

天线测试报告

Antenna Test Report

TC: 深圳市智连猫科技有限公司

*MN: T18机型WF天线料号, CS2208线长
40mm (1IPEX)*

RF: 刘培

MD: 吴仕彪

MP: 吴生13487880011

Date: 2025. 05. 07

REV :V1. 0

测试信息

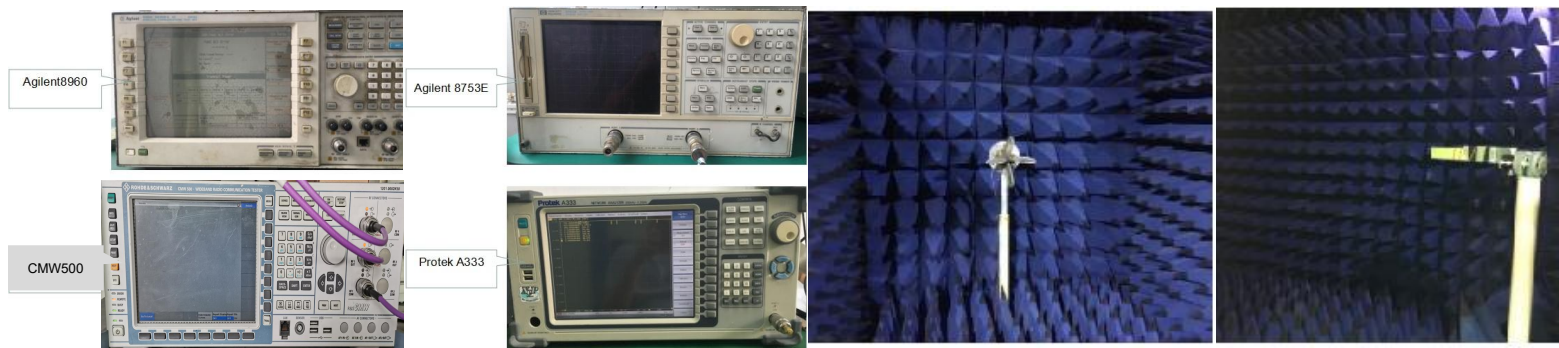
Test information

	Antenna band	Antenna state	Antenna form	Match changes	Note
Main ANT	2G	FPC	PIFA	NO	
	3G				
	4G B1/B3/B38/B39/B40/B41				
AUX ANT	BT/WIFI				
	GPS				
	DIV				

测试环境

Test environment

	测试项目	测试设备
S参数 (S-parameter)	1. 电压驻波比 (VSWR) 2. 回波损耗 (Rrtun Loss)	网络分析仪: Agilent8753ES
2. 有源测试 (Active)	1. 发射功率 (TRP) 2. 接收灵敏度 (TIS) 3. 屏灭/屏亮	1. 暗室: 5*3*3m (3D) Chamber 2. 综测仪: Agilent8960 CMW500
3. 无源测试 (Passive)	1. 天线增益 (Gain) 2. 天线效率 (Efficiency)	1. 暗室: 5*3*3m (3D) Chamber 2. 网络分析仪: Agilent 8753ES



