



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

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Date: 2026. 2. 2
REV : V1. 0



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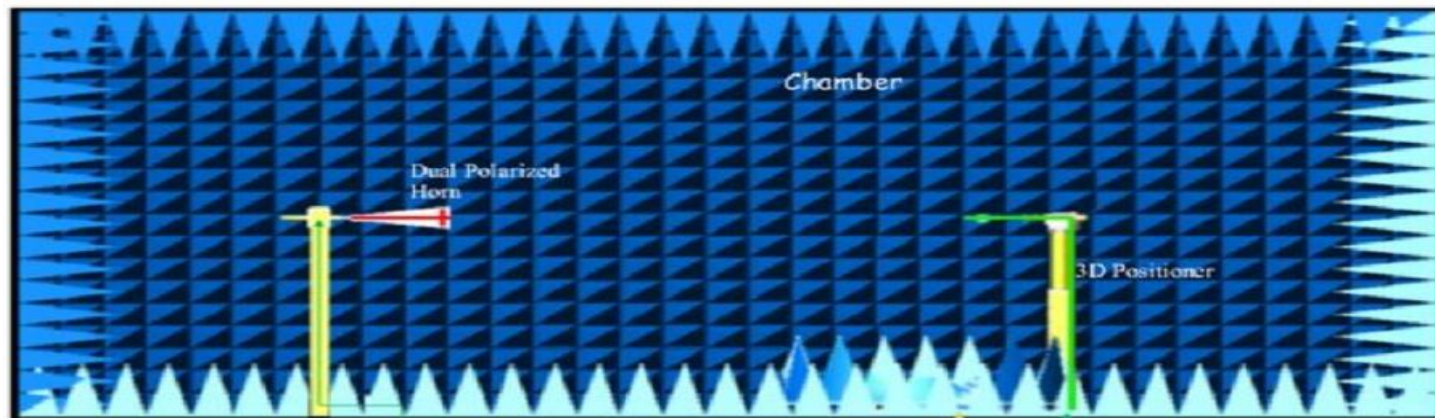
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测试信息

