



深圳市星源创科技有限公司
SHENZHEN Xingyuanchuang TECHNOLOGY CO., LTD

天线规格书

Antenna Specification

TC: 今视通

MN: JST-E33P-21.5

RF: 戴进平

MD: 黄清清

MP: 19918388579

Address: Tangwei Stock Business Building, Tangwei Community, Fuhai Street, Bao'an District, Shenzhen

Date: 2023. 8. 28

REV :V1.0

测试信息

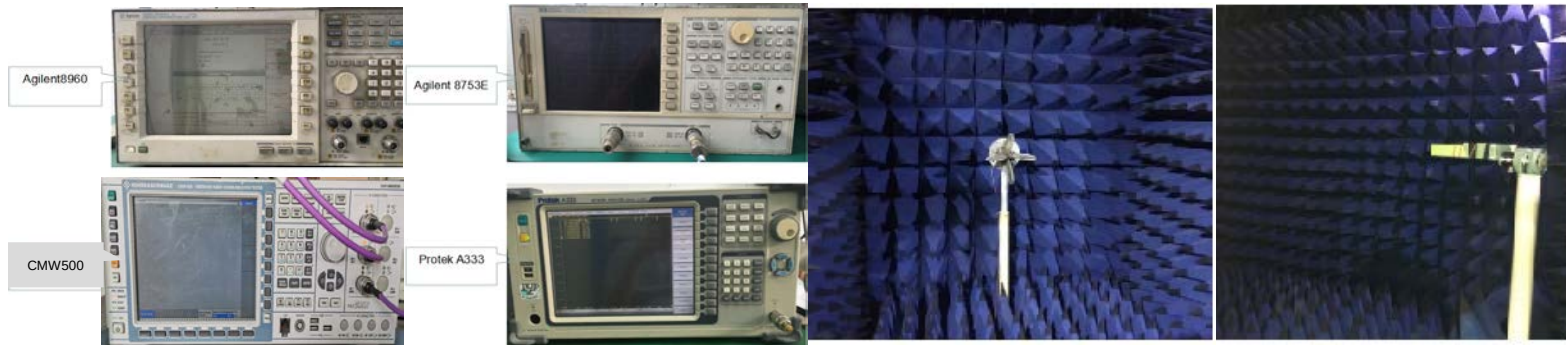
Test information

主天线	频段		天线状态	天线形式	匹配改动	料号
	2G					
	3G					
	4G					
AUX天线	BT/WIFI	2400MHZ/5G MHZ	FPC	PIFA		
	GPS					
	DIV					
其它	LTE小板					
	G/W/B 小板					

