



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	顺盟
Product name	WIFI 2.4G/5G 天线/YY-SM01022-A.0/线径 0.81/同轴线长 55±3/带天线扣子/R2 项目专用
Product number	
Prepared By	Tony-Men
Checked By	
Approved By	
Apply Date	2022 年 11 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.		

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频率范围 Frequency range	2400 ~ 2500 MHz 5150 ~ 5850 MHz
增益 Gain	3.1dBi@2400 ~ 2500 MHz 3.8dBi@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

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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 quiet zone. The measurement results are calibrated using both dipole and leaky wave horn standards.

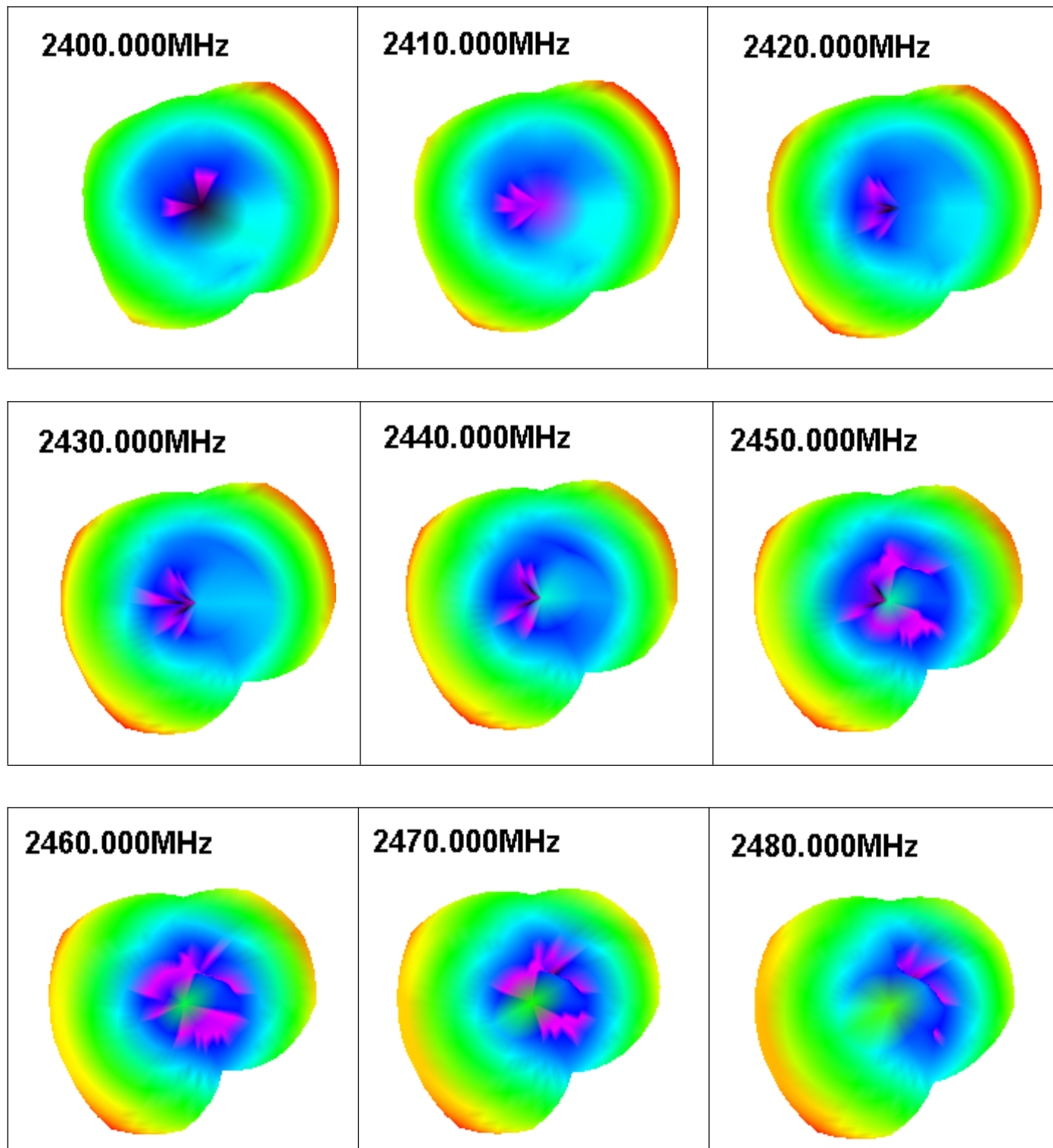
4.1.3 Matching Circuit Description

No changed..