Test information

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

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

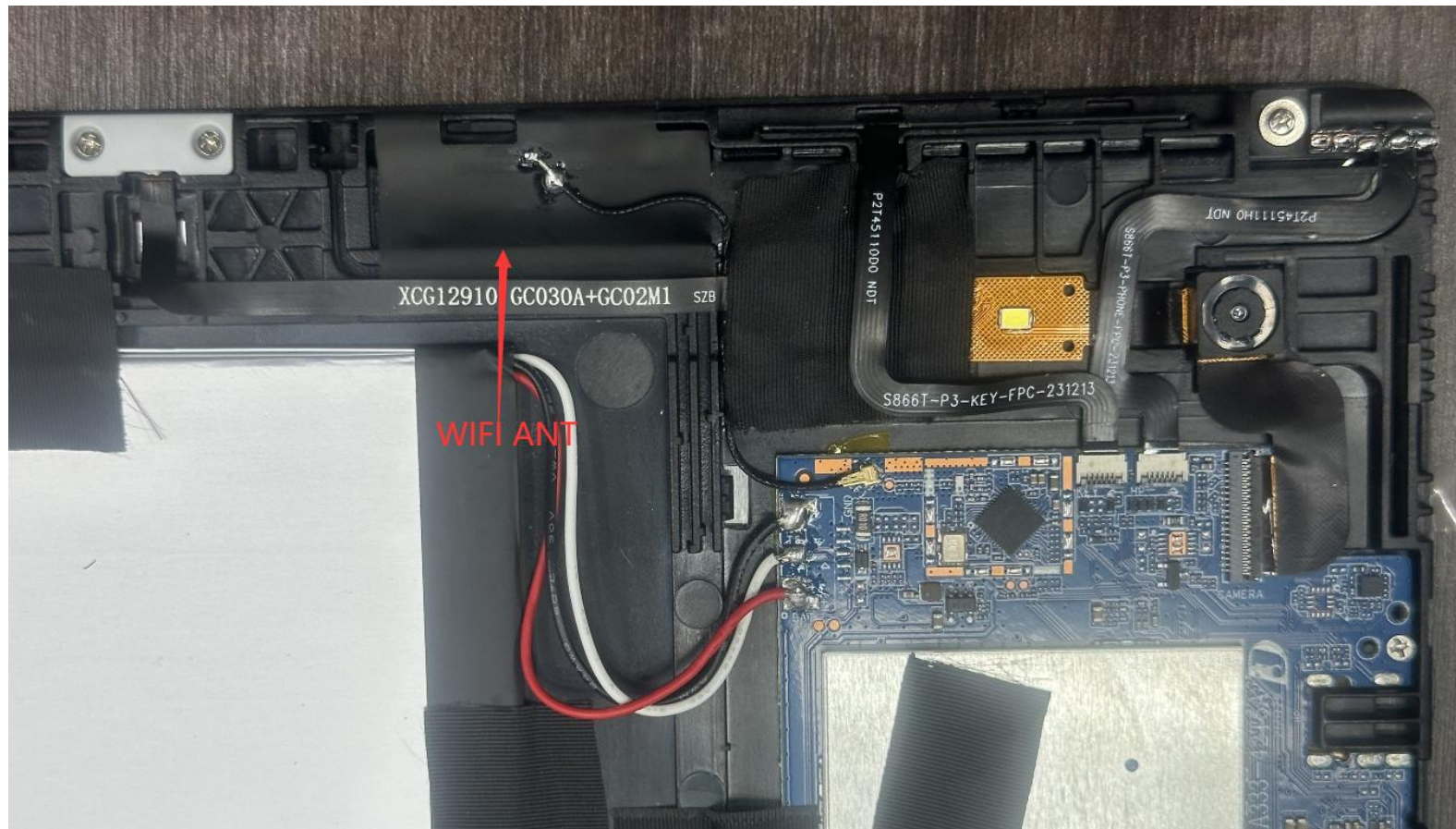
RF Link

GPIB Link

Optical Link

Serial Link

天线位置 Antenna position





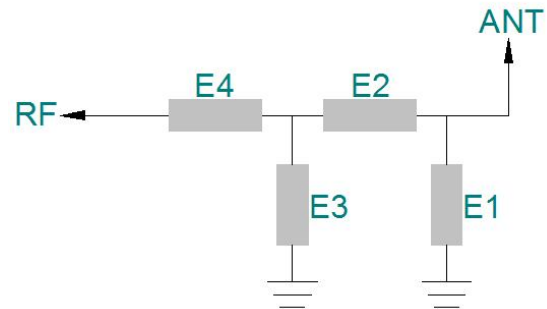
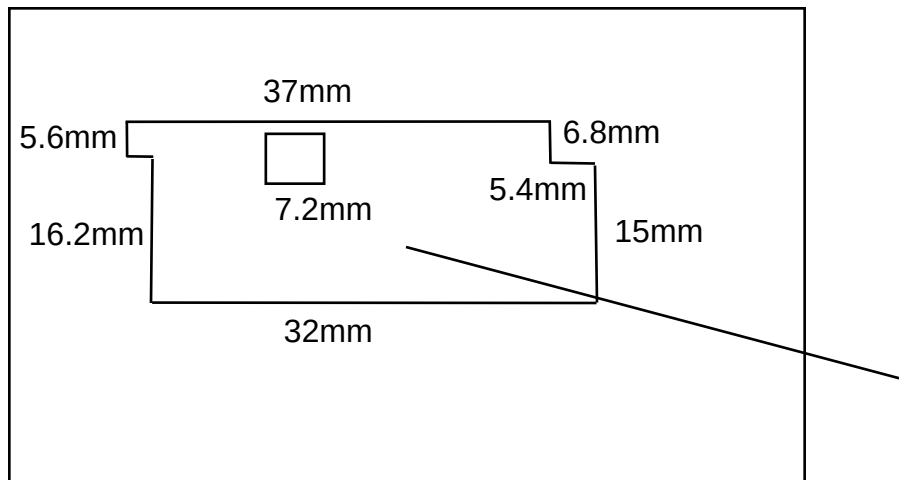
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匹配电路

