



深圳市星源创科技有限公司

SHENZHEN Xingyuanchuang TECHNOLOGY CO., LTD

天线测试报告

Antenna Test Report

TC: 美迪飞

MN: T5

RF: 刘磊确

MD: 黄清清

MP: 13005478517

Date: 2025. 9. 25

REV :V1. 0



ANTENNA

深圳市星源创科技有限公司

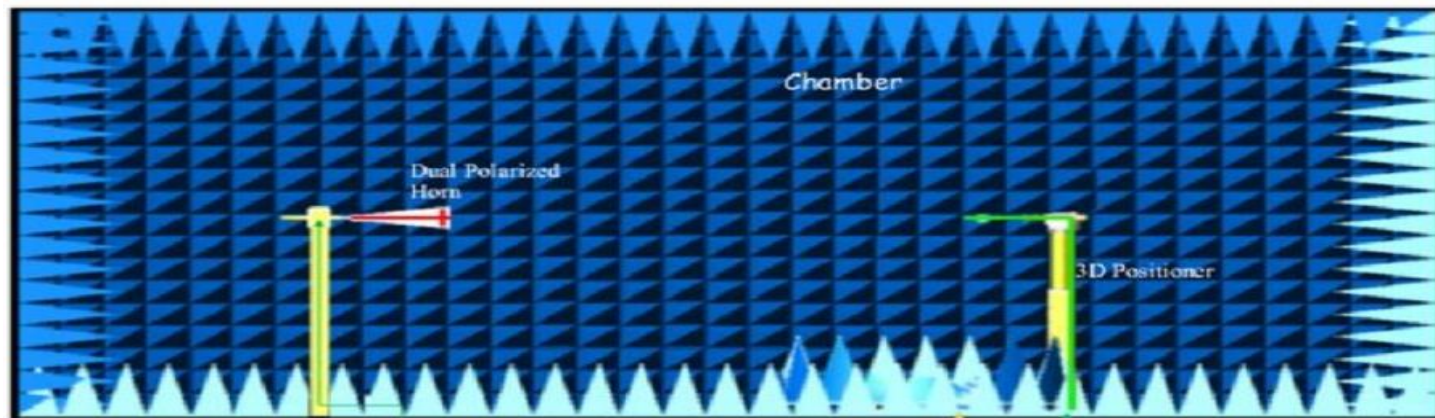
SHENZHEN Xingyuanchuang TECHNOLOGY CO., LTD

测试信息

Test information

Antenna band		Antenna state	Antenna form	Match changes	Note
Main ANT	2G	FPC	PIFA	NO	
	3G				
	4G				
AUX ANT	BT/WIFI	2.4/5G	FPC	PIFA	NO
	GPS	1.575G	FPC	PIFA	NO
	DIV		FPC	PIFA	NO

OTA Chamber Overview

0.1~12.5Ghz
RF Switch BoxWireless
Communications
Test Set 1Wireless
Communications
Test Set 2Network
Analyzer

Standard	
Passive	Agilent HP8753/E5062/E5071
GSM	Agilent 8960
CDMA2000	Agilent 8960
WCDMA	Agilent 8960
TDSCDMA	Agilent 8960
LTE	RS CMW500
BT	RS CMU500/200
WIFI	Agilent N4010

