深圳市扬跃电子通信科技有限公司
Shenzhen Yangyue Electronic Communication Technology Co., Ltd.

SPECIFICATION FOR APPROVAL

承認書

Customer Name	仁测
Product name	WIFI 2.4G/5G 天线
Product number	
Prepared By	Tony-Men
Checked By	
Approved By	
Apply Date	2023 年 3 月 10 日

CUSTOMER SIGNATURE		
Prepared By	**Checked By**	**Approved By**

PLEASE RETURN TO US ONE COPY OF"SPECIFICATION FOR APPROVAL"WITH YOUR APPROVED SIGNATURES.

Shenzhen Yangyue Electronic Communication Technology Co., Ltd
地址:东莞市虎门镇大宁社区浦江路2号创富赢家产业园A栋6楼

频率范围 **Frequency range**	2400 ~ 2500 MHz 5150 ~ 5850 MHz
增益 **Gain**	3.14dBi@2400 ~ 2500 MHz 3.91dBi@5150 ~ 5850 MHz
驻波比系数 **VSWR**	<2.0
输入阻抗 **Input Impedance**	50±5（Ω）
极化方式 **Polarization**	垂直极化 Vertical Polarization
半功率波束（**3dB**）**HPW**	180° H-plane 120° E-plane

Revision History

Date	Revision	Description of Changes
2022-11-10	RA	Measured with 2.4GHz/5.8GHZ antenna sample.

1 Technical Summary

This report summarizes the electrical results of the proposed antenna to support the 2.4GHz/5.8GHZ antenna program. We test the antenna with the latest version handset. And it seems to be acceptable.

2 General Description

2.1 Components/Part revisions

VSWR: Voltage Standing Wave Rate.

3 Mechanical Description

4 Electrical Performance

4.1 Set-up

4.1.1 VSWR

VSWR measurements (S11) were performed using an Agilent 8753D Network Analyzer and the previously described test fixture. Coaxial chokes were used to mitigate surface currents on the outside of the cabling. The testing was performed in free space.

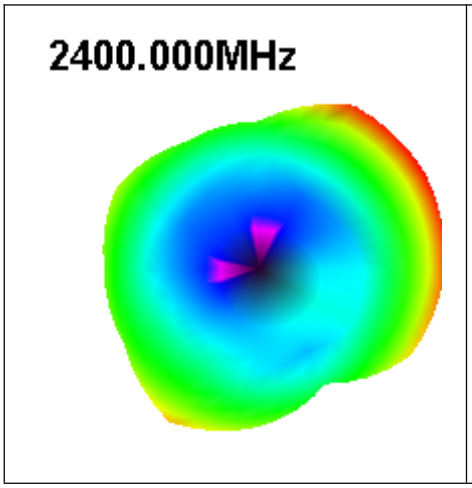
4.1.2 Gain & Radiation Patterns

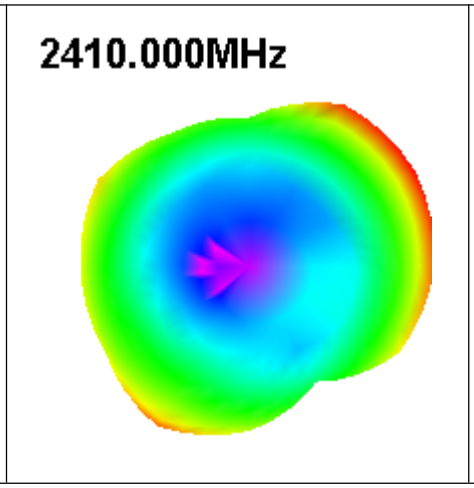
The gain of the antenna was measured in the Lxc's anechoic chamber. Coaxial chokes on the feed cable were used to mitigate surface currents. The chamber provides less than –30 dB reflectivity from 300 MHz through 6 GHz and an 18" diameter spherical quite zone. The measurement results are calibrated using both dipole and leaky wave horn standards.

