

DCM Test Report

| | | |
|------------------------------|-----------------------------------|--|
| Cable Type : 4x2x24 x ALL | Factory Number : 2019090202 | Data File Name : DA942602.D3S |
| Cable I.D. : CAT5E LAN CABLE | Order Number : RB90920A00401-100M | Specification File : SK-4HCT5-455(B).S3S |
| Temperature : 25.00 癈 | Relative Humidity : 50 % | Test Date/Time : 09/23/2019 06:50:46 PM |
| Length : 100.00 m | Number of Pairs to Test : 4 | Operator : WJD |
| Starting Position : 21 | | Analyzer Type : ENA |

Pass - Fail Test Certificate - 4 Pairs

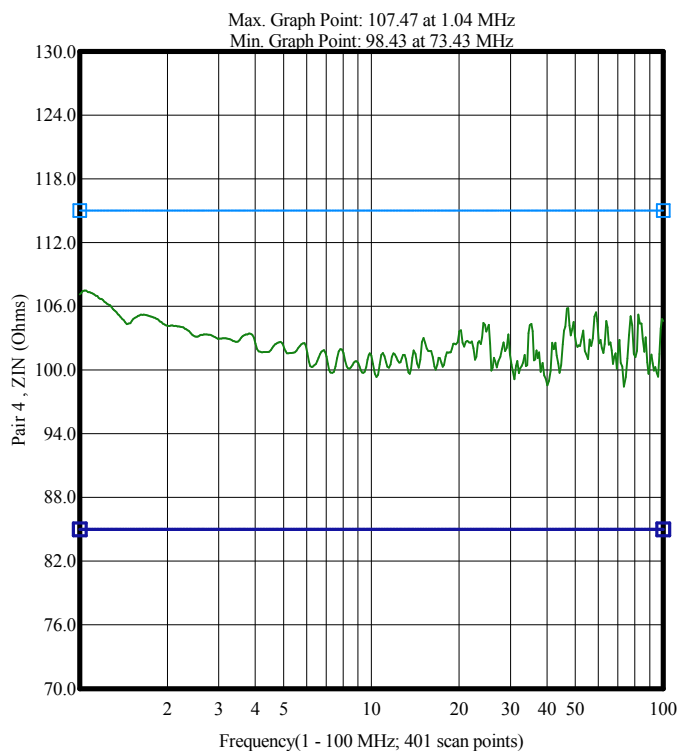
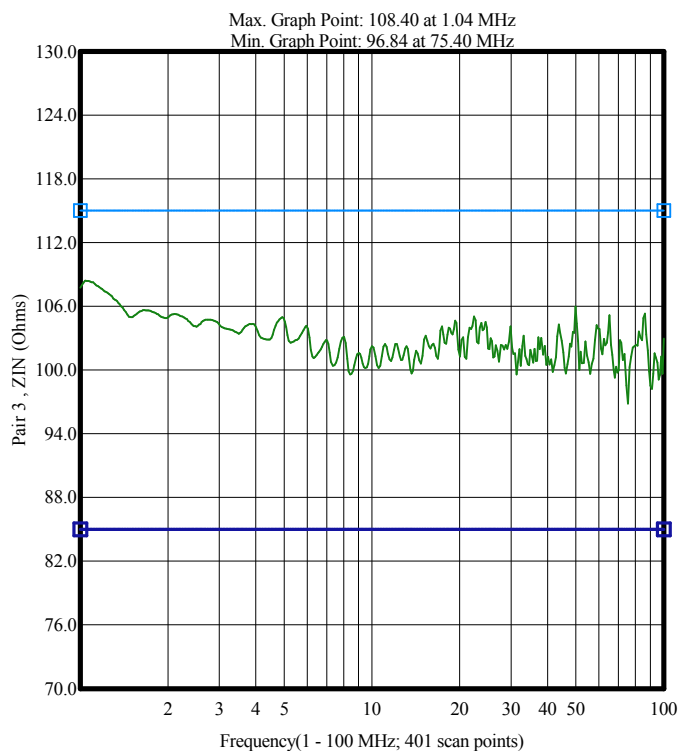
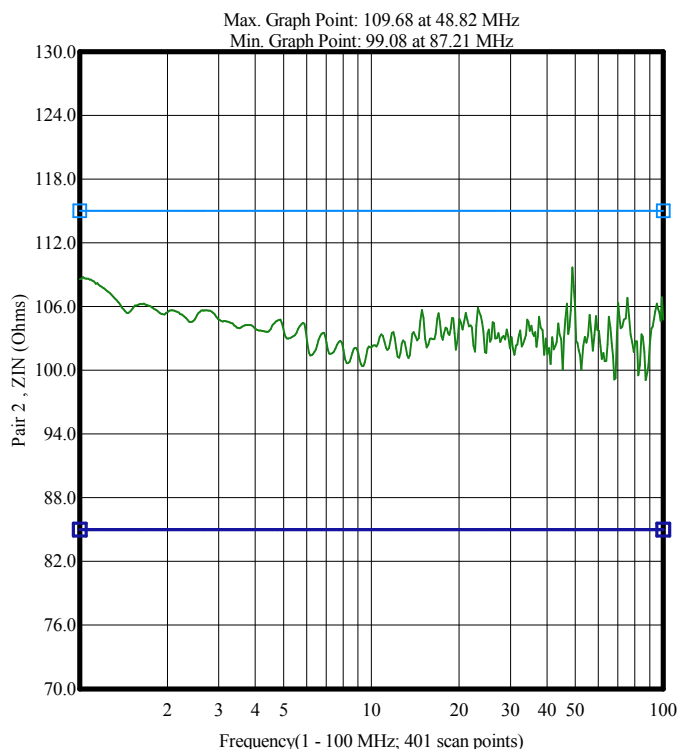
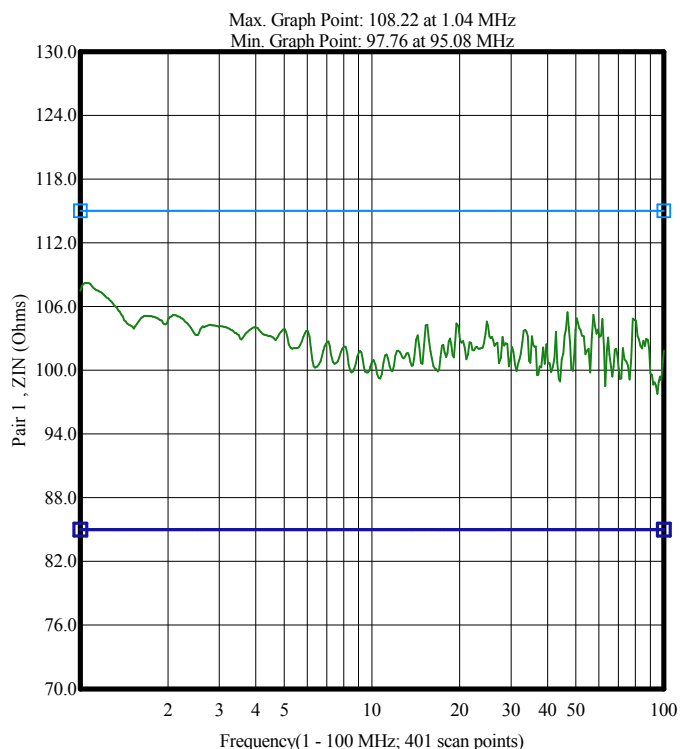
High Frequency

| Test Type | Test Result |
|---|-------------|
| Input Impedance (Zin)(Ohms)(Open/Short) | OK |
| Characteristic Impedance (Z0)(3rd Order)(Ohms)(Open/Short) | OK |
| Return Loss (RL)(dB)(Open/Short) | OK |
| Insertion Loss (IL)(dB/100.0 m)@20C | OK |
| Near End Crosstalk Loss (NEXT)(dB) | OK |
| ACR to FEXT Ratio (ACRF)(dB) | OK |
| Power Sum NEXT(PSNEXT)(dB) | OK |
| Power Sum ACRF (PSACRF)(dB) | OK |
| Propagation Delay (DELAY)(ns/100m) | OK |
| Propagation Delay Skew (SKEW)(ns/100m) | OK |

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

Summary and Graphic: Input Impedance (Zin)(Open/Short)

| Pair | Specification | | Measured(Ohms) | | Margin (Ohms) | | @ Frequency (MHz) | | Test Result |
|-------------|---------------|---------|----------------|---------|---------------|---------|-------------------|---------|-------------|
| | Minimum | Maximum | Minimum | Maximum | Minimum | Maximum | Minimum | Maximum | |
| Pair 1 [21] | 85.00 | 115.00 | 97.76 | 108.22 | 12.76 | 6.78 | 95.08 | 1.04 | Passed |
| Pair 2 [22] | 85.00 | 115.00 | 99.08 | 109.68 | 14.08 | 5.32 | 87.21 | 48.82 | Passed |
| Pair 3 [23] | 85.00 | 115.00 | 96.84 | 108.40 | 11.84 | 6.60 | 75.40 | 1.04 | Passed |
| Pair 4 [24] | 85.00 | 115.00 | 98.43 | 107.47 | 13.43 | 7.53 | 73.43 | 1.04 | Passed |