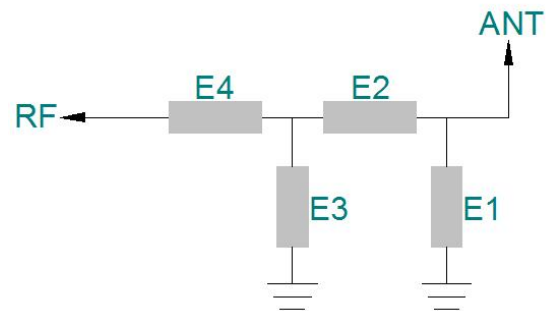
WIFI天线

Antenna position



T18机型WF天线长40mm（1IPEX）

匹配电路 Matching circuit

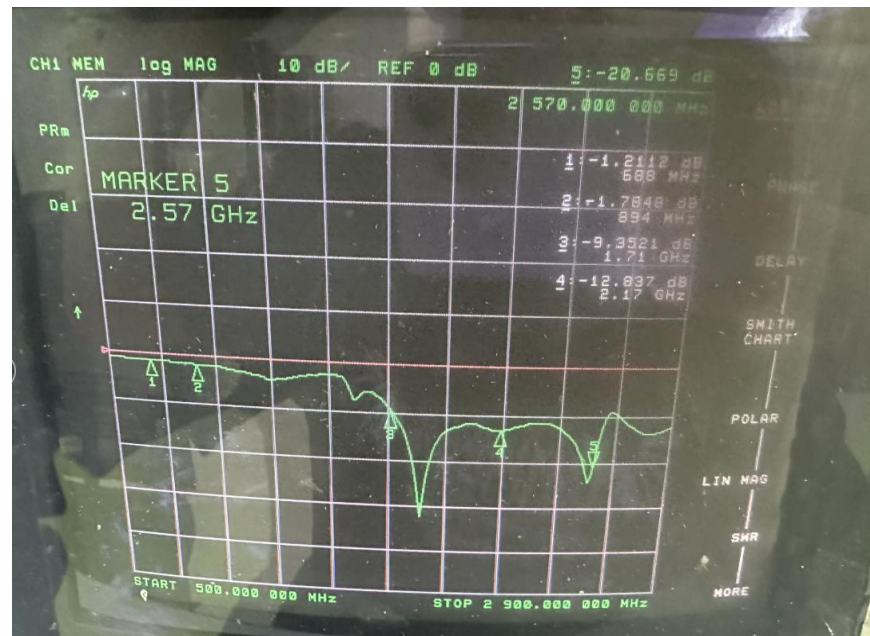
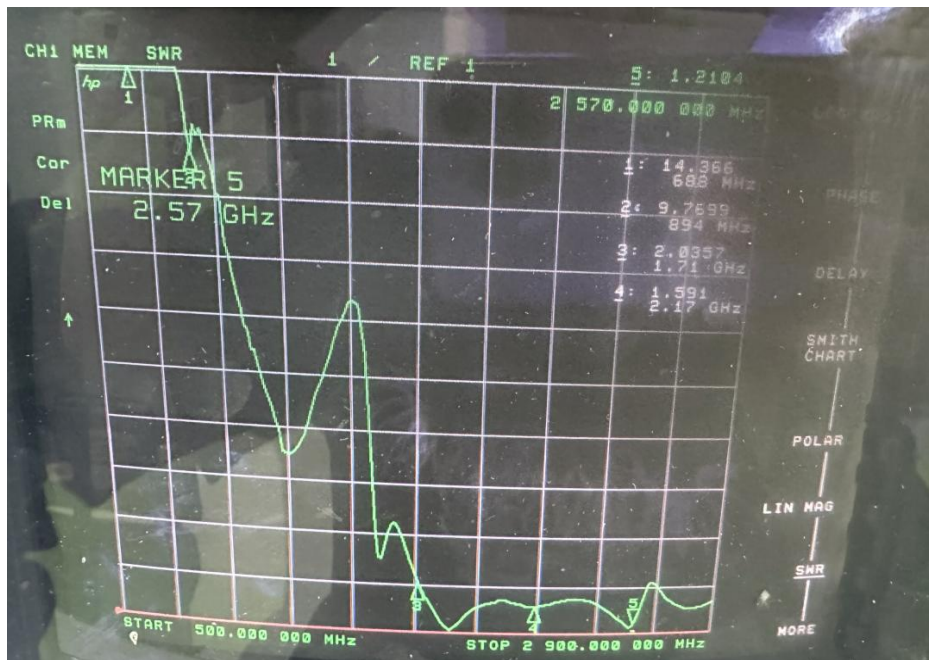


	电容 (PF)	电感 (NH)
E1(0402)		
E2(0402)		
E3(0402)		
E4(0402)		

匹配电路原理图&位号图

无源测试数据
Passive test data

MAIN ANT S11-VSWR&Return Loss



Frequency (MHZ)	1710	2170	2600
VSWR	2.03	1.59	1.21
Return Loss (DB)	-9.35	-12.83	-20.66

无源测试数据

Passive test data

MAIN ANT GAIN&Efficiency-(1700-1900)

