TestReport

Test Time : 2026/01/18 16:21:53

Record File: D:\SECRI\CTS650A\TestRecord\CTS260118-69-P.cts

Test Information

Test Time : 2026/01/18 16:21:53	Temperature:20C
Standard:TIA-568.2-D Cat6A	Test Result:Pass
Cable Length:305m	Cable Type:UTP CAT6A 0.565 LSZH
Tester:	Cable ID:012

Test Result List

Test Item	Unit	Test Result
Insertion Loss	dB/100m	Pass
Delay	ns/100m	Pass
Delay skew	ns/100m	Pass
Zin	Ohm	Pass
Zo	Ohm	Pass
Return Loss	dB	Pass
NEXT	dB@100m	Pass
PS NEXT	dB@100m	Pass

Inspector:

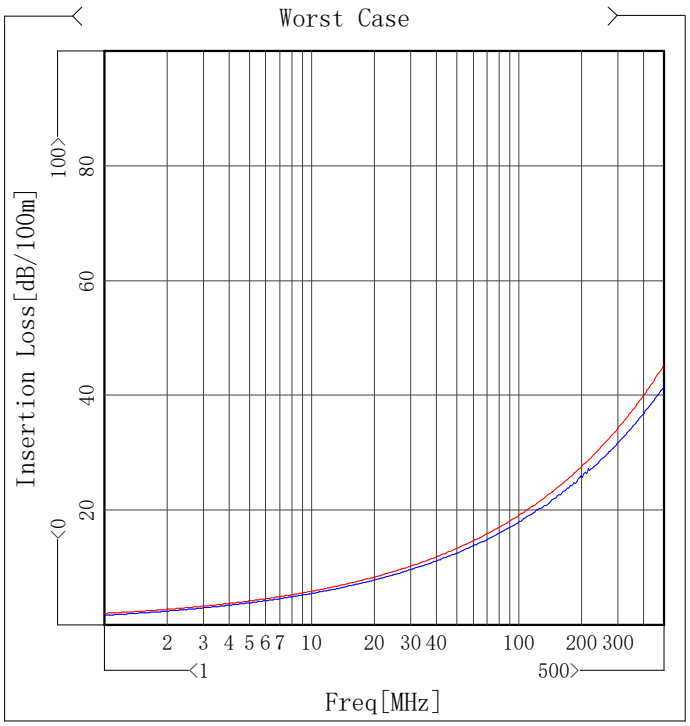
Date :

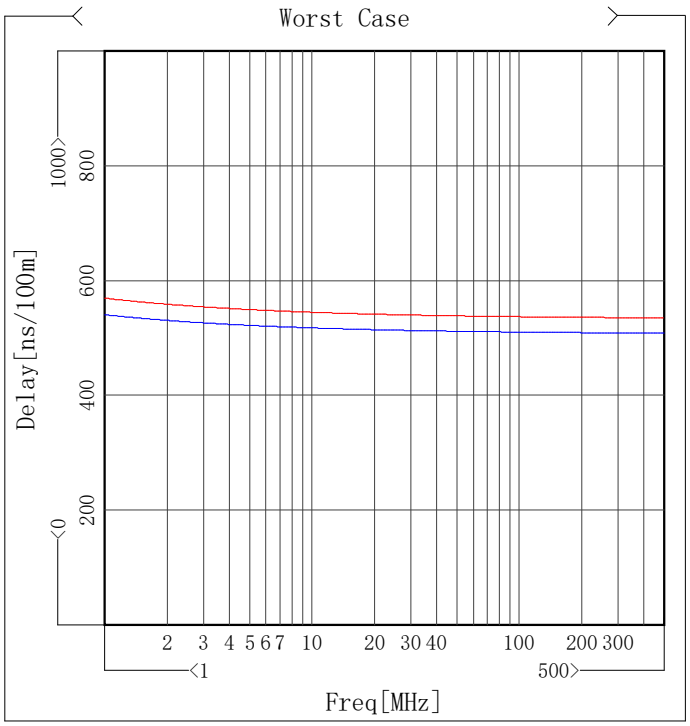
Assessor :

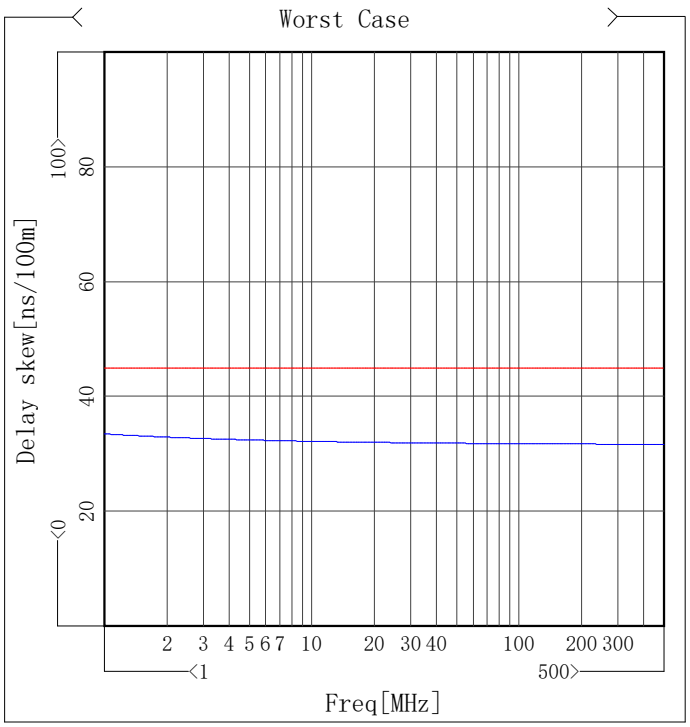
Date :

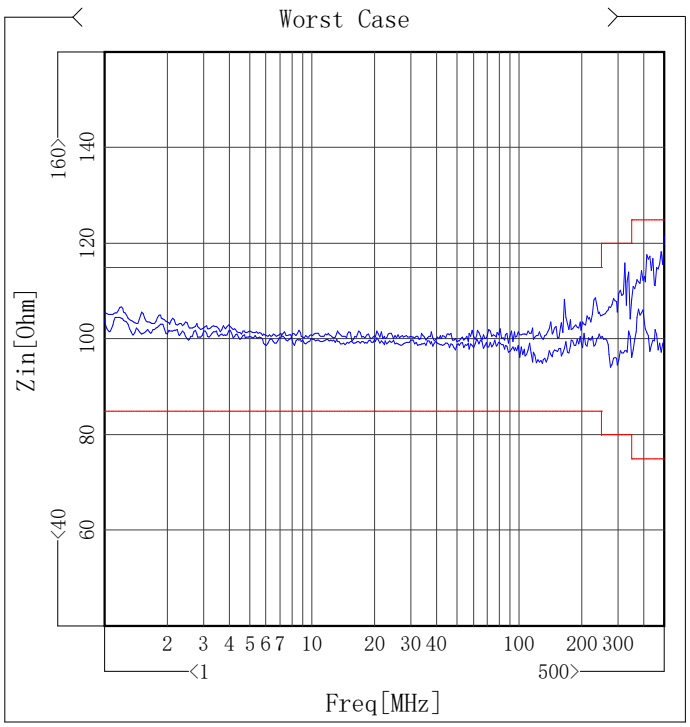
Worst Summary Of High Freq Parameter

Item	Max	Freq[MHz]	Spec	Margin	Min	Freq[MHz]	Spec	Margin
✔ Insertion Loss[dB/100m]	3.11	3.19	3.42	0.31	/	/	/	/
✔ Delay[ns/100m]	509.04	473.29	535.65	26.61	/	/	/	/
✔ Delay skew[ns/100m]	33.53	1.00	45.00	11.47	/	/	/	/
✔ Zin[Ohm]	121.57	500.00	125.00	3.43	94.94	130.19	85.00	9.94



