

Designation : 250MHz UTP
Testorder : OR Cat6
Length : 100m

Temp : 25°C

Test Date/Time : 2018-04-05 14:39:30

Sample-ID-No. : 00000EQQ4U

Customer / Musteri : : TELEDAN-WITRONIC
Cable type / Kablo Tipi : : CAT6 U/UTP HFFR WHITE
Lot No. / Is Emri No. : : 181922
Operator : : ONUR BASARAN

PO No./ Siparis No. : : 9998
Cable Structure/ Kablo Yapisi : :
Drum No/ / Makara No. : :

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
IL (dB/100m) at 20°C	1-250	401	1.85	[1] 1	30.52	[250] 1	0.18	(3.10 > 3.28) [2.867] 1	ü
Phase delay (ns/100m)	1-250	401	-453.49	[1] 1	510.46	[250] 1	25.82	(510.46 > 536.28) [250] 1	ü
V % (%)	1-600	1601	-23,812.43	[1.896] 4	1,195.77	[1.967] 1	5.11	(65.11 < 60.00) [589.7] 1	ü
Skew (ns/100m)	1-250	401	4.26	[123] 2-3	28.59	[1] 1-3	16.41	(28.59 > 45.00) [1] 1-3	ü
NEXT (dB)	1-250	401	41.88	[244.4] 2-3	90.01	[1.622] 3-4	2.40	(41.88 < 39.48) [244.4] 2-3	ü
ACR (dB)	1-250	401	13.6	[244.4] 2-3	87.9	[1.622] 3-4			
PS NEXT (dB)	1-250	401	41.70	[244.4] 2	87.84	[1] 3	5.22	(41.70 < 36.48) [244.4] 2	ü
PS ACR (dB)	1-250	401	13.3	[244.4] 2	86.1	[1] 3			
ELFEXT (dB)	1-250	401	27.40	[247.5] 1-4	82.65	[1] 3-4	7.08	(34.66 < 27.58) [105] 1-4	ü
ACR-F (dB)	1-250	401	28.6	[247.5] 1-4	82.5	[1] 3-4	8.0	(35.3 < 27.4) [105] 1-4	ü
PS ELFEXT (dB)	1-250	401	26.72	[249.4] 1	80.50	[1] 3			
PS ACR-F (dB)	1-250	401	28.0	[248.8] 4	80.4	[1] 2	10.3	(34.6 < 24.3) [105.6] 3	ü
ZIN (Ohm)	1-250	401	87.45	[217.6] 2	119.58	[194.6] 2			
Z0 (Ohm) (4th Order)	1-250	401	98.87	[250] 1	108.06	[1.622] 3	10.92	(104.08 > 115.00) [99.98] 2	ü
RL (dB)	1-250	401	19.64	[194] 2	37.91	[105.6] 4	0.77	(22.07 < 21.30) [67.61] 2	ü

Legend

IL = Insertion loss

Skew = Skew

PS NEXT = Power Sum NEXT

ACR-F = Attenuation Crosstalk-F Ratio

ZIN = Input Impedance

Phase delay = Phase delay

NEXT = Near End Crosstalk

PS ACR = Power Sum ACR

PS ELFEXT = Power Sum ELFEXT

Z0 = Fitted Impedance

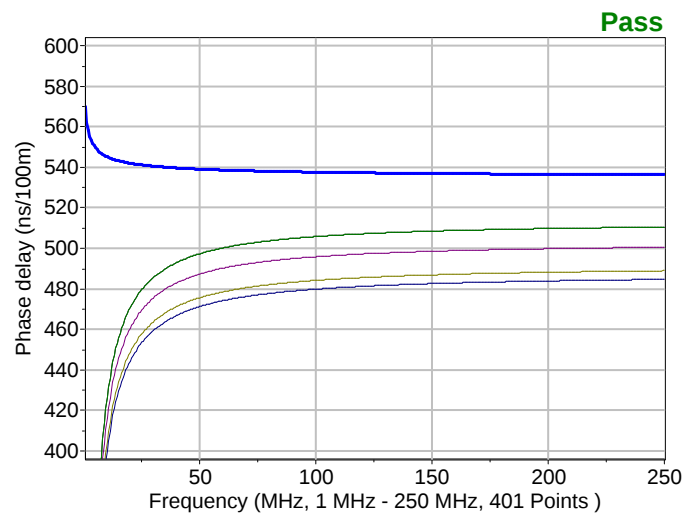
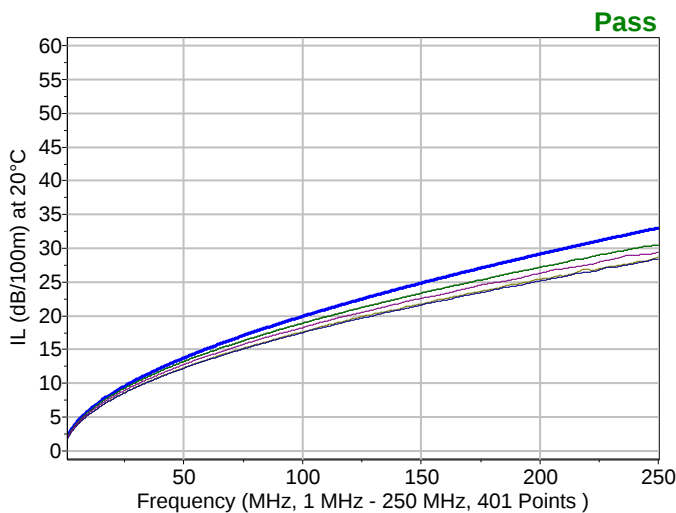
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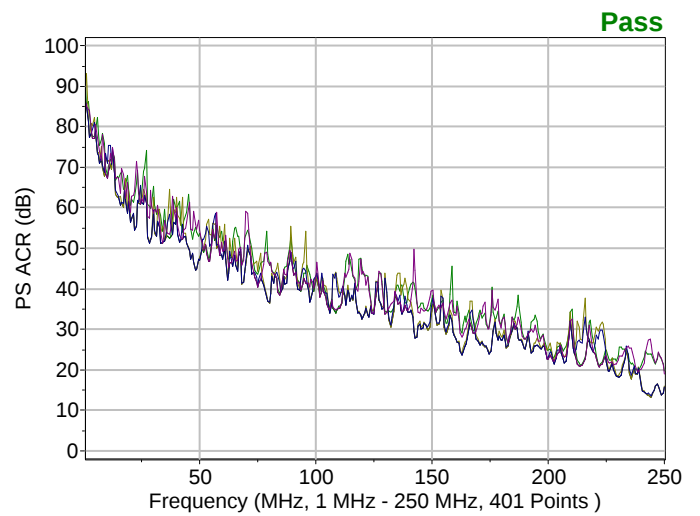
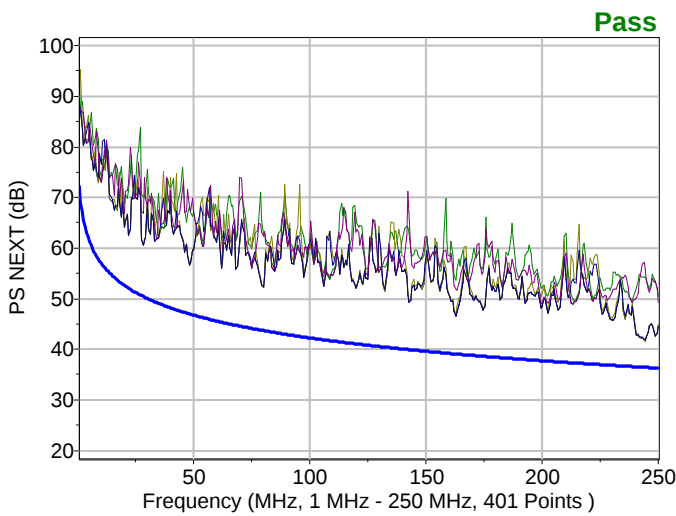
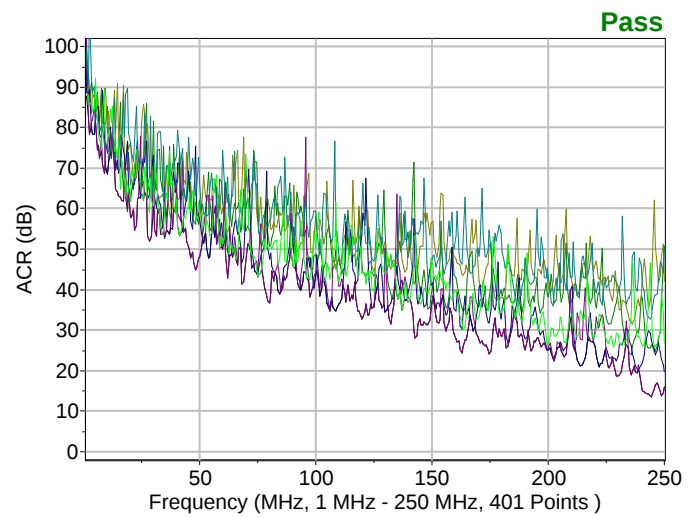
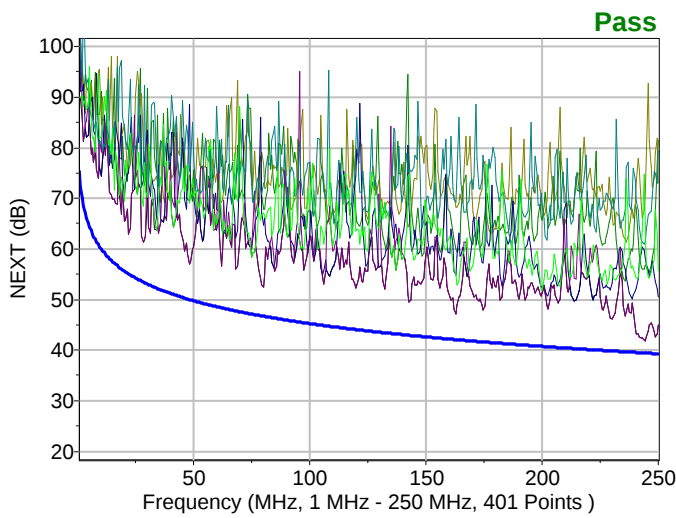
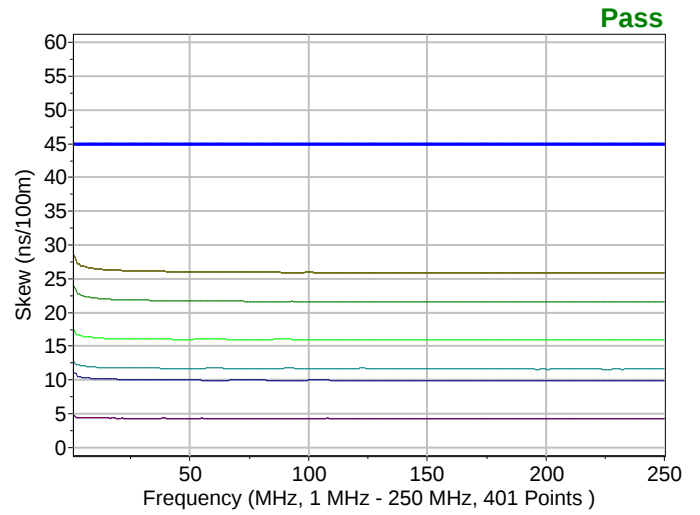
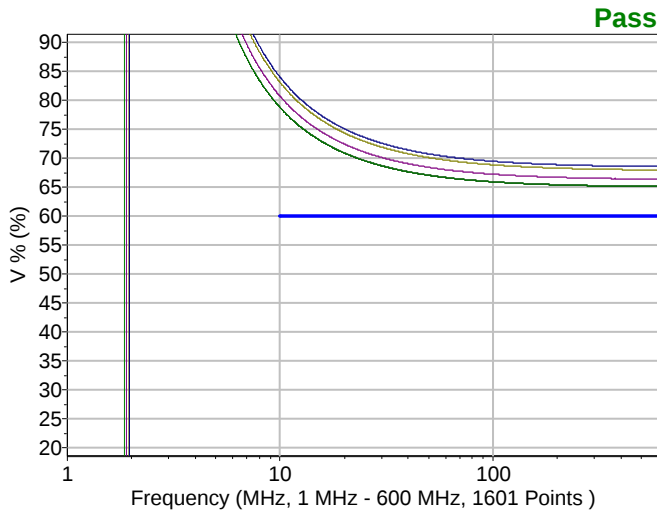
ACR = Attenuation Crosstalk Ratio