RF Link

GPIB Link

Optical Link

Serial Link



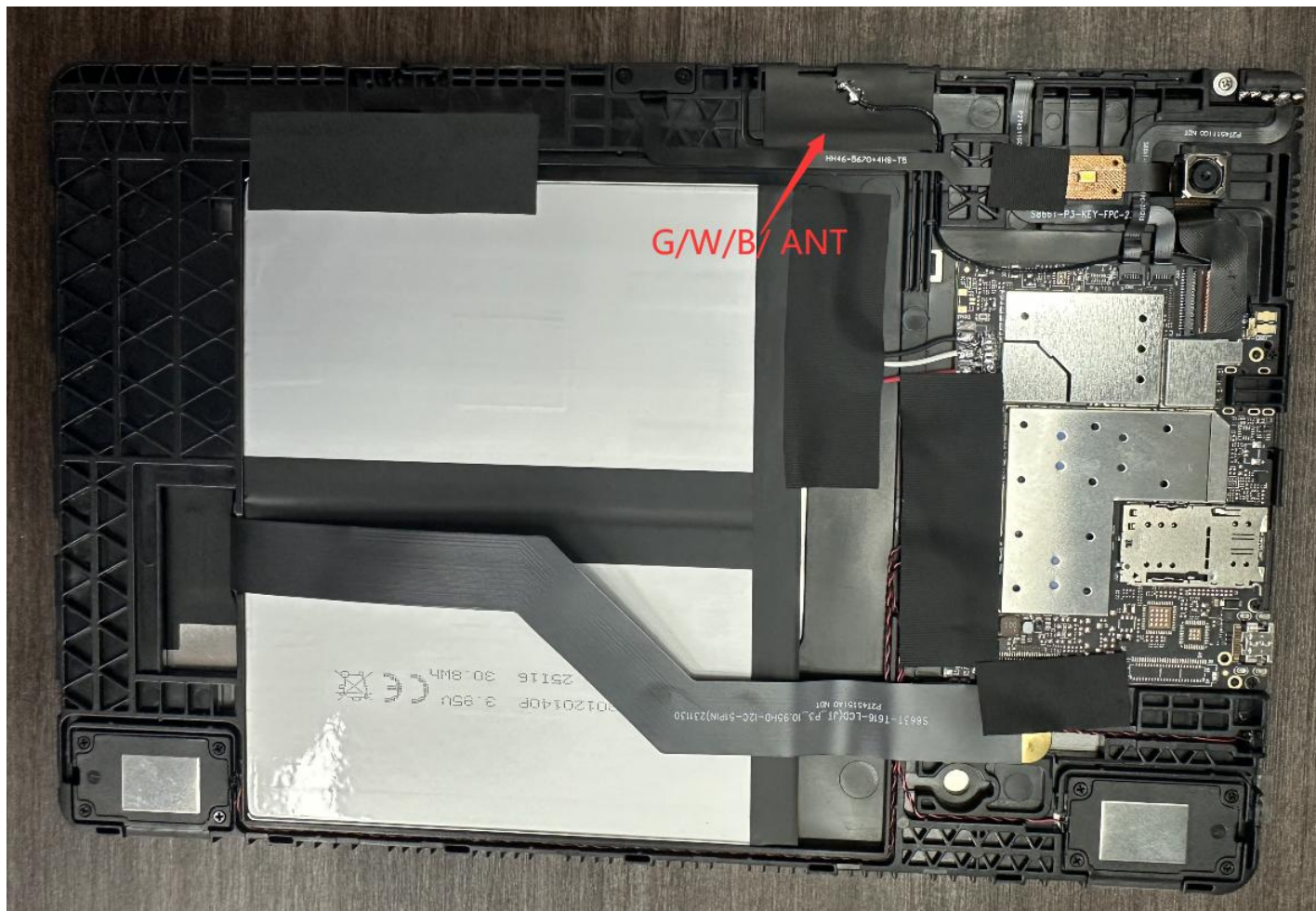
ANTENNA

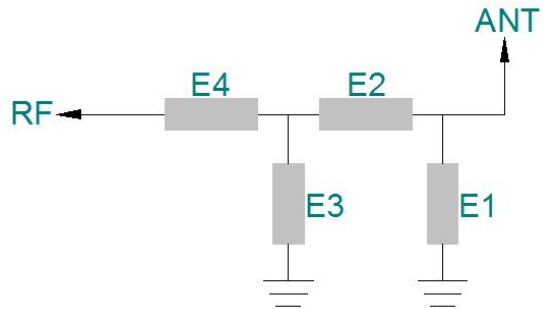
深圳市星源创科技有限公司

SHENZHEN Xingyuanchuang TECHNOLOGY CO., LTD

天线位置

Antenna position





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

匹配电路原理图&位号图

主板传导测试数据

T5-A

802.11b	Frequency	TRP		TIS	
	2412	CH1 11Mbps	15.05	CH1 11Mbps	-86
	2437	CH6 11Mbps	18.65	CH6 11Mbps	-86
	2467	CH11 11Mbps	16.09	CH11 11Mbps	-86
802.11g		TRP		TIS	
	2412	CH1 54Mbps	13.03	CH1 54Mbps	-75
	2437	CH6 54Mbps	15.69	CH6 54Mbps	-75
	2467	CH11 54Mbps	13.51	CH11 54Mbps	-75
802.11a		TRP		TIS	
	5180	CH36 6Mbps	11.18	CH36 54Mbps	-75
	5300	CH60 6Mbps	11.3	CH60 54Mbps	-75
	5805	CH161 6Mbps	11.61	CH161 54Mbps	-75
802.11g/n		TRP		TIS	
	2412	CH1 MCS7	13.05	CH1 MCS7	-69
	2437	CH6 MCS7	16	CH6 MCS7	-70
	2467	CH11 MCS7	13.67	CH11 MCS7	-69