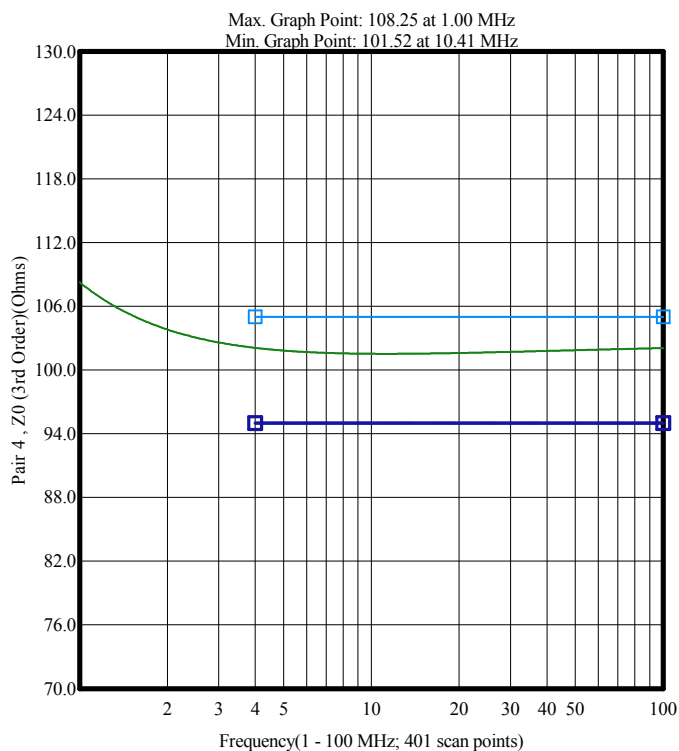
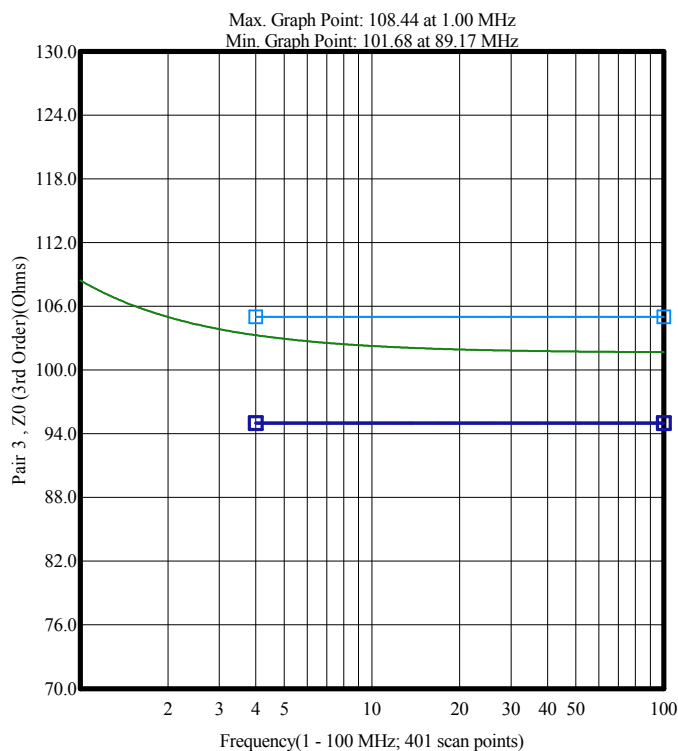
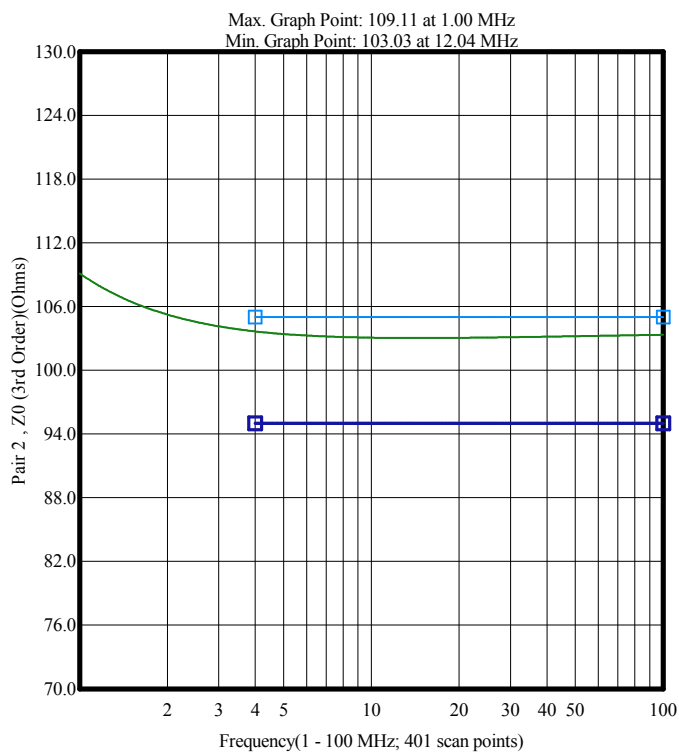
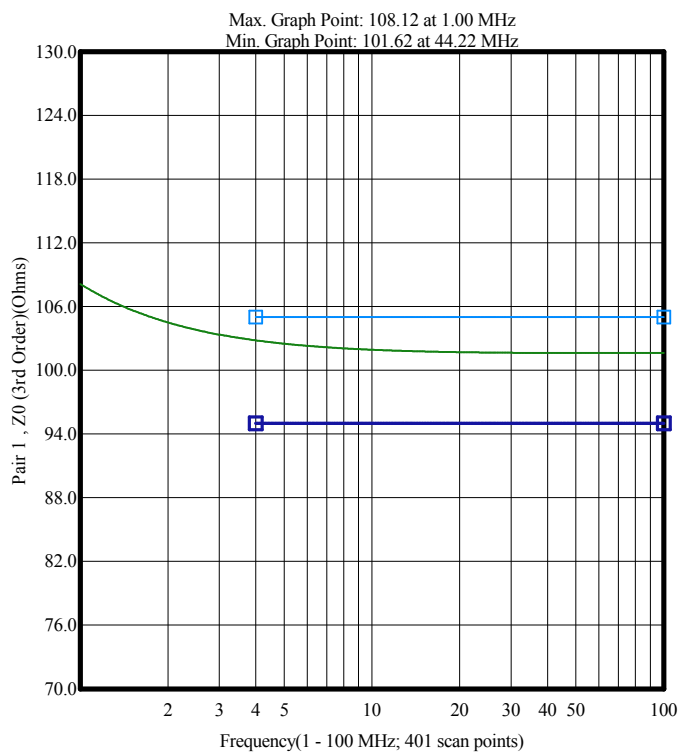
N/A = Not Applicable.
--- = Disable/Bypassed Pair.

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

*** = Measured value is invalid.

Summary and Graphic: Characteristic Impedance (Z0)(3rd Order)(Open/Short)

| Pair | Specification | | Measured(Ohms) | | Margin (Ohms) | | @ Frequency (MHz) | | Test Result |
|-------------|---------------|---------|----------------|---------|---------------|---------|-------------------|---------|-------------|
| | Minimum | Maximum | Minimum | Maximum | Minimum | Maximum | Minimum | Maximum | |
| Pair 1 [21] | 95.00 | 105.00 | 101.62 | 102.80 | 6.62 | 2.20 | 44.22 | 4.01 | Passed |
| Pair 2 [22] | 95.00 | 105.00 | 103.03 | 103.65 | 8.03 | 1.35 | 12.04 | 4.01 | Passed |
| Pair 3 [23] | 95.00 | 105.00 | 101.68 | 103.27 | 6.68 | 1.73 | 89.17 | 4.01 | Passed |
| Pair 4 [24] | 95.00 | 105.00 | 101.52 | 102.07 | 6.52 | 2.93 | 10.41 | 4.01 | Passed |