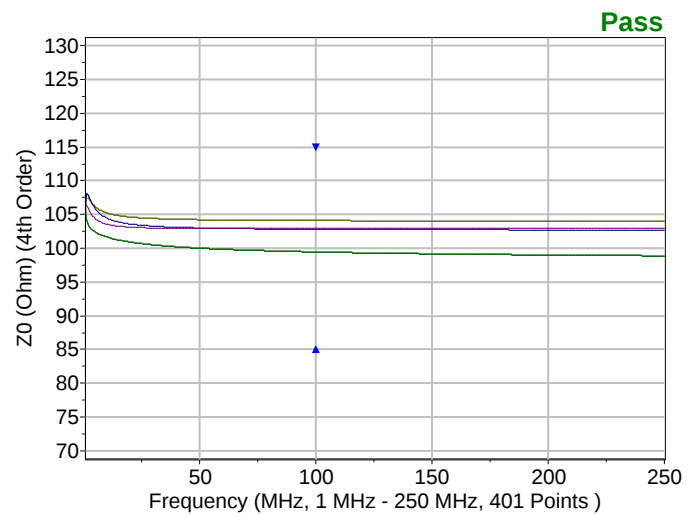
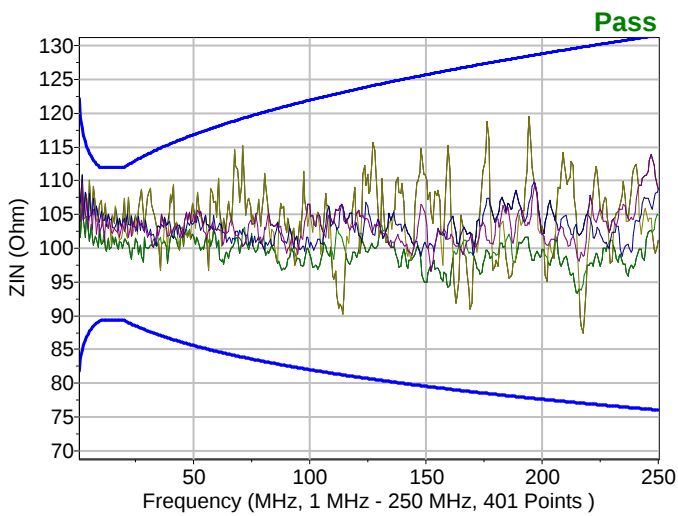
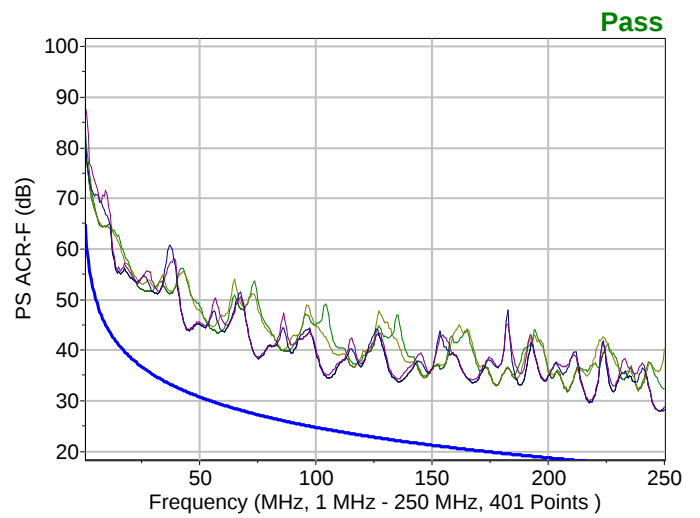
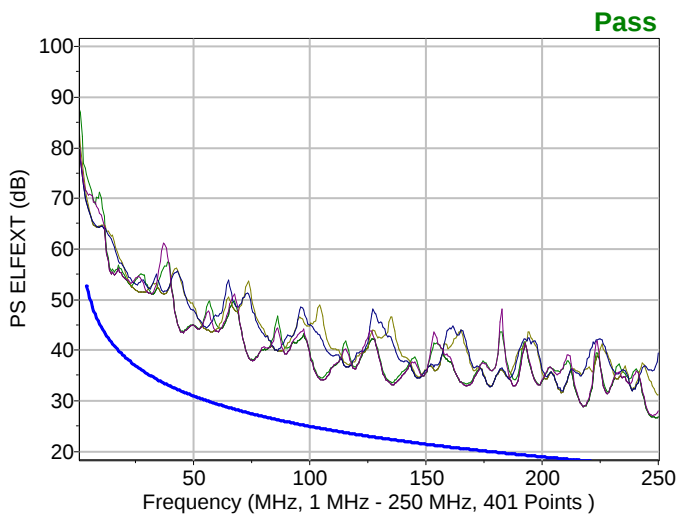
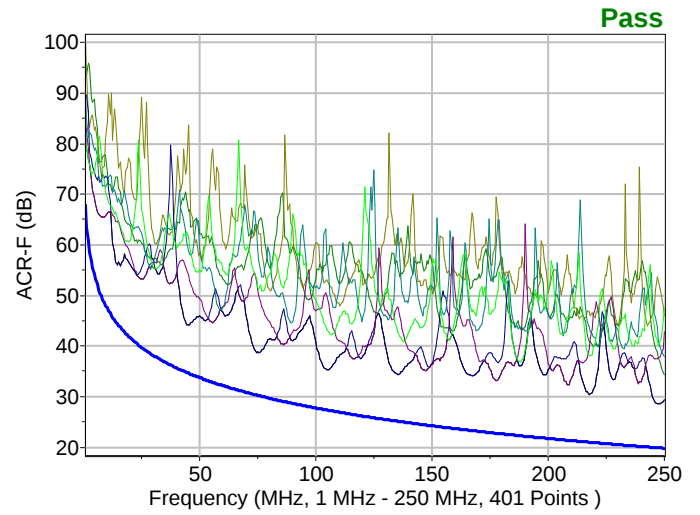
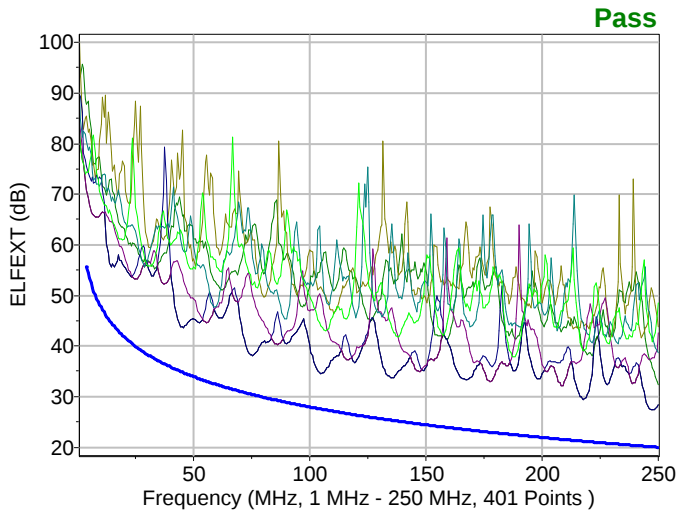
ELFEXT = Equal Level FEXT

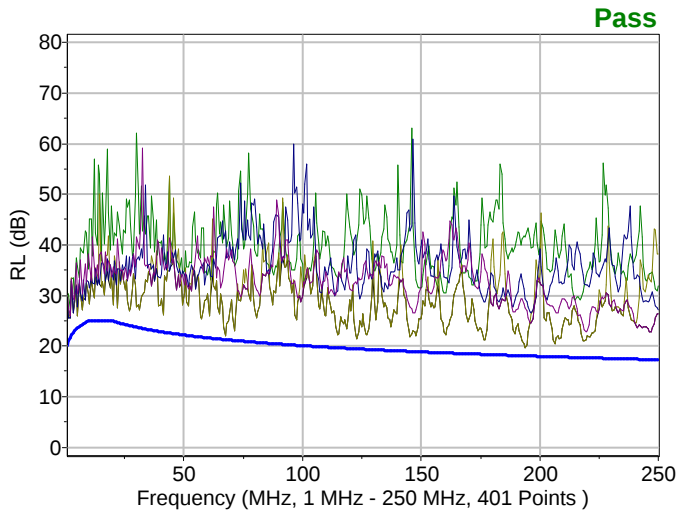
PS ACR-F = Power Sum ACR-F

RL = Return Loss





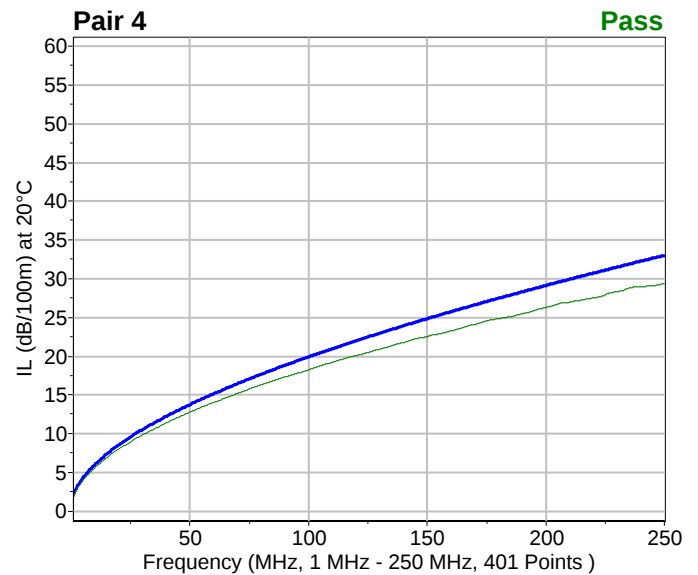
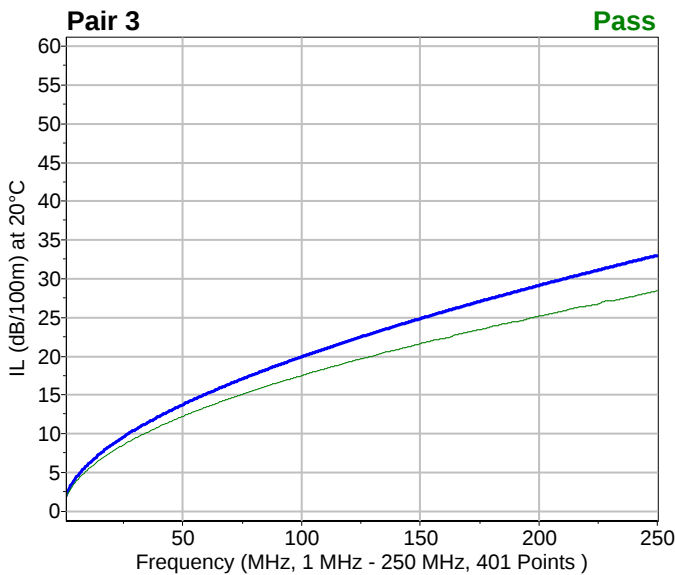
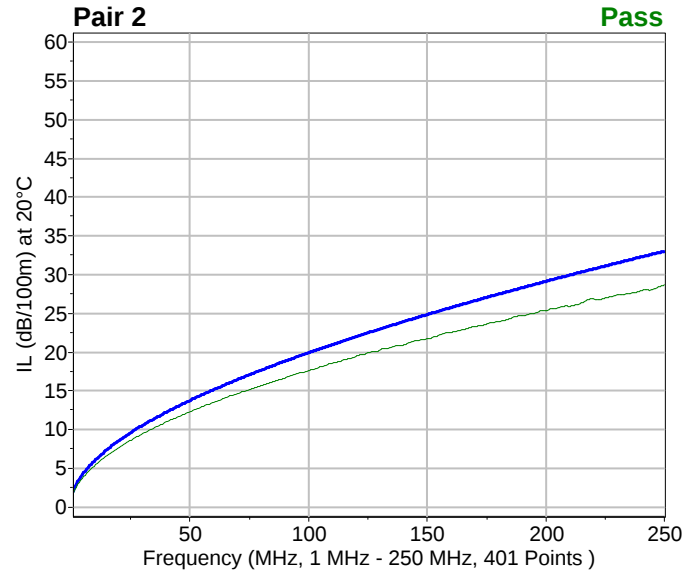
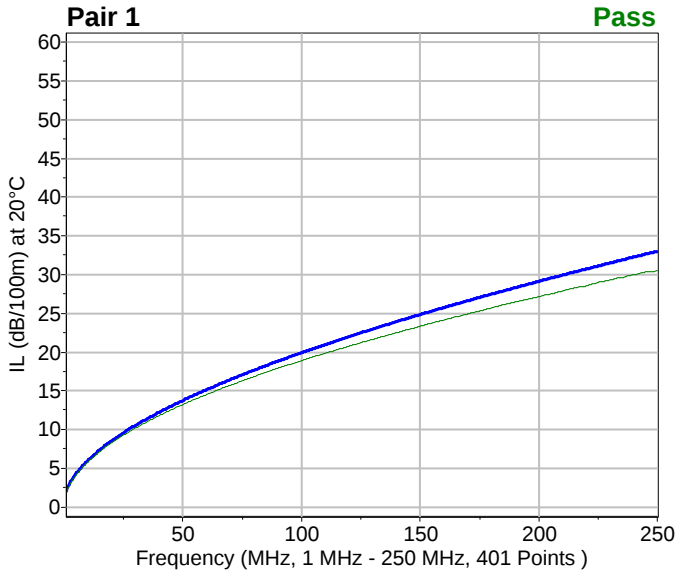




Summary and Graphic: Insertion loss (IL)

{ v = Value (dB/100m) at 20°C l = Limit (dB/100m) at 20°C m = Margin (dB/100m) at 20°C f = Frequency (MHz) }

Pair	Start f	Stop f	Points	Minimum	{ v [f] }	Maximum	{ v [f] }	Min. Margin	{ m (v [l]) }	Result
1	1	250	401	1.85	[1]	30.52	[250]	0.18	(3.10 > 3.28) [2.867]	ü
2	1	250	401	1.72	[1]	28.67	[250]	0.37	(1.72 > 2.09) [1]	ü
3	1	250	401	1.71	[1]	28.43	[250]	0.38	(1.71 > 2.09) [1]	ü
4	1	250	401	1.82	[1]	29.42	[250]	0.26	(1.82 > 2.09) [1]	ü



Detail Discrete Frequencies: Insertion loss IL (dB/100m)