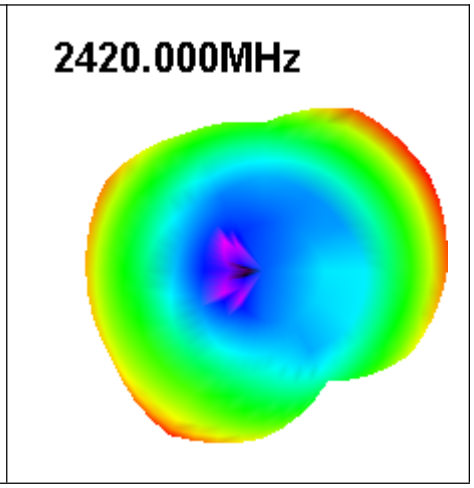
4.1.3 Matching Circuit Description

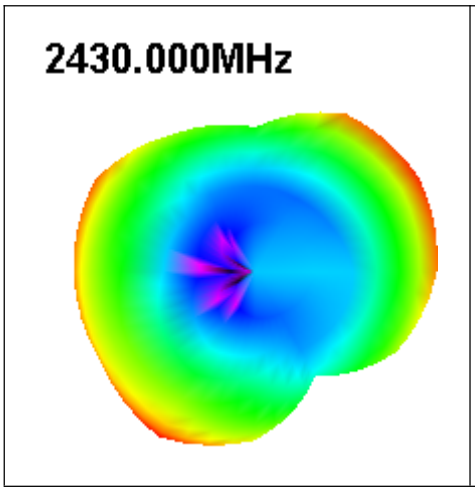
No changed..

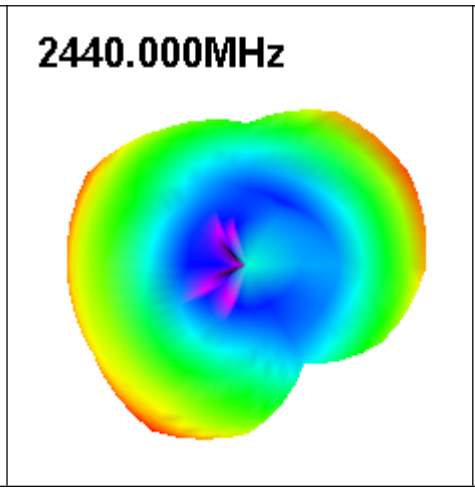
5. Antenna - Radiation Pattern Test Data