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





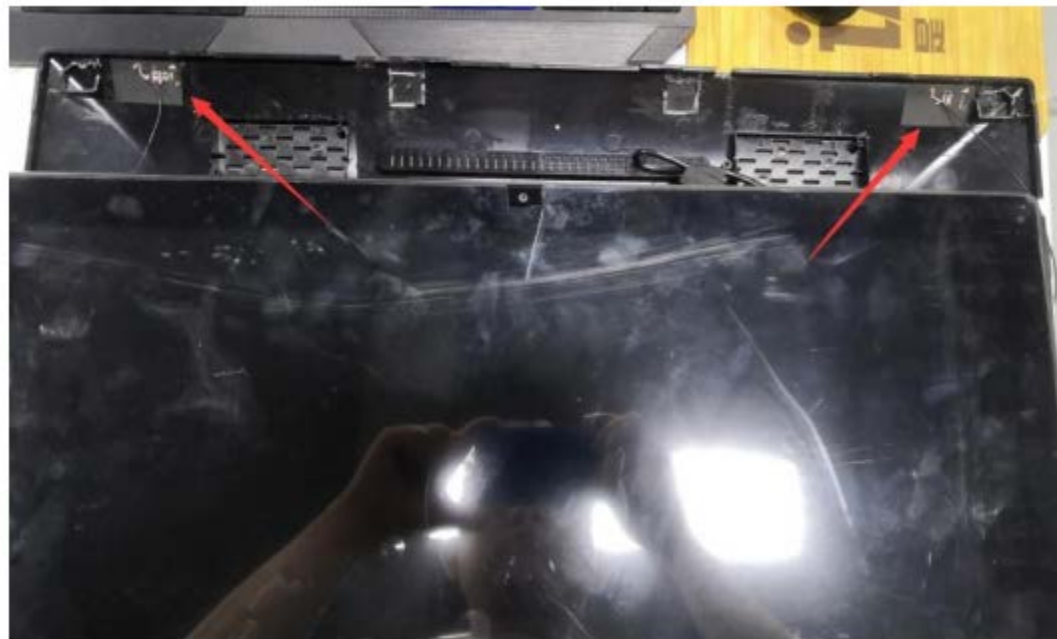
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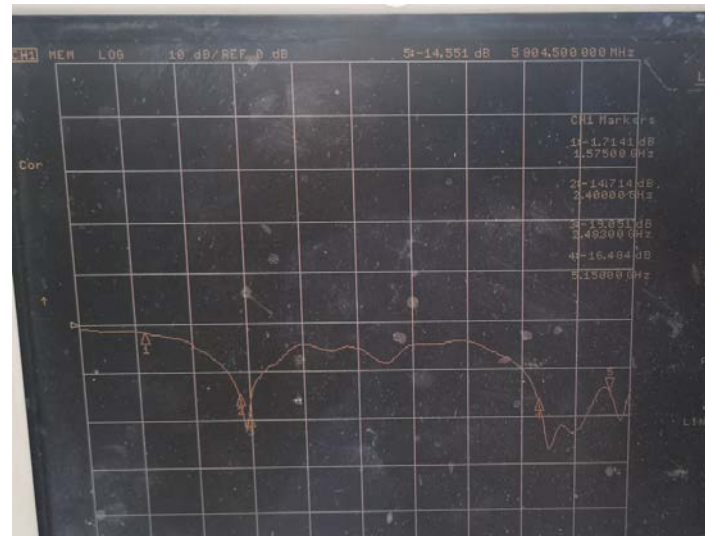
天线位置

Antenna position



无源测试数据 Passive test data

ANT1 S11-VSWR&Return Loss



Frequency (MHZ)	2400		2483	5150	5500	5850
VSWR	1.45		1.26	1.55		1.46
Return Loss (DB)	-14.70		-19.05	-16.48		-14.51

天线测试报告	802.11G		
Channel	CH1	CH 6	CH11
Max Power(dBm)	14.6	14.7	14.3
Sensitivity(dBm)			

天线测试报告	802.11B		
Channel	CH1	CH 6	CH11
Max Power(dBm)	15.7	15.9	15.3
Sensitivity(dBm)			

天线测试报告	802.11an		
Channel	CH36	CH 60	CH161
Max Power(dBm)	8.14	13.21	13.7
Sensitivity(dBm)			-66

天线测试报告	802.11a		
Channel	CH36	CH 60	CH161
Max Power(dBm)	8.14	14.4	15.1
Sensitivity(dBm)			-73

无源测试数据
Passive test data

ANT1 GAIN&Efficiency-WIFI2.4G/BT

Passive Test For WIFI2.4												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Directivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
2400	58.4	-2.34	1.91	-0.24	30.306	28.094	1.91	-7.49	4.25	0	45.78	46.01
2410	55.53	-2.55	1.72	-0.43	28.528	27.002	1.72	-8.73	4.27	30	46.01	46.29
2420	56.95	-2.44	2.04	-0.11	28.927	28.028	2.04	-8.84	4.49	30	45.73	46
2430	56.99	-2.44	2.09	-0.06	28.7	28.295	2.09	-8.96	4.53	0	46.01	46.36
2440	58.44	-2.33	2.27	0.12	29.242	29.201	2.27	-7.76	4.6	0	46.12	46.48
2450	58.34	-2.34	2.14	-0.01	29.223	29.119	2.14	-7.4	4.49	0	46.12	46.54
2460	57.34	-2.42	1.99	-0.16	28.931	28.413	1.99	-7.58	4.4	0	46.14	46.52
2470	60.41	-2.19	1.98	-0.17	30.749	29.664	1.98	-7.12	4.17	0	46.4	46.8
2480	61.17	-2.13	1.97	-0.18	31.245	29.927	1.97	-6.95	4.1	0	46.26	46.64
2490	58.44	-2.33	1.6	-0.55	29.836	28.607	1.6	-7.32	3.94	0	46.51	46.91
2500	54.82	-2.61	1.4	-0.75	27.944	26.873	1.4	-7.96	4.01	60	46.47	46.86



