

东莞市泰康电子科技有限公司

Dongguan Teconn Electronics Technology Co., Ltd.

SPECIFICATION

规格书

Customer Name	/
Product name	FPC 天线
Product number	W620120-B-01-P
Customer P/N :	
Prepared By	张景
Date	2022 年 10 月 27 日

频率范围 Frequency range	2.07Dbi@2400 ~ 2500 MHz 1.66Dbi@5150 ~ 5850 MHz
驻波比系数 VSWR	<2.5
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
2022.10.27	RA	Measured with 2.4GHz/5.8GHz sample.

1 Technical Summary

This report summarizes the electrical results of the proposed antenna to support the **W620120-B-01-P** 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 PhysicallImage

4 Electrical Performance

4.1Set-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..

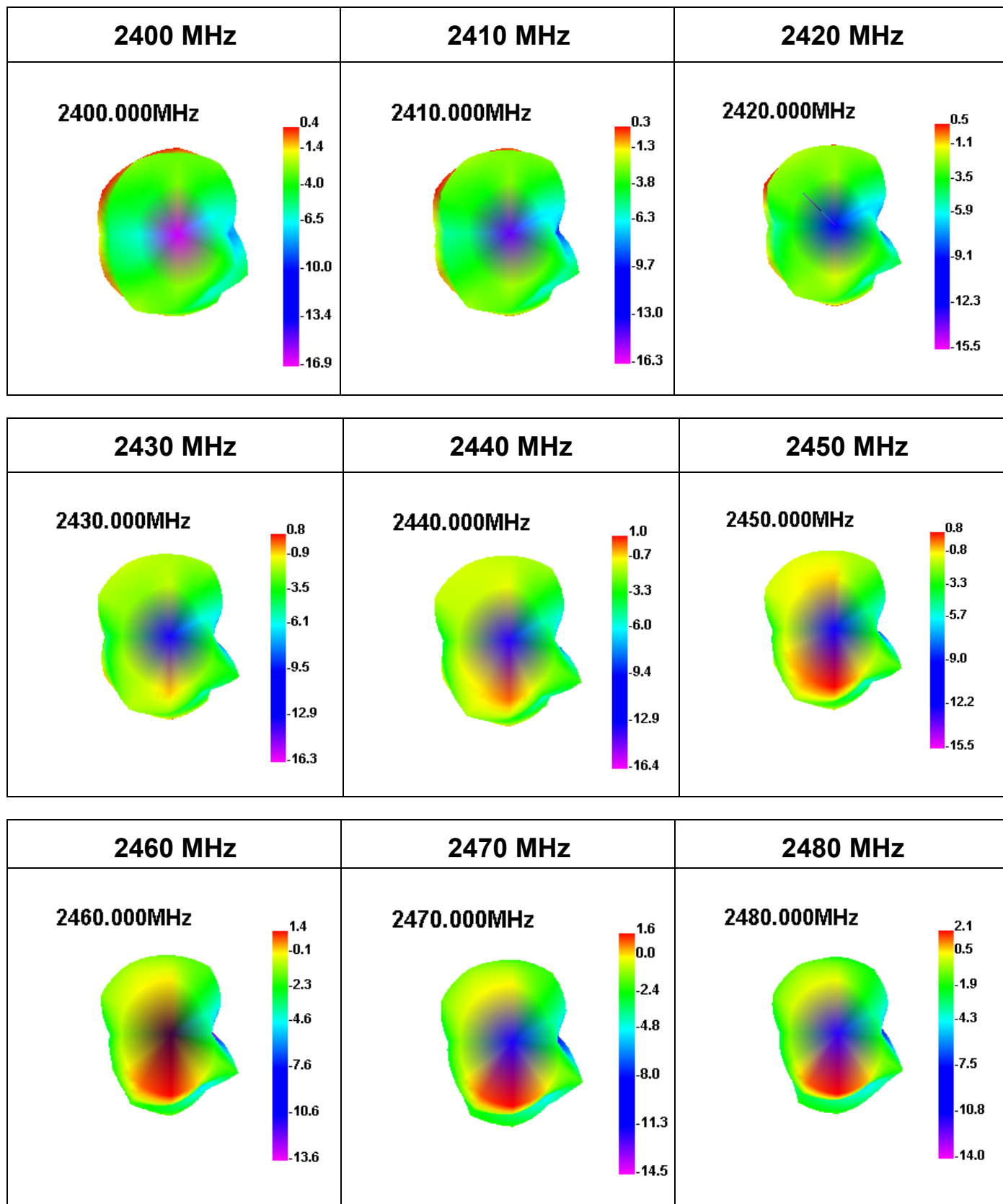
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5 Antenna - Radiation Pattern Test Data

