



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: 亿莱顿

MN: K106A

RF: 陈鑫

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MP: 13184572550

Date: 2025. 04. 30.

REV :V1. 0



ANTENNA

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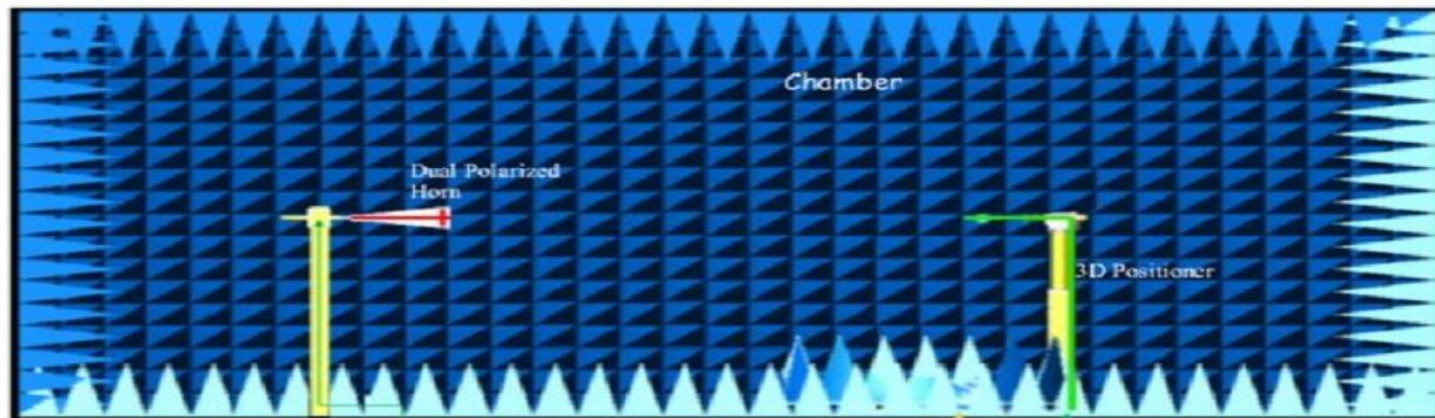
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测试信息