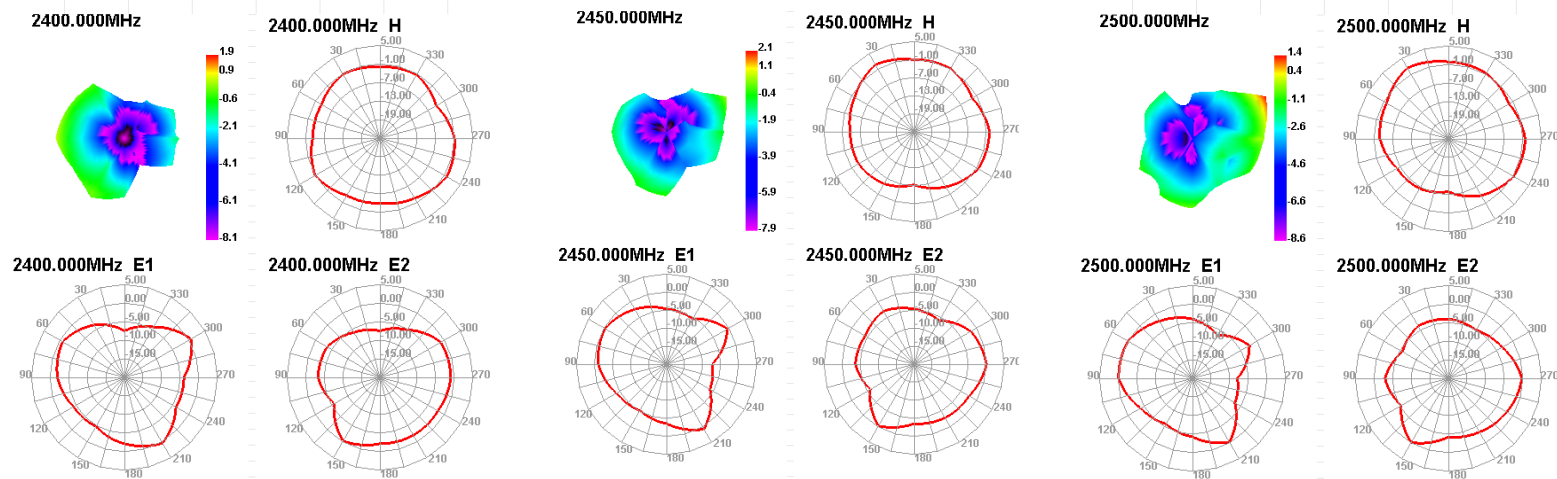
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无源测试数据
Passive test data

ANT1 Direction of figure(2.4/BT)