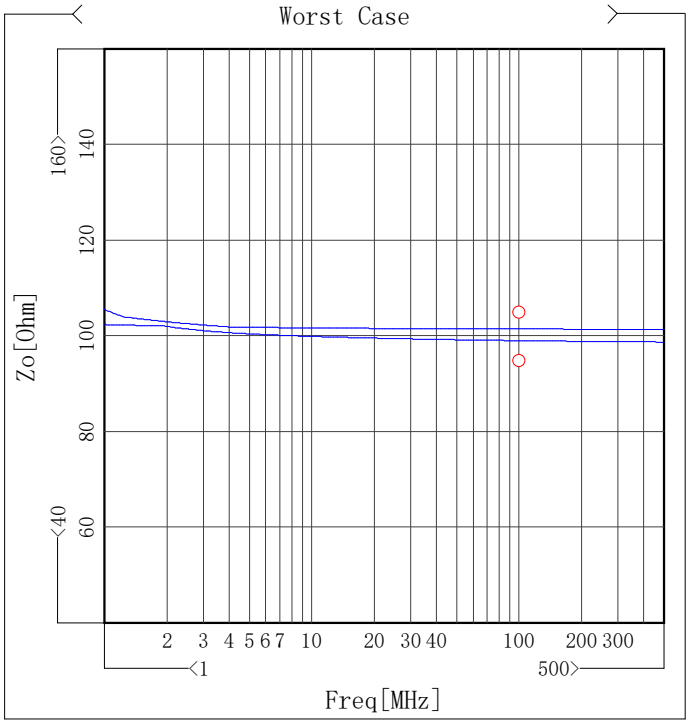


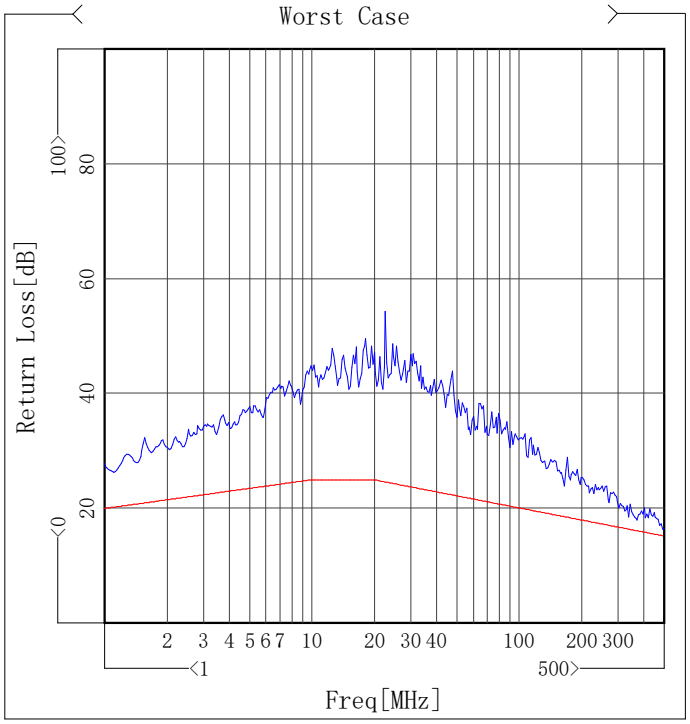


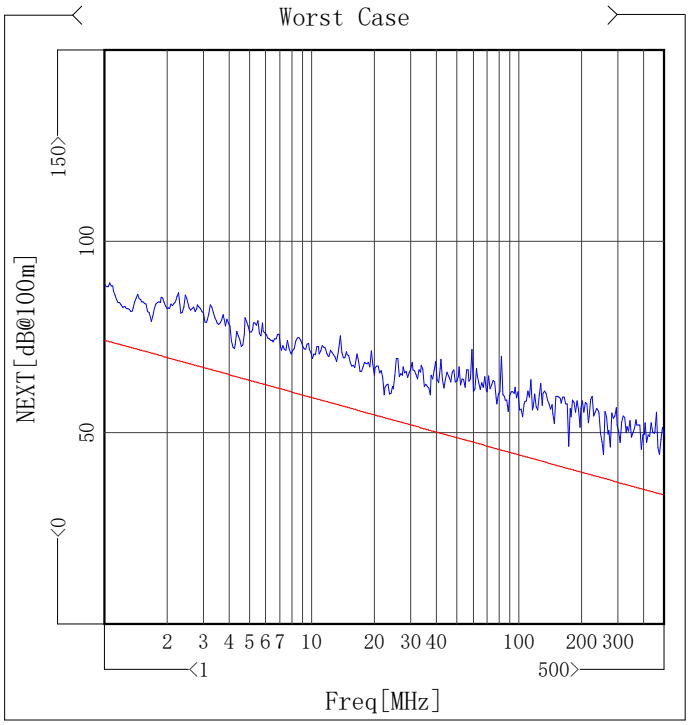


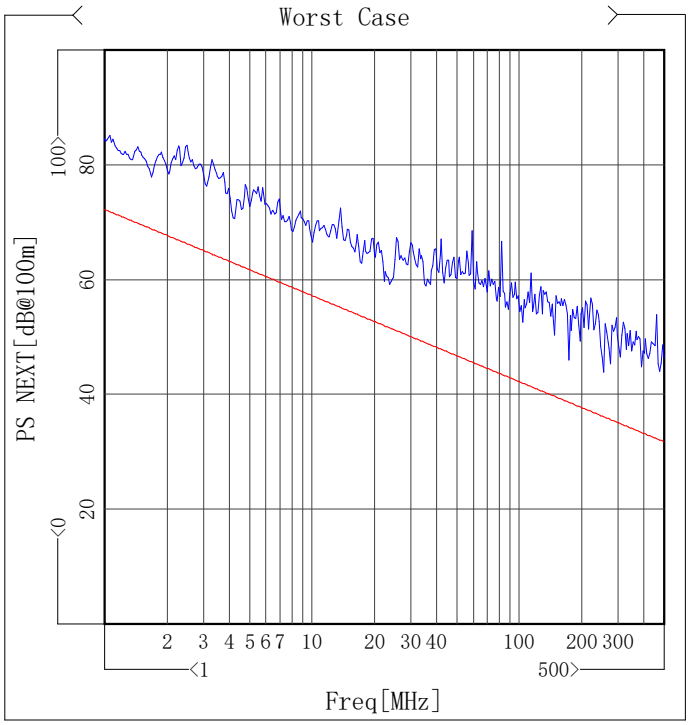
Worst Summary Of High Freq Parameter(2)

Item	Max	Freq[MHz]	Spec	Margin	Min	Freq[MHz]	Spec	Margin
✔ Zo[Ohm]	101.53	100.00	105.00	3.47	99.09	100.00	95.00	4.09
✔ Return Loss[dB]	/	/	/	/	16.44	493.32	15.26	1.18
✔ NEXT[dB@100m]	/	/	/	/	59.96	22.63	53.98	5.98
✔ PS NEXT[dB@100m]	/	/	/	/	46.10	175.34	38.64	7.46



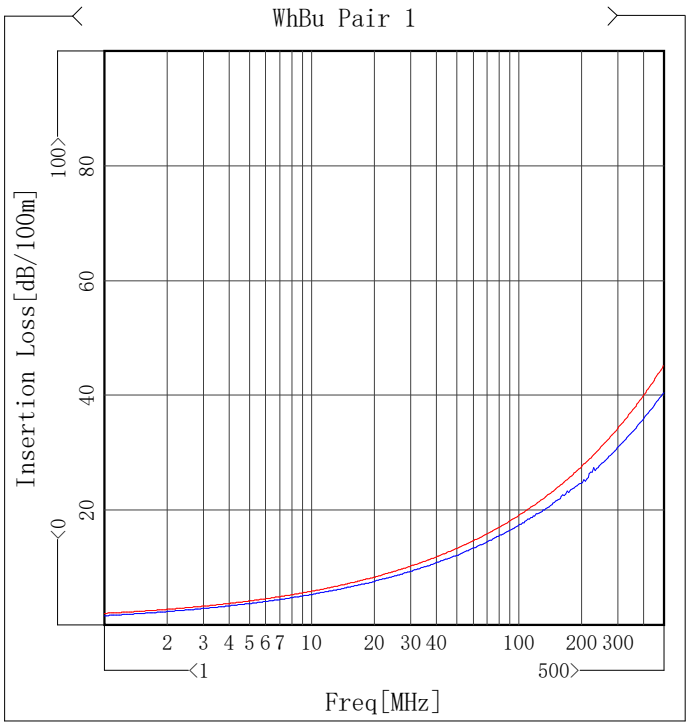


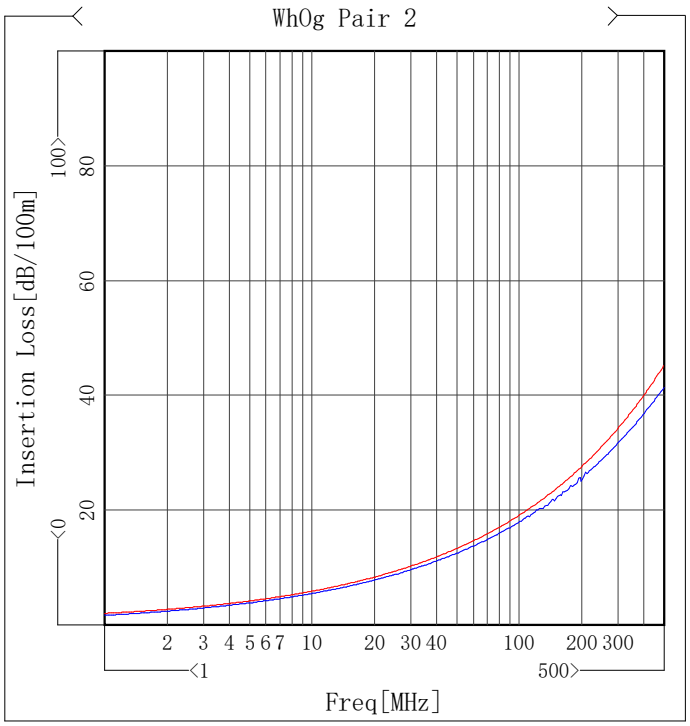


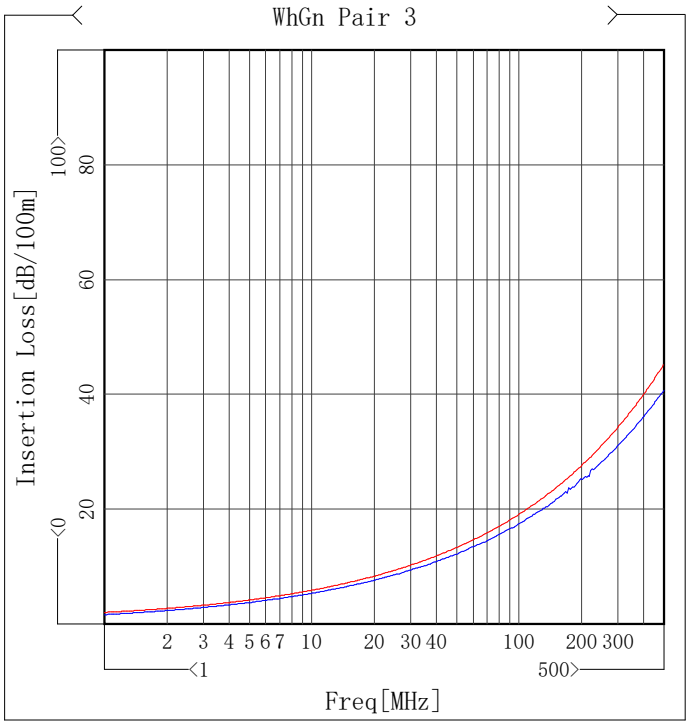


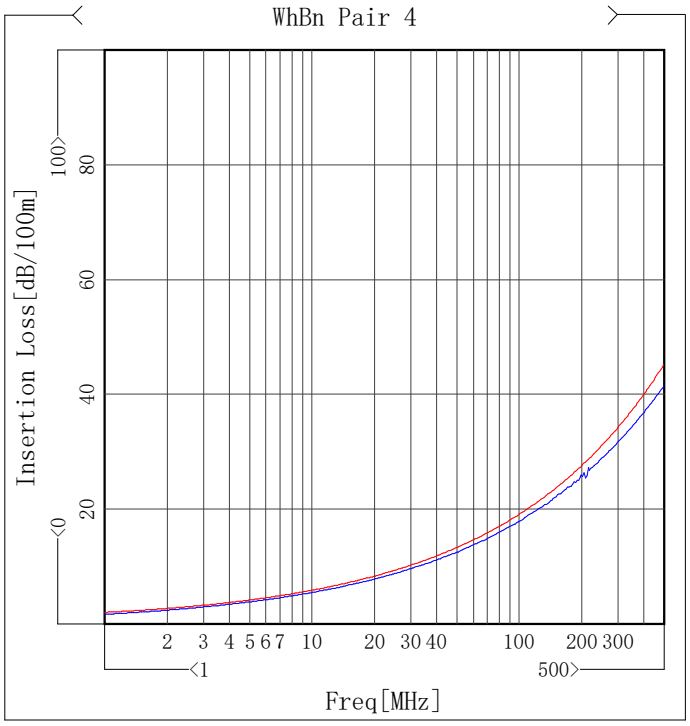
Insertion Loss

Item	Max [dB/100m]	Freq[MHz]	Spec [dB/100m]	Margin [dB/100m]
✔ WhBu Pair 1	2.72	2.62	3.12	0.40
✔ WhOg Pair 2	3.00	3.00	3.32	0.32
✔ WhGn Pair 3	2.27	1.81	2.65	0.38
✔ WhBn Pair 4	3.11	3.19	3.42	0.31



