Test Information

Test Time : 2025/09/25 09:35:51	Temperature:30C
Standard:IEC 61156-5 CAT6A	Test Result:Pass
Cable Length:305m	Brand:QUEST TELECOM
Size:CAT6A U/FTP 23AWG	INV NO:
Customer:	Dated Submitted:24.09.2025
Size of conductor:	P/N:
Inspector:si yong chen	Cable ID:

Test Result List

Test Item	Unit	Test Result
Attenuation	dB/100m	Pass
Propagation Delay	ns/100m	Pass
Propagation Delay Skew	ns/100m	Pass
Input Impedance	Ohm	Pass
Return Loss	dB	Pass
Near End Crosstalk	dB@100m	Pass
Power Sum NEXT	dB@100m	Pass
Equal Level FEXT	dB@100m	Pass
Power Sum ELFEXT	dB@100m	Pass

Inspector:

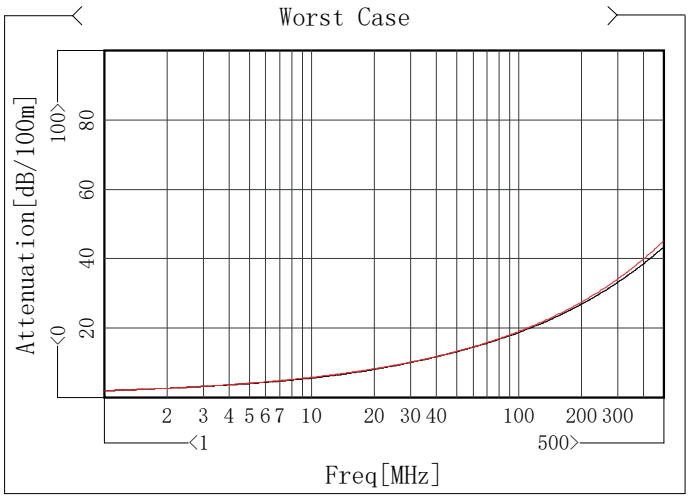
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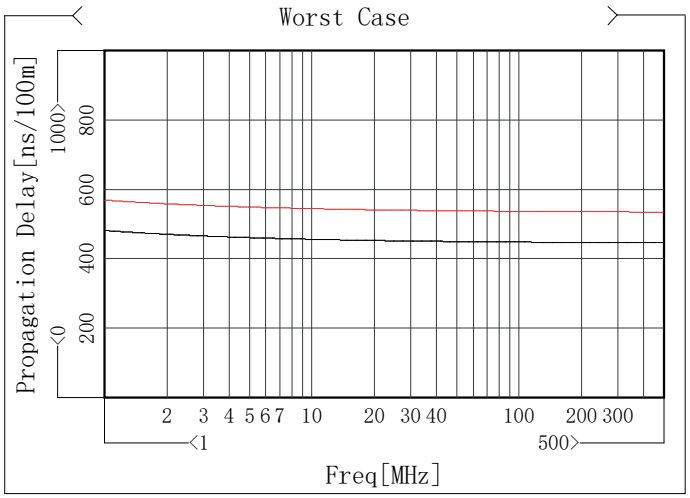
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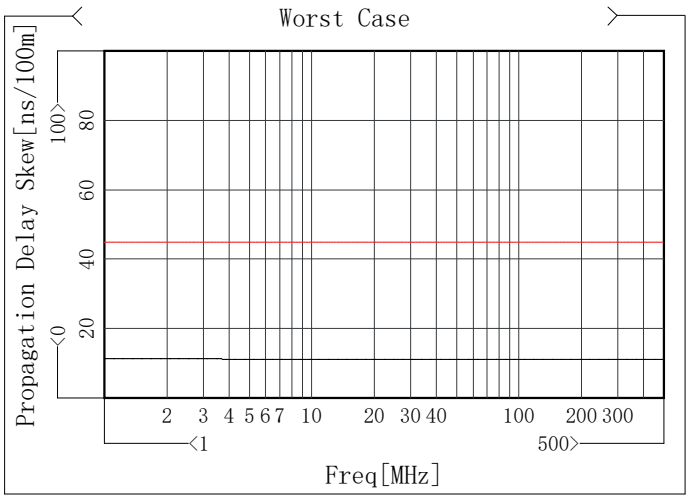
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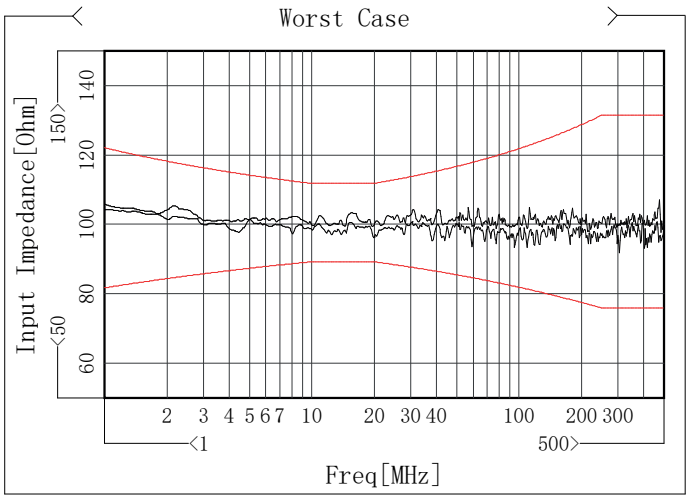
Worst Summary Of High Freq Parameter

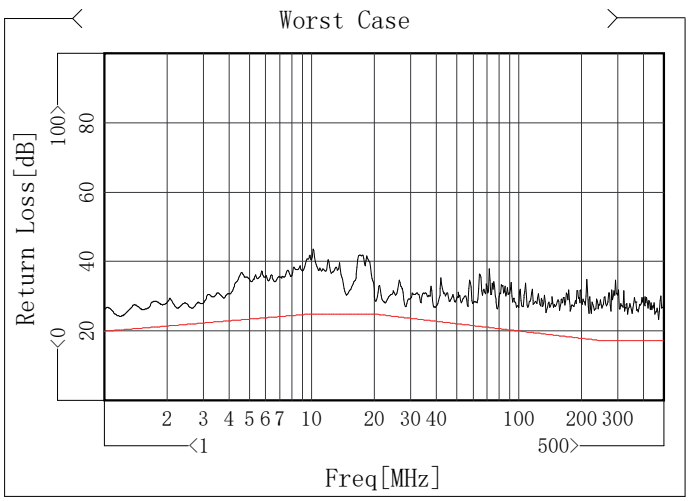
Item	Max	Freq[MHz]	Spec	Margin	Min	Freq[MHz]	Spec	Margin
☑ Attenuation[dB/100m]	2.78[1]	2.04	2.79	0.01	/	/	/	/
☑ Propagation Delay[ns/100m]	480.15[1]	1.16	567.49	87.34	/	/	/	/
☑ Propagation Delay Skew[ns/	11.49[1-4]	1.06	45.00	33.51	/	/	/	/
☑ Input Impedance[Ohm]	103.43[3]	15.84	111.92	8.49	96.38[2]	20.04	89.34	7.04
☑ Return Loss[dB]	/	/	/	/	27.04[3]	28.71	23.90	3.14
☑ Near End Crosstalk[dB@100m	/	/	/	/	93.10[2-4]	1.03	75.12	17.98