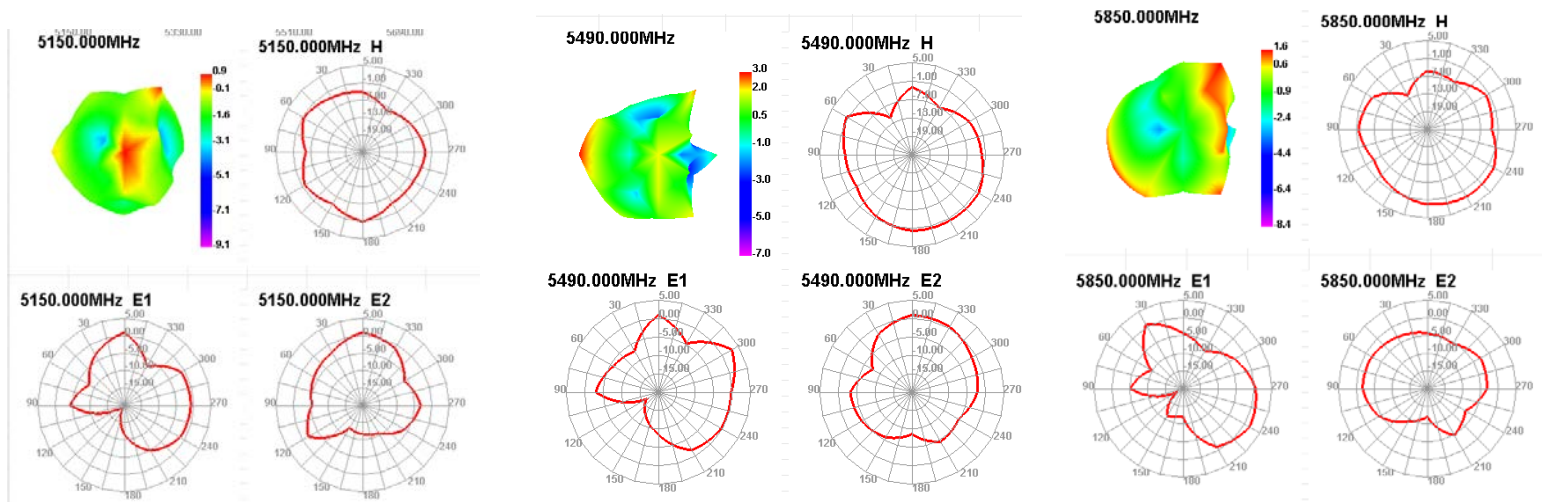
无源测试数据 Passive test data

ANT1 GAIN&Efficiency-WIFI 5G

Passive Test For WIFI5G												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dEd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	irectivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
5150	38.74	-4.12	0.93	-1.22	22.75	15.985	0.93	-20.13	5.05	0	49.82	49.4
5170	39.86	-4	0.8	-1.35	23.351	16.504	0.8	-19.61	4.8	0	50.13	49.77
5190	40.11	-3.97	0.86	-1.29	23.725	16.386	0.86	-20.13	4.82	0	50.42	49.95
5210	45.07	-3.46	1.49	-0.66	26.809	18.263	1.49	-18.83	4.95	0	50.88	50.49
5230	44.16	-3.55	1.4	-0.75	26.302	17.861	1.4	-20.42	4.95	0	50.42	50.08
5250	48.44	-3.15	1.76	-0.39	28.881	19.559	1.76	-20.25	4.91	0	51.02	50.72
5270	49.29	-3.07	1.87	-0.28	29.519	19.774	1.87	-19.12	4.94	0	50.85	50.6
5290	50.07	-3	2.42	0.27	30.474	19.6	2.42	-18.28	5.42	0	51.34	51.12
5310	48.23	-3.17	2.66	0.51	29.605	18.629	2.66	-21.34	5.82	0	50.44	50.36
5330	48.95	-3.1	2.73	0.58	30.031	18.918	2.73	-21.52	5.84	0	51.08	51.01
5350	52.09	-2.83	2.97	0.82	31.823	20.267	2.97	-19.46	5.8	0	51.02	51.01
5370	49.7	-3.04	3.03	0.88	30.531	19.169	3.03	-19.87	6.06	0	50.91	50.95
5390	46.41	-3.33	2.94	0.79	28.663	17.75	2.94	-20.79	6.27	0	50.46	50.43
5410	53.3	-2.73	3.45	1.3	32.648	20.65	3.45	-21.08	6.18	0	51.18	51.09
5430	51.21	-2.91	3.06	0.91	30.994	20.211	3.06	-19.79	5.96	0	50.69	50.7
5450	55.38	-2.57	3.35	1.2	33.454	21.927	3.35	-17.85	5.92	0	50.71	50.85
5470	54.15	-2.66	3.32	1.17	32.76	21.395	3.32	-17.34	5.99	0	50.93	50.83
5490	53.4	-2.72	2.98	0.83	32.04	21.365	2.98	-17.29	5.71	0	50.92	50.79
5510	54.74	-2.62	2.57	0.42	32.35	22.39	2.57	-16.51	5.19	30	51.18	51.16
5530	57.76	-2.38	2.34	0.19	33.317	24.44	2.34	-16.97	4.72	60	51.44	51.3
5550	61.1	-2.14	2.09	-0.06	34.599	26.501	2.09	-16.32	4.23	60	51.89	51.76
5570	57.08	-2.44	1.68	-0.47	31.843	25.236	1.68	-15.33	4.11	60	51.42	51.33
5590	58.6	-2.32	2.27	0.12	32.057	26.547	2.27	-15.43	4.59	60	51.71	51.76
5610	56.59	-2.47	2.33	0.18	30.242	26.344	2.33	-15.58	4.81	60	51.17	51.22
5630	58.33	-2.34	2.53	0.38	30.668	27.661	2.53	-16.44	4.87	30	51.78	51.77
5650	56.01	-2.52	2.71	0.56	29.231	26.784	2.71	-17.2	5.23	30	51.47	51.55
5670	55.39	-2.57	2.68	0.53	28.832	26.56	2.68	-15.77	5.24	30	52.12	52.28
5690	56.32	-2.49	2.58	0.43	29.275	27.043	2.58	-16.71	5.07	30	52.12	52.25
5710	52.92	-2.76	2.1	-0.05	27.61	25.312	2.1	-16.51	4.86	30	51.95	52.05
5730	59.23	-2.27	2.71	0.56	31.207	28.024	2.71	-15.9	4.99	30	51.59	51.69
5750	50.77	-2.94	1.88	-0.27	27.119	23.651	1.88	-17	4.83	30	51.12	51.15
5770	55.09	-2.59	1.83	-0.32	29.843	25.252	1.83	-18.87	4.42	30	51.02	51.06
5790	49.69	-3.04	1.19	-0.96	27.191	22.501	1.19	-19.93	4.22	60	51.08	51.16
5810	53.34	-2.73	1.6	-0.55	29.554	23.787	1.6	-18.53	4.33	60	51.36	51.43
5830	49.98	-3.01	1.49	-0.66	28.102	21.878	1.49	-18.21	4.5	60	51.65	51.66
5850	55.05	-2.59	1.62	-0.53	31.411	23.643	1.62	-18.35	4.21	60	51.88	52.05

