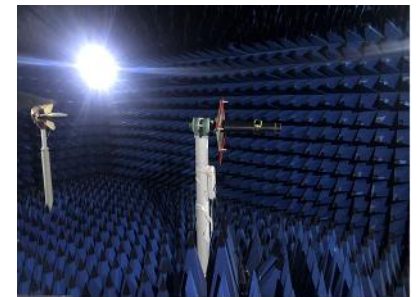


OduLifang U880 antenna test report

Tester: Hong Yuankai

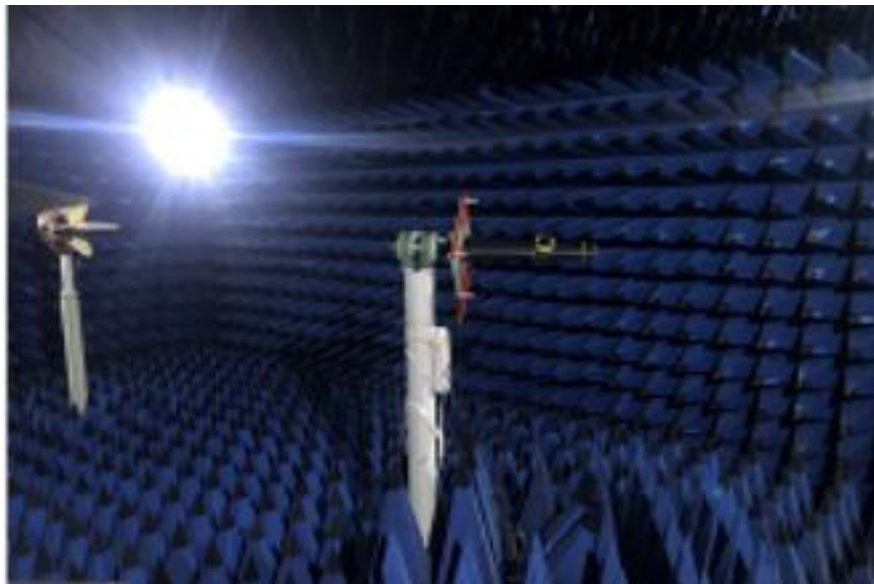
Date: 2025-1-7

Contact: 15119409299



Project development environment

We are moving from the Internet era to the smart era, and the country is building a digital society and smart cities. In the next 5-10 years, both the consumer electronics market and the Internet of Things market have huge development potential. The field of wireless communication is very diversified. In the future, Yu Sheng will rely on the customer platform advantages of the main antenna industry and its comprehensive strength, and strive to provide customers with professional product solutions with market competitiveness.



Yusheng's products cover almost all wireless terminal equipment antenna applications, including automotive antennas, high-precision surveying and mapping antennas, UAV ground and satellite data navigation, high-precision positioning antennas, wireless transmission of medical equipment, consumer antennas (mobile phone antennas, PAD antennas, laptop antennas), base station/indoor distribution antennas, and more. Smart wearable antenna (smart watch, TWS headset), security home antenna and a variety of wireless data transmission and wireless control of smart device antenna.



1

Project debugging introduction

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Outline of report versions

3

Antenna active parameters

4

Antenna passive parameters

5

Antenna environment treatment and improvement

6

Summary & Additional Notes

Project debugging
introduction

type	dull and stereotyped		
template	motherboard		
Band and antenna material		frequency range	material quality
	WIFI1	2400MHz-2500MHz/5100MHz-5800MHz	FPC+ coaxial cable
	WIFI2	2400MHz-2500MHz/5100MHz-5800MHz	FPC+ coaxial cable
performance requirement	To be carried out according to customer requirements		

Outline of report
versions

Report version	Report time	The problem solved by this antenna development
V0.1	20241015	Preliminary commissioning report
V0.2	20241113	Antenna optimization report
V0.3	20241115	Antenna optimization and experimental report
V0.4	20241119	Add external verification data
V0.5	20241205	Antenna optimization and experimental comparison report
V0.6	20241207	Antenna optimization report
V0.7	20241214	Antenna optimization report
V0.8	20241217	Add platelet matching parameter report
V0.9	20250107	Add antenna gain and field pattern report

Antenna active
parameters

	802.11	channel number	TRP (dBm)	TIS (dBm)
WIFI	11B	CH1	12.66	
		CH7	12.77	
		CH13	12.63	-81.82
	11G	CH1	12.24	
		CH7	12.42	
		CH13	12.14	-68.34
	11N	CH1	11.58	
		CH7	11.66	
		CH13	11.53	-66.02
	11A	CH36	9.14	
		CH64	8.31	
		CH165	9.32	-69.03