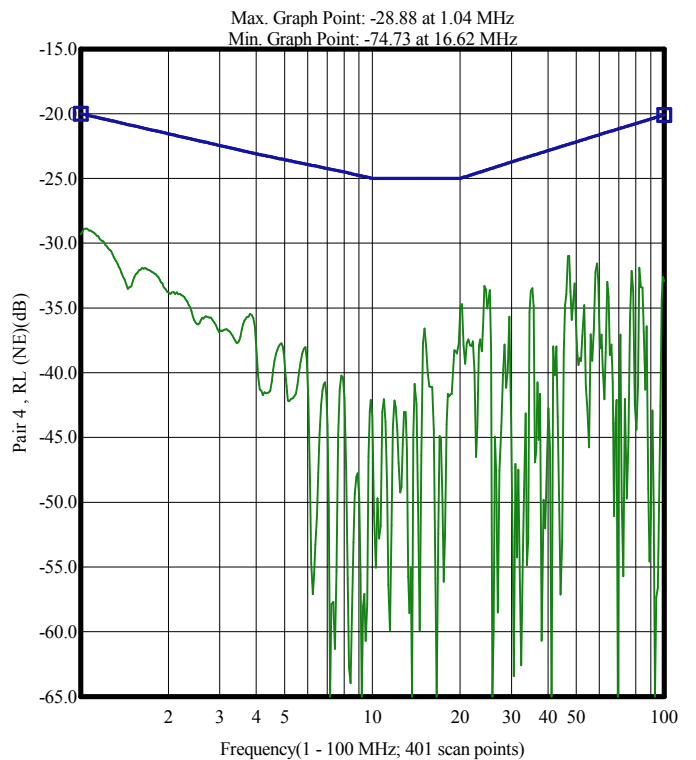
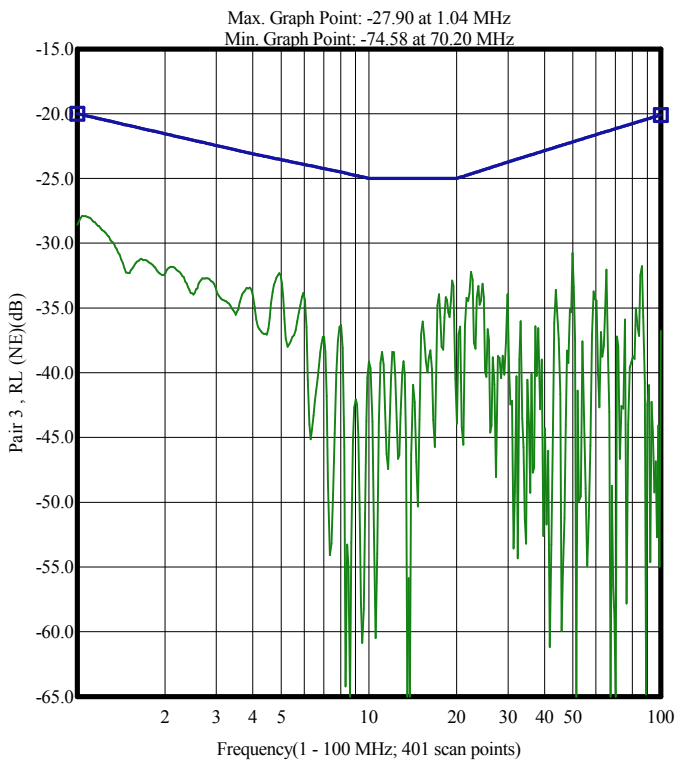
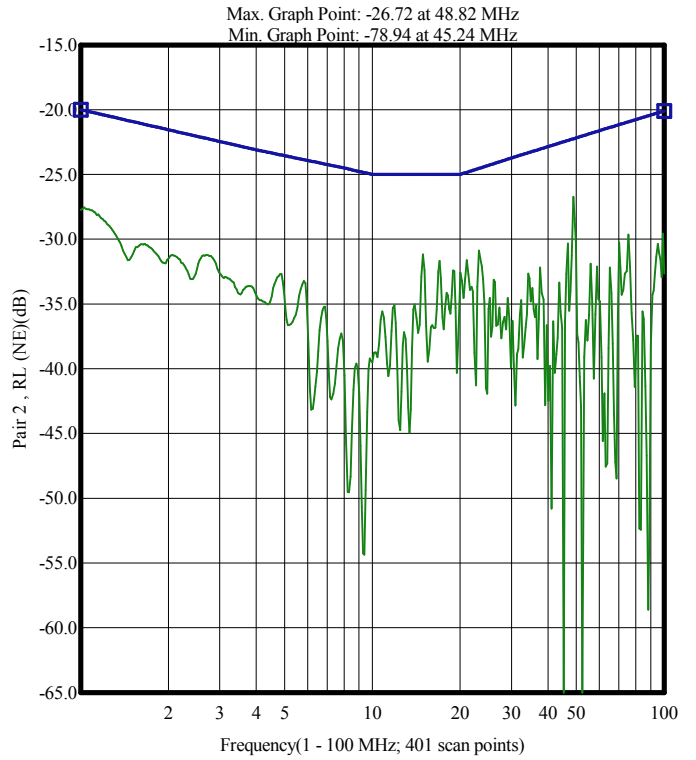
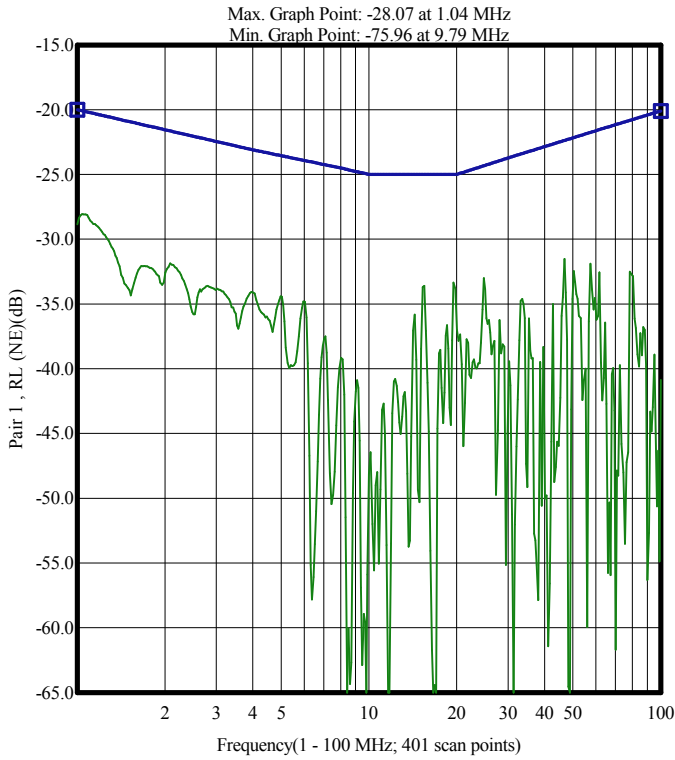
N/A = Not Applicable.
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Summary and Graphic: Return Loss (RL)(Open/Short)

| Pair | Spec (Min)(dB) | Measured(dB) | Margin (dB) | @ Frequency (MHz) | Test Result |
|-------------|----------------|--------------|-------------|-------------------|-------------|
| Pair 1 [21] | 20.15 | 28.09 | 7.94 | 1.07 | Passed |
| Pair 2 [22] | 22.25 | 26.72 | 4.47 | 48.82 | Passed |
| Pair 3 [23] | 24.65 | 32.22 | 7.57 | 22.39 | Passed |
| Pair 4 [24] | 22.35 | 30.98 | 8.63 | 47.28 | Passed |



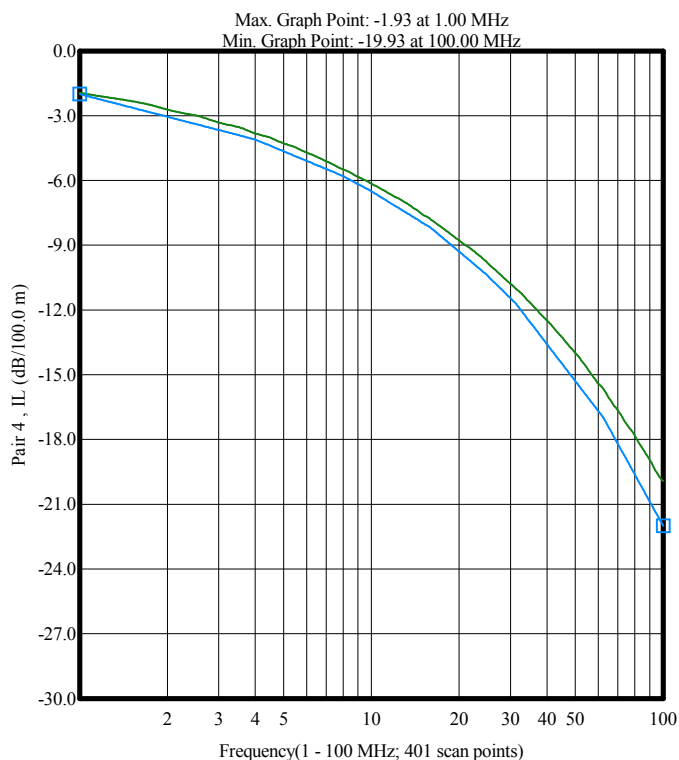
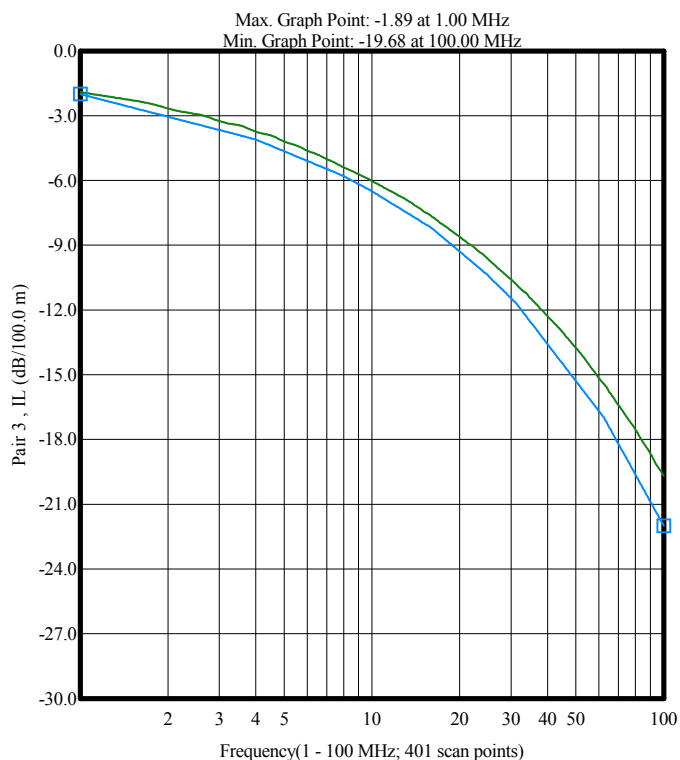
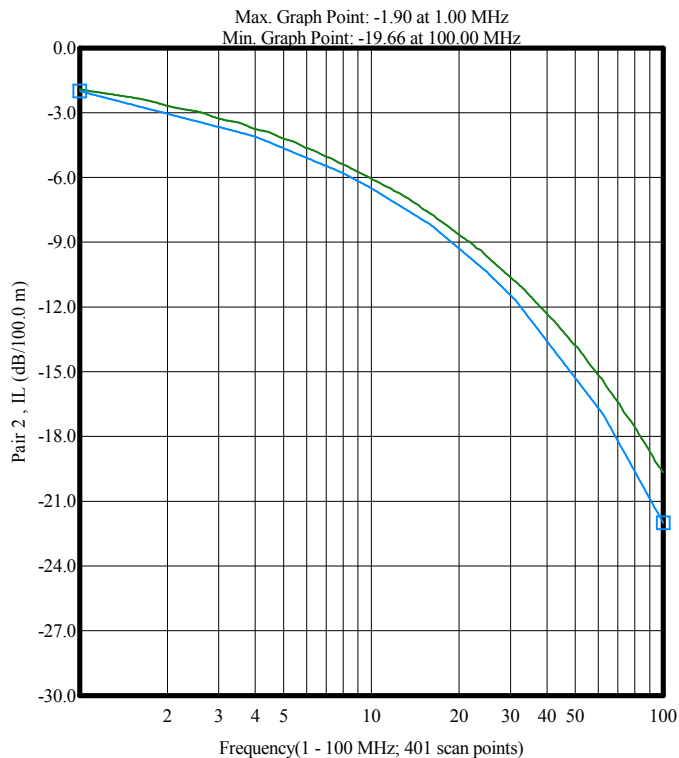
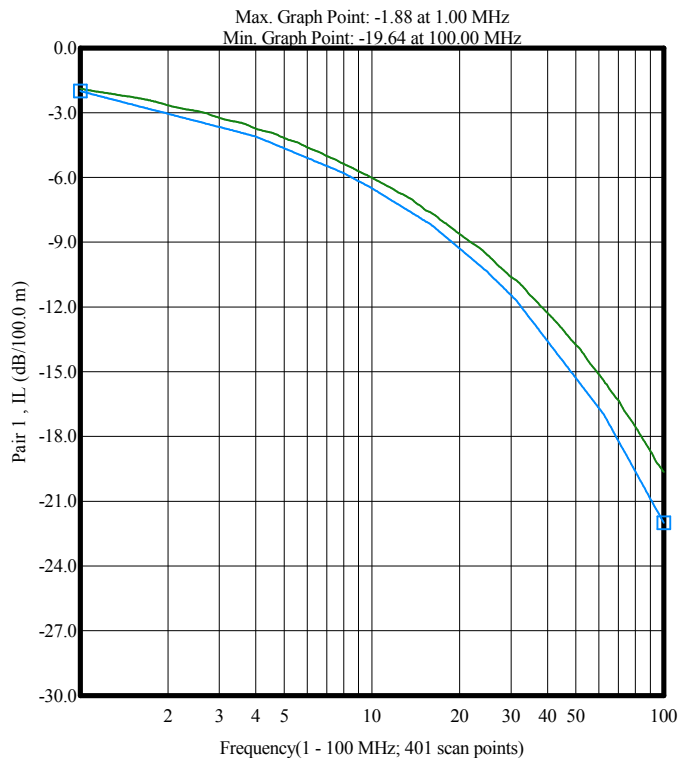
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Summary and Graphic: Insertion Loss (IL)@20C