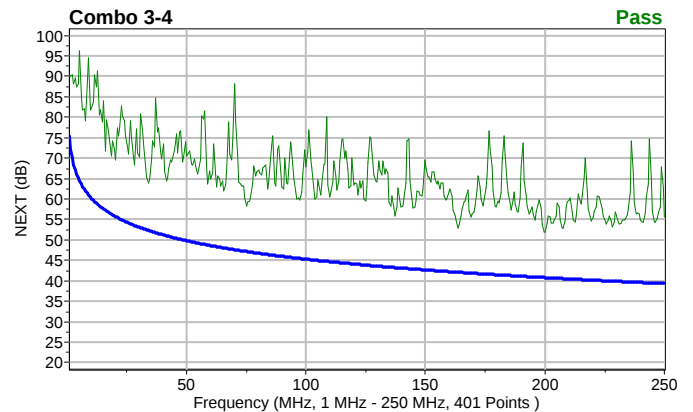
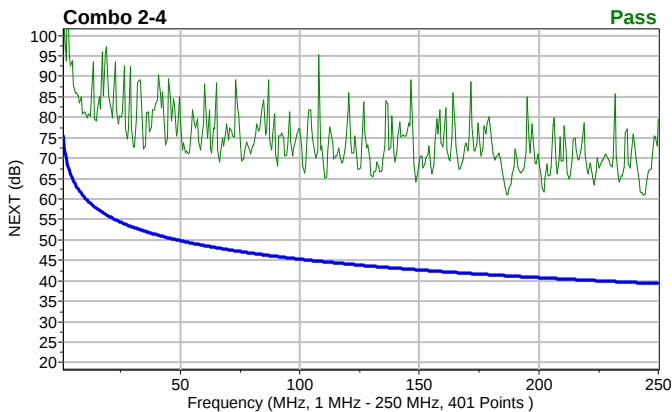
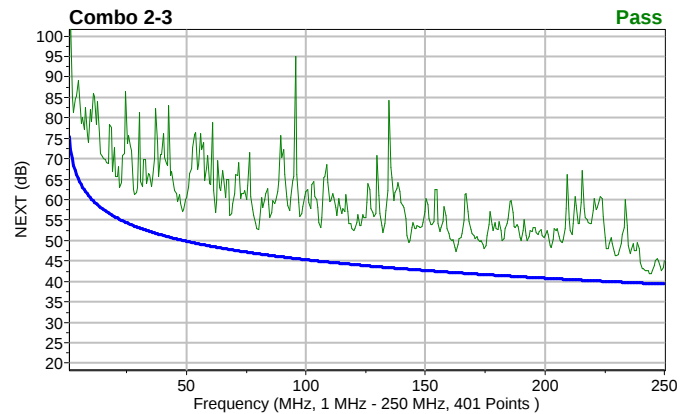
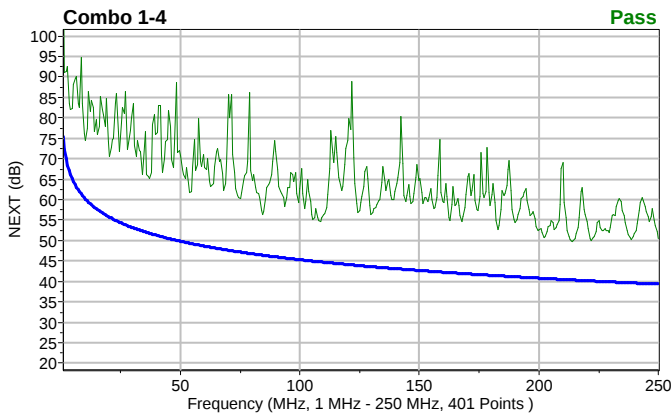
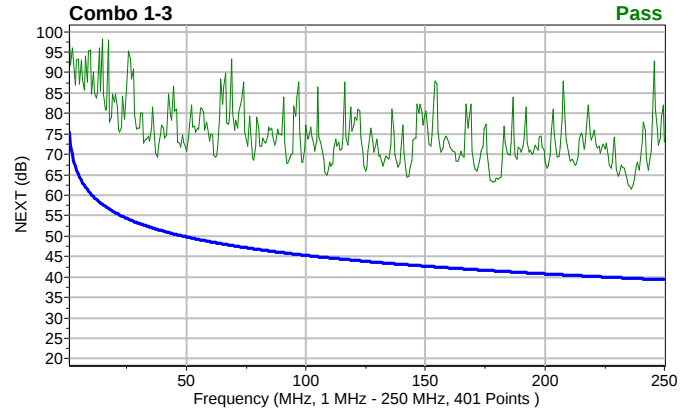
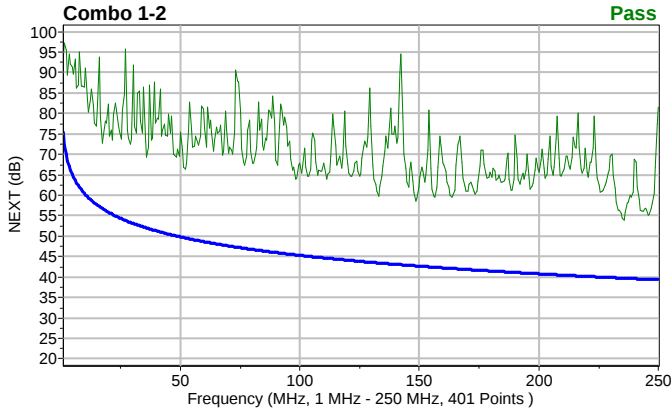
Frequency [MHz]	1.00	4.00	8.00	10.00	16.00	20.00	31.25	62.50	100.00	No. of
Freq. found [MHz]	1.00	4.11	7.85	9.71	15.94	20.30	31.50	62.63	99.98	Error Points
Max. Spec.	2.09	3.88	5.32	5.92	7.60	8.60	10.79	15.49	19.91	
Pair 1	1.85	3.70	5.13	5.72	7.37	8.33	10.43	14.84	18.88	-
Pair 2	1.72	3.44	4.75	5.30	6.83	7.73	9.69	13.82	17.58	-
Pair 3	1.71	3.42	4.73	5.28	6.80	7.69	9.64	13.74	17.48	-
Pair 4	1.82	3.57	4.95	5.52	7.11	8.04	10.06	14.33	18.23	-

Frequency [MHz]	200.00	250.00	300.00	400.00	No. of
Freq. found [MHz]	200.20	250.00			Error Points
Max. Spec.	29.15	33.02	33.02	33.02	
Pair 1	27.16	30.52	30.52	30.52	-
Pair 2	25.37	28.67	28.67	28.67	-
Pair 3	25.18	28.43	28.43	28.43	-
Pair 4	26.29	29.42	29.42	29.42	-

Summary and Graphic: Near End Crosstalk (NEXT)

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

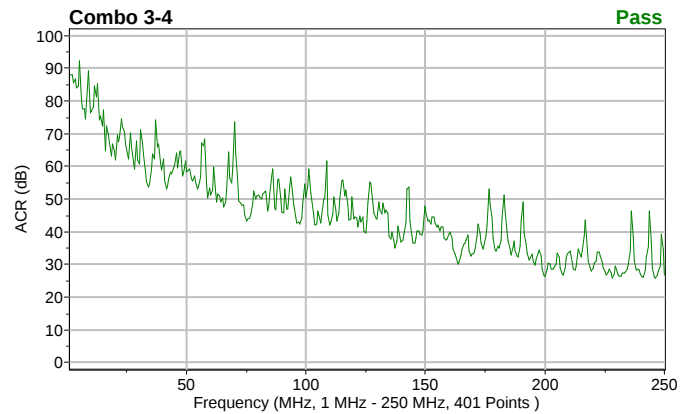
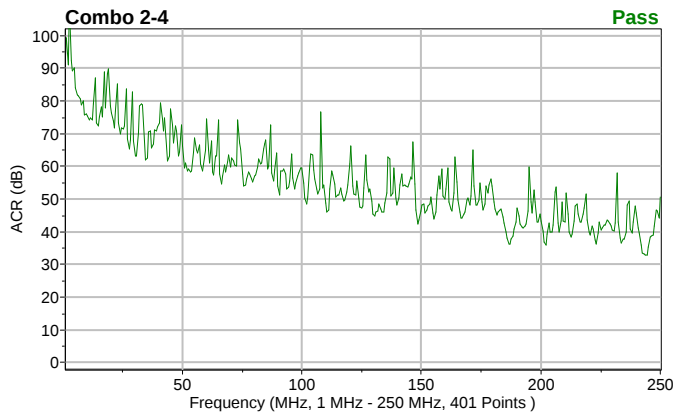
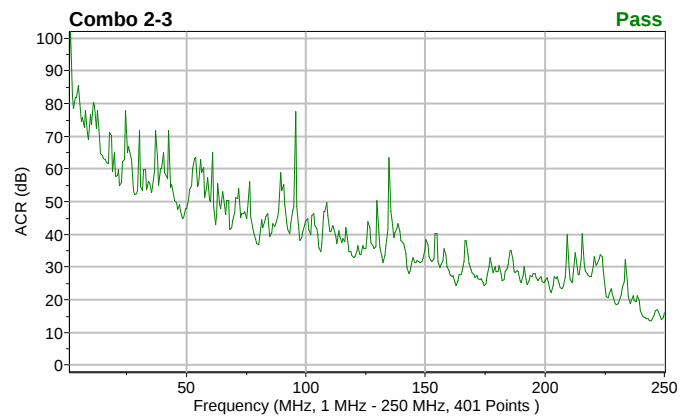
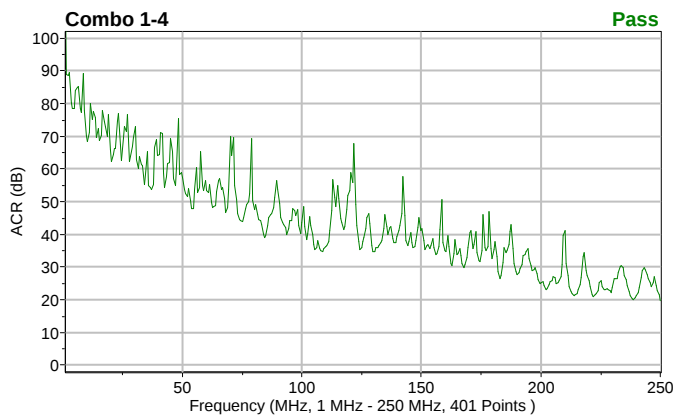
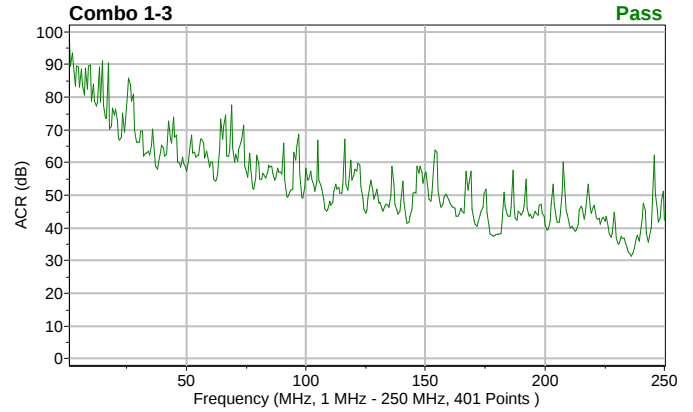
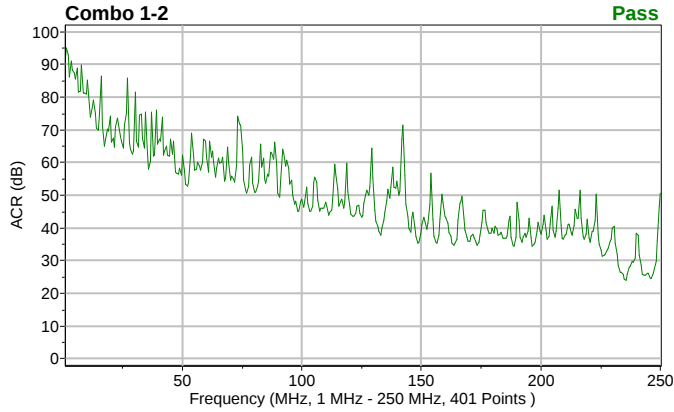
Combo	Start f	Stop f	Points	Minimum { $v[f]$ }	Maximum { $v[f]$ }	Min. Margin { $m(v,l)[f]$ }	Result
1-2	1	250	401	53.77 [235.7]	97.24 [1.622]	14.06 (53.77 < 39.72) [235.7]	ü
1-3	1	250	401	61.46 [236.3]	99.73 [1]	17.70 (69.35 < 51.65) [37.73]	ü
1-4	1	250	401	49.68 [213.9]	116.91 [1]	9.33 (49.68 < 40.35) [213.9]	ü
2-3	1	250	401	41.88 [244.4]	105.12 [1.622]	2.40 (41.88 < 39.48) [244.4]	ü
2-4	1	250	401	60.99 [243.8]	112.13 [2.867]	18.81 (94.11 < 75.30) [1]	ü
3-4	1	250	401	51.83 [199.6]	96.16 [5.357]	10.73 (52.83 < 42.10) [163.5]	ü



Summary and Graphic: Attenuation Crosstalk Ratio (ACR)

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

Combo	Start f	Stop f	Points	Minimum { $v[f]$ }	Maximum { $v[f]$ }	Result
1-2	1	250	401	23.9 [235.7]	94.9 [1.622]	ü
1-3	1	250	401	31.5 [236.3]	97.9 [1]	ü
1-4	1	250	401	19.7 [250]	115.0 [1]	ü
2-3	1	250	401	13.6 [244.4]	103.0 [1.622]	ü
2-4	1	250	401	32.7 [243.8]	109.2 [2.867]	ü
3-4	1	250	401	25.8 [228.2]	92.2 [5.357]	ü