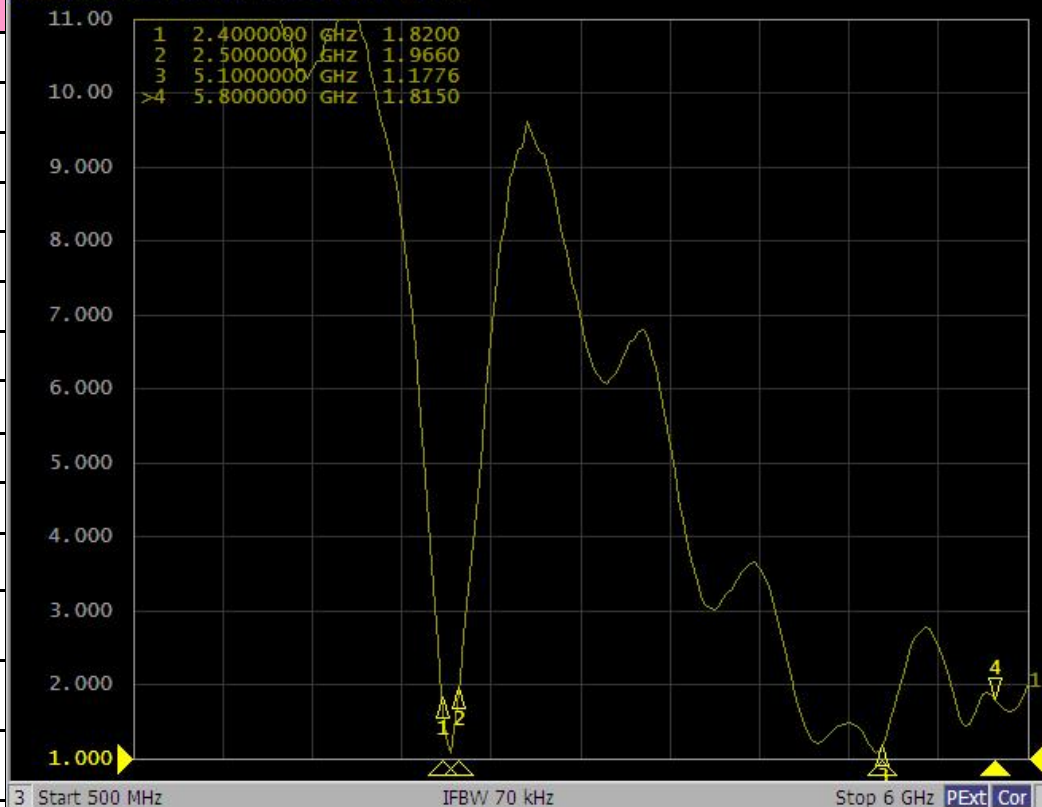
WiFi1 passive parameters

Passive Test

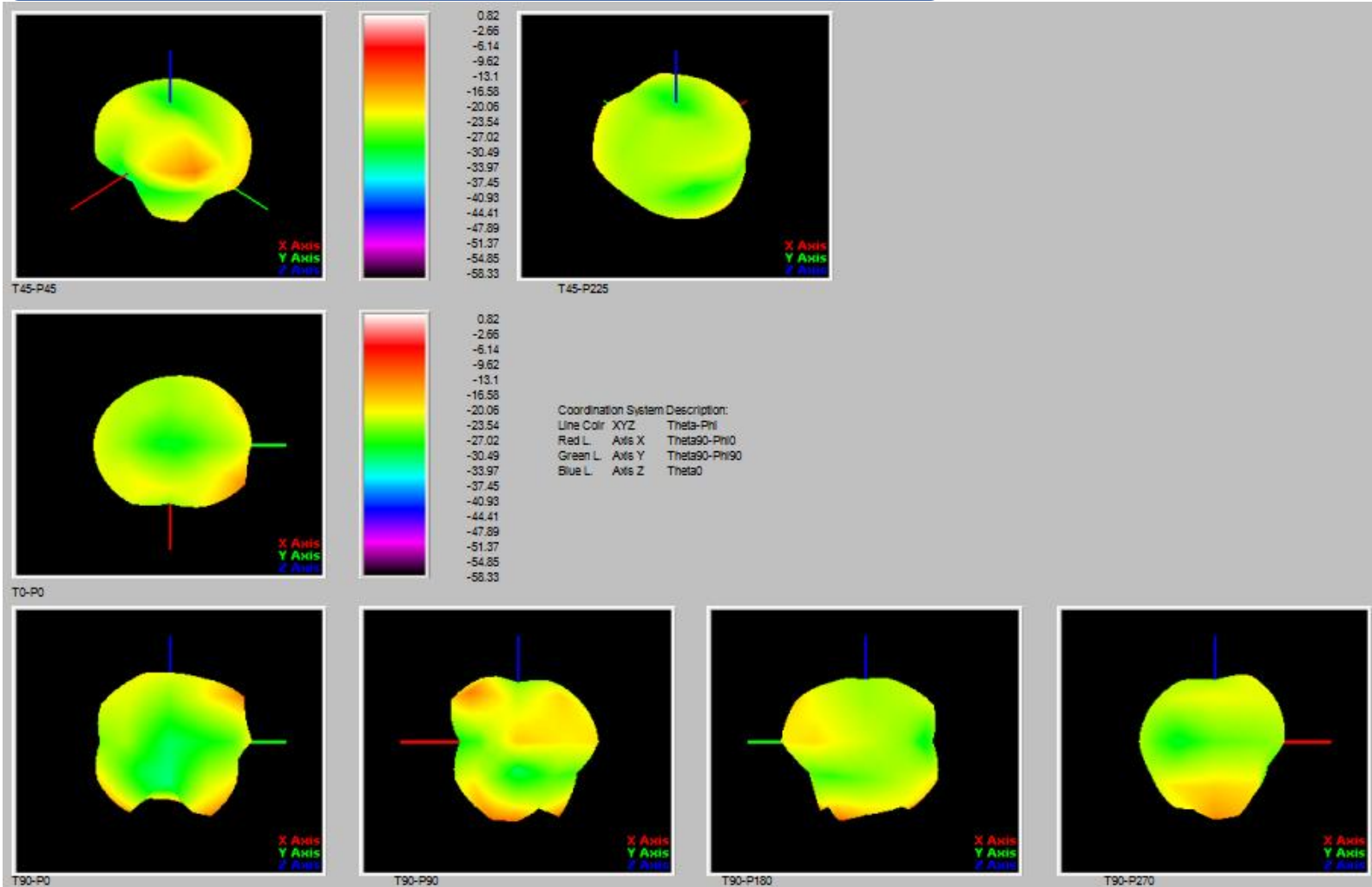
Freq	Effi	Gain	Freq	Effi	Gain
(MHz)	(%)	(dBi)	(MHz)	(%)	(dBi)
2400.0	18.5%	0.53	5100.0	22.3%	0.59
2410.0	19.2%	0.68	5150.0	23.0%	0.67
2420.0	19.8%	0.79	5200.0	23.5%	0.76
2430.0	20.7%	0.73	5250.0	24.1%	0.83
2440.0	21.2%	0.85	5300.0	24.7%	0.77
2450.0	20.6%	0.82	5350.0	24.2%	0.89
2460.0	20.0%	0.69	5400.0	24.9%	1.03
2470.0	19.3%	0.61	5450.0	25.5%	0.95
2480.0	18.8%	0.52	5500.0	26.2%	1.07
2490.0	18.1%	0.58	5550.0	27.3%	0.94
2500.0	17.7%	0.65	5600.0	26.8%	0.79
			5650.0	26.2%	0.85
			5700.0	25.7%	0.71
			5750.0	25.1%	0.63
			5800.0	24.3%	0.58

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Tr1 S11 SWR 1.000/ Ref 1.000 [F1 M]

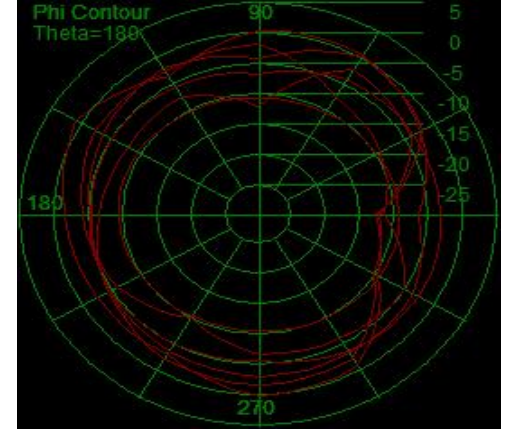
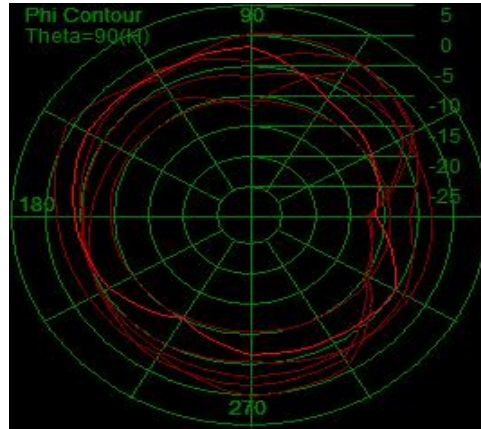
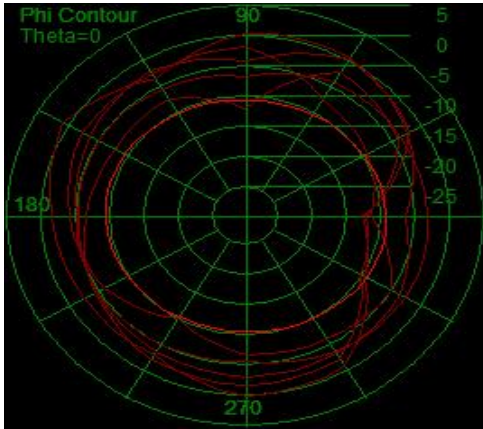