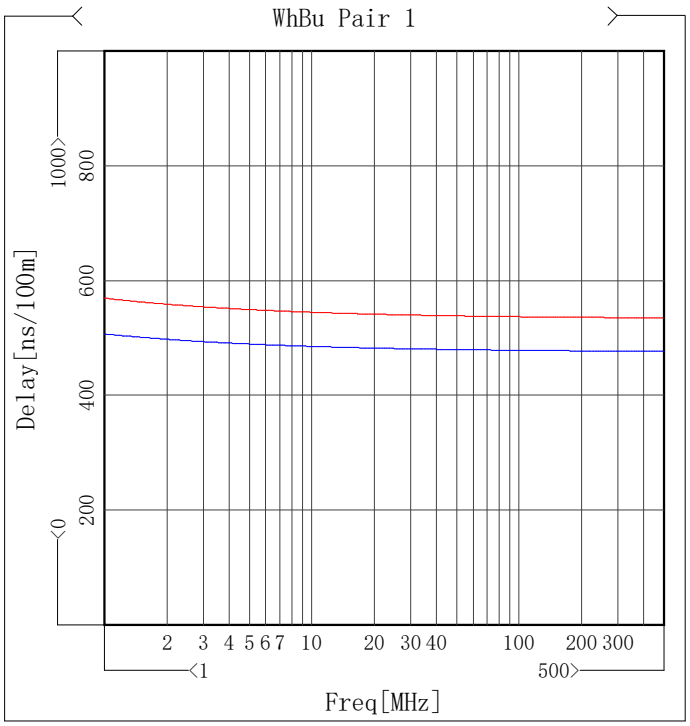


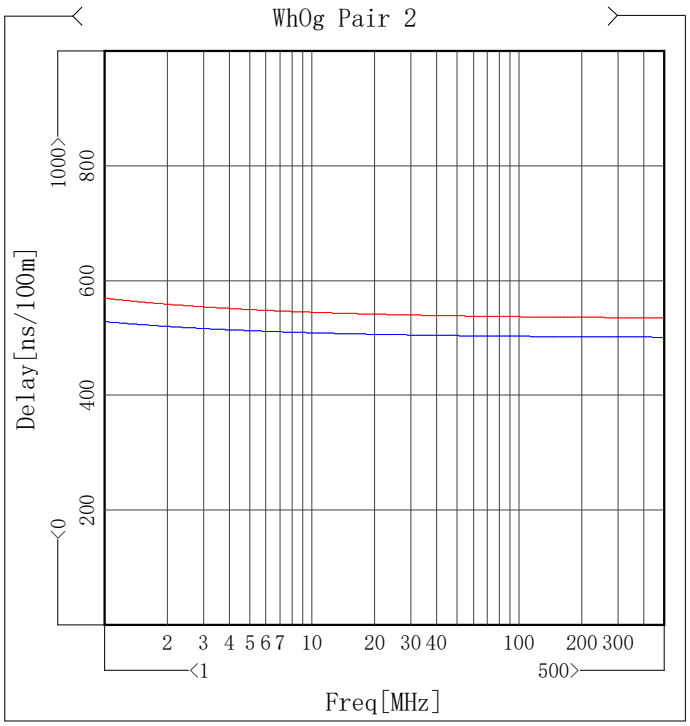


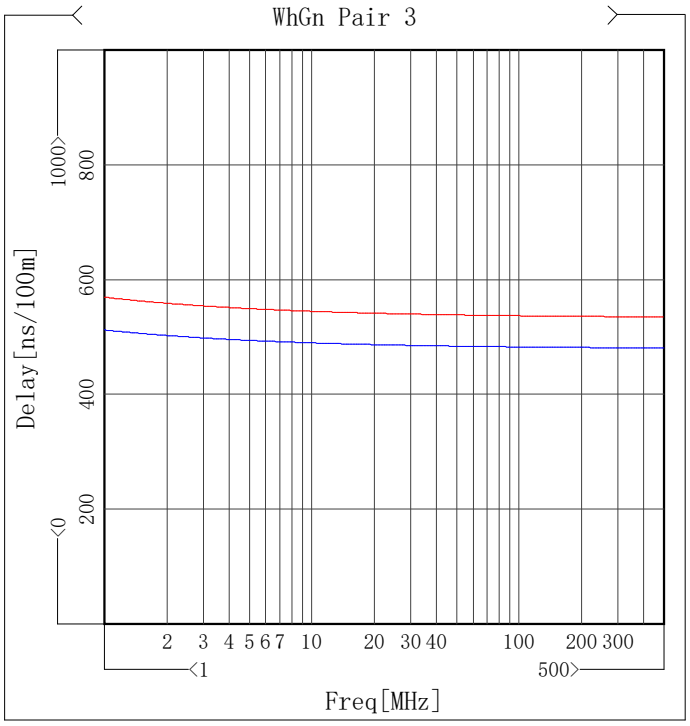


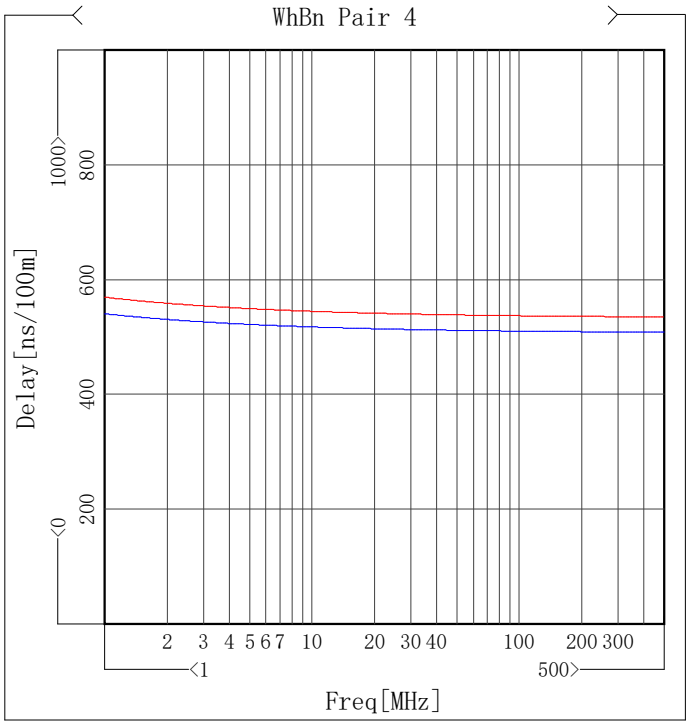
Delay

Item	Max [ns/100m]	Freq[MHz]	Spec [ns/100m]	Margin [ns/100m]
✔ WhBu Pair 1	477.28	500.00	535.61	58.33
✔ WhOg Pair 2	501.89	500.00	535.61	33.72
✔ WhGn Pair 3	481.48	500.00	535.61	54.13
✔ WhBn Pair 4	509.04	473.29	535.65	26.61



