

Designation : 1200MHz lin scale
 Specification : DGI CAT7A HFswep

Length : 100.0 m
 Test Date/Time : 23.02.2012 16:55

Temp : 22.0 Deg C
 Sample-ID-No. : 0000083JUY

Customer :
 Cable type :
 Specification :
 Drum no. :
 Order number :
 Operator :

Test Result: PASS

Final inspection

Worst Case Summary

{ v = Value l = Limit m = Margin f = Frequency (MHz) p = Pair / Combo < = Lower Limit > = Upper Limit }

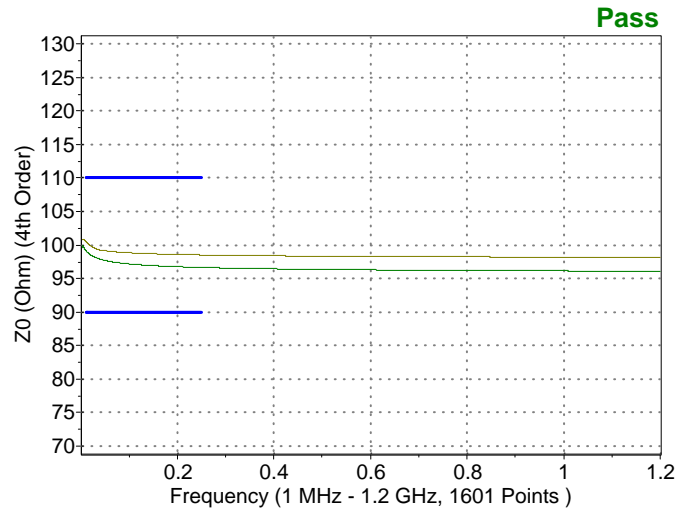
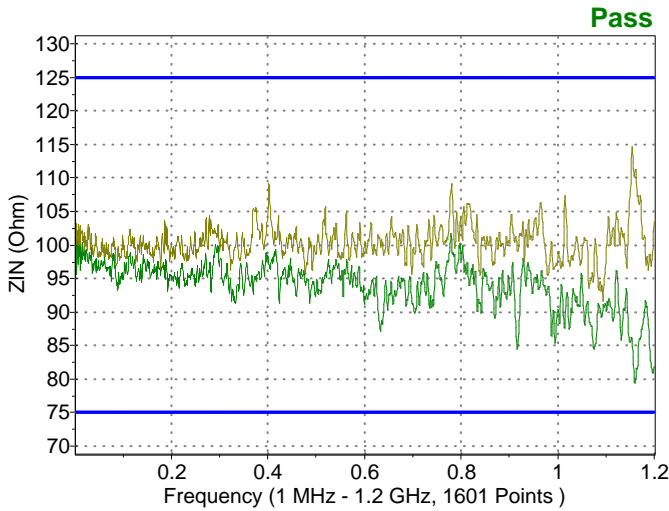
Parameter	Frequency	Points	Minimum { v [f] p }	Maximum { v [f] p }	Min. Margin { m (v l) [f] p }	Result
ZIN (Ohm)	1-1'200	1601	79.32 [1'160] 1	114.62 [1'154] 2		
Z0 (Ohm) (4th Order)	1-1'200	1601	96.08 [1'200] 4	102.33 [1] 3	6.64 (96.64 < 90.00) [249.8] 4	✓
RL (dB)	1-1'200	1601	15.08 [1'184] 2	44.28 [8.494] 4		
IL (dB/100m) at 20 Deg C	1-1'200	1601	1.97 [1] 1	63.06 [1'198] 1	0.28 (2.78 > 3.06) [2.499] 1	✓
Phase delay (ns/100m)	1-1'200	1601	452.35 [1'199] 3	461.75 [2.499] 3	48.68 (452.36 > 501.04) [1'200] 3	✓
V (km/s)	1-1'200	1601	-5'188'743 [1] 3	535'718 [1.749] 3	221'197 (221'257 < 60) [1'200] 3	✓
V % (%)	1-1'200	1601	-1'729.58 [1] 3	178.57 [1.749] 3	3.75 (73.75 < 70.00) [1'200] 3	✓
NEXT (dB)	1-1'200	1601	70.22 [1'110] 1-3	109.13 [41.47] 1-2	12.90 (70.22 < 57.32) [1'110] 1-3	✓
PS NEXT (dB)	1-1'200	1601	68.94 [1'111] 1	106.50 [62.45] 4	11.42 (86.42 < 75.00) [4.747] 1	✓
FEXT (dB)	1-1'200	1601	87.03 [5.496] 2-4	110.80 [545] 2-3		
ELFEXT (dB)	1-1'200	1601	35.18 [1'177] 1-3	100.68 [11.49] 1-3	5.59 (35.18 < 29.59) [1'177] 1-3	✓
PS ELFEXT (dB)	1-1'200	1601	33.55 [1'197] 4	99.85 [11.49] 3	4.11 (33.55 < 29.44) [1'197] 4	✓

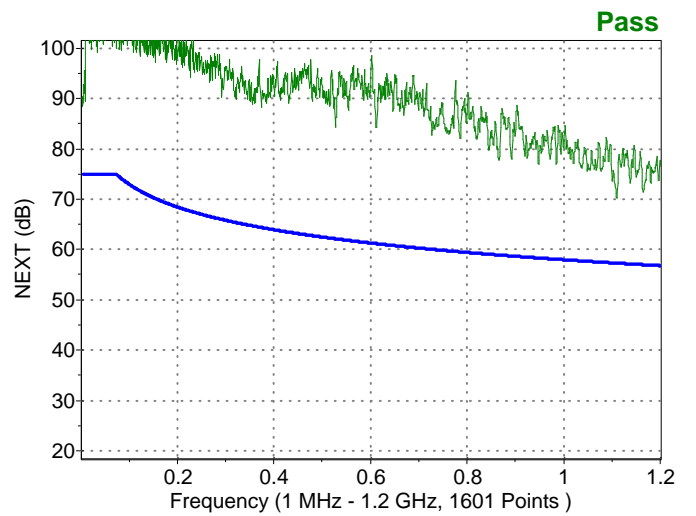
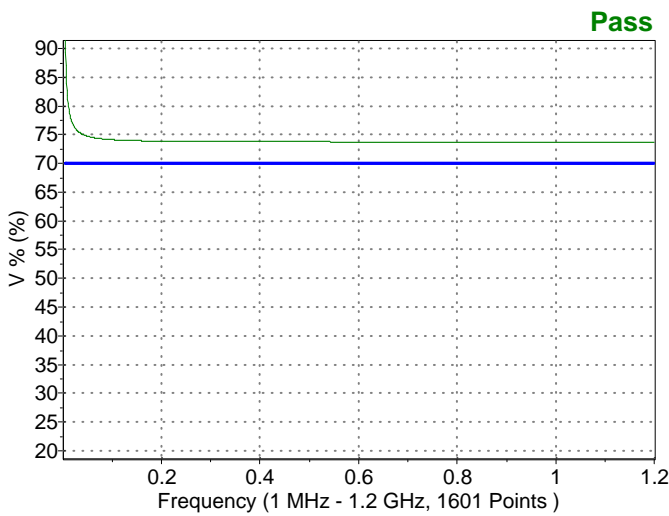
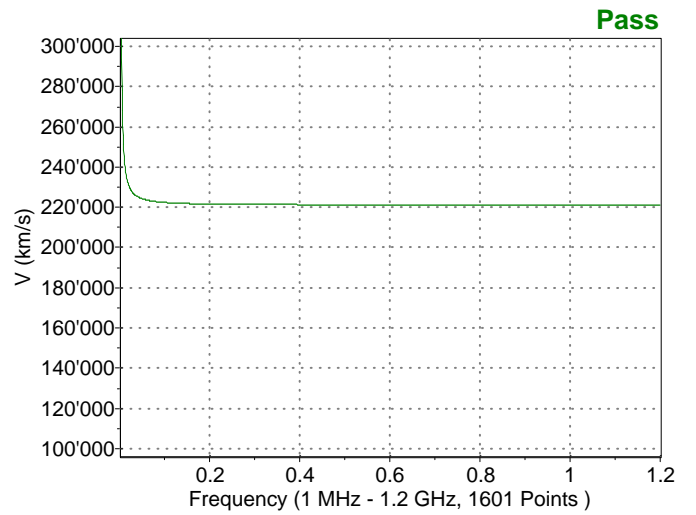
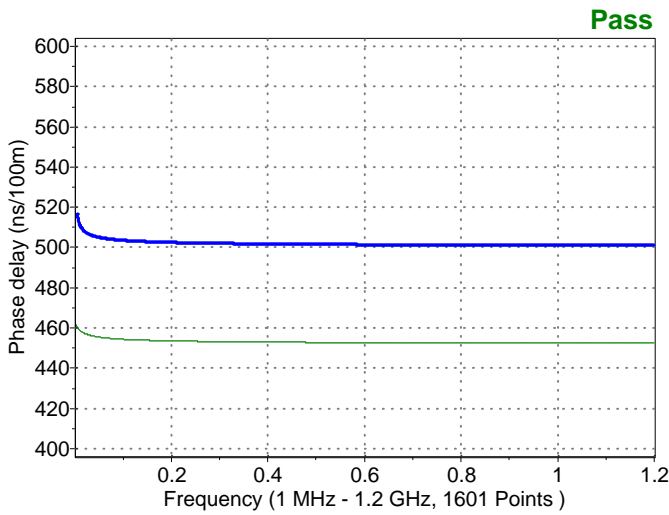
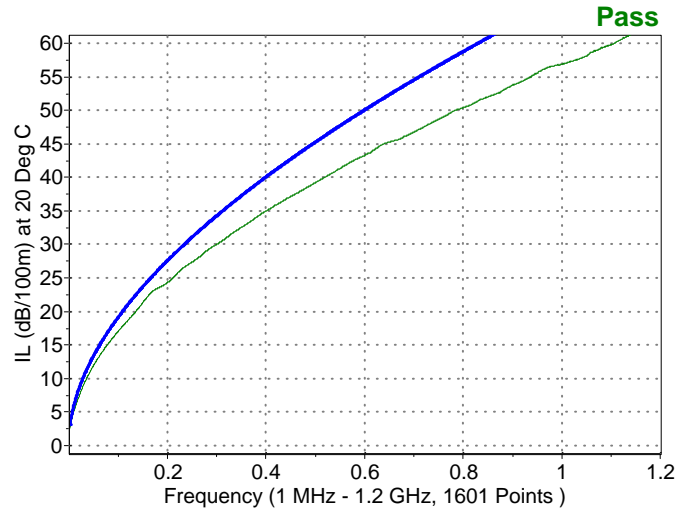
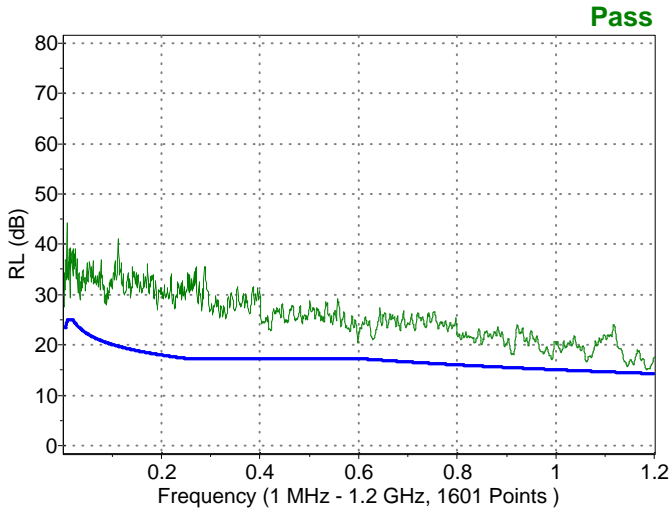
Legend