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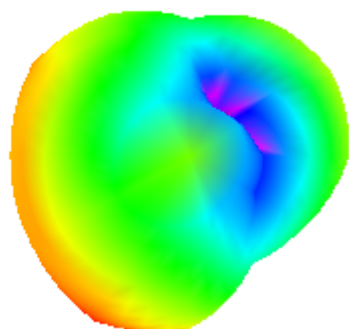
5. Antenna - Radiation Pattern Test Data



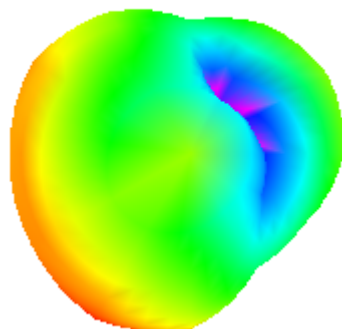
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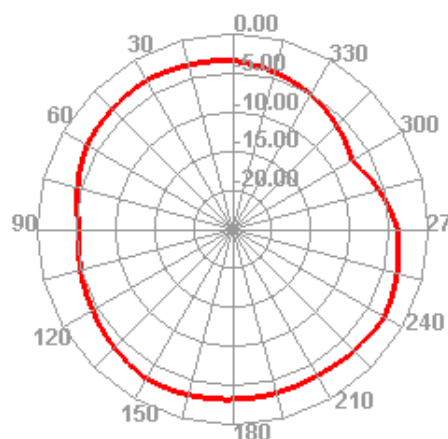
2490.000MHz