Test information

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

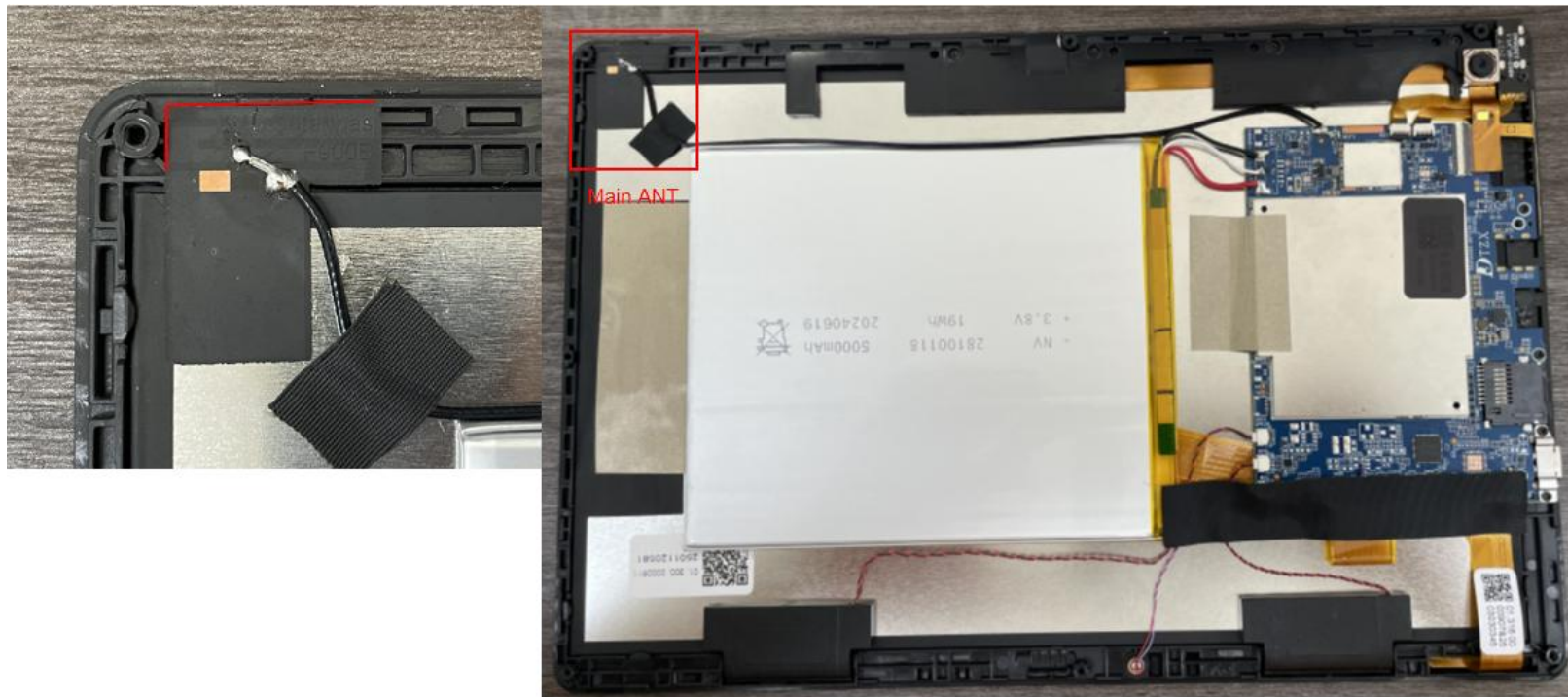
Optical Link

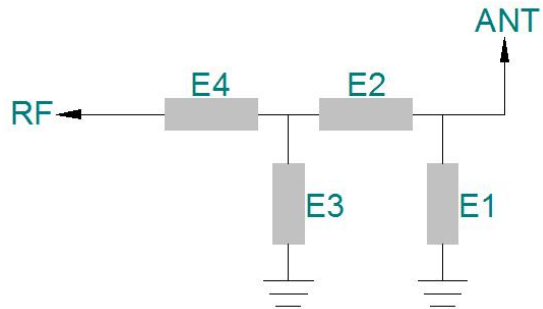
Serial Link

天线位置 Antenna position



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

匹配电路原理图&位号图

802.11b	Frequency	TRP		TIS	
	2412	CH1 11Mbps	12.24	CH1 11Mbps	-80.03
	2437	CH6 11Mbps	12.04	CH6 11Mbps	-80.51
	2467	CH11 11Mbps	12.13	CH11 11Mbps	-80.70
802.11a		TRP		TIS	
	5180	CH1 54Mbps	11.27	CH36 54Mbps	-71.36
	5300	CH6 54Mbps	11.25	CH60 54Mbps	-71.25
	5805	CH11 54Mbps	11.09	CH161 54Mbps	-71.13