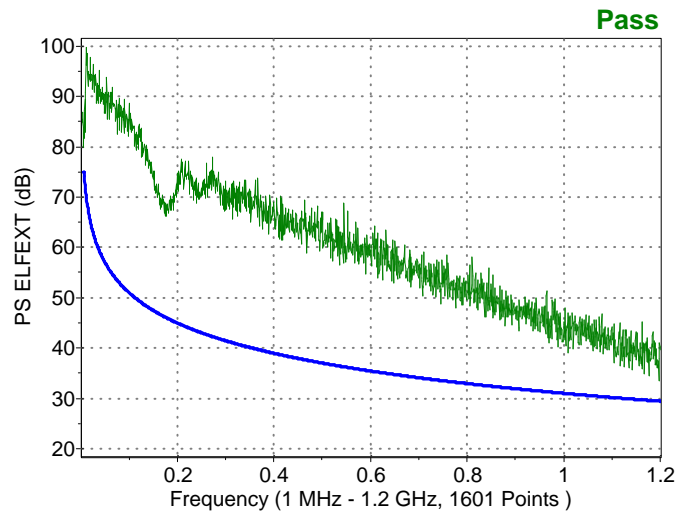
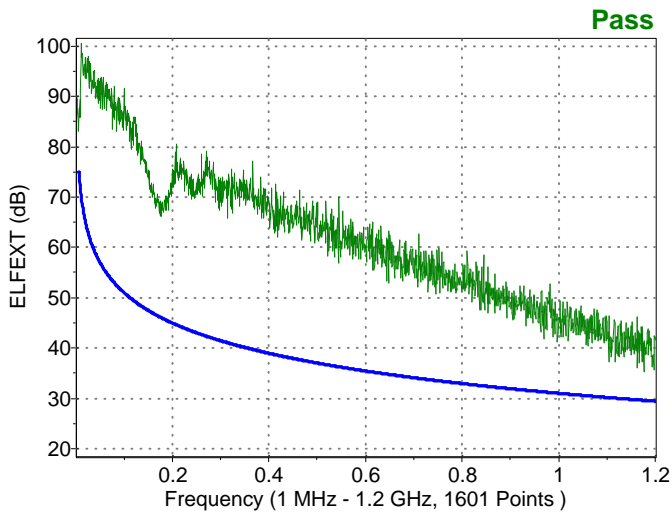
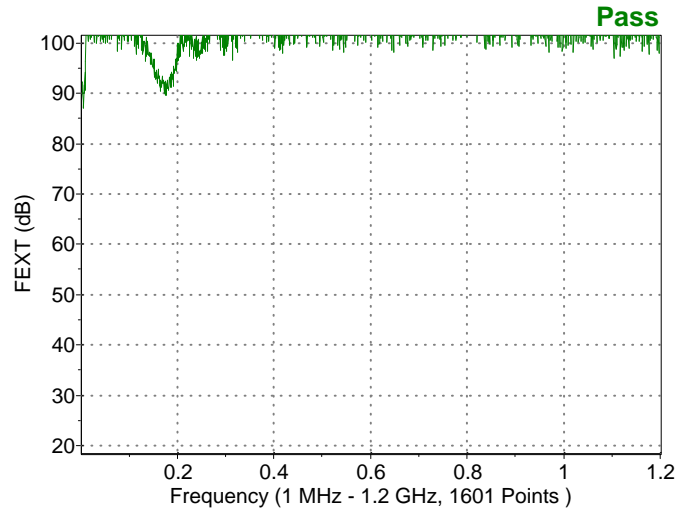
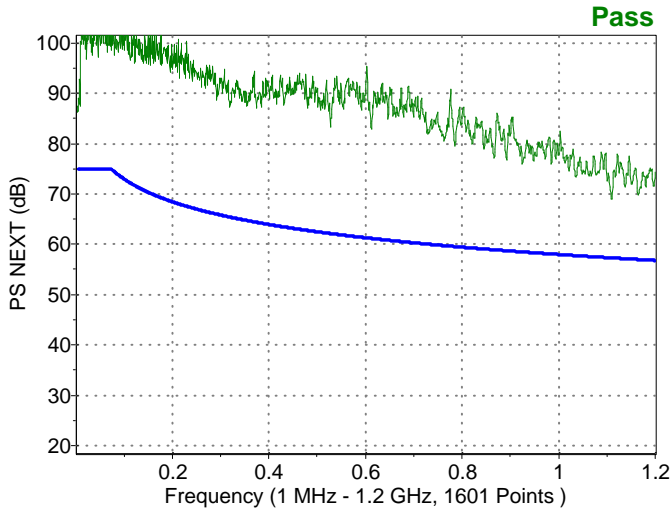
ZIN = Input Impedance
 IL = Insertion loss
 V % = Velocity %
 FEXT = Far End Crosstalk

Z0 = Fitted Impedance
 Phase delay = Phase delay
 NEXT = Near End Crosstalk
 ELFEXT = Equal Level FEXT

RL = Return Loss
 V = Velocity
 PS NEXT = Power Sum NEXT
 PS ELFEXT = Power Sum ELFEXT





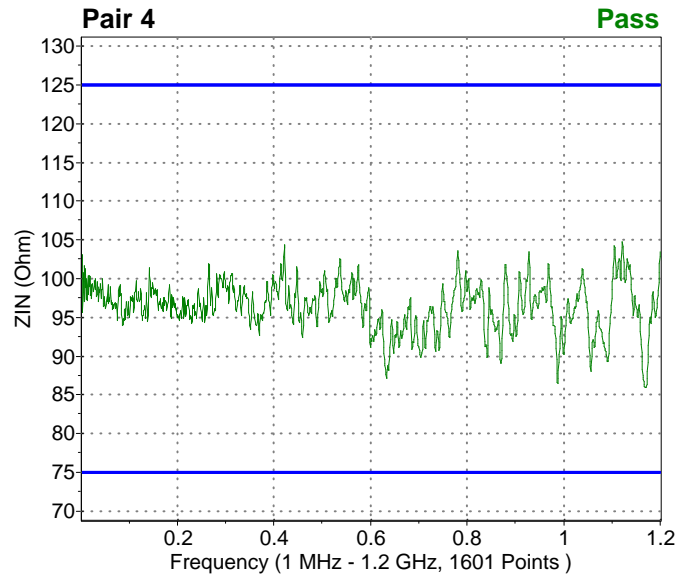
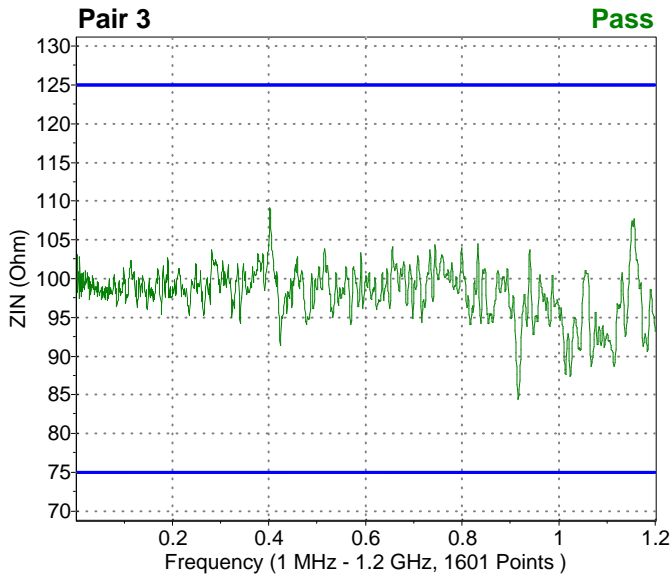
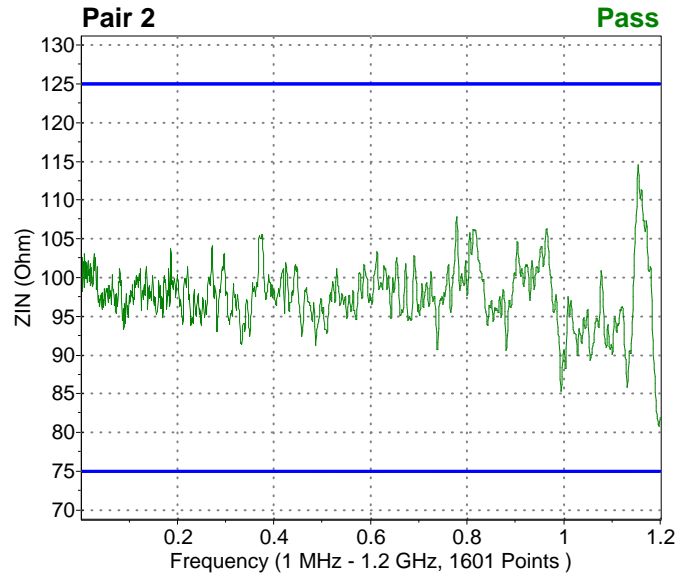
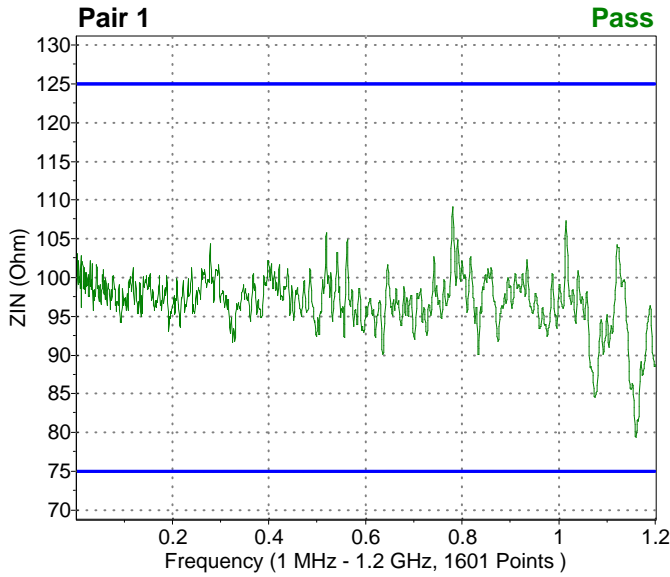




Summary and Graphic: Input Impedance (ZIN)

{ v = Value (Ohm) l = Limit (Ohm) m = Margin (Ohm) f = Frequency (GHz) }

Pair	Start f	Stop f	Points	Minimum { v [ff] }	Maximum { v [ff] }	Min. Margin { m (v l) [ff] }	Result
1	0.001	1.2	1601	79.32 [1.16]	109.15 [0.7811]		✓
2	0.001	1.2	1601	80.79 [1.197]	114.62 [1.154]		✓
3	0.001	1.2	1601	84.41 [0.9167]	109.20 [0.4019]		✓
4	0.001	1.2	1601	85.96 [1.169]	104.80 [1.121]		✓