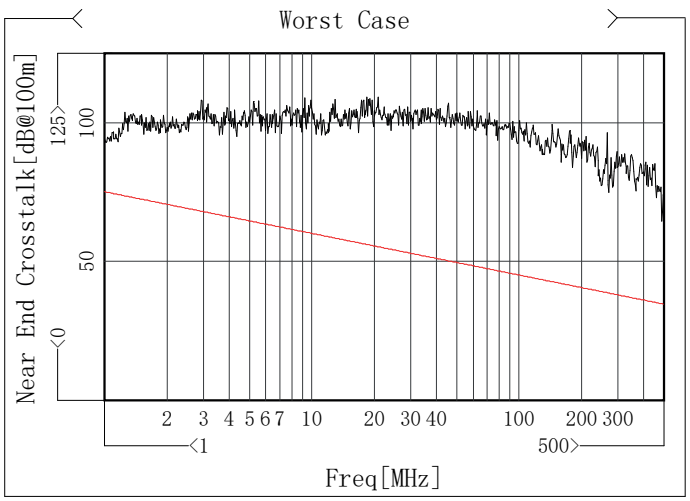






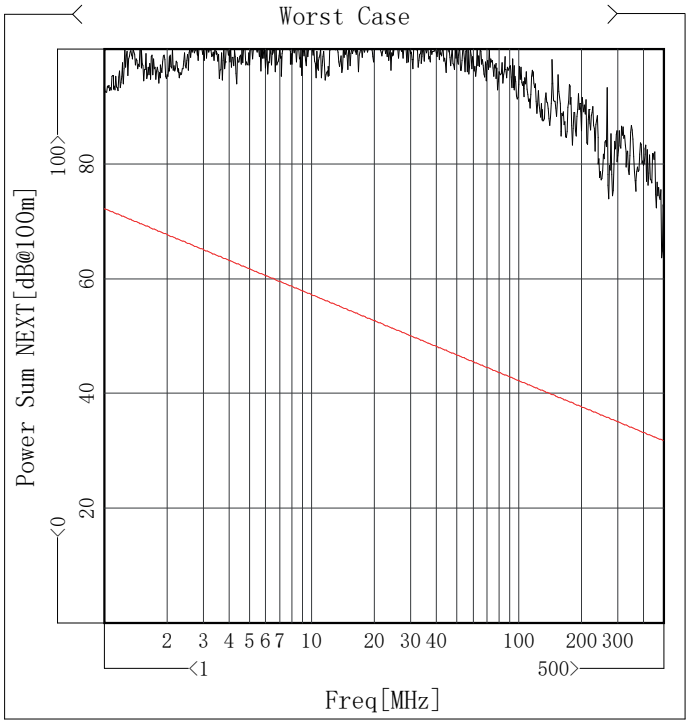


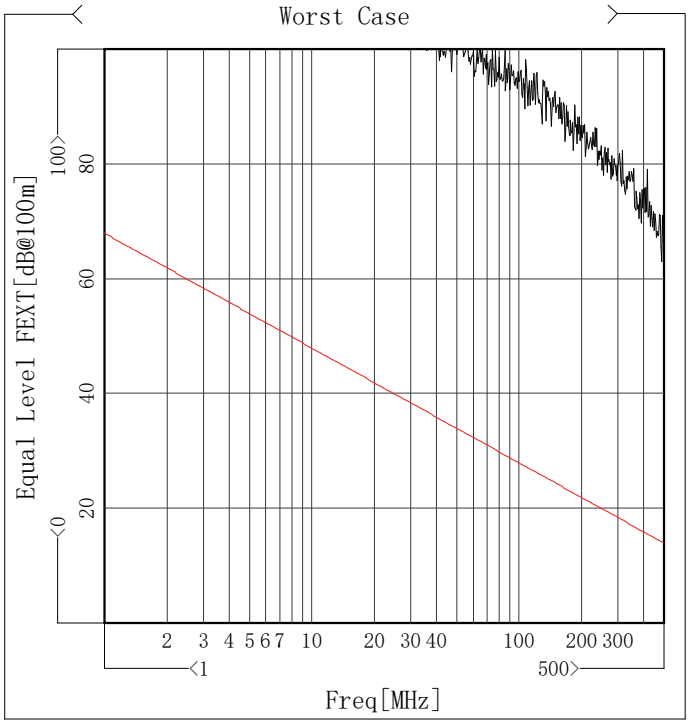


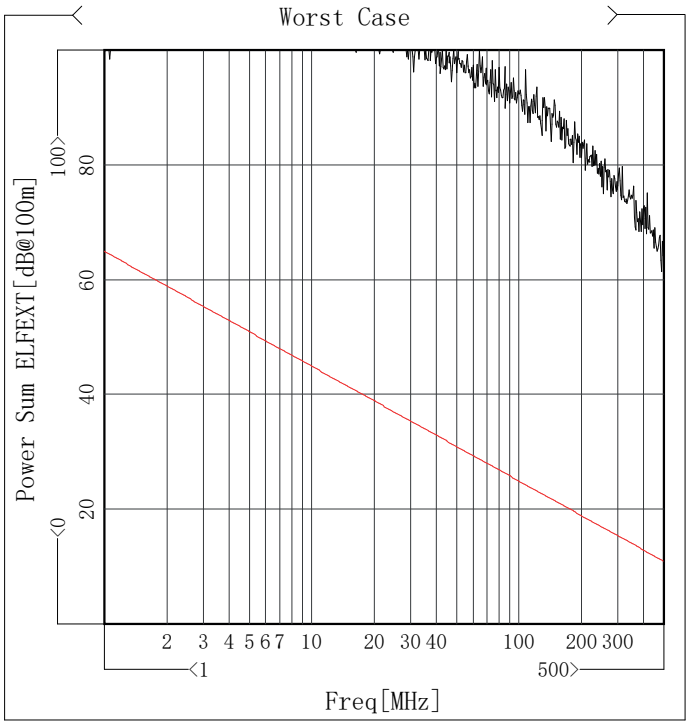


Worst Summary Of High Freq Parameter(2)

Item	Min	Freq[MHz]	Spec	Margin
✔ Power Sum NEXT[dB@100m]	92.58[4]	1.03	72.12	20.46
✔ Equal Level FEXT[dB@100m]	101.59[2-4]	1.07	67.39	34.20
✔ Power Sum ELFEXT[dB@100m]	98.51[4]	1.07	64.39	34.12

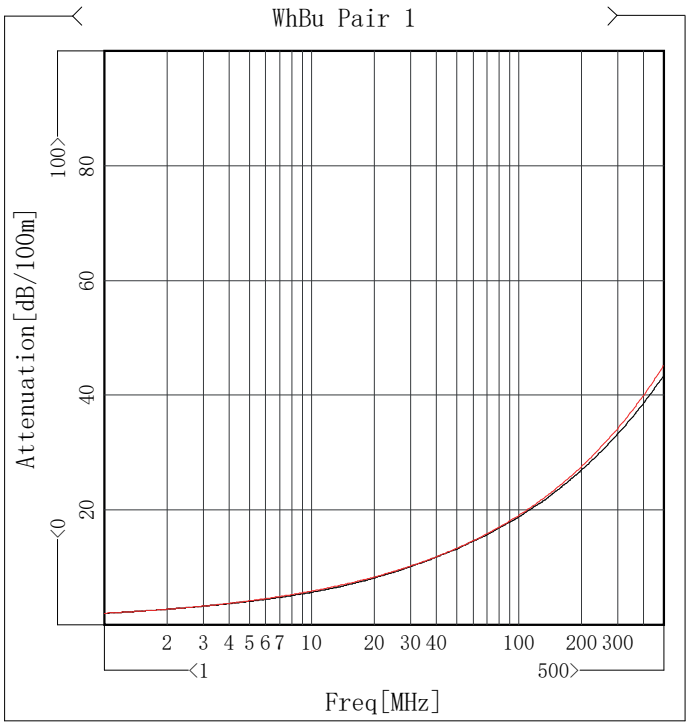


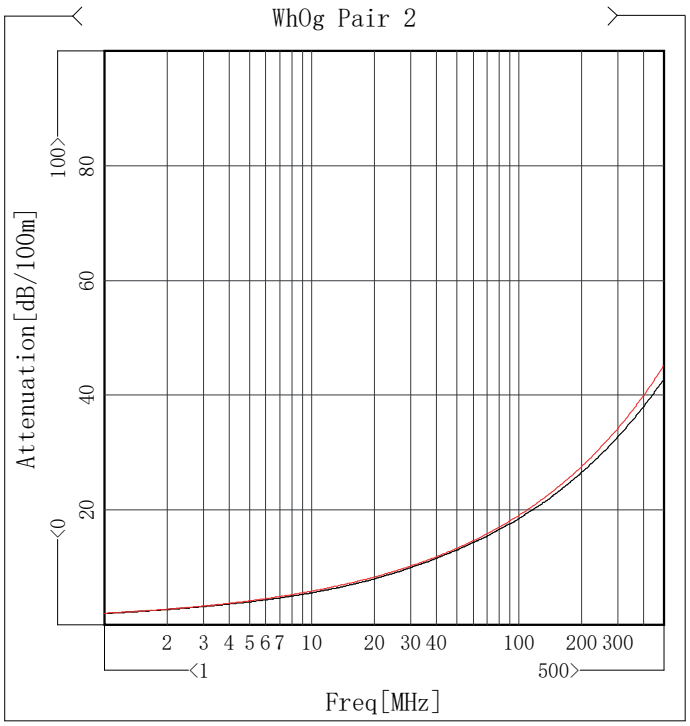


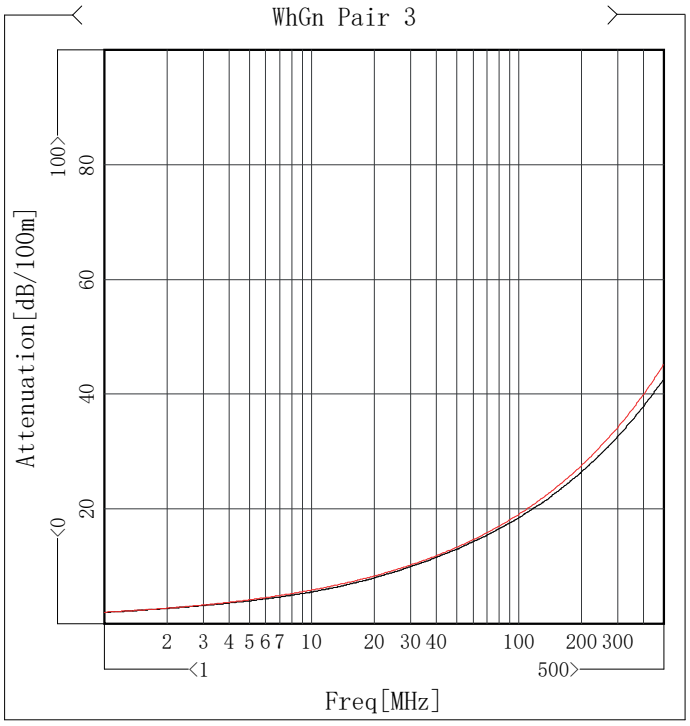


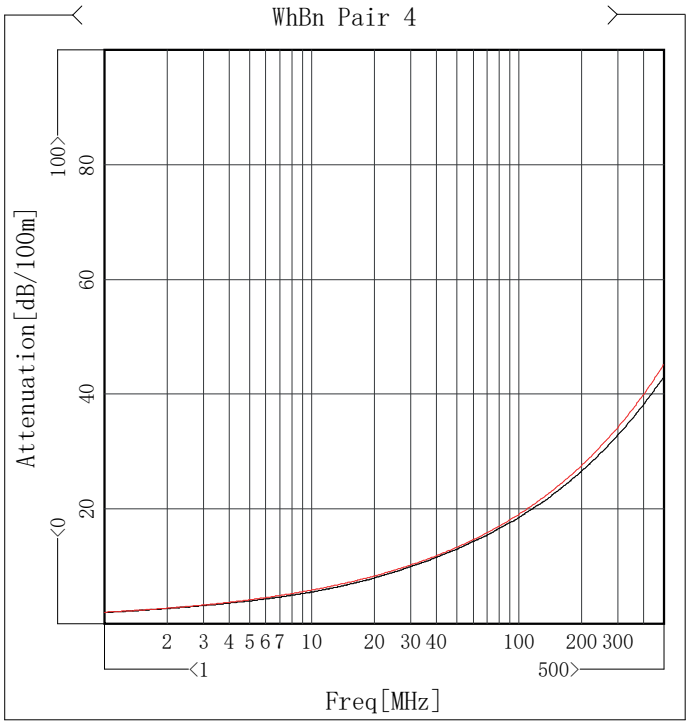
Attenuation

Item	Max [dB/100m]	Freq[MHz]	Spec [dB/100m]	Margin [dB/100m]
✔ WhBu Pair 1	2.78	2.04	2.79	0.01
✔ WhOg Pair 2	2.64	1.88	2.69	0.05
✔ WhGn Pair 3	2.65	1.88	2.69	0.04
✔ WhBn Pair 4	2.41	1.52	2.46	0.05