Detail Discrete Frequencies: Near End Crosstalk NEXT (dB)

Frequency [MHz]	1.00	4.00	8.00	10.00	16.00	20.00	31.25	62.50	100.00	No. of
Freq. found [MHz]	1.00	4.11	7.85	9.71	15.94	20.30	31.50	62.63	99.98	Error Points
Min. Spec.	75.30	66.09	61.88	60.49	57.26	55.69	52.82	48.35	45.30	
Combo 1-2	93.52	92.07	94.94	86.53	93.75	74.50	75.13	78.46	67.91	-
Combo 1-3	99.73	93.06	94.12	95.57	80.89	84.68	80.08	69.86	77.17	-
Combo 1-4	116.91	82.10	82.49	76.08	77.78	70.54	70.53	63.15	62.66	-
Combo 2-3	93.64	85.20	82.51	81.96	69.83	65.59	63.08	59.85	62.01	-
Combo 2-4	94.11	92.50	83.55	81.23	85.07	83.96	79.84	72.31	77.18	-
Combo 3-4	89.56	87.53	79.13	81.73	71.64	69.56	76.96	62.95	67.86	-

Frequency [MHz]	200.00	250.00	300.00	400.00	No. of
Freq. found [MHz]	200.20	250.00	250.00	250.00	Error Points
Min. Spec.	40.78	39.33	39.33	39.33	
Combo 1-2	65.62	81.48	81.48	81.48	-
Combo 1-3	68.16	73.03	73.03	73.03	-
Combo 1-4	52.56	50.55	50.55	50.55	-
Combo 2-3	51.30	45.05	45.05	45.05	-
Combo 2-4	68.88	79.56	79.56	79.56	-
Combo 3-4	51.97	55.60	55.60	55.60	-

Detail Discrete Frequencies: Attenuation Crosstalk Ratio ACR (dB)

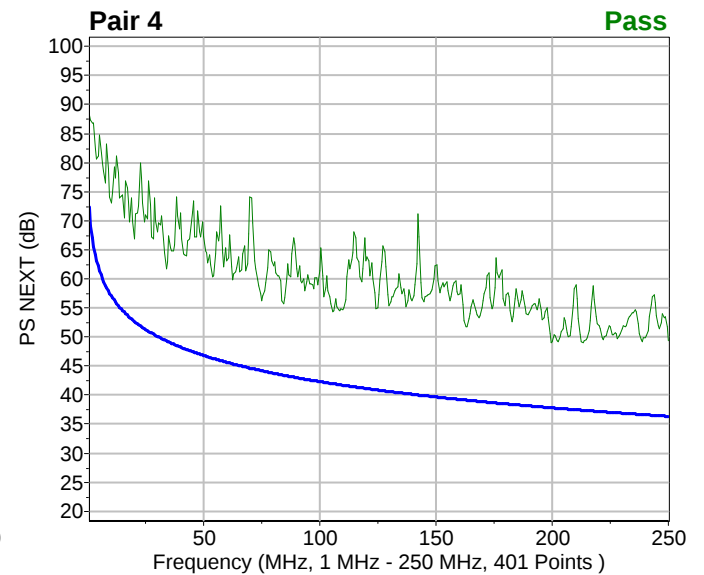
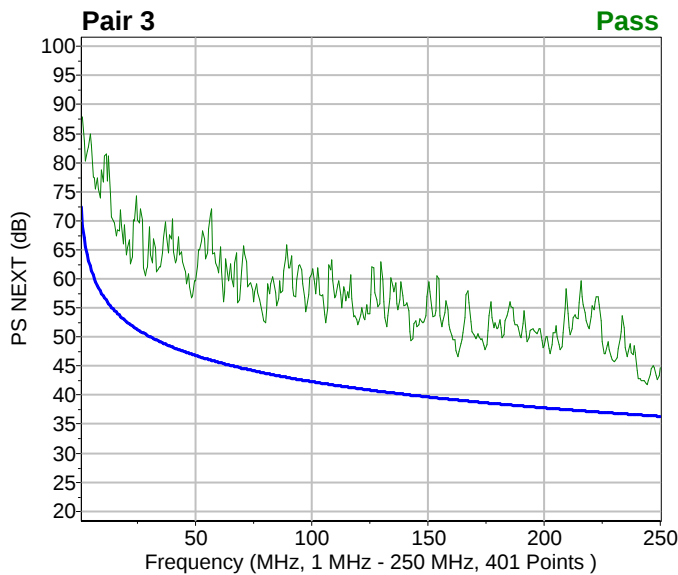
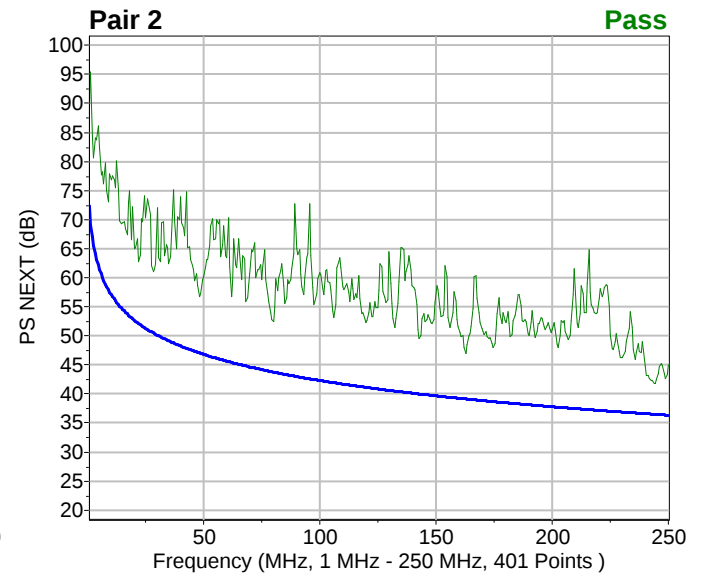
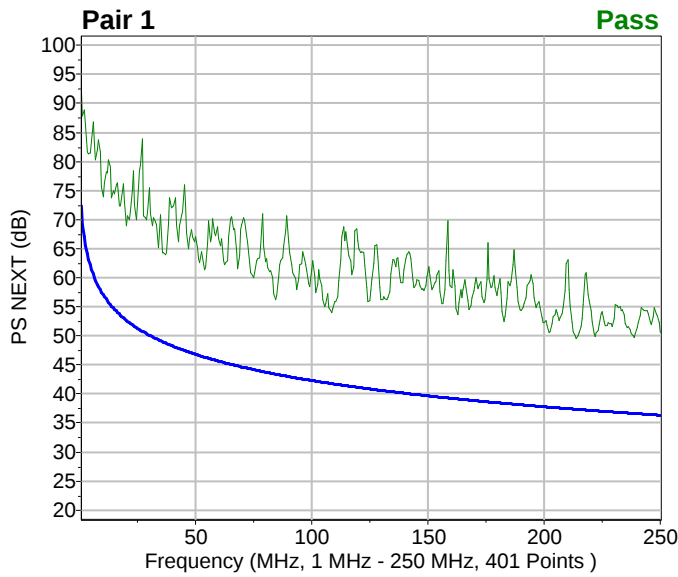
Frequency [MHz]	1.00	4.00	8.00	10.00	16.00	20.00	31.25	62.50	100.00	No. of
Freq. found [MHz]	1.00	4.11	7.85	9.71	15.94	20.30	31.50	62.63	99.98	Error Points
Combo 1-2	91.7	88.3	89.8	80.7	86.3	66.1	64.6	63.5	48.8	-
Combo 1-3	97.9	89.3	88.9	89.8	73.5	76.3	69.6	54.9	58.1	-
Combo 1-4	115.0	78.4	77.3	70.3	70.3	62.1	60.0	48.2	43.6	-
Combo 2-3	91.9	81.7	77.7	76.6	62.9	57.8	53.3	45.9	44.3	-
Combo 2-4	92.4	89.0	78.7	75.9	78.2	76.2	70.1	58.4	59.4	-
Combo 3-4	87.8	84.1	74.4	76.4	64.8	61.8	67.2	49.1	50.2	-

Frequency [MHz]	200.00	250.00	300.00	400.00	No. of
Freq. found [MHz]	200.20	250.00	250.00	250.00	Error Points
Combo 1-2	38.2	50.7	50.7	50.7	-
Combo 1-3	40.7	42.2	42.2	42.2	-
Combo 1-4	25.1	19.7	19.7	19.7	-
Combo 2-3	25.7	16.1	16.1	16.1	-
Combo 2-4	43.3	50.6	50.6	50.6	-
Combo 3-4	26.6	26.9	26.9	26.9	-

Summary and Graphic: Power Sum NEXT (PS NEXT)

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

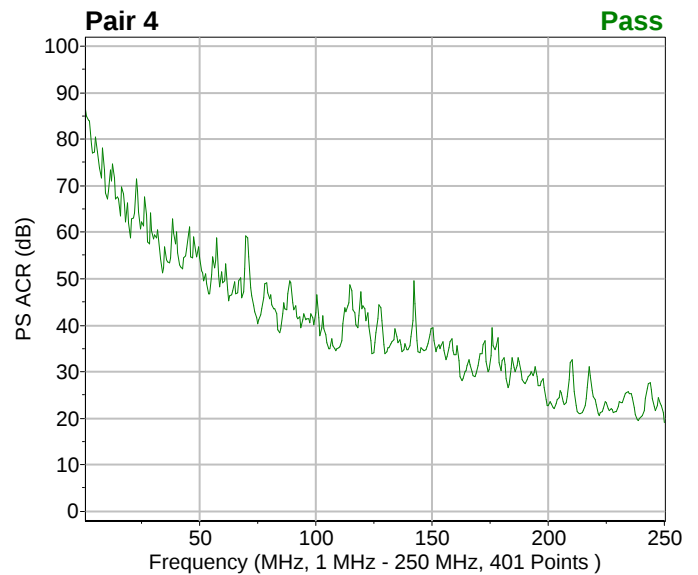
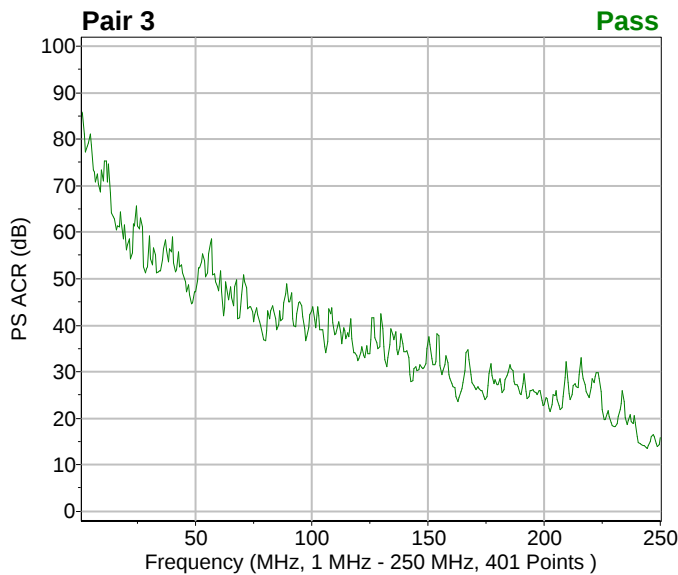
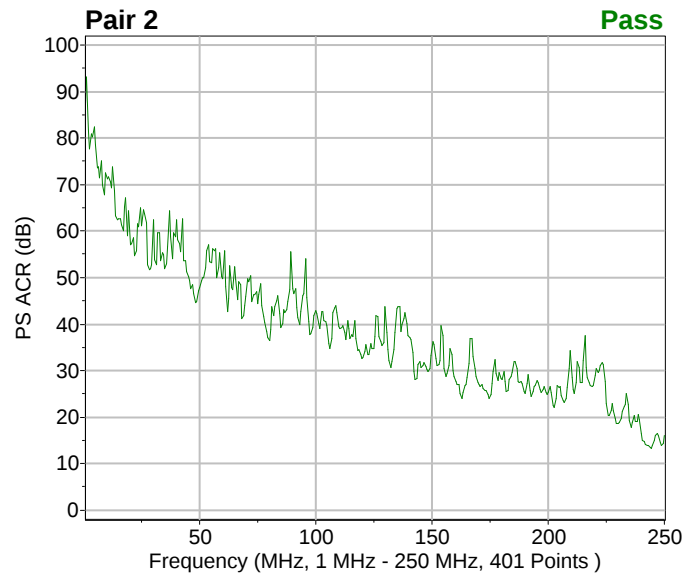
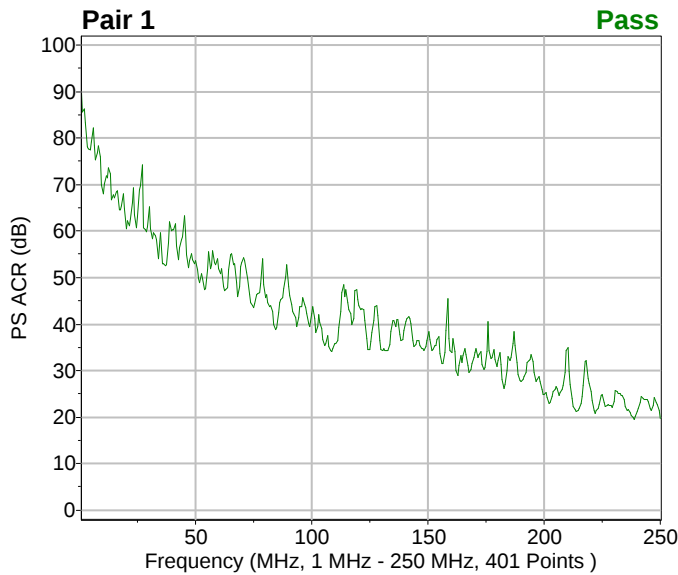
Pair	Start f	Stop f	Points	Minimum { $v[f]$ }	Maximum { $v[f]$ }	Min. Margin { $m(v,l)[f]$ }	Result
1	1	250	401	49.58 [213.9]	92.57 [1]	12.18 (53.94 < 41.76) [108.7]	ü
2	1	250	401	41.70 [244.4]	95.36 [1.622]	5.22 (41.70 < 36.48) [244.4]	ü
3	1	250	401	41.86 [244.4]	87.84 [1]	5.38 (41.86 < 36.48) [244.4]	ü
4	1	250	401	49.03 [213.3]	88.25 [1]	11.28 (49.08 < 37.80) [199.6]	ü