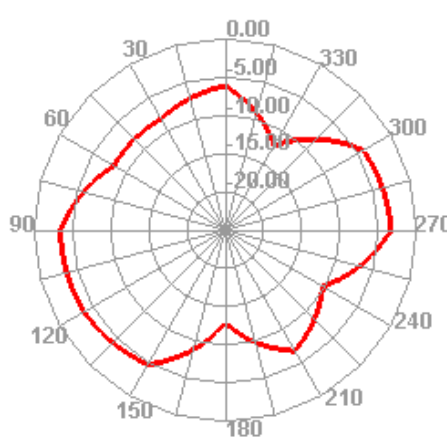
2500.000MHz



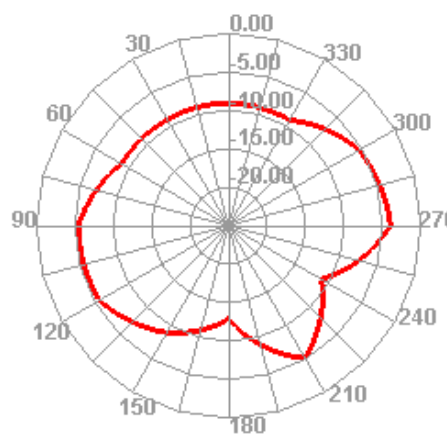
XY



XZ



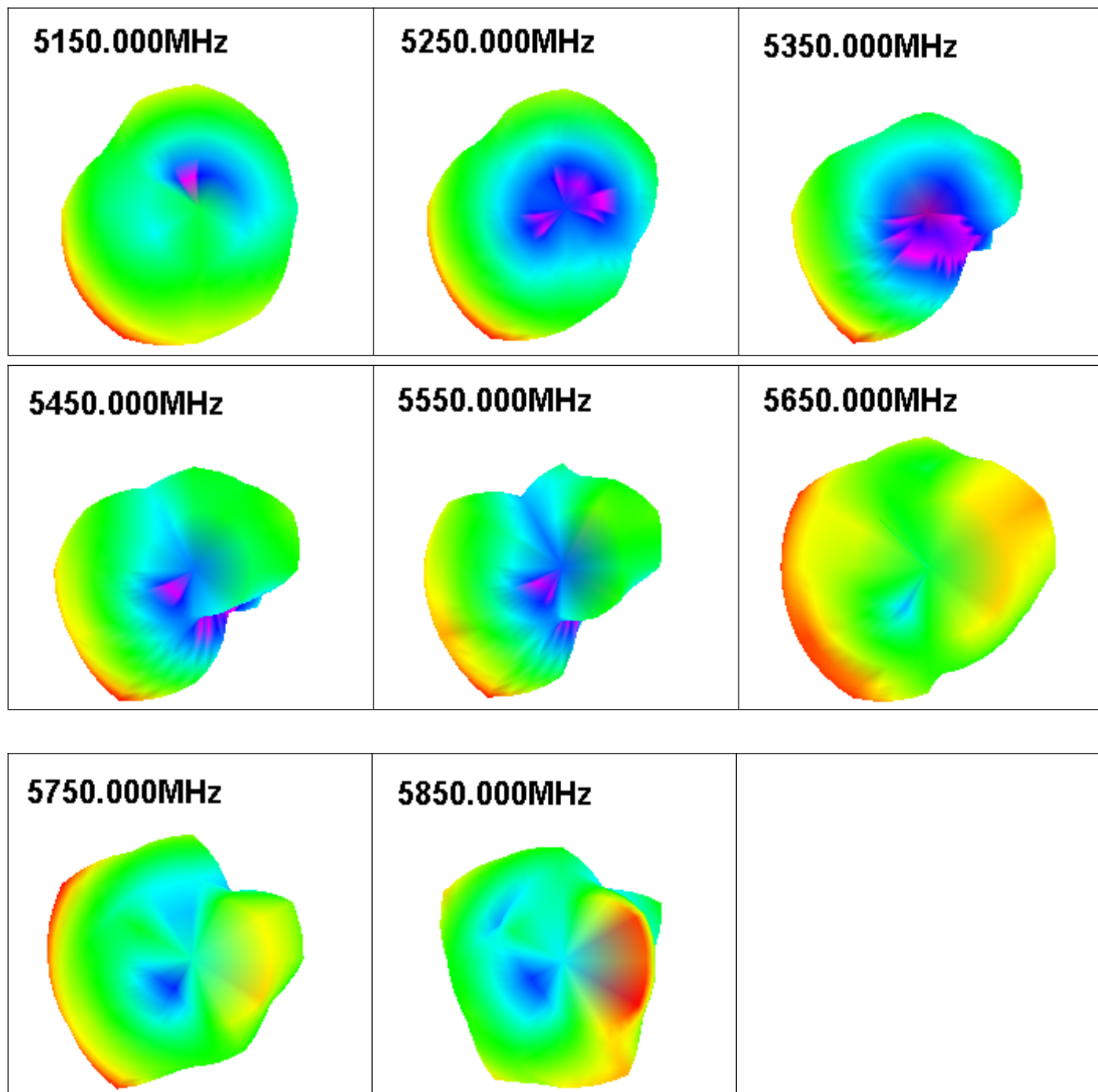
YZ



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

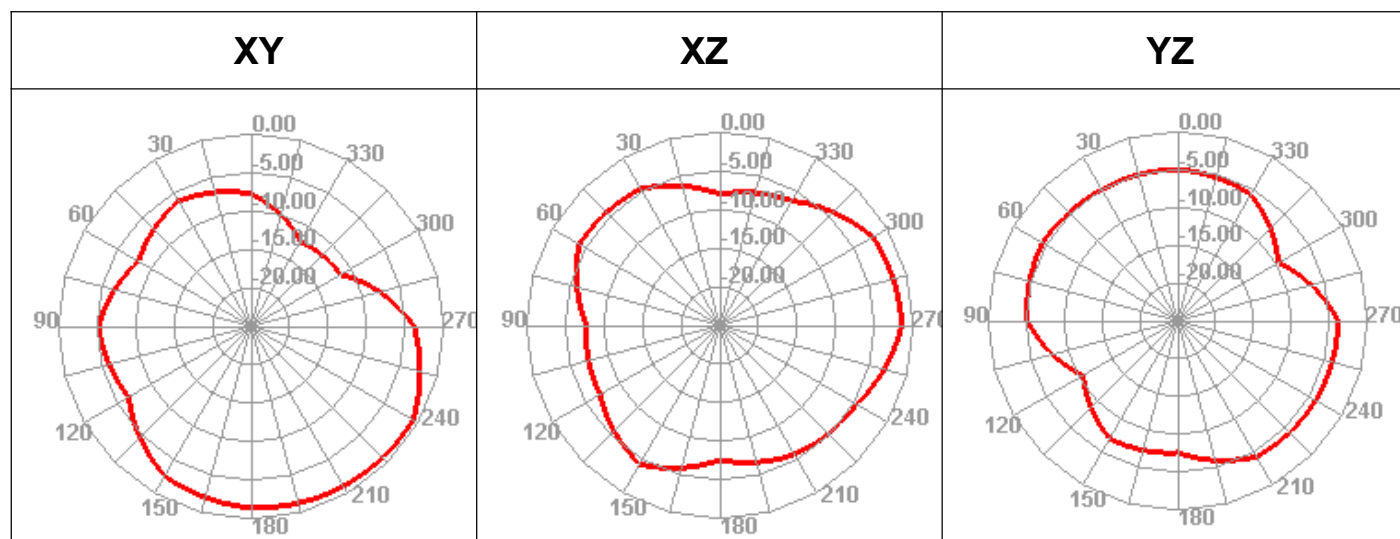
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Freq (MHz)	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850
Effi (%)	45.25	46.63	46.99	47.71	48.89	52.28	50.73	50.94	51.59	48.16	46.2	46.33	51.69	51.39	51.98
Gain (dBi)	2.91	2.94	2.98	3.05	3.11	3.87	3.65	3.68	3.76	3.09	3.91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