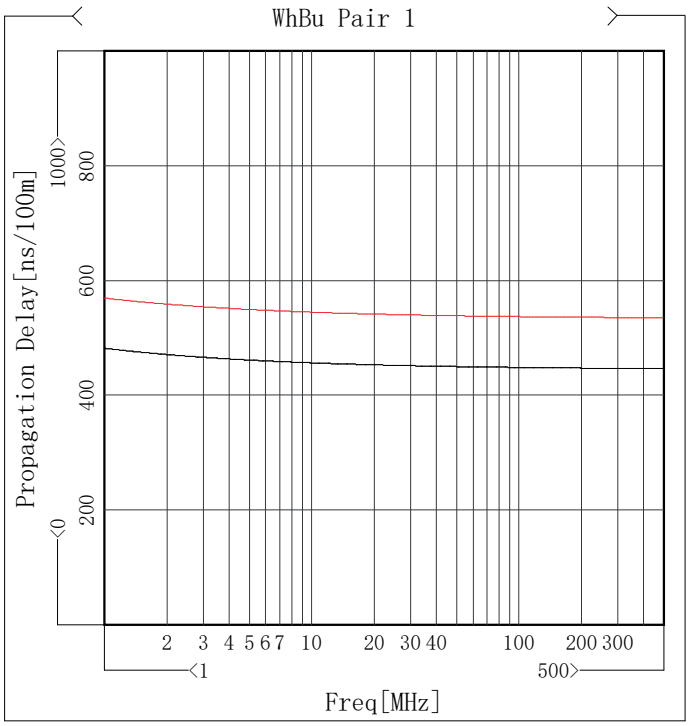


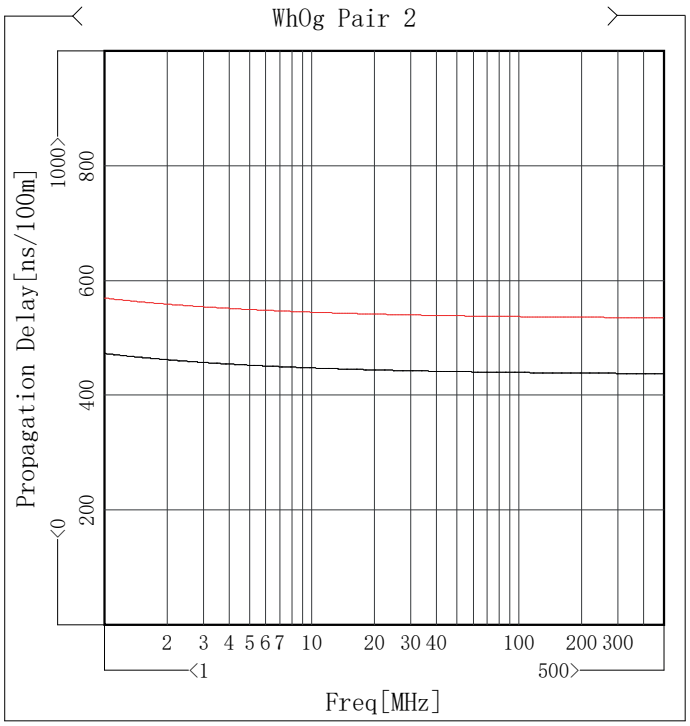


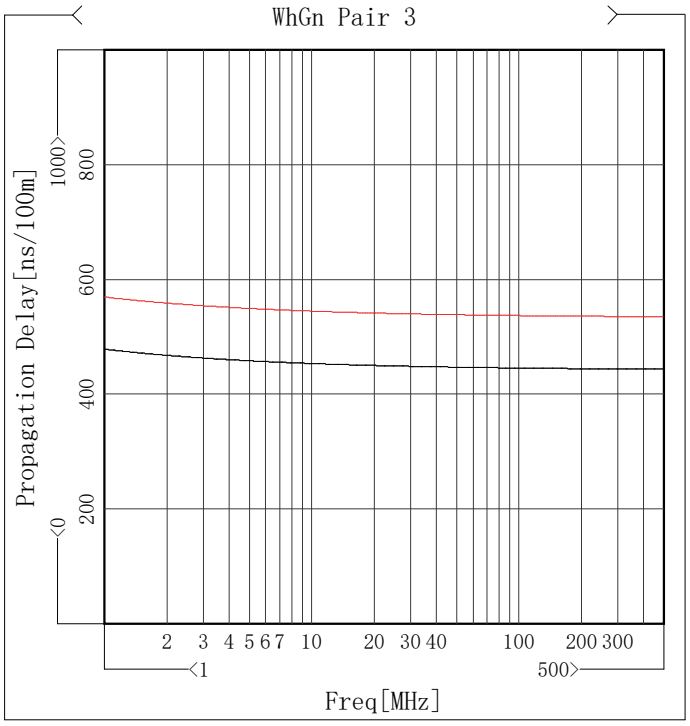


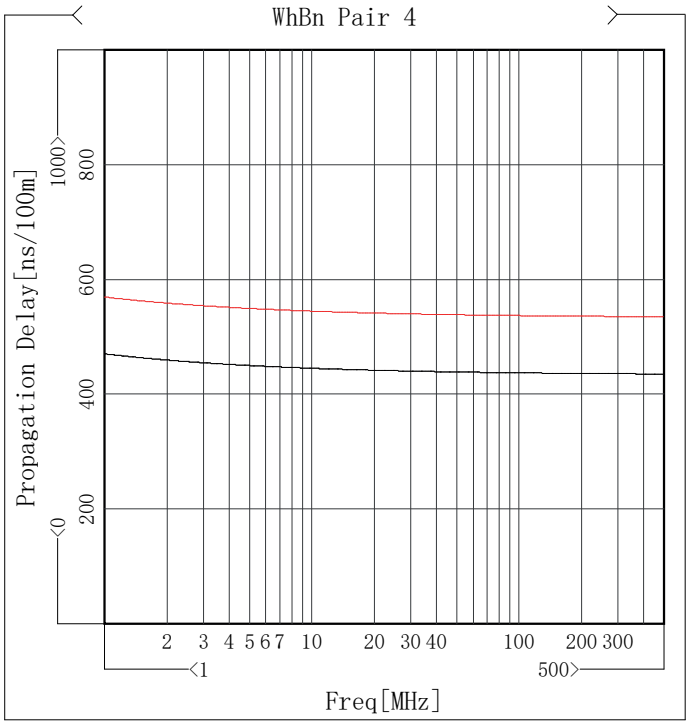
Propagation Delay

Item	Max [ns/100m]	Freq[MHz]	Spec [ns/100m]	Margin [ns/100m]
✔ WhBu Pair 1	480.15	1.16	567.49	87.34
✔ WhOg Pair 2	471.24	1.15	567.62	96.38
✔ WhGn Pair 3	476.55	1.17	567.23	90.68
✔ WhBn Pair 4	468.81	1.15	567.62	98.81



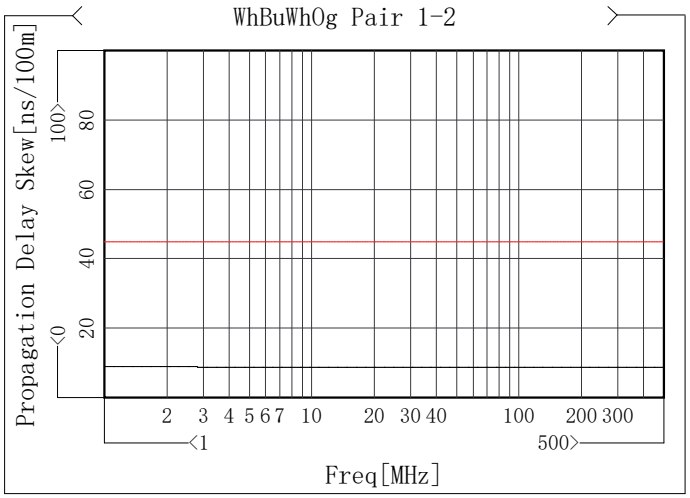


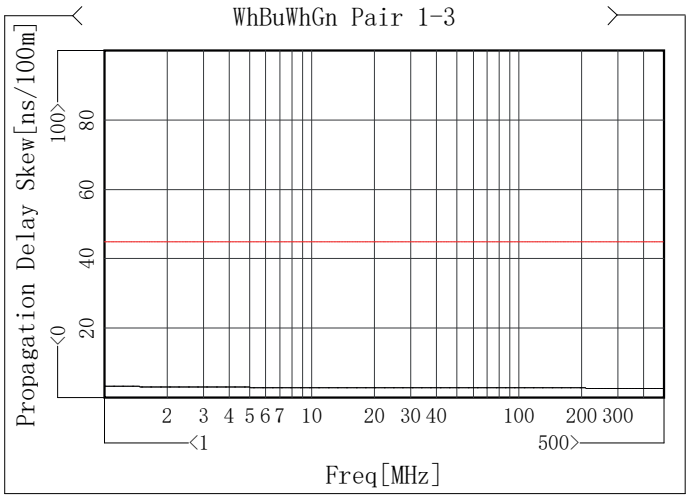


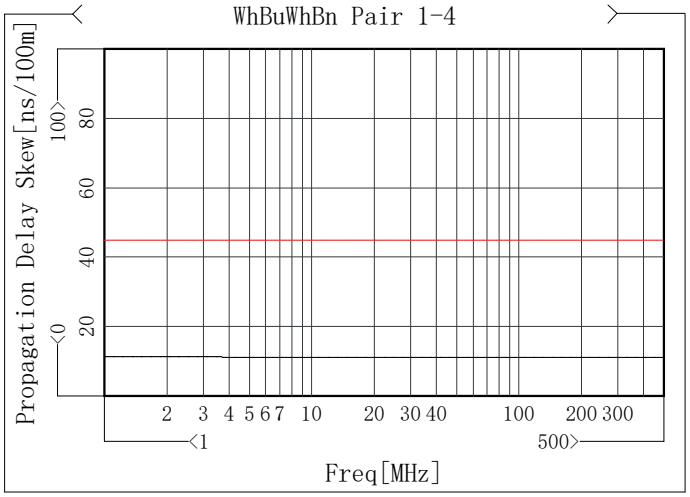


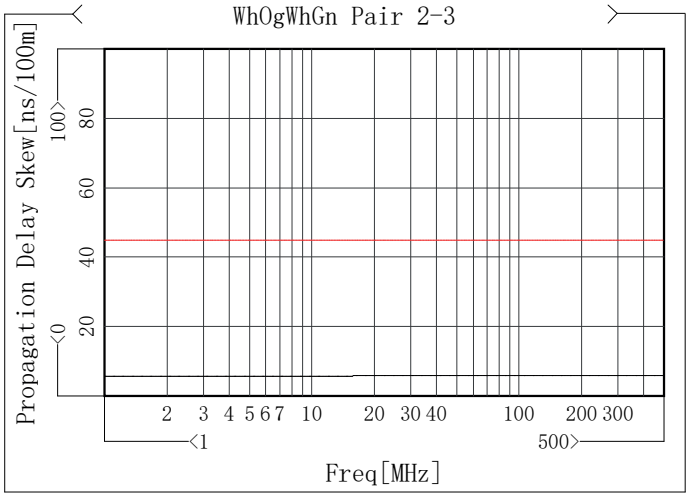
Propagation Delay Skew

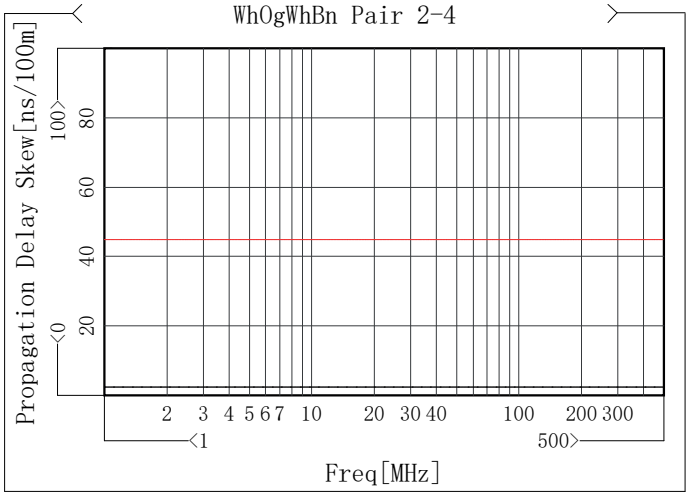
Item	Max [ns/100m]	Freq[MHz]	Spec [ns/100m]	Margin [ns/100m]
✔ WhBuWhOg Pair 1-2	9.07	1.00	45.00	35.93
✔ WhBuWhGn Pair 1-3	3.37	1.02	45.00	41.63
✔ WhBuWhBn Pair 1-4	11.49	1.06	45.00	33.51
✔ WhOgWhGn Pair 2-3	5.93	500.00	45.00	39.07
✔ WhOgWhBn Pair 2-4	2.43	1.77	45.00	42.57
✔ WhGnWhBn Pair 3-4	8.35	500.00	45.00	36.65