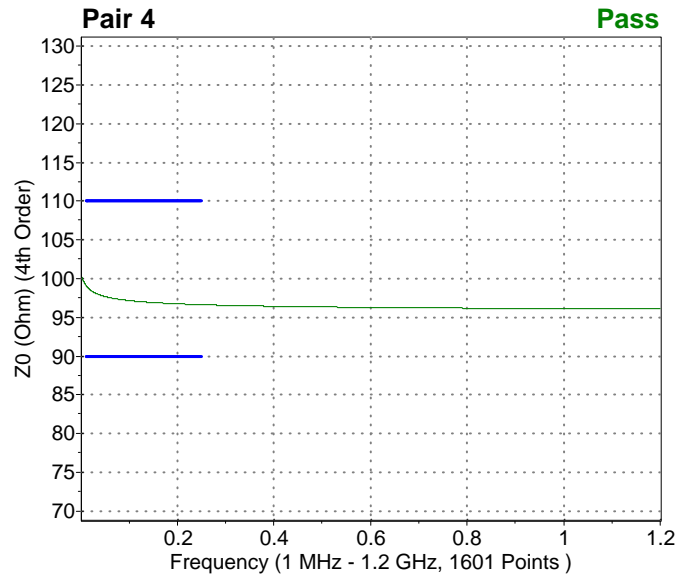
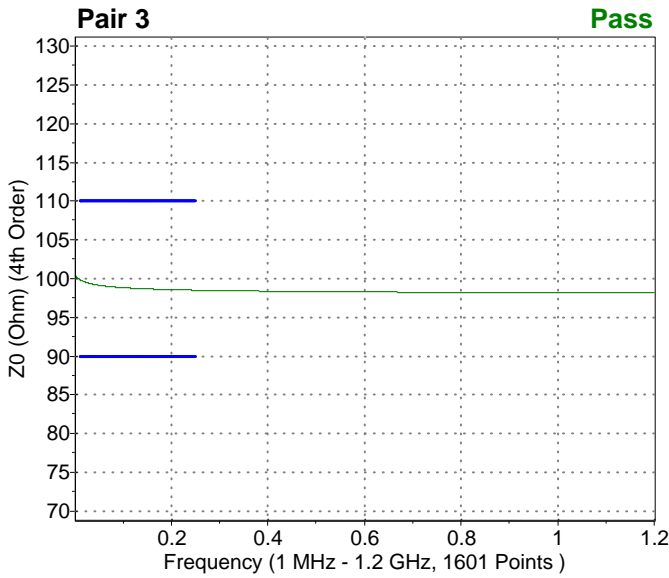
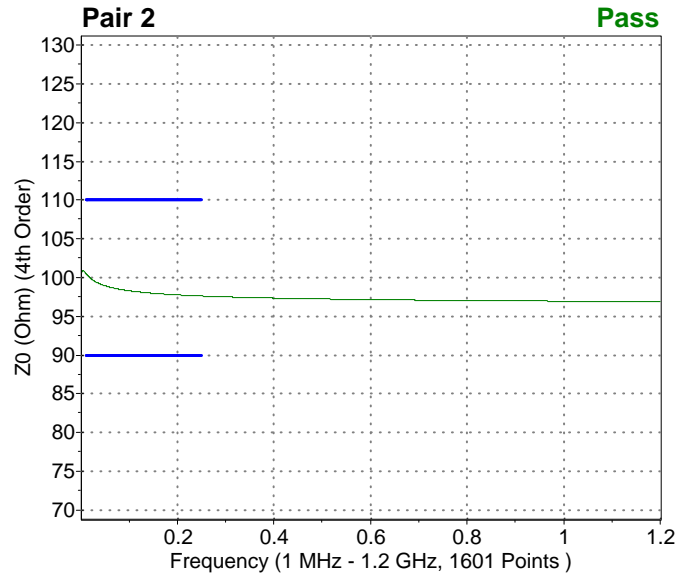
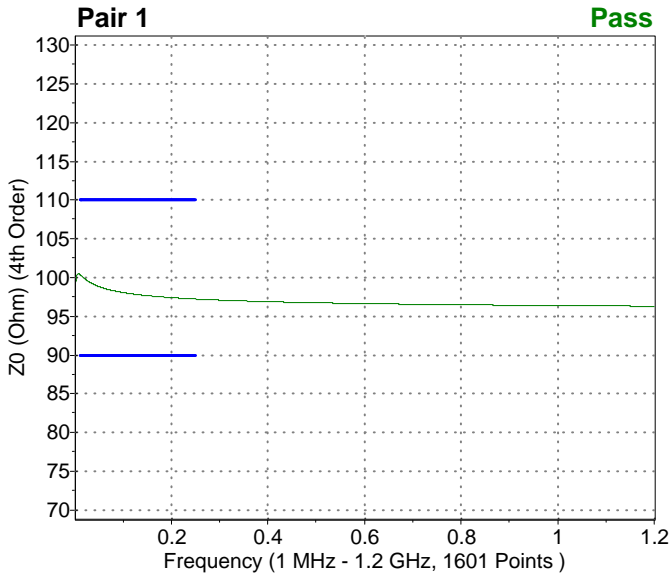




Summary and Graphic: Fitted Impedance (Z0 (4th Order))

{ v = Value (Ohm) l = Limit (Ohm) m = Margin (Ohm) f = Frequency (GHz) }

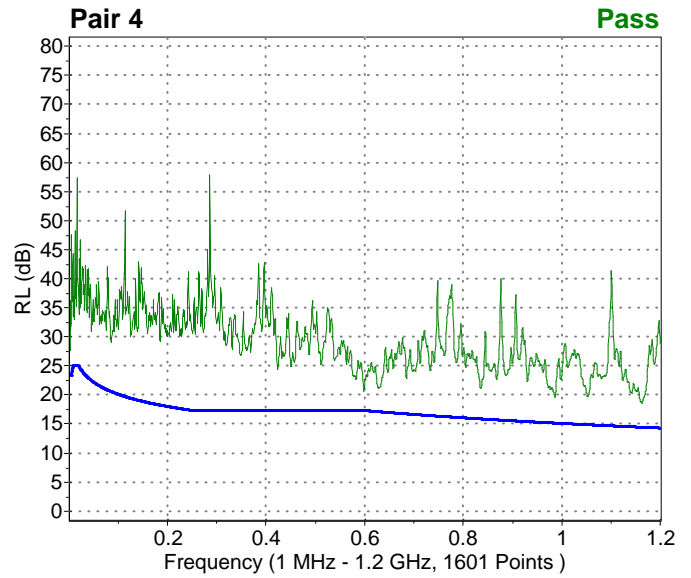
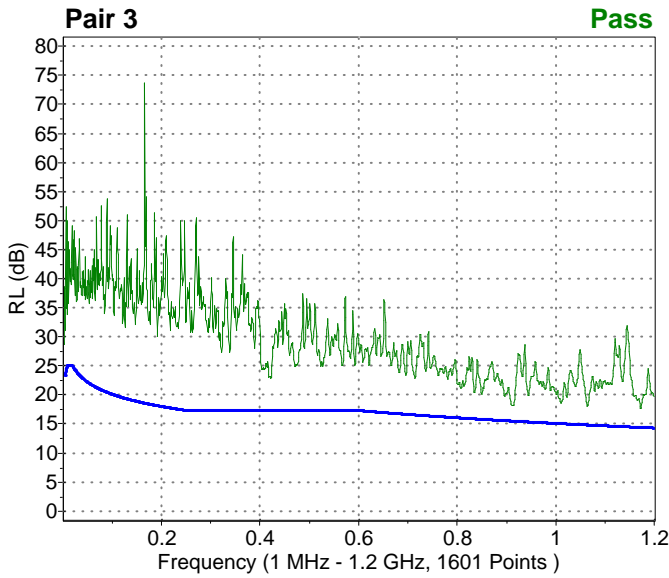
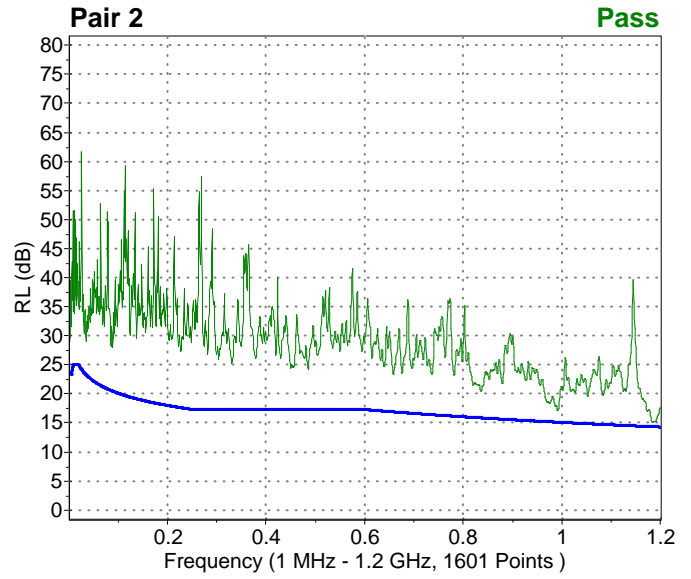
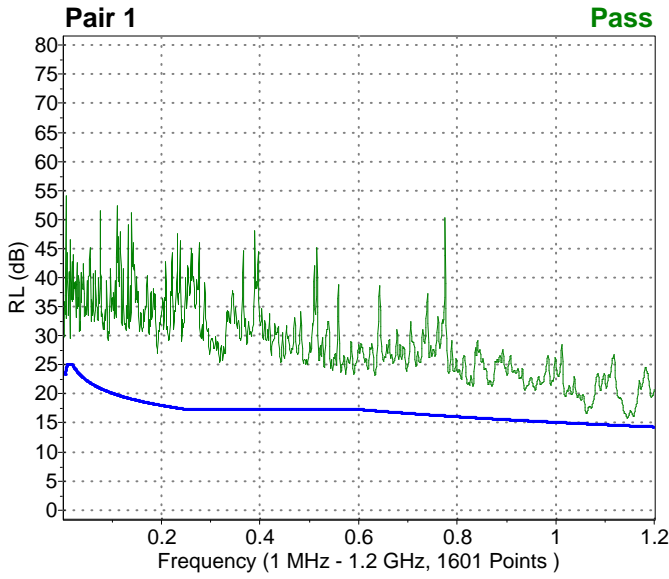
Pair	Start f	Stop f	Points	Minimum { v [ff] }	Maximum { v [ff] }	Min. Margin { m (v l) [ff] }	Result
1	0.001	1.2	1601	96.31 [1.2]	101.32 [0.001]	7.23 (97.23 < 90.00) [0.2498]	✓
2	0.001	1.2	1601	96.90 [1.2]	101.65 [0.001]	7.62 (97.62 < 90.00) [0.2498]	✓
3	0.001	1.2	1601	98.15 [1.2]	102.33 [0.001]	8.51 (98.51 < 90.00) [0.2498]	✓
4	0.001	1.2	1601	96.08 [1.2]	101.41 [0.001]	6.64 (96.64 < 90.00) [0.2498]	✓