Passive Test For 高频								
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)
1710	51.82	-2.86	0.82	-1.33	27.906	23.913	0.82	-14.02
1720	51.05	-2.92	0.65	-1.5	28.158	22.895	0.65	-12.65
1730	53.49	-2.72	1.26	-0.89	30.588	22.903	1.26	-11.64
1740	50.72	-2.95	1.46	-0.69	29.879	20.837	1.46	-11.02
1750	47.85	-3.2	1.53	-0.62	28.644	19.208	1.53	-10.48
1760	46.89	-3.29	1.51	-0.64	27.965	18.921	1.51	-9.37
1770	50.46	-2.97	1.74	-0.41	29.992	20.472	1.74	-8.77
1780	52.09	-2.83	1.65	-0.5	31.075	21.018	1.65	-8.26
1790	47.51	-3.23	1.03	-1.12	28.197	19.317	1.03	-9.27
1800	46.37	-3.34	0.78	-1.37	27.039	19.335	0.78	-11.02
1810	45.38	-3.43	0.52	-1.63	25.598	19.778	0.52	-11.79
1820	49.84	-3.02	0.63	-1.52	27.205	22.64	0.63	-11.48
1830	47.27	-3.25	0.4	-1.75	25.065	22.202	0.4	-10.97
1840	47.91	-3.2	0.55	-1.6	25.189	22.716	0.55	-10.33
1850	56.83	-2.45	1.32	-0.83	30.147	26.679	1.32	-9.3
1860	57.01	-2.44	1.26	-0.89	30.111	26.904	1.26	-9.55
1870	53.5	-2.72	0.84	-1.31	28.087	25.415	0.84	-10.38
1880	59.6	-2.25	1.7	-0.45	31.641	27.956	1.7	-10.12
1890	59.18	-2.28	2.04	-0.11	32.128	27.047	2.04	-10.03
1900	55.22	-2.58	1.94	-0.21	30.914	24.307	1.94	-9.93

无源测试数据

Passive test data

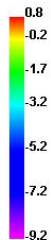
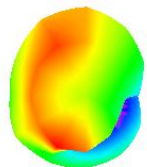
MAIN ANT GAIN&Efficiency-(1910-2170)

1910	50.77	-2.94	1.82	-0.33	29.111	21.656	1.82	-9.58
1920	54.79	-2.61	2.27	0.12	32.213	22.582	2.27	-8.55
1930	56.18	-2.5	2.54	0.39	33.489	22.689	2.54	-8.18
1940	51.88	-2.85	2.21	0.06	31.396	20.482	2.21	-8.54
1950	52.34	-2.81	2.17	0.02	31.94	20.404	2.17	-8.94
1960	48.82	-3.11	1.92	-0.23	30.175	18.644	1.92	-9.78
1970	46.26	-3.35	1.69	-0.46	29.028	17.231	1.69	-10.78
1980	49.49	-3.06	1.99	-0.16	31.508	17.978	1.99	-10.6
1990	44.79	-3.49	1.59	-0.56	28.818	15.975	1.59	-10.72
2000	46.13	-3.36	1.69	-0.46	29.661	16.467	1.69	-10.34
2010	49.09	-3.09	1.89	-0.26	31.209	17.882	1.89	-10.11
2020	50.72	-2.95	1.84	-0.31	31.889	18.834	1.84	-10.39
2030	48.93	-3.1	1.49	-0.66	30.693	18.234	1.49	-11.11
2040	45.27	-3.44	0.94	-1.21	28.791	16.475	0.94	-11.97
2050	51.83	-2.85	1.43	-0.72	33.511	18.316	1.43	-11.57
2060	49.41	-3.06	1.09	-1.06	32.563	16.851	1.09	-11.53
2070	44.43	-3.52	0.52	-1.63	29.479	14.953	0.52	-13.86
2080	44.4	-3.53	0.33	-1.82	29.466	14.937	0.33	-15.79
2090	51.57	-2.88	0.75	-1.4	33.731	17.839	0.75	-14.54
2100	56.47	-2.48	0.86	-1.29	36.291	20.184	0.86	-12.58
2110	51.24	-2.9	0.17	-1.98	32.293	18.944	0.17	-11.88
2120	48.19	-3.17	-0.4	-2.55	30.169	18.017	-0.4	-13.07
2130	45.13	-3.45	-0.87	-3.02	28.333	16.801	-0.87	-13.44
2140	50.71	-2.95	-0.42	-2.57	32.273	18.434	-0.42	-12.79
2150	48.34	-3.16	-0.35	-2.5	31.226	17.112	-0.35	-12.51
2160	45.39	-3.43	-0.54	-2.69	29.82	15.574	-0.54	-13.3
2170	45.06	-3.46	-0.48	-2.63	29.777	15.287	-0.48	-13.6

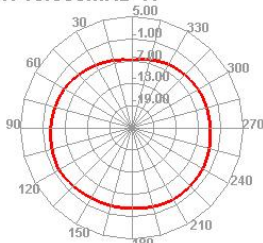
无源测试数据 Passive test data

MAIN ANT Direction of figure(1700-2170)

