Test Information

Test Time : 2025/02/27 18:54:05	Temperature:40C
Standard:IEC 61156-5 CAT6	Test Result:Pass
Cable Length:305m	Brand:QUEST TELECOM
Size:CAT6 UTP 24AWG	INV NO:
Customer:	Dated Submitted:27.2.2025
Size of conductor:	P/N:
Inspector:si yong chen	Cable ID:611001-5

Test Result List

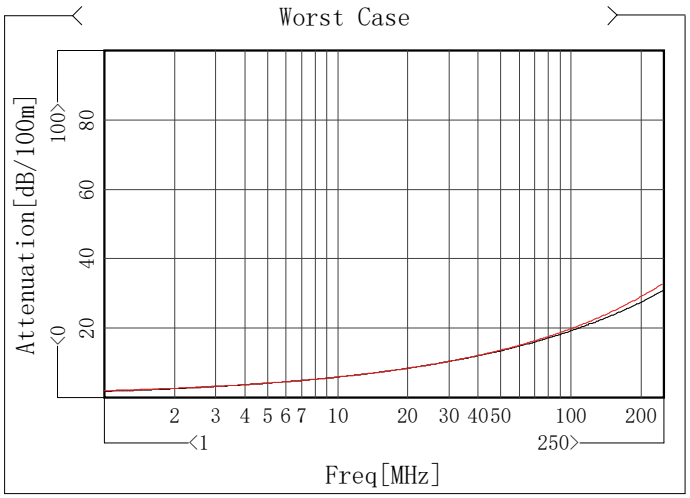
Test Item	Unit	Test Result
Attenuation	dB/100m	Pass
Propagation Delay	ns/100m	Pass
Propagation Delay Skew	ns/100m	Pass
Input Impedance	Ohm	Pass
Return Loss	dB	Pass
Near End Crosstalk	dB@100m	Pass
Power Sum NEXT	dB@100m	Pass
Equal Level FEXT	dB@100m	Pass
Power Sum ELFEXT	dB@100m	Pass

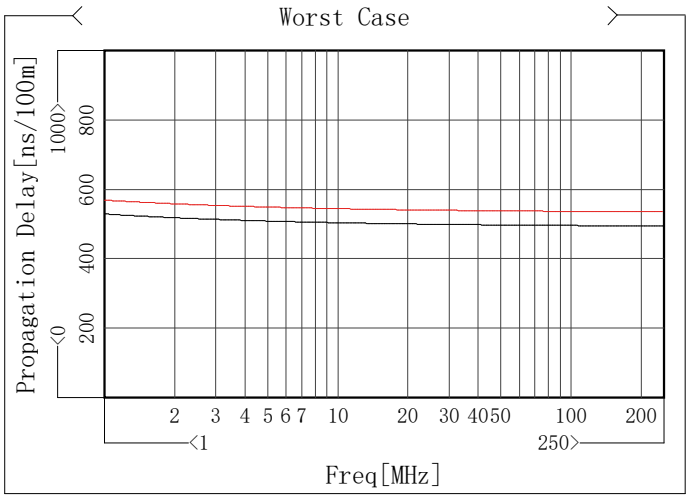
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Date :

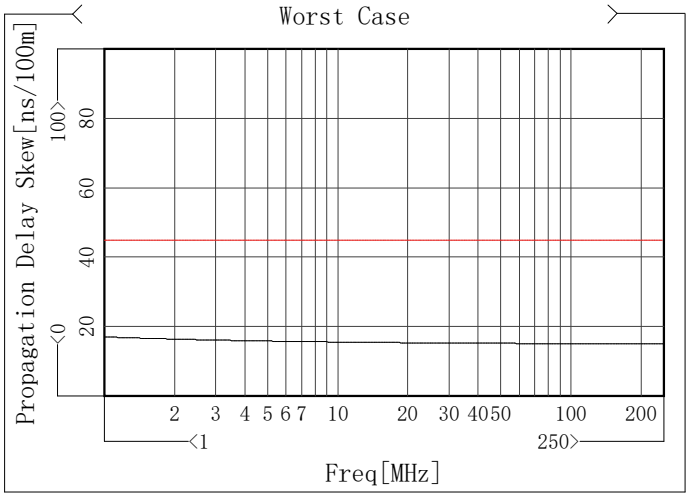
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Date :

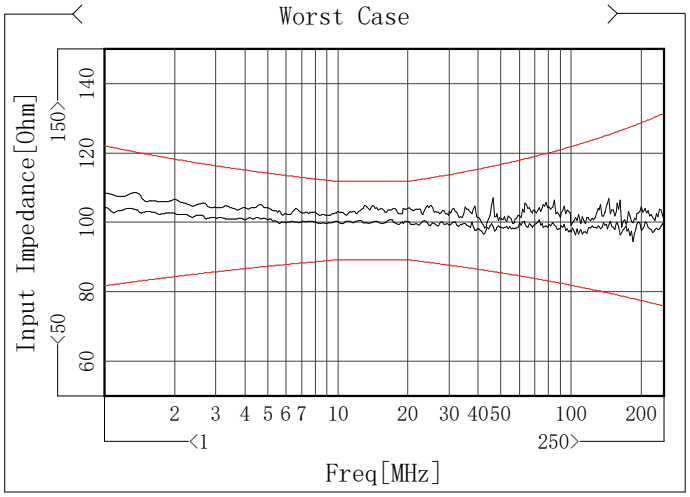
Worst Summary Of High Freq Parameter

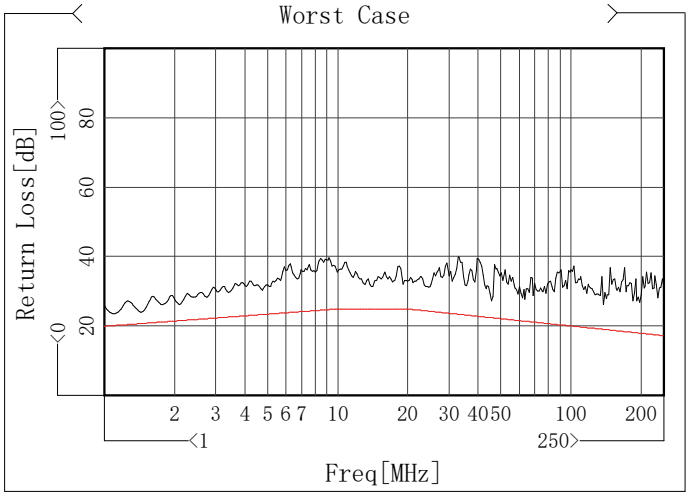
Item	Max	Freq[MHz]	Spec	Margin	Min	Freq[MHz]	Spec	Margin
☑ Attenuation[dB/100m]	7.06[3]	13.80	7.06	0.00	/	/	/	/
☑ Propagation Delay[ns/100m]	527.71[3]	1.16	567.39	39.68	/	/	/	/
☑ Propagation Delay Skew[ns/	17.12[3-4]	1.00	45.00	27.88	/	/	/	/
☑ Input Impedance[Ohm]	105.01[4]	13.24	111.92	6.91	99.46[3]	18.40	89.35	10.11
☑ Return Loss[dB]	/	/	/	/	24.16[4]	1.46	20.82	3.34
☑ Near End Crosstalk[dB@100m	/	/	/	/	42.95[2-3]	214.52	40.33	2.62