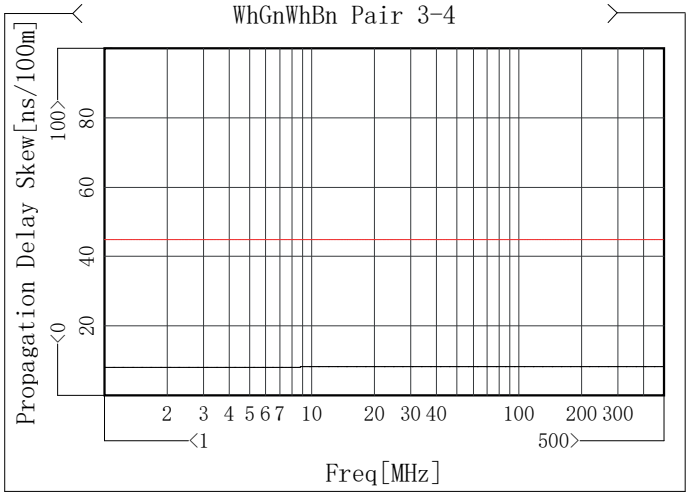






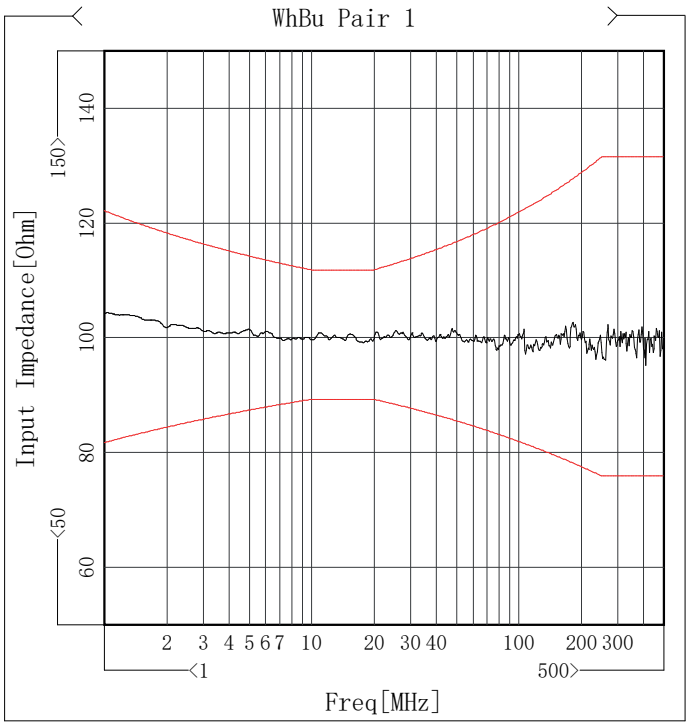


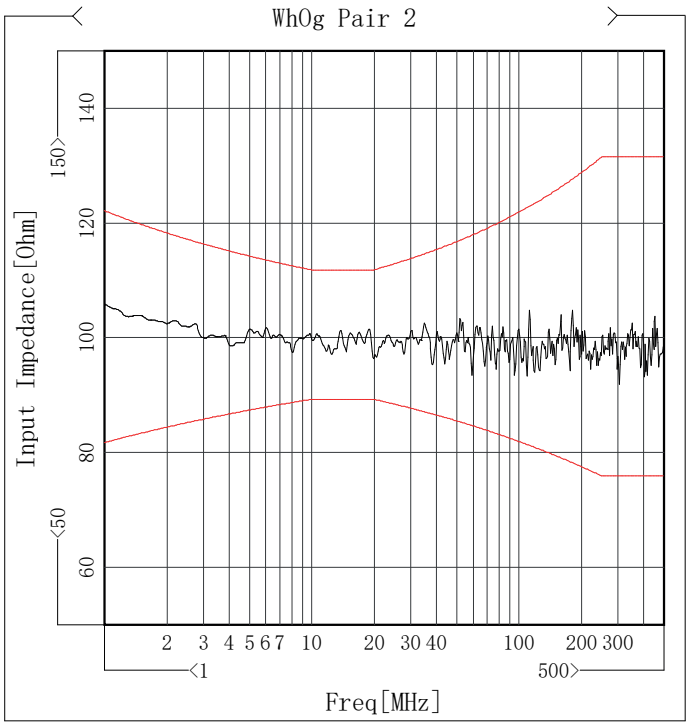


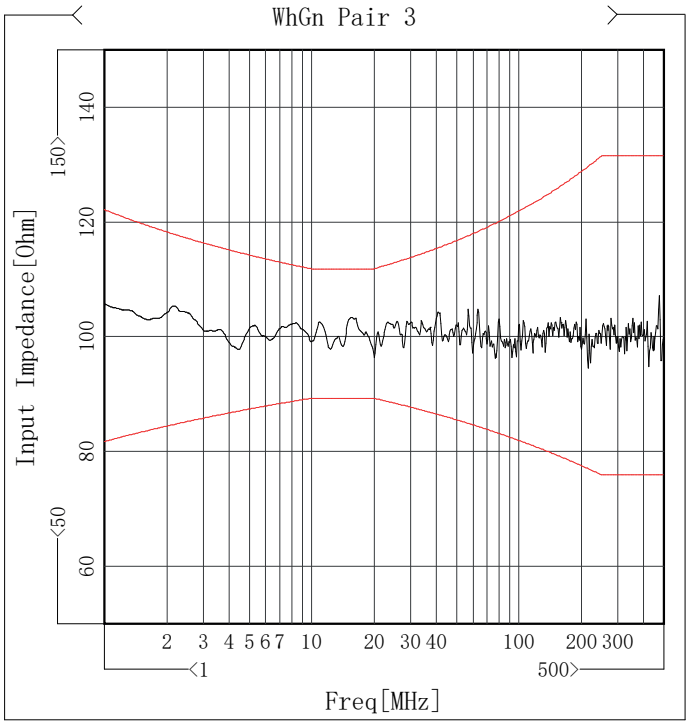


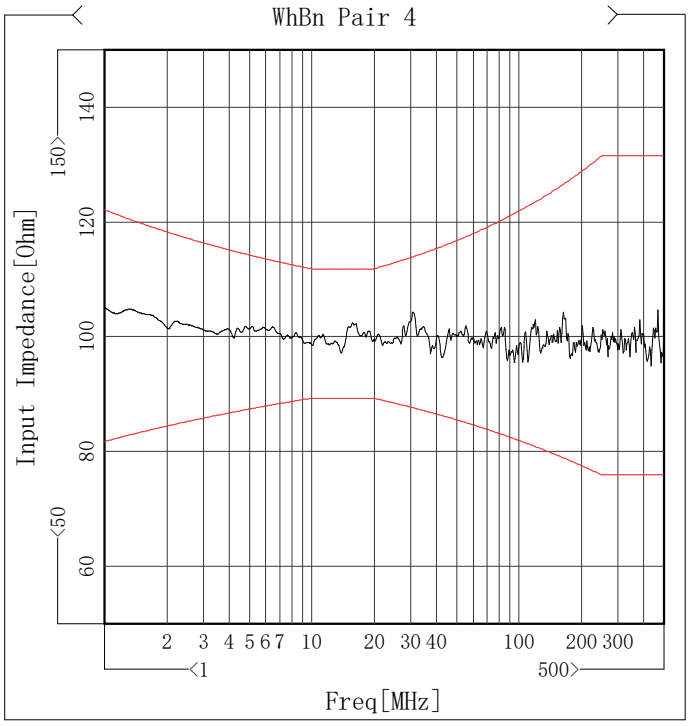
Input Impedance

Item	Max [Ohm]	Freq[MHz]	Spec [Ohm]	Margin [Ohm]	Min [Ohm]	Freq[MHz]	Spec [Ohm]	Margin [Ohm]
✔ WhBu Pair 1	100.97	11.16	111.92	10.95	99.24	17.97	89.35	9.89
✔ WhOg Pair 2	101.56	19.00	111.92	10.36	96.38	20.04	89.34	7.04
✔ WhGn Pair 3	103.43	15.84	111.92	8.49	96.41	20.39	89.28	7.13
✔ WhBn Pair 4	102.49	15.96	111.92	9.43	97.19	13.96	89.35	7.84