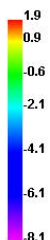
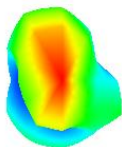
1710.000MHz



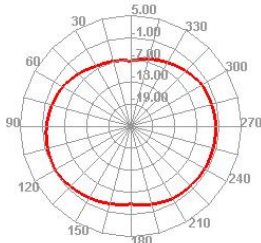
1710.000MHz H



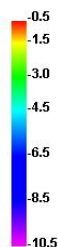
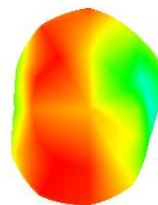
1900.000MHz



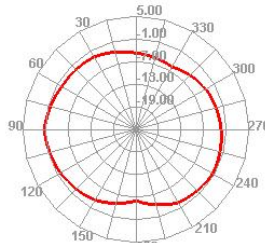
1900.000MHz H



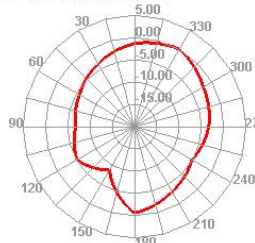
2170.000MHz



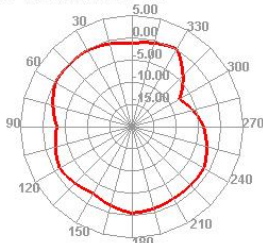
2170.000MHz H



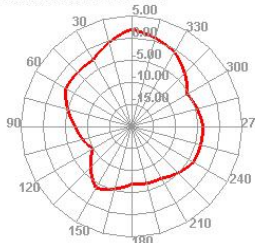
1710.000MHz E1



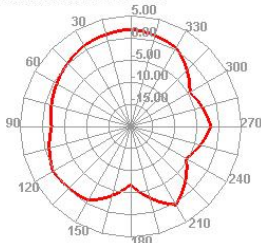
1710.000MHz E2



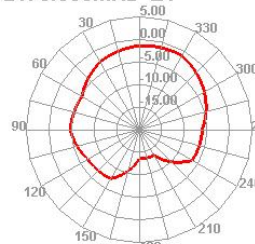
1900.000MHz E1



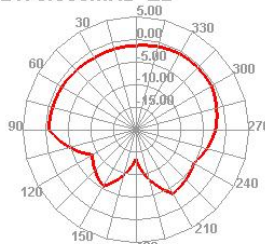
1900.000MHz E2



2170.000MHz E1



2170.000MHz E2



无源测试数据

Passive test data

MAIN ANT GAIN&Efficiency-(2300-2500)

Passive Test For 高频								
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)
2300	44.67	-3.5	0.38	-1.77	28.22	16.451	0.38	-17.14
2310	48.61	-3.13	0.95	-1.2	31.14	17.47	0.95	-17.48
2320	49.41	-3.06	1.22	-0.93	32.038	17.368	1.22	-18.63
2330	46.7	-3.31	1.04	-1.11	30.383	16.321	1.04	-19.37
2340	48.9	-3.11	1.25	-0.9	31.573	17.332	1.25	-18.49
2350	53.58	-2.71	1.64	-0.51	34.199	19.382	1.64	-17.55
2360	51.17	-2.91	1.44	-0.71	32.289	18.881	1.44	-17.75
2370	49.42	-3.06	1.25	-0.9	31.016	18.402	1.25	-18.67
2380	51.23	-2.9	1.32	-0.83	32.17	19.064	1.32	-20.34
2390	52.49	-2.8	1.33	-0.82	32.791	19.699	1.33	-21.98
2400	52.39	-2.81	1.23	-0.92	32.709	19.681	1.23	-21.56
2410	54.88	-2.61	1.5	-0.65	34.34	20.543	1.5	-20.34
2420	56.5	-2.48	1.73	-0.42	35.573	20.922	1.73	-19.27
2430	54.96	-2.6	1.73	-0.42	34.756	20.209	1.73	-19.38
2440	56.15	-2.51	1.84	-0.31	35.27	20.881	1.84	-19.71
2450	61.32	-2.12	2.25	0.1	38.188	23.133	2.25	-19.7
2460	64.01	-1.94	2.34	0.19	39.519	24.491	2.34	-18.29
2470	58.72	-2.31	1.92	-0.23	36.147	22.569	1.92	-17.27
2480	60.36	-2.19	2.21	0.06	37.023	23.342	2.21	-16.45
2490	63.84	-1.95	2.55	0.4	38.526	25.31	2.55	-16.39
2500	61.15	-2.14	2.49	0.34	36.278	24.87	2.49	-16.69