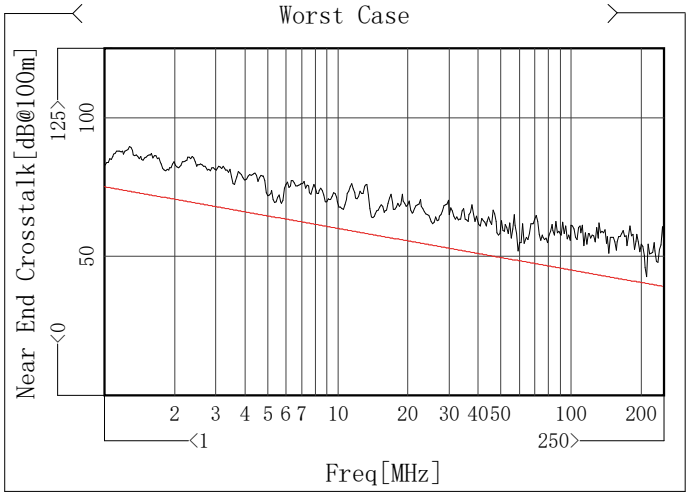






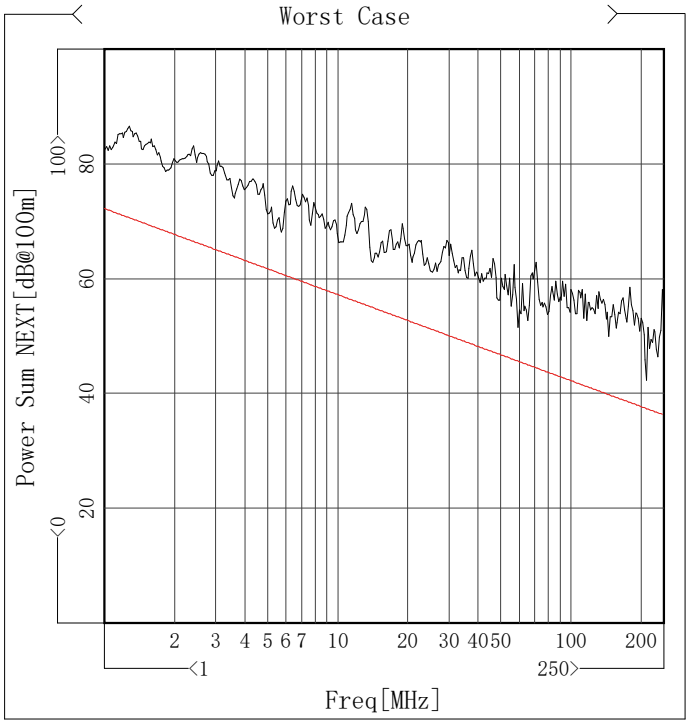


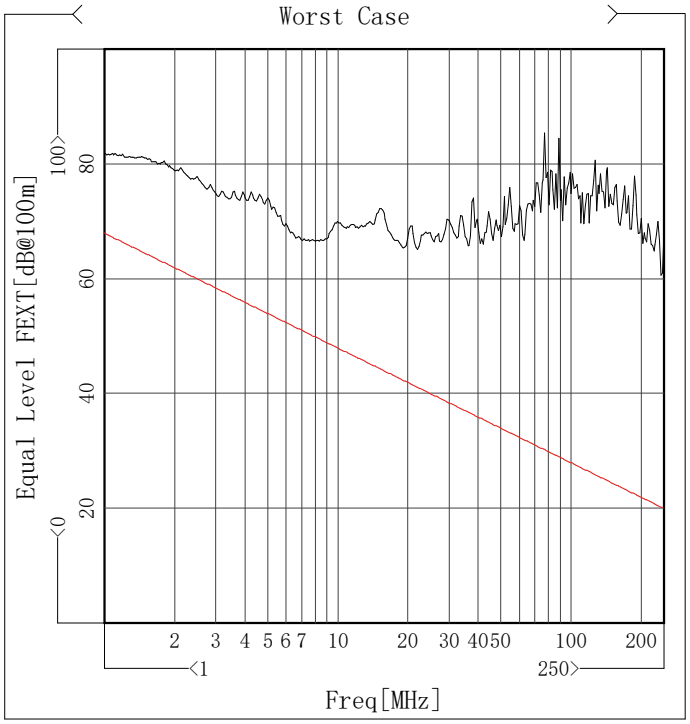


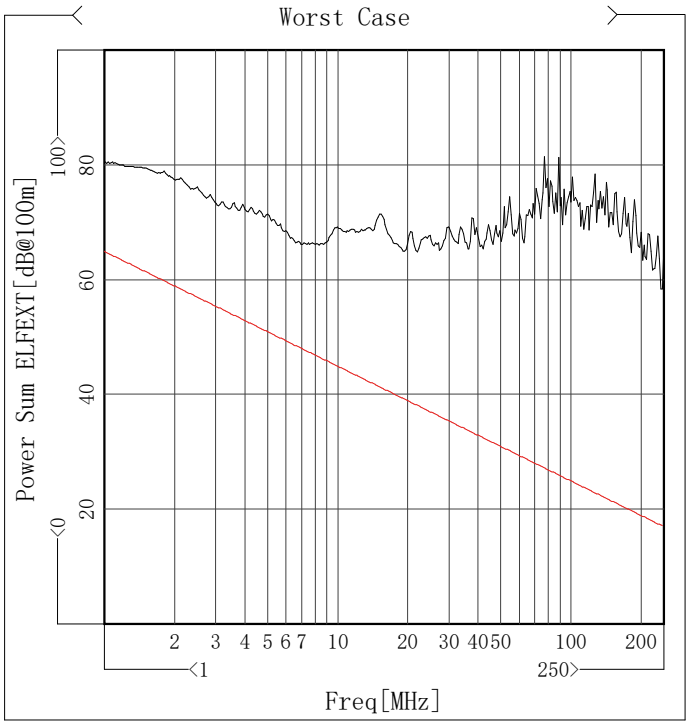


Worst Summary Of High Freq Parameter(2)

Item	Min	Freq[MHz]	Spec	Margin
✔ Power Sum NEXT[dB@100m]	42.36[2]	214.52	37.33	5.03
✔ Equal Level FEXT[dB@100m]	81.80[2-4]	1.00	68.00	13.80
✔ Power Sum ELFEXT[dB@100m]	80.40[4]	1.00	65.00	15.40

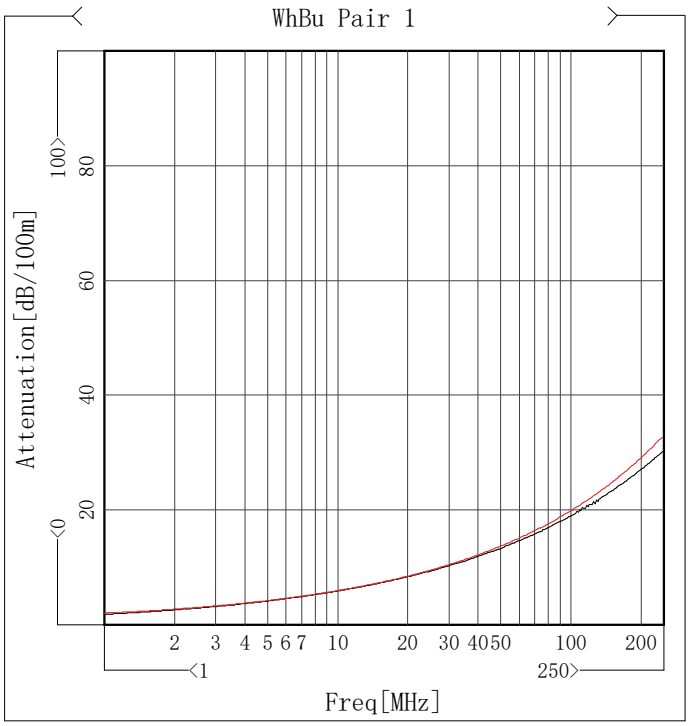


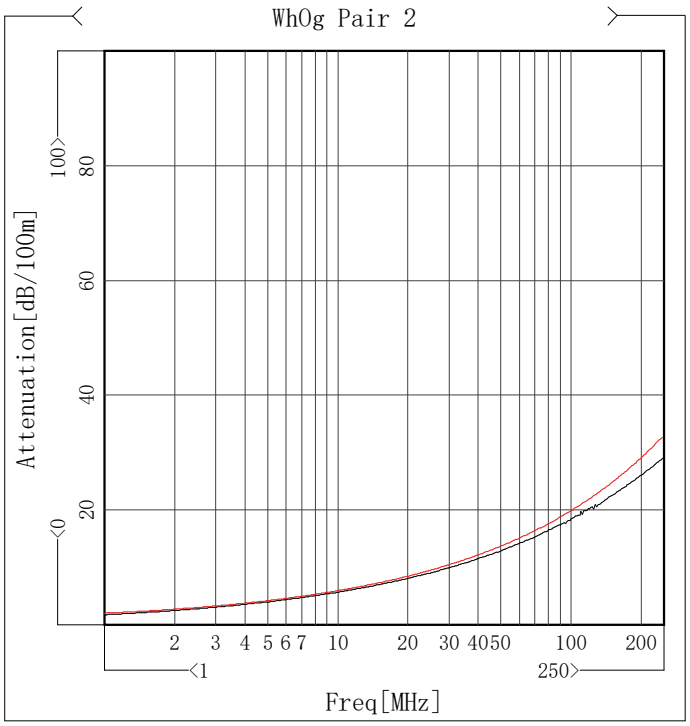


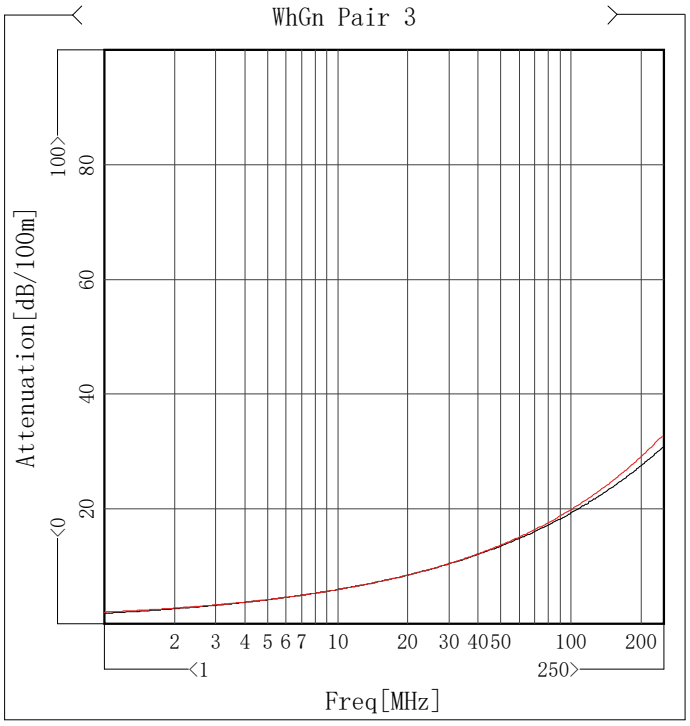


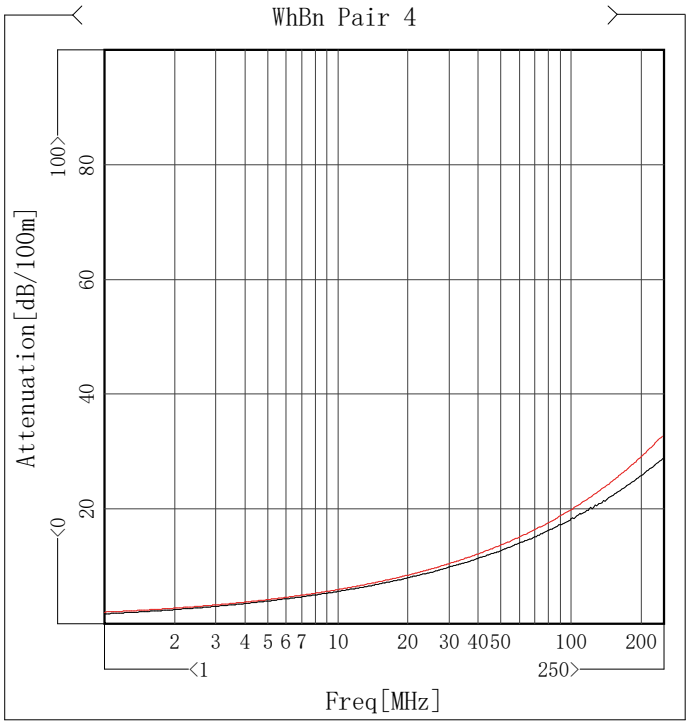
Attenuation

Item	Max [dB/100m]	Freq[MHz]	Spec [dB/100m]	Margin [dB/100m]
✔ WhBu Pair 1	5.78	9.51	5.85	0.07
✔ WhOg Pair 2	4.15	5.26	4.37	0.22
✔ WhGn Pair 3	7.06	13.80	7.06	0.00
✔ WhBn Pair 4	3.71	4.31	3.97	0.26