| Pair | Spec (Max)(dB/100.0 m) | Measured(dB/100.0 m) | Margin (dB/100.0 m) | @ Frequency (MHz) | Test Result |
|-------------|------------------------|----------------------|---------------------|-------------------|-------------|
| Pair 1 [21] | 2.00 | 1.88 | 0.12 | 1.00 | Passed |
| Pair 2 [22] | 2.02 | 1.93 | 0.09 | 1.01 | Passed |
| Pair 3 [23] | 2.00 | 1.89 | 0.11 | 1.00 | Passed |
| Pair 4 [24] | 2.02 | 1.95 | 0.07 | 1.01 | Passed |



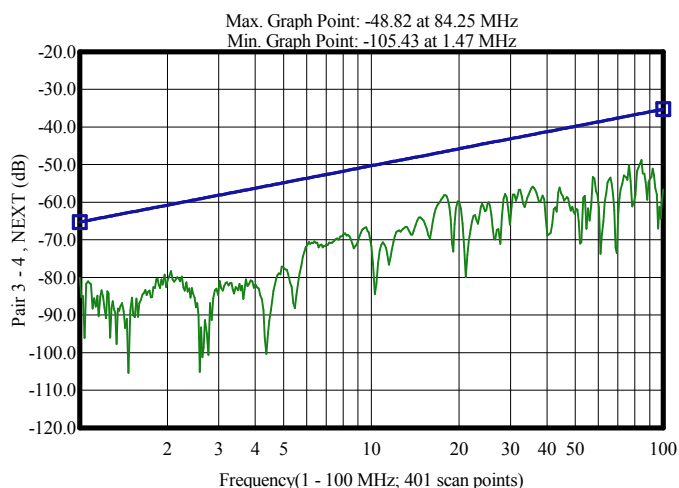
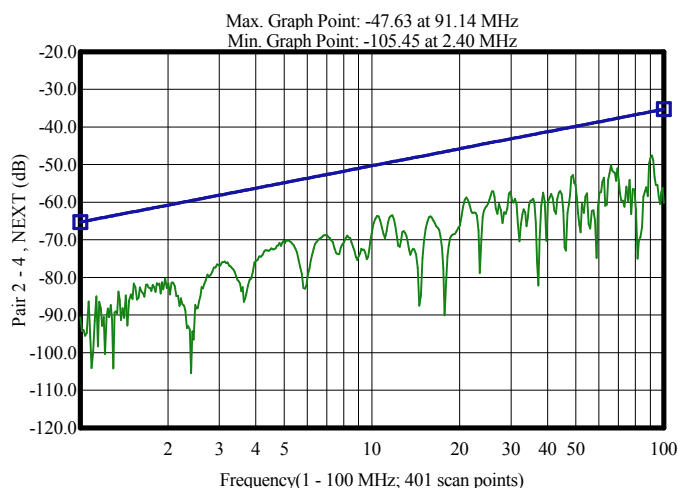
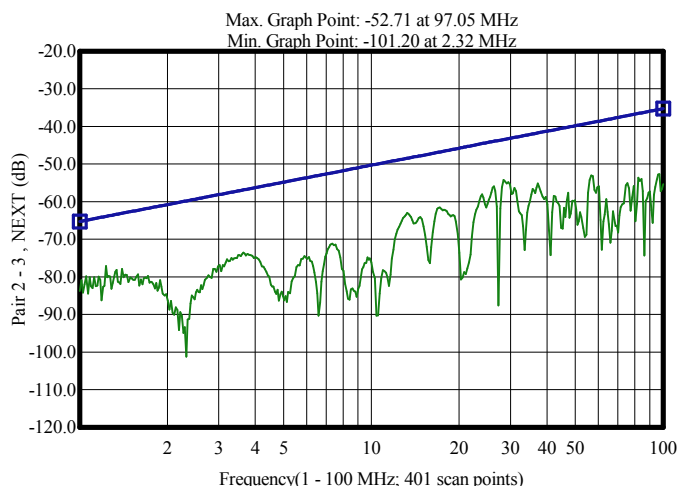
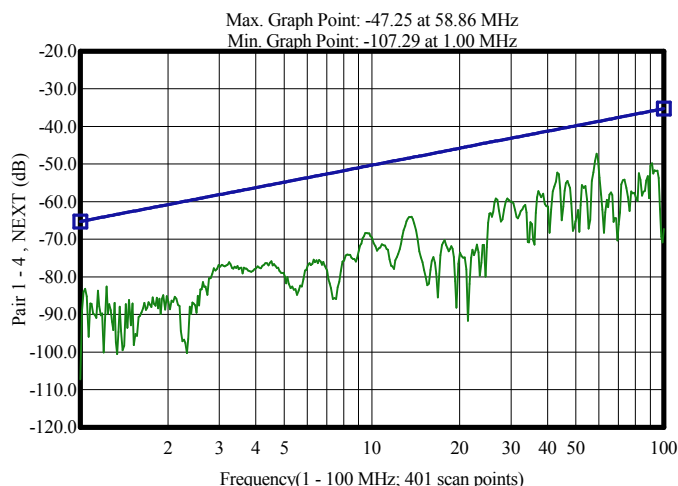
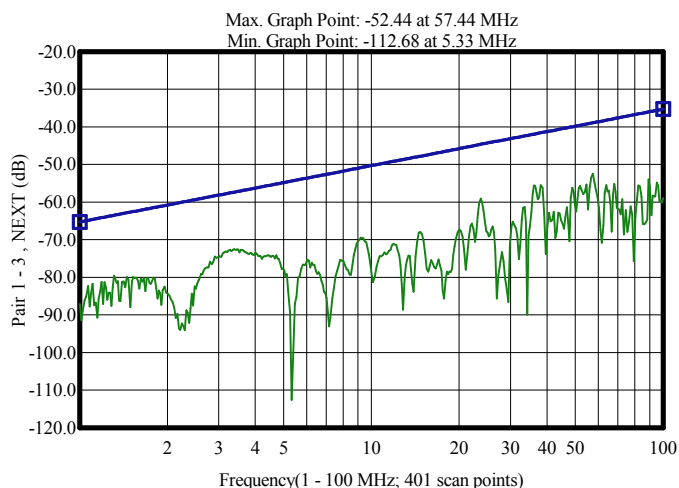
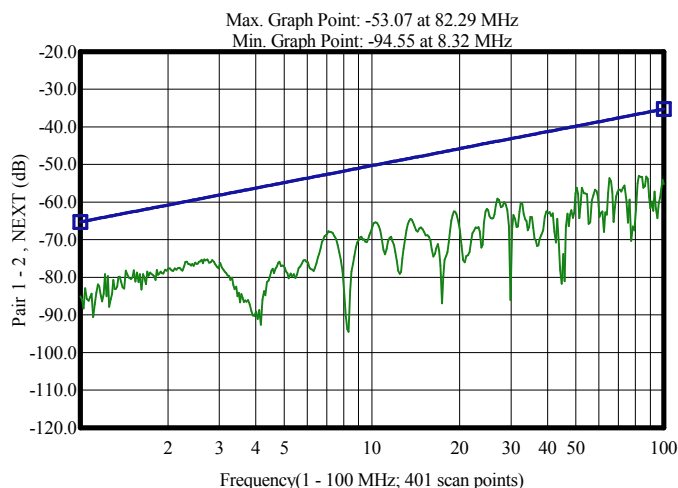
N/A = Not Applicable.
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Summary and Graphic: Near End Crosstalk Loss (NEXT)

| Pair | Spec (Min)(dB) | Measured(dB) | Margin (dB) | @ Frequency (MHz) | Test Result |
|------------|----------------|--------------|-------------|-------------------|-------------|
| Pair 1 - 2 | 64.02 | 79.19 | 15.17 | 1.22 | Passed |
| Pair 1 - 3 | 38.95 | 52.44 | 13.49 | 57.44 | Passed |
| Pair 1 - 4 | 38.79 | 47.25 | 8.46 | 58.86 | Passed |
| Pair 2 - 3 | 43.50 | 54.26 | 10.76 | 28.38 | Passed |
| Pair 2 - 4 | 35.91 | 47.63 | 11.72 | 91.14 | Passed |
| Pair 3 - 4 | 46.60 | 58.17 | 11.57 | 17.76 | Passed |