Matching circuit



匹配电路原理图&位号图

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

802.11b	Frequency	TRP		TIS	
	2412	CH1 11Mbps	12.6	CH1 11Mbps	-80.97
	2437	CH6 11Mbps	12.55	CH6 11Mbps	-82.91
	2467	CH11 11Mbps	13.26	CH11 11Mbps	-82.13
802.11g		TRP		TIS	
	2412	CH1 54Mbps	13.42	CH1 54Mbps	-70.48
	2437	CH6 54Mbps	14.35	CH6 54Mbps	-71.19
	2467	CH11 54Mbps	13.85	CH11 54Mbps	-71.03
802.11a		TRP		TIS	
	5180	CH36 6Mbps	14.99	CH36 54Mbps	-72.74
	5300	CH60 6Mbps	14.85	CH60 54Mbps	-72.77
	5805	CH161 6Mbps	14.53	CH161 54Mbps	-72.75
802.11g/n		TRP		TIS	
	2412	CH1 MCS7	12.75	CH1 MCS7	-67.16
	2437	CH6 MCS7	13.34	CH6 MCS7	-68.75
	2467	CH11 MCS7	13.85	CH11 MCS7	-68.56
802.11a/ac		TRP		TIS	
	5180	CH36 MCS0	14.23	CH36 MCS8	-66.06
	5500	CH100 MCS0	15.24	CH100 MCS8	-67.94
	5825	CH165 MCS0	14.62	CH165 MCS8	-67.05



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 :-31dBm 5G:-55dBm

测试结果如右图

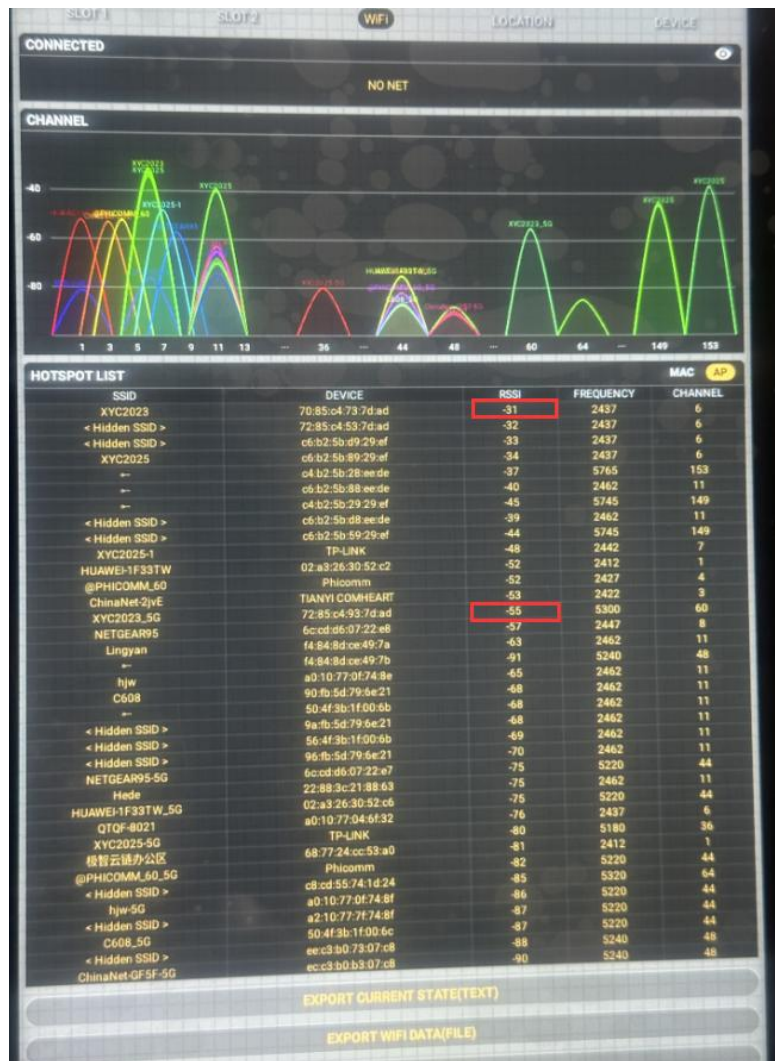
BT

测试环境：开放空间(通道)