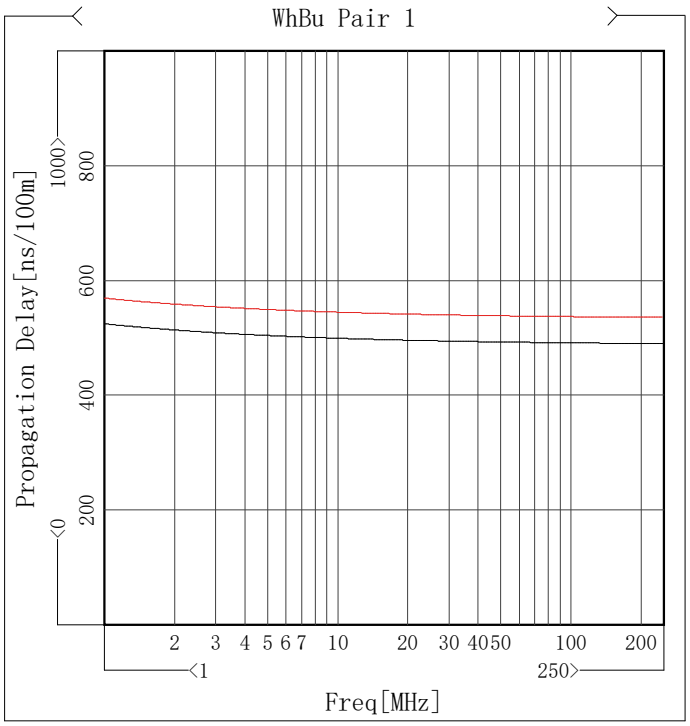


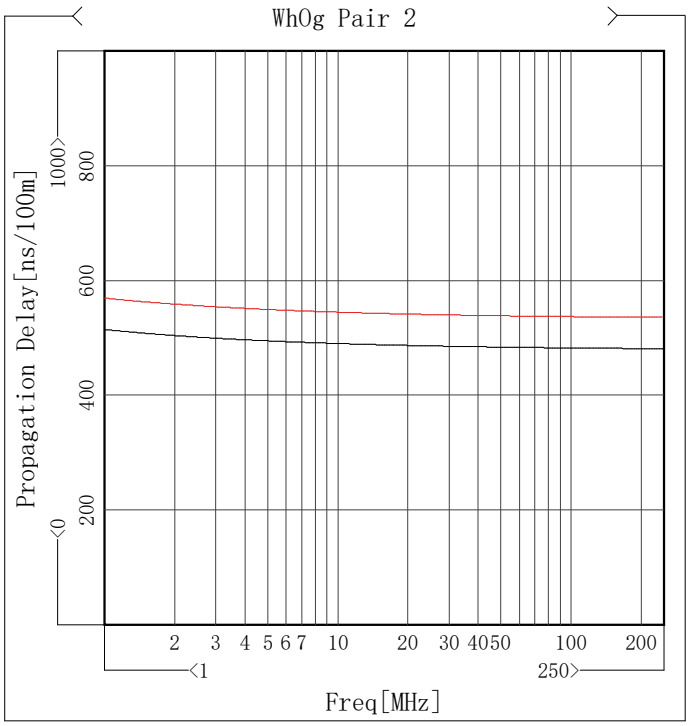


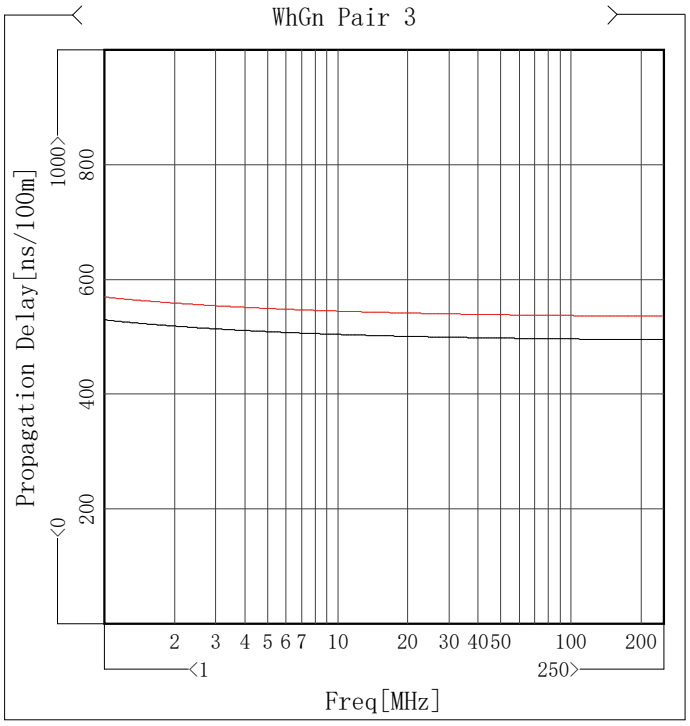


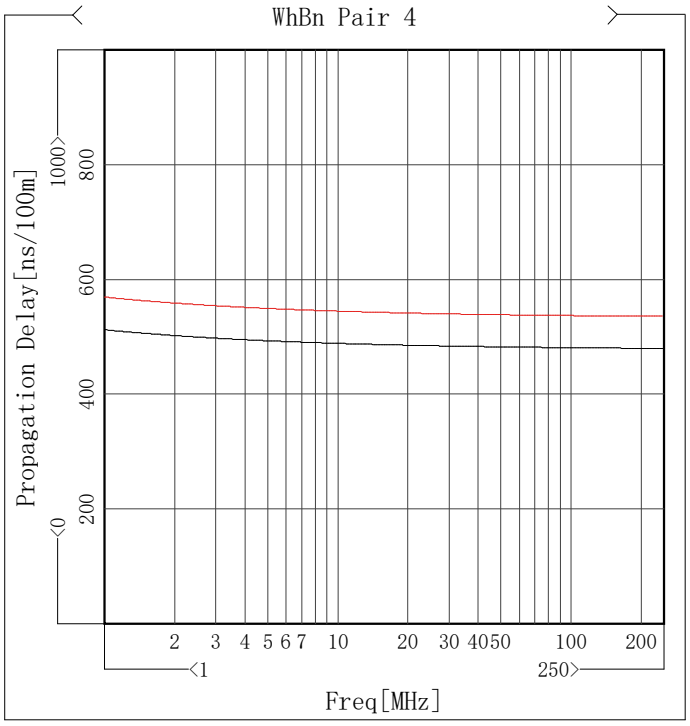
Propagation Delay

Item	Max [ns/100m]	Freq[MHz]	Spec [ns/100m]	Margin [ns/100m]
✔ WhBu Pair 1	522.80	1.16	567.39	44.59
✔ WhOg Pair 2	481.81	232.26	536.36	54.55
✔ WhGn Pair 3	527.71	1.16	567.39	39.68
✔ WhBn Pair 4	480.51	226.35	536.39	55.88



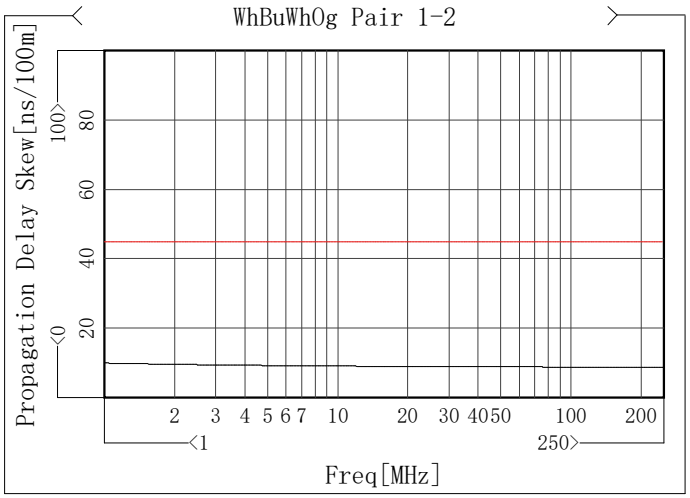


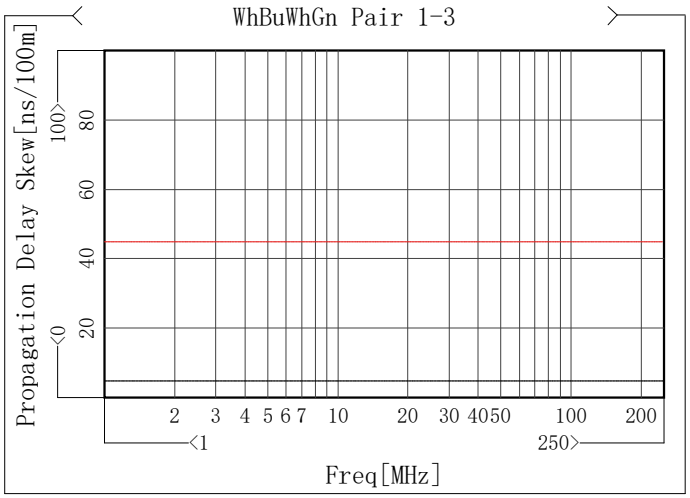


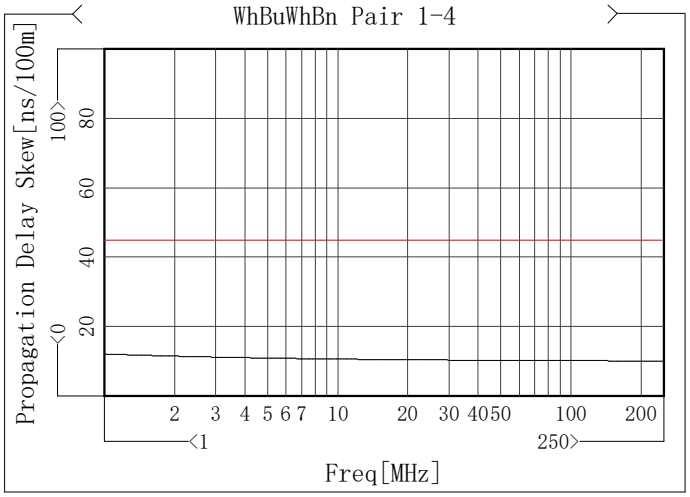


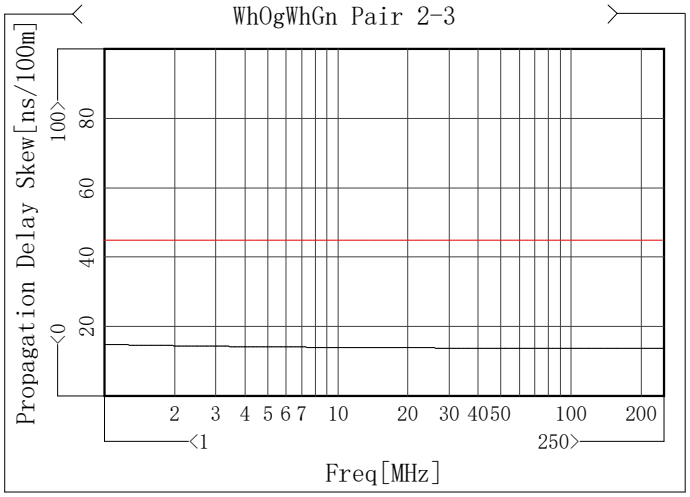
Propagation Delay Skew

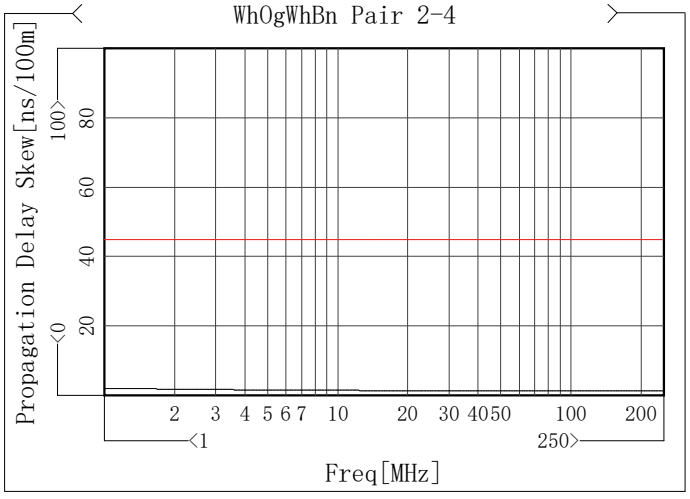
Item	Max [ns/100m]	Freq[MHz]	Spec [ns/100m]	Margin [ns/100m]
✔ WhBuWhOg Pair 1-2	10.05	1.02	45.00	34.95
✔ WhBuWhGn Pair 1-3	4.91	250.00	45.00	40.09
✔ WhBuWhBn Pair 1-4	12.22	1.00	45.00	32.78
✔ WhOgWhGn Pair 2-3	14.96	1.00	45.00	30.04
✔ WhOgWhBn Pair 2-4	2.16	1.02	45.00	42.84
✔ WhGnWhBn Pair 3-4	17.12	1.00	45.00	27.88