备注：以上传导数据未加线损

主板传导测试数据

T5-B

802.11b	Frequency	TRP		TIS	
	2412	CH1 11Mbps	15.85	CH1 11Mbps	-86
	2437	CH6 11Mbps	18.75	CH6 11Mbps	-87
	2467	CH11 11Mbps	16.52	CH11 11Mbps	-86
802.11g		TRP		TIS	
	2412	CH1 54Mbps	13.66	CH1 54Mbps	-75
	2437	CH6 54Mbps	15.72	CH6 54Mbps	-75
	2467	CH11 54Mbps	13.57	CH11 54Mbps	-75
802.11a		TRP		TIS	
	5180	CH36 6Mbps	11.48	CH36 54Mbps	-75
	5300	CH60 6Mbps	11.85	CH60 54Mbps	-75
	5805	CH161 6Mbps	11.82	CH161 54Mbps	-75
802.11g/n		TRP		TIS	
	2412	CH1 MCS7	13.79	CH1 MCS7	-69
	2437	CH6 MCS7	15.67	CH6 MCS7	-69
	2467	CH11 MCS7	13.56	CH11 MCS7	-69

备注：以上传导数据未加线损

T5-A

802.11b	Frequency	TRP		TIS	
	2412	CH1 11Mbps	13.29	CH1 11Mbps	-83.45
	2437	CH6 11Mbps	16.76	CH6 11Mbps	-83.54
	2467	CH11 11Mbps	14.2	CH11 11Mbps	-83.19
802.11g		TRP		TIS	
	2412	CH1 54Mbps	11.58	CH1 54Mbps	-73.07
	2437	CH6 54Mbps	14.03	CH6 54Mbps	-72.62
	2467	CH11 54Mbps	11.24	CH11 54Mbps	-72.62
802.11a		TRP		TIS	
	5180	CH36 6Mbps	9.98	CH36 54Mbps	-72.96
	5300	CH60 6Mbps	9.14	CH60 54Mbps	-72.43
	5805	CH161 6Mbps	9.33	CH161 54Mbps	-72.43
802.11g/n		TRP		TIS	
	2412	CH1 MCS7	11.51	CH1 MCS7	-67.98
	2437	CH6 MCS7	13.87	CH6 MCS7	-67.21
	2467	CH11 MCS7	11.13	CH11 MCS7	-66.13

T5-B

802.11b	Frequency	TRP		TIS	
	2412	CH1 11Mbps	13.86	CH1 11Mbps	-83.21
	2437	CH6 11Mbps	16.69	CH6 11Mbps	-83.19
	2467	CH11 11Mbps	14.14	CH11 11Mbps	-82.11
802.11g		TRP		TIS	
	2412	CH1 54Mbps	11.44	CH1 54Mbps	-73.58
	2437	CH6 54Mbps	13.85	CH6 54Mbps	-72.38
	2467	CH11 54Mbps	11.64	CH11 54Mbps	-72.21
802.11a		TRP		TIS	
	5180	CH36 6Mbps	9.98	CH36 54Mbps	-72.13
	5300	CH60 6Mbps	9.58	CH60 54Mbps	-72.12
	5805	CH161 6Mbps	9.65	CH161 54Mbps	-72.35
802.11g/n		TRP		TIS	
	2412	CH1 MCS7	11.48	CH1 MCS7	-67.61
	2437	CH6 MCS7	13.99	CH6 MCS7	-67.61
	2467	CH11 MCS7	11.7	CH11 MCS7	-66.72