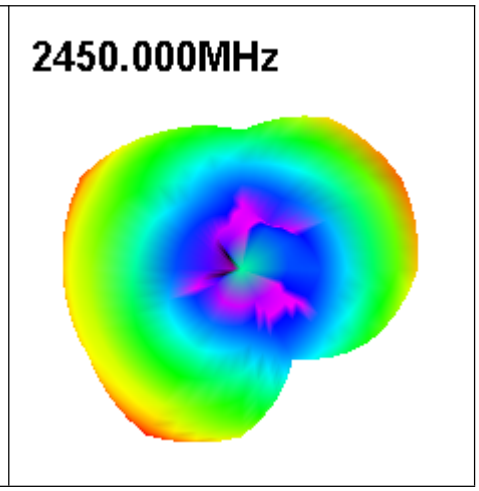


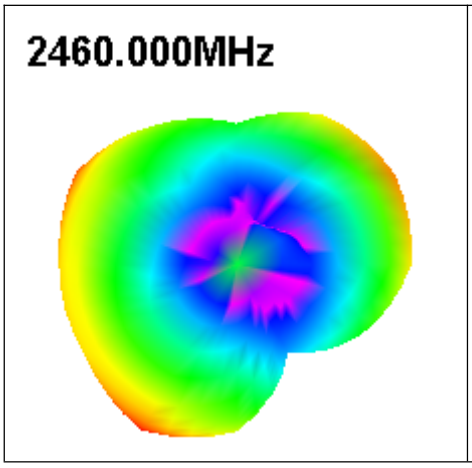


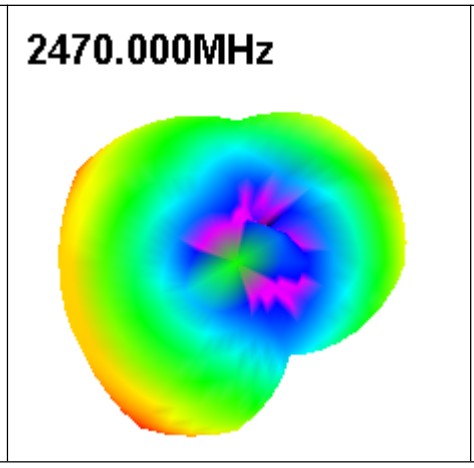


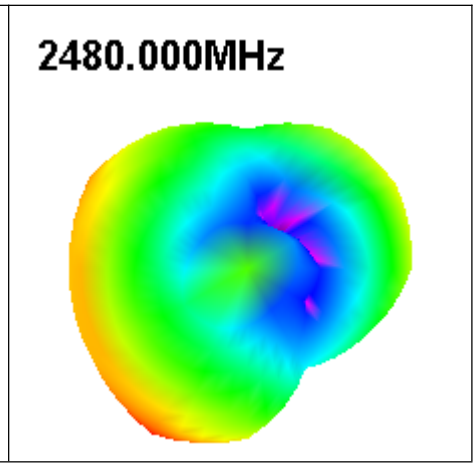


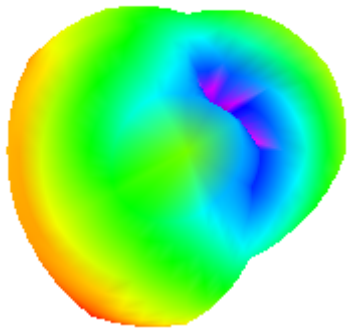
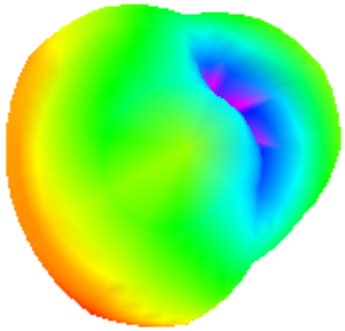


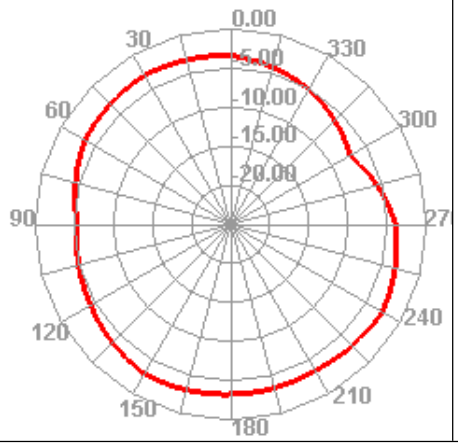
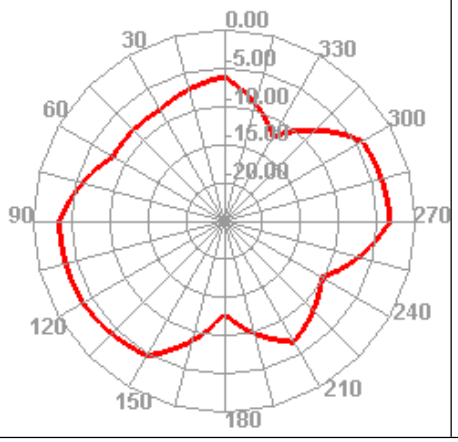
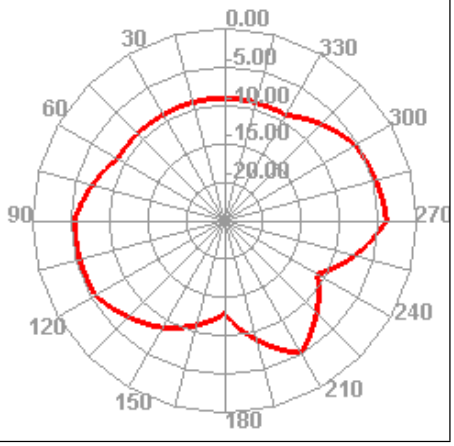