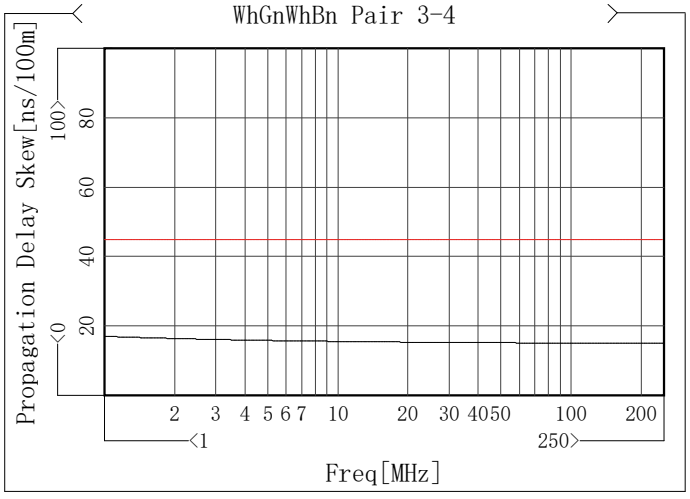






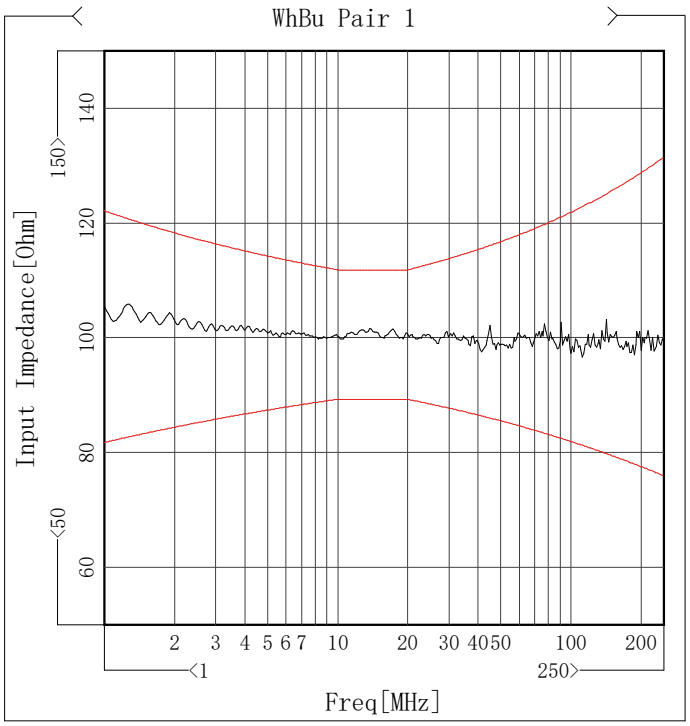


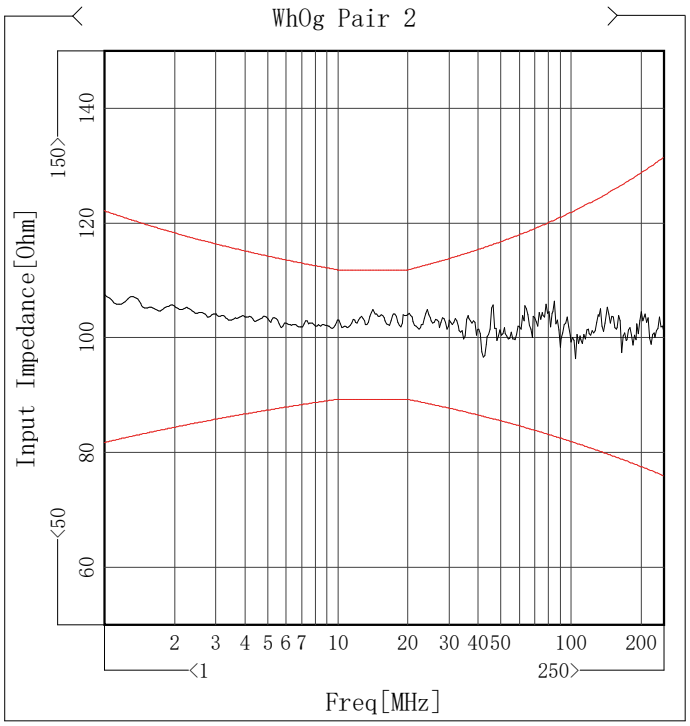


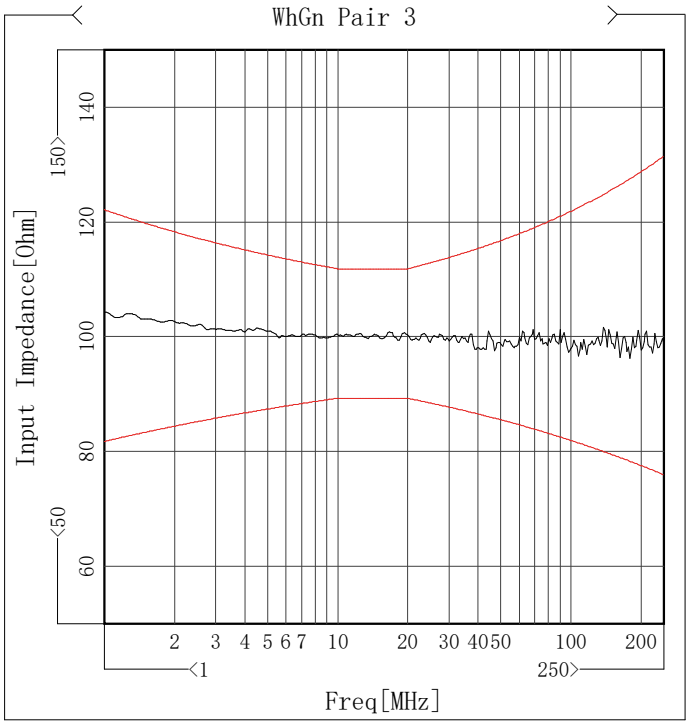


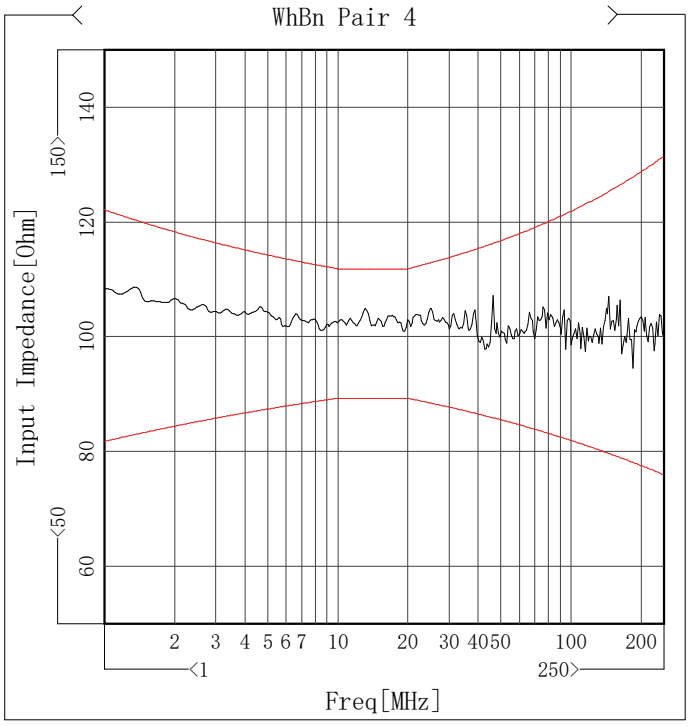
Input Impedance

Item	Max [Ohm]	Freq[MHz]	Spec [Ohm]	Margin [Ohm]	Min [Ohm]	Freq[MHz]	Spec [Ohm]	Margin [Ohm]
✔ WhBu Pair 1	101.69	13.80	111.92	10.23	99.82	19.27	89.35	10.47
✔ WhOg Pair 2	104.97	14.24	111.92	6.95	96.73	42.66	86.34	10.39
✔ WhGn Pair 3	100.89	16.87	111.92	11.03	99.46	18.40	89.35	10.11
✔ WhBn Pair 4	105.01	13.24	111.92	6.91	97.88	43.24	86.28	11.60