GPS冷启动实测效果以下：
CN值40以上5颗
CN值35以上5+颗
实际定位10+颗

备注：
GPS搜星测试。会因时间段
及地域而存在差异。以上数
据为我司测试（空旷地带）
最佳数据





Wifi/BT天线实测

Wifi Antenna test

WIFI

测试环境：开放空间

测试工具：Wifi Analytical Assistant

测试距离：10m

信号强度：2.4G :-43dBm 5G:-48dBm

测试结果如右图

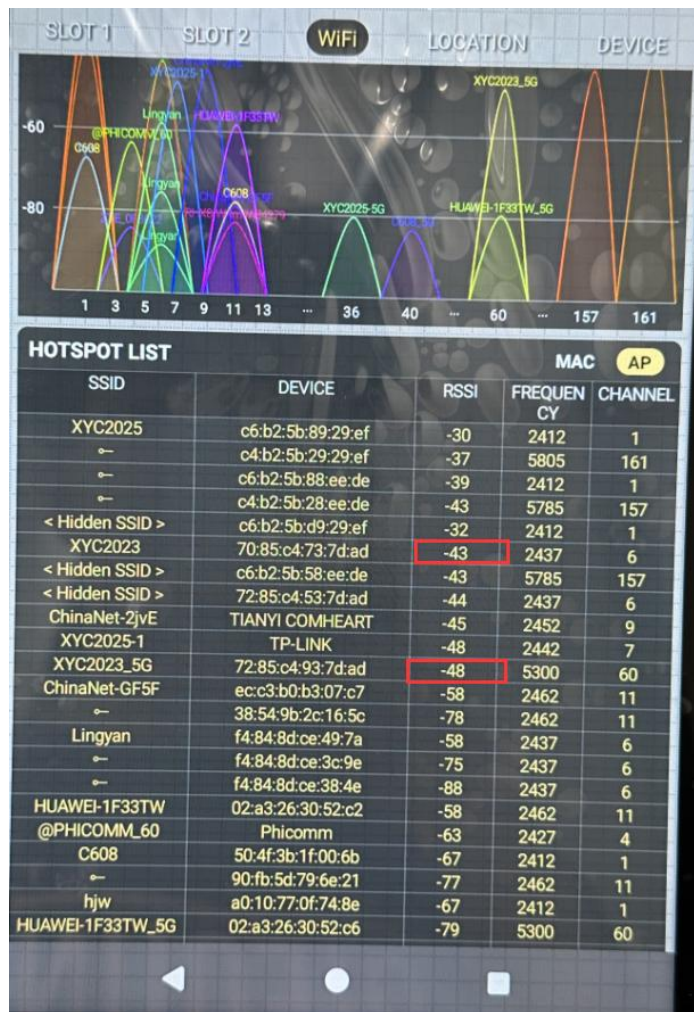
BT

测试环境：开放空间(通道)