Wifi/BT天线实测

Wifi Antenna test

WIFI

Test environment: open space

Testing Tools: Wifi Analytical Assistant

Test distance: 10/m

Signal Strength: 2.4G测试

: -43dBm 5G: -52dBm

结果如右图

SSID	DEVICE	RSSI	FREQUENCY	CHANNEL
XYC2023	70:85:c4:73:7d:ad	-37	2422	3
< Hidden SSID >	72:85:c4:53:7d:ad	-37	2422	3
< Hidden SSID >	72:85:c4:d3:7d:ad	-38	5300	60
NETGEAR95	6c:cd:d6:07:22:e8	-38	2457	10
XYC2023_5G	72:85:c4:93:7d:ad	-38	5300	60
TP-LINK_5G2_9660	TP-LINK	-43	2442	7
ChinaNet-Ht8u	TP-LINK	-44	5765	153
---	00:6b:6f:9f:7e:e8	-45	5180	36
---	08:79:8c:1d:57:4c	-51	5180	36
---	00:6b:6f:9f:7e:e4	-53	2412	1
---	08:79:8c:1d:57:48	-57	2437	6
NETGEAR95_5G	6c:cd:d6:07:22:e7	-45	5220	44
< Hidden SSID >	08:79:8c:1d:57:4f	-51	5180	36
5G XYC2023	TP-LINK	-52	5200	40
HUAWEI-1F33TW_5G	02:a3:26:30:52:c2	-54	2462	11
GAOFEI1888	54:dd:d4:0c:3e:51	-55	2462	11
13A08	58:b3:8f:5b:94:13	-57	2412	1
HUAWEI-1F33TW_5G	02:a3:26:30:52:c6	-61	5300	60
GAOFEI1888	68:1b:ef:e2:da:7c	-63	2437	6
CMCC-F9AM	80:ae:54:0a:07:c6	-68	2462	11
< Hidden SSID >	82:ae:54:0a:07:c6	-69	2462	11
HKUX-5G	80:ae:54:f2:af:20	-70	5220	44
1503	68:77:da:4c:11:83	-74	5240	48
GAOFEI1888-5G	68:1b:ef:e2:da:80	-75	5180	36
---	80:ae:54:f2:af:1f	-75	2462	11

BT

Test environment: open space

Test tool: Bluetooth speaker

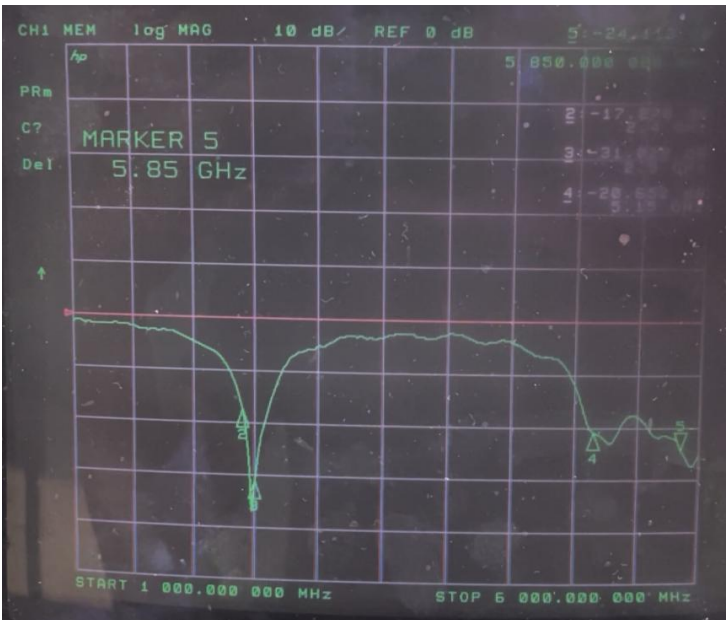
Test distance: 10/m

Result: Music plays smoothly without any noise.



无源测试数据 Passive test data

ANT1 S11-VSWR&Return Loss



Frequency (MHZ)	2400	2500	5150	5850
VSWR	1.31	1.05	1.28	1.13
Return Loss (DB)	-17.87	-31.07	-20.65	-24.11



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无源测试数据

Passive test data

ANT1 GAIN&Efficiency-WIFI2.4G

Passive Test For WIFI2.4					
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)
2400	21.08	-6.76	-0.45	-2.6	13.663
2410	21.75	-6.63	-0.58	-2.73	13.959
2420	21.6	-6.66	-0.7	-2.85	13.766
2430	20.68	-6.84	-0.89	-3.04	13.035
2440	21.56	-6.66	-0.99	-3.14	13.498
2450	23.15	-6.35	-0.82	-2.97	14.521
2460	24.59	-6.09	-0.62	-2.77	15.581
2470	23.74	-6.25	-0.67	-2.82	15.099
2480	23.37	-6.31	-0.64	-2.79	14.81
2490	23.27	-6.33	-0.69	-2.84	14.631
2500	23.89	-6.22	-0.72	-2.87	14.83