测试工具：蓝牙音响

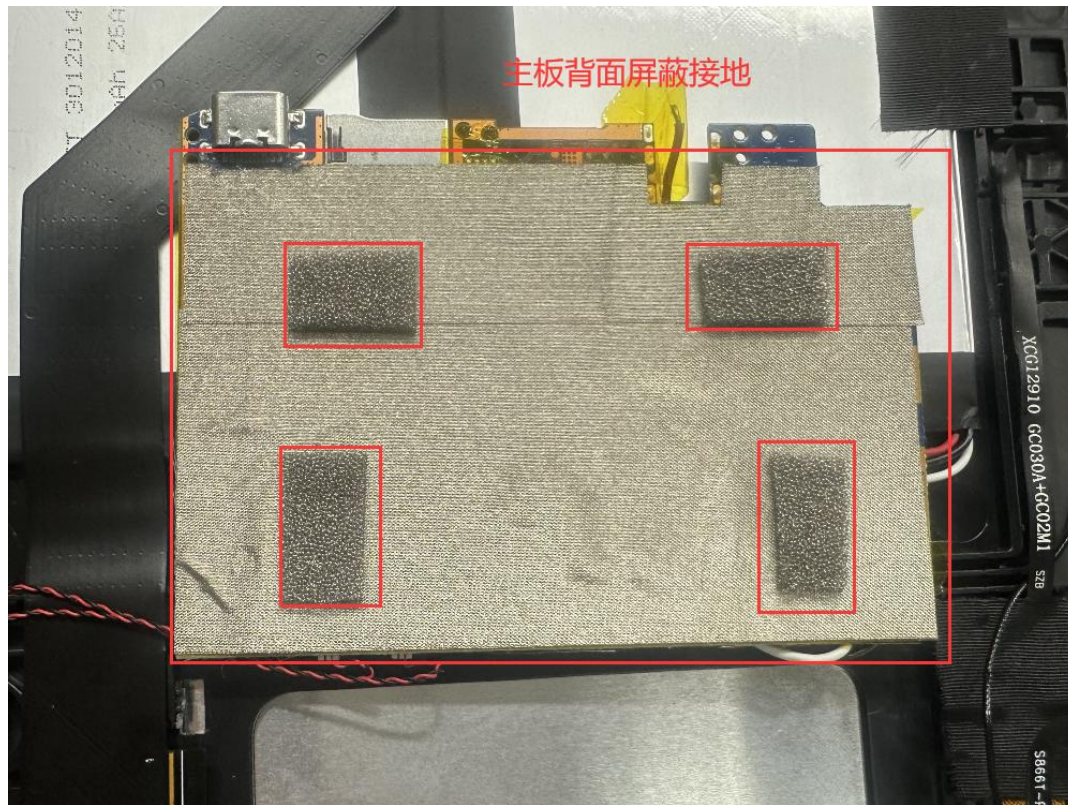
测试距离：10+m

结果：播放音乐流畅，无杂音。



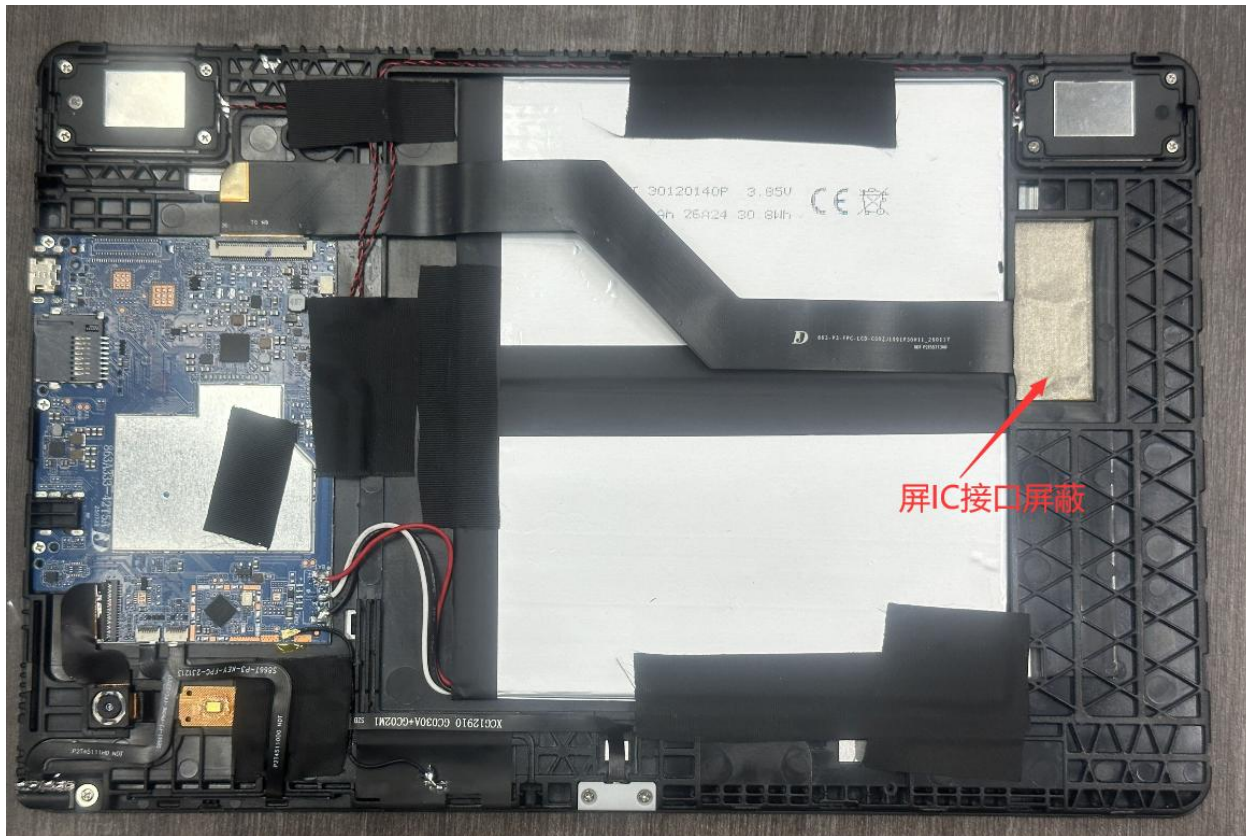
环境处理

Environmental treatment



环境处理

Environmental treatment

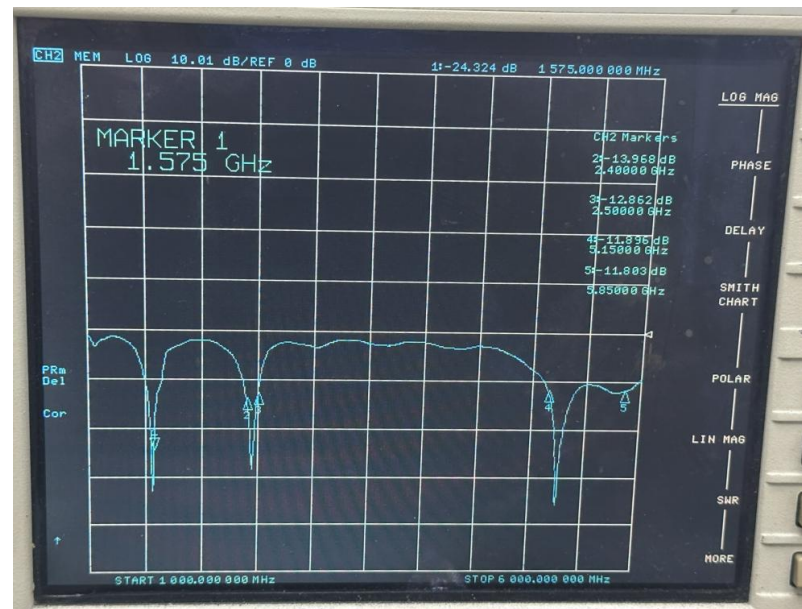




无源测试数据

Passive test data

ANT1 S11-VSWR&Return Loss