Summary and Graphic: Return Loss (RL)

{ v = Value (dB) l = Limit (dB) m = Margin (dB) f = Frequency (GHz) }

Pair	Start f	Stop f	Points	Minimum { v [ff] }	Maximum { v [ff] }	Min. Margin { m (v l) [ff] }	Result
1	0.001	1.2	1601	15.74 [1.146]	54.12 [0.006246]		✓
2	0.001	1.2	1601	15.08 [1.184]	61.60 [0.02573]		✓
3	0.001	1.2	1601	17.61 [1.173]	73.64 [0.1666]		✓
4	0.001	1.2	1601	18.54 [1.163]	57.86 [0.2865]		✓

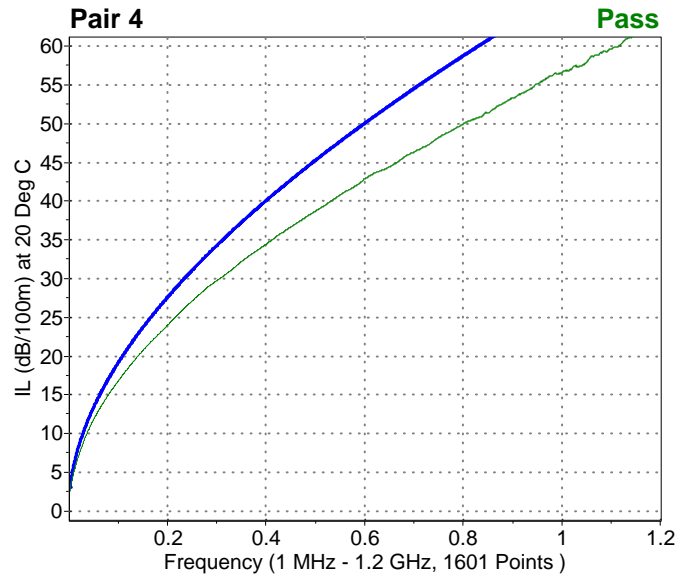
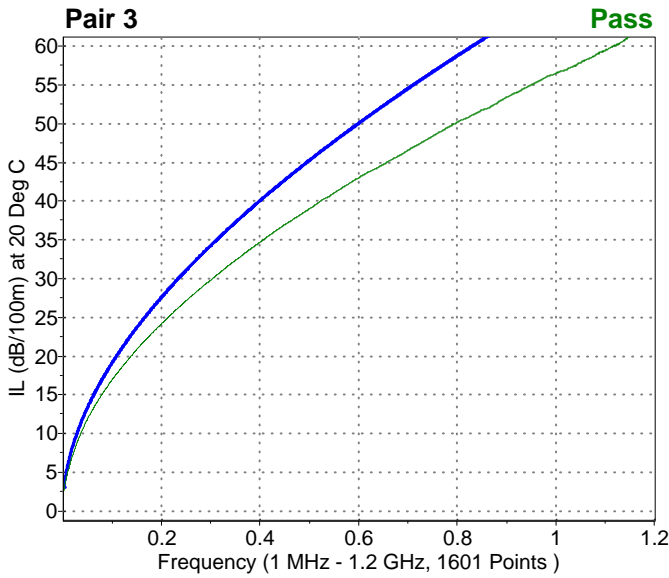
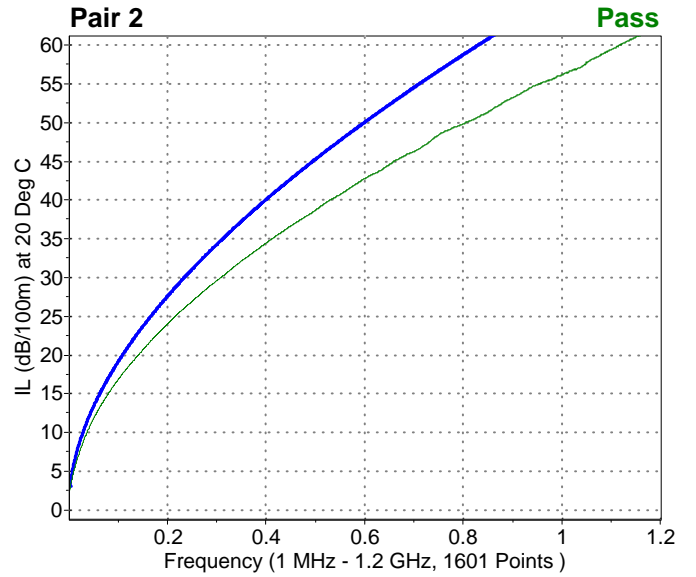
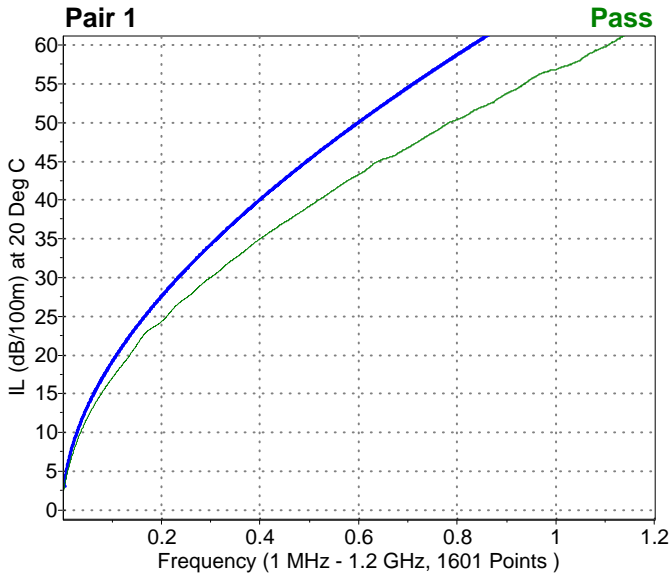




Summary and Graphic: Insertion loss (IL)

{ *v* = Value (dB/100m) at 20 Deg C *l* = Limit (dB/100m) at 20 Deg C *m* = Margin (dB/100m) at 20 Deg C *f* = Frequency (GHz) }

Pair	Start <i>f</i>	Stop <i>f</i>	Points	Minimum { <i>v</i> [<i>f</i>] }	Maximum { <i>v</i> [<i>f</i>] }	Min. Margin { <i>m</i> (<i>v</i> <i>l</i>) [<i>f</i>] }	Result
1	0.001	1.2	1601	1.97 [0.001]	63.06 [1.198]	0.28 (2.78 > 3.06) [0.002499]	✓
2	0.001	1.2	1601	1.95 [0.001]	62.28 [1.199]	0.31 (2.74 > 3.06) [0.002499]	✓
3	0.001	1.2	1601	1.96 [0.001]	62.51 [1.199]	0.29 (2.77 > 3.06) [0.002499]	✓
4	0.001	1.2	1601	1.93 [0.001]	62.64 [1.2]	0.33 (2.73 > 3.06) [0.002499]	✓

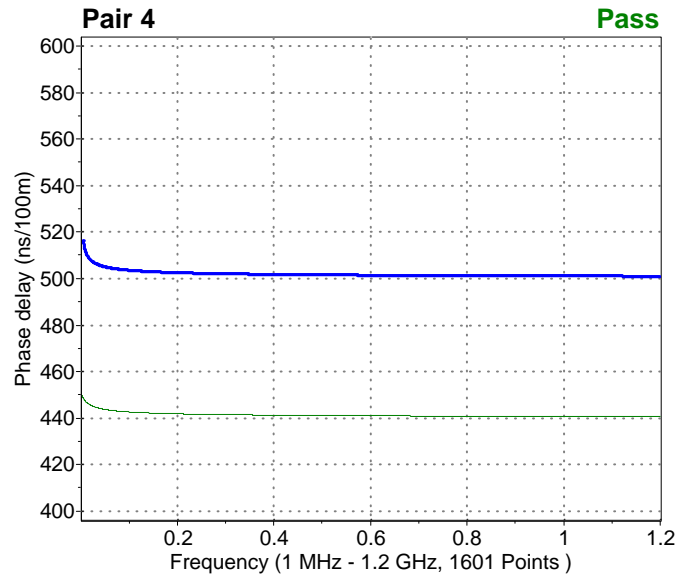
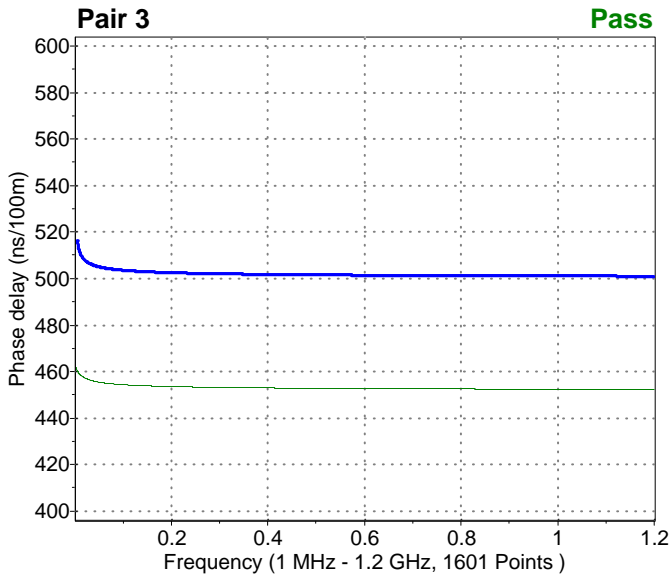
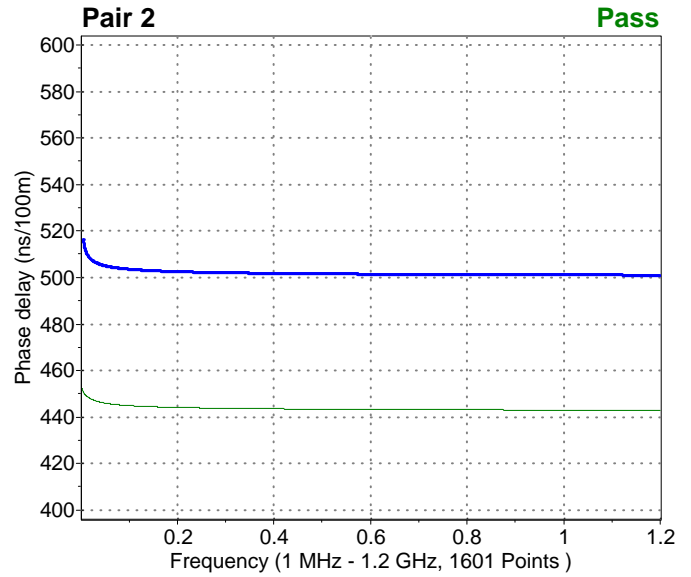
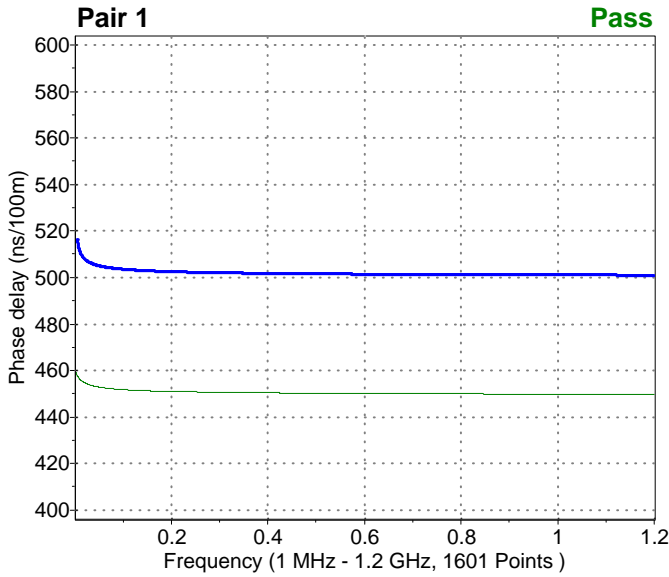