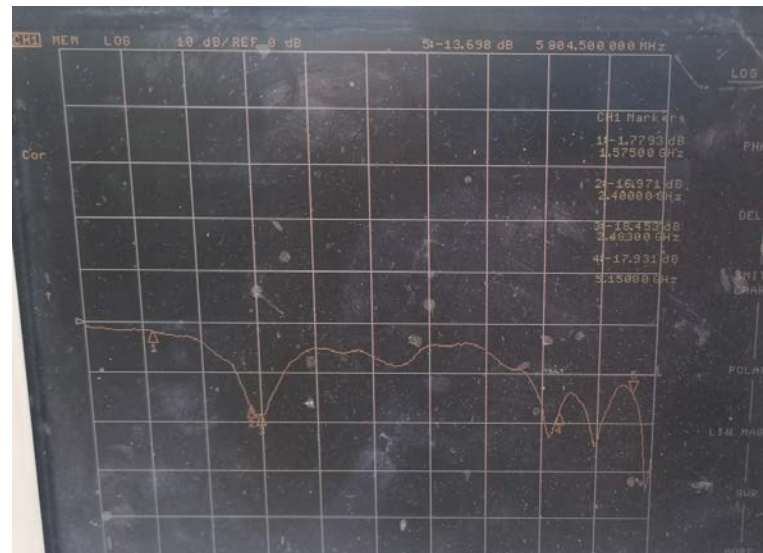
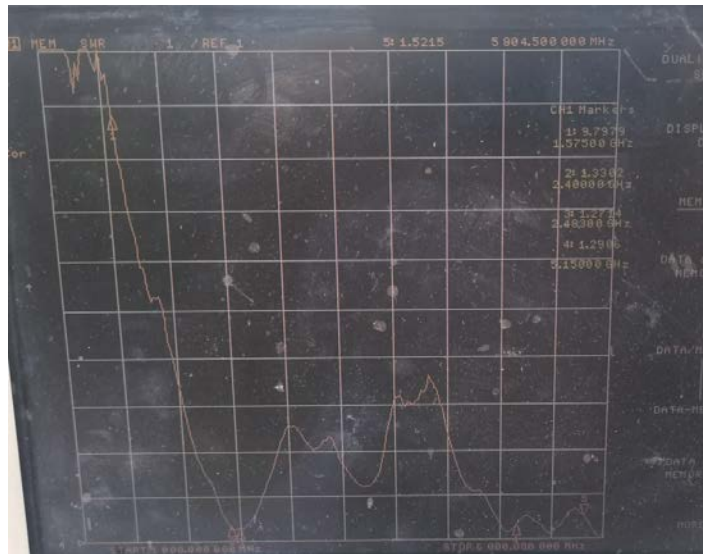
无源测试数据
Passive test data

