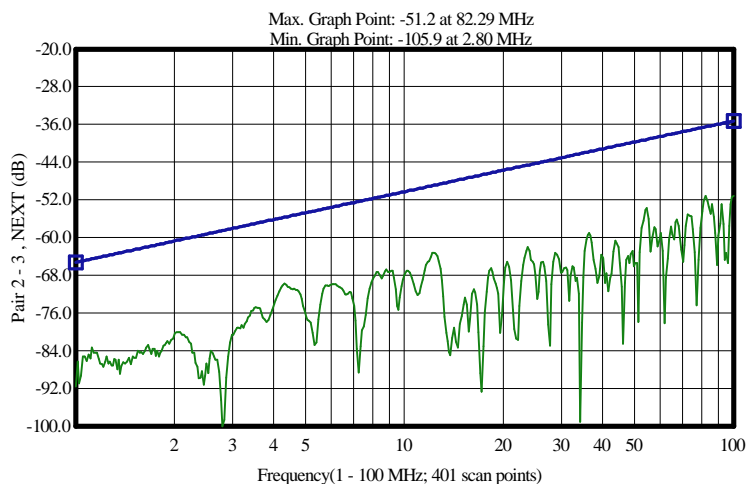
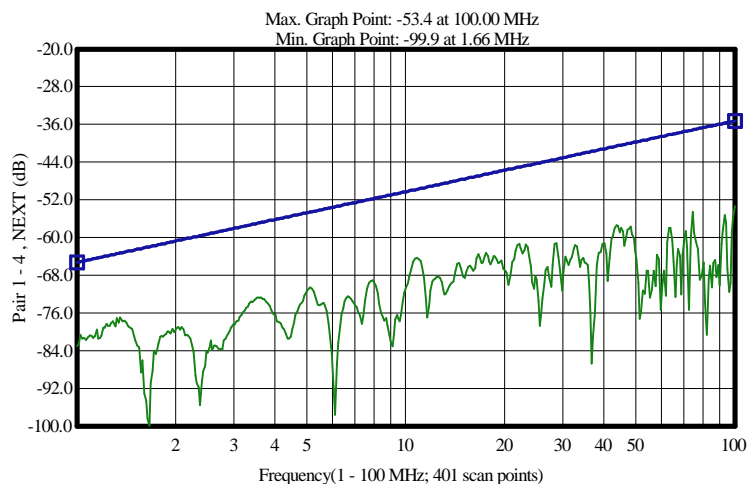
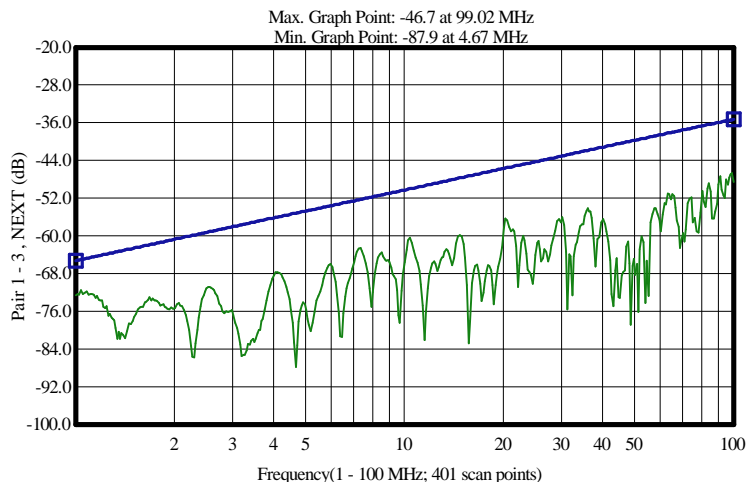
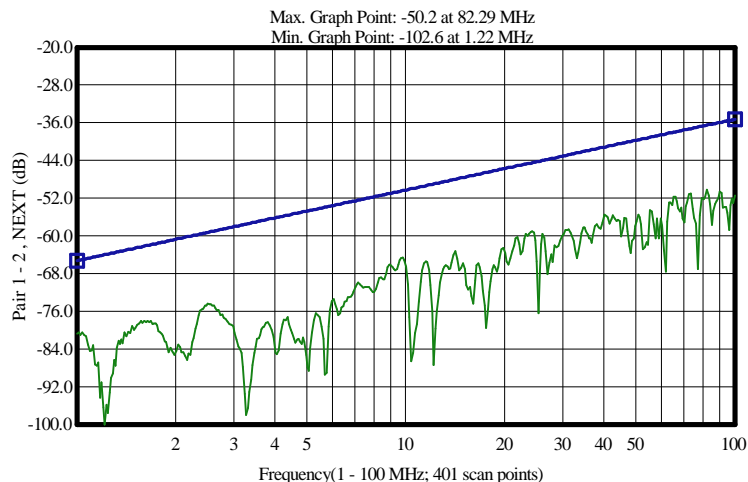
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Summary and Graphic: Near End Crosstalk Loss (NEXT)

| Pair | Spec (Min)(dB) | Measured(dB) | Margin (dB) | @ Frequency (MHz) | Test Result |
|------------|----------------|--------------|-------------|-------------------|-------------|
| Pair 1 - 2 | 38.0 | 51.7 | 13.7 | 65.24 | Passed |