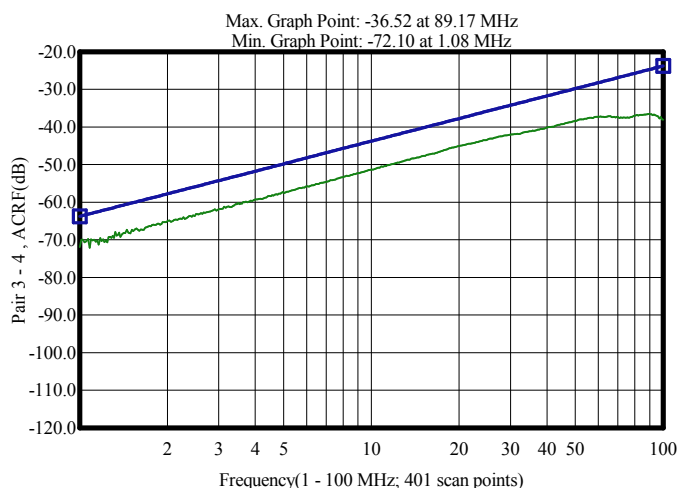
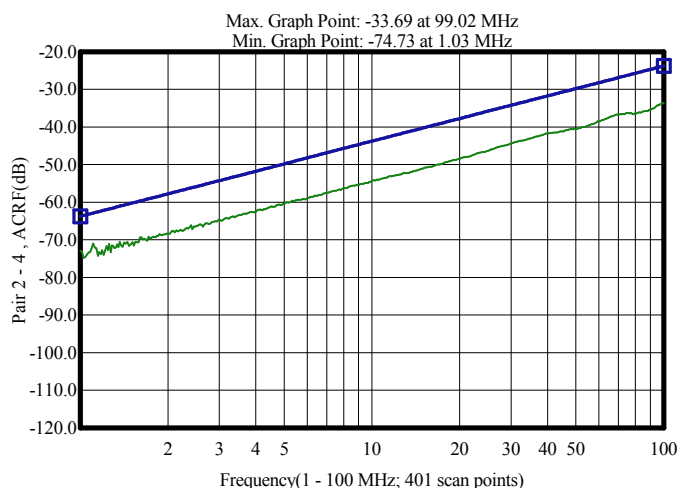
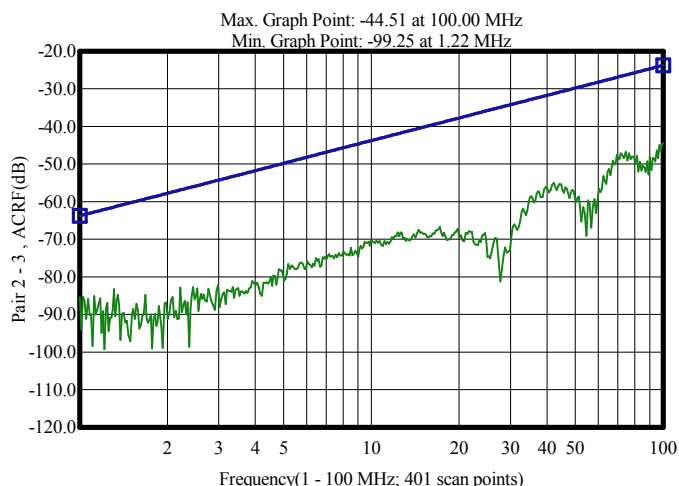
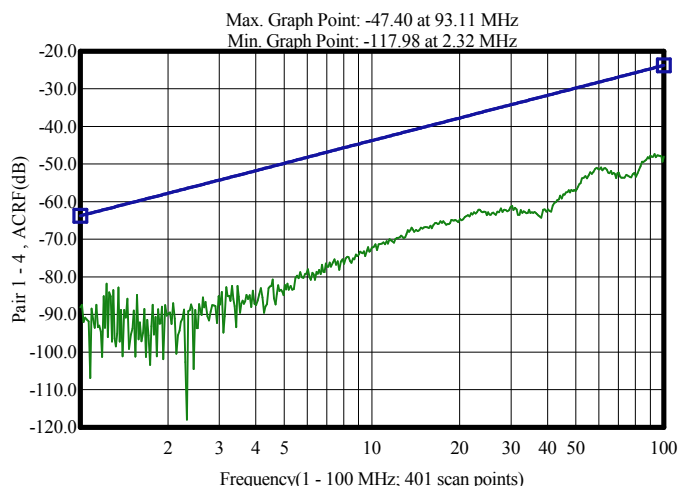
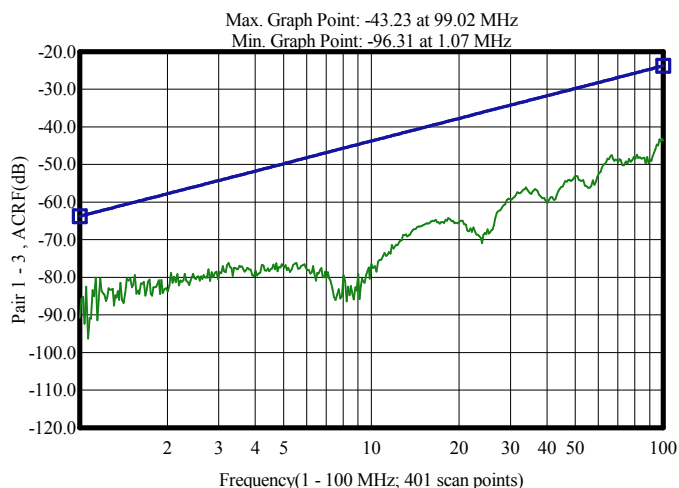
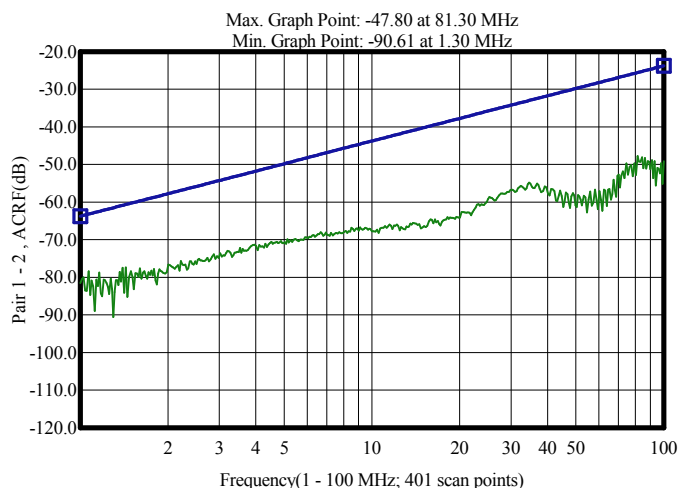
N/A = Not Applicable.
-- = Disable/Bypassed Pair.

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xxx = No entry.

*** = Measured value is invalid.

Summary and Graphic: ACR to FEXT Ratio (ACRF)

| Pair | Spec (Min)(dB) | Measured(dB) | Margin (dB) | @ Frequency (MHz) | Test Result |
|------------|----------------|--------------|-------------|-------------------|-------------|
| Pair 1 - 2 | 63.23 | 78.40 | 15.17 | 1.07 | Passed |
| Pair 1 - 3 | 62.70 | 80.17 | 17.47 | 1.14 | Passed |
| Pair 1 - 4 | 62.00 | 81.81 | 19.81 | 1.23 | Passed |
| Pair 2 - 3 | 26.38 | 46.76 | 20.38 | 74.41 | Passed |
| Pair 2 - 4 | 62.91 | 71.00 | 8.09 | 1.11 | Passed |
| Pair 3 - 4 | 63.68 | 69.98 | 6.30 | 1.01 | Passed |