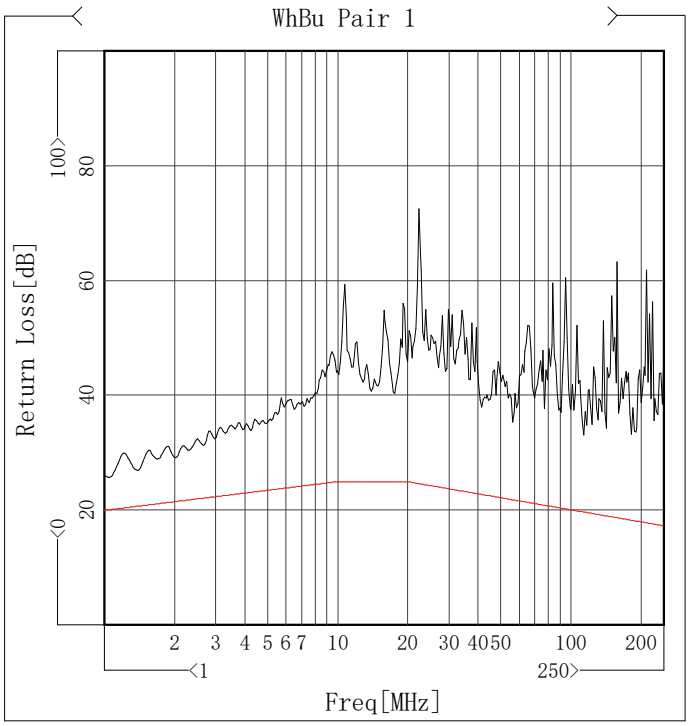


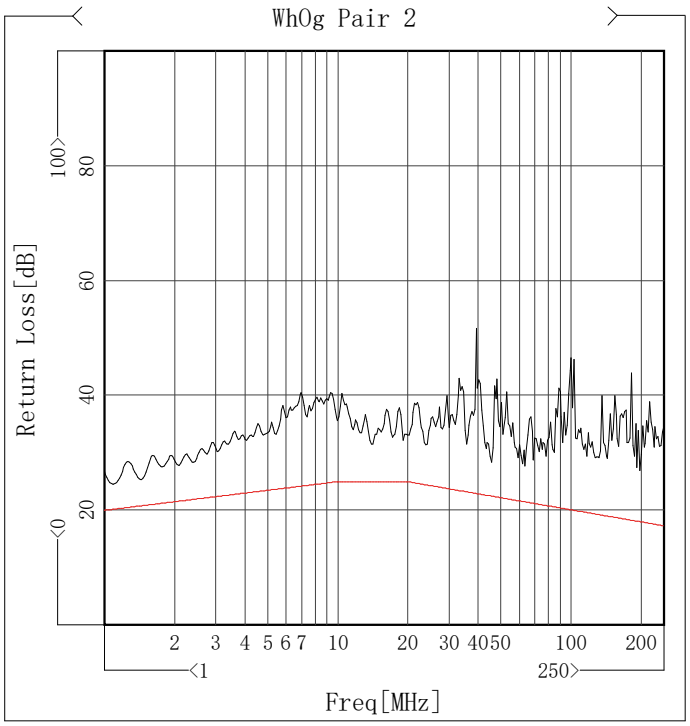


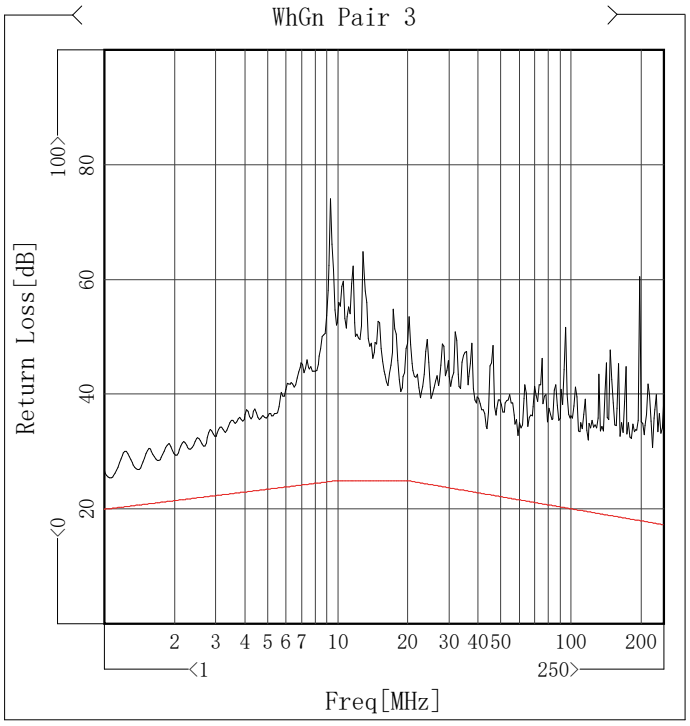


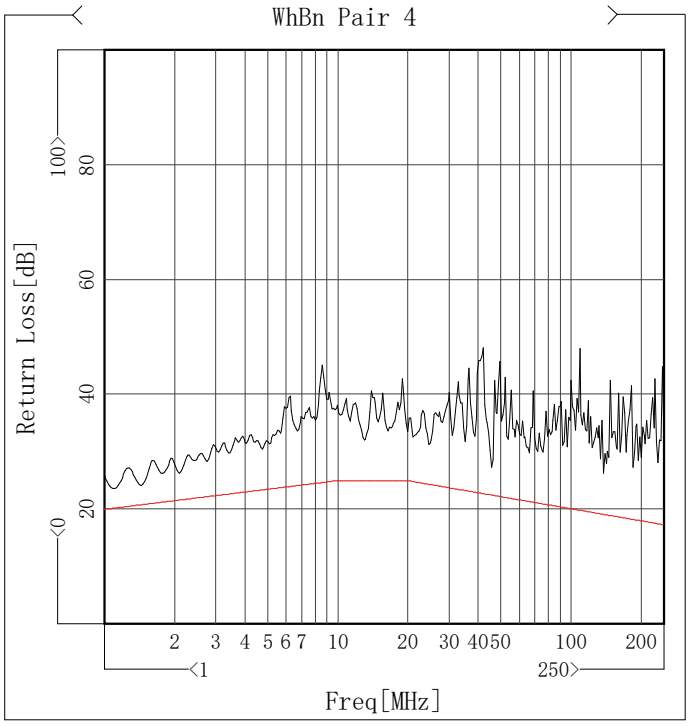
Return Loss

Item	Min [dB]	Freq[MHz]	Spec [dB]	Margin [dB]
✔ WhBu Pair 1	25.76	1.06	20.14	5.62
✔ WhOg Pair 2	24.53	1.11	20.23	4.30
✔ WhGn Pair 3	25.54	1.08	20.17	5.37
✔ WhBn Pair 4	24.16	1.46	20.82	3.34



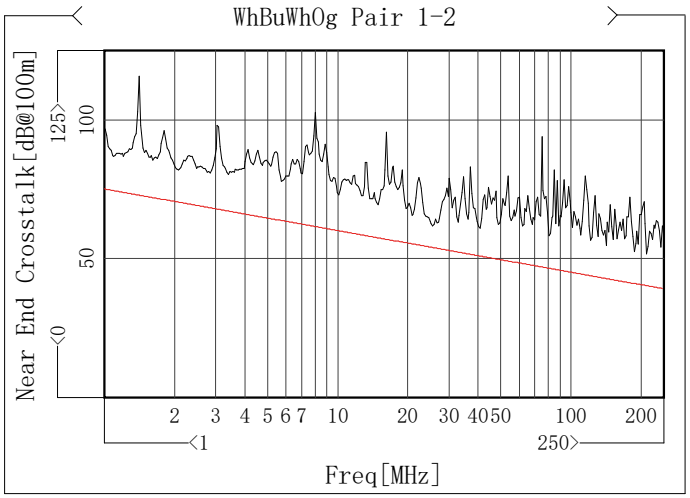


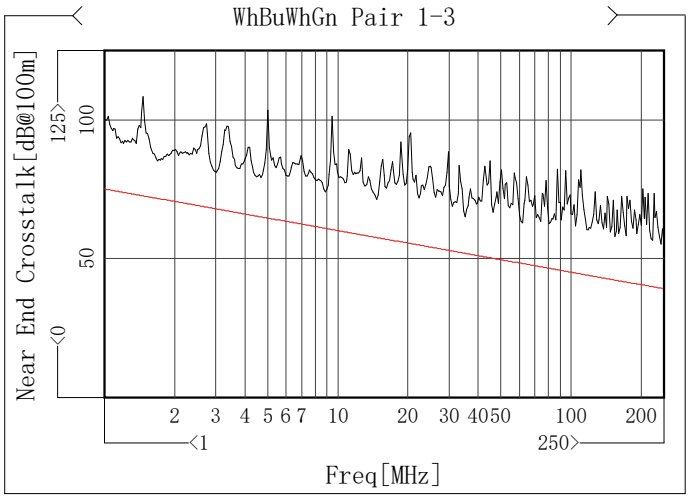


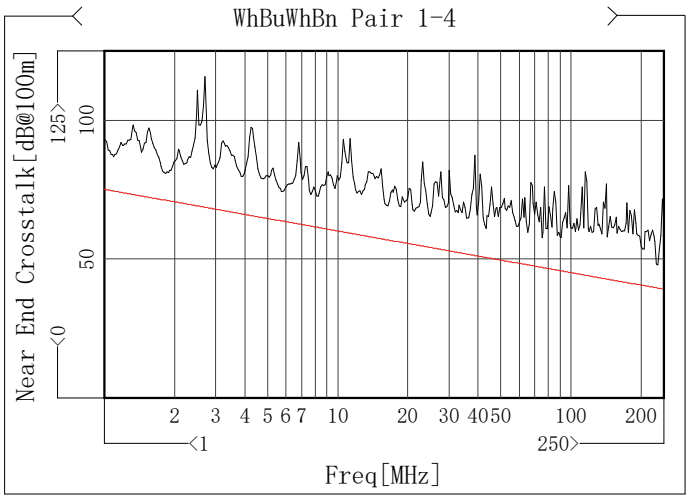


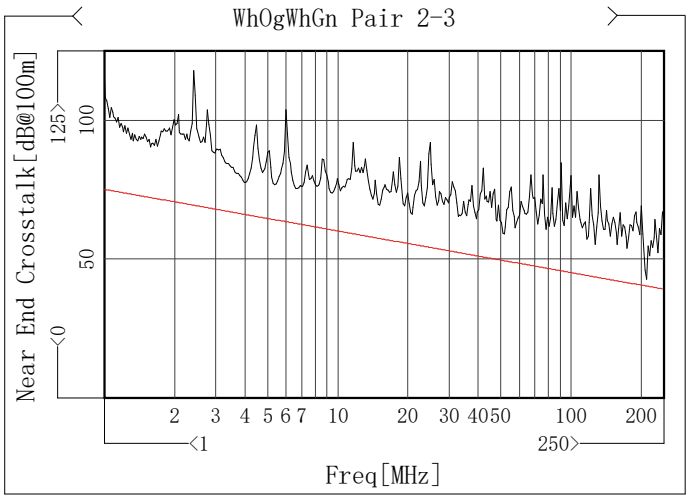
Near End Crosstalk

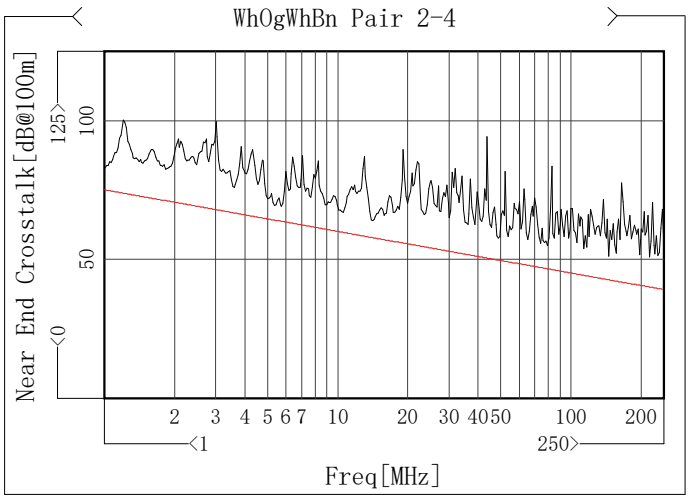
Item	Min [dB@100m]	Freq[MHz]	Spec [dB@100m]	Margin [dB@100m]
✔ WhBuWhOg Pair 1-2	61.94	25.63	54.17	7.77
✔ WhBuWhGn Pair 1-3	65.17	35.21	52.10	13.07
✔ WhBuWhBn Pair 1-4	48.12	238.17	39.65	8.47
✔ WhOgWhGn Pair 2-3	42.95	214.52	40.33	2.62
✔ WhOgWhBn Pair 2-4	69.56	5.43	64.28	5.28
✔ WhGnWhBn Pair 3-4	52.20	60.22	48.60	3.60