Summary and Graphic: Phase delay (Phase delay)

{ v = Value (ns/100m) l = Limit (ns/100m) m = Margin (ns/100m) f = Frequency (GHz) }

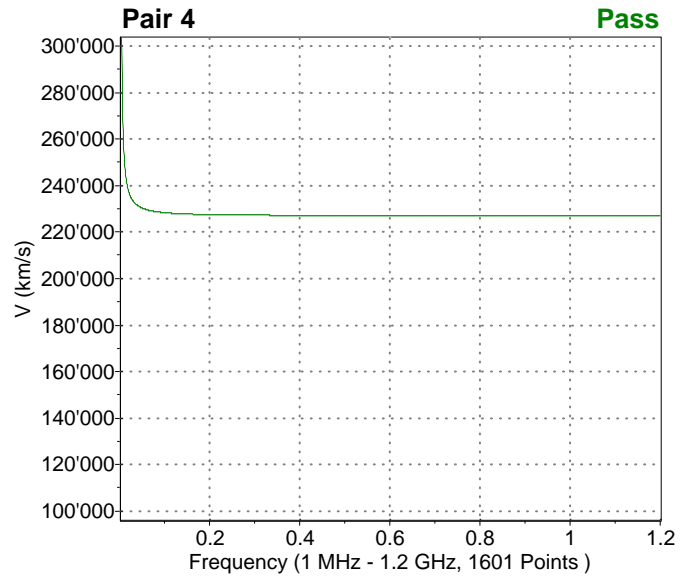
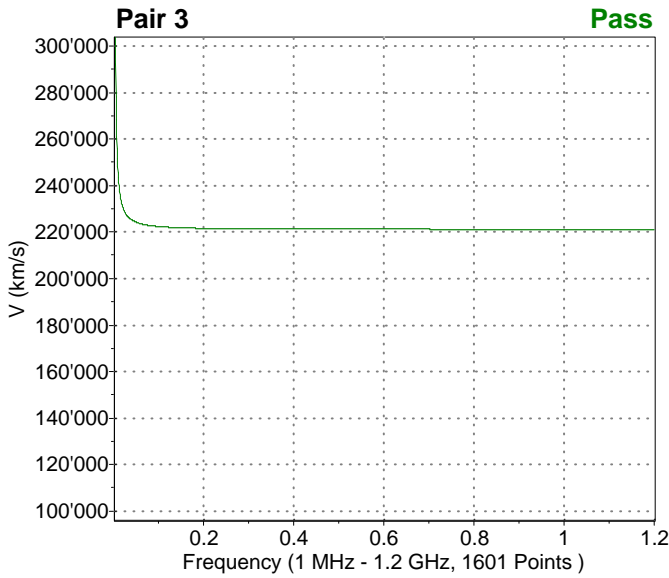
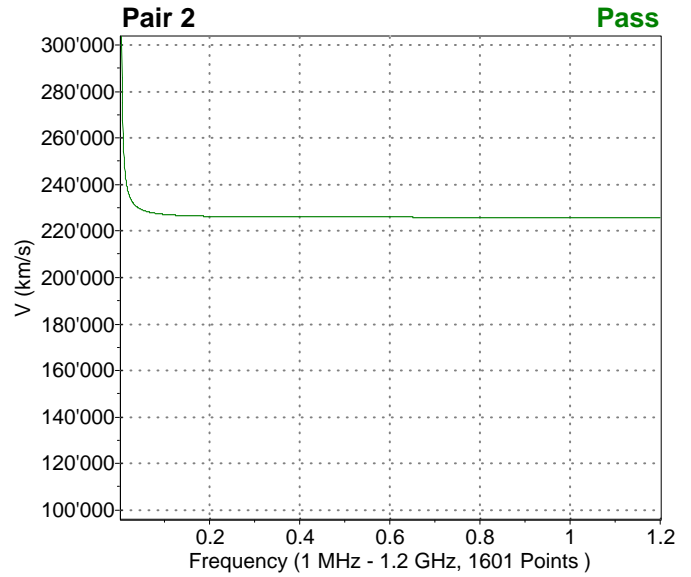
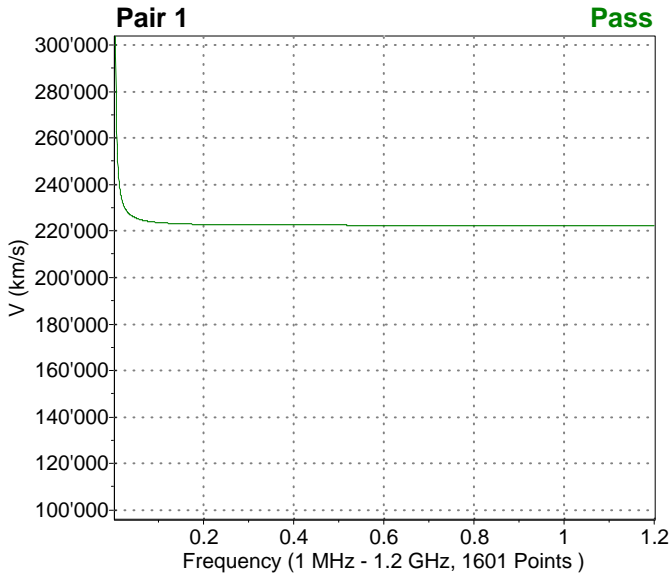
Pair	Start f	Stop f	Points	Minimum { v [ff] }	Maximum { v [ff] }	Min. Margin { m (v l) [ff] }	Result
1	0.001	1.2	1601	449.79 [1.193]	459.27 [0.002499]	51.25 (449.79 > 501.04) [1.199]	✓
2	0.001	1.2	1601	442.93 [1.199]	452.15 [0.002499]	58.11 (442.93 > 501.04) [1.2]	✓
3	0.001	1.2	1601	452.35 [1.199]	461.75 [0.002499]	48.68 (452.36 > 501.04) [1.2]	✓
4	0.001	1.2	1601	440.65 [1.193]	449.88 [0.002499]	60.39 (440.65 > 501.04) [1.199]	✓



Summary and Graphic: Velocity (V)

{ v = Value (km/s) l = Limit (km/s) m = Margin (km/s) f = Frequency (GHz) }

Pair	Start f	Stop f	Points	Minimum { v [ff] }	Maximum { v [ff] }	Min. Margin { m (v l) [ff] }	Result
1	0.001	1.2	1601	-4'596'523 [0.001]	542'853 [0.001749]	222'459 (222'519 < 60) [1.197]	✓
2	0.001	1.2	1601	-3'445'594 [0.001]	565'097 [0.001749]	225'910 (225'970 < 60) [1.137]	✓
3	0.001	1.2	1601	-5'188'743 [0.001]	535'718 [0.001749]	221'197 (221'257 < 60) [1.2]	✓
4	0.001	1.2	1601	-3'191'878 [0.001]	572'573 [0.001749]	227'077 (227'137 < 60) [1.056]	✓

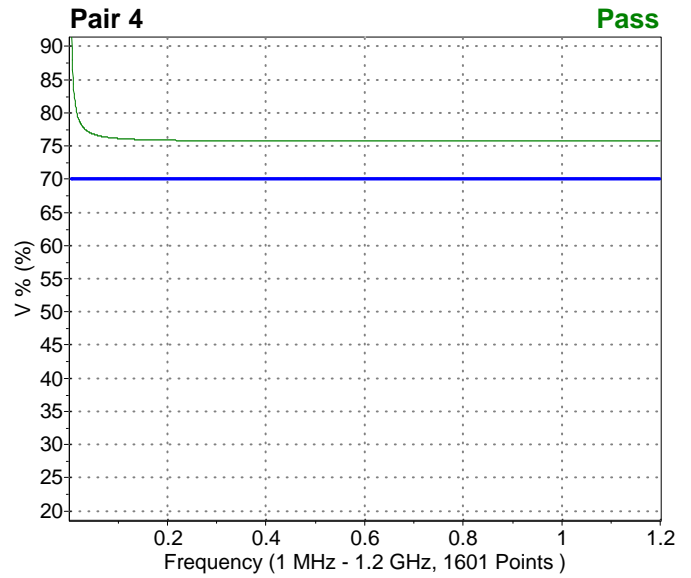
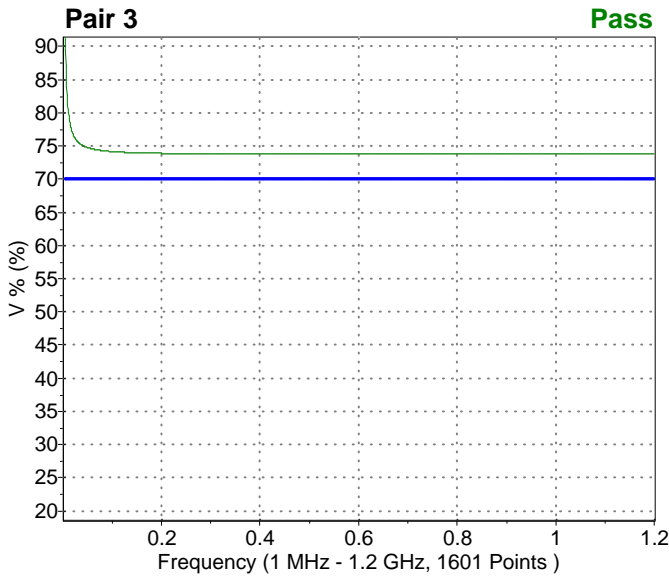
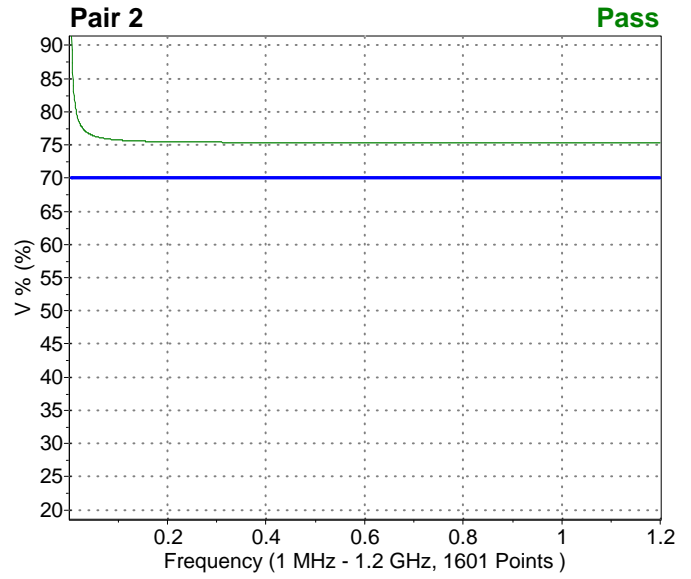
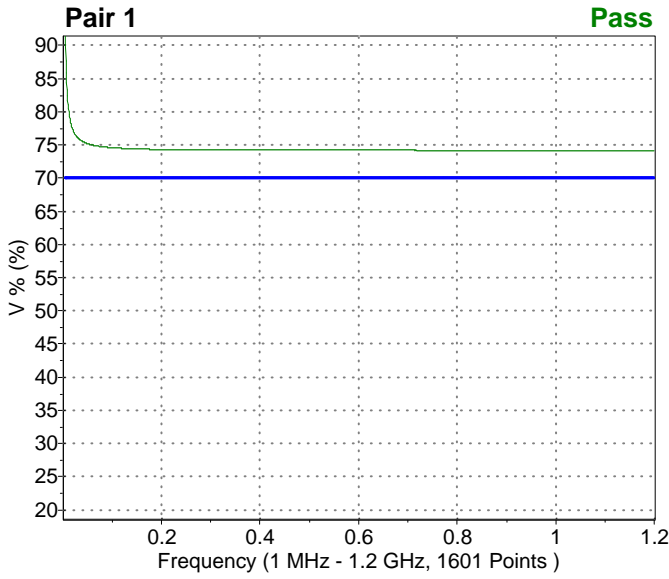