Summary and Graphic: Power Sum ACR (PS ACR)

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

Pair	Start f	Stop f	Points	Minimum { v [f] }	Maximum { v [f] }	Result
1	1	250	401	19.4 [238.8]	90.7 [1]	ü
2	1	250	401	13.3 [244.4]	93.1 [1.622]	ü
3	1	250	401	13.6 [244.4]	86.1 [1]	ü
4	1	250	401	19.0 [250]	86.5 [1]	ü



Detail Discrete Frequencies: Power Sum NEXT PS NEXT (dB)

Frequency [MHz]	1.00	4.00	8.00	10.00	16.00	20.00	31.25	62.50	100.00	No. of
Freq. found [MHz]	1.00	4.11	7.85	9.71	15.94	20.30	31.50	62.63	99.98	Error Points
Min. Spec.	72.30	63.09	58.88	57.49	54.26	52.69	49.82	45.35	42.30	
Pair 1	92.57	81.38	81.97	75.66	75.98	68.95	68.89	62.21	61.41	-
Pair 2	88.98	83.77	79.85	77.92	69.68	65.01	62.73	59.56	60.91	-
Pair 3	87.84	82.77	77.40	78.74	67.43	64.09	62.82	57.84	60.90	-
Pair 4	88.25	80.71	76.52	74.10	70.54	66.93	69.24	59.79	61.40	-

Frequency [MHz]	200.00	250.00	300.00	400.00	No. of
Freq. found [MHz]	200.20	250.00	250.00	250.00	Error Points
Min. Spec.	37.78	36.33	36.33	36.33	
Pair 1	52.24	50.52	50.52	50.52	-
Pair 2	51.07	45.05	45.05	45.05	-
Pair 3	48.56	44.68	44.68	44.68	-
Pair 4	49.20	49.37	49.37	49.37	-

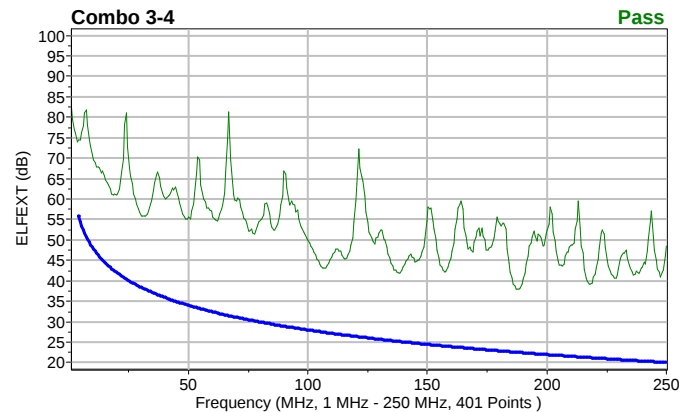
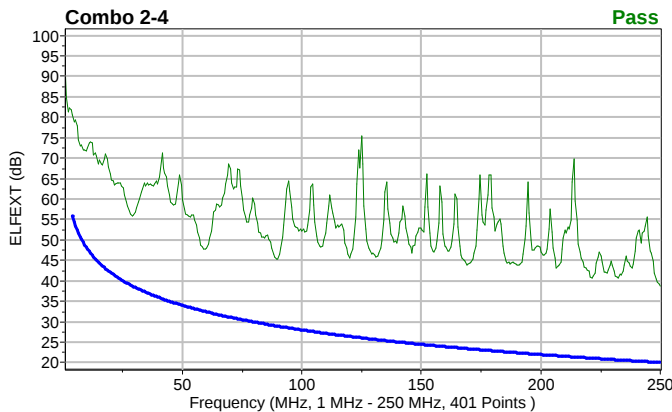
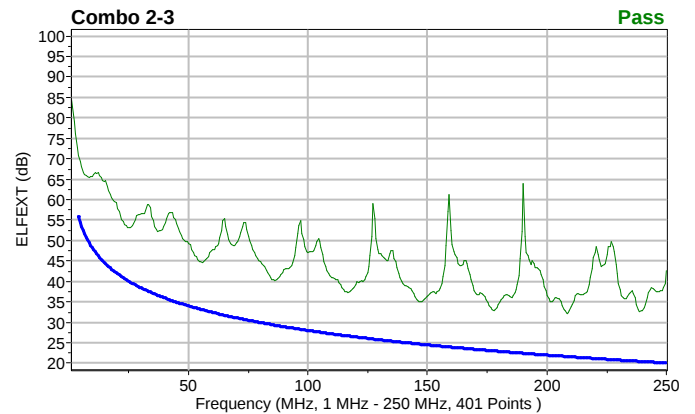
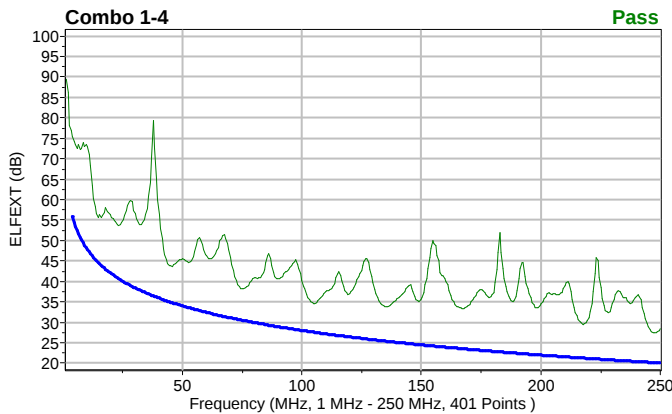
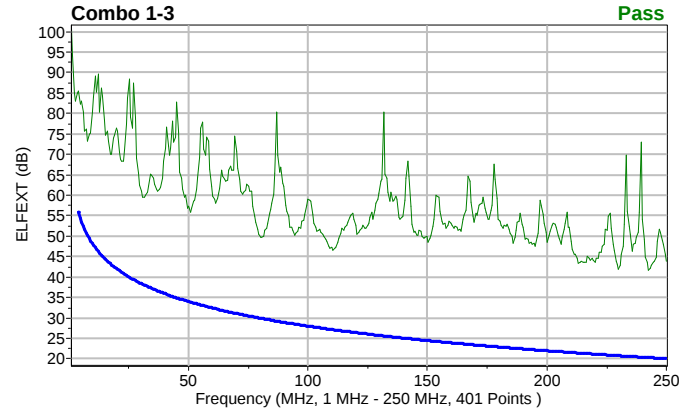
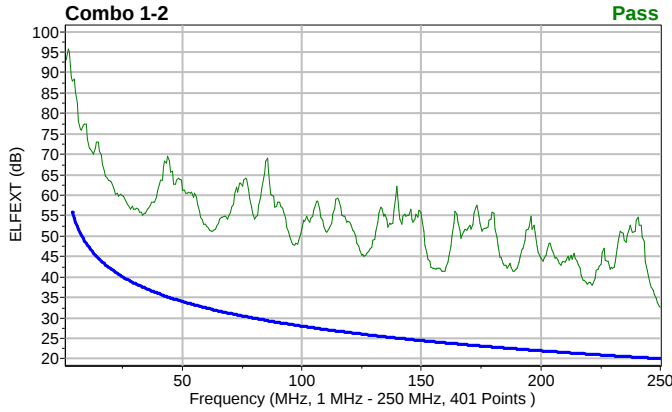
Detail Discrete Frequencies: Power Sum ACR PS ACR (dB)

Frequency [MHz]	1.00	4.00	8.00	10.00	16.00	20.00	31.25	62.50	100.00	No. of
Freq. found [MHz]	1.00	4.11	7.85	9.71	15.94	20.30	31.50	62.63	99.98	Error Points
Pair 1	90.7	77.6	76.8	69.9	68.5	60.5	58.4	47.2	42.3	-
Pair 2	87.2	80.3	75.0	72.5	62.8	57.1	52.9	45.6	42.9	-
Pair 3	86.1	79.3	72.6	73.4	60.5	56.3	53.0	43.8	43.1	-
Pair 4	86.5	77.0	71.6	68.5	63.6	58.9	58.9	45.4	42.7	-
Frequency [MHz]	200.00	250.00	300.00	400.00	No. of					
Freq. found [MHz]	200.20	250.00	250.00	250.00	Error Points					
Pair 1	24.8	19.7	19.7	19.7	-					
Pair 2	25.4	16.1	16.1	16.1	-					
Pair 3	23.0	15.7	15.7	15.7	-					
Pair 4	22.7	19.0	19.0	19.0	-					

Summary and Graphic: Equal Level FEXT (ELFEXT)

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

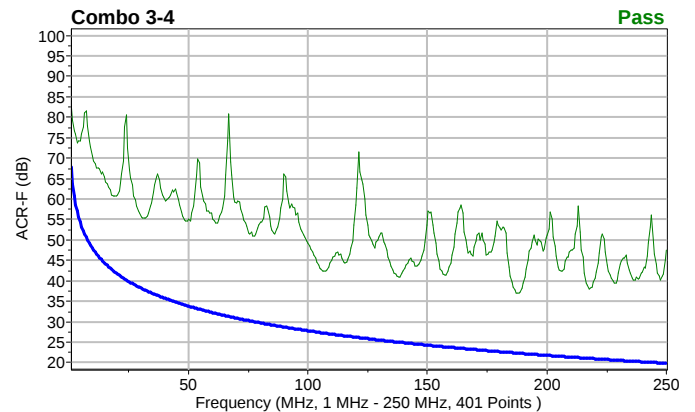
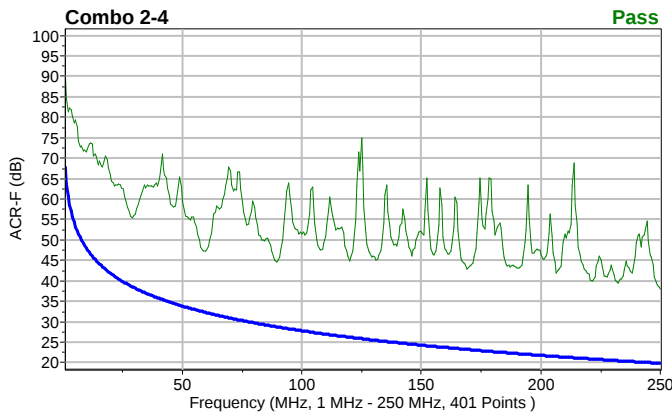
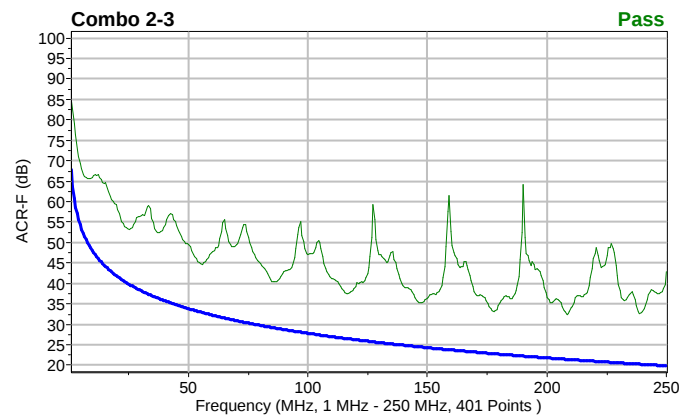
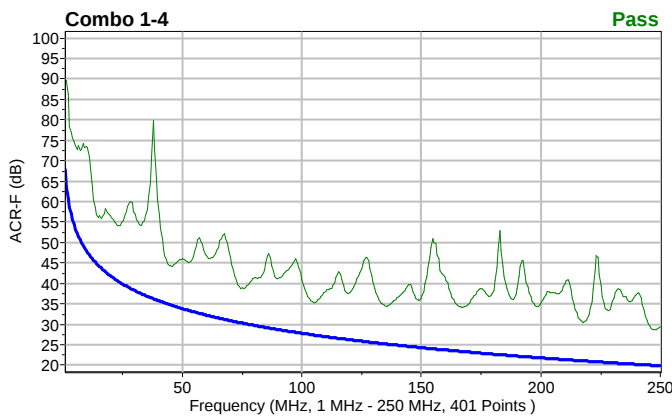
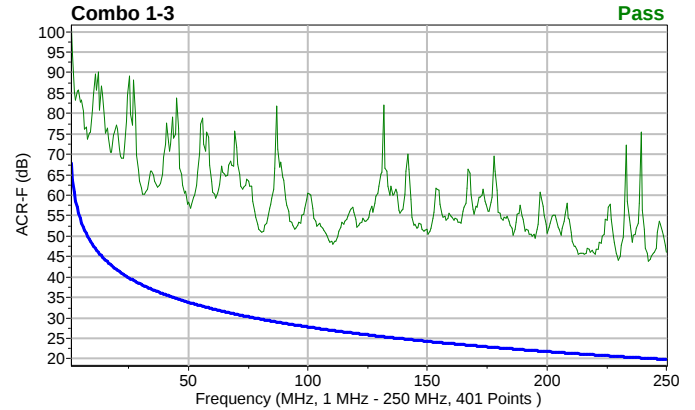
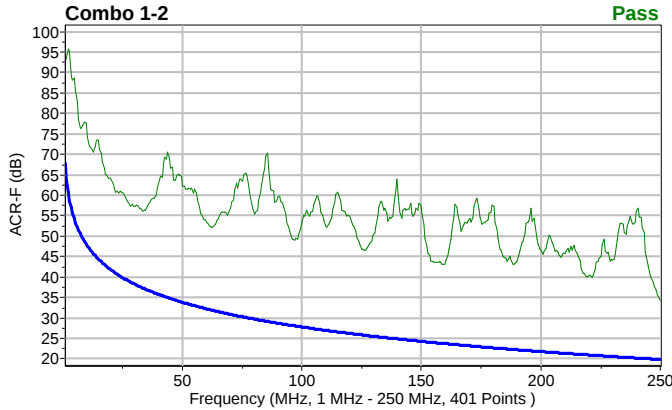
Combo	Start f	Stop f	Points	Minimum { v [f] }	Maximum { v [f] }	Min. Margin { m (v l) [f] }	Result
1-2	1	250	401	32.49 [250]	95.61 [2.245]	12.45 (32.49 < 20.04) [250]	ü
1-3	1	250	401	41.71 [242.5]	101.31 [1]	19.36 (46.49 < 27.13) [110.6]	ü
1-4	1	250	401	27.40 [247.5]	89.62 [1]	7.08 (34.66 < 27.58) [105]	ü
2-3	1	250	401	32.18 [208.3]	84.68 [1]	9.95 (32.95 < 23.00) [177.8]	ü
2-4	1	250	401	38.67 [250]	91.03 [1]	15.12 (47.72 < 32.60) [58.89]	ü
3-4	1	250	401	37.92 [187.7]	82.65 [1]	15.39 (37.92 < 22.53) [187.7]	ü