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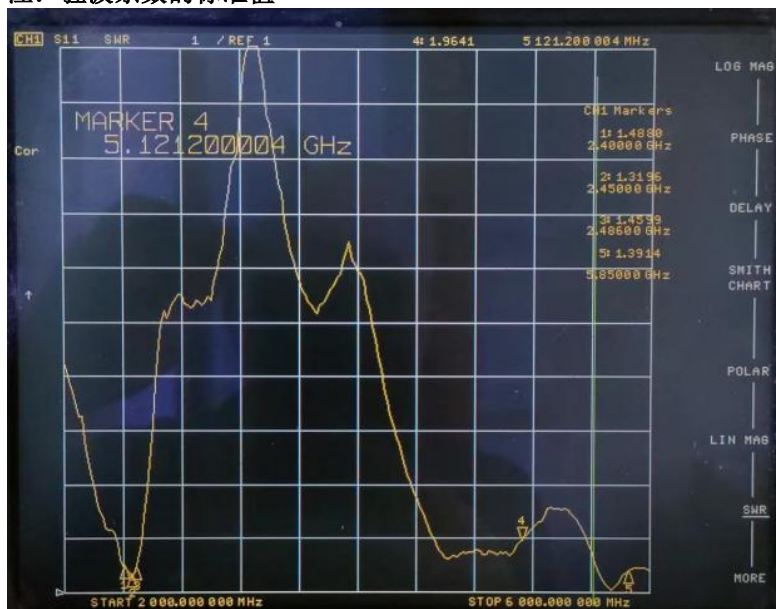
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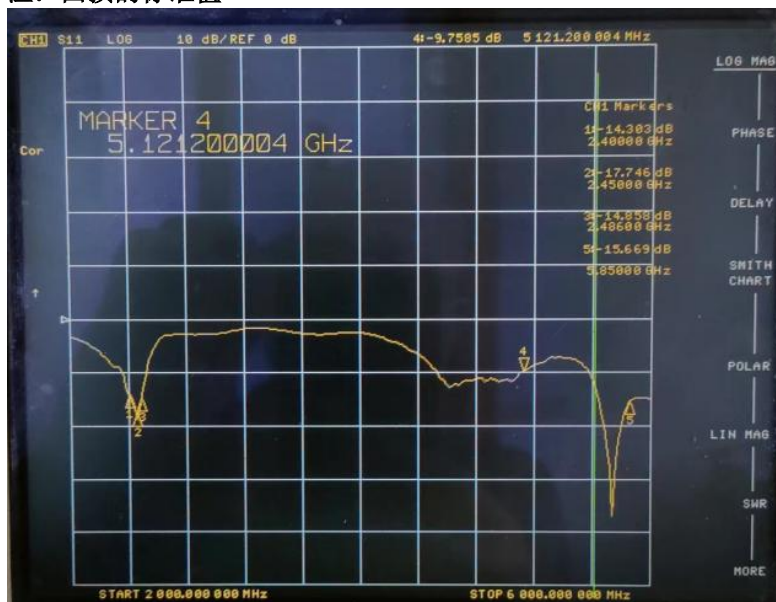
6.Plots