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



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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



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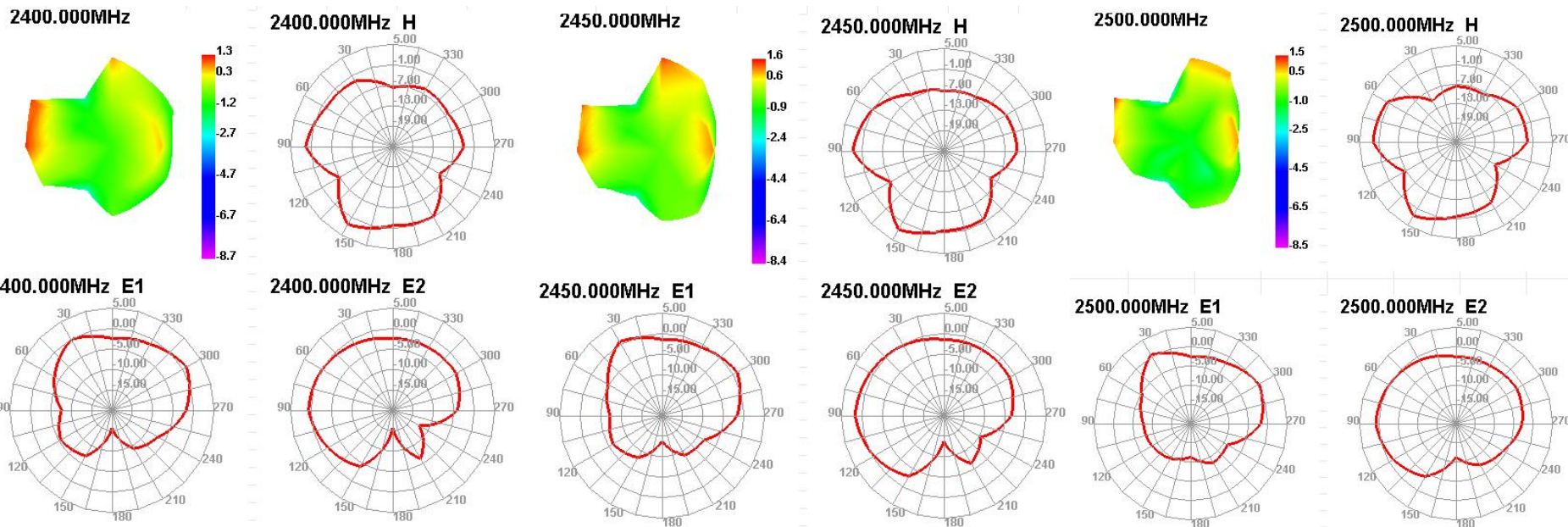
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无源测试数据