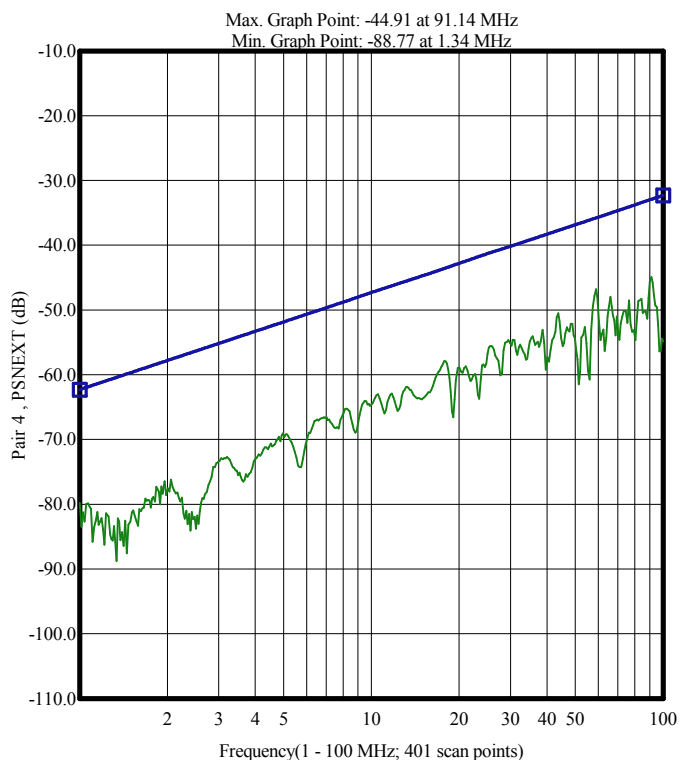
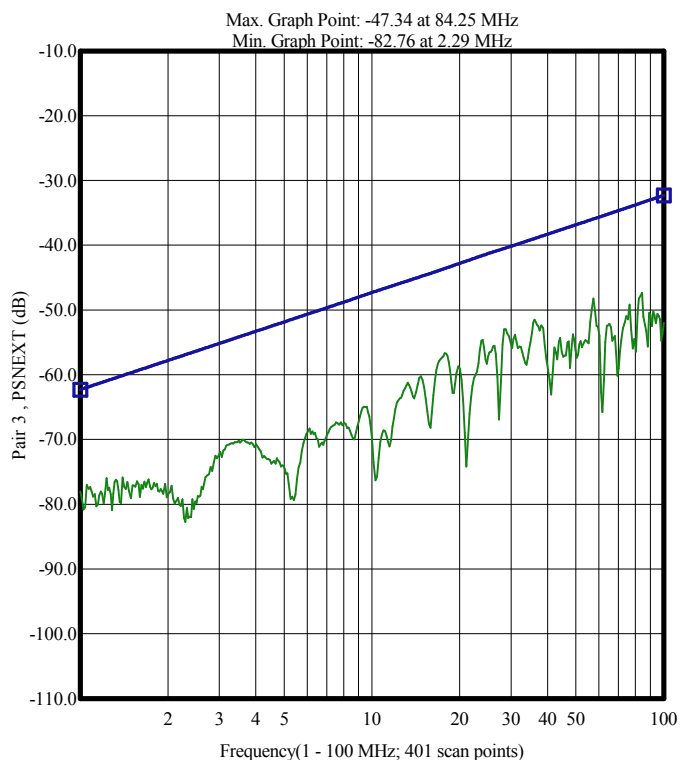
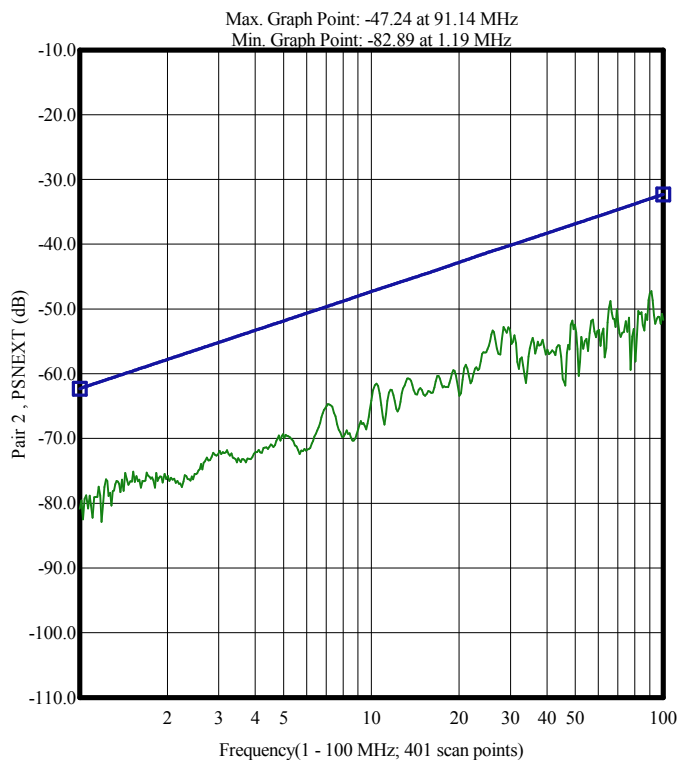
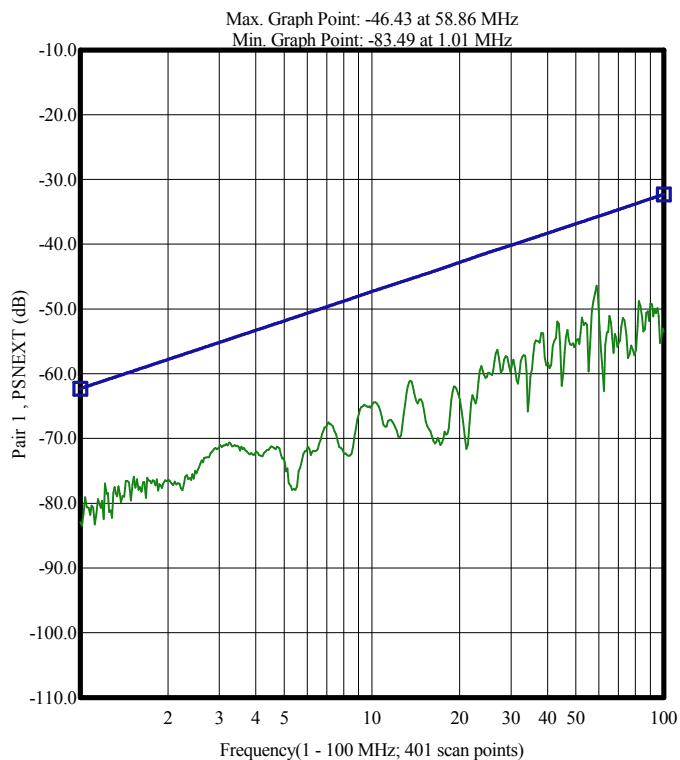
N/A = Not Applicable.
-- = Disable/Bypassed Pair.

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

*** = Measured value is invalid.

Summary and Graphic: Power Sum NEXT(PSNEXT)

| Pair | Spec (Min)(dB) | Measured(dB) | Margin (dB) | @ Frequency (MHz) | Test Result |
|-------------|----------------|--------------|-------------|-------------------|-------------|
| Pair 1 [21] | 35.79 | 46.43 | 10.64 | 58.86 | Passed |
| Pair 2 [22] | 40.50 | 52.77 | 12.27 | 28.38 | Passed |
| Pair 3 [23] | 35.95 | 48.23 | 12.28 | 57.44 | Passed |
| Pair 4 [24] | 35.79 | 46.82 | 11.03 | 58.86 | Passed |