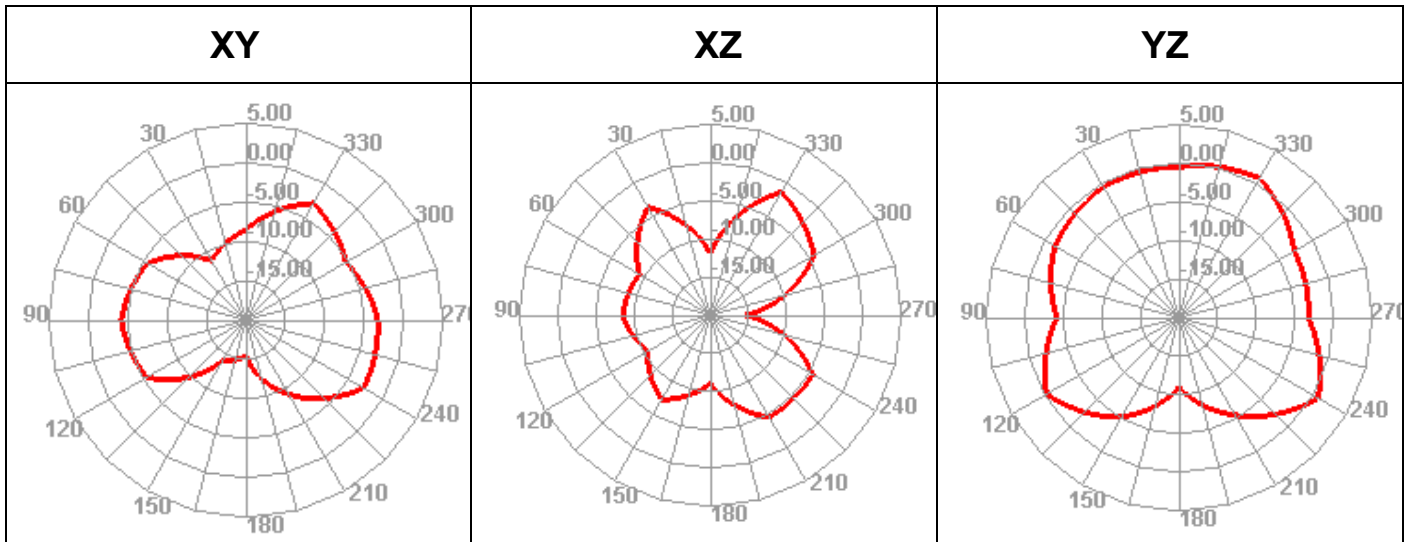
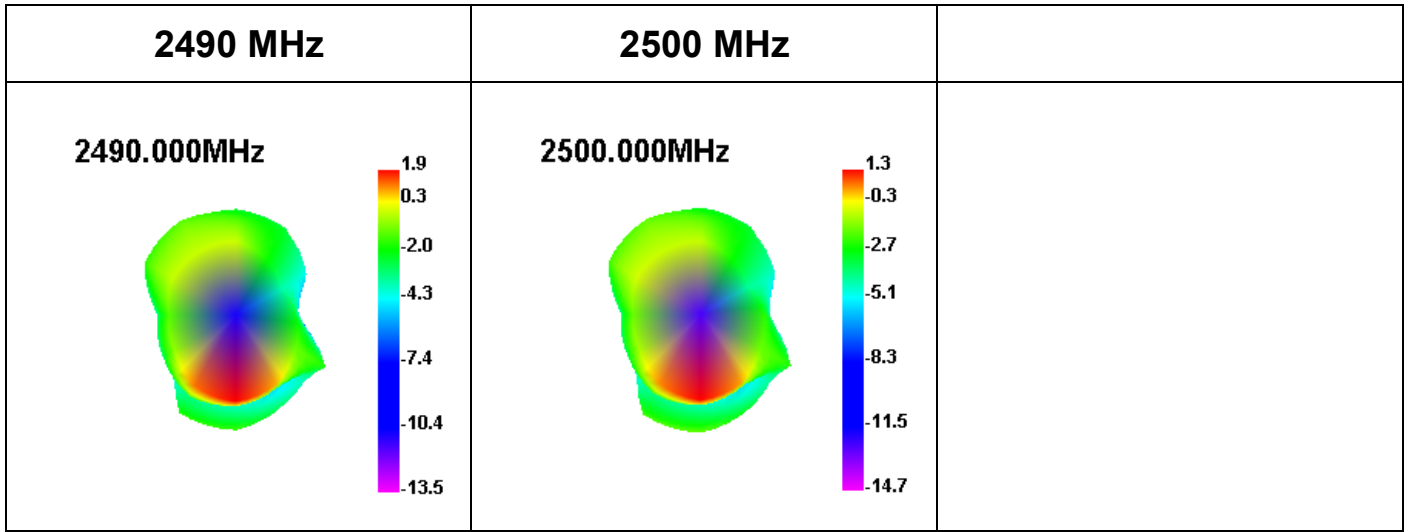