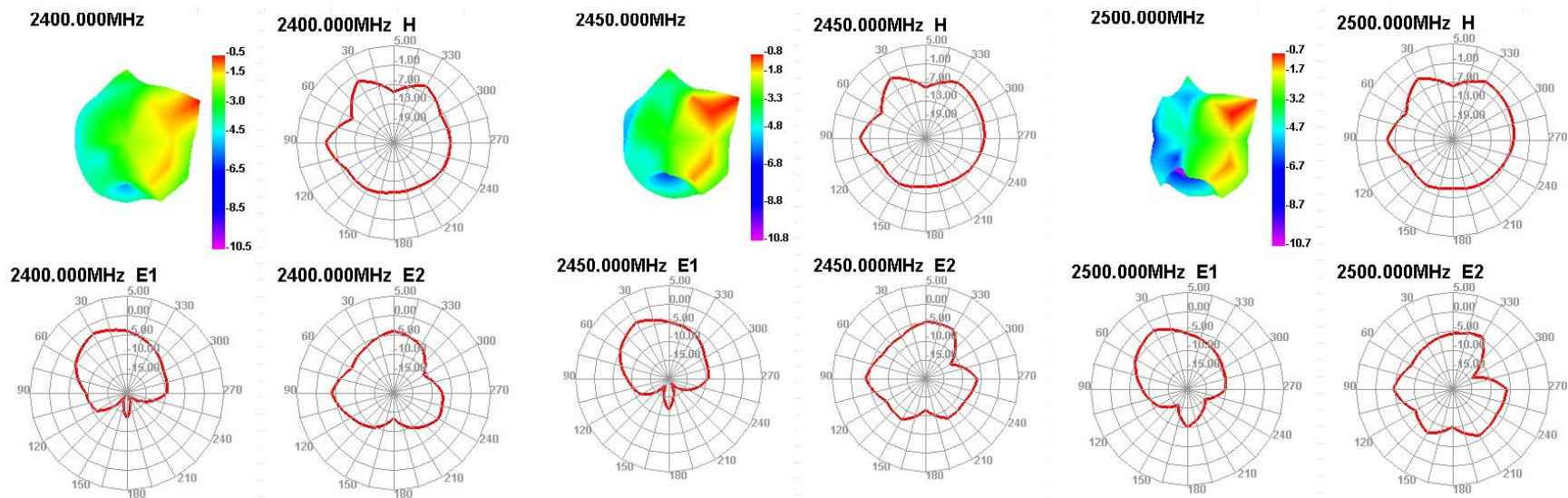
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无源测试数据
Passive test data

ANT1 Direction of figure(2.4G)





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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 (dEd)	UHS (%)	DHIS (%)
5150	18.3	-7.38	-3.15	-5.3	10.757	7.538
5170	17.98	-7.45	-3.13	-5.28	10.556	7.424
5190	20.31	-6.92	-2.66	-4.81	11.714	8.595
5210	20	-6.99	-2.51	-4.66	11.423	8.574
5230	20.01	-6.99	-2.41	-4.56	11.401	8.609
5250	23.38	-6.31	-1.78	-3.93	13.183	10.197
5270	22.96	-6.39	-2.21	-4.36	12.84	10.118
5290	26.75	-5.73	-1.72	-3.87	14.756	11.993
5310	22.81	-6.42	-2.56	-4.71	12.442	10.373
5330	22.7	-6.44	-2.54	-4.69	12.445	10.256
5350	23.53	-6.28	-2.82	-4.97	12.905	10.621
5370	22.33	-6.51	-3.26	-5.41	12.17	10.156
5390	21.48	-6.68	-3.59	-5.74	11.653	9.826
5410	23.78	-6.24	-3.18	-5.33	13.044	10.735
5430	23.89	-6.22	-3.17	-5.32	13.273	10.621
5450	25.3	-5.97	-3	-5.15	14.134	11.168
5470	25.21	-5.98	-2.7	-4.85	14.025	11.188
5490	23.45	-6.3	-2.55	-4.7	13.142	10.306
5510	24.93	-6.03	-2.47	-4.62	14.146	10.788
5530	25.19	-5.99	-2.65	-4.8	14.406	10.784
5550	28.43	-5.46	-1.73	-3.88	16.342	12.092
5570	25.28	-5.97	-2.1	-4.25	14.526	10.754
5590	25.9	-5.87	-2.26	-4.41	15.016	10.881
5610	25.16	-5.99	-2.35	-4.5	14.724	10.44
5630	24.25	-6.15	-2.59	-4.74	14.028	10.217
5650	24.33	-6.14	-2.2	-4.35	14.099	10.227
5670	25.74	-5.89	-2.11	-4.26	14.951	10.792
5690	22.12	-6.55	-3.08	-5.23	12.815	9.302
5710	25.77	-5.89	-2.23	-4.38	14.766	11.004
5730	24.21	-6.16	-2.11	-4.26	13.759	10.456
5750	23.37	-6.31	-2.22	-4.37	13.285	10.082
5770	25.24	-5.98	-2.11	-4.26	14.361	10.878
5790	23.97	-6.2	-2.21	-4.36	13.488	10.487
5810	24.93	-6.03	-1.68	-3.83	14.036	10.897
5830	25.26	-5.98	-1.53	-3.68	14.3	10.96
5850	26.78	-5.72	-1.57	-3.72	15.034	11.75