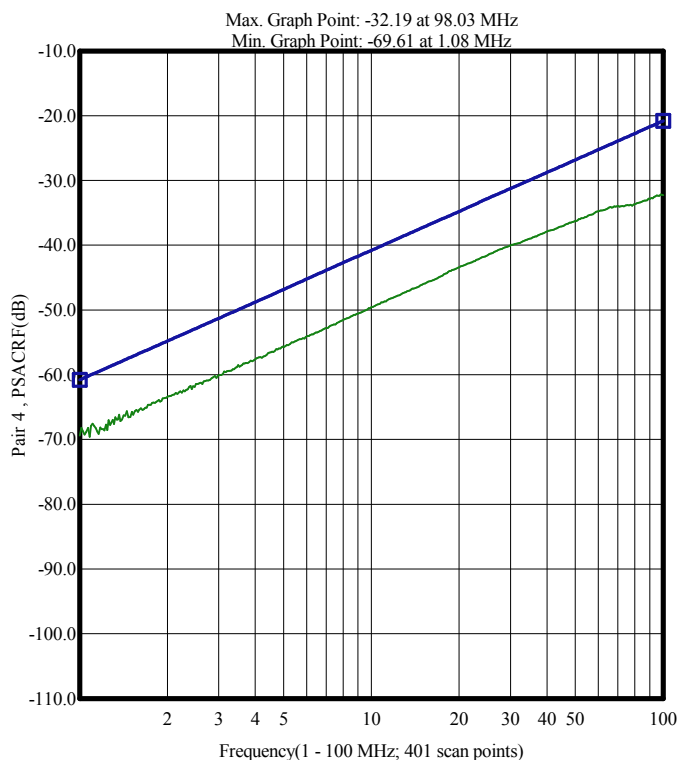
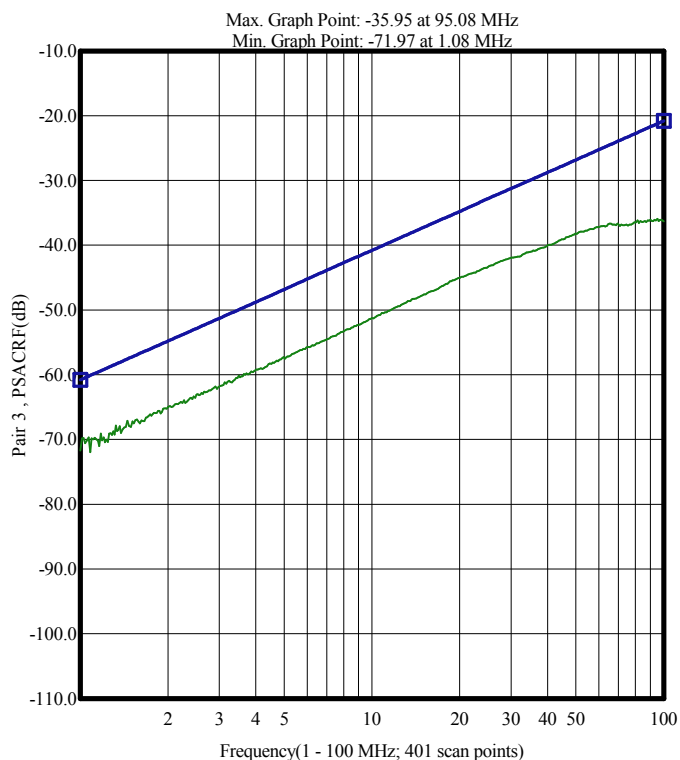
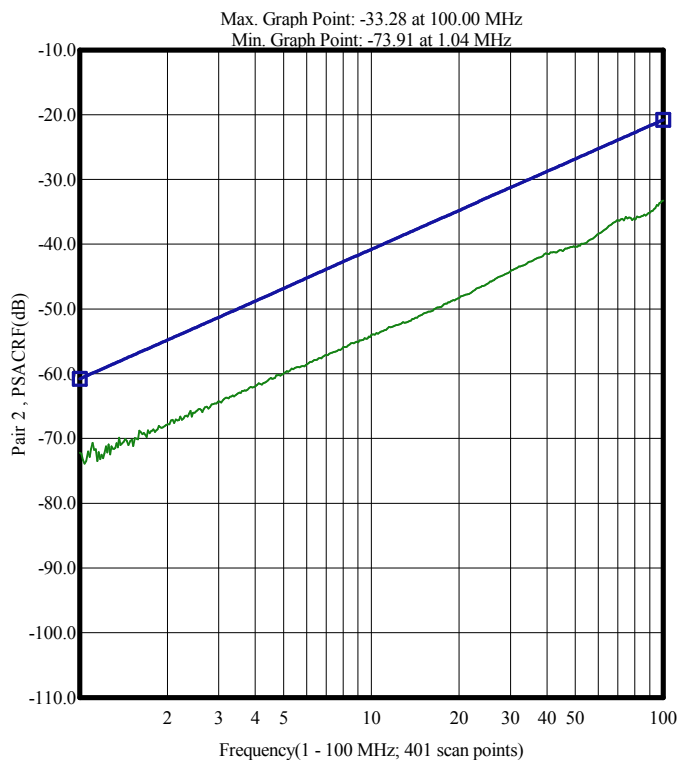
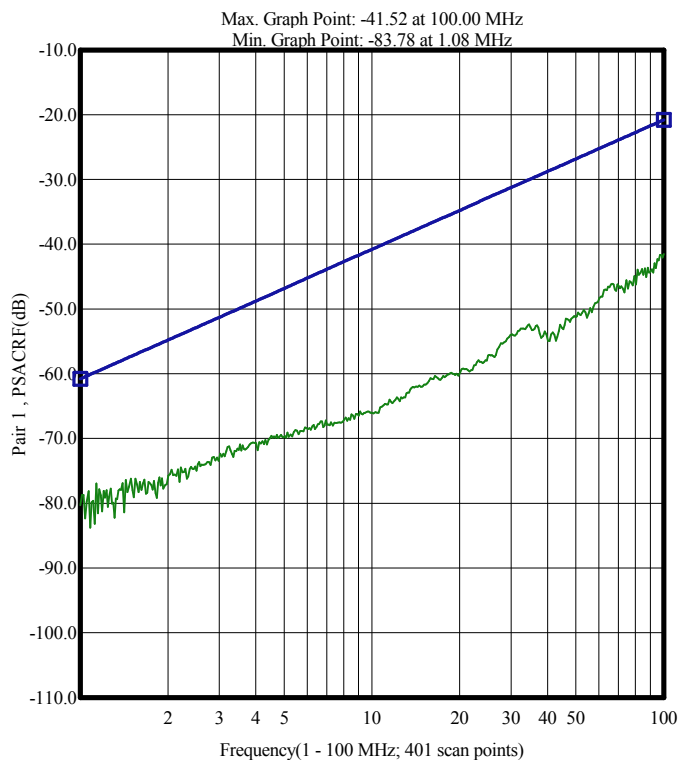
N/A = Not Applicable.
-- = Disable/Bypassed Pair.

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

*** = Measured value is invalid.

Summary and Graphic: Power Sum ACRF (PSACRF)

| Pair | Spec (Min)(dB) | Measured(dB) | Margin (dB) | @ Frequency (MHz) | Test Result |
|-------------|----------------|--------------|-------------|-------------------|-------------|
| Pair 1 [21] | 59.70 | 76.97 | 17.27 | 1.14 | Passed |
| Pair 2 [22] | 59.91 | 70.69 | 10.78 | 1.11 | Passed |
| Pair 3 [23] | 60.68 | 69.85 | 9.17 | 1.01 | Passed |
| Pair 4 [24] | 60.68 | 68.21 | 7.53 | 1.01 | Passed |



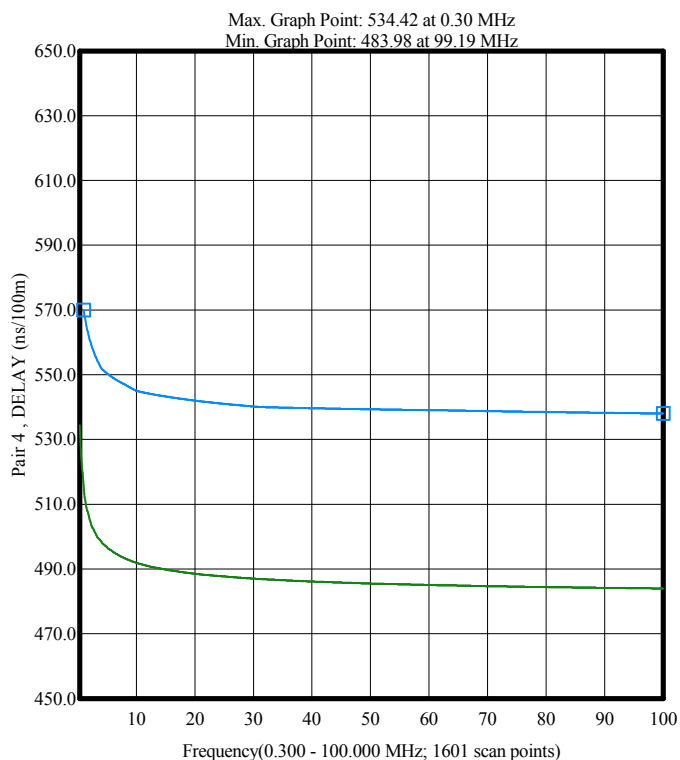
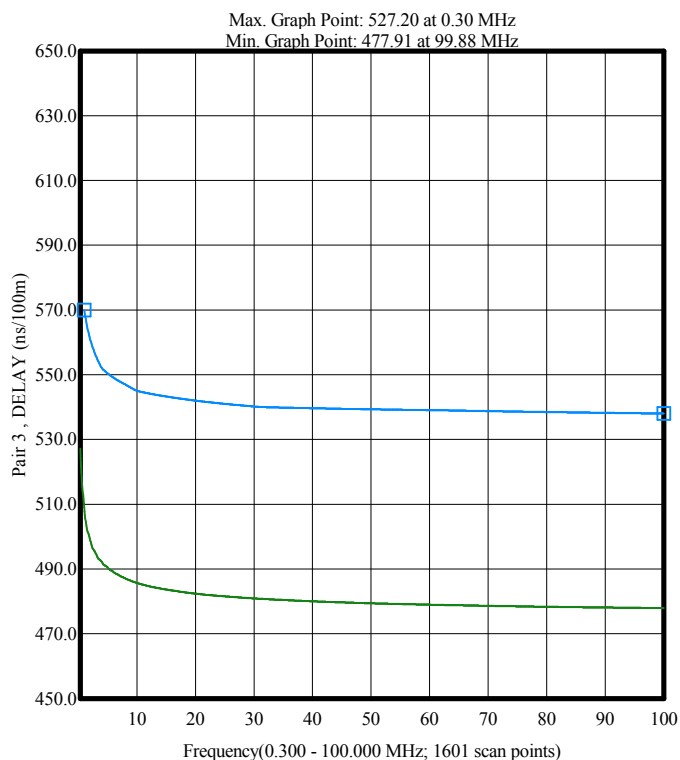
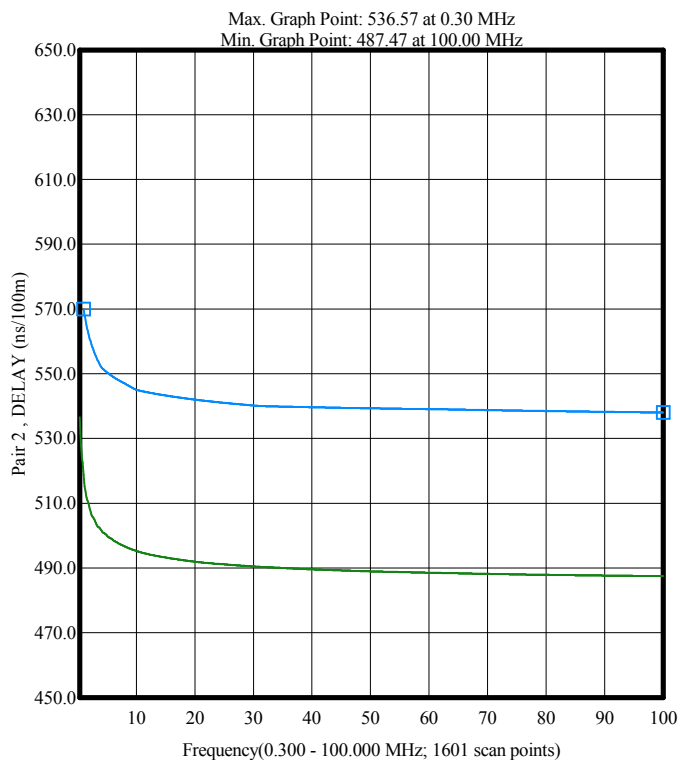
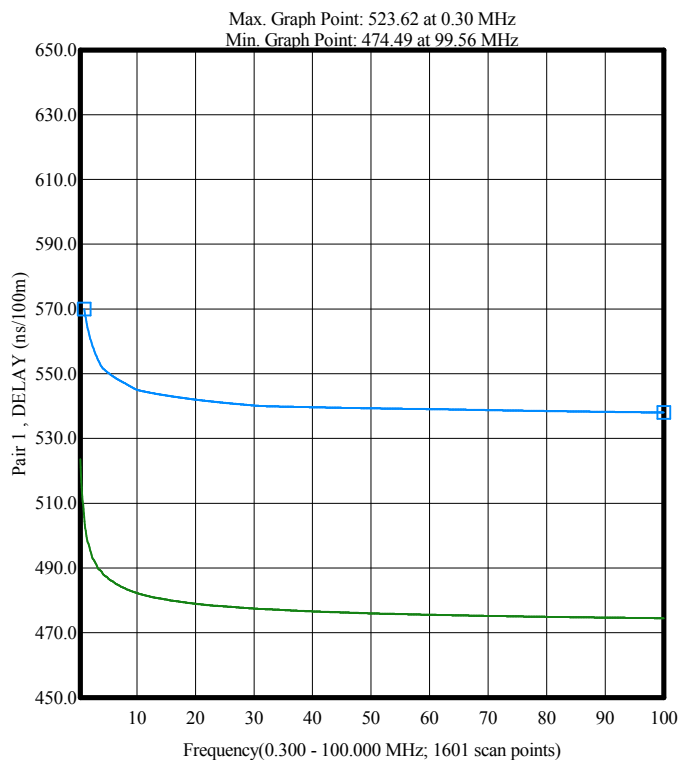
N/A = Not Applicable.
--- = Disable/Bypassed Pair.