测试工具：蓝牙音响

测试距离：10/m

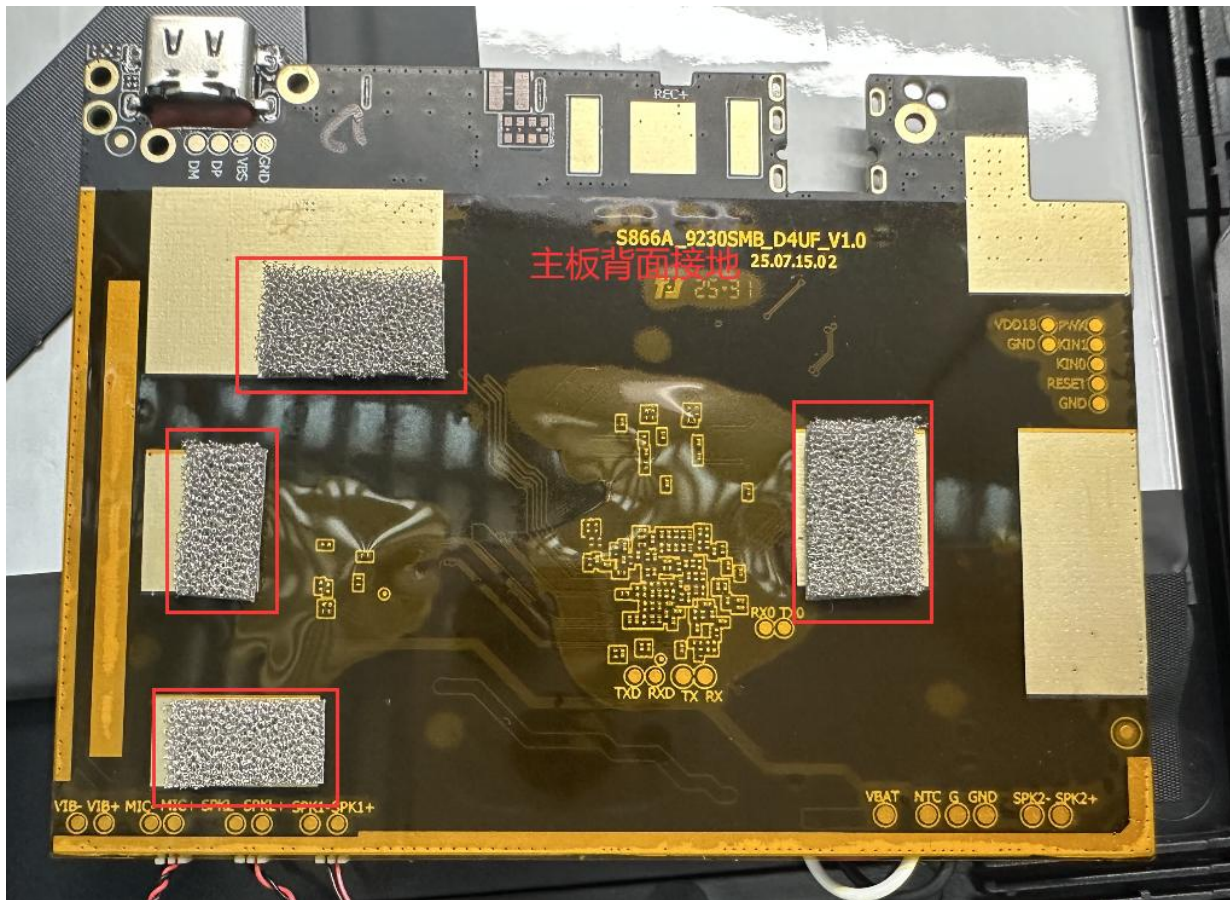
结果：播放音乐流畅，无杂音。





环境处理

Environmental treatment

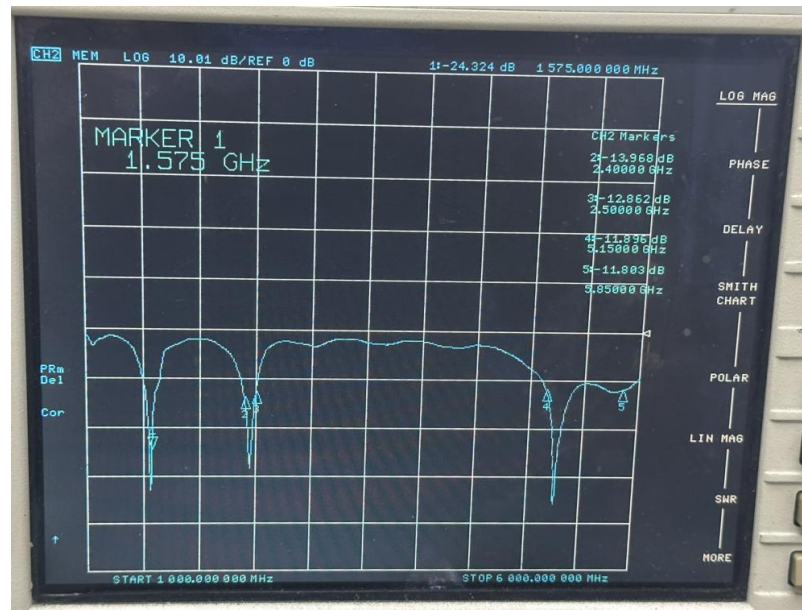




无源测试数据

Passive test data

ANT1 S11-VSWR&Return Loss



Frequency (MHZ)	1575	2400	2500	5150	5850
VSWR	1.12	1.5	1.58	1.68	1.69
Return Loss (DB)	-24.32	-13.96	-12.86	-11.89	-11.8



ANTENNA

深圳市星源创科技有限公司

SHENZHEN Xingyuanchuang TECHNOLOGY CO., LTD

无源测试数据
Passive test data

ANT1 GAIN&Efficiency-GPS

Passive Test For GPS								
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)
1560	48.36	-3.16	0.72	-1.43	23.517	24.842	0.72	-12.17
1565	49.6	-3.05	0.89	-1.26	24.149	25.451	0.89	-11.61
1570	49.33	-3.07	0.92	-1.23	24.06	25.273	0.92	-11.28
1575	49.62	-3.04	0.91	-1.24	24.122	25.5	0.91	-10.51
1580	49.55	-3.05	0.87	-1.28	23.973	25.578	0.87	-10.16