ANT1 Direction of figure(5G)



无源测试数据
Passive test data

ANT1 S11-VSWR&Return Loss



Frequency (MHZ)	2400		2483	5150	5500	5850
VSWR	1.33		1.27	1.29		1.52
Return Loss (DB)	-16.97		-18.40	-17.93		-13.69

无源测试数据 Passive test data

ANT2 GAIN&Efficiency-WIFI2.4G/BT

Passive Test For WIFI2.4												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Directivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
2400	63.35	-1.98	1.91	-0.24	33.082	30.266	1.91	-9	3.89	60	45.78	46.01
2410	60.66	-2.17	1.68	-0.47	31.2	29.456	1.68	-8.96	3.85	30	46.01	46.29
2420	62.94	-2.01	1.8	-0.35	31.964	30.973	1.8	-8.59	3.81	30	45.73	46
2430	62.71	-2.03	1.84	-0.31	31.724	30.991	1.84	-8.57	3.87	0	46.01	46.36
2440	62.5	-2.04	1.92	-0.23	31.777	30.72	1.92	-9.23	3.97	0	46.12	46.48
2450	63.17	-2	2.06	-0.09	32.114	31.054	2.06	-9.13	4.05	0	46.12	46.54
2460	63.6	-1.97	2.09	-0.06	32.254	31.344	2.09	-8.7	4.06	0	46.14	46.52
2470	64.92	-1.88	2.11	-0.04	32.848	32.067	2.11	-7.8	3.99	30	46.4	46.8
2480	65.87	-1.81	2.12	-0.03	33.298	32.576	2.12	-7.03	3.94	30	46.26	46.64
2490	64.36	-1.91	1.83	-0.32	32.456	31.901	1.83	-7.25	3.74	30	46.51	46.91
2500	61.77	-2.09	1.71	-0.44	31.231	30.535	1.71	-8.03	3.81	30	46.47	46.86



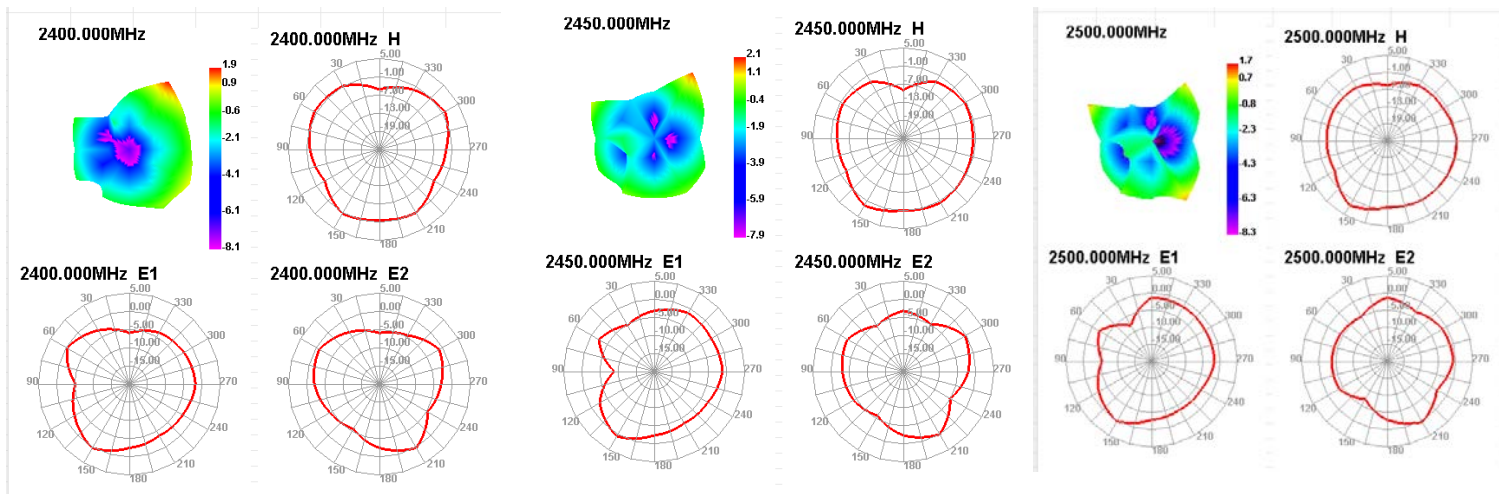
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无源测试数据
Passive test data