Passive test data

ANT1 Direction of figure(2.4/BT)





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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



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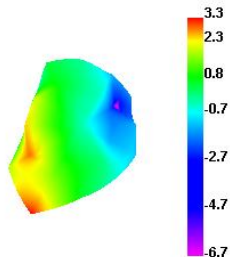
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无源测试数据

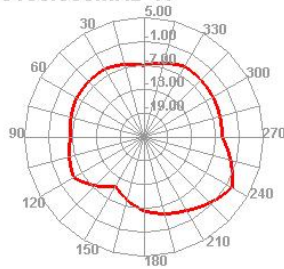
Passive test data

ANT1 Direction of figure(5G)

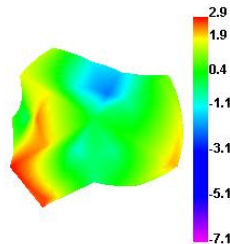
5150.000MHz



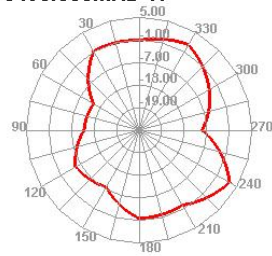
5150.000MHz H



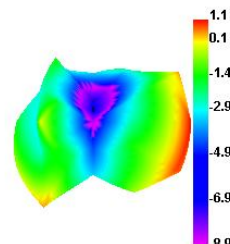
5490.000MHz



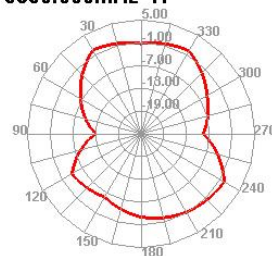
5490.000MHz H



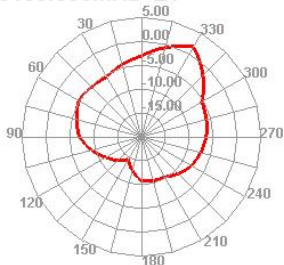
5850.000MHz



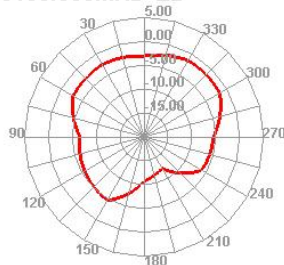
5850.000MHz H



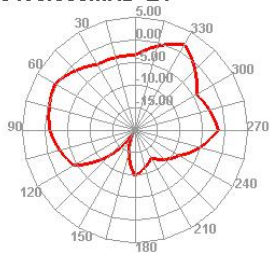
5150.000MHz E1



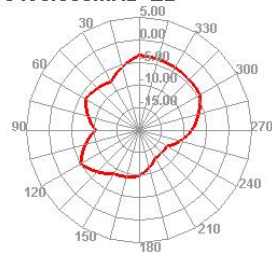
5150.000MHz E2



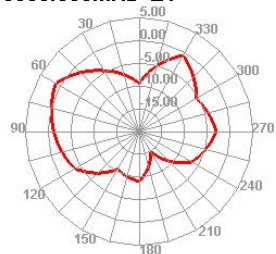
5490.000MHz E1



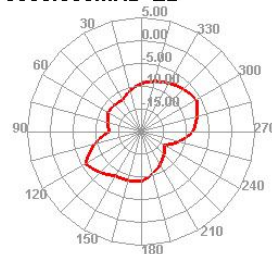
5490.000MHz E2



5850.000MHz E1



5850.000MHz E2



合作共赢