| Pair 1 - 3 | 65.0 | 71.5 | 6.5 | 1.04 | Passed |
| Pair 1 - 4 | 63.4 | 77.1 | 13.7 | 1.33 | Passed |
| Pair 2 - 3 | 55.7 | 69.8 | 14.1 | 4.32 | Passed |
| Pair 2 - 4 | 55.5 | 63.8 | 8.3 | 4.47 | Passed |
| Pair 3 - 4 | 57.4 | 68.9 | 11.5 | 3.35 | Passed |



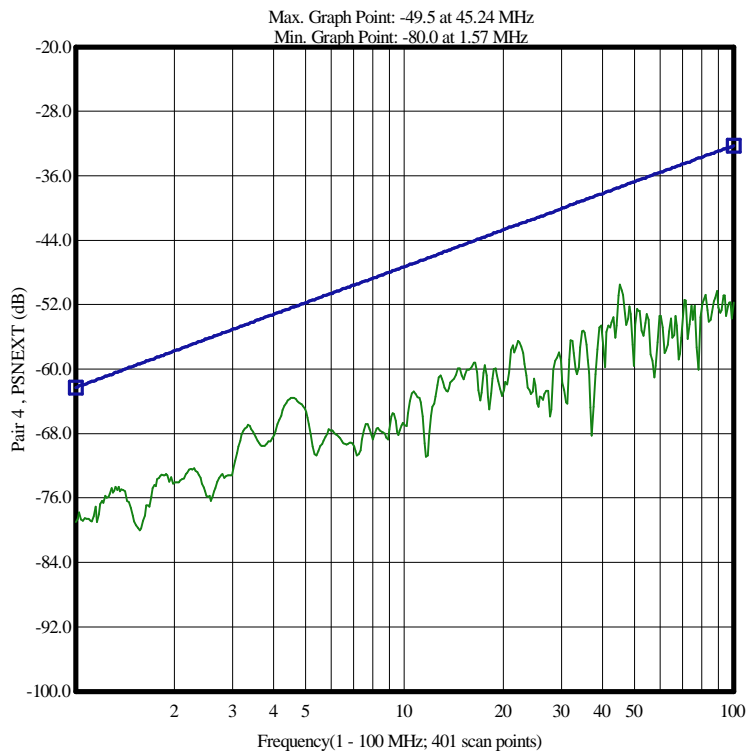
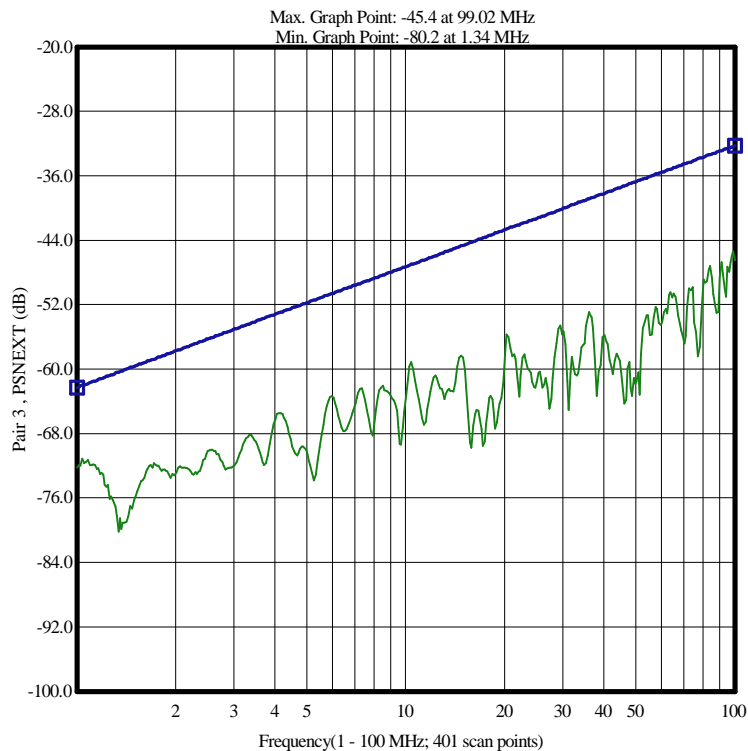
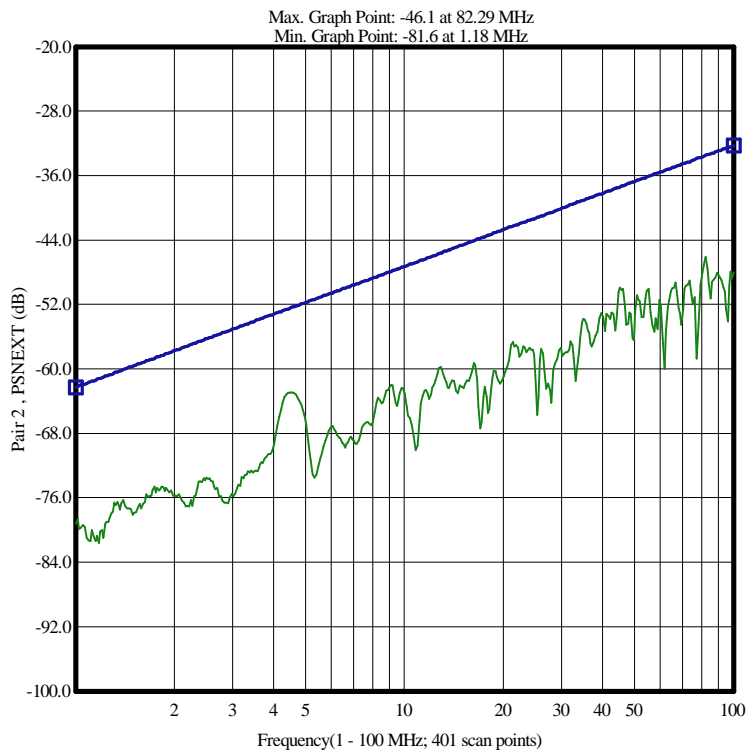
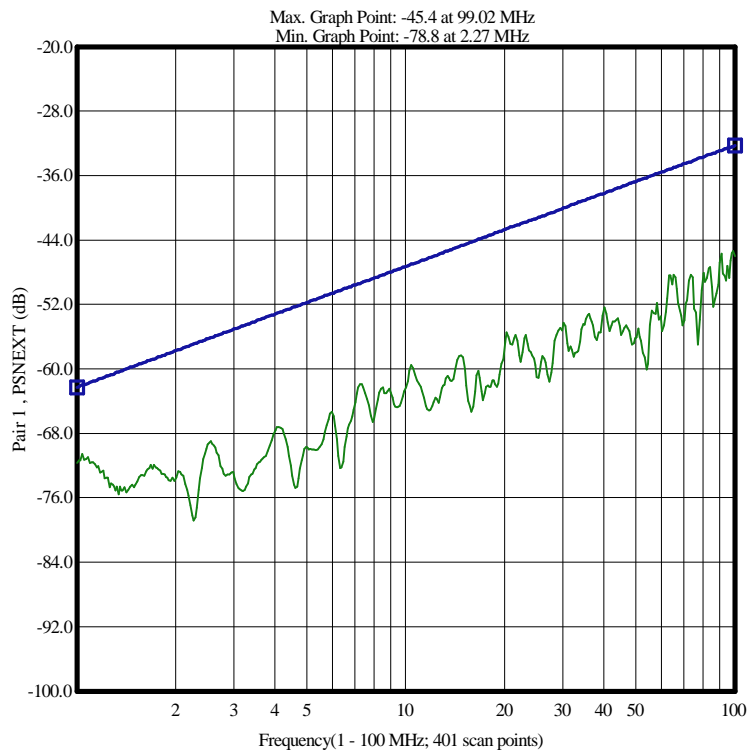
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Summary and Graphic: Power Sum NEXT(PSNEXT)

| Pair | Spec (Min)(dB) | Measured(dB) | Margin (dB) | @ Frequency (MHz) | Test Result |
|-------------|----------------|--------------|-------------|-------------------|-------------|
| Pair 1 [17] | 62.0 | 70.6 | 8.6 | 1.04 | Passed |
| Pair 2 [18] | 52.6 | 63.0 | 10.4 | 4.42 | Passed |
| Pair 3 [19] | 62.0 | 71.1 | 9.1 | 1.04 | Passed |
| Pair 4 [20] | 52.4 | 63.6 | 11.2 | 4.52 | Passed |



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