WiFi1-Passive parameter-Apple diagram-2400MHz-2500MHz

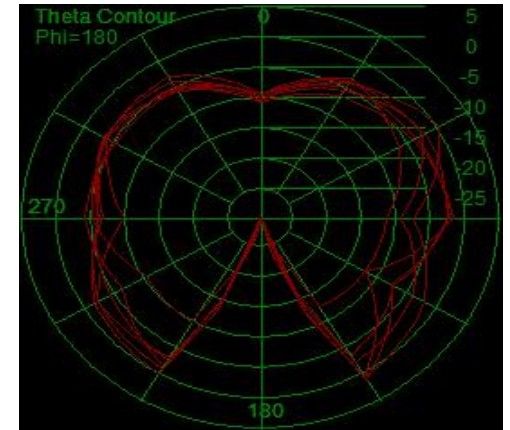
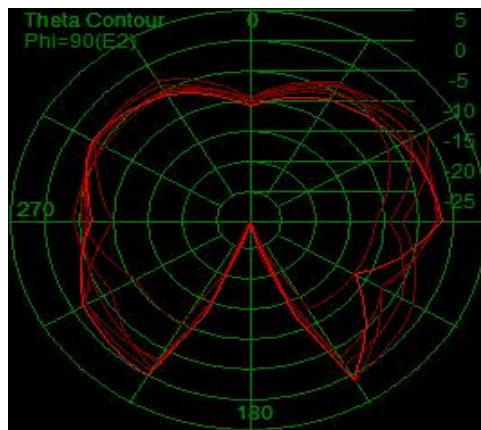
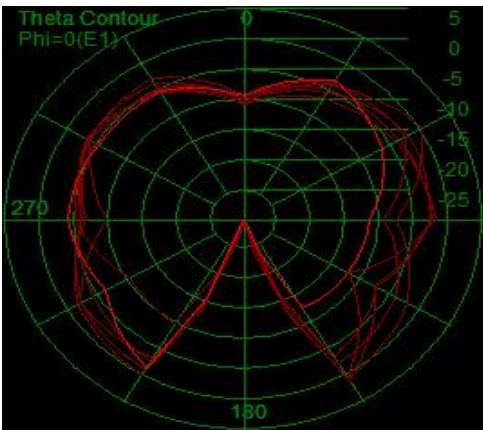


WiFi1-Passive parameter-plan view-2400MHz-2500MHz

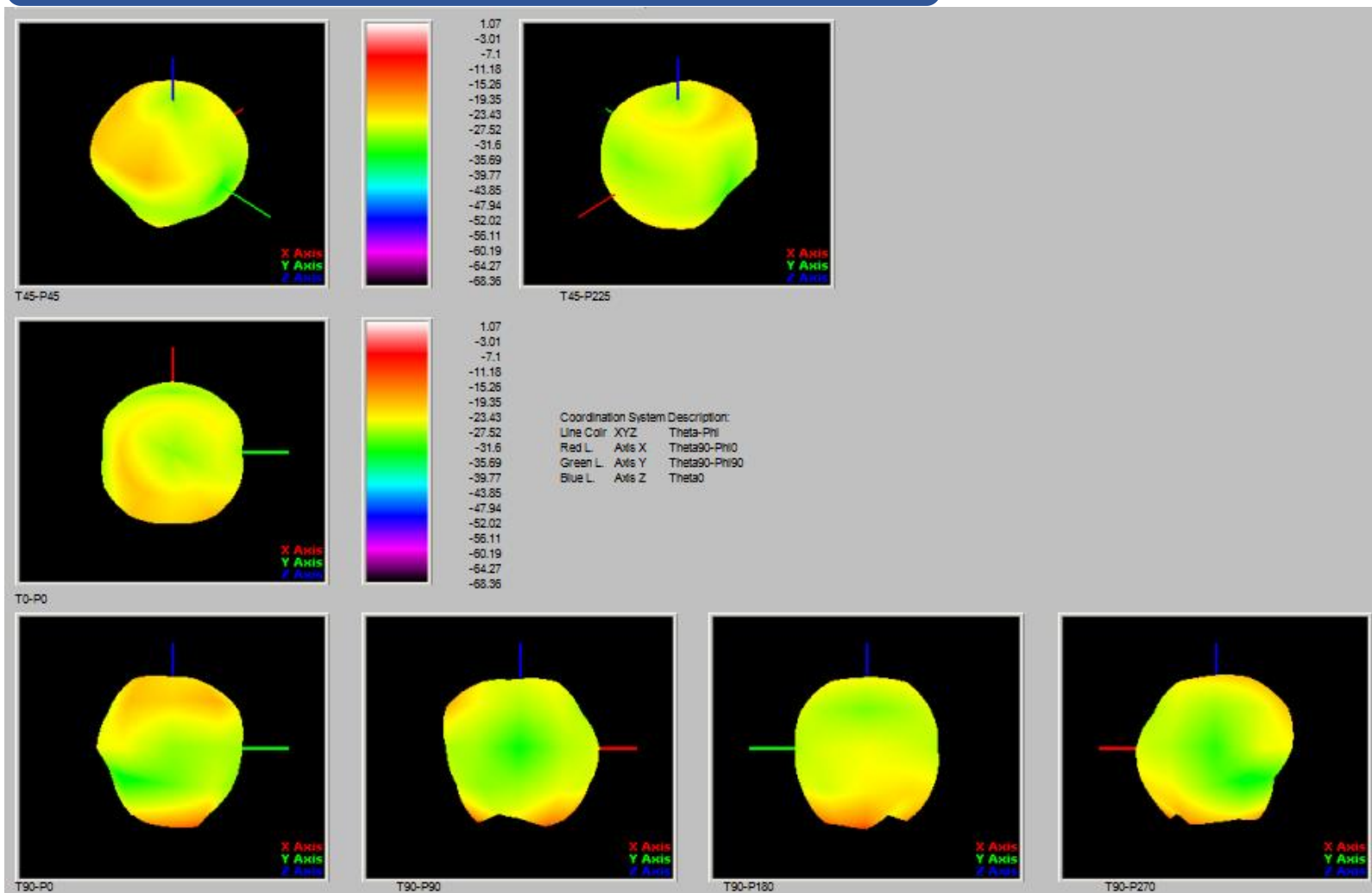
Horizontal:



Vertical:

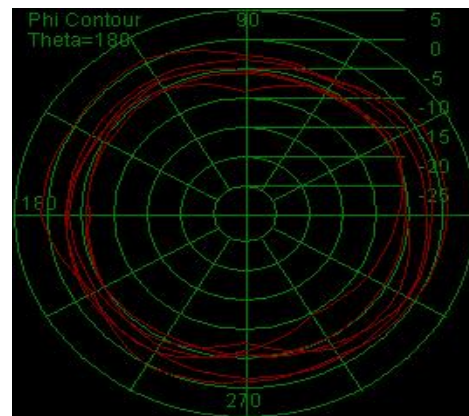
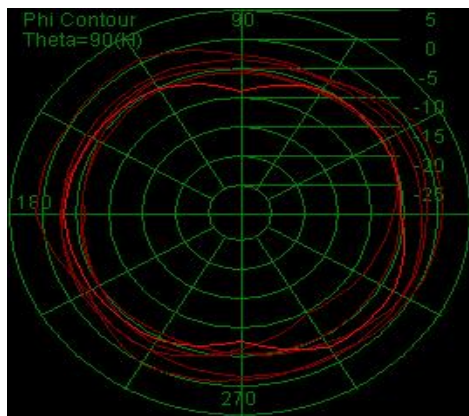
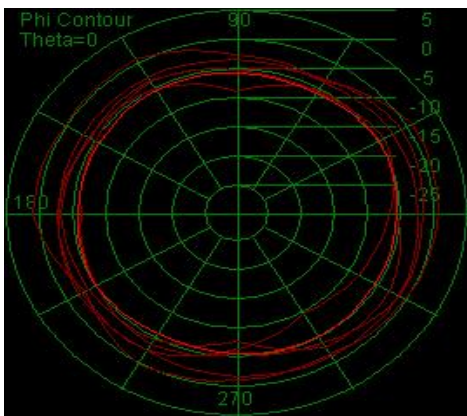