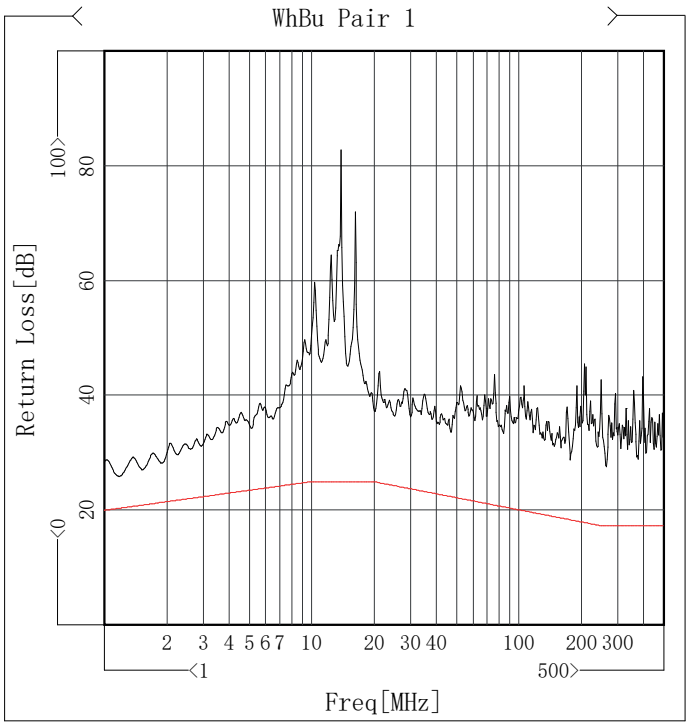


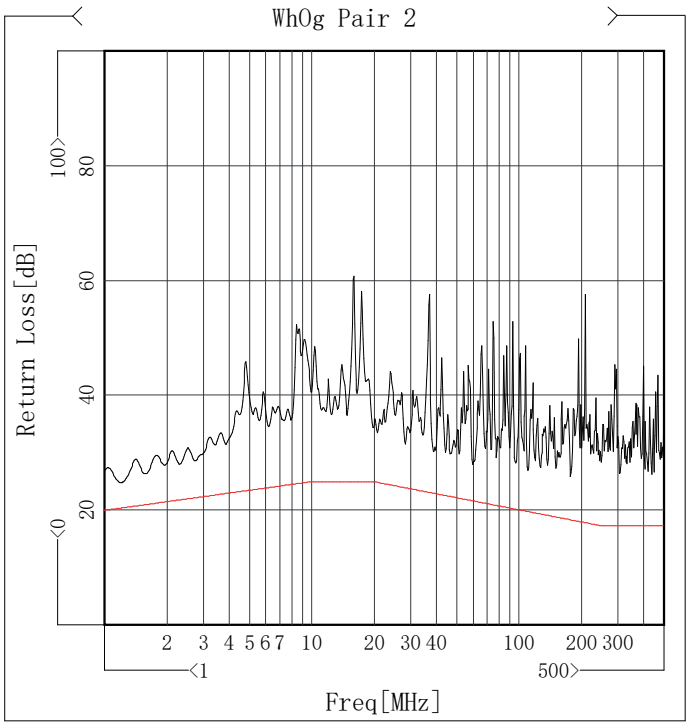


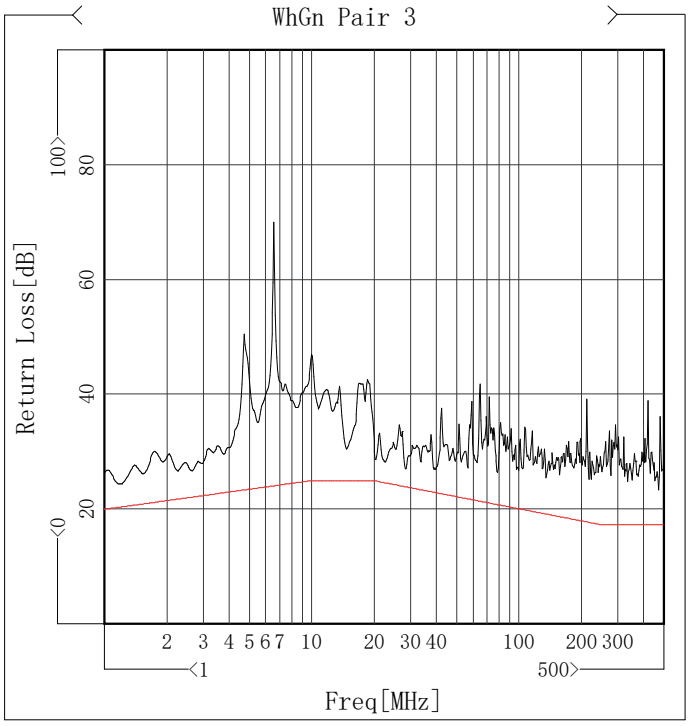


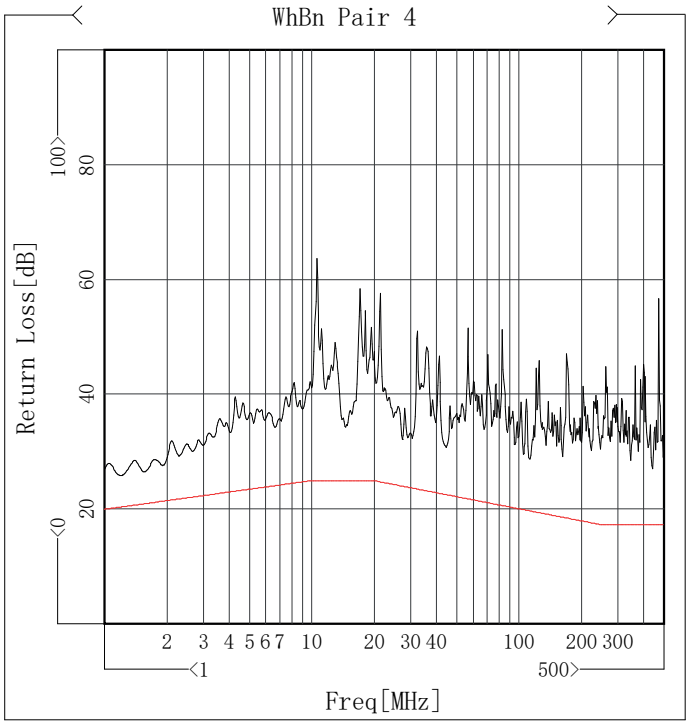
Return Loss

Item	Min [dB]	Freq[MHz]	Spec [dB]	Margin [dB]
✔ WhBu Pair 1	25.95	1.20	20.40	5.55
✔ WhOg Pair 2	24.83	1.23	20.45	4.38
✔ WhGn Pair 3	27.04	28.71	23.90	3.14
✔ WhBn Pair 4	25.86	1.23	20.45	5.41



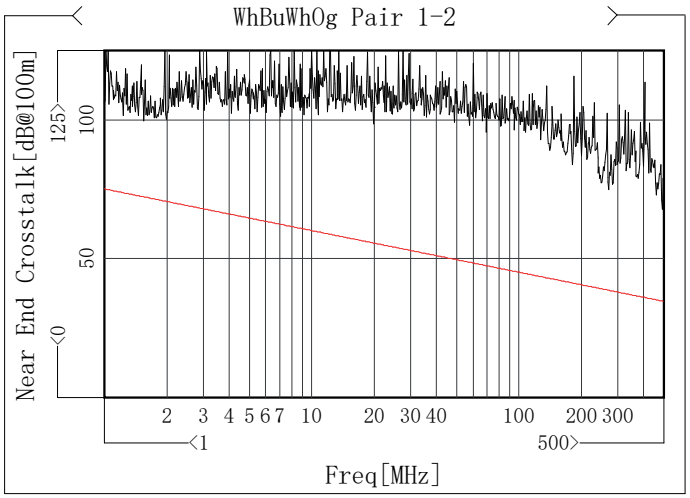


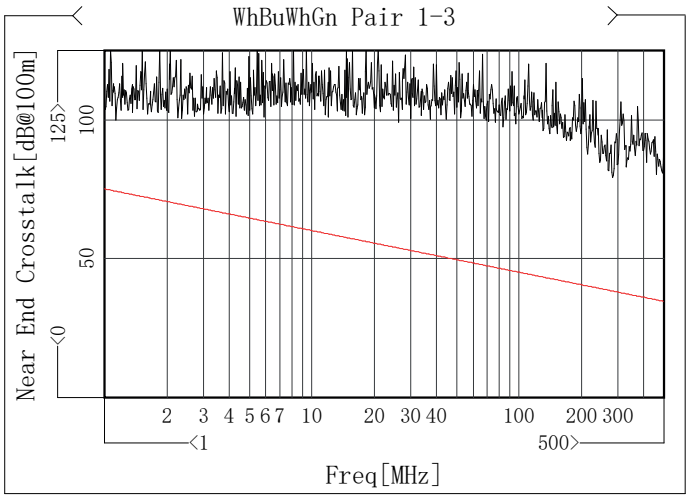


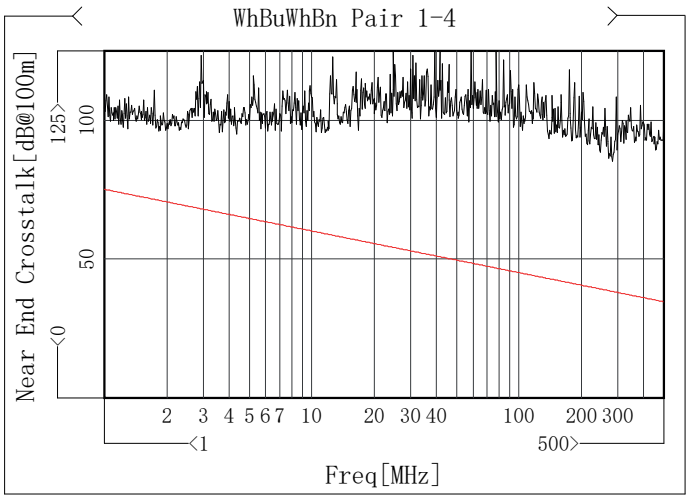


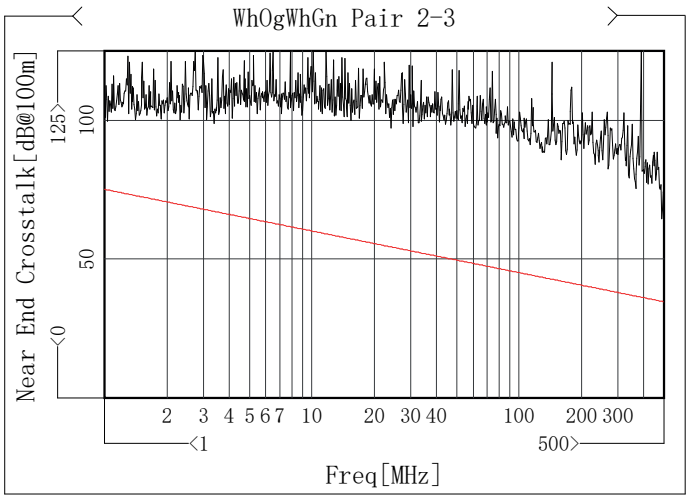
Near End Crosstalk

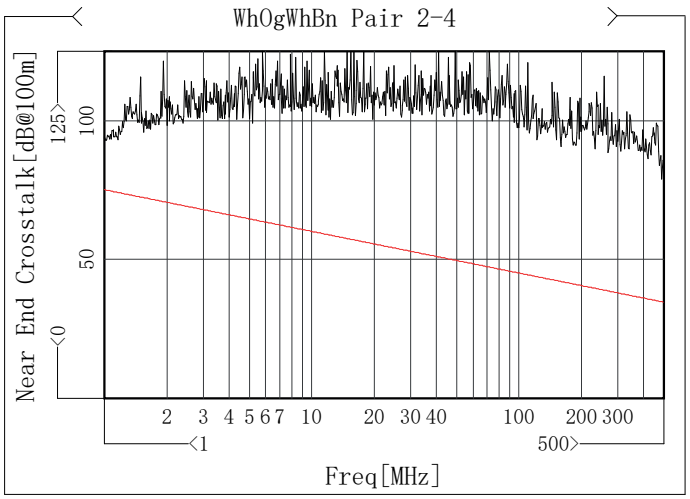
Item	Min [dB@100m]	Freq[MHz]	Spec [dB@100m]	Margin [dB@100m]
✔ WhBuWhOg Pair 1-2	99.86	1.58	72.34	27.52
✔ WhBuWhGn Pair 1-3	100.11	1.16	74.36	25.75
✔ WhBuWhBn Pair 1-4	97.05	1.31	73.54	23.51
✔ WhOgWhGn Pair 2-3	99.81	1.05	75.01	24.80
✔ WhOgWhBn Pair 2-4	93.10	1.03	75.12	17.98
✔ WhGnWhBn Pair 3-4	102.09	1.04	75.07	27.02