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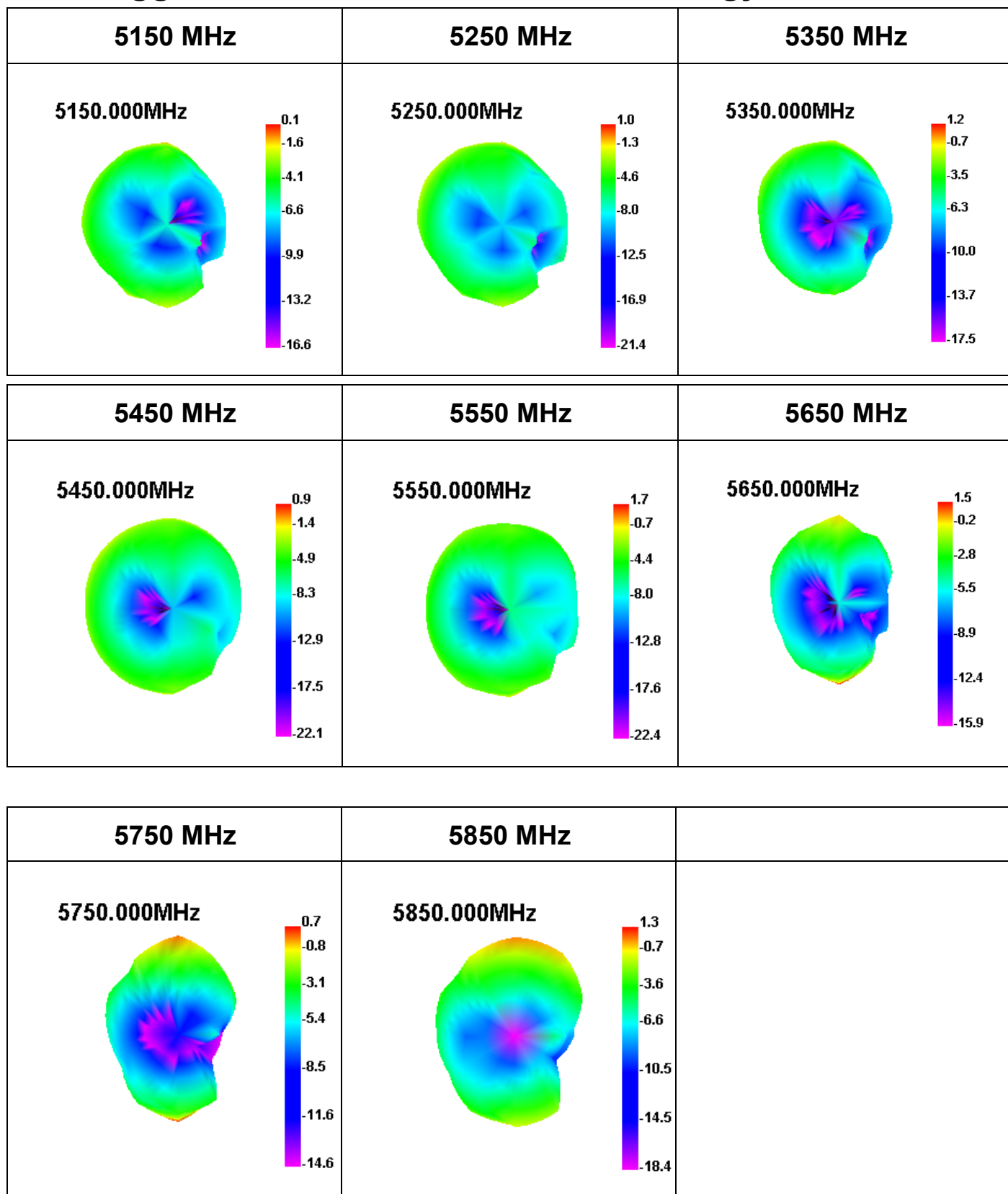
2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
36.44	36.4	39.28	42.74	45.97	46.87	49.74	48.02	50.74	47.47	41.94
0.36	0.31	0.49	0.8	1.03	0.81	1.45	1.62	2.07	1.86	1.3