VSWR

注：驻波系数的标准值



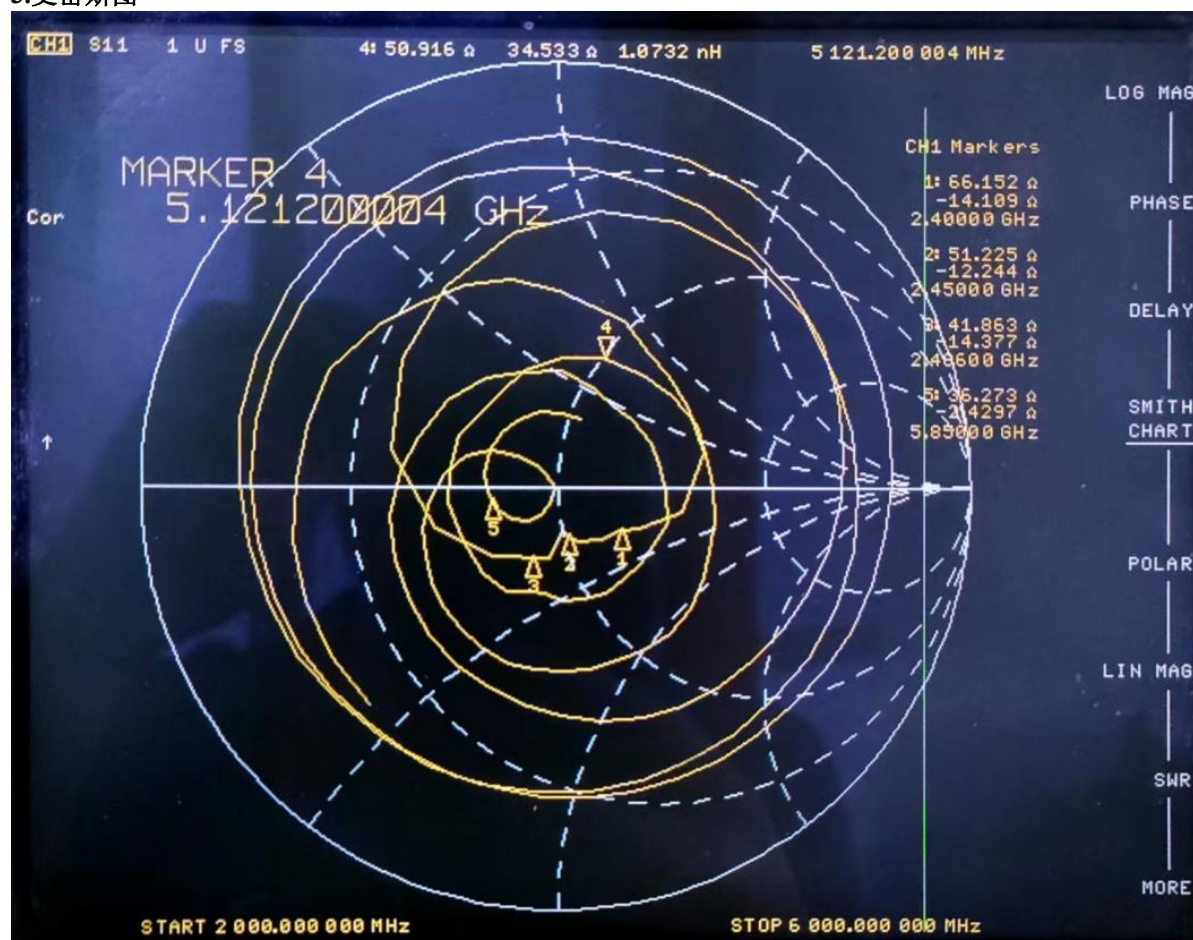
注：回损的标准值



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3. 史密斯图



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Shenzhen Yangyue Electronic Communication Technology Co., Ltd.

RoHS

Compliance

REV.	ORDER NO	DATE
A.0	新版发行	2022-6-24

Technical drawing of a cable assembly. The drawing shows a cable with a length dimension of 55 ± 3 . The cable is labeled "RF0.81 黑色线" (RF0.81 Black line). The cable is terminated with a "4代端子" (4th generation terminal) and a "端子口朝下" (Terminal port facing down). The drawing also shows a cross-section of the cable with dimensions 10.5 ± 0.2 and 10.5 ± 0.2 .

技术要求

测试频率:2400MHz-2500MHz

5150MHz-5850MHz

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PART NAME: 射频线 2.4-5.8GHz 50Ω 0.1mm 0.1mm 0.1mm 0.1mm		Customer P/N :	
APPROVED BY	CHECKED BY	DESIGNED BY	DATE
		Taoqin	2022-11-10
REVISION: A.1		Tolerance	
		X, Y ±0.50	
		X, Y ±0.15	
		X° ±3°	

7 Reliability tests

7.1 Test content

No	试验项目	试验方法	判定基准
1	盐水喷雾试验	把盐浓度 5%的溶液喷雾 24HR	不能有变色, 歪 (变形) 脱落等的缺点 腐蚀面积不能过大

7.2 Test results

NO	样品数	试验期间	实验结果	备注
1	10	24 小时	OK	技术等级为 9 级 腐蚀<0.4mm

8 Conclusion

以上数据表明此 2.4GHz/5.8GHz 天线参数均已达标。性能以装机后的实际使用效果为准。

From the above test results, we can know the electrical performance of the antenna is seems good.

Shenzhen Yangyue Electronic Communication Technology Co., Ltd, look forward to your confirmation, thank you for your cooperation!