ANTENNA

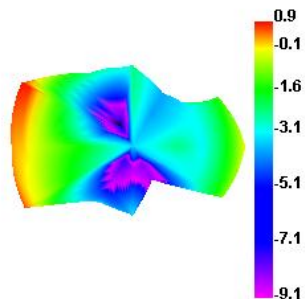
深圳市星源创科技有限公司

SHENZHEN Xingyuanchuang TECHNOLOGY CO., LTD

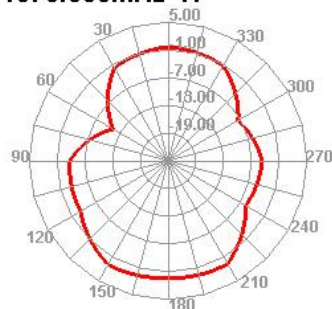
无源测试数据
Passive test data

ANT1 Direction of figure (GPS)

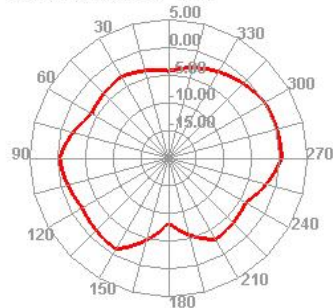
1570.000MHz



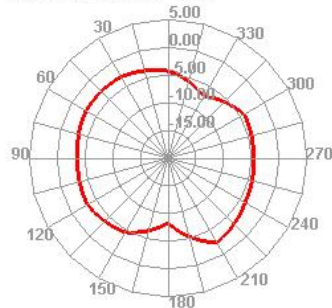
1570.000MHz H



1570.000MHz E1



1570.000MHz E2





ANTENNA

深圳市星源创科技有限公司

SHENZHEN Xingyuanchuang TECHNOLOGY CO., LTD

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)
2400	47.15	-3.26	1.3	-0.85	31.245	15.909	1.3	-15.73
2410	47.85	-3.2	1.32	-0.83	31.925	15.923	1.32	-15.38
2420	48.58	-3.14	1.32	-0.83	32.485	16.095	1.32	-14.86
2430	47.5	-3.23	1.1	-1.05	31.805	15.698	1.1	-14.68
2440	49.26	-3.08	1.25	-0.9	33.005	16.255	1.25	-14.56
2450	51.77	-2.86	1.61	-0.54	34.723	17.046	1.61	-14.29
2460	50.67	-2.95	1.54	-0.61	34.012	16.657	1.54	-14.01
2470	50.98	-2.93	1.55	-0.6	34.324	16.655	1.55	-13.57
2480	52.13	-2.83	1.79	-0.36	35.172	16.958	1.79	-12.93
2490	50.37	-2.98	1.75	-0.4	33.962	16.412	1.75	-13.69
2500	46.98	-3.28	1.48	-0.67	31.629	15.347	1.48	-14.15