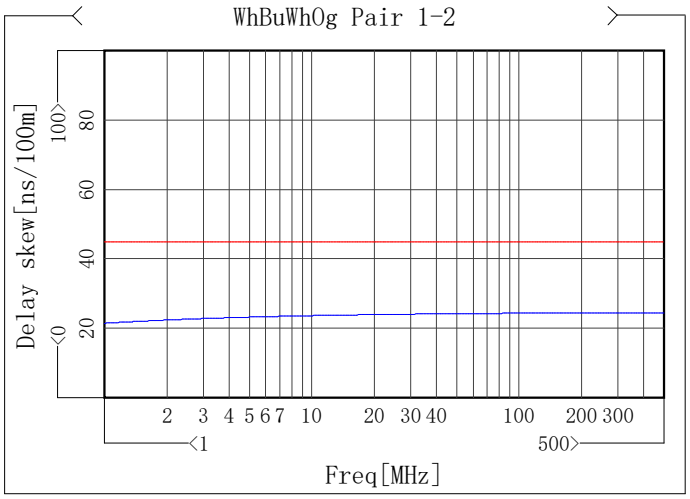


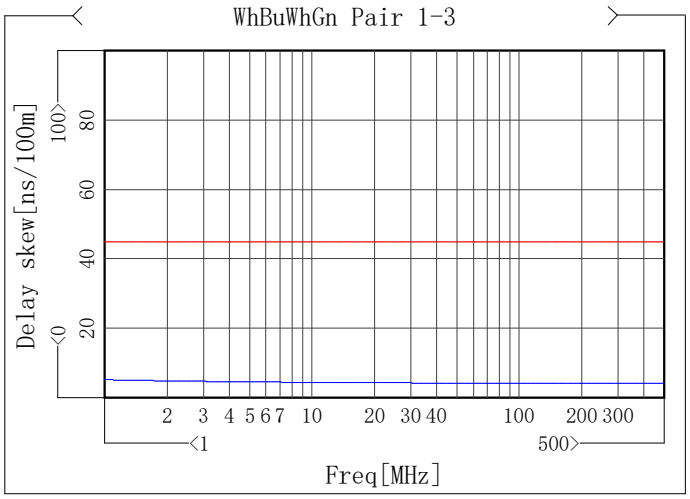


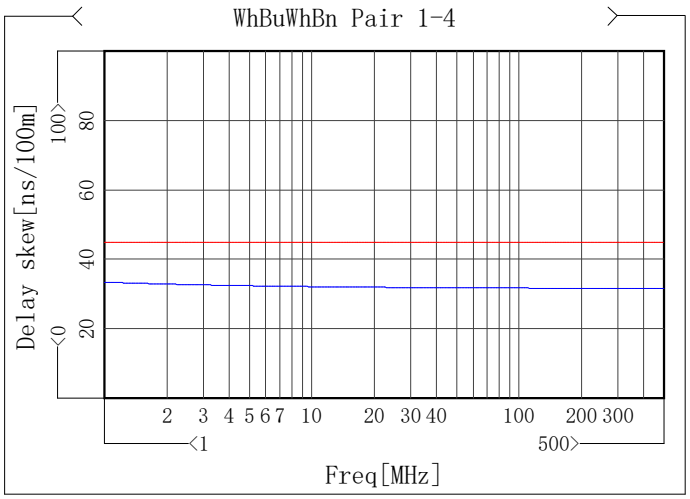


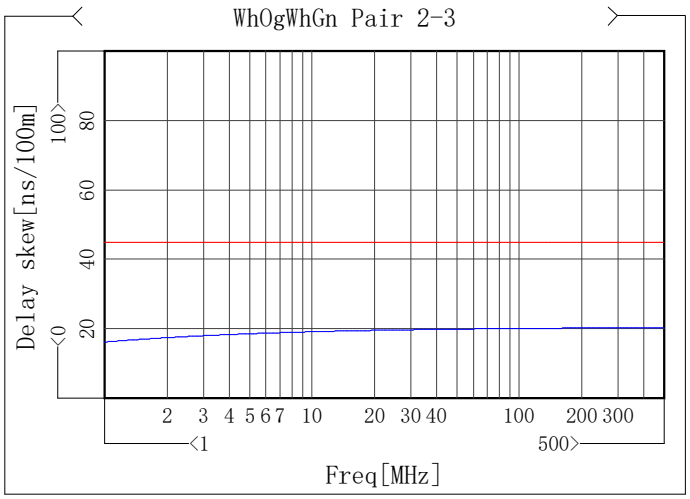
Delay skew

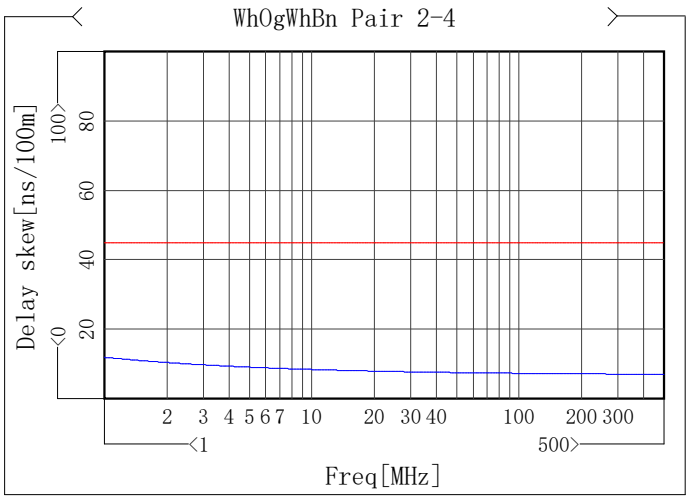
Item	Max [ns/100m]	Freq[MHz]	Spec [ns/100m]	Margin [ns/100m]
✔ WhBuWhOg Pair 1-2	24.61	500.00	45.00	20.39
✔ WhBuWhGn Pair 1-3	5.27	1.02	45.00	39.73
✔ WhBuWhBn Pair 1-4	33.53	1.00	45.00	11.47
✔ WhOgWhGn Pair 2-3	20.41	500.00	45.00	24.59
✔ WhOgWhBn Pair 2-4	12.01	1.00	45.00	32.99
✔ WhGnWhBn Pair 3-4	28.25	1.00	45.00	16.75