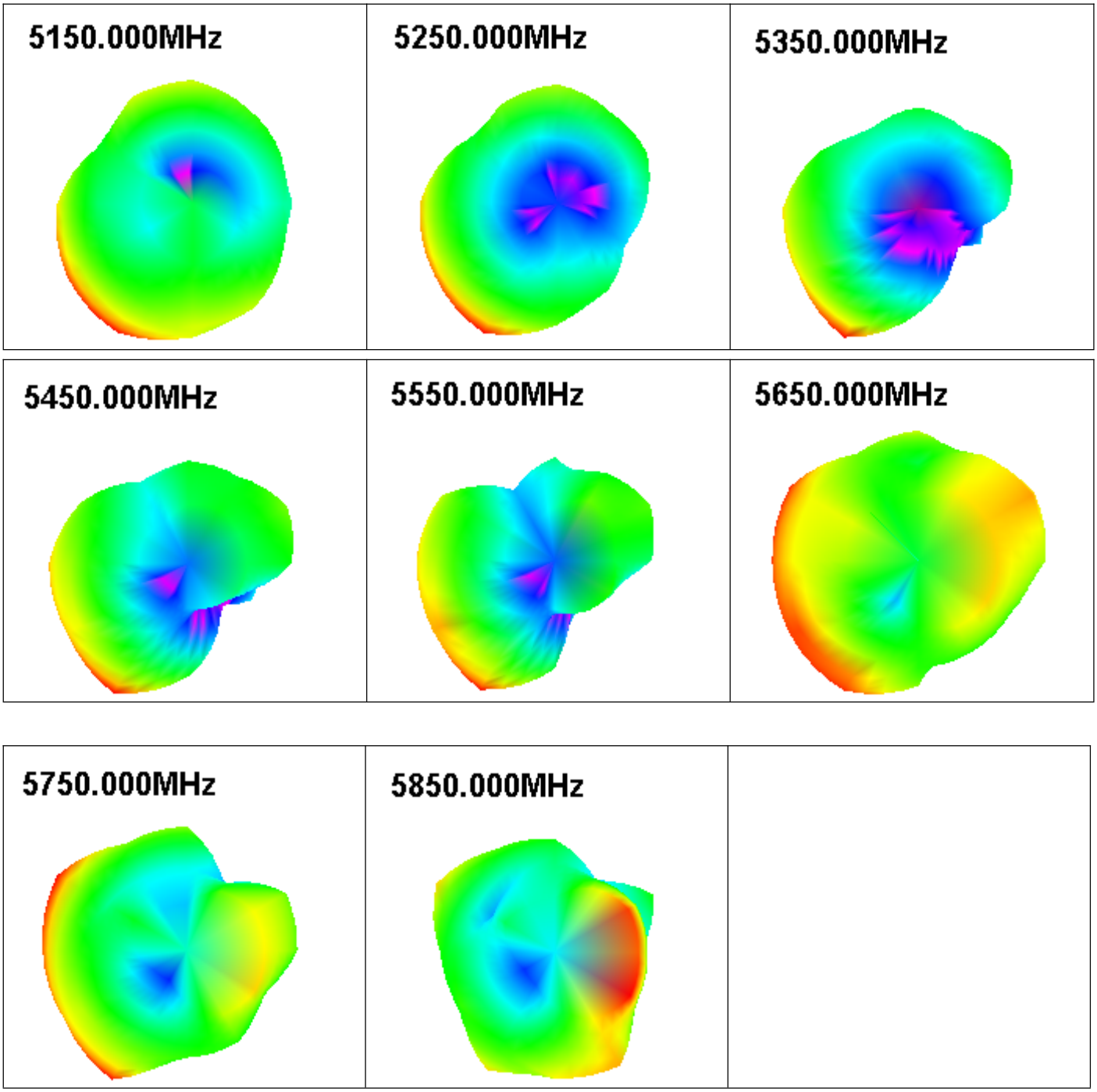


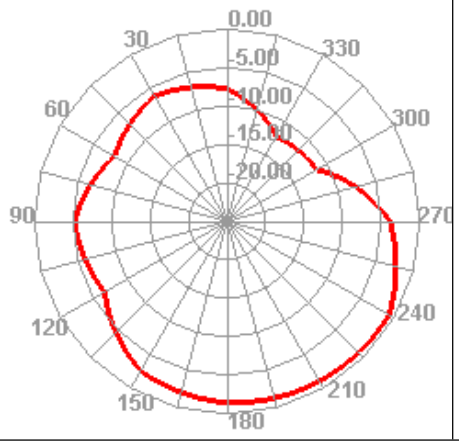
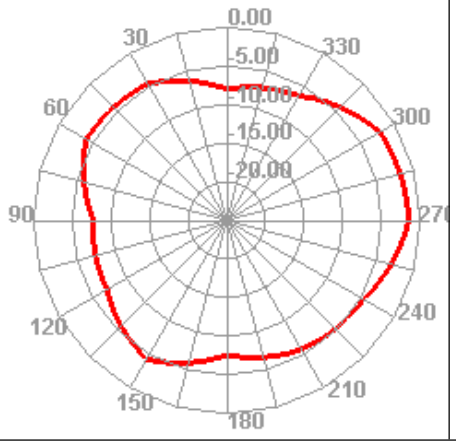
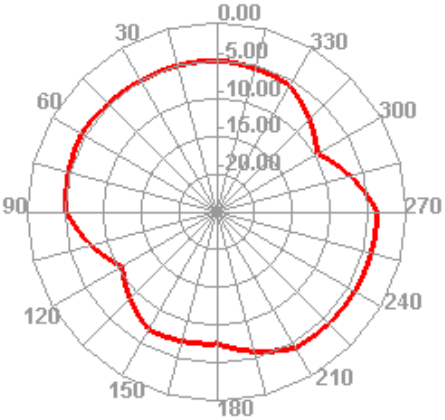


2490.000MHz	2500.000MHz	
		

XY	XZ	YZ
		

Freq	(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Effi	(%)	41.84	43.96	44.28	45.15	45.37	47.89	49.07	50.27	51.65	50.38	49.49
Gain	(dBi)	1.87	1.91	1.99	2.15	2.37	2.64	2.87	3.08	3.14	3.11	3.05