WiFi1-Passive parameter-Apple diagram-5100MHz-5800MHz

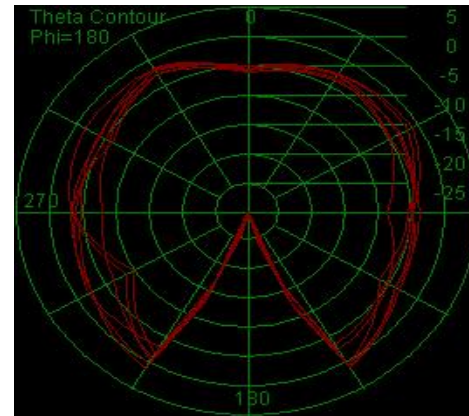
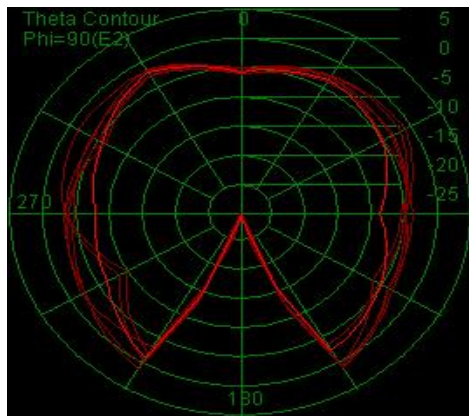
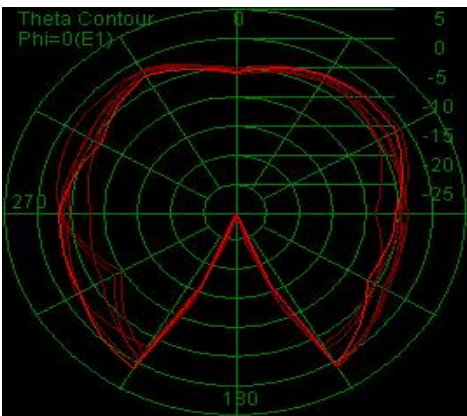


WiFi1-Passive parameter-plan view-5100MHz-5800MHz

Horizontal:



Vertical:



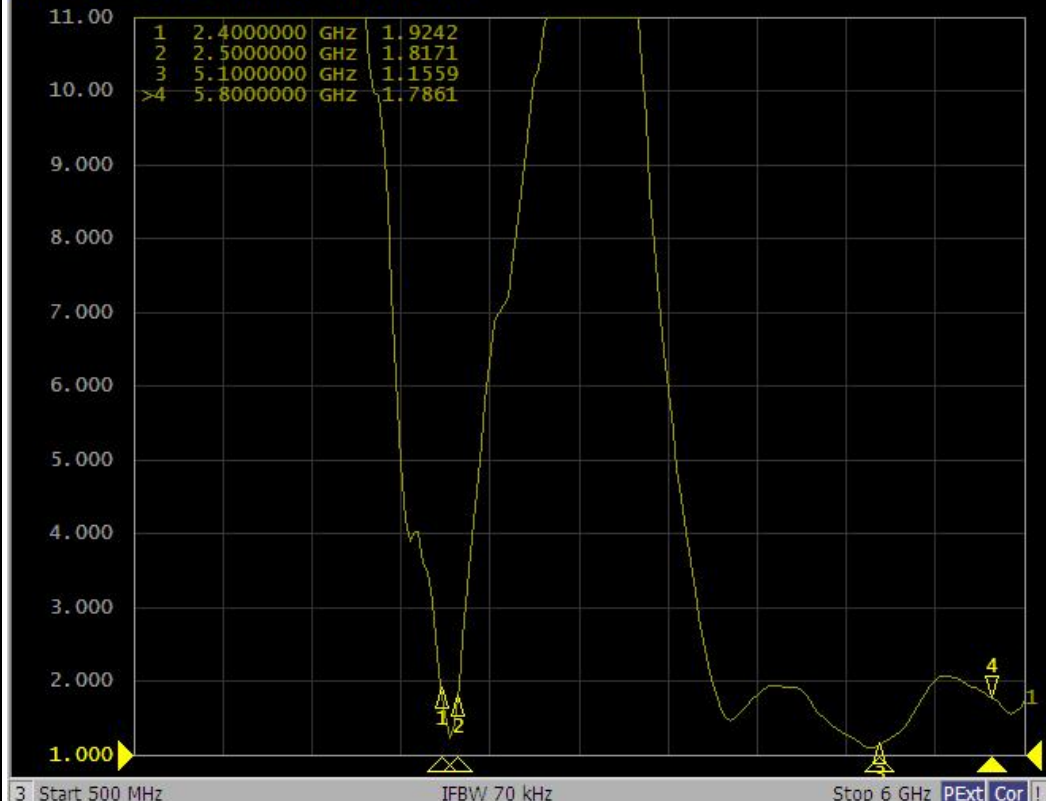
WIFI2 passive parameters

Passive Test

Freq	Effi	Gain	Freq	Effi	Gain
(MHz)	(%)	(dBi)	(MHz)	(%)	(dBi)
2400.0	20.1%	0.64	5100.0	30.3%	0.67
2410.0	20.8%	0.80	5150.0	31.0%	0.62
2420.0	21.7%	0.75	5200.0	31.7%	0.71
2430.0	21.2%	0.83	5250.0	31.2%	0.79
2440.0	21.8%	0.90	5300.0	30.5%	0.86
2450.0	22.3%	0.86	5350.0	30.0%	0.97
2460.0	22.6%	0.74	5400.0	29.4%	0.93
2470.0	22.0%	0.79	5450.0	29.9%	1.12
2480.0	21.6%	0.68	5500.0	30.2%	1.17
2490.0	21.1%	0.57	5550.0	30.5%	1.03
2500.0	20.4%	0.51	5600.0	29.8%	0.92
			5650.0	29.0%	0.81
			5700.0	28.5%	0.74
			5750.0	28.1%	0.79
			5800.0	27.4%	0.62

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Tr1 S11 SWR 1.000/ Ref 1.000 [F1 M]