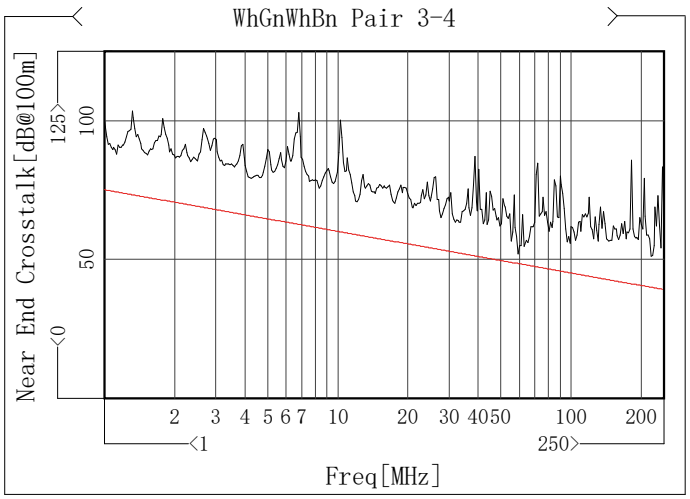






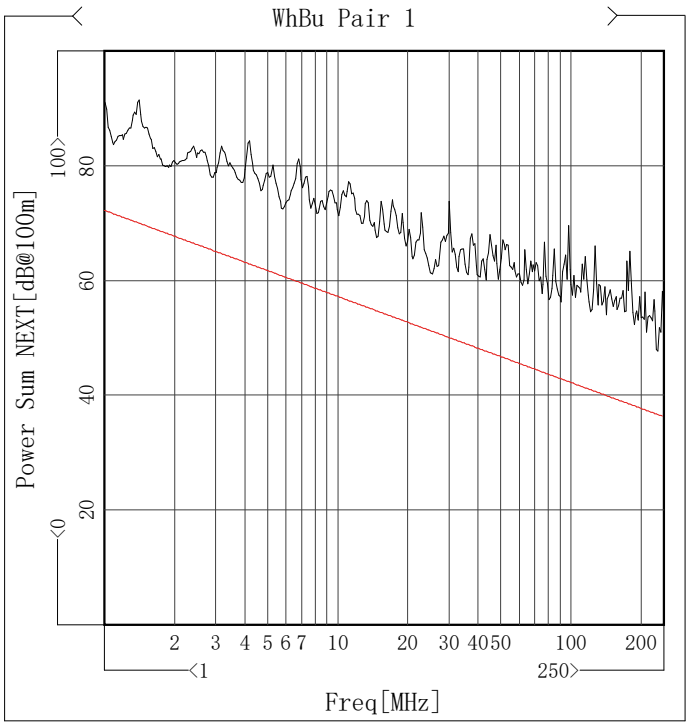


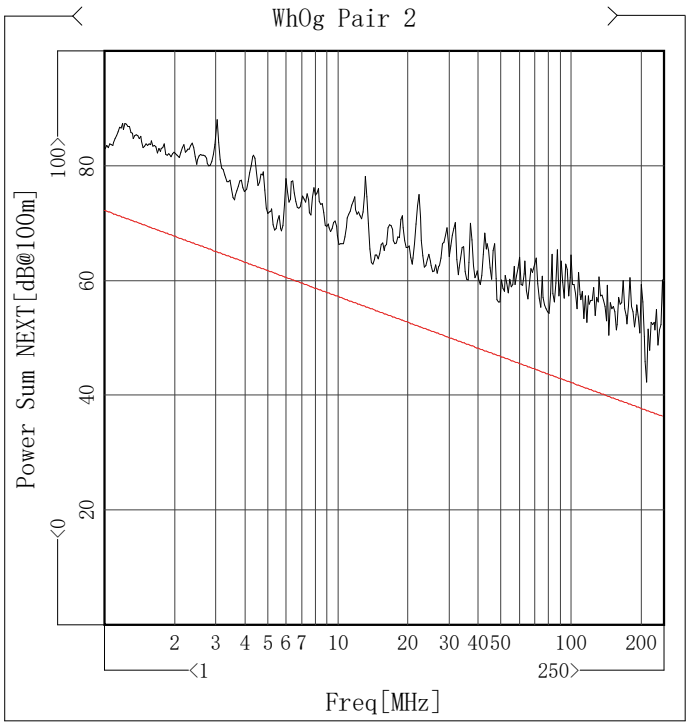


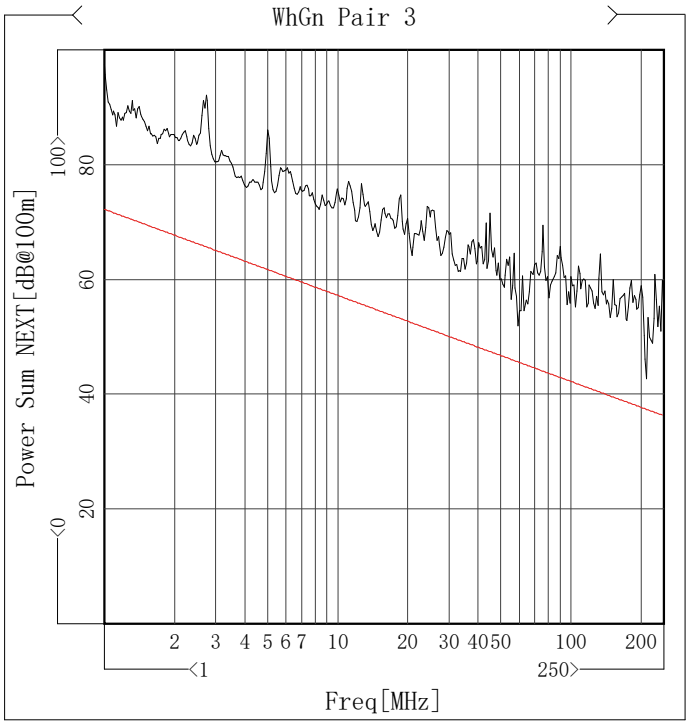


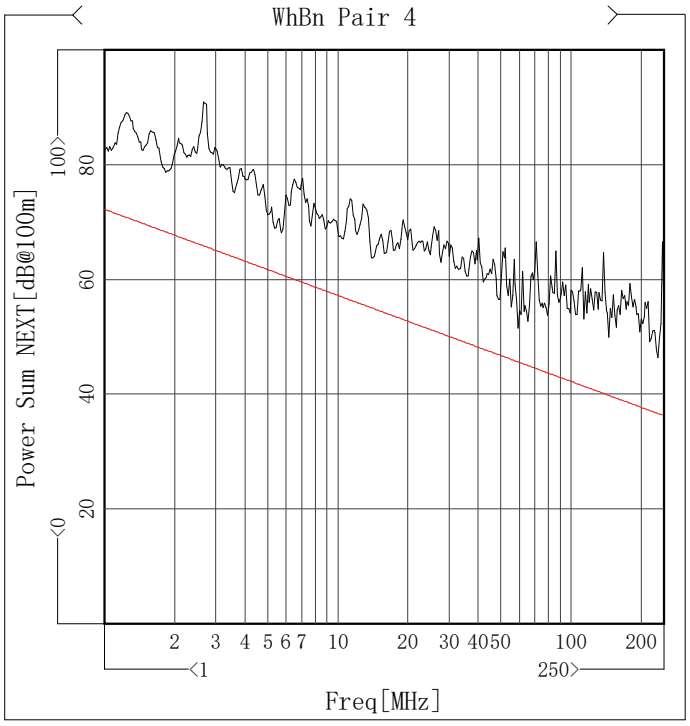
Power Sum NEXT

Item	Min [dB@100m]	Freq[MHz]	Spec [dB@100m]	Margin [dB@100m]
✔ WhBu Pair 1	61.13	25.63	51.17	9.96
✔ WhOg Pair 2	42.36	214.52	37.33	5.03
✔ WhGn Pair 3	42.79	214.52	37.33	5.46
✔ WhBn Pair 4	51.63	60.22	45.60	6.03