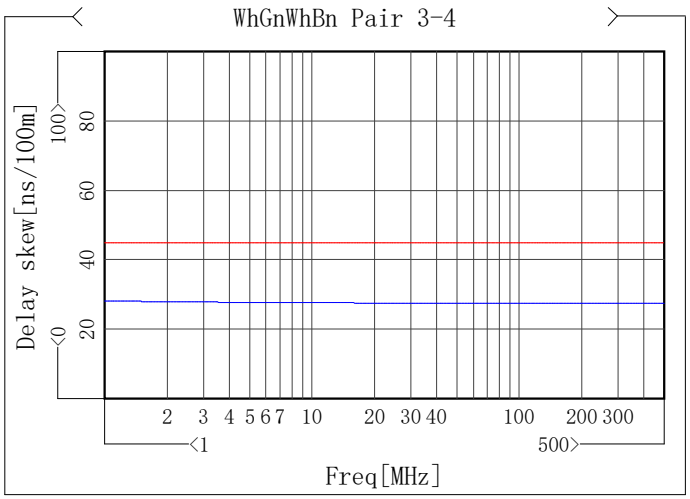






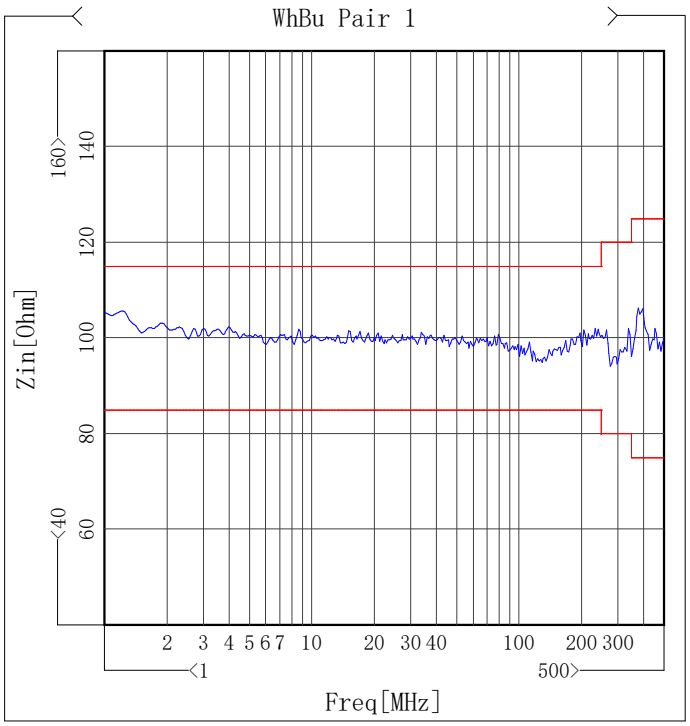


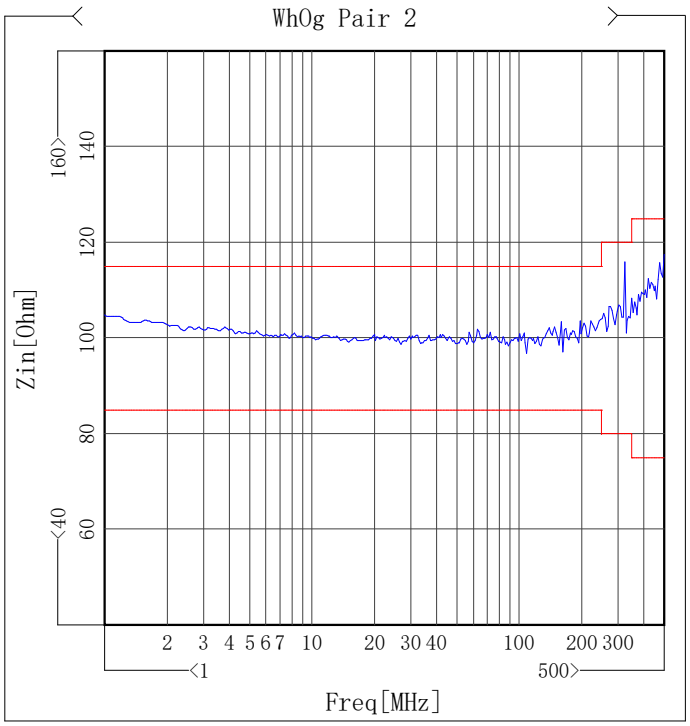


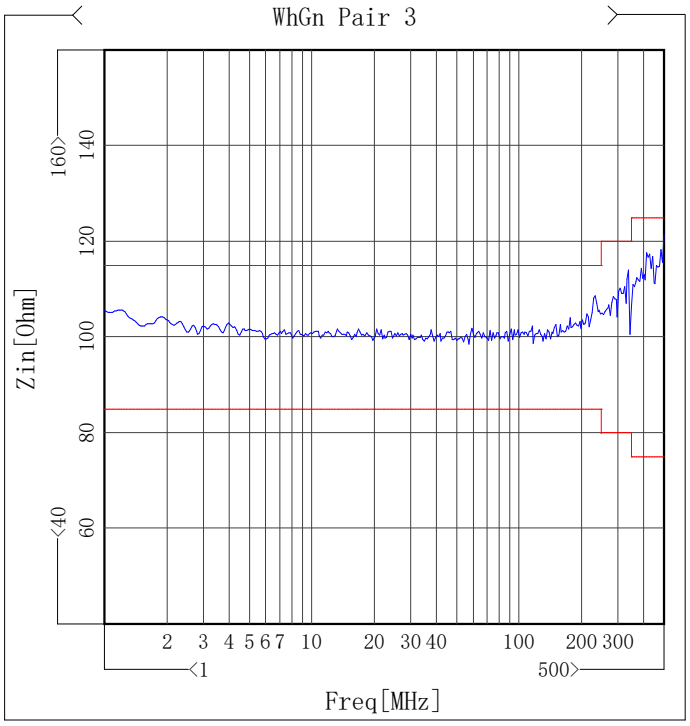


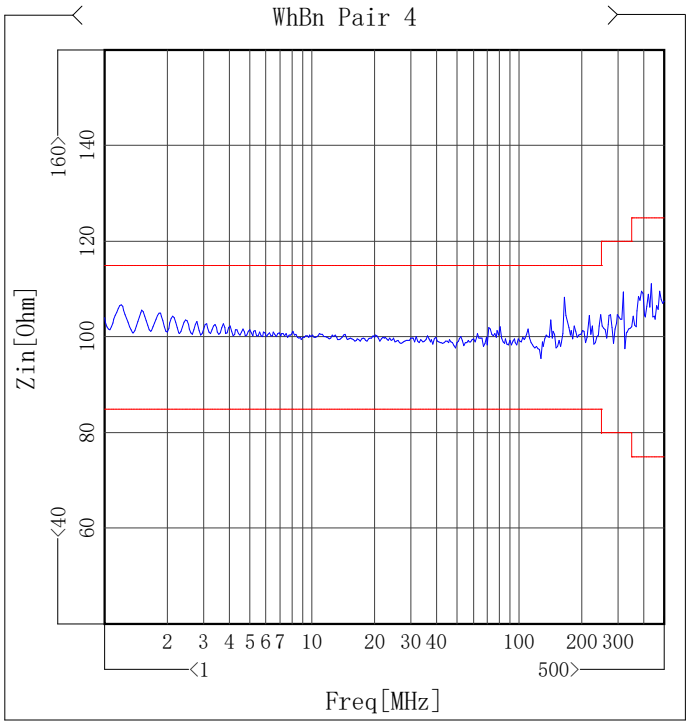
Zin

Item	Max [Ohm]	Freq[MHz]	Spec [Ohm]	Margin [Ohm]	Min [Ohm]	Freq[MHz]	Spec [Ohm]	Margin [Ohm]
✔ WhBu Pair 1	105.75	1.24	115.00	9.25	94.94	130.19	85.00	9.94
✔ WhOg Pair 2	115.96	327.08	120.00	4.04	96.79	110.42	85.00	11.79
✔ WhGn Pair 3	121.57	500.00	125.00	3.43	98.52	58.37	85.00	13.52
✔ WhBn Pair 4	108.40	167.81	115.00	6.60	95.51	128.39	85.00	10.51



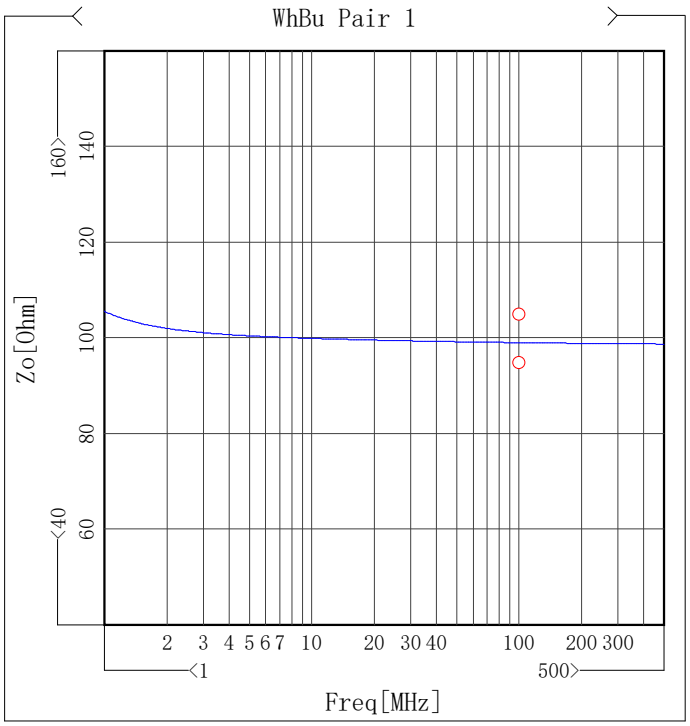


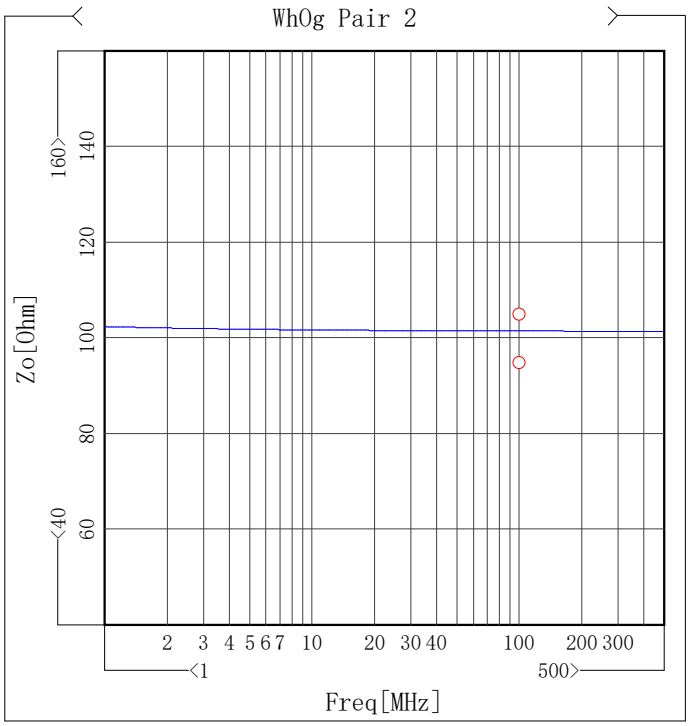


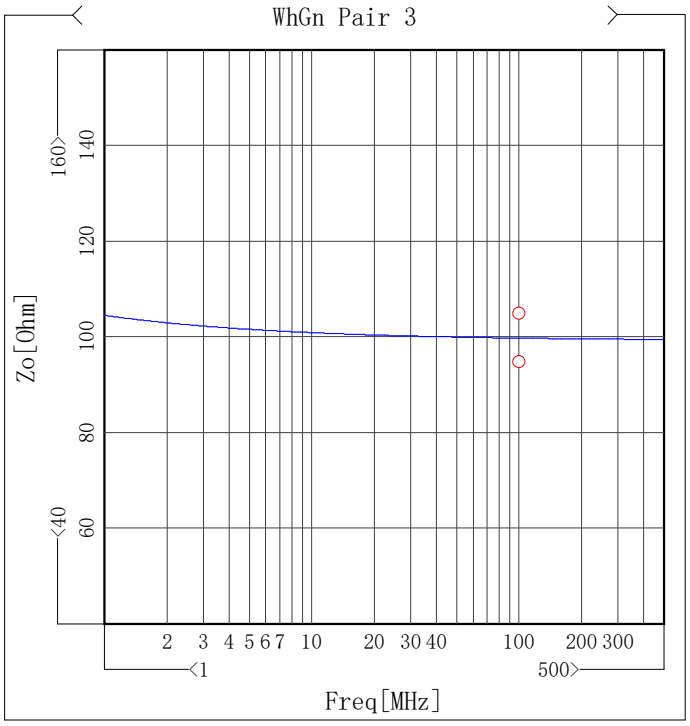


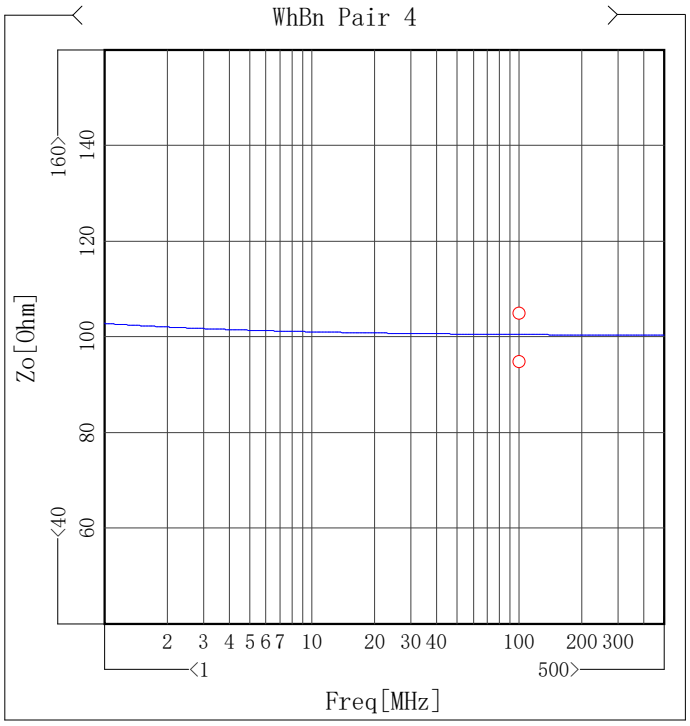
Zo

Item	Max [Ohm]	Freq[MHz]	Spec [Ohm]	Margin [Ohm]	Min [Ohm]	Freq[MHz]	Spec [Ohm]	Margin [Ohm]
✔ WhBu Pair 1	99.09	100.00	105.00	5.91	99.09	100.00	95.00	4.09
✔ WhOg Pair 2	101.53	100.00	105.00	3.47	101.53	100.00	95.00	6.53
✔ WhGn Pair 3	99.84	100.00	105.00	5.16	99.84	100.00	95.00	4.84
✔ WhBn Pair 4	100.59	100.00	105.00	4.41	100.59	100.00	95.00	5.59