5150.000MHz
5250.000MHz
5350.000MHz
5450.000MHz
5550.000MHz
5650.000MHz
5750.000MHz
5850.000MHz

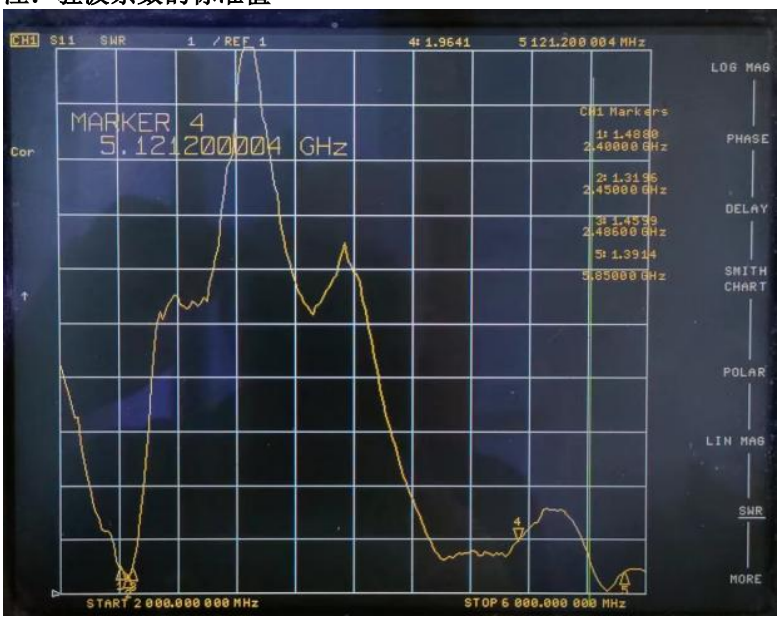
XY	XZ	YZ
		

Freq	(MHz)	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850
Effi	(%)	45.25	46.63	46.99	47.71	48.89	52.28	50.73	50.94	51.59	48.16	46.2	46.33	51.69	51.39	51.98
Gain	(dBi)	2.91	2.94	2.98	3.05	3.11	3.87	3.65	3.68	3.76	3.09	3.91	2.89	3.79	3.64	3.82