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Summary and Graphic: Propagation Delay (DELAY)

| Pair | Spec (Max)(ns/100m) | Measured(ns/100m) | Margin (ns/100m) | @ Frequency (MHz) | Test Result |
|-------------|---------------------|-------------------|------------------|-------------------|-------------|
| Pair 1 [21] | 539.99 | 477.32 | 62.67 | 31.39 | Passed |
| Pair 2 [22] | 540.02 | 490.35 | 49.67 | 31.08 | Passed |
| Pair 3 [23] | 540.01 | 480.79 | 59.22 | 31.21 | Passed |
| Pair 4 [24] | 544.99 | 491.89 | 53.10 | 10.02 | Passed |



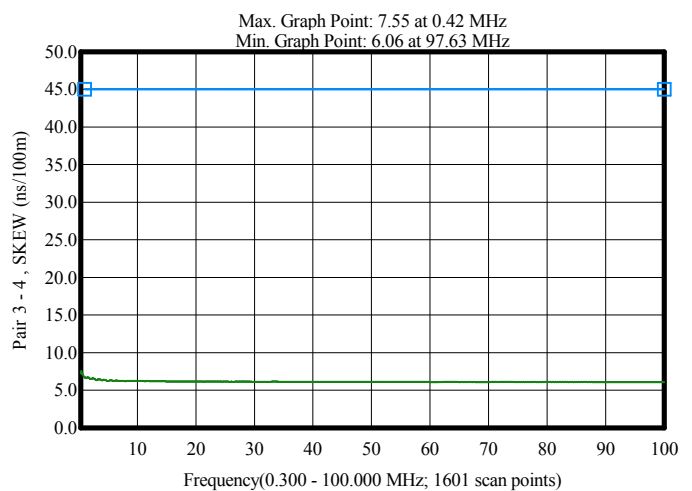
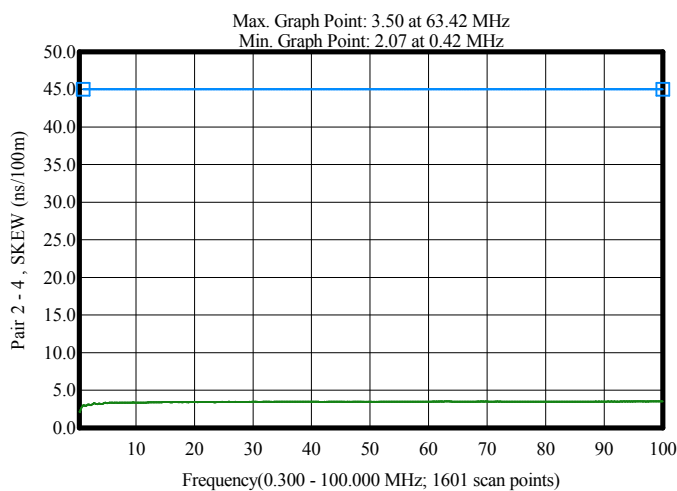
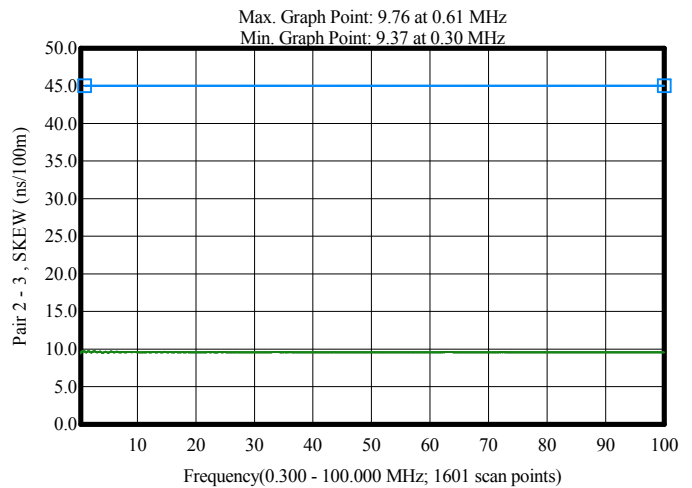
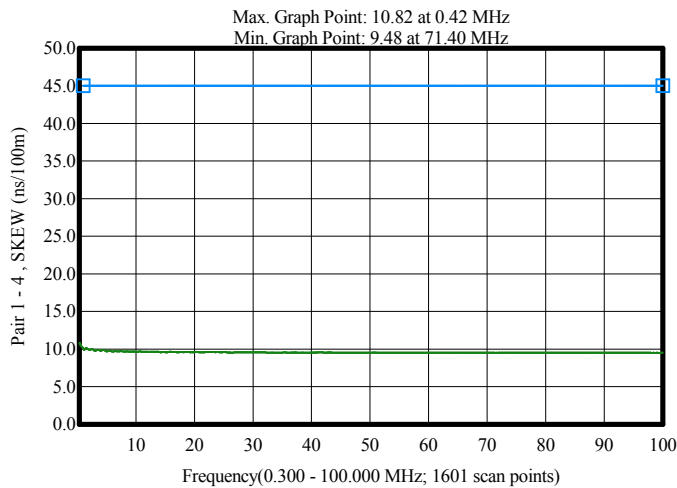
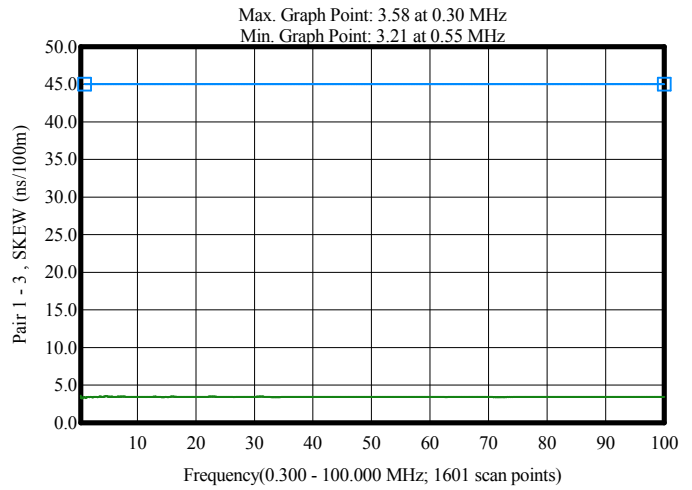
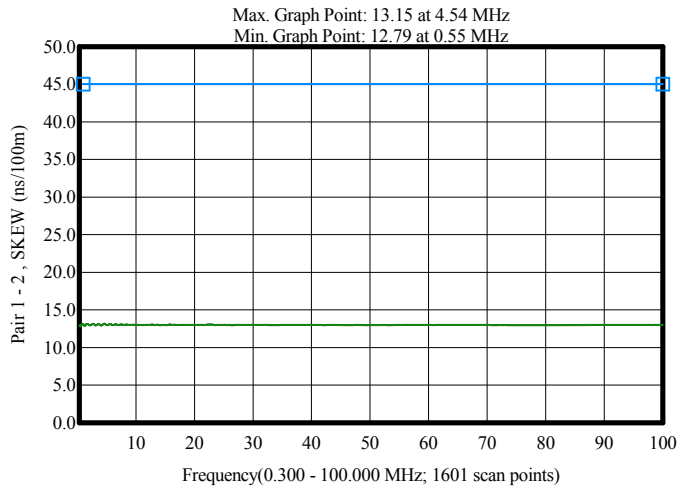
N/A = Not Applicable.
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Summary and Graphic: Propagation Delay Skew (SKEW)

| Pair | Spec (Max)(ns/100m) | Measured(ns/100m) | Margin (ns/100m) | @ Frequency (MHz) | Test Result |
|------------|---------------------|-------------------|------------------|-------------------|-------------|
| Pair 1 - 2 | 45.00 | 13.15 | 31.85 | 4.54 | Passed |
| Pair 1 - 3 | 45.00 | 3.52 | 41.48 | 4.47 | Passed |
| Pair 1 - 4 | 45.00 | 10.15 | 34.85 | 1.55 | Passed |
| Pair 2 - 3 | 45.00 | 9.72 | 35.28 | 1.73 | Passed |
| Pair 2 - 4 | 45.00 | 3.50 | 41.50 | 63.42 | Passed |
| Pair 3 - 4 | 45.00 | 6.75 | 38.25 | 1.55 | Passed |



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