Summary and Graphic: Attenuation Crosstalk-F Ratio (ACR-F)

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

Combo	Start f	Stop f	Points	Minimum { $v[f]$ }	Maximum { $v[f]$ }	Min. Margin { $m(v/l)[f]$ }	Result
1-2	1	250	401	34.4 [250]	95.8 [2.245]	14.5 (34.4 < 19.8) [250]	ü
1-3	1	250	401	44.0 [242.5]	101.5 [1]	21.1 (48.0 < 26.9) [110.6]	ü
1-4	1	250	401	28.6 [247.5]	89.6 [1]	8.0 (35.3 < 27.4) [105]	ü
2-3	1	250	401	32.4 [208.3]	84.7 [1]	10.4 (33.2 < 22.8) [177.8]	ü
2-4	1	250	401	37.9 [250]	90.9 [1]	14.8 (47.2 < 32.4) [58.89]	ü
3-4	1	250	401	36.9 [187.7]	82.5 [1]	14.6 (36.9 < 22.3) [187.7]	ü



Detail Discrete Frequencies: Equal Level FEXT ELFEXT (dB)

Frequency [MHz]	1.00	4.00	8.00	10.00	16.00	20.00	31.25	62.50	100.00	No. of
Freq. found [MHz]	1.00	4.11	7.85	9.71	15.94	20.30	31.50	62.63	99.98	Error Points
Min. Spec.		55.72	50.11	48.25	43.95	41.85	38.03	32.06	28.00	
Combo 1-2	92.70	87.84	76.01	77.31	69.82	63.18	56.48	51.22	51.76	-
Combo 1-3	101.31	85.35	73.24	80.41	75.73	75.60	59.50	60.47	58.97	-
Combo 1-4	89.62	75.52	72.43	73.36	55.64	55.68	54.46	45.69	40.21	-
Combo 2-3	84.68	70.88	65.57	65.73	63.20	57.90	56.47	49.26	46.96	-
Combo 2-4	91.03	80.54	73.30	71.66	68.45	64.63	59.17	54.49	52.16	-
Combo 3-4	82.65	74.46	78.05	70.70	64.03	61.25	55.76	55.40	49.93	-

Frequency [MHz]	200.00	250.00	300.00	400.00	No. of
Freq. found [MHz]	200.20	250.00	250.00	250.00	Error Points
Min. Spec.	21.97	20.04	20.04	20.04	
Combo 1-2	44.66	32.49	32.49	32.49	-
Combo 1-3	48.60	43.89	43.89	43.89	-
Combo 1-4	34.49	28.42	28.42	28.42	-
Combo 2-3	36.42	42.59	42.59	42.59	-
Combo 2-4	47.12	38.67	38.67	38.67	-
Combo 3-4	52.36	48.52	48.52	48.52	-

Detail Discrete Frequencies: Attenuation Crosstalk-F Ratio ACR-F (dB)

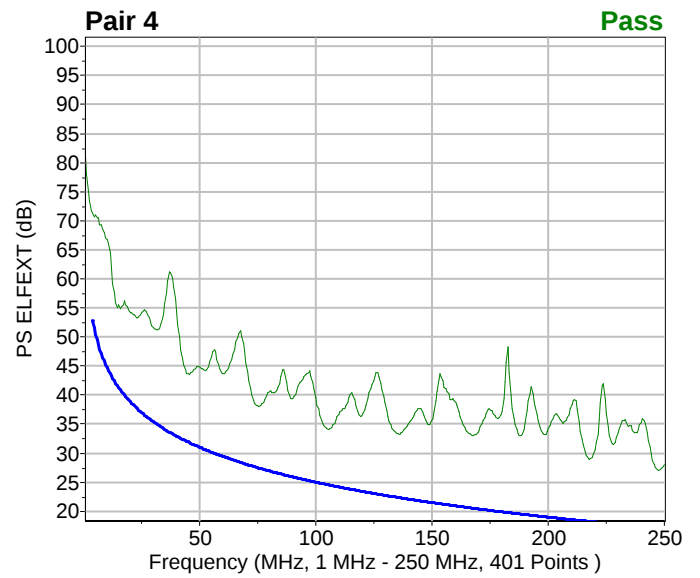
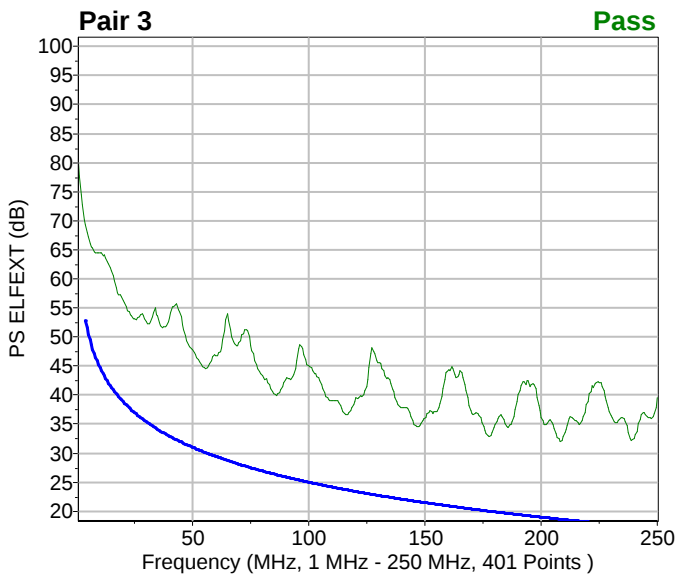
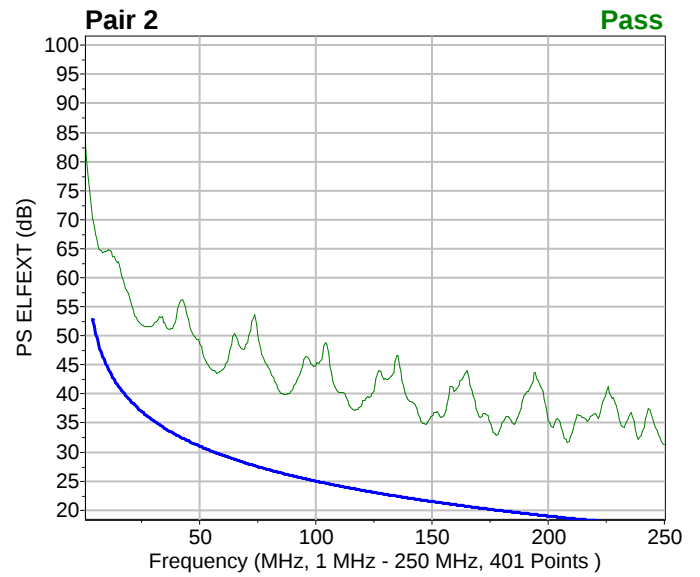
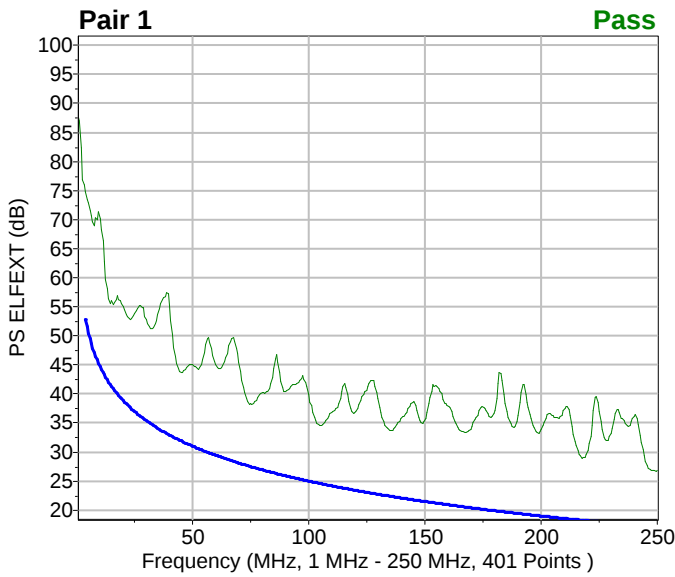
Frequency [MHz]	1.00	4.00	8.00	10.00	16.00	20.00	31.25	62.50	100.00	No. of
Freq. found [MHz]	1.00	4.11	7.85	9.71	15.94	20.30	31.50	62.63	99.98	Error Points
Min. Spec.	67.8	55.5	49.9	48.1	43.8	41.7	37.8	31.9	27.8	
Combo 1-2	92.8	88.1	76.4	77.7	70.4	63.8	57.2	52.3	53.1	-
Combo 1-3	101.5	85.6	73.6	80.9	76.3	76.2	60.3	61.6	60.4	-
Combo 1-4	89.6	75.6	72.6	73.6	55.9	56.0	54.8	46.2	40.9	-
Combo 2-3	84.7	70.9	65.6	65.8	63.2	57.9	56.5	49.3	47.1	-
Combo 2-4	90.9	80.4	73.1	71.4	68.2	64.3	58.8	54.0	51.5	-
Combo 3-4	82.5	74.3	77.8	70.5	63.7	60.9	55.3	54.8	49.2	-

Frequency [MHz]	200.00	250.00	300.00	400.00	No. of
Freq. found [MHz]	200.20	250.00	250.00	250.00	Error Points
Min. Spec.	21.8	19.8	19.8	19.8	
Combo 1-2	46.5	34.4	34.4	34.4	-
Combo 1-3	50.6	46.0	46.0	46.0	-
Combo 1-4	35.4	29.5	29.5	29.5	-
Combo 2-3	36.6	42.8	42.8	42.8	-
Combo 2-4	46.2	37.9	37.9	37.9	-
Combo 3-4	51.2	47.5	47.5	47.5	-

Summary and Graphic: Power Sum ELFEXT (PS ELFEXT)