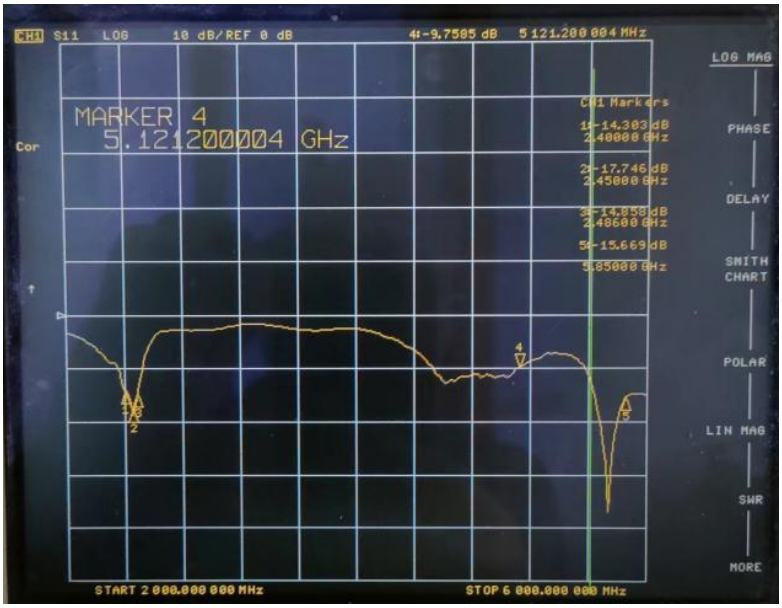
6.Plots

VSWR

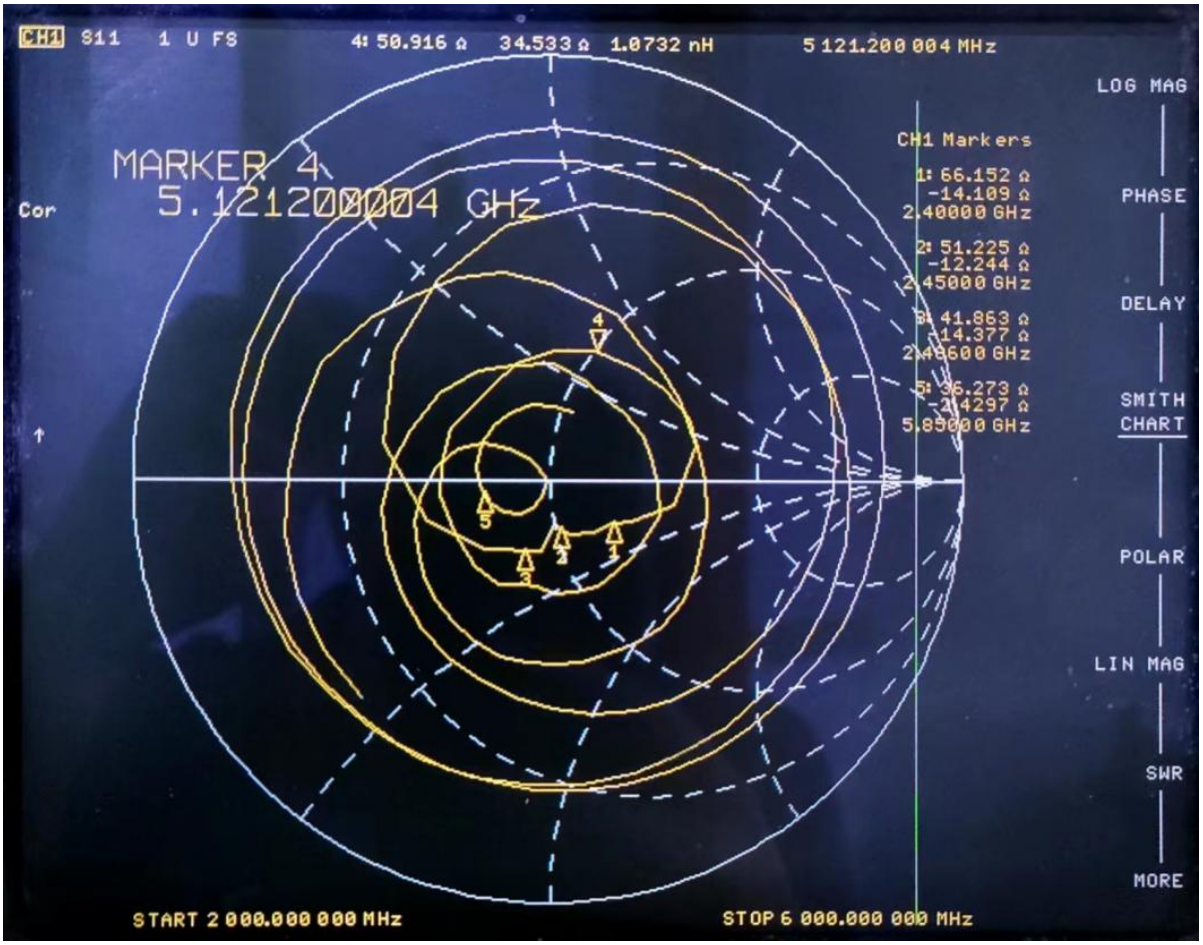
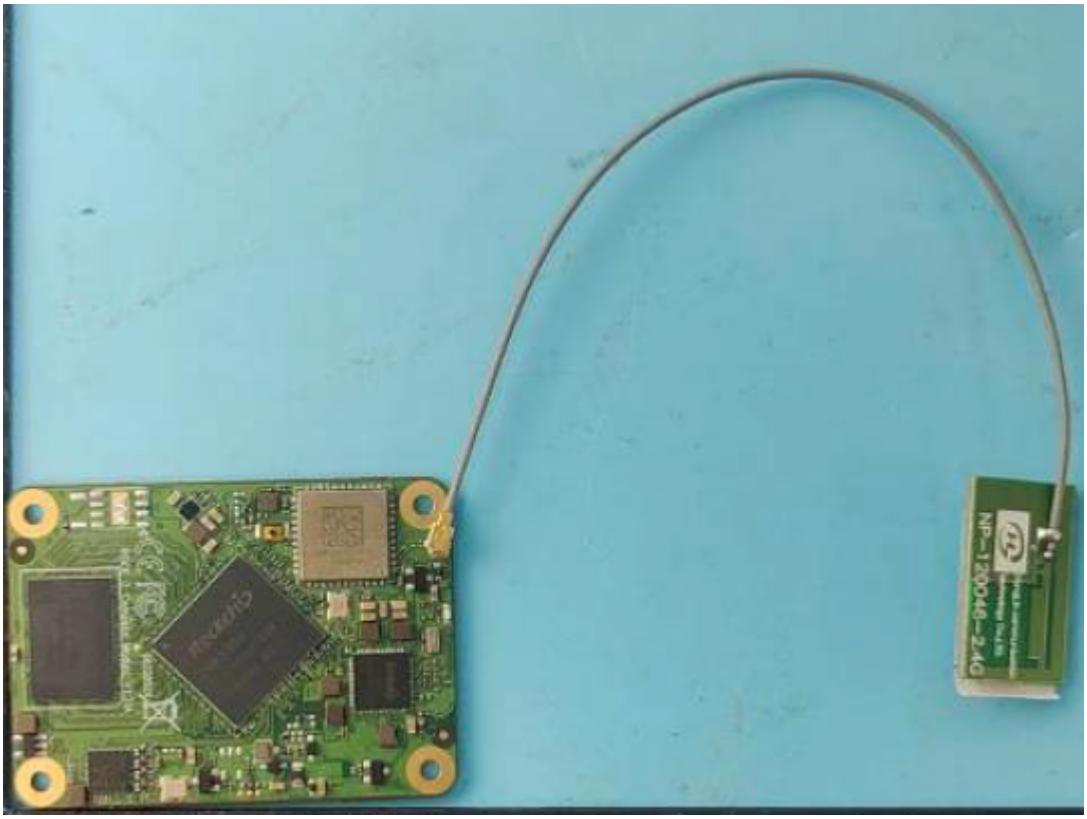
注：驻波系数的标准值



注：回损的标准值



3.史密斯图


CH1 S11 1 U FS
4: 50.916 Ω 34.533 Ω 1.0732 nH
5 121.200 004 MHz
MARKER 4
5.121200004 GHz
Cor
CH1 Markers
1: 66.152 Ω
-14.109 Ω
2.40000 GHz
2: 51.225 Ω
-12.244 Ω
2.45000 GHz
3: 41.863 Ω
-14.377 Ω
2.48600 GHz
5: 36.273 Ω
-14.297 Ω
5.85000 GHz
LOG MAG
PHASE
DELAY
SMITH CHART
POLAR
LIN MAG
SWR
MORE
START 2 000.000 000 MHz
STOP 6 000.000 000 MHz

6.Mechanical drawing