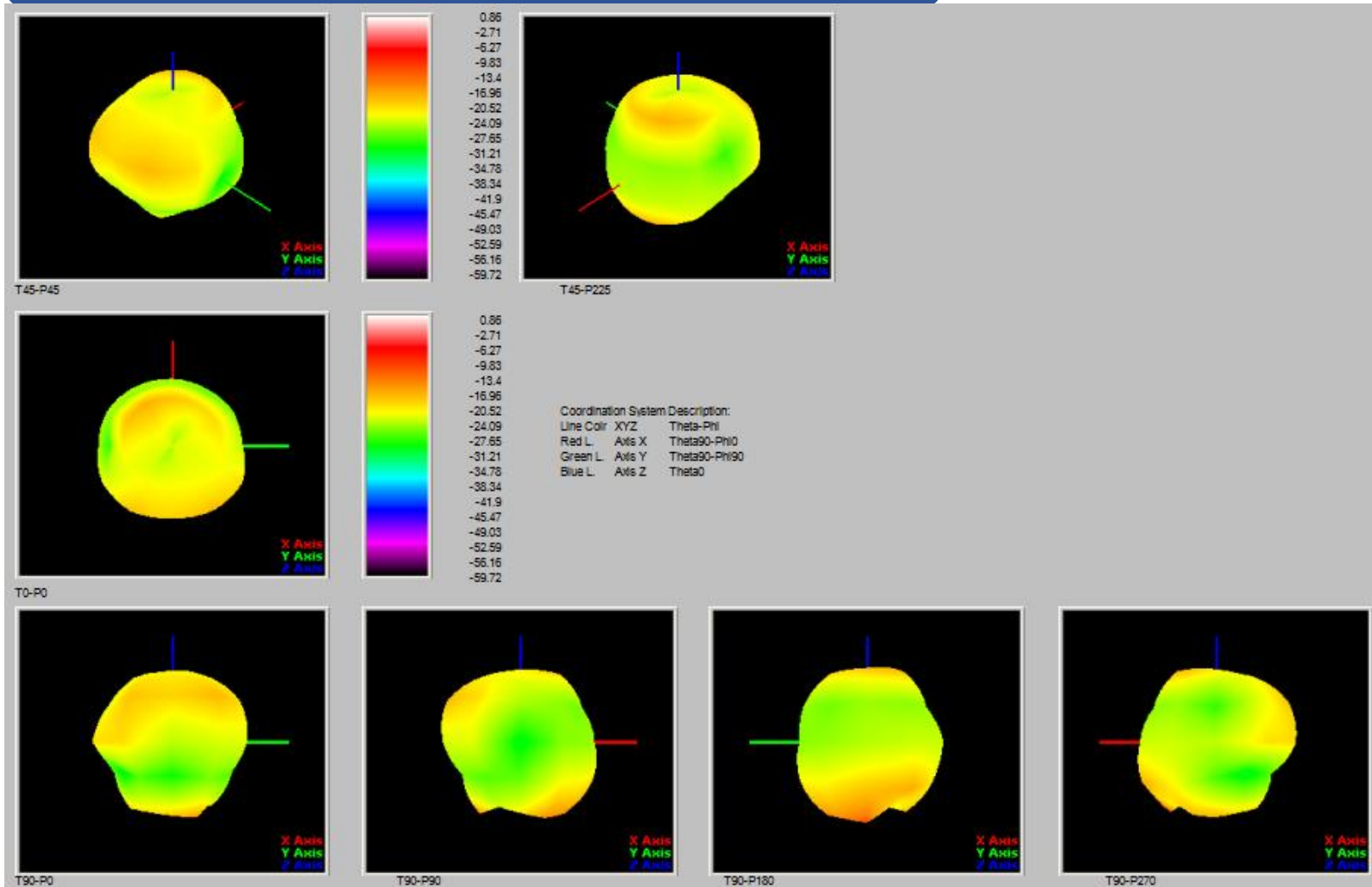


Start 500 MHz

IFBW 70 kHz

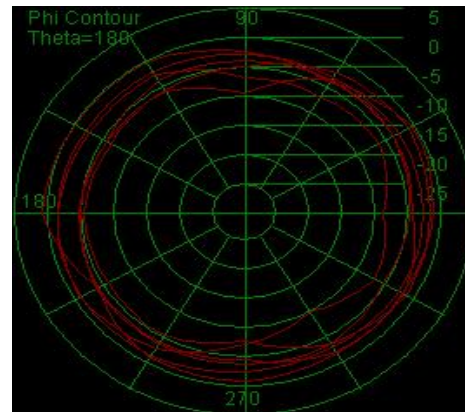
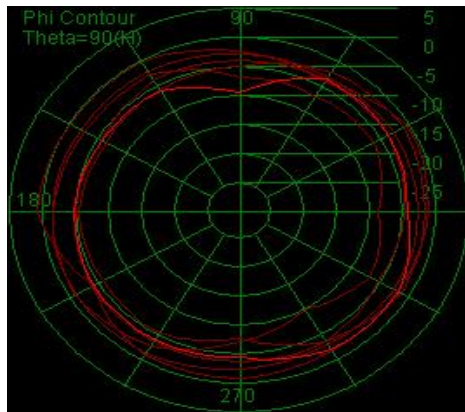
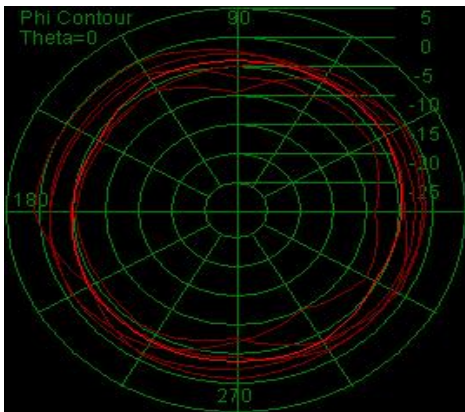
Stop 6 GHz PExt Cor

WiFi2-Passive parameter-Apple diagram-2400MHz-2500MHz

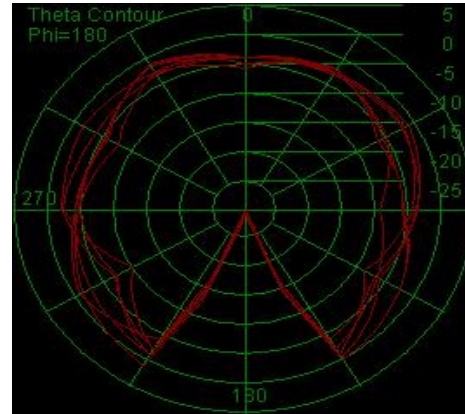
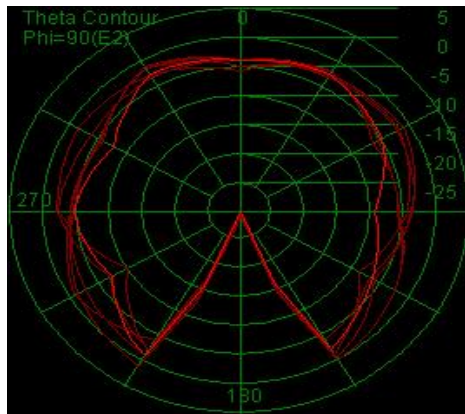
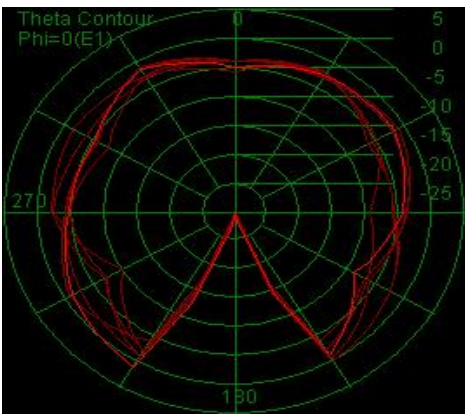