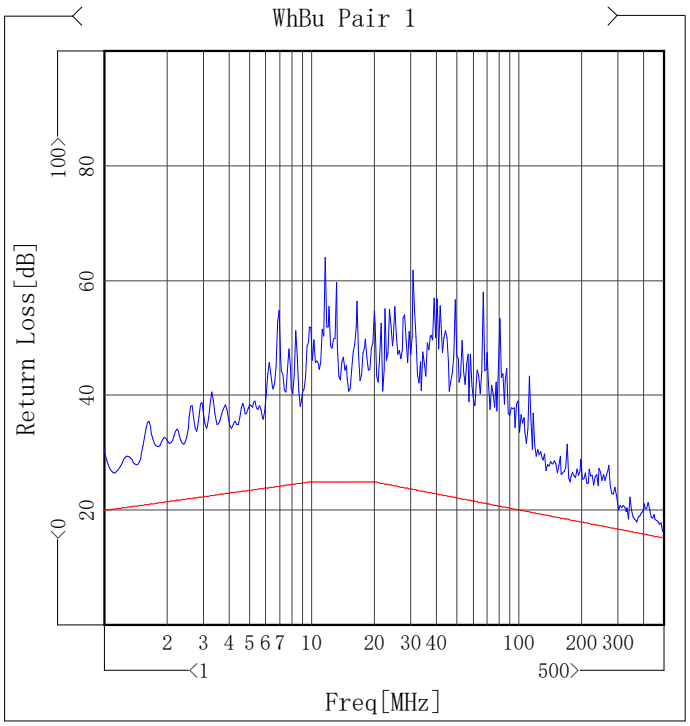


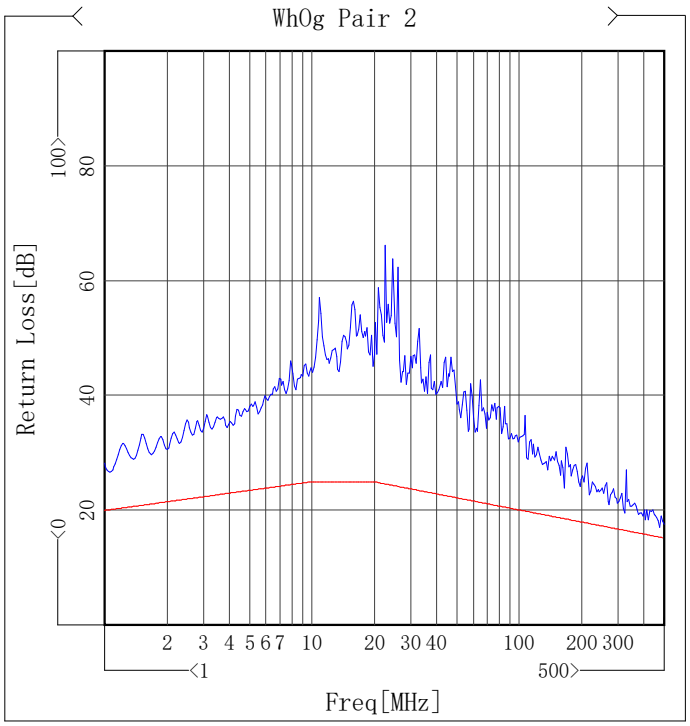


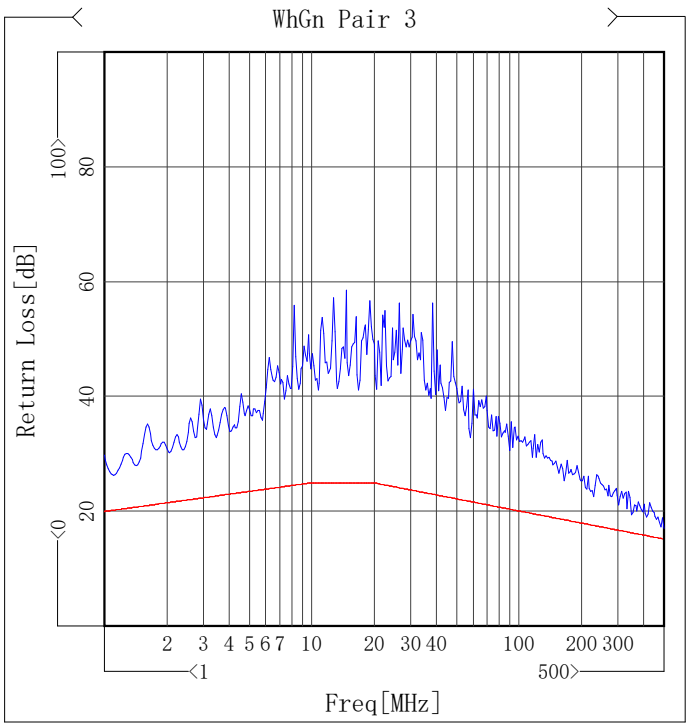


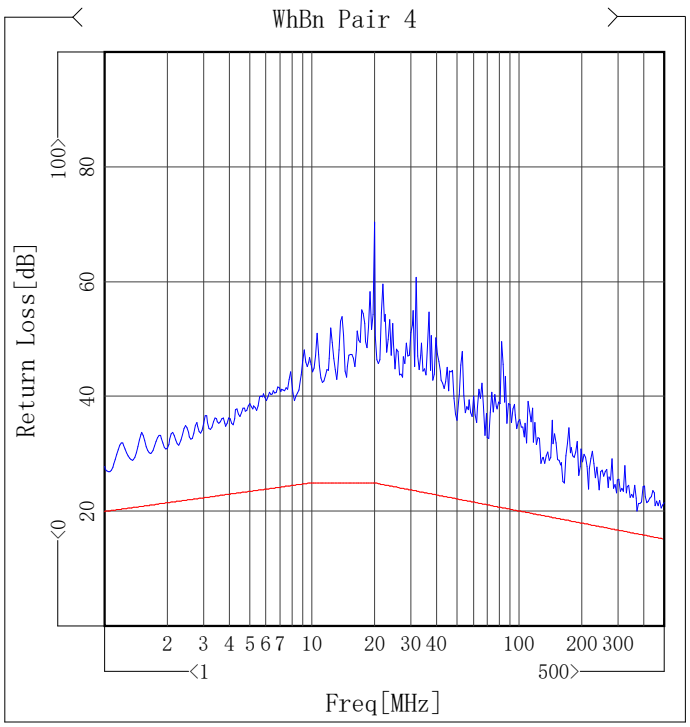
Return Loss

Item	Min [dB]	Freq[MHz]	Spec [dB]	Margin [dB]
✔ WhBu Pair 1	16.44	493.32	15.26	1.18
✔ WhOg Pair 2	17.01	479.97	15.34	1.67
✔ WhGn Pair 3	17.10	500.00	15.21	1.89
✔ WhBn Pair 4	20.10	373.13	16.10	4.00



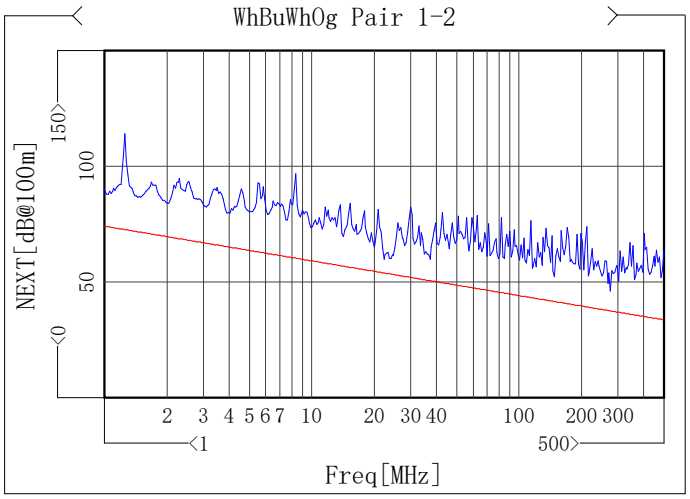


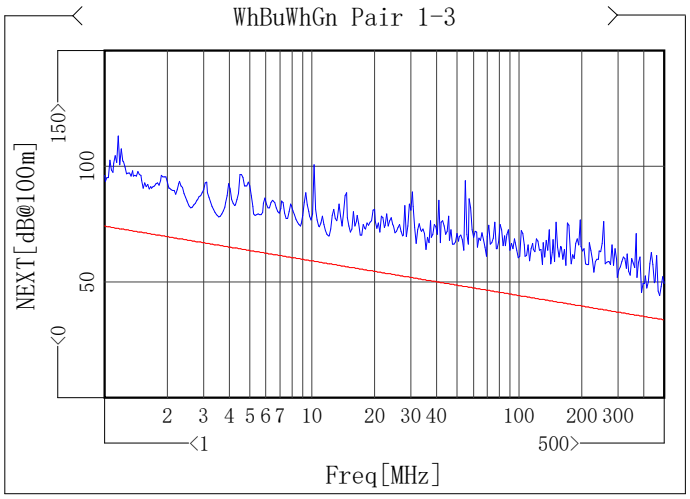


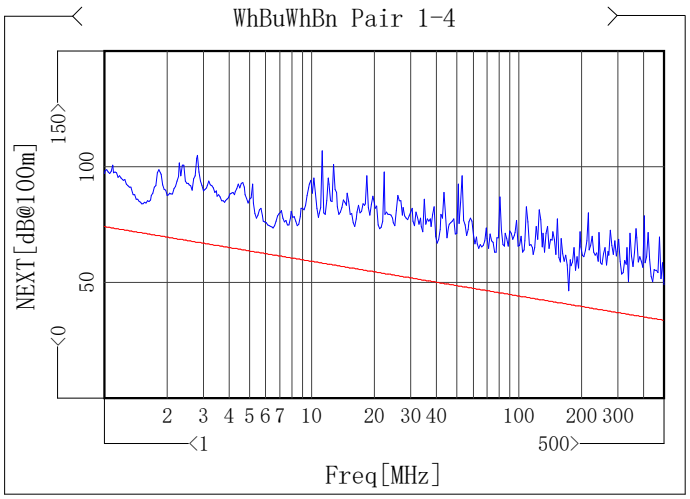


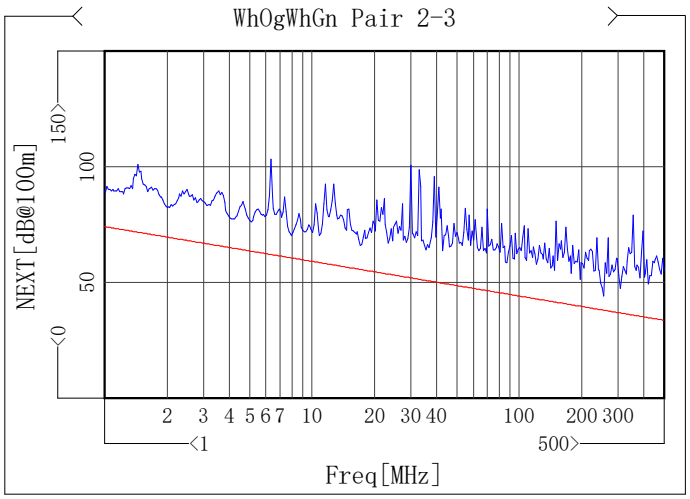
NEXT

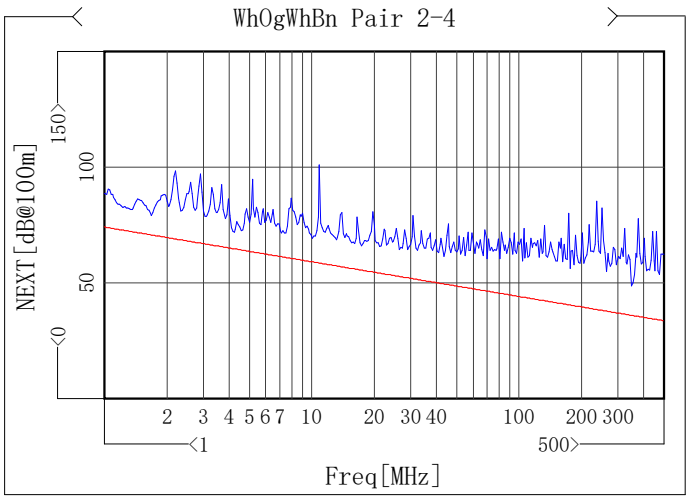
Item	Min [dB@100m]	Freq[MHz]	Spec [dB@100m]	Margin [dB@100m]
✔ WhBuWhOg Pair 1-2	59.96	22.63	53.98	5.98
✔ WhBuWhGn Pair 1-3	44.36	479.97	34.08	10.28
✔ WhBuWhBn Pair 1-4	46.64	175.34	40.64	6.00
✔ WhOgWhGn Pair 2-3	44.41	256.88	38.15	6.26
✔ WhOgWhBn Pair 2-4	72.04	4.30	64.80	7.24
✔ WhGnWhBn Pair 3-4	54.19	105.02	43.98	10.21