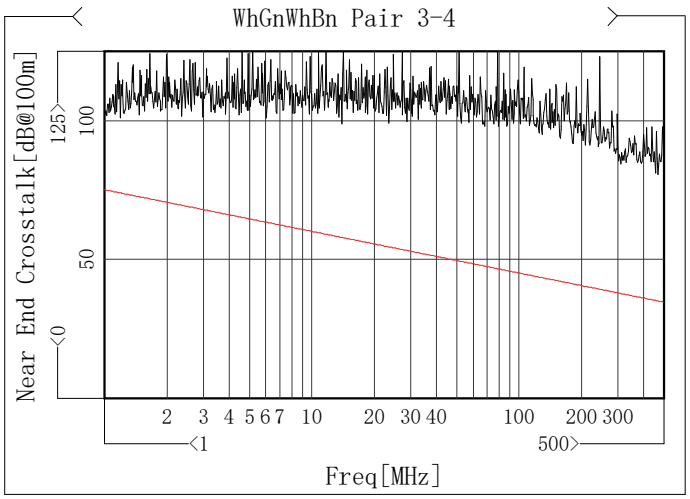






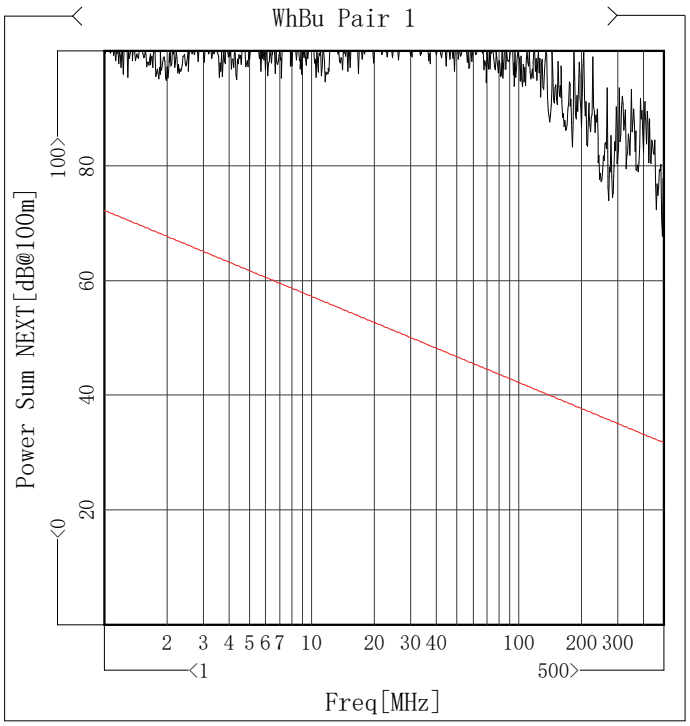


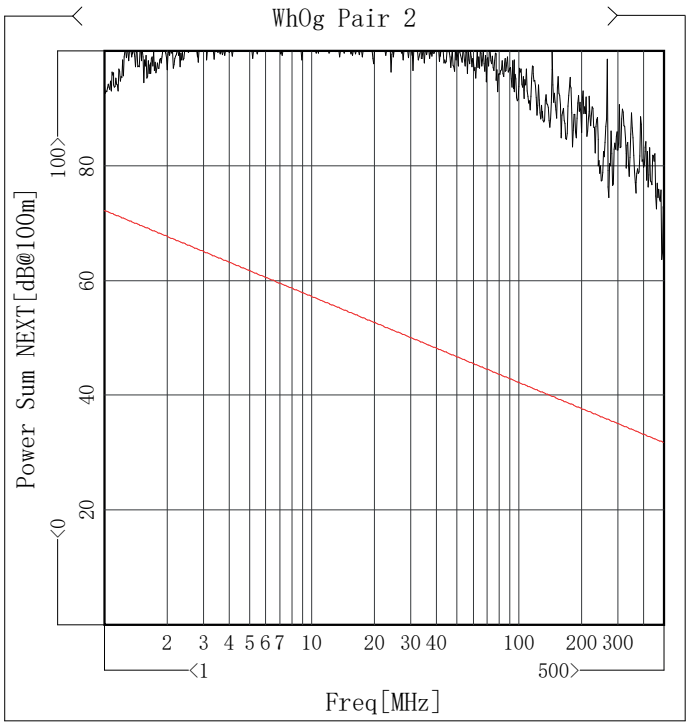


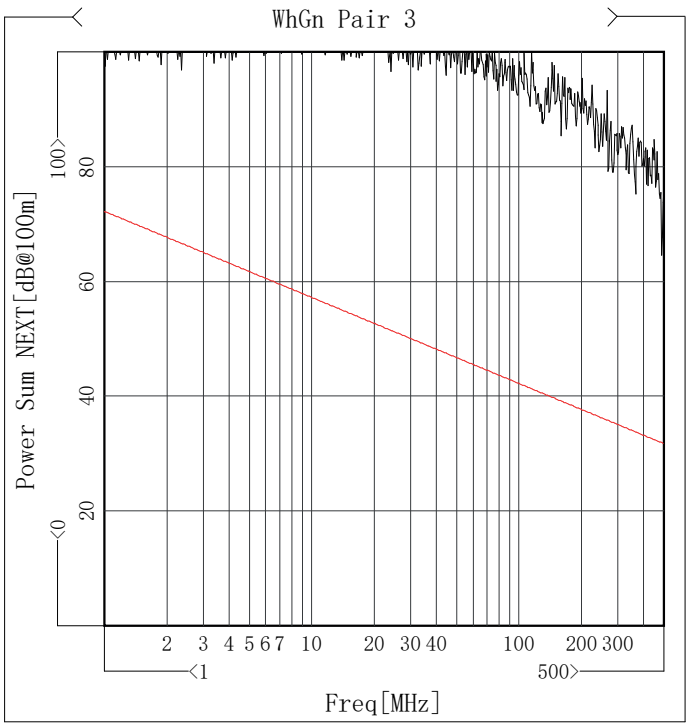


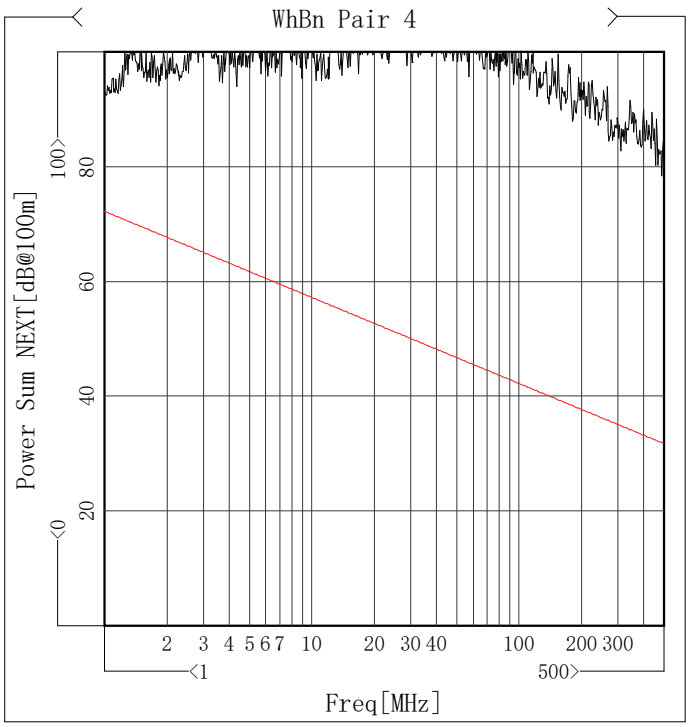
Power Sum NEXT

Item	Min [dB@100m]	Freq[MHz]	Spec [dB@100m]	Margin [dB@100m]
✔ WhBu Pair 1	95.47	1.31	70.54	24.93
✔ WhOg Pair 2	92.75	1.02	72.18	20.57
✔ WhGn Pair 3	97.62	1.02	72.18	25.44
✔ WhBn Pair 4	92.58	1.03	72.12	20.46



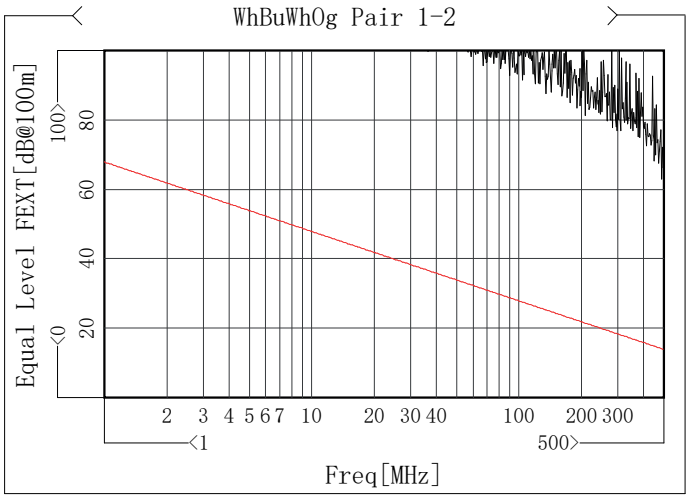


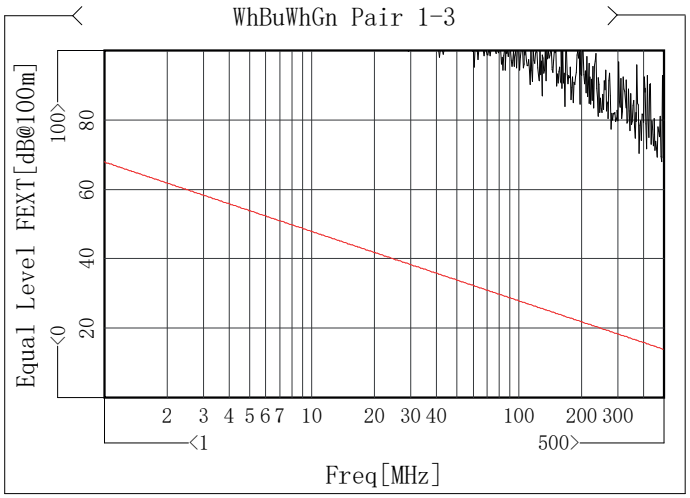


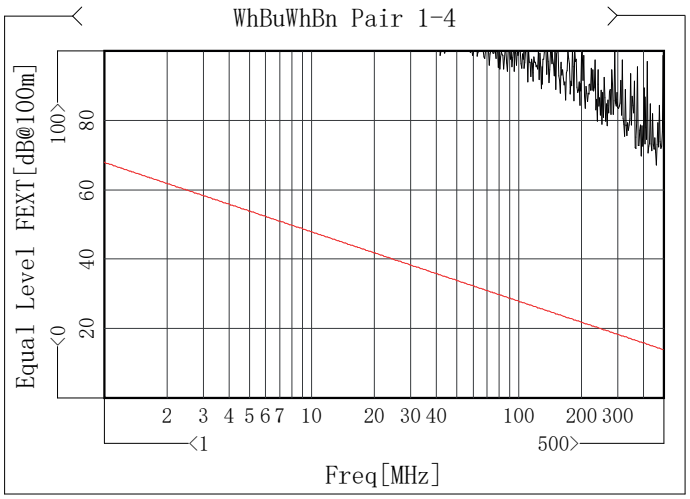


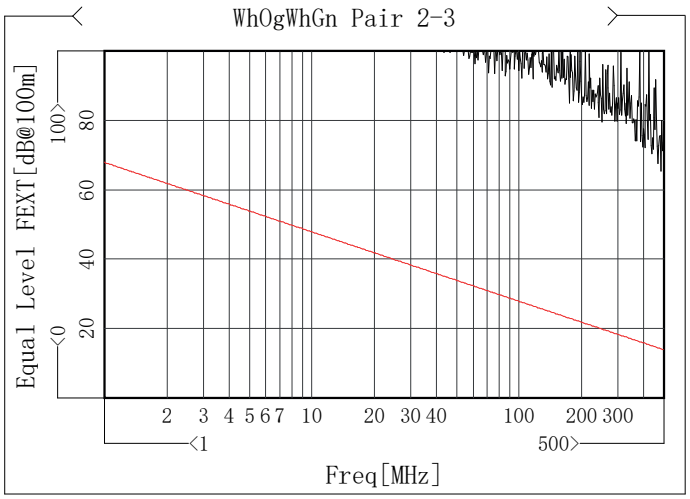
Equal Level FEXT

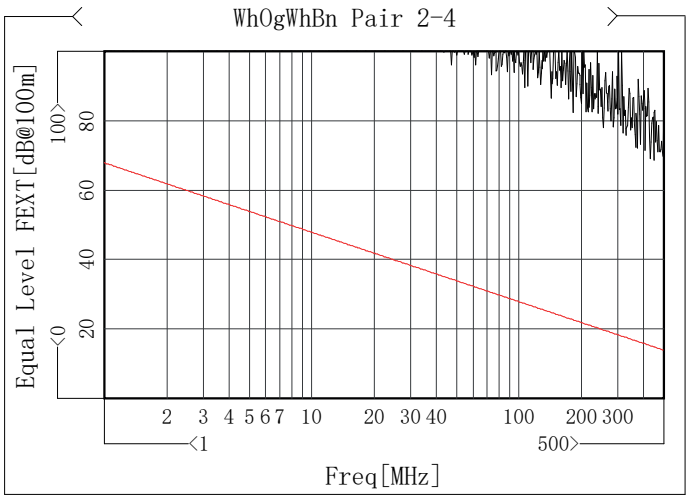
Item	Min [dB@100m]	Freq[MHz]	Spec [dB@100m]	Margin [dB@100m]
✔ WhBuWhOg Pair 1-2	104.20	1.32	65.59	38.61
✔ WhBuWhGn Pair 1-3	108.41	1.00	68.00	40.41
✔ WhBuWhBn Pair 1-4	102.16	1.08	67.31	34.85
✔ WhOgWhGn Pair 2-3	108.11	1.13	66.95	41.16
✔ WhOgWhBn Pair 2-4	101.59	1.07	67.39	34.20
✔ WhGnWhBn Pair 3-4	108.26	1.07	67.39	40.87