Summary and Graphic: Velocity % (V %)

{ v = Value (%) l = Limit (%) m = Margin (%) f = Frequency (GHz) }

Pair	Start f	Stop f	Points	Minimum { v [ff] }	Maximum { v [ff] }	Min. Margin { m (v l) [ff] }	Result
1	0.001	1.2	1601	-1'532.17 [0.001]	180.95 [0.001749]	4.17 (74.17 < 70.00) [1.197]	✓
2	0.001	1.2	1601	-1'148.53 [0.001]	188.37 [0.001749]	5.32 (75.32 < 70.00) [1.137]	✓
3	0.001	1.2	1601	-1'729.58 [0.001]	178.57 [0.001749]	3.75 (73.75 < 70.00) [1.2]	✓
4	0.001	1.2	1601	-1'063.96 [0.001]	190.86 [0.001749]	5.71 (75.71 < 70.00) [1.056]	✓

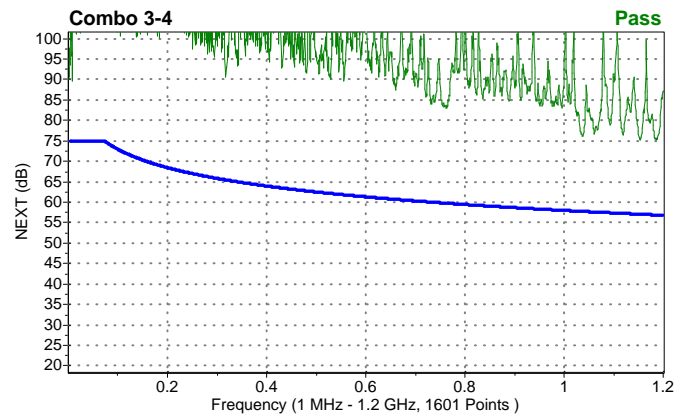
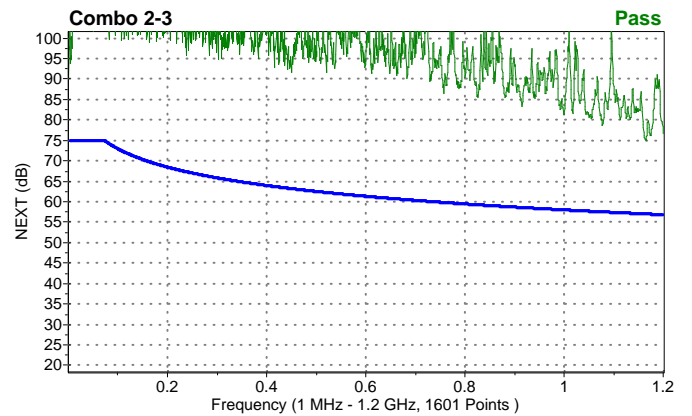
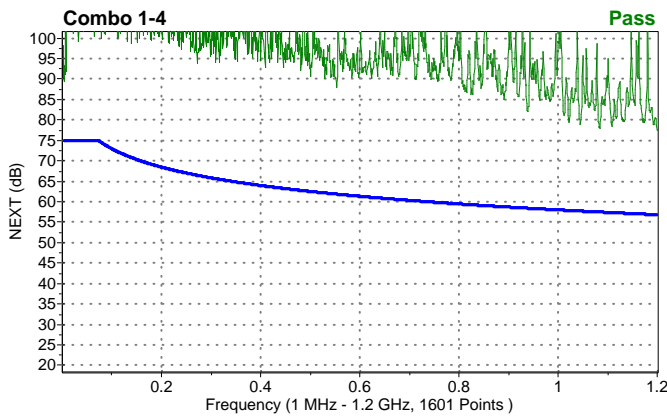
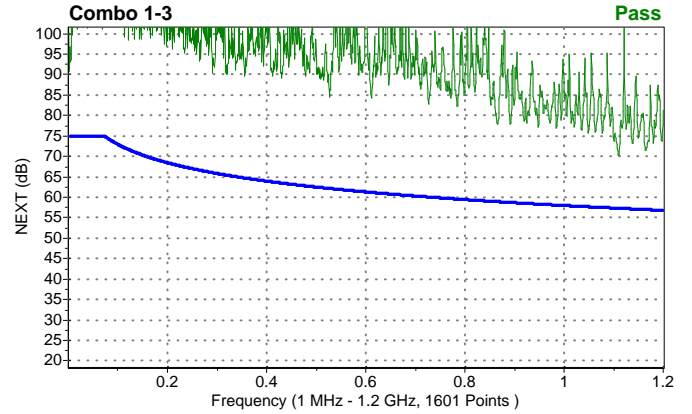
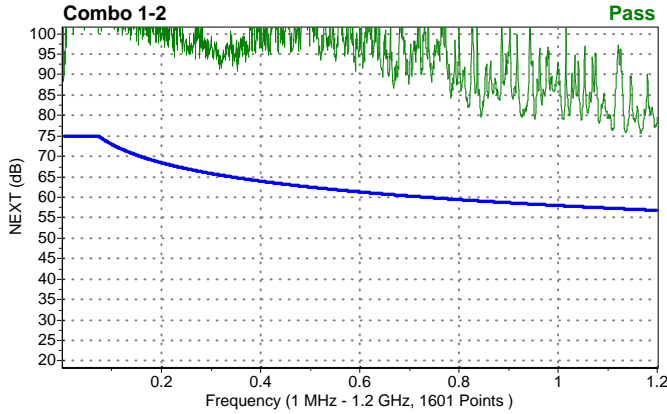




Summary and Graphic: Near End Crosstalk (NEXT)

{ v = Value (dB) l = Limit (dB) m = Margin (dB) f = Frequency (GHz) }

Combo	Start f	Stop f	Points	Minimum { v [ff] }	Maximum { v [ff] }	Min. Margin { m (v l) [ff] }	Result
1-2	0.001	1.2	1601	75.60 [1.166]	126.72 [0.5825]	15.40 (90.40 < 75.00) [0.004747]	✓
1-3	0.001	1.2	1601	70.22 [1.11]	139.50 [0.0602]	12.90 (70.22 < 57.32) [1.11]	✓
1-4	0.001	1.2	1601	77.36 [1.2]	127.41 [0.1876]	14.38 (89.38 < 75.00) [0.004747]	✓
2-3	0.001	1.2	1601	75.01 [1.166]	133.71 [0.01749]	18.01 (75.01 < 57.00) [1.166]	✓
2-4	0.001	1.2	1601	75.55 [1.077]	137.44 [0.1254]	17.64 (92.64 < 75.00) [0.006246]	✓
3-4	0.001	1.2	1601	75.22 [1.186]	132.56 [0.1202]	14.49 (89.49 < 75.00) [0.009243]	✓

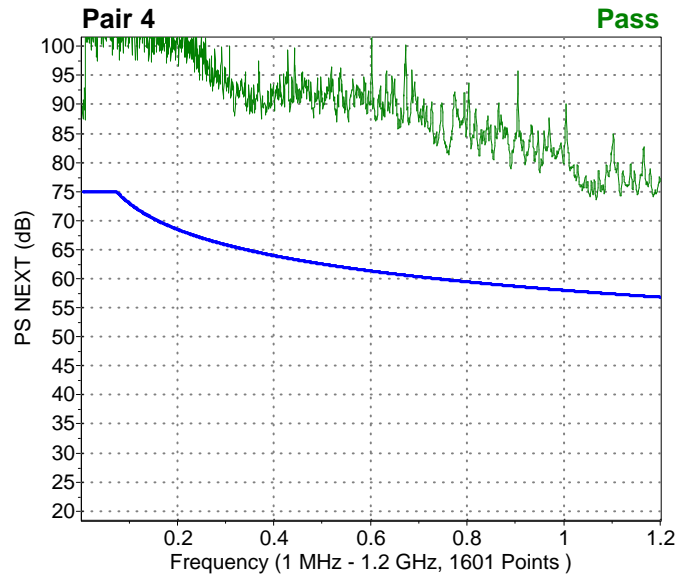
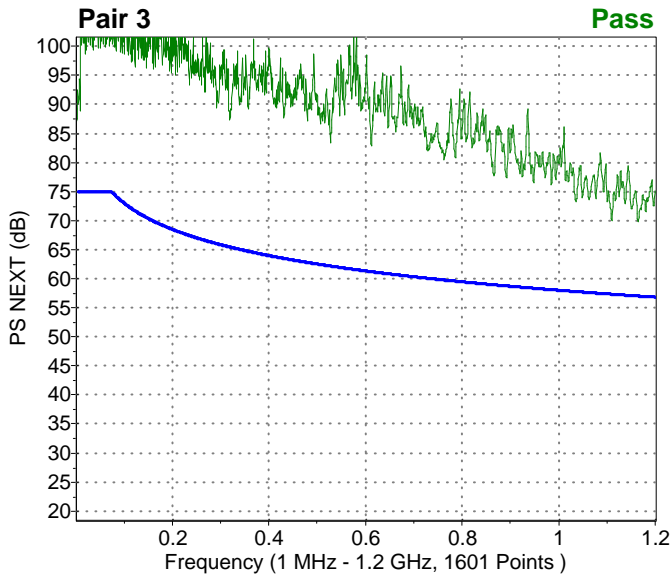
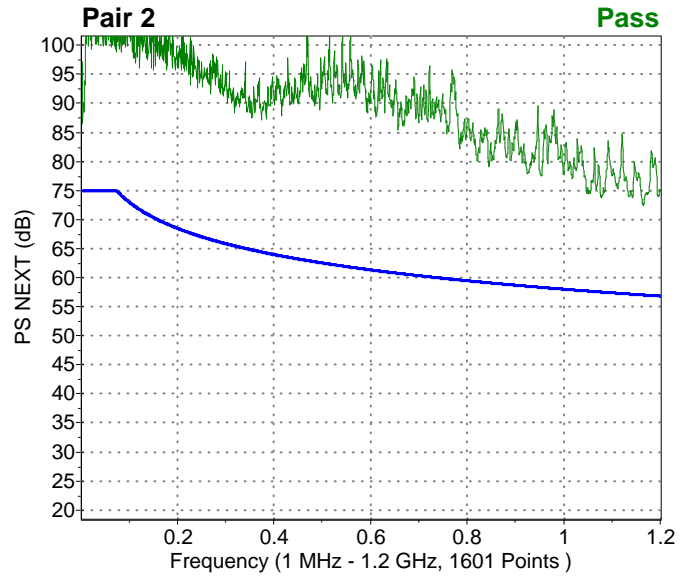
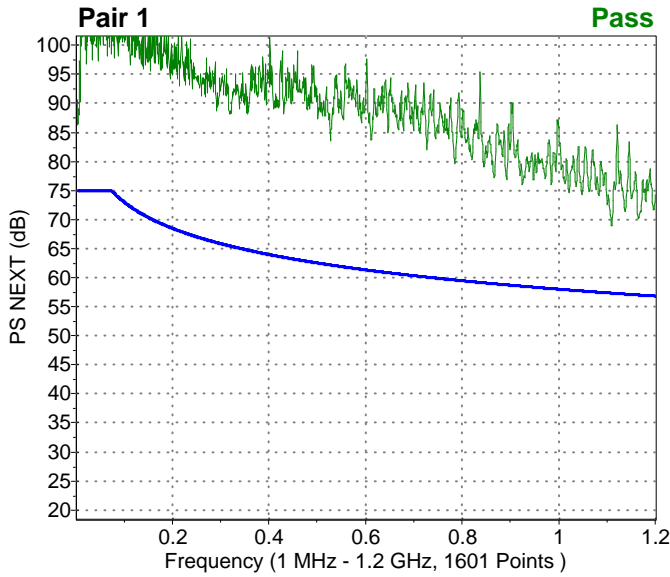