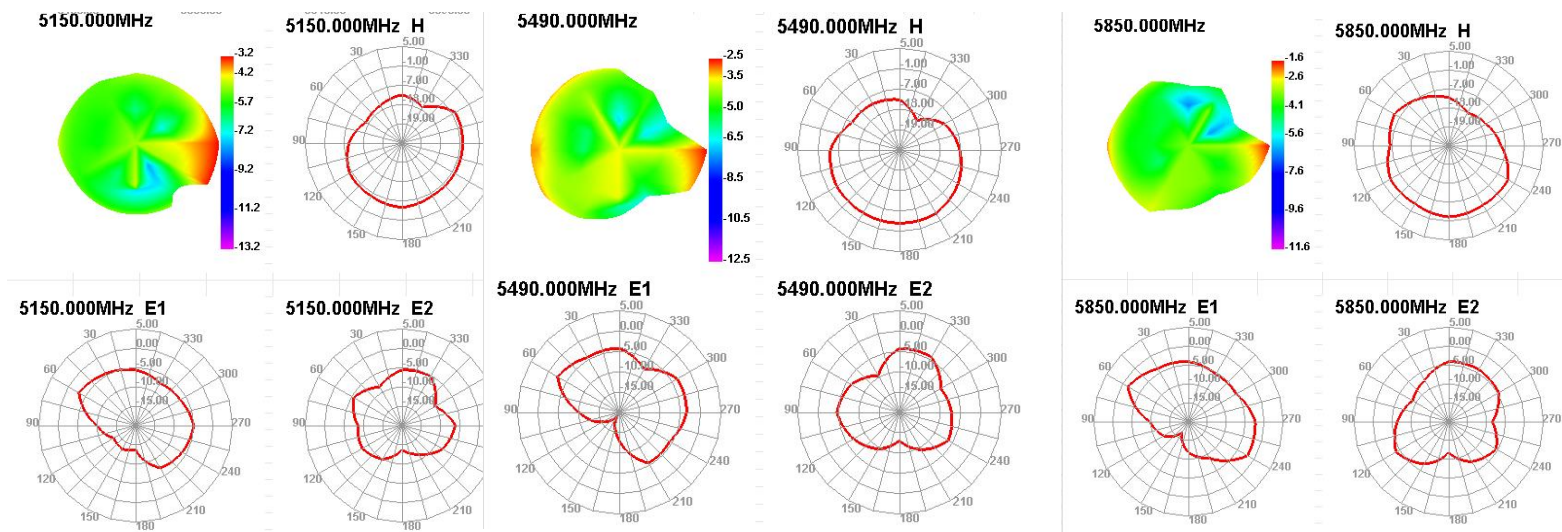
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Passive test data

ANT1 Direction of figure(5G)



合作共赢