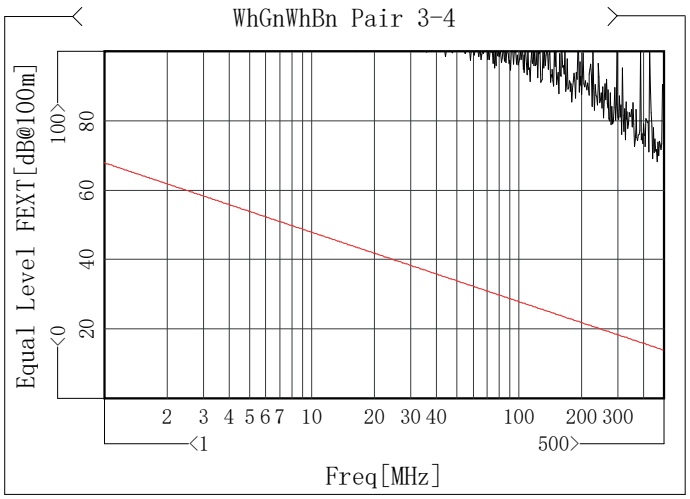






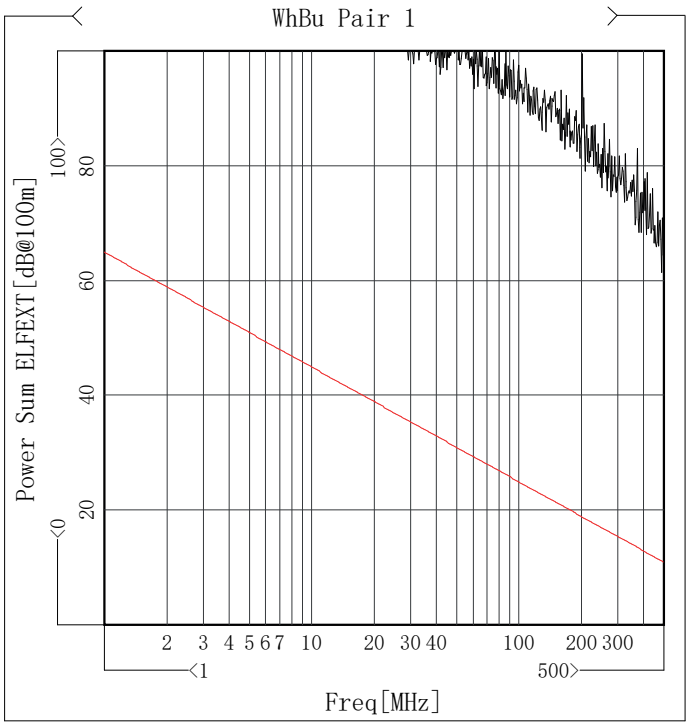


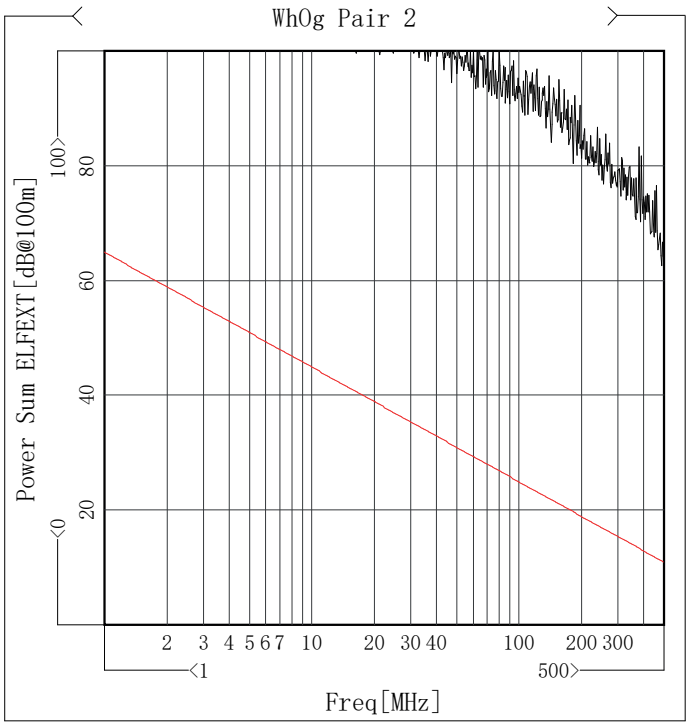


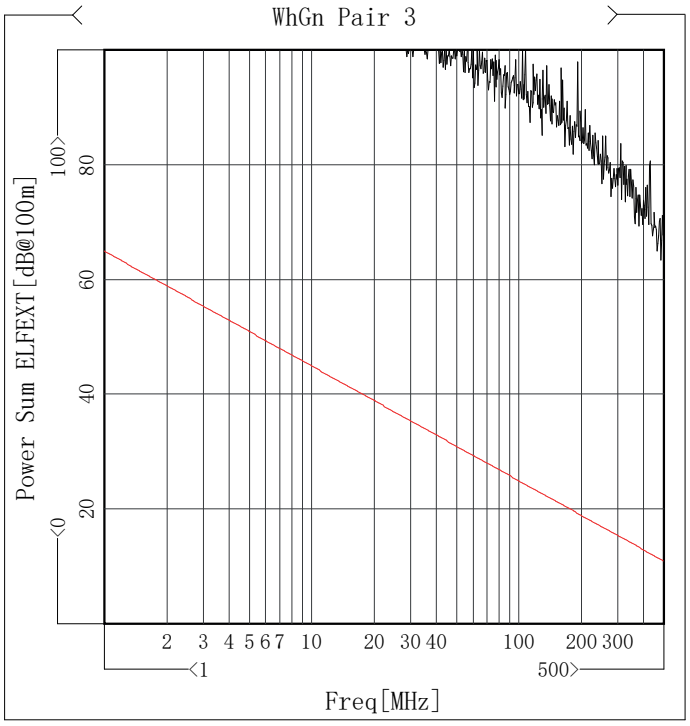


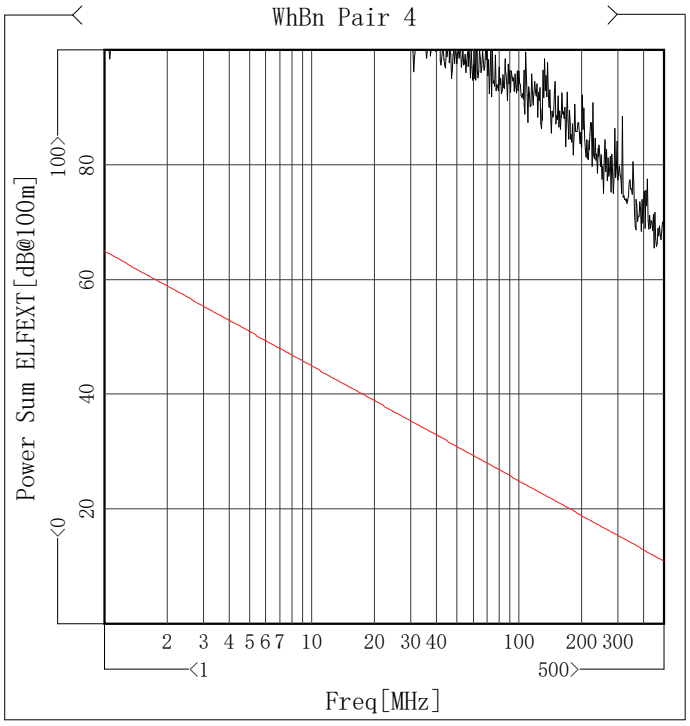
Power Sum ELFEXT

Item	Min [dB@100m]	Freq[MHz]	Spec [dB@100m]	Margin [dB@100m]
✔ WhBu Pair 1	100.93	1.08	64.31	36.62
✔ WhOg Pair 2	100.88	1.07	64.39	36.49
✔ WhGn Pair 3	104.63	1.13	63.95	40.68
✔ WhBn Pair 4	98.51	1.07	64.39	34.12









Attenuation[dB/100m]

No.	Freq [MHz]	Spec (Max)	WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
1	1	2.08	2.05 ↑	2.02	2.03	2.01
2	4	3.8	3.73 ↑	3.66	3.66	3.65
3	8	5.31	5.12 ↑	5.04	5.01	5.00
4	10	5.92	5.70 ↑	5.61	5.58	5.57
5	16	7.49	7.25 ↑	7.12	7.10	7.09
6	20	8.38	8.16 ↑	8.01	8.00	7.99
7	25	9.38	9.20 ↑	9.03	9.02	9.02
8	31.25	10.5	10.36 ↑	10.20	10.17	10.17
9	50	13.35	13.23 ↑	13.03	12.99	13.00
10	62.5	14.98	14.82 ↑	14.57	14.55	14.57
11	100	19.12	18.80 ↑	18.48	18.46	18.51
12	125	21.5	21.06 ↑	20.71	20.69	20.74
13	200	27.56	26.86 ↑	26.44	26.36	26.50
14	250	31.04	30.16 ↑	29.71	29.61	29.79
15	300	34.24	33.06 ↑	32.55	32.45	32.67
16	350	37.21	35.97 ↑	35.43	35.30	35.57
17	400	40.01	38.45 ↑	37.88	37.74	38.05
18	450	42.67	40.88 ↑	40.27	40.13	40.48
19	500	45.21	43.47 ↑	42.82	42.67	43.07

Propagation Delay[ns/100m]

No.	Freq [MHz]	Spec (Max)	WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
1	1	570	482.52 ↑	473.46	479.15	471.03
2	4	552	464.00 ↑	455.10	460.92	452.68
3	8	546.73	458.55 ↑	449.70	455.55	447.28
4	10	545.38	457.10 ↑	448.26	454.12	445.84
5	16	543	454.68 ↑	445.86	451.74	443.45
6	20	542.05	453.67 ↑	444.86	450.75	442.44
7	25	541.2	452.79 ↑	443.99	449.88	441.57
8	31.25	540.44	452.02 ↑	443.22	449.12	440.81
9	50	539.09	450.59 ↑	441.81	447.72	439.39
10	62.5	538.55	450.06 ↑	441.28	447.19	438.86
11	100	537.6	449.05 ↑	440.28	446.20	437.87
12	125	537.22	448.67 ↑	439.90	445.82	437.49
13	200	536.55	447.96 ↑	439.20	445.13	436.79
14	250	536.28	447.68 ↑	438.93	444.85	436.51
15	300	536.08	447.49 ↑	438.73	444.66	436.32
16	350	535.92	447.32 ↑	438.56	444.49	436.15
17	400	535.8	447.19 ↑	438.44	444.37	436.03
18	450	535.7	447.09 ↑	438.33	444.27	435.92
19	500	535.61	446.99 ↑	438.24	444.17	435.82