ANT2 Direction of figure(2.4/BT)



无源测试数据 Passive test data

ANT2 GAIN&Efficiency-WIFI 5G

Passive Test For WIFI5G												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	irectivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
5150	34.61	-4.61	-0.18	-2.33	20.792	13.815	-0.18	-14.84	4.43	0	49.82	49.4
5170	37.18	-4.3	0.04	-2.11	23.035	14.146	0.04	-15.46	4.33	30	50.13	49.77
5190	37.96	-4.21	0.47	-1.68	23.628	14.333	0.47	-14.78	4.68	0	50.42	49.95
5210	43.59	-3.61	1.04	-1.11	26.48	17.107	1.04	-13.84	4.64	0	50.88	50.49
5230	40.38	-3.94	0.68	-1.47	24.184	16.192	0.68	-13.82	4.62	0	50.42	50.08
5250	47.19	-3.26	1.65	-0.5	28.499	18.692	1.65	-12.61	4.91	0	51.02	50.72
5270	47.77	-3.21	2.01	-0.14	29.004	18.768	2.01	-13.24	5.21	0	50.85	50.6
5290	50.78	-2.94	2.61	0.46	31.005	19.772	2.61	-13.96	5.55	0	51.34	51.12
5310	46.97	-3.28	2.39	0.24	29.061	17.906	2.39	-14.6	5.68	0	50.44	50.36
5330	48.44	-3.15	2.42	0.27	30.143	18.295	2.42	-15.46	5.56	0	51.08	51.01
5350	50.55	-2.96	2.28	0.13	31.002	19.543	2.28	-15.6	5.24	90	51.02	51.01
5370	48.35	-3.16	1.69	-0.46	29.223	19.125	1.69	-14.97	4.84	90	50.91	50.95
5390	44.07	-3.56	0.81	-1.34	26.684	17.387	0.81	-15.12	4.37	180	50.46	50.43
5410	52.86	-2.77	2.03	-0.12	32.335	20.529	2.03	-12.82	4.8	180	51.18	51.09
5430	48.63	-3.13	1.62	-0.53	29.689	18.939	1.62	-13.69	4.75	90	50.69	50.7
5450	53.76	-2.7	1.94	-0.21	32.418	21.34	1.94	-13.59	4.64	90	50.71	50.85
5470	51.23	-2.9	1.82	-0.33	30.487	20.743	1.82	-13.79	4.72	90	50.93	50.83
5490	53.11	-2.75	2.11	-0.04	31.538	21.568	2.11	-14.08	4.86	90	50.92	50.79
5510	53.82	-2.69	2.31	0.16	31.997	21.827	2.31	-14.92	5	90	51.18	51.16
5530	57.23	-2.42	2.78	0.63	33.966	23.267	2.78	-16.58	5.2	90	51.44	51.3
5550	59.44	-2.26	3.08	0.93	35.144	24.3	3.08	-16.45	5.34	90	51.89	51.76
5570	57.77	-2.38	2.91	0.76	34.22	23.547	2.91	-15.96	5.3	90	51.42	51.33
5590	59.15	-2.28	2.6	0.45	34.977	24.178	2.6	-16.15	4.88	30	51.71	51.76
5610	57.55	-2.4	1.94	-0.21	33.517	24.03	1.94	-17.96	4.34	60	51.17	51.22
5630	59.44	-2.26	1.84	-0.31	34.057	25.386	1.84	-20.64	4.1	90	51.78	51.77
5650	57.42	-2.41	1.94	-0.21	32.793	24.624	1.94	-24.16	4.35	60	51.47	51.55
5670	58.21	-2.35	2.34	0.19	33.123	25.085	2.34	-23.27	4.69	60	52.12	52.28
5690	58.13	-2.36	1.94	-0.21	32.605	25.521	1.94	-21.06	4.3	90	52.12	52.25
5710	56.08	-2.51	1.41	-0.74	31.064	25.016	1.41	-19.89	3.93	90	51.95	52.05
5730	61.6	-2.1	1.92	-0.23	34.17	27.431	1.92	-19.45	4.02	90	51.59	51.69
5750	53.53	-2.71	1.62	-0.53	29.887	23.642	1.62	-18.59	4.34	90	51.12	51.15
5770	56.8	-2.46	1.85	-0.3	31.757	25.041	1.85	-17.13	4.31	90	51.02	51.06
5790	50.96	-2.93	1.45	-0.7	27.965	23	1.45	-20.14	4.38	90	51.08	51.16
5810	53.98	-2.68	1.94	-0.21	29.401	24.581	1.94	-20.86	4.62	90	51.36	51.43
5830	50.98	-2.93	1.9	-0.25	28.116	22.86	1.9	-21.03	4.82	90	51.65	51.66
5850	54.16	-2.66	2.42	0.27	30.144	24.019	2.42	-20.59	5.08	90	51.88	52.05