Summary and Graphic: Power Sum NEXT (PS NEXT)

{ v = Value (dB) l = Limit (dB) m = Margin (dB) f = Frequency (GHz) }

Pair	Start f	Stop f	Points	Minimum { v [ff] }	Maximum { v [ff] }	Min. Margin { m (v l) [ff] }	Result
1	0.001	1.2	1601	68.94 [1.111]	113.71 [0.04821]	11.42 (86.42 < 75.00) [0.004747]	✓
2	0.001	1.2	1601	72.40 [1.166]	113.78 [0.01749]	13.61 (88.61 < 75.00) [0.006246]	✓
3	0.001	1.2	1601	69.87 [1.165]	113.15 [0.03622]	12.68 (69.99 < 57.32) [1.111]	✓
4	0.001	1.2	1601	73.52 [1.067]	111.33 [0.03847]	12.41 (87.41 < 75.00) [0.009243]	✓

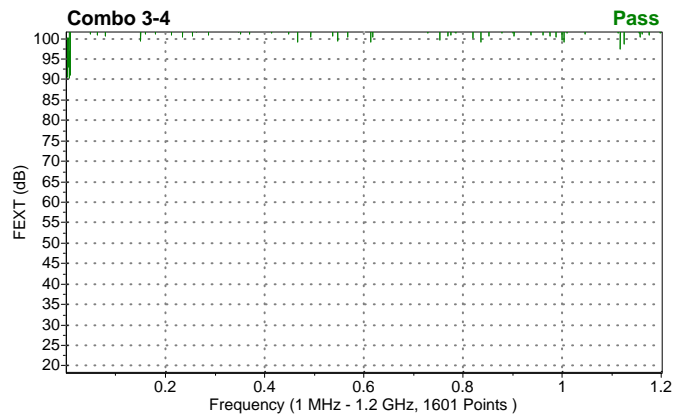
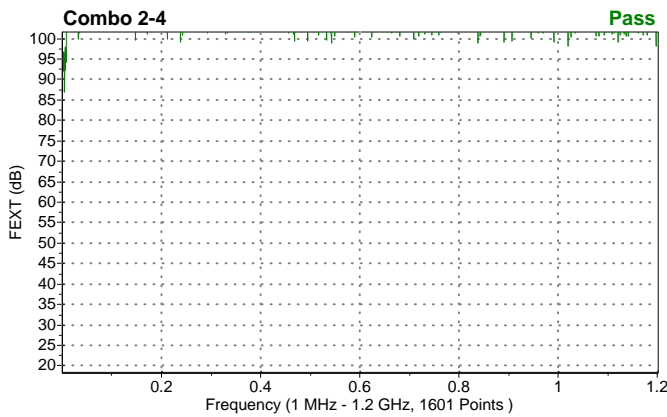
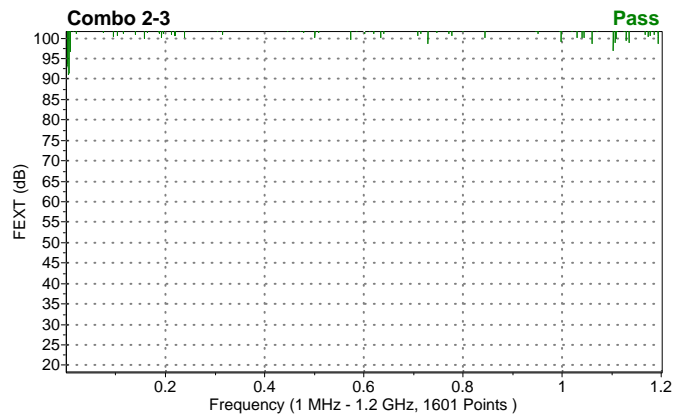
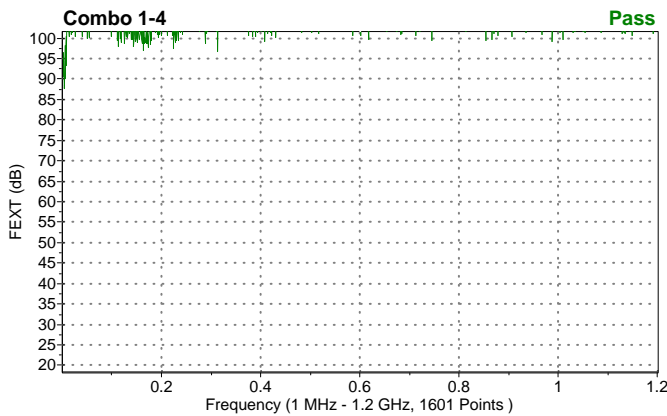
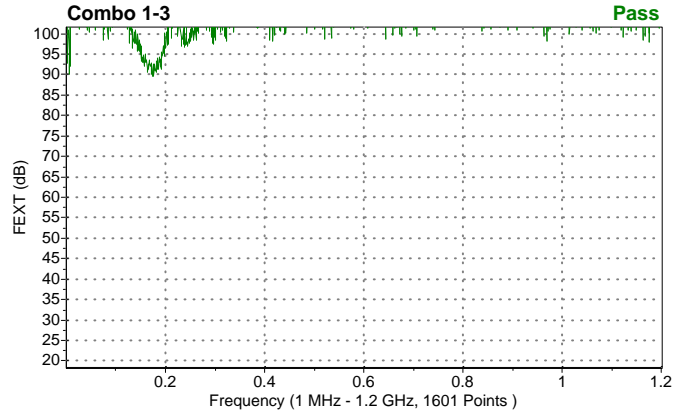
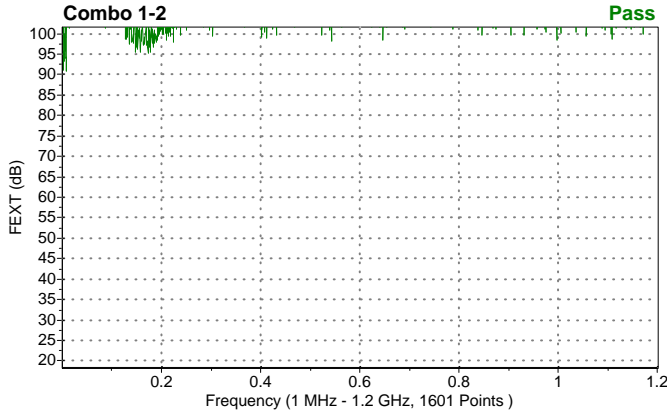




Summary and Graphic: Far End Crosstalk (FEXT)