ANTENNA

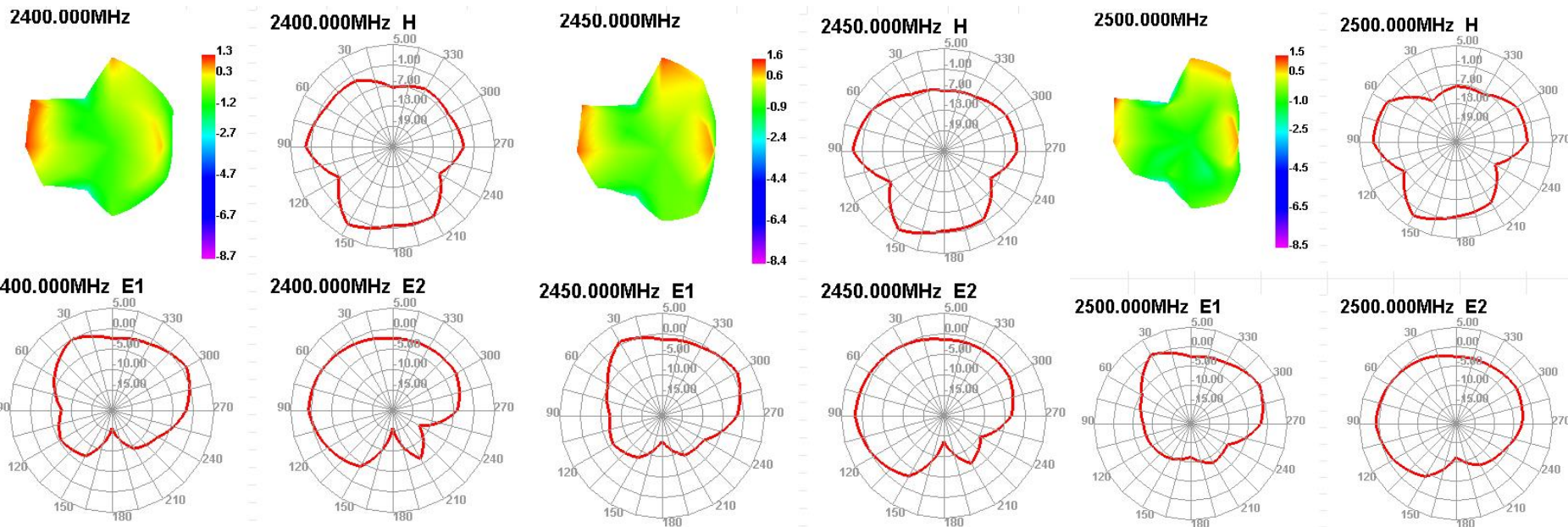
深圳市星源创科技有限公司

SHENZHEN Xingyuanchuang TECHNOLOGY CO., LTD

无源测试数据

Passive test data

ANT1 Direction of figure(2.4/BT)





ANTENNA

深圳市星源创科技有限公司

SHENZHEN Xingyuanchuang TECHNOLOGY CO.,LTD

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 (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)
5150	41.32	-3.84	3.25	1.1	28.562	12.757	3.25	-14.6
5170	42.21	-3.75	3.25	1.1	29.488	12.724	3.25	-14.89
5190	43.89	-3.58	3.45	1.3	30.899	12.993	3.45	-16.46
5210	45.09	-3.46	3.52	1.37	31.87	13.217	3.52	-17.32
5230	48.31	-3.16	3.72	1.57	34.22	14.086	3.72	-17.6
5250	39.47	-4.04	2.78	0.63	27.988	11.481	2.78	-18.1
5270	45.63	-3.41	3.57	1.42	32.482	13.149	3.57	-17.76
5290	40.48	-3.93	3.05	0.9	28.969	11.509	3.05	-19.12
5310	44.9	-3.48	3.38	1.23	32.267	12.636	3.38	-18.5
5330	40.73	-3.9	2.96	0.81	29.29	11.435	2.96	-20.15
5350	47.16	-3.26	3.61	1.46	33.981	13.183	3.61	-18.3
5370	44.03	-3.56	3.11	0.96	31.694	12.336	3.11	-18.53
5390	47.94	-3.19	3.3	1.15	34.224	13.716	3.3	-20.9
5410	53.14	-2.75	3.67	1.52	37.691	15.453	3.67	-19.05
5430	53.37	-2.73	3.6	1.45	37.717	15.656	3.6	-16.76
5450	49.59	-3.05	3.09	0.94	34.734	14.858	3.09	-16.69
5470	52.78	-2.78	3.09	0.94	36.546	16.235	3.09	-17.54
5490	52.19	-2.82	2.92	0.77	35.822	16.371	2.92	-19.74
5510	49.8	-3.03	2.78	0.63	33.943	15.859	2.78	-19.51
5530	47.27	-3.25	2.42	0.27	32.019	15.253	2.42	-17.62
5550	49.3	-3.07	2.25	0.1	32.93	16.369	2.25	-15.57
5570	49.08	-3.09	2.19	0.04	32.371	16.711	2.19	-14.23
5590	50.71	-2.95	2.26	0.11	33.192	17.52	2.26	-13.07
5610	44.41	-3.52	1.89	-0.26	28.9	15.513	1.89	-15.05
5630	51.08	-2.92	2.53	0.38	32.809	18.272	2.53	-14.32
5650	46.09	-3.36	2.02	-0.13	29.216	16.87	2.02	-14.69
5670	58.38	-2.34	3.09	0.94	36.83	21.552	3.09	-13.47
5690	44.98	-3.47	2.05	-0.1	28.194	16.786	2.05	-14.81
5710	53.36	-2.73	2.74	0.59	33.191	20.17	2.74	-14.6
5730	45.83	-3.39	1.96	-0.19	28.187	17.647	1.96	-16.06
5750	49.45	-3.06	2.27	0.12	30.359	19.09	2.27	-14.63
5770	44.12	-3.55	1.56	-0.59	26.951	17.17	1.56	-14.11
5790	42.52	-3.71	1.09	-1.06	25.709	16.811	1.09	-14.66
5810	42.02	-3.77	1.01	-1.14	25.049	16.969	1.01	-14.65
5830	43.51	-3.61	1.15	-1	25.876	17.639	1.15	-14.51
5850	41.55	-3.81	1.13	-1.02	24.647	16.9	1.13	-15.07