无源测试数据

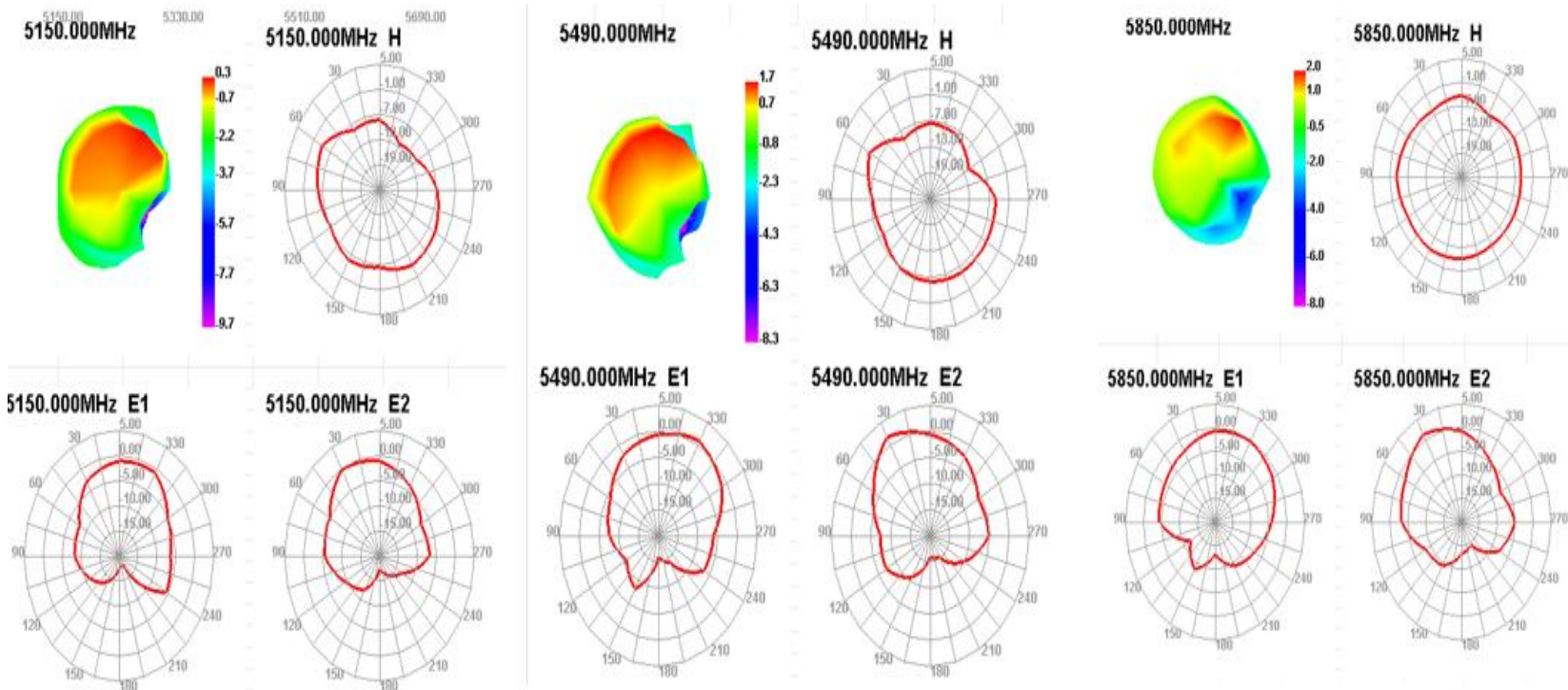
Passive test data

MAIN ANT GAIN&Efficiency-51500-5850)