{ v = Value (dB) l = Limit (dB) m = Margin (dB) f = Frequency (GHz) }

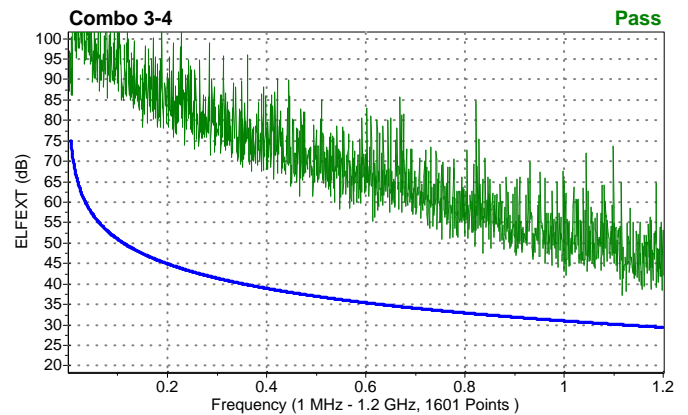
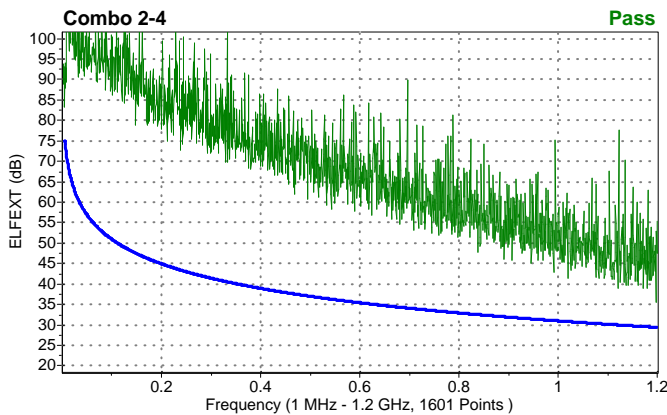
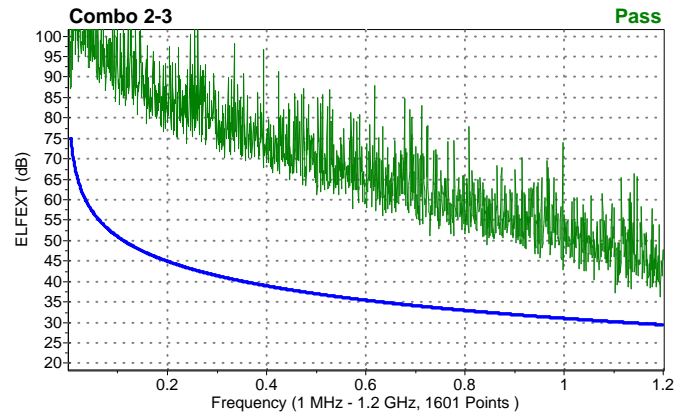
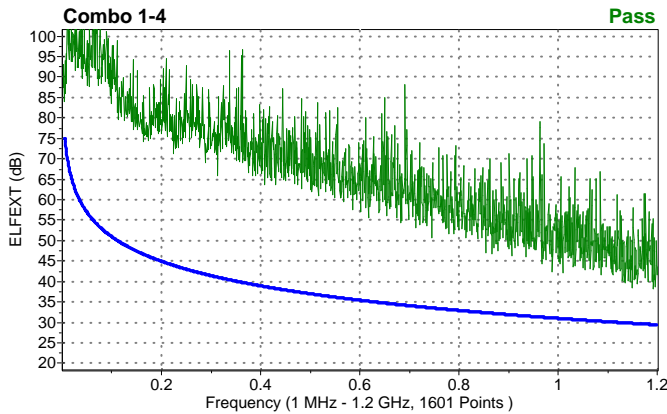
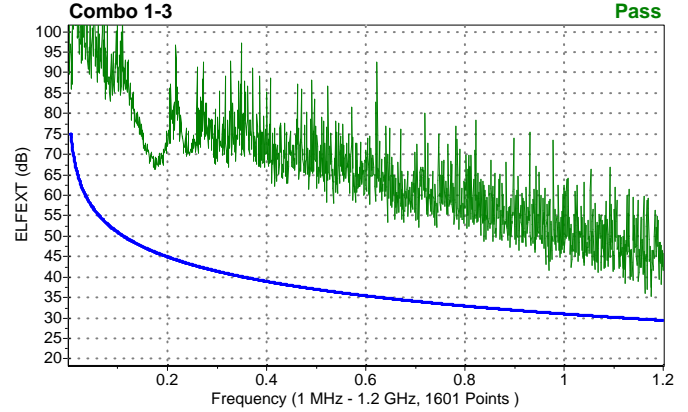
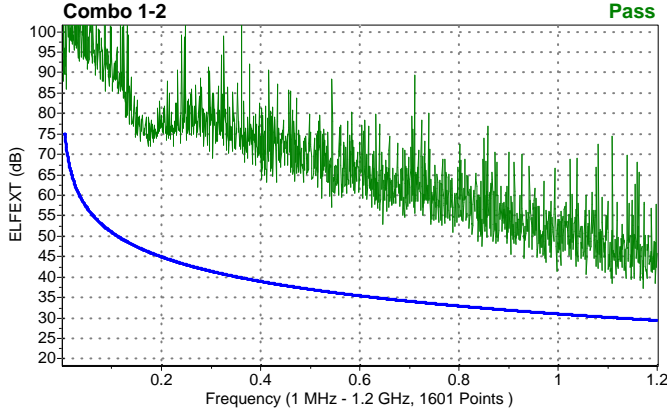
Combo	Start f	Stop f	Points	Minimum { v [f] }	Maximum { v [f] }	Result
1-2	0.001	1.2	1601	90.76 [0.009243]	140.73 [0.3622]	✓
1-3	0.001	1.2	1601	89.67 [0.1749]	137.01 [0.623]	✓
1-4	0.001	1.2	1601	87.76 [0.005496]	135.47 [0.9639]	✓
2-3	0.001	1.2	1601	91.01 [0.005496]	143.84 [0.2618]	✓
2-4	0.001	1.2	1601	87.03 [0.005496]	141.51 [0.01299]	✓
3-4	0.001	1.2	1601	90.39 [0.006995]	142.30 [0.03172]	✓



Summary and Graphic: Equal Level FEXT (ELFEXT)

{ v = Value (dB) l = Limit (dB) m = Margin (dB) f = Frequency (GHz) }

Combo	Start f	Stop f	Points	Minimum { v [ff] }	Maximum { v [ff] }	Min. Margin { m (v l) [ff] }	Result
1-2	0.001	1.2	1601	37.18 [1.172]	118.10 [0.04596]	7.56 (37.18 < 29.62) [1.172]	✓
1-3	0.001	1.2	1601	35.18 [1.177]	116.67 [0.05271]	5.59 (35.18 < 29.59) [1.177]	✓
1-4	0.001	1.2	1601	38.19 [1.193]	117.00 [0.0662]	8.72 (38.19 < 29.47) [1.193]	✓
2-3	0.001	1.2	1601	36.30 [1.194]	117.11 [0.01674]	6.84 (36.30 < 29.46) [1.194]	✓
2-4	0.001	1.2	1601	35.62 [1.197]	135.81 [0.01299]	6.18 (35.62 < 29.44) [1.197]	✓
3-4	0.001	1.2	1601	37.21 [1.118]	132.98 [0.03172]	7.17 (37.21 < 30.03) [1.118]	✓

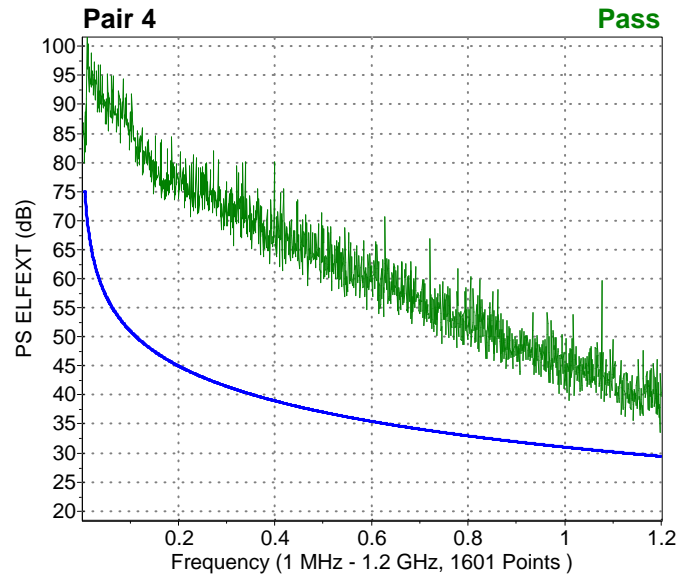
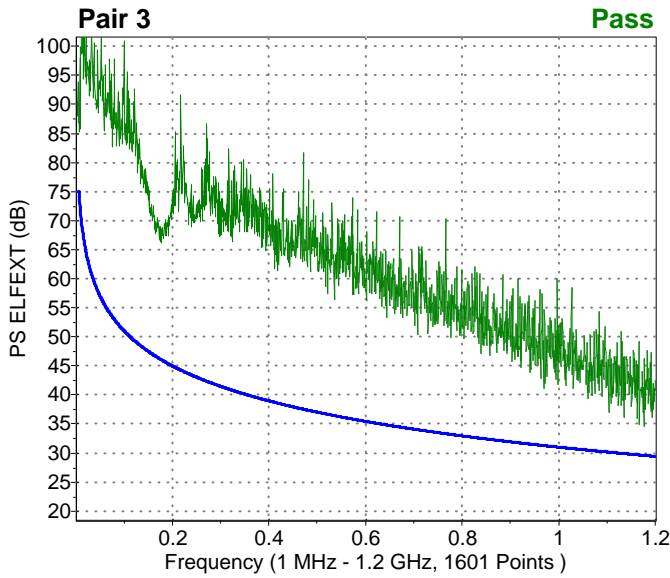
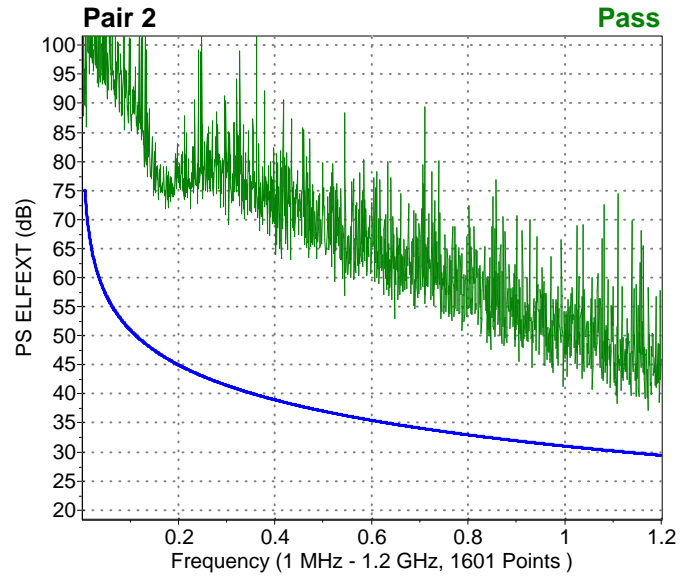
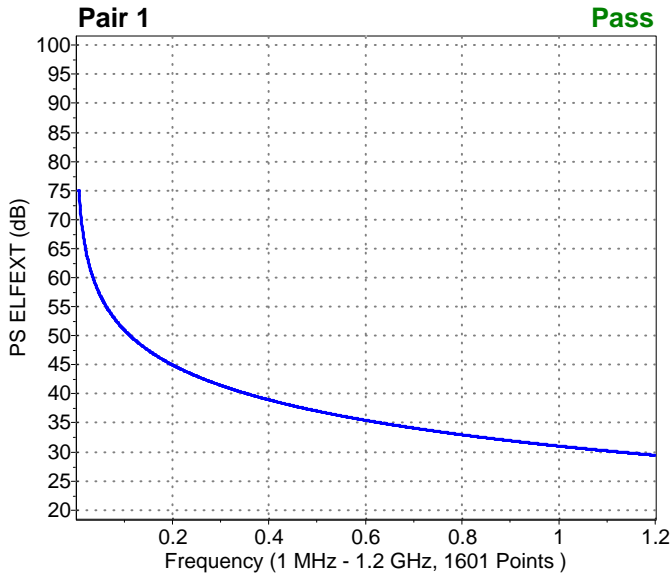




Summary and Graphic: Power Sum ELFEXT (PS ELFEXT)

{ v = Value (dB) l = Limit (dB) m = Margin (dB) f = Frequency (GHz) }

Pair	Start f	Stop f	Points	Minimum { v [f] }	Maximum { v [f] }	Min. Margin { m (v l) [f] }	Result
1	0.001	1.2	1601				✓
2	0.001	1.2	1601	37.18 [1.172]	118.10 [0.04596]	7.56 (37.18 < 29.62) [1.172]	✓
3	0.001	1.2	1601	34.50 [1.177]	109.64 [0.01299]	4.91 (34.50 < 29.59) [1.177]	✓
4	0.001	1.2	1601	33.55 [1.197]	102.81 [0.01074]	4.11 (33.55 < 29.44) [1.197]	✓



All measurements according ISO9001