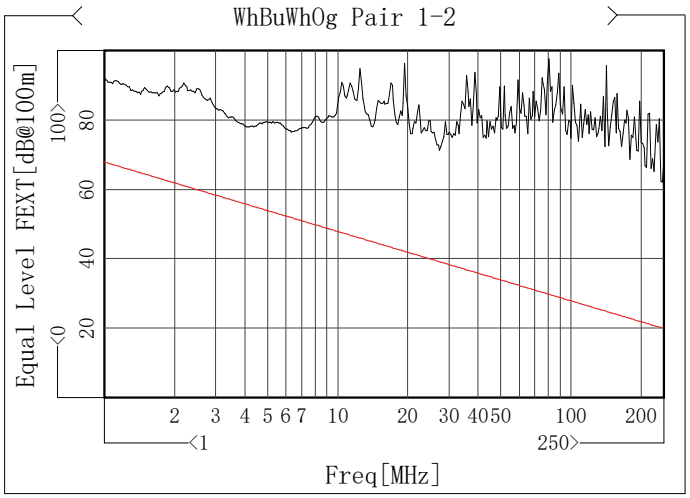


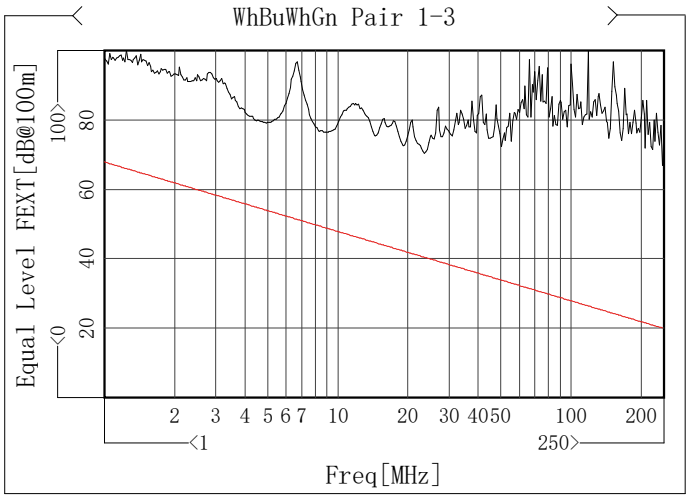


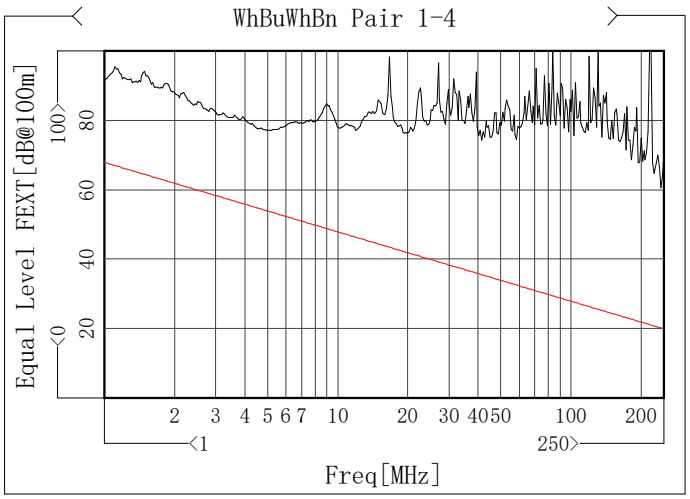


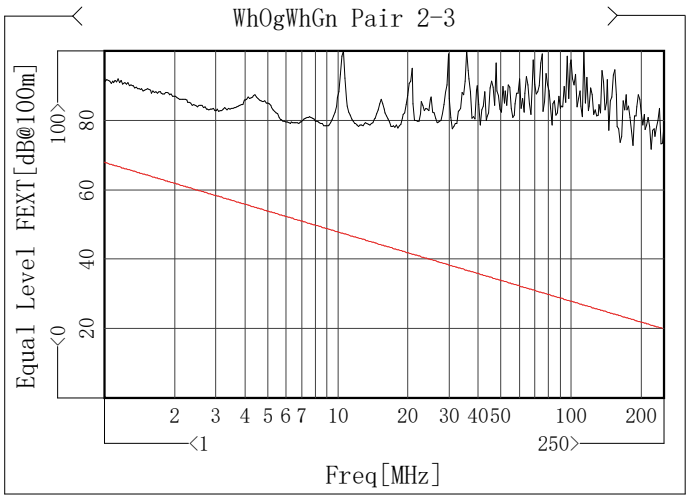
Equal Level FEXT

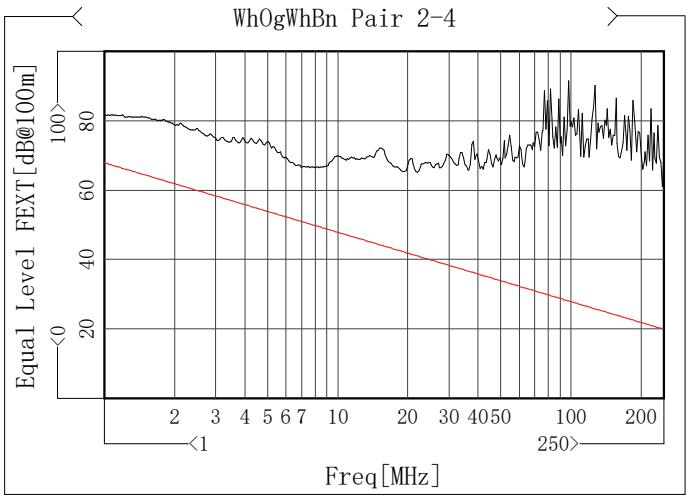
Item	Min [dB@100m]	Freq[MHz]	Spec [dB@100m]	Margin [dB@100m]
✔ WhBuWhOg Pair 1-2	78.04	4.14	55.67	22.37
✔ WhBuWhGn Pair 1-3	79.77	4.55	54.84	24.93
✔ WhBuWhBn Pair 1-4	77.70	4.61	54.72	22.98
✔ WhOgWhGn Pair 2-3	90.63	1.08	67.32	23.31
✔ WhOgWhBn Pair 2-4	81.80	1.00	68.00	13.80
✔ WhGnWhBn Pair 3-4	87.26	1.00	68.00	19.26

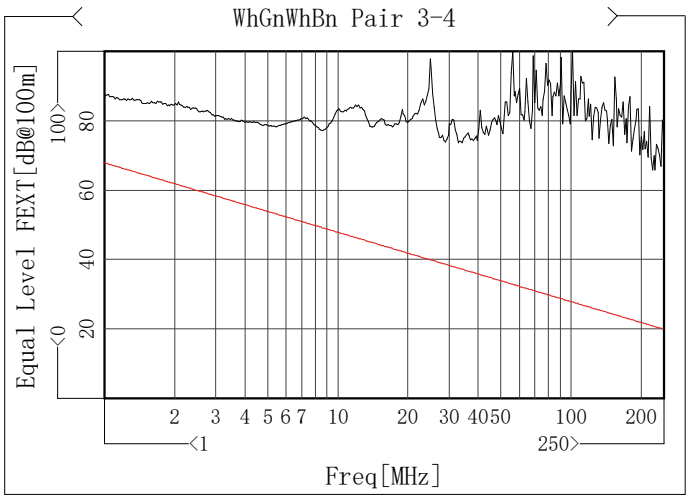






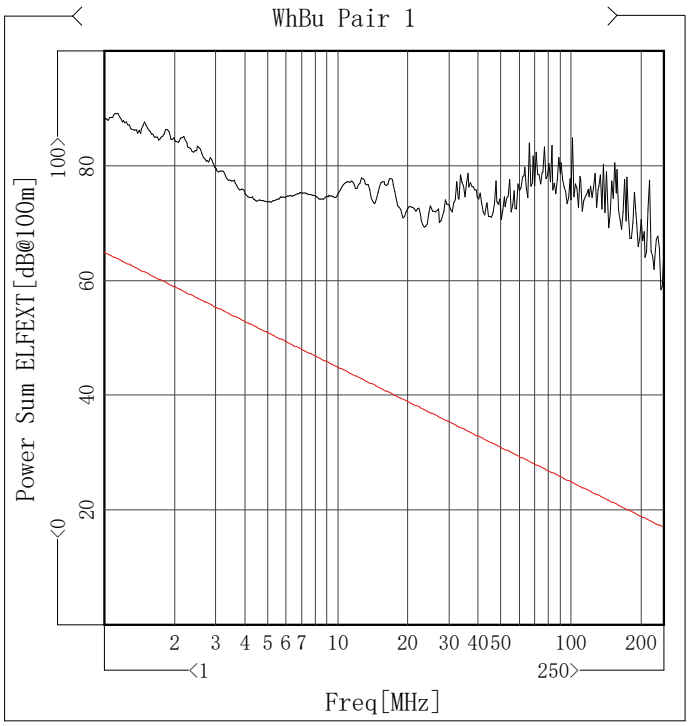


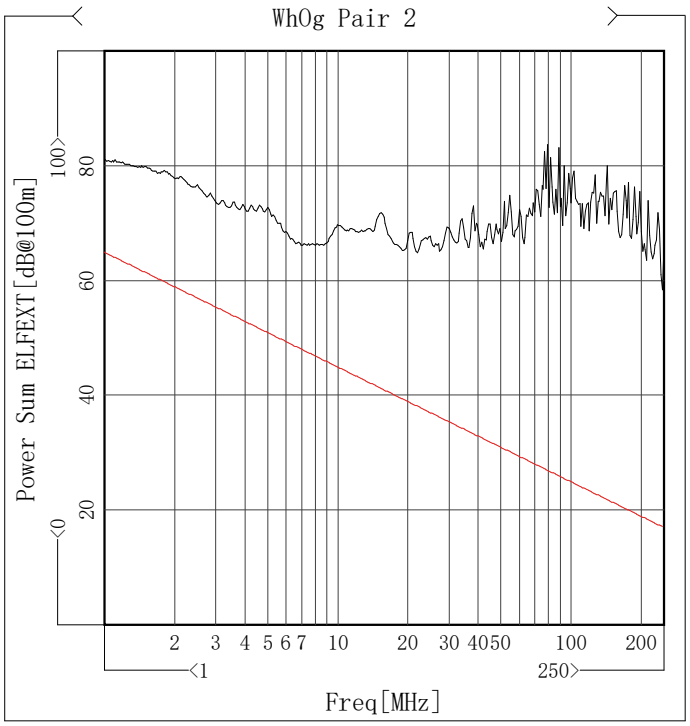


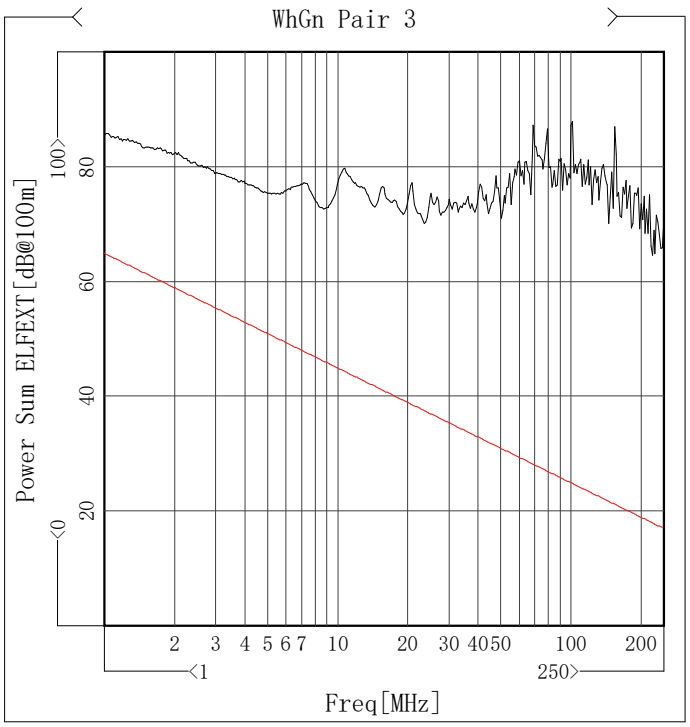


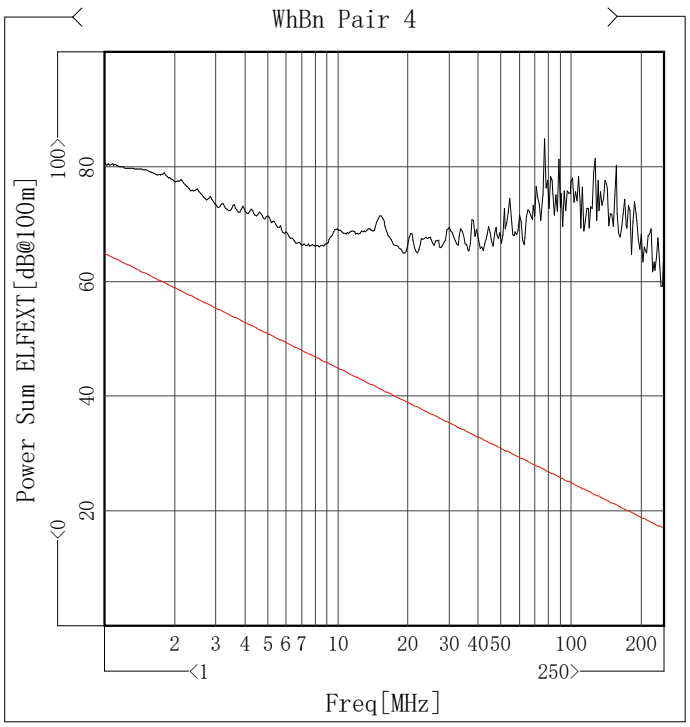
Power Sum ELFEXT

Item	Min [dB@100m]	Freq[MHz]	Spec [dB@100m]	Margin [dB@100m]
✔ WhBu Pair 1	73.85	4.55	51.84	22.01
✔ WhOg Pair 2	80.84	1.03	64.72	16.12
✔ WhGn Pair 3	85.65	1.02	64.86	20.79
✔ WhBn Pair 4	80.40	1.00	65.00	15.40