**WIFI2-Passive Parameters-Floor Plan-2400MHz-
2500MHz**

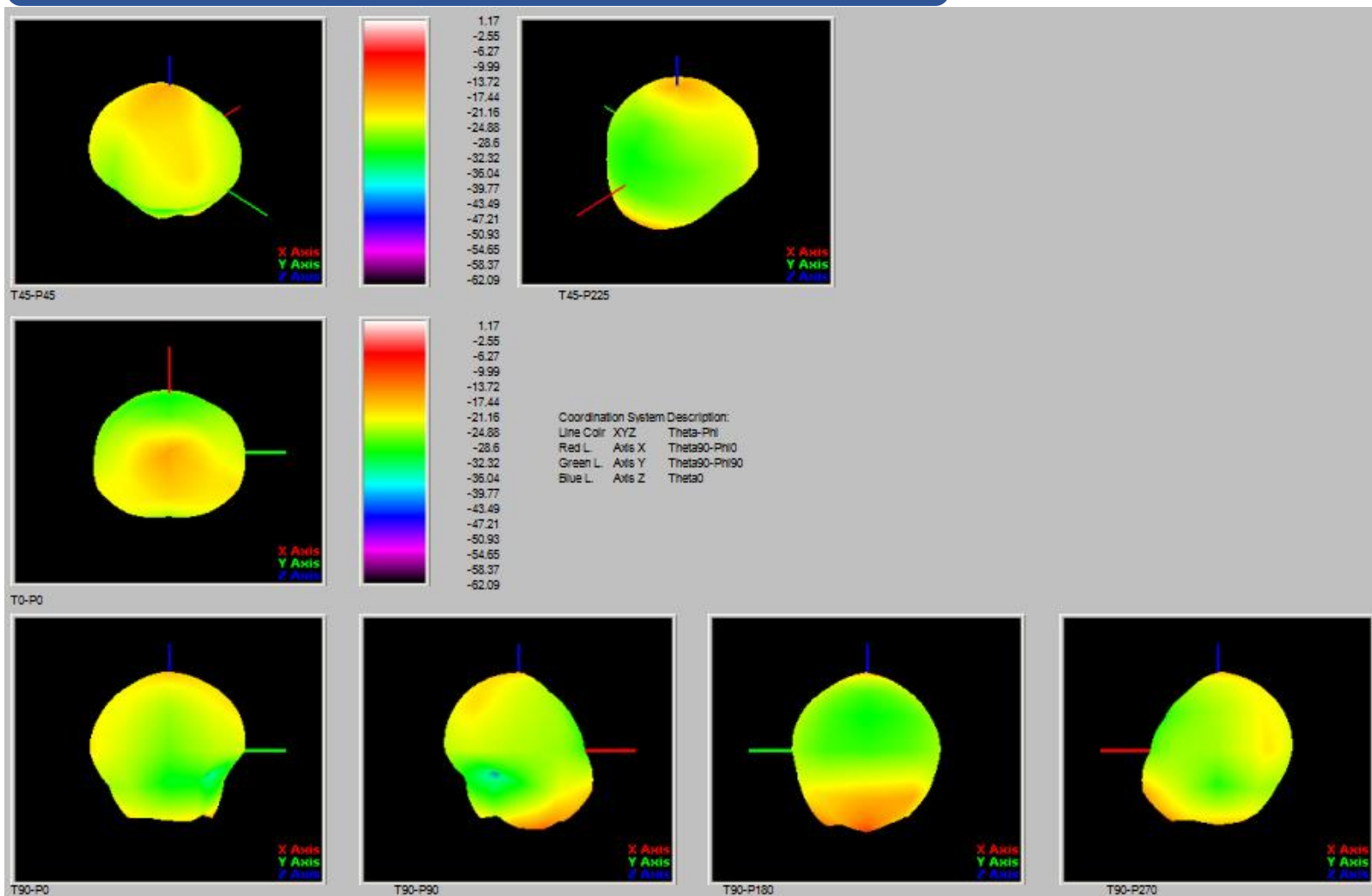
Horizontal:



Vertical:

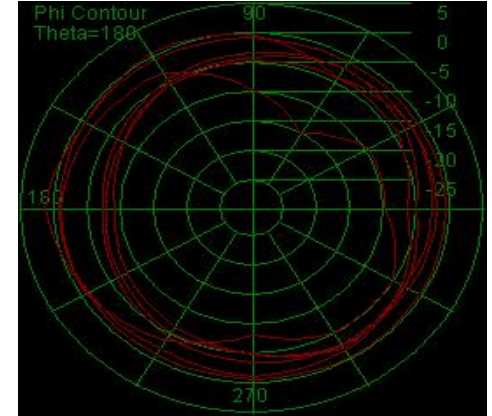
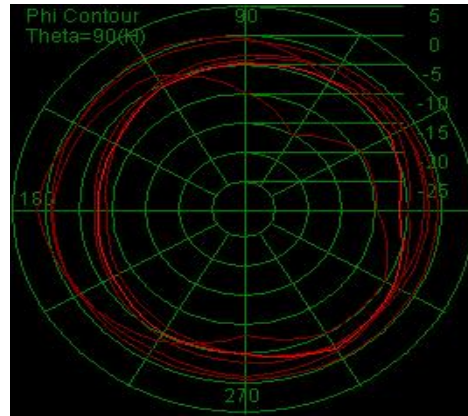
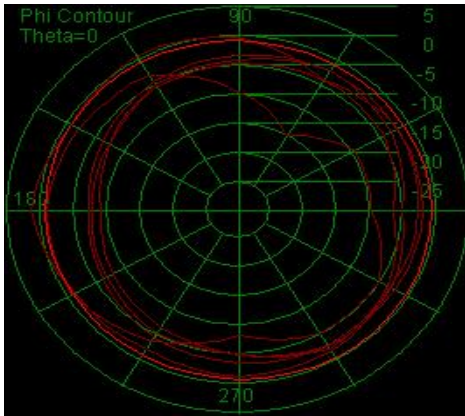


WIFI2-Passive parameter-Apple diagram-5100MHz-
 5800MHz

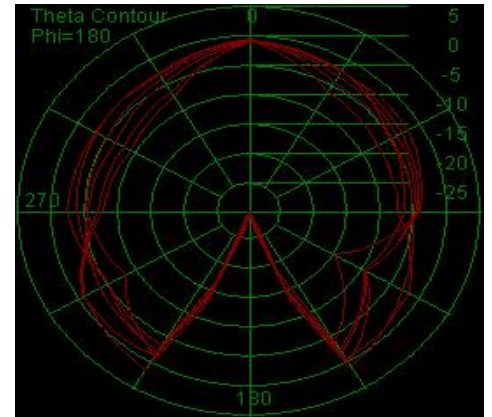
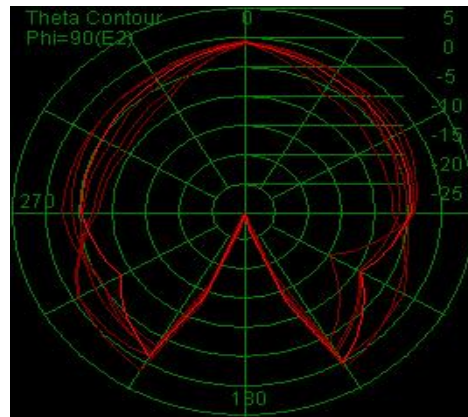
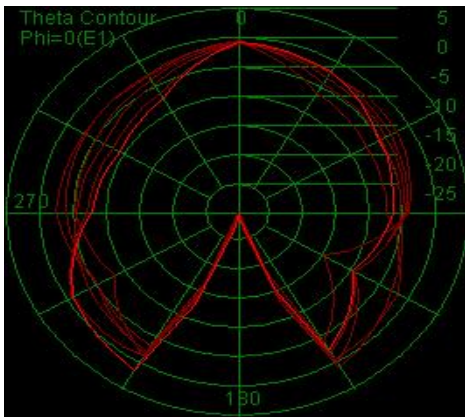