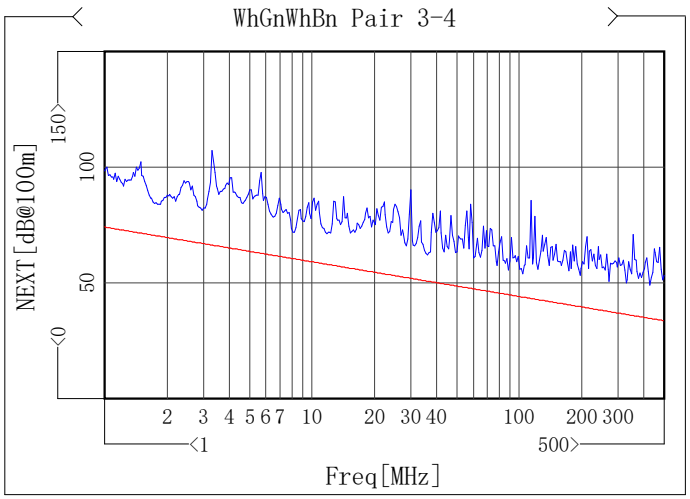






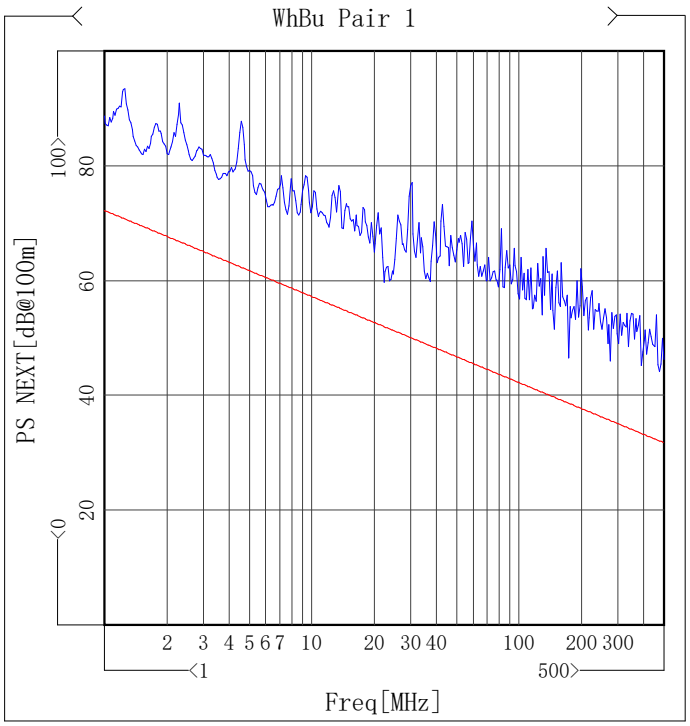


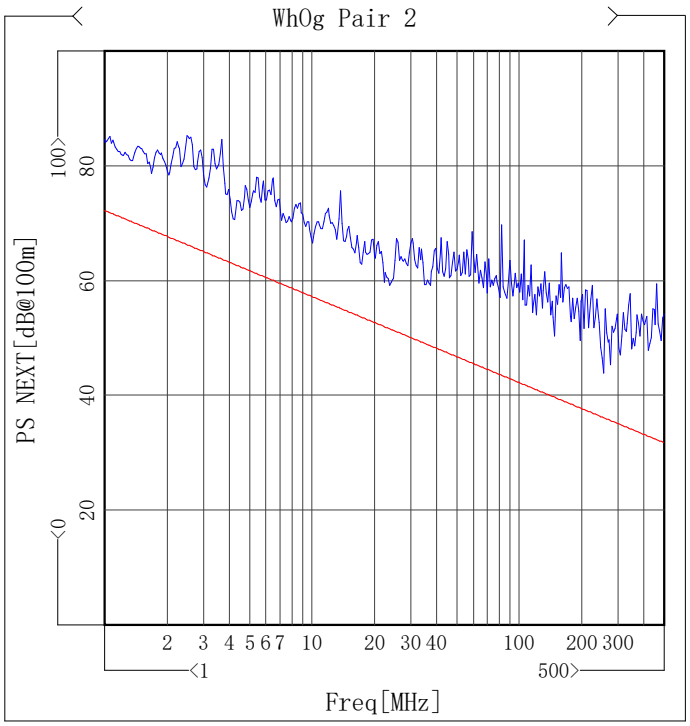


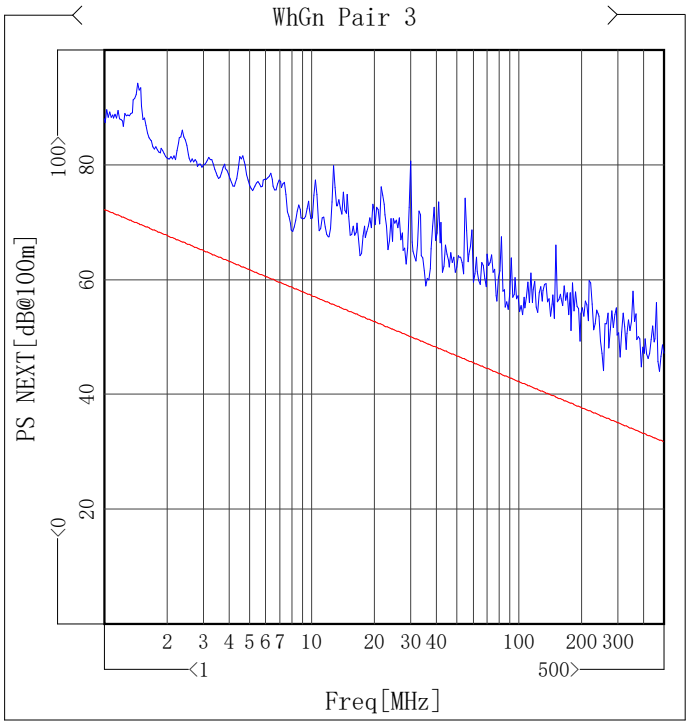


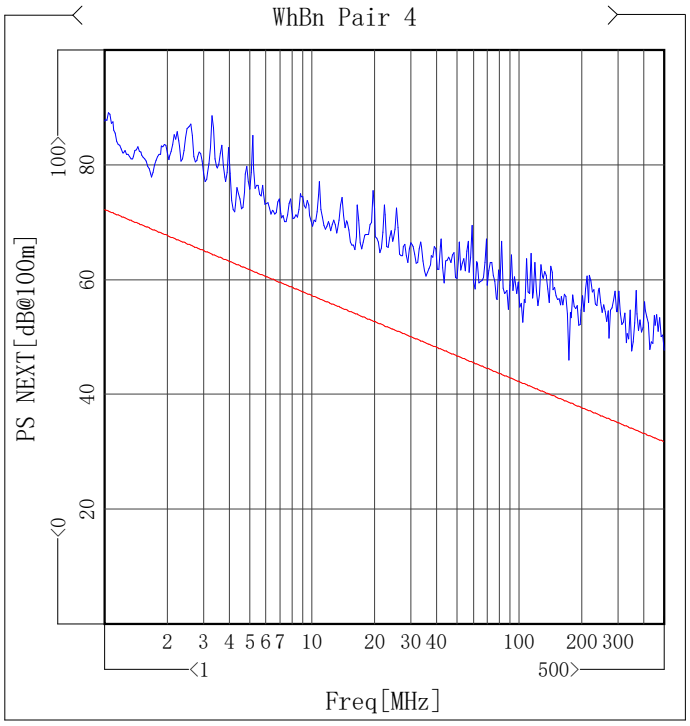
PS NEXT

Item	Min [dB@100m]	Freq[MHz]	Spec [dB@100m]	Margin [dB@100m]
✔ WhBu Pair 1	59.78	22.63	51.98	7.80
✔ WhOg Pair 2	59.19	24.03	51.59	7.60
✔ WhGn Pair 3	44.17	256.88	36.15	8.02
✔ WhBn Pair 4	46.10	175.34	38.64	7.46









Insertion Loss[dB/100m]

No.	Freq [MHz]	Spec (Max)	WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
1	1	2.08	1.67	1.72	1.68	1.74
2	4	3.8	3.36	3.46	3.37	3.48
3	8	5.31	4.78	4.92	4.79	4.93
4	10	5.93	5.35	5.50	5.37	5.52
5	16	7.49	6.79	6.98	6.82	7.01
6	20	8.38	7.60	7.83	7.64	7.84
7	25	9.38	8.52	8.76	8.57	8.79
8	31.25	10.5	9.54	9.82	9.60	9.85
9	50	13.36	12.16	12.51	12.19	12.51
10	62.5	14.99	13.62	14.01	13.67	14.03
11	100	19.13	17.32	17.86	17.47	17.89
12	125	21.51	19.41	20.17	19.58	20.06
13	200	27.58	24.70	25.35	25.32	25.88
14	250	31.07	27.99	28.71	28.13	28.76
15	300	34.27	30.71	31.48	30.87	31.54
16	350	37.25	33.45	34.26	33.61	34.32
17	400	40.05	35.81	36.65	35.98	36.72
18	450	42.71	38.10	38.97	38.28	39.04
19	500	45.26	40.55	41.44	40.74	41.52

Delay[ns/100m]