Attenuation[dB/100m]

No.	Freq [MHz]	Spec (Max)	WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
1	1	2.09	1.88	1.81	1.88 ↑	1.78
2	4	3.83	3.74	3.61	3.78 ↑	3.57
3	8	5.37	5.30	5.12	5.36 ↑	5.06
4	10	6	5.93	5.72	6.00 ↑	5.66
5	16	7.61	7.51	7.26	7.61 ↑	7.17
6	20	8.54	8.40	8.12	8.51 ↑	8.03
7	25	9.58	9.40	9.08	9.53 ↑	8.98
8	31.25	10.75	10.52	10.18	10.66 ↑	10.06
9	50	13.75	13.33	12.90	13.52 ↑	12.77
10	62.5	15.48	14.92	14.46	15.16 ↑	14.33
11	100	19.92	18.90	18.24	19.22 ↑	18.16
12	125	22.5	21.23	20.49	21.59 ↑	20.22
13	200	29.16	26.97	25.99	27.44 ↑	25.74
14	250	33.04	30.40	29.24	30.95 ↑	28.98

Propagation Delay[ns/100m]

No.	Freq [MHz]	Spec (Max)	WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
1	1	570	525.27	515.22	530.18 ↑	513.05
2	4	552	506.84	497.42	511.75 ↑	495.70
3	8	546.73	501.40	492.16	506.31 ↑	490.57
4	10	545.38	499.97	490.78	504.87 ↑	489.22
5	16	543	497.55	488.44	502.46 ↑	486.94
6	20	542.05	496.55	487.48	501.46 ↑	486.01
7	25	541.2	495.66	486.62	500.56 ↑	485.16
8	31.25	540.44	494.90	485.88	499.81 ↑	484.45
9	50	539.09	493.47	484.51	498.38 ↑	483.11
10	62.5	538.55	492.94	484.00	497.85 ↑	482.61
11	100	537.6	491.95	483.04	496.86 ↑	481.67
12	125	537.22	491.56	482.66	496.47 ↑	481.30
13	200	536.55	490.87	481.99	495.78 ↑	480.65
14	250	536.28	490.58	481.71	495.49 ↑	480.38

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	10.05	4.91	12.22	14.96	2.16	17.12 ↑
2	4	45	9.42	4.91	11.14	14.33	1.72	16.05 ↑
3	8	45	9.24	4.91	10.83	14.15	1.59	15.73 ↑
4	10	45	9.19	4.91	10.74	14.10	1.56	15.65 ↑
5	16	45	9.11	4.91	10.60	14.01	1.50	15.51 ↑
6	20	45	9.07	4.91	10.54	13.98	1.47	15.45 ↑
7	25	45	9.04	4.91	10.49	13.95	1.45	15.40 ↑
8	31.25	45	9.01	4.91	10.45	13.92	1.43	15.36 ↑
9	50	45	8.97	4.91	10.37	13.87	1.40	15.27 ↑
10	62.5	45	8.95	4.91	10.33	13.86	1.39	15.24 ↑
11	100	45	8.91	4.91	10.28	13.82	1.36	15.19 ↑

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
12	125	45	8.90	4.91	10.25	13.81	1.35	15.16 ↑
13	200	45	8.88	4.91	10.21	13.79	1.34	15.12 ↑
14	250	45	8.87	4.91	10.20	13.78	1.33	15.11 ↑

Input Impedance[Ohm]

No.	Freq [MHz]	Spec		WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
		(Max)	(Min)				
1	1	122.22	81.82	105.72	107.57	104.49 ↓	108.54 ↑
2	4	115.22	86.79	101.61	103.86	101.01 ↓	104.39 ↑
3	8	112.64	88.78	100.15 ↓	102.41	100.44	103.13 ↑
4	10	111.92	89.35	100.51	103.01 ↑	100.49 ↓	102.53
5	16	111.92	89.35	100.01	103.56 ↑	99.92 ↓	101.95
6	20	111.92	89.35	100.82	104.02 ↑	100.47 ↓	102.23
7	25	112.95	88.54	100.37	103.54	99.07 ↓	104.98 ↑
8	31.25	114.07	87.66	100.56	102.52	99.86 ↓	102.97 ↑
9	50	116.8	85.62	98.83 ↓	101.14 ↑	98.94	100.37
10	62.5	118.29	84.54	100.15 ↓	103.48 ↑	100.78	101.11
11	100	121.92	82.02	97.93	100.39	97.77 ↓	102.18 ↑
12	125	123.91	80.7	100.09	101.13 ↑	99.10 ↓	99.54
13	200	128.8	77.64	100.89	103.18	99.73 ↓	103.27 ↑
14	250	131.51	76.04	99.36	101.00 ↑	98.83 ↓	99.77

Return Loss[dB]

No.	Freq [MHz]	Spec (Min)	WhBu Pair 1	WhOg Pair 2	WhGn Pair 3	WhBn Pair 4
1	1	20	26.33	26.82	26.79	26.03 ↓
2	4	23.01	34.15	32.91	35.56	32.33 ↓
3	8	24.52	39.89	38.63	44.05	36.12 ↓
4	10	25	44.20	35.84 ↓	52.33	37.90
5	16	25	54.88	35.18 ↓	44.02	37.14
6	20	25	46.65	33.17 ↓	48.45	34.41
7	25	24.32	48.12	34.78	41.69	31.49 ↓
8	31.25	23.64	51.62	36.63	42.35	34.21 ↓
9	50	22.21	43.50	36.03 ↓	38.78	42.13
10	62.5	21.54	45.08	28.40 ↓	34.62	34.98
11	100	20.11	38.10	44.67	36.02 ↓	36.64
12	125	19.43	38.26	31.33	35.11	31.06 ↓
13	200	18	43.92	27.15 ↓	58.24	32.31
14	250	17.32	47.50	34.72	39.42	31.26 ↓

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	96.94	100.67	93.36	115.55	83.06 ↓	100.56
2	4	66.27	82.74	84.99	80.63	78.02 ↓	82.40	88.24
3	8	61.75	93.57	79.68	75.80 ↓	78.48	80.08	78.68
4	10	60.3	74.80	82.76	79.34	78.40	70.51 ↓	81.02

Near End Crosstalk[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
5	16	57.24	76.55	80.12	71.45	76.13	66.04 ↓	76.66
6	20	55.78	68.45 ↓	79.43	71.46	73.01	71.83	75.00
7	25	54.33	63.69 ↓	83.48	65.67	91.81	77.88	71.44
8	31.25	52.88	71.50	70.22	73.00	75.99	75.43	70.01 ↓
9	50	49.82	64.12	79.25	68.79	63.89	61.05 ↓	62.52
10	62.5	48.36	62.44 ↓	63.15	70.47	69.29	63.36	64.30
11	100	45.3	70.30	72.11	62.77	77.02	62.16	56.96 ↓
12	125	43.85	60.79	64.15	59.88	64.82	64.62	59.65 ↓
13	200	40.78	66.12	65.73	58.15	59.90	52.70 ↓	64.95
14	250	39.33	58.21	55.60	62.65	63.99	54.62 ↓	64.15

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	91.25	82.88	97.53	82.60 ↓
2	4	63.27	77.65	75.71 ↓	76.85	77.91
3	8	58.75	74.23	75.96	74.14	73.00 ↓
4	10	57.3	72.91	68.61 ↓	75.51	69.59
5	16	54.24	69.83	65.29	72.53	64.65 ↓
6	20	52.78	66.44	65.81 ↓	70.17	67.67
7	25	51.33	61.53 ↓	63.51	71.13	64.44
8	31.25	49.88	66.53	67.14	66.12	65.73 ↓
9	50	46.82	62.70	57.63 ↓	60.06	57.96
10	62.5	45.36	59.26 ↓	59.26	59.56	60.10
11	100	42.3	61.61	61.10	56.64	54.84 ↓
12	125	40.85	56.13	57.34	57.30	56.02 ↓
13	200	37.78	56.89	51.73	57.55	51.06 ↓
14	250	36.33	53.18	52.71 ↓	54.51	53.59

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	92.74	97.89	91.93	92.57	81.80 ↓	87.26
2	4	55.96	78.71	83.18	80.89	85.62	74.75 ↓	79.85
3	8	49.94	80.13	79.07	79.75	80.55	66.75 ↓	79.06
4	10	48	83.03	78.51	78.52	85.50	69.96 ↓	83.09
5	16	43.92	85.41	80.38	81.73	83.25	71.47 ↓	80.20
6	20	41.98	85.86	74.56	76.47	85.71	66.32 ↓	79.76
7	25	40.04	79.95	75.07	80.17	85.90	68.08 ↓	97.18
8	31.25	38.1	75.51	75.73	82.81	79.05	69.23 ↓	79.87
9	50	34.02	85.58	74.83	79.20	83.07	68.69 ↓	79.16
10	62.5	32.08	86.82	85.71	79.27	85.87	68.42 ↓	81.73
11	100	28	79.02	86.21	85.70	96.66	78.73 ↓	80.64
12	125	26.06	77.34	82.46	83.28	85.61	81.81	76.80 ↓
13	200	21.98	84.41	76.96	68.68 ↓	85.86	75.99	70.74
14	250	20.04	68.38 ↓	76.78	70.00	78.68	71.30	73.73

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	88.74	81.14	85.86	80.40 ↓
2	4	52.96	75.78	73.03	77.47	72.84 ↓
3	8	46.94	74.85	66.39	74.73	66.30 ↓
4	10	45	74.78	69.63	76.60	69.21 ↓
5	16	40.92	77.27	71.03	76.30	70.58 ↓
6	20	38.98	72.17	66.21	73.15	65.73 ↓
7	25	37.04	72.93	67.74 ↓	74.70	67.82
8	31.25	35.1	72.19	67.95 ↓	72.98	68.68
9	50	31.02	73.03	68.38	72.99	67.97 ↓
10	62.5	29.08	77.75	68.22	79.18	67.85 ↓
11	100	25	77.25	75.69 ↓	79.44	75.81
12	125	23.06	75.11	75.40	74.90	74.85 ↓
13	200	18.98	67.71	74.98	69.67	65.88 ↓
14	250	17.04	65.75 ↓	66.33	71.14	66.64