ANTENNA

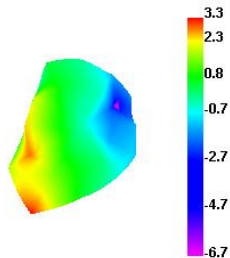
深圳市星源创科技有限公司

SHENZHEN Xingyuanchuang TECHNOLOGY CO., LTD

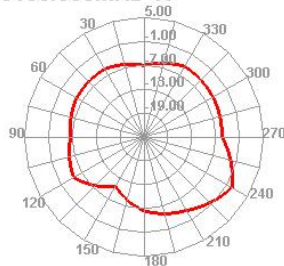
无源测试数据
Passive test data

ANT1 Direction of figure(5G)

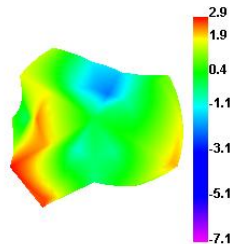
5150.000MHz



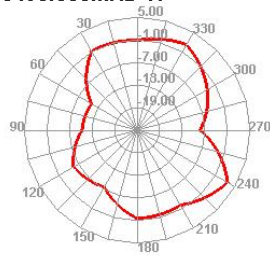
5150.000MHz H



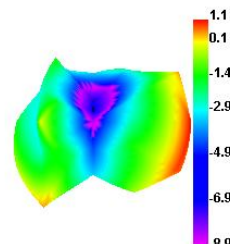
5490.000MHz



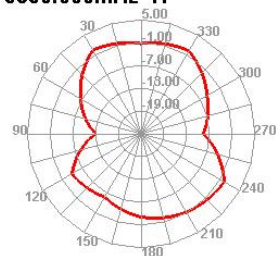
5490.000MHz H



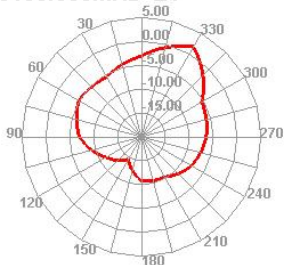
5850.000MHz



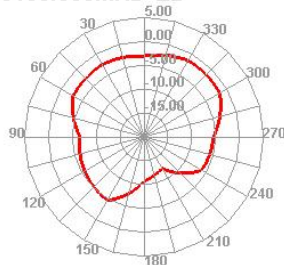
5850.000MHz H



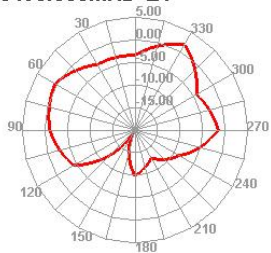
5150.000MHz E1



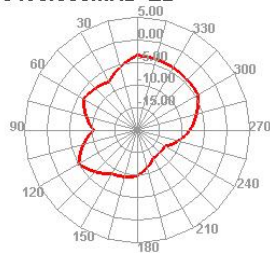
5150.000MHz E2



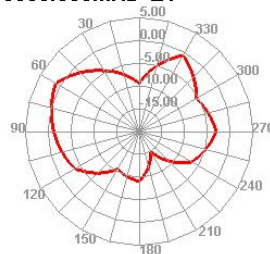
5490.000MHz E1



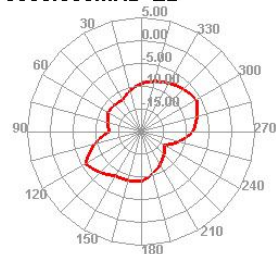
5490.000MHz E2



5850.000MHz E1



5850.000MHz E2



合作共赢