No.	Freq [MHz]	Spec (Max)	WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
1	1	570	507.66	529.18	512.94	541.19
2	4	552	491.83	514.96	496.55	524.42
3	8	546.73	487.16	510.77	491.71	519.46
4	10	545.38	485.91	509.65	490.42	518.14
5	16	543	483.85	507.80	488.29	515.96
6	20	542.05	482.99	507.02	487.39	515.04
7	25	541.2	482.23	506.34	486.61	514.24
8	31.25	540.44	481.58	505.75	485.93	513.55
9	50	539.09	480.35	504.65	484.66	512.25
10	62.5	538.55	479.90	504.24	484.19	511.77
11	100	537.6	479.04	503.47	483.30	510.86
12	125	537.22	478.71	503.18	482.97	510.51
13	200	536.55	478.11	502.64	482.34	509.87
14	250	536.28	477.87	502.42	482.09	509.62
15	300	536.08	477.70	502.27	481.92	509.44
16	350	535.92	477.56	502.14	481.77	509.29
17	400	535.8	477.45	502.04	481.66	509.17
18	450	535.7	477.36	501.96	481.57	509.08
19	500	535.61	477.28	501.89	481.48	508.99

Delay skew[ns/100m]

No.	Freq [MHz]	Spec (Max)	WhBuWhOg Pair 1-2	WhBuWhGn Pair 1-3	WhBuWhBn Pair 1-4	WhOgWhGn Pair 2-3	WhOgWhBn Pair 2-4	WhGnWhBn Pair 3-4
1	1	45	21.52	5.28	33.53	16.24	12.01	28.25

Delay skew[ns/100m](Continuation 1)

No.	Freq [MHz]	Spec (Max)	WhBuWhOg Pair 1-2	WhBuWhGn Pair 1-3	WhBuWhBn Pair 1-4	WhOgWhGn Pair 2-3	WhOgWhBn Pair 2-4	WhGnWhBn Pair 3-4
2	4	45	23.13	4.72	32.58	18.41	9.45	27.86
3	8	45	23.61	4.55	32.30	19.05	8.70	27.75
4	10	45	23.73	4.51	32.23	19.22	8.50	27.72
5	16	45	23.94	4.44	32.11	19.51	8.16	27.67
6	20	45	24.03	4.41	32.05	19.63	8.02	27.65
7	25	45	24.11	4.38	32.01	19.73	7.90	27.63
8	31.25	45	24.17	4.36	31.97	19.82	7.80	27.61
9	50	45	24.30	4.31	31.90	19.99	7.60	27.58
10	62.5	45	24.34	4.30	31.87	20.05	7.53	27.57
11	100	45	24.43	4.27	31.82	20.17	7.39	27.55
12	125	45	24.47	4.25	31.80	20.21	7.33	27.55
13	200	45	24.53	4.23	31.76	20.29	7.24	27.53
14	250	45	24.55	4.22	31.75	20.33	7.20	27.52
15	300	45	24.57	4.22	31.74	20.35	7.17	27.52
16	350	45	24.58	4.21	31.73	20.37	7.15	27.52
17	400	45	24.59	4.21	31.72	20.38	7.13	27.51
18	450	45	24.60	4.21	31.72	20.40	7.12	27.51
19	500	45	24.61	4.20	31.71	20.41	7.10	27.51

Zin[Ohm]

No.	Freq [MHz]	Spec		WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
		(Max)	(Min)				
1	1	115	85	105.50	104.83	105.62	104.18
2	4	115	85	102.18	101.87	102.82	101.62
3	8	115	85	100.36	100.24	100.90	100.44
4	10	115	85	100.46	100.23	100.97	100.26
5	16	115	85	99.29	99.94	99.78	99.53
6	20	115	85	99.76	100.64	99.68	100.20
7	25	115	85	100.20	100.00	100.03	99.76
8	31.25	115	85	100.04	100.19	100.32	99.85
9	50	115	85	99.71	98.90	99.47	98.60
10	62.5	115	85	99.52	100.07	100.31	99.48
11	100	115	85	98.19	99.65	101.33	99.61
12	125	115	85	95.63	100.18	100.91	97.64
13	200	115	85	100.15	101.87	102.45	100.61
14	250	115	85	100.30	103.91	104.98	104.62
15	300	120	80	95.57	105.24	106.53	103.70
16	350	120	80	97.30	107.33	105.13	102.19
17	400	125	75	106.05	109.39	112.35	109.01
18	450	125	75	99.75	110.55	114.06	104.33
19	500	125	75	99.82	117.50	121.57	107.63

Zo[Ohm]

No.	Freq [MHz]	Spec		WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
		(Max)	(Min)				
1	1	\	\	105.71	102.46	104.62	102.94
2	4	\	\	100.77	101.94	101.97	101.63

Zo[Ohm](Continuation 1)

No.	Freq [MHz]	Spec (Max)	Spec (Min)	WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
3	8	\	\	100.14	101.79	101.19	101.25
4	10	\	\	99.99	101.75	100.99	101.16
5	16	\	\	99.73	101.68	100.64	100.98
6	20	\	\	99.63	101.65	100.50	100.92
7	25	\	\	99.53	101.63	100.37	100.85
8	31.25	\	\	99.45	101.61	100.26	100.80
9	50	\	\	99.28	101.57	100.06	100.70
10	62.5	\	\	99.22	101.55	99.98	100.66
11	100	105	95	99.09	101.53	99.84	100.59
12	125	\	\	99.04	101.51	99.79	100.57
13	200	\	\	98.94	101.49	99.69	100.52
14	250	\	\	98.90	101.49	99.65	100.50
15	300	\	\	98.88	101.48	99.62	100.48
16	350	\	\	98.85	101.48	99.59	100.47
17	400	\	\	98.83	101.47	99.58	100.46
18	450	\	\	98.82	101.47	99.56	100.46
19	500	\	\	98.80	101.47	99.55	100.45

Return Loss[dB]

No.	Freq [MHz]	Spec (Min)	WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
1	1	20	30.67	28.22	29.91	27.90
2	4	23.01	36.61	34.81	35.61	35.87
3	8	24.52	44.54	45.91	41.43	44.19
4	10	25	50.88	44.67	45.34	45.43
5	16	25	46.73	56.28	49.02	46.95
6	20	25	51.78	46.10	49.65	61.70
7	25	24.32	49.72	60.83	47.60	49.92
8	31.25	23.64	59.16	46.49	53.48	54.45
9	50	22.21	49.24	39.20	41.72	36.18
10	62.5	21.54	40.35	33.98	36.86	36.22
11	100	20.11	37.93	32.11	32.89	35.70
12	125	19.43	30.57	30.93	31.52	32.86
13	200	18	28.23	24.91	25.45	29.82
14	250	17.32	26.71	23.48	24.90	26.90
15	300	16.77	22.44	21.76	23.60	24.14
16	350	16.3	20.58	20.76	20.17	22.82
17	400	15.89	19.85	19.02	20.03	24.26
18	450	15.53	19.03	19.69	19.98	23.43
19	500	15.21	16.50	17.56	17.10	21.54

NEXT[dB@100m]

No.	Freq [MHz]	Spec (Min)	WhBuWhOg Pair 1-2	WhBuWhGn Pair 1-3	WhBuWhBn Pair 1-4	WhOgWhGn Pair 2-3	WhOgWhBn Pair 2-4	WhGnWhBn Pair 3-4
1	1	74.3	90.47	96.18	97.11	89.28	88.62	98.65
2	4	65.27	79.96	90.69	86.55	79.29	83.84	92.81
3	8	60.75	85.43	83.75	78.40	70.89	83.49	76.86

NEXT[dB@100m](Continuation 1)

No.	Freq [MHz]	Spec (Min)	WhBuWhOg Pair 1-2	WhBuWhGn Pair 1-3	WhBuWhBn Pair 1-4	WhOgWhGn Pair 2-3	WhOgWhBn Pair 2-4	WhGnWhBn Pair 3-4
4	10	59.3	73.69	77.37	93.43	72.83	70.79	79.24
5	16	56.24	73.64	78.31	77.14	72.48	67.60	72.90
6	20	54.78	66.70	81.39	86.01	75.84	78.40	76.83
7	25	53.33	61.64	74.36	76.53	72.66	67.99	80.71
8	31.25	51.88	71.36	84.19	77.96	71.03	77.26	66.88
9	50	48.82	68.11	70.16	71.45	71.32	63.83	63.42
10	62.5	47.36	70.25	71.90	68.16	73.64	65.05	63.95
11	100	44.3	61.82	60.85	66.00	64.75	67.49	60.56
12	125	42.85	66.40	67.37	70.24	61.01	67.74	56.38
13	200	39.78	65.70	69.67	67.97	56.11	60.15	55.37
14	250	38.33	54.72	63.27	58.58	49.77	63.37	62.07
15	300	37.14	56.94	56.98	62.25	60.56	58.65	58.19
16	350	36.14	59.40	58.53	64.01	63.11	51.65	54.66
17	400	35.27	54.78	49.42	57.30	71.92	59.28	54.79
18	450	34.5	59.45	53.60	53.06	58.91	65.84	60.01
19	500	33.82	64.17	49.35	49.31	55.45	62.49	53.48

PS NEXT[dB@100m]

No.	Freq [MHz]	Spec (Min)	WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
1	1	72.3	88.75	84.62	88.08	87.68
2	4	63.27	78.76	75.63	78.73	81.36
3	8	58.75	76.61	70.51	69.71	73.86
4	10	57.3	72.09	67.48	70.71	70.08
5	16	54.24	70.65	65.62	68.95	66.09
6	20	52.78	66.50	65.93	72.66	74.11
7	25	51.33	61.29	60.41	69.86	67.18
8	31.25	49.88	70.24	66.81	65.39	65.89
9	50	46.82	64.88	61.90	62.00	60.27
10	62.5	45.36	64.91	62.93	62.38	60.59
11	100	42.3	57.58	59.28	56.73	58.73
12	125	40.85	62.62	58.82	54.77	55.72
13	200	37.78	59.77	54.02	52.39	53.86
14	250	36.33	52.81	48.41	49.34	56.00
15	300	35.14	52.82	53.69	53.28	54.49
16	350	34.14	54.03	50.45	52.40	49.29
17	400	33.27	47.69	53.04	48.25	51.84
18	450	32.5	48.77	55.06	50.58	51.49
19	500	31.82	46.25	54.21	47.22	47.75