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

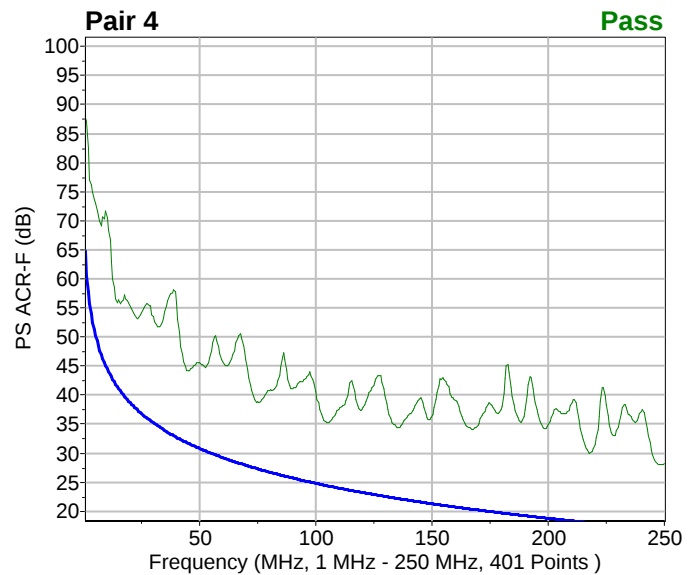
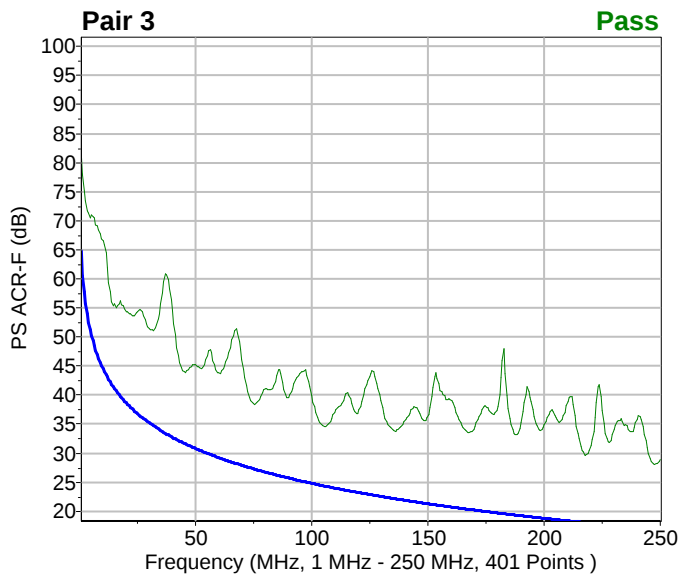
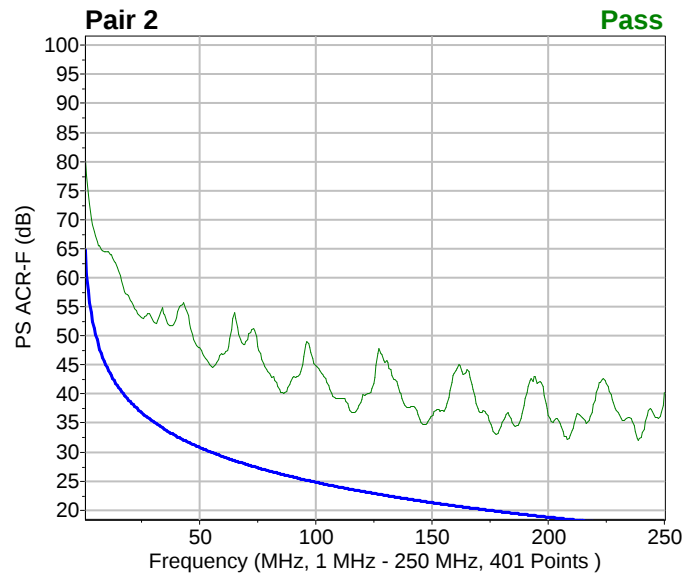
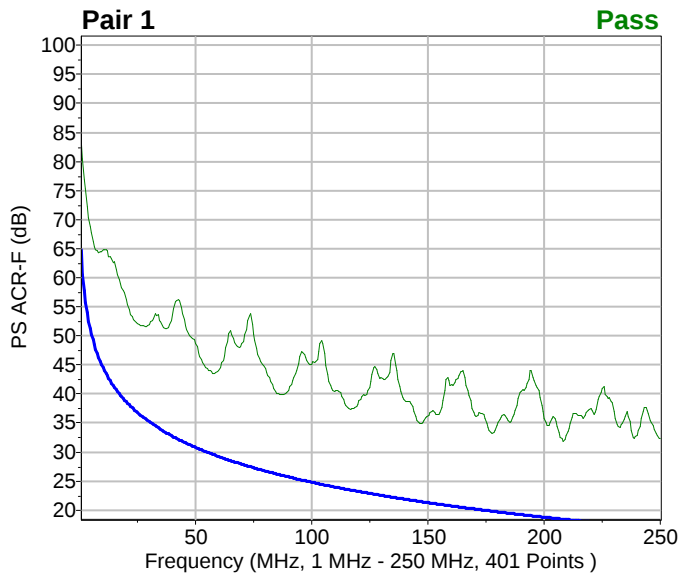
Pair	Start f	Stop f	Points	Minimum { $v[f]$ }	Maximum { $v[f]$ }	Min. Margin { $m(v/l)[f]$ }	Result
1	1	250	401	26.72 [249.4]	87.69 [1]		ü
2	1	250	401	31.22 [250]	83.25 [1]		ü
3	1	250	401	32.02 [208.3]	80.50 [1]		ü
4	1	250	401	27.07 [247.5]	81.36 [1]		ü



Summary and Graphic: Power Sum ACR-F (PS ACR-F)

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

Pair	Start f	Stop f	Points	Minimum { v [f] }	Maximum { v [f] }	Min. Margin { m (v l) [f] }	Result
1	1	250	401	31.9 [208.3]	83.3 [1]	13.3 (33.1 < 19.8) [177.8]	ü
2	1	250	401	32.0 [238.8]	80.4 [1]	13.2 (34.7 < 21.5) [146.7]	ü
3	1	250	401	28.0 [247.5]	81.3 [1]	10.3 (34.6 < 24.3) [105.6]	ü
4	1	250	401	28.0 [248.8]	87.8 [1]	10.9 (35.2 < 24.4) [105]	ü



Detail Discrete Frequencies: Power Sum ELFE XT PS ELFE XT (dB)

Frequency [MHz]	1.00	4.00	8.00	10.00	16.00	20.00	31.25	62.50	100.00	No. of
Freq. found [MHz]	1.00	4.11	7.85	9.71	15.94	20.30	31.50	62.63	99.98	Error Points
Pair 1	87.69	74.86	68.87	71.32	55.44	54.93	51.58	44.51	39.86	-
Pair 2	83.25	70.36	64.57	64.51	61.39	56.11	52.43	46.39	44.83	-
Pair 3	80.50	69.20	64.68	64.42	60.45	56.20	52.20	48.06	45.01	-
Pair 4	81.36	71.39	69.22	67.00	54.86	54.21	51.28	44.76	39.53	-

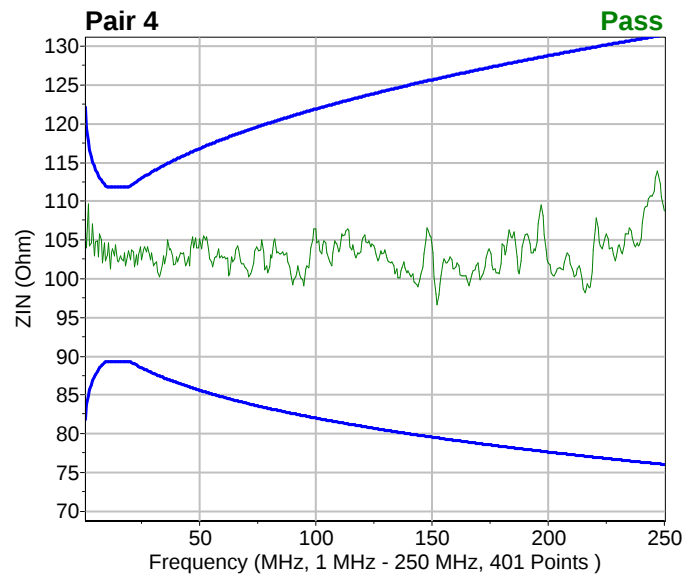
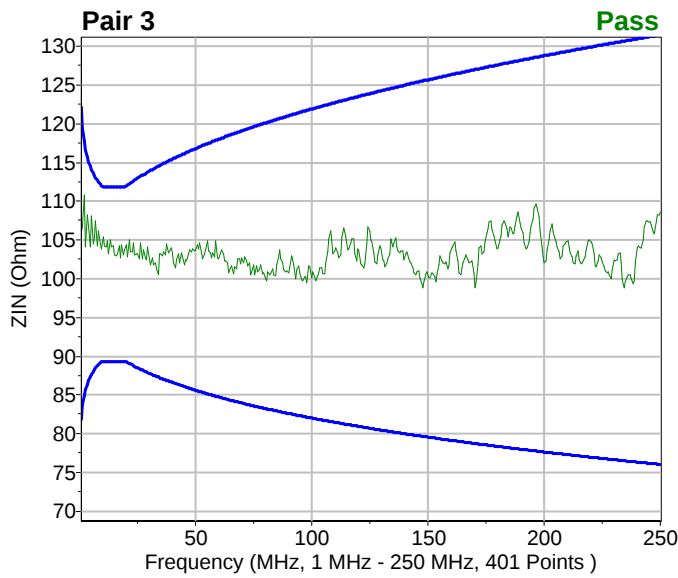
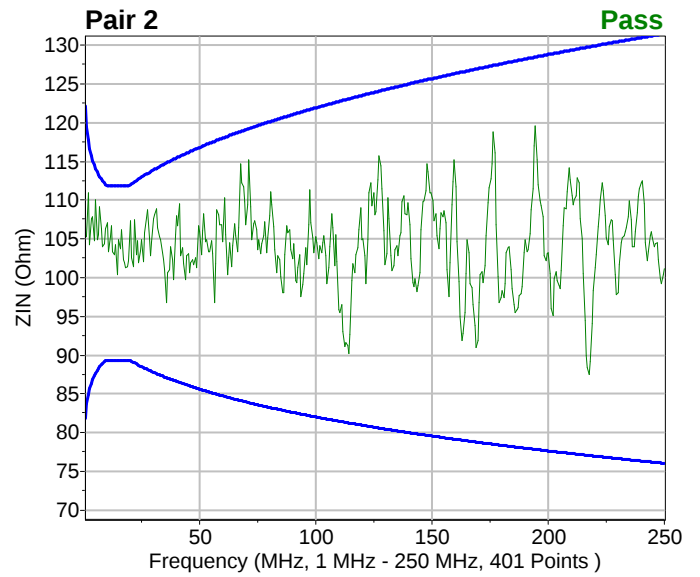
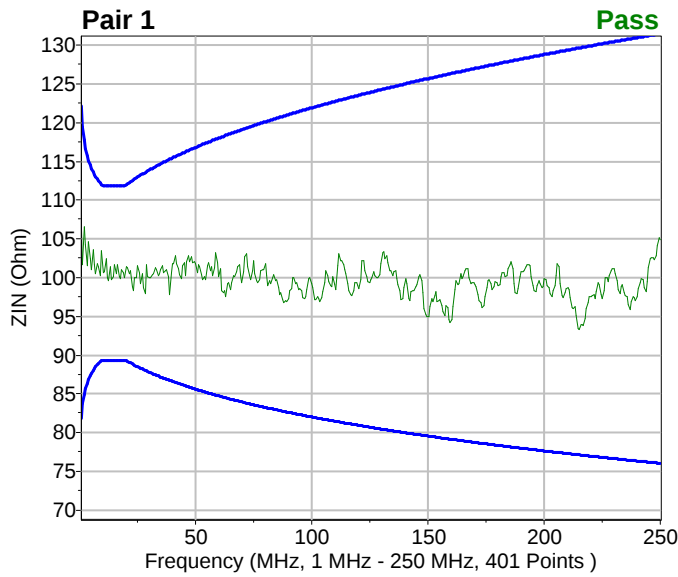
Frequency [MHz]	200.00	250.00	300.00	400.00	No. of
Freq. found [MHz]	200.20	250.00	250.00	250.00	Error Points
Pair 1	33.94	26.90	26.90	26.90	-
Pair 2	35.50	31.22	31.22	31.22	-
Pair 3	36.06	39.59	39.59	39.59	-
Pair 4	34.20	27.99	27.99	27.99	-

Detail Discrete Frequencies: Power Sum ACR-F PS ACR-F (dB)										
Frequency [MHz]	1.00	4.00	8.00	10.00	16.00	20.00	31.25	62.50	100.00	No. of
Freq. found [MHz]	1.00	4.11	7.85	9.71	15.94	20.30	31.50	62.63	99.98	Error Points
Min. Spec.	64.8	52.5	46.9	45.1	40.8	38.7	34.8	28.9	24.8	
Pair 1	83.3	70.4	64.6	64.5	61.4	56.2	52.6	46.7	45.0	-
Pair 2	80.4	69.2	64.7	64.4	60.3	56.1	52.2	48.1	44.9	-
Pair 3	81.3	71.3	69.2	66.9	55.0	54.3	51.2	45.0	40.0	-
Pair 4	87.8	75.0	69.2	71.6	55.7	55.3	52.1	45.1	40.6	-
Frequency [MHz]	200.00	250.00	300.00	400.00	No. of					
Freq. found [MHz]	200.20	250.00	250.00	250.00	Error Points					
Min. Spec.	18.8	16.8	16.8	16.8						
Pair 1	35.8	32.4	32.4	32.4	-					
Pair 2	36.3	40.2	40.2	40.2	-					
Pair 3	34.9	28.9	28.9	28.9	-					
Pair 4	34.9	28.2	28.2	28.2	-					

Summary and Graphic: Input Impedance (ZIN)