Propagation 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	9.07	3.37	11.49 ↑	5.69	2.43	8.12

Propagation 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	8.90	3.08	11.32 ↑	5.82	2.42	8.24
3	8	45	8.85	3.00	11.27 ↑	5.86	2.42	8.27
4	10	45	8.84	2.98	11.26 ↑	5.87	2.42	8.28
5	16	45	8.82	2.94	11.24 ↑	5.88	2.42	8.30
6	20	45	8.81	2.92	11.23 ↑	5.89	2.42	8.31
7	25	45	8.80	2.91	11.22 ↑	5.90	2.42	8.31
8	31.25	45	8.80	2.90	11.21 ↑	5.90	2.42	8.32
9	50	45	8.78	2.87	11.20 ↑	5.91	2.41	8.32
10	62.5	45	8.78	2.87	11.19 ↑	5.91	2.41	8.33
11	100	45	8.77	2.85	11.18 ↑	5.92	2.41	8.33
12	125	45	8.77	2.84	11.18 ↑	5.92	2.41	8.34
13	200	45	8.76	2.83	11.17 ↑	5.93	2.41	8.34
14	250	45	8.76	2.83	11.17 ↑	5.93	2.41	8.34
15	300	45	8.76	2.83	11.17 ↑	5.93	2.41	8.34
16	350	45	8.76	2.82	11.17 ↑	5.93	2.41	8.35
17	400	45	8.75	2.82	11.17 ↑	5.93	2.41	8.35
18	450	45	8.75	2.82	11.17 ↑	5.93	2.41	8.35
19	500	45	8.75	2.82	11.17 ↑	5.93	2.41	8.35

Input Impedance[Ohm]

No.	Freq [MHz]	Spec (Max)	Spec (Min)	WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
1	1	122.22	81.82	104.37 ↓	105.92 ↑	105.79	105.11
2	4	115.22	86.79	100.95	99.37 ↓	99.38	101.41 ↑
3	8	112.64	88.78	99.79	98.88 ↓	102.20 ↑	99.82
4	10	111.92	89.35	99.75	100.34 ↑	99.18	98.93 ↓
5	16	111.92	89.35	100.62	100.38 ↓	103.39 ↑	102.45
6	20	111.92	89.35	99.66 ↑	96.45 ↓	97.52	99.47
7	25	112.95	88.54	100.57	98.88 ↓	102.00 ↑	99.28
8	31.25	114.07	87.66	100.70	100.59 ↓	101.81	104.31 ↑
9	50	116.8	85.62	101.00	100.68	102.13 ↑	100.29 ↓
10	62.5	118.29	84.54	100.35	101.60 ↑	100.48	99.14 ↓
11	100	121.92	82.02	100.65	101.40 ↑	100.51	97.53 ↓
12	125	123.91	80.7	98.68	96.34 ↓	101.14	101.64 ↑
13	200	128.8	77.64	100.81	100.17	101.20 ↑	99.32 ↓
14	250	131.51	76.04	100.47	97.55 ↓	100.64 ↑	98.31
15	300	131.6	75.99	98.75	97.36 ↓	99.76 ↑	98.88
16	350	131.6	75.99	100.16	101.46 ↑	99.57 ↓	99.83
17	400	131.6	75.99	100.81 ↑	100.74	100.25 ↓	100.46
18	450	131.6	75.99	97.55 ↓	99.14	97.67	101.49 ↑
19	500	131.6	75.99	99.53	99.20 ↓	100.03	102.91 ↑

Return Loss[dB]

No.	Freq [MHz]	Spec (Min)	WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
1	1	20	28.20	26.53	26.03 ↓	26.65
2	4	23.01	35.13	32.12	30.75 ↓	34.46

Return Loss[dB](Continuation 1)

No.	Freq [MHz]	Spec (Min)	WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
3	8	24.52	42.14	36.07 ↓	39.34	39.18
4	10	25	49.10	40.69 ↓	46.24	41.61
5	16	25	50.44	54.53	33.37 ↓	37.18
6	20	25	38.14	34.44 ↓	34.48	45.99
7	25	24.32	36.85	40.04	31.46 ↓	36.07
8	31.25	23.64	38.96	40.22	31.03 ↓	32.59
9	50	22.21	38.24	31.73	29.06 ↓	36.50
10	62.5	21.54	36.24	30.23	28.55 ↓	39.08
11	100	20.11	36.61	34.80	27.07 ↓	32.57
12	125	19.43	37.35	34.23	30.17 ↓	40.05
13	200	18	36.72	32.68	31.91 ↓	35.33
14	250	17.32	37.15	30.19	29.14 ↓	30.49
15	300	17.3	34.34	37.95	30.87 ↓	36.23
16	350	17.3	33.19	30.95	26.73 ↓	29.85
17	400	17.3	42.69	36.08	28.48 ↓	41.01
18	450	17.3	31.83	35.71	27.62 ↓	29.66
19	500	17.3	35.19	41.69	30.22 ↓	31.49

Near End Crosstalk[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	75.3	107.38	115.71	104.93	103.15	93.60 ↓	108.00
2	4	66.27	119.00	109.38	106.49 ↓	107.26	107.90	109.07
3	8	61.75	105.10	111.41	101.34 ↓	124.35	109.29	109.29
4	10	60.3	114.35	112.31	109.64	119.51	107.62 ↓	110.23
5	16	57.24	110.63	124.26	111.38	104.09	102.56 ↓	108.78
6	20	55.78	100.64 ↓	110.15	107.11	106.07	108.09	107.49
7	25	54.33	109.72	105.52	117.00	102.67 ↓	109.65	114.22
8	31.25	52.88	111.87	109.10	112.34	109.71	103.86 ↓	108.40
9	50	49.82	107.68	113.03	108.58	101.89 ↓	104.47	109.10
10	62.5	48.36	102.67	107.69	109.66	97.37 ↓	106.67	107.16
11	100	45.3	103.19	103.76	112.01	94.74 ↓	98.58	112.97
12	125	43.85	101.23	105.91	108.89	94.36 ↓	96.95	99.00
13	200	40.78	99.48	97.41	94.68	92.55 ↓	96.97	101.99
14	250	39.33	80.20 ↓	85.75	88.73	93.88	106.09	98.41
15	300	38.14	90.73	93.79	97.94	89.29 ↓	92.28	89.75
16	350	37.14	92.31	96.51	101.24	90.39	98.32	89.97 ↓
17	400	36.27	89.03	89.48	99.38	81.98 ↓	96.43	88.72
18	450	35.5	83.24 ↓	93.08	94.17	87.40	97.41	85.59
19	500	34.82	72.70 ↓	92.72	100.33	76.32	84.64	85.91

Power Sum NEXT[dB@100m]

No.	Freq [MHz]	Spec (Min)	WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
1	1	72.3	102.75	92.98 ↓	101.74	93.15
2	4	63.27	104.39	103.48	103.04	102.18 ↓
3	8	58.75	99.47 ↓	102.16	106.08	99.52

Power Sum NEXT[dB@100m](Continuation 1)

No.	Freq [MHz]	Spec (Min)	WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
4	10	57.3	106.45	106.08	107.81	104.22 ↓
5	16	54.24	106.36	99.83 ↓	101.70	100.87
6	20	52.78	99.09	98.05 ↓	102.33	101.50
7	25	51.33	103.44	100.85	100.20 ↓	104.51
8	31.25	49.88	104.05	100.25	99.43 ↓	100.22
9	50	46.82	103.29	99.24 ↓	100.24	101.58
10	62.5	45.36	100.81	95.69 ↓	96.57	102.80
11	100	42.3	100.13	92.59 ↓	93.98	98.22
12	125	40.85	98.84	91.79 ↓	92.73	94.18
13	200	37.78	91.70	90.41 ↓	90.92	91.96
14	250	36.33	78.65 ↓	80.00	84.88	88.17
15	300	35.14	88.05	85.74	85.71 ↓	86.92
16	350	34.14	89.87	87.39	86.25 ↓	89.05
17	400	33.27	86.00	81.04	80.51 ↓	87.72
18	450	32.5	82.50	81.70 ↓	82.91	84.76
19	500	31.82	72.65	70.94 ↓	75.78	82.15

Equal Level FEXT[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	68	111.40	108.41	107.44 ↓	114.16	110.91	127.87
2	4	55.96	113.01	112.44	111.76 ↓	114.71	113.40	114.69
3	8	49.94	112.10	109.64	108.11 ↓	112.29	112.10	115.93
4	10	48	115.90	118.44	114.87	111.18	113.16	110.20 ↓
5	16	43.92	114.42	112.35	112.96	108.51 ↓	119.15	114.96
6	20	41.98	108.26 ↓	114.13	115.13	110.36	111.27	114.43
7	25	40.04	113.96	107.87	107.34	108.96	104.48 ↓	109.54
8	31.25	38.1	118.38	104.25	109.02	112.18	107.60	104.20 ↓
9	50	34.02	105.70	110.00	104.21	102.57	101.14 ↓	107.92
10	62.5	32.08	101.32	104.29	110.48	100.28	98.02 ↓	101.46
11	100	28	100.67	105.87	102.33	97.41	103.00	96.51 ↓
12	125	26.06	97.19	94.35	97.25	107.22	92.95 ↓	96.00
13	200	21.98	84.77 ↓	112.50	90.32	96.18	89.93	90.69
14	250	20.04	82.13	86.24	81.74 ↓	87.40	89.23	86.21
15	300	18.46	80.52 ↓	81.05	86.76	82.10	85.52	96.76
16	350	17.12	79.81	83.27	86.15	86.19	79.20 ↓	82.39
17	400	15.96	83.50	81.64	72.99	72.59 ↓	83.24	73.75
18	450	14.94	76.27	72.82	73.35	71.86 ↓	81.18	77.77
19	500	14.02	67.61 ↓	71.70	70.00	74.54	86.46	80.06

Power Sum ELFEXT[dB@100m]

No.	Freq [MHz]	Spec (Min)	WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
1	1	65	104.01 ↓	107.17	107.35	105.80
2	4	52.96	107.45 ↓	108.67	109.02	108.20
3	8	46.94	104.77 ↓	106.38	106.49	105.54
4	10	45	110.92	107.76	106.83 ↓	107.48

Power Sum ELFEXT[dB@100m](Continuation 1)

No.	Freq [MHz]	Spec (Min)	WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
5	16	40.92	108.12	106.58	106.20 ↓	109.23
6	20	38.98	106.08	104.91 ↓	107.77	107.68
7	25	37.04	103.55	102.03	102.37	101.31 ↓
8	31.25	35.1	102.82	105.86	100.39 ↓	101.07
9	50	31.02	101.25	97.87 ↓	100.72	98.73
10	62.5	29.08	98.21	93.95 ↓	96.79	95.95
11	100	25	96.86	94.26	93.36 ↓	94.40
12	125	23.06	90.41	90.72	91.12	89.91 ↓
13	200	18.98	83.48	83.15 ↓	89.19	85.44
14	250	17.04	78.10 ↓	80.26	81.80	79.83
15	300	15.46	77.21	76.95 ↓	77.81	82.57
16	350	14.12	75.98	76.03	78.14	75.86 ↓
17	400	12.96	72.04	71.90	69.82 ↓	70.11
18	450	11.94	69.08	70.08	68.62 ↓	71.30
19	500	11.02	64.67 ↓	66.76	69.48	69.50