Passive Test For WIFI5G												
Freq (MHz)	Effi (%)	Effi (dBi)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	irectivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
5150	12.83	-6.41	0.29	-1.86	7.047	5.784	0.29	-20.86	6.71	60	49.82	49.4
5170	14.42	-6.12	0.52	-1.63	8.373	6.049	0.52	-21.36	6.64	60	50.13	49.77
5190	14.47	-6.11	0.39	-1.76	8.246	6.223	0.39	-21.25	6.5	60	50.42	49.95
5210	18.91	-5.39	0.93	-1.22	11.506	7.402	0.93	-18.97	6.32	60	50.88	50.49
5230	16.15	-5.82	0.46	-1.69	9.708	6.446	0.46	-19.8	6.28	60	50.42	50.08
5250	20.3	-5.19	1.08	-1.07	13.142	7.159	1.08	-19.35	6.27	60	51.02	50.72
5270	19.37	-5.32	0.82	-1.33	12.382	6.983	0.82	-23.53	6.15	60	50.85	50.6
5290	21.76	-4.98	1.24	-0.91	13.941	7.818	1.24	-21.25	6.22	60	51.34	51.12
5310	19.36	-5.32	0.93	-1.22	12.172	7.187	0.93	-19.8	6.25	90	50.44	50.36
5330	19.46	-5.31	1.06	-1.09	12.561	6.894	1.06	-21.01	6.37	90	51.08	51.01
5350	20.6	-5.14	1.26	-0.89	13.576	7.022	1.26	-23.49	6.4	90	51.02	51.01
5370	19.3	-5.33	1.05	-1.1	12.234	7.067	1.05	-22.48	6.38	90	50.91	50.95
5390	17.55	-5.6	0.83	-1.32	10.656	6.891	0.83	-21.21	6.42	90	50.46	50.43
5410	21.54	-5.01	1.56	-0.59	13.889	7.649	1.56	-20.74	6.57	90	51.18	51.09
5430	19.86	-5.25	1.56	-0.59	12.943	6.916	1.56	-20.29	6.81	90	50.69	50.7
5450	20.89	-5.1	1.71	-0.44	13.703	7.19	1.71	-21.37	6.82	90	50.71	50.85
5470	21.02	-5.08	1.64	-0.51	13.458	7.565	1.64	-19.82	6.73	60	50.93	50.83
5490	20.15	-5.21	1.73	-0.42	12.803	7.346	1.73	-18.98	6.93	60	50.92	50.79
5510	22.34	-4.9	2.13	-0.02	14.844	7.497	2.13	-19.09	7.04	60	51.18	51.16
5530	21.58	-5.01	2.04	-0.11	14.362	7.217	2.04	-20.12	7.05	60	51.44	51.3
5550	24.89	-4.57	2.46	0.31	16.711	8.182	2.46	-21.13	7.04	60	51.89	51.76
5570	21.15	-5.07	1.85	-0.3	13.632	7.517	1.85	-22.73	6.91	60	51.42	51.33
5590	22.68	-4.86	2.03	-0.12	14.906	7.771	2.03	-21.93	6.89	60	51.71	51.76
5610	19.56	-5.29	1.68	-0.47	12.637	6.921	1.68	-22.87	6.97	60	51.17	51.22
5630	21.69	-4.99	1.98	-0.17	14.226	7.466	1.98	-21.95	6.97	60	51.78	51.77
5650	19.56	-5.29	1.72	-0.43	12.523	7.033	1.72	-20.53	7.01	60	51.47	51.55
5670	19.35	-5.32	1.62	-0.53	12.378	6.975	1.62	-20.53	6.95	60	52.12	52.28
5690	18.92	-5.39	1.69	-0.46	12.121	6.795	1.69	-20.15	7.08	60	52.12	52.25
5710	16.27	-5.8	1.16	-0.99	9.983	6.291	1.16	-19.85	6.97	60	51.95	52.05
5730	21.05	-5.08	1.95	-0.2	13.516	7.533	1.95	-18.89	7.03	60	51.59	51.69
5750	16.26	-5.81	1.48	-0.67	9.817	6.445	1.48	-19.92	7.28	60	51.12	51.15
5770	20.14	-5.21	2.19	0.04	12.826	7.31	2.19	-18.68	7.4	60	51.02	51.06
5790	17.08	-5.67	1.67	-0.48	10.518	6.561	1.67	-19.41	7.34	60	51.08	51.16
5810	20.41	-5.17	1.85	-0.3	12.955	7.45	1.85	-20.24	7.02	90	51.36	51.43
5830	19.83	-5.25	1.57	-0.58	12.36	7.472	1.57	-19.3	6.82	90	51.65	51.66
5850	23.83	-4.71	2.05	-0.1	15.277	8.549	2.05	-17.45	6.75	90	51.88	52.05

无源测试数据 Passive test data

MAIN ANT Direction of figure(5150-5850)



合作共赢