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

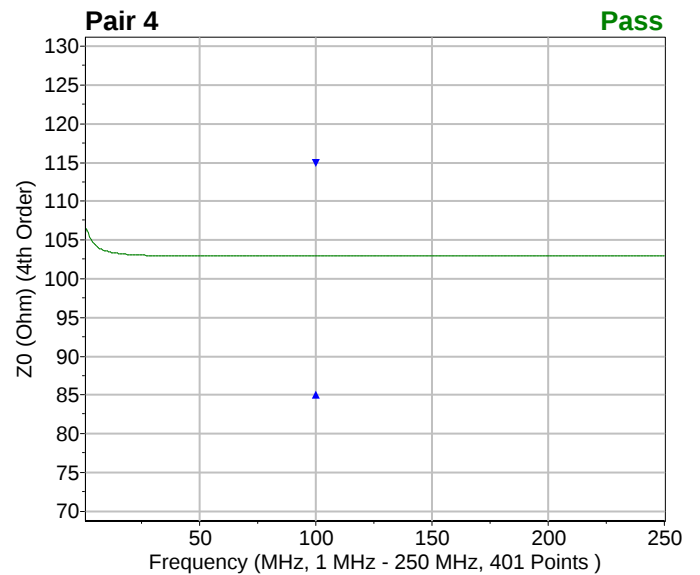
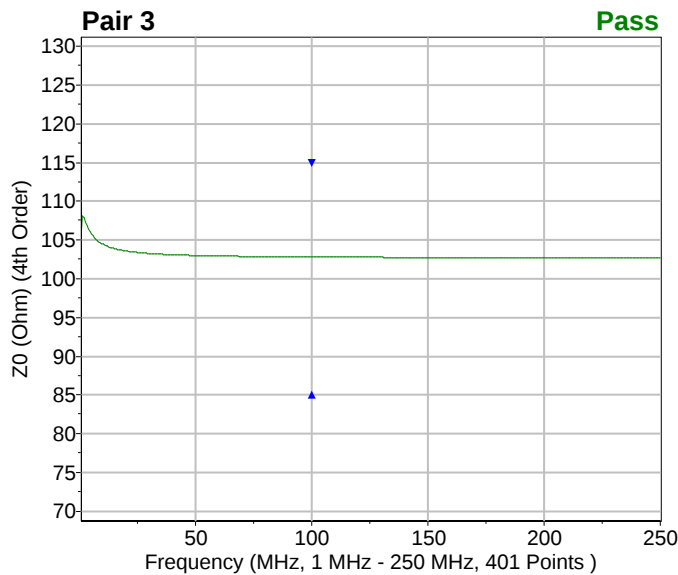
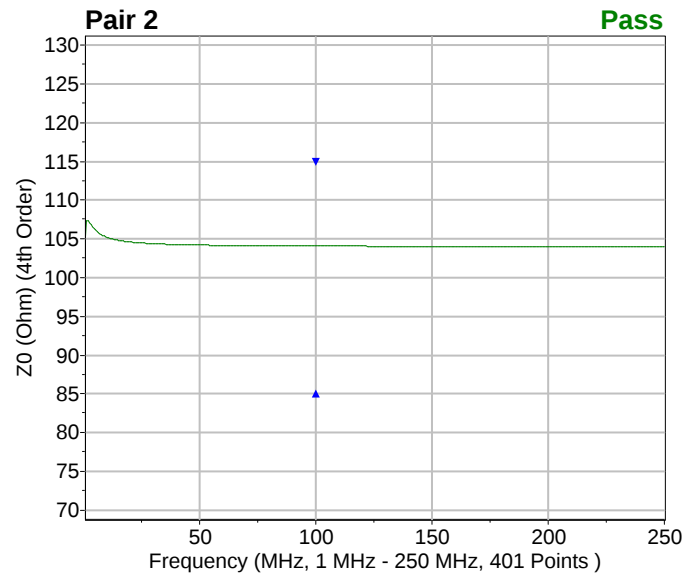
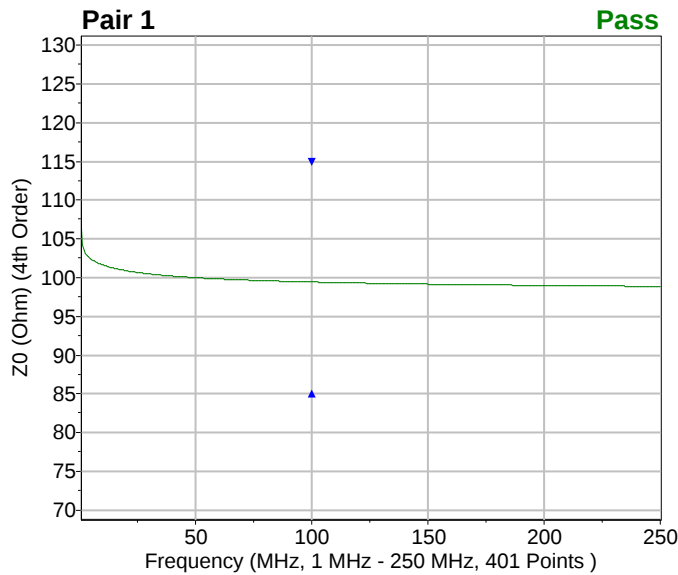
Pair	Start f	Stop f	Points	Minimum { v [f] }	Maximum { v [f] }	Min. Margin { m (v l) [f] }	Result
1	1	250	401	93.35 [215.1]	106.99 [1]		ü
2	1	250	401	87.45 [217.6]	119.58 [194.6]		ü
3	1	250	401	98.85 [234.4]	110.85 [2.245]		ü
4	1	250	401	96.60 [152.3]	113.89 [246.9]		ü



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

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

Pair	Start f	Stop f	Points	Minimum { v [f] }	Maximum { v [f] }	Min. Margin { m (v l) [f] }	Result
1	1	250	401	98.87 [250]	106.69 [1]	14.44 (99.44 < 85.00) [99.98]	ü
2	1	250	401	104.02 [250]	107.39 [2.245]	10.92 (104.08 > 115.00) [99.98]	ü
3	1	250	401	102.71 [250]	108.06 [1.622]	12.19 (102.81 > 115.00) [99.98]	ü
4	1	250	401	102.91 [78.81]	106.41 [1.622]	12.08 (102.92 > 115.00) [99.98]	ü



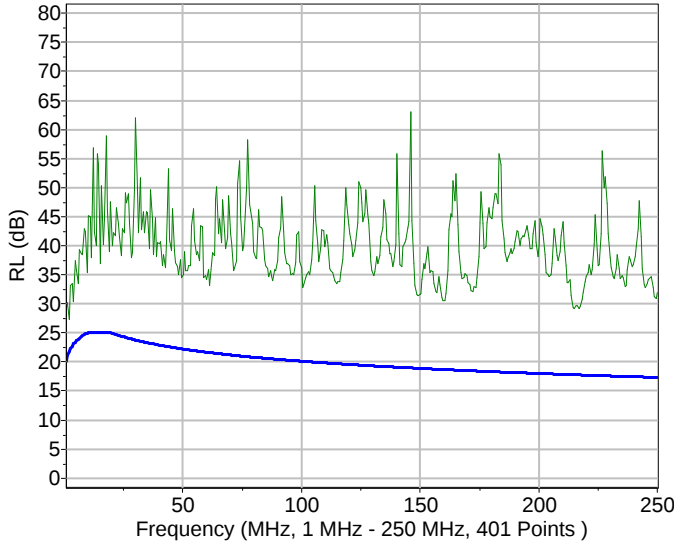
Summary and Graphic: Return Loss (RL)

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

Pair	Start f	Stop f	Points	Minimum { v [f] }	Maximum { v [f] }	Min. Margin { m (v l) [f] }	Result
1	1	250	401	27.36 [2.245]	63.10 [146]	5.60 (27.36 < 21.76) [2.245]	ü
2	1	250	401	19.64 [194]	53.52 [43.95]	0.77 (22.07 < 21.30) [67.61]	ü
3	1	250	401	25.61 [2.245]	60.98 [146.7]	3.86 (25.61 < 21.76) [2.245]	ü
4	1	250	401	22.77 [246.3]	59.08 [32.75]	4.17 (25.93 < 21.76) [2.245]	ü

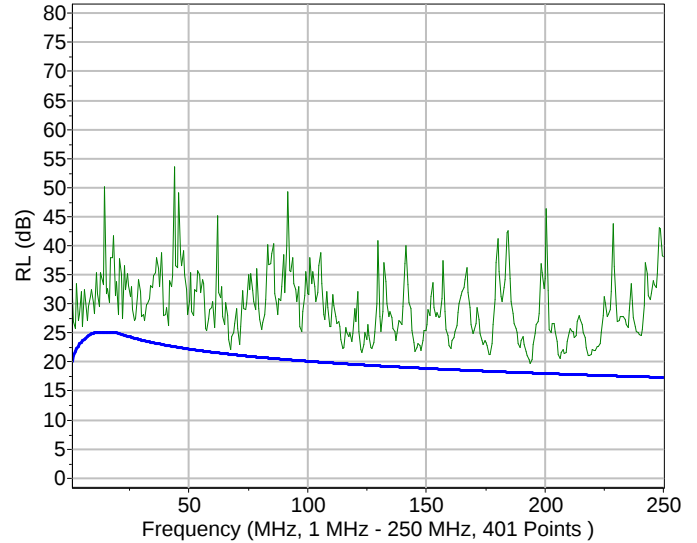
Pair 1

Pass



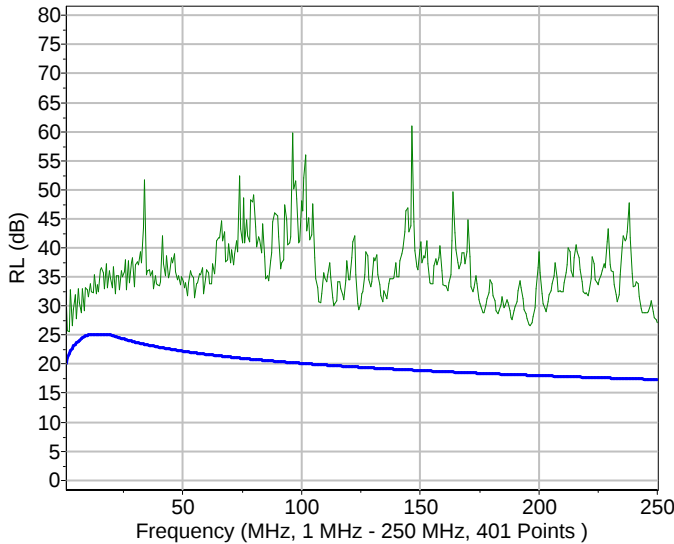
Pair 2

Pass



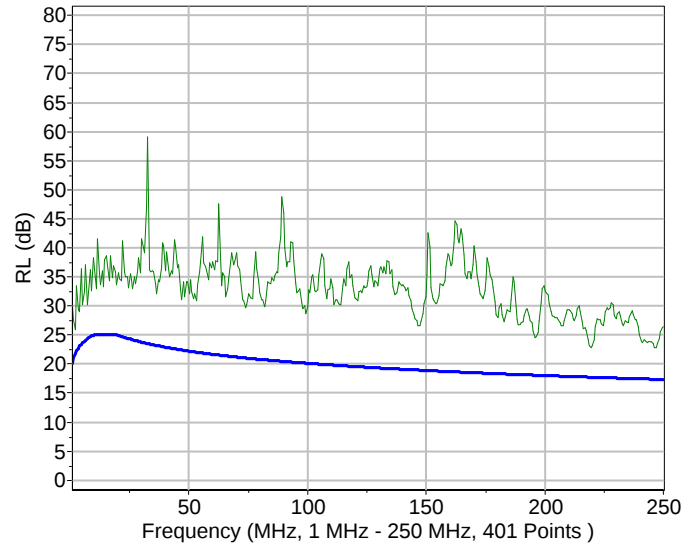
Pair 3

Pass



Pair 4

Pass



Detail Discrete Frequencies: Return Loss RL (dB)

Frequency [MHz]	1.00	4.00	8.00	10.00	16.00	20.00	31.25	62.50	100.00	No. of
Freq. found [MHz]	1.00	4.11	7.85	9.71	15.94	20.30	31.50	62.63	99.98	Error Points
Min. Spec.	20.00	23.07	24.47	24.94	25.00	24.96	23.62	21.53	20.11	
Pair 1	29.36	30.36	38.44	35.28	50.25	39.98	42.21	38.86	36.17	-
Pair 2	31.65	28.19	29.49	30.26	32.66	28.19	27.15	31.99	31.81	-
Pair 3	30.68	29.39	33.03	32.76	36.65	33.11	37.13	37.29	48.12	-
Pair 4	30.28	29.07	32.30	38.27	36.83	35.71	39.22	47.58	29.91	-

Frequency [MHz]	200.00	250.00	300.00	400.00	No. of
Freq. found [MHz]	200.00	250.00	250.00	250.00	Error Points
Min. Spec.	18.00	17.32	17.32	17.32	
Pair 1	39.93	31.89	31.89	31.89	-
Pair 2	34.25	38.17	38.17	38.17	-
Pair 3	39.24	27.16	27.16	27.16	-
Pair 4	32.56	26.41	26.41	26.41	-

LF open/short test

Open/Short-Test OK

LF RCKE 800 Hz

No	From	To	Ra Ohm/RFL+20° /100m	Rb Ohm/RFL+20° /100m	R1 Ohm/RFL+20° /100m	RD1% %	Ca %	Cb nF	C1 nF	E nF	pF
1	1-		7.71	7.72	15.43	-0.045	6.74	6.76	5.33	-21	ü
2	2-		7.31	7.31	14.62	-0.027	6.41	6.41	4.97	4	ü
3	3-		7.40	7.32	14.72	0.580	6.36	6.38	4.90	-16	ü
4	4-		7.61	7.57	15.18	0.226	6.55	6.58	5.14	-29	ü

LF K triangle 800 Hz

#LK cap-unbalance s/s K pairs 800 Hz

	2	3	4	
1	2	-2	0	1
2		2	-2	2
3			2	3
	2	3	4	

Worst Case Summary

Units	Units	Ra-b Ohm	R Ohm	D% %	Ca-b nF	C nF	E pF	K pF
RefLength	Ref.length	100	100	1000	100	100	100	100
ULim	UL Limit Meas. Values	9.50	19.00			5.60		160
Max	Maximum value							
Min	Minimum value							
LLim	LL Limit Meas. Values							-160
SX	Average value							
SSX	Standarddeviation							

Final control authorized signature:

End of report