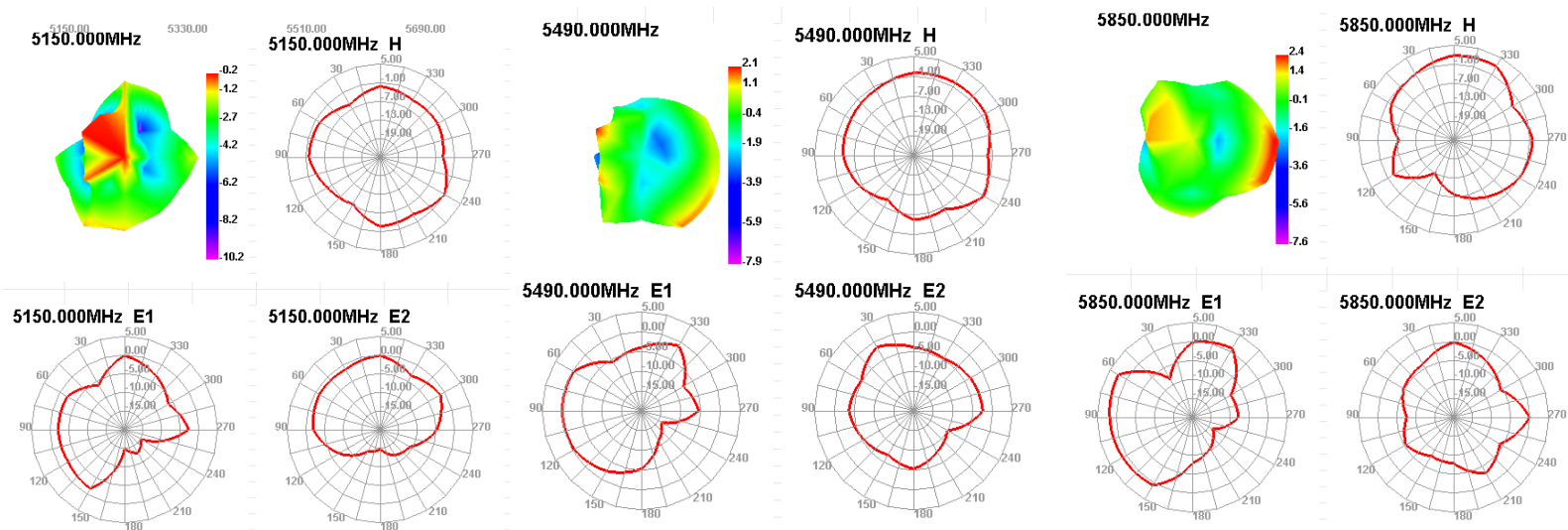
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无源测试数据
Passive test data

ANT2 Direction of figure(5G)





深圳市星源创科技有限公司

SHENZHEN Xingyuanchuang TECHNOLOGY CO., LTD

环境处理

Environmental treatment

合作 共赢



WiFi Antenna Size (mm) :