WIFI2-Passive Parameters-Floor Plan- 5100MHz-5800MHz

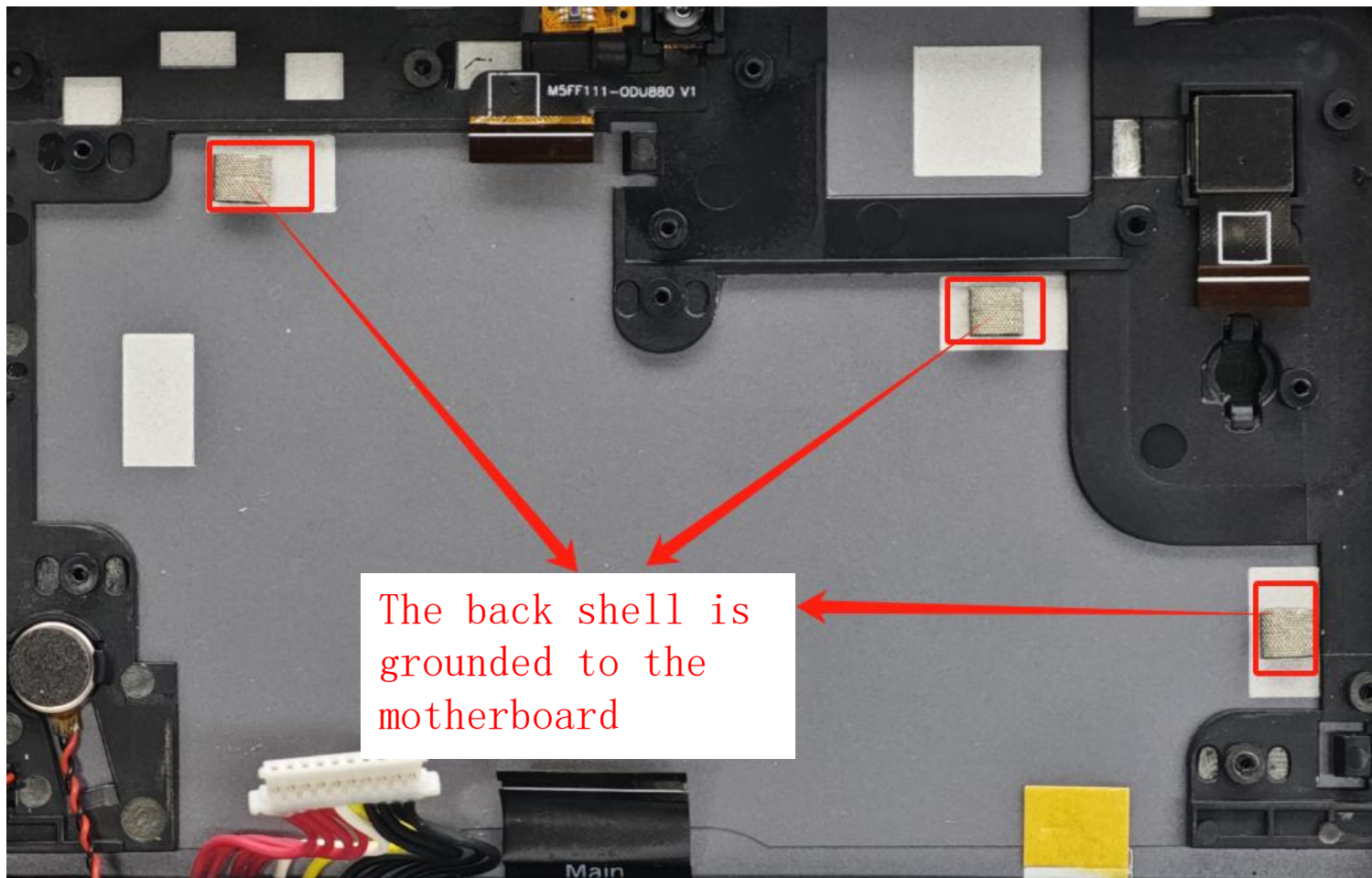
Horizontal:



Vertical:

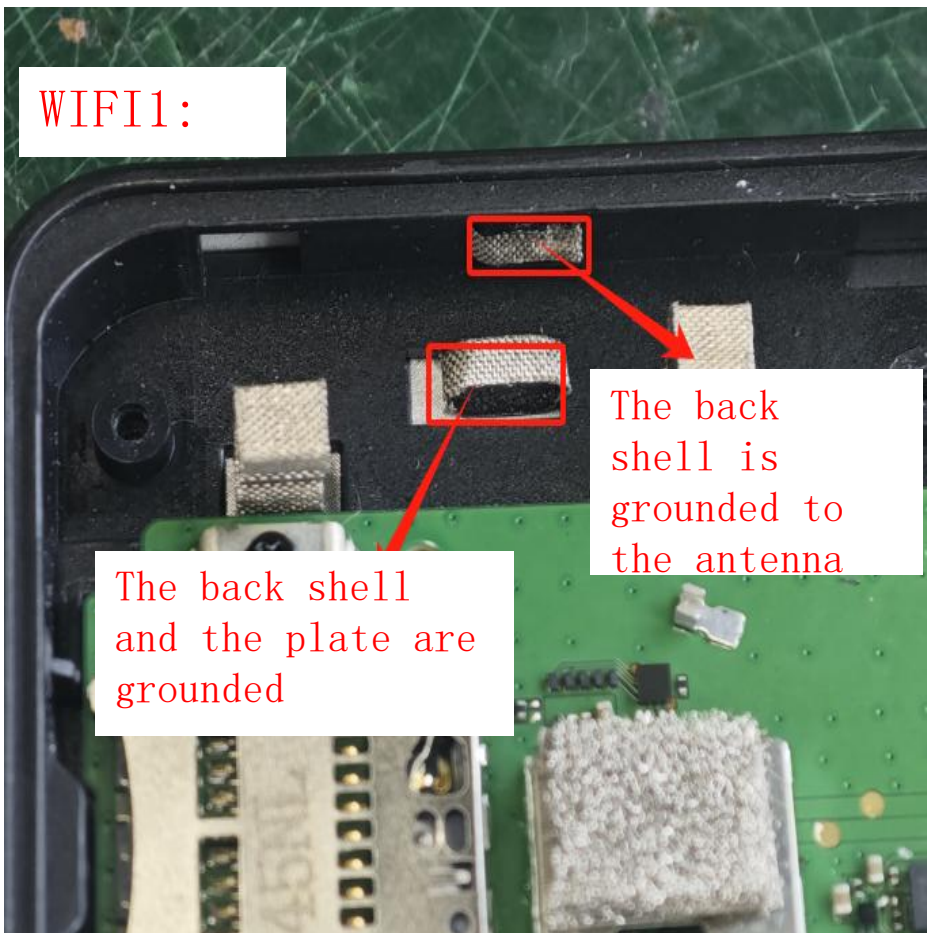


Antenna environment
treatment and improvement

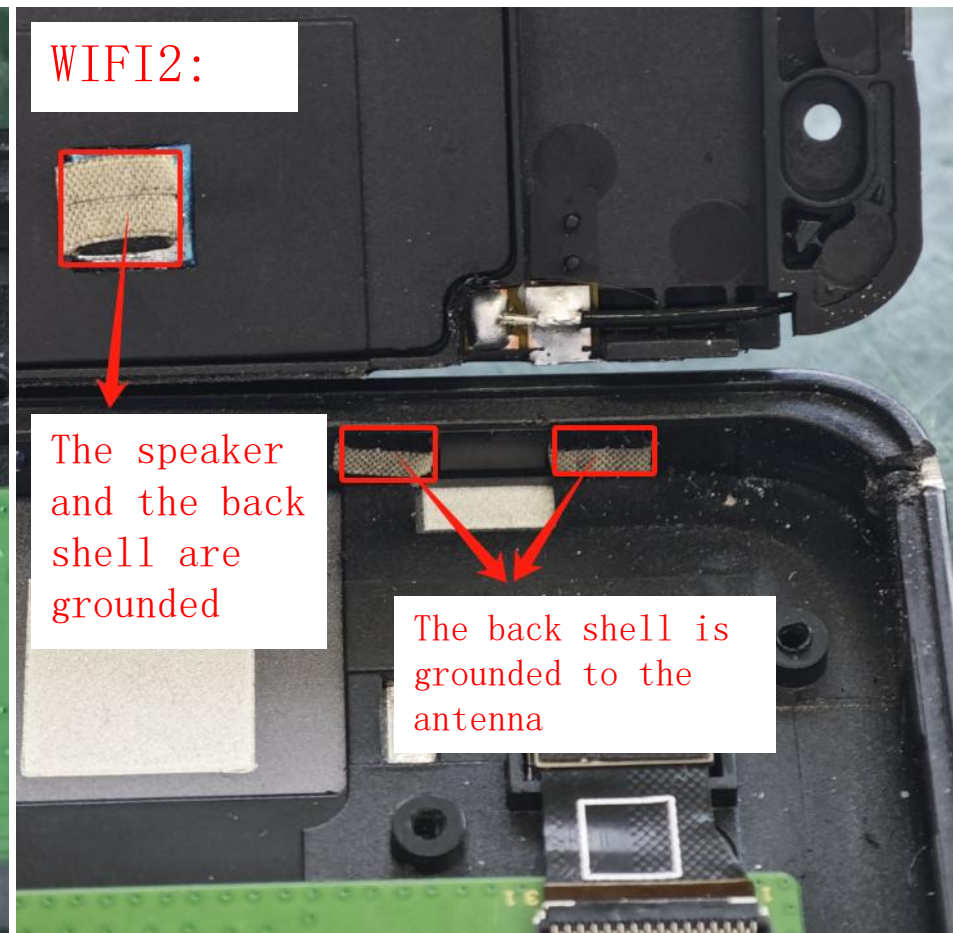


Antenna environment
treatment and improvement

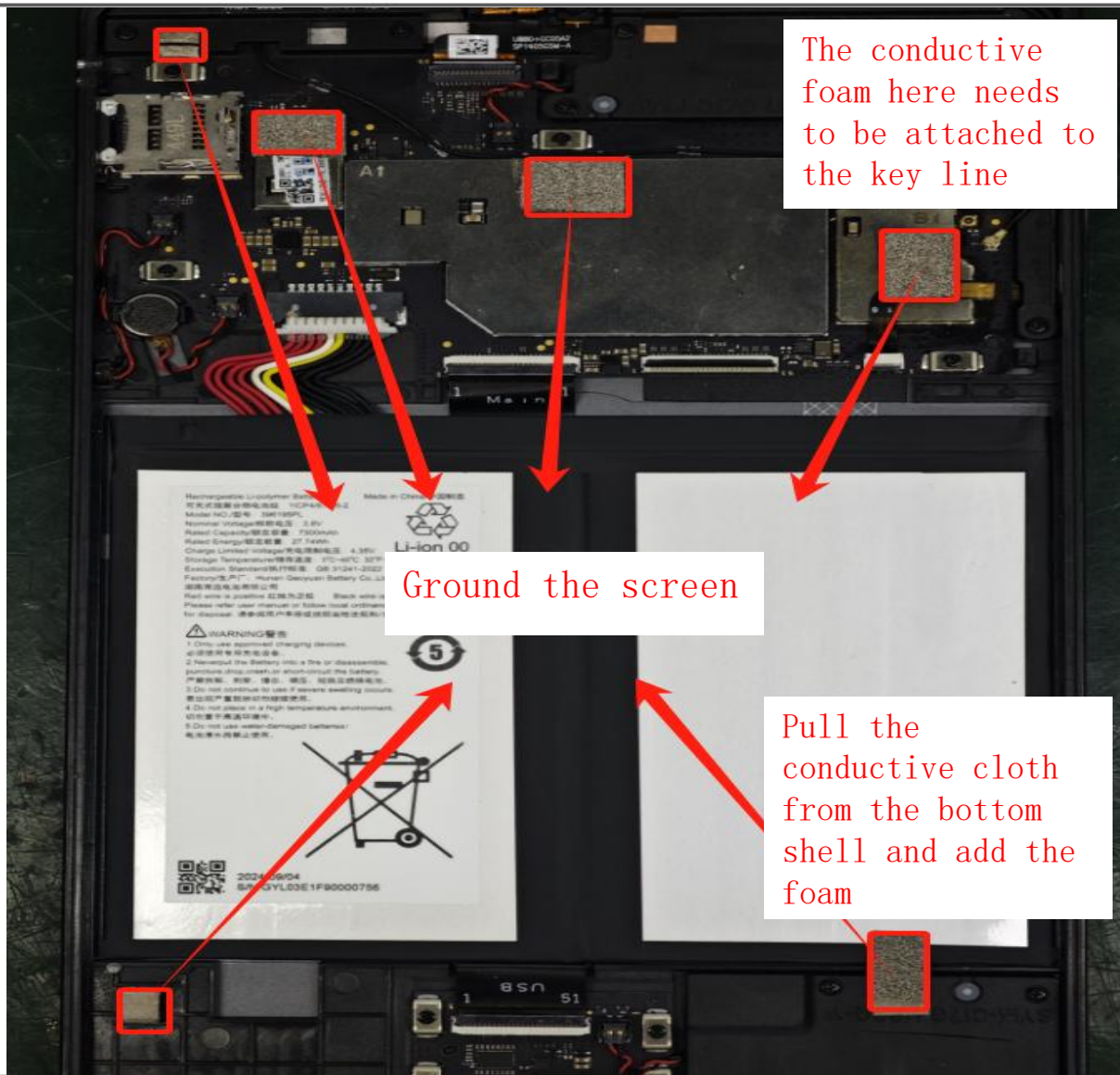
WIFI1:



WIFI2:



Antenna environment
optimization



Antenna photo





sum up

1. Note that the installed capacity should be handled according to the environment in the report to ensure the consistency of the whole machine

Thank you!



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Fax: 0755-86090455