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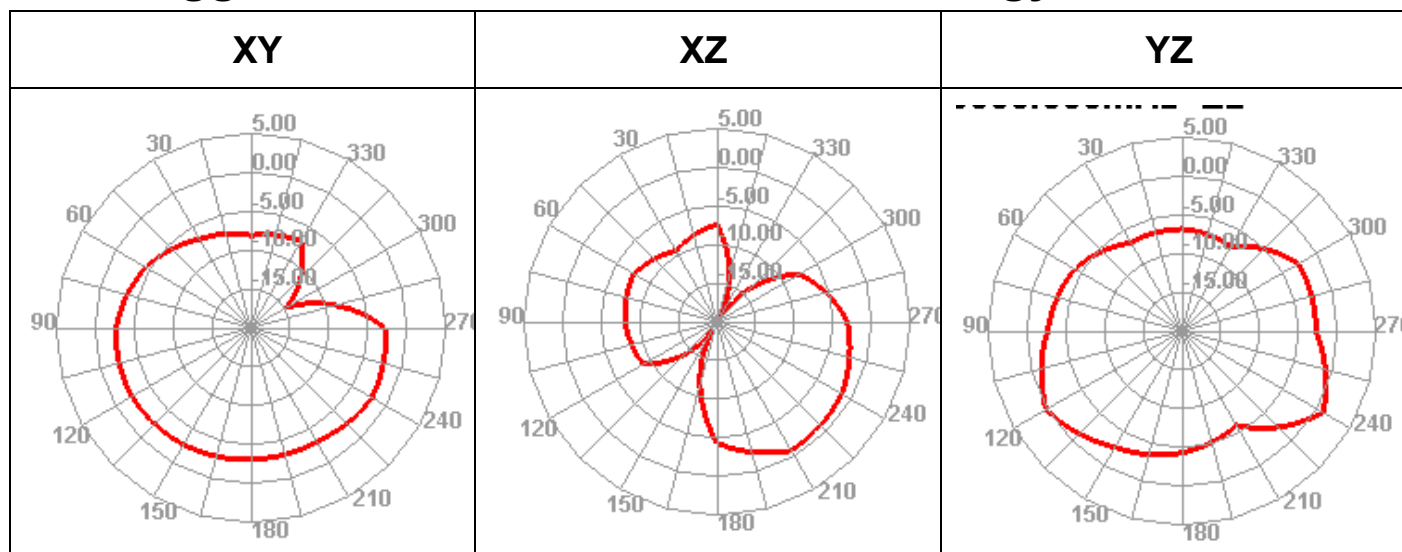


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Freq (MHz)	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850
Effi (%)	32.62	31.58	33.2	32.64	36.79	39.79	37.85	38.82	39.51	36.63	38.03	31.9	35.68	37.39	40.15
Gain (dBi)	0.09	0.15	0.98	0.76	1.2	1.04	0.87	0.97	1.66	1.04	1.5	0.31	0.74	0.98	1.28

6.Plots

VSWR

注：驻波系数的标准值



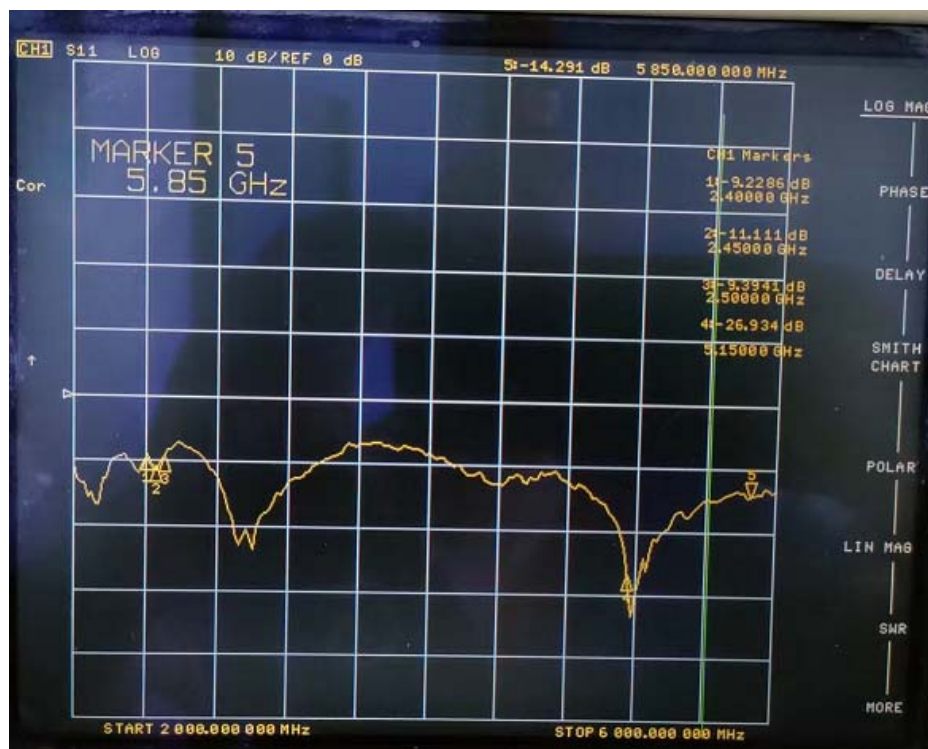
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注：回损的标准值



7 Reliability tests

7.1 Test content

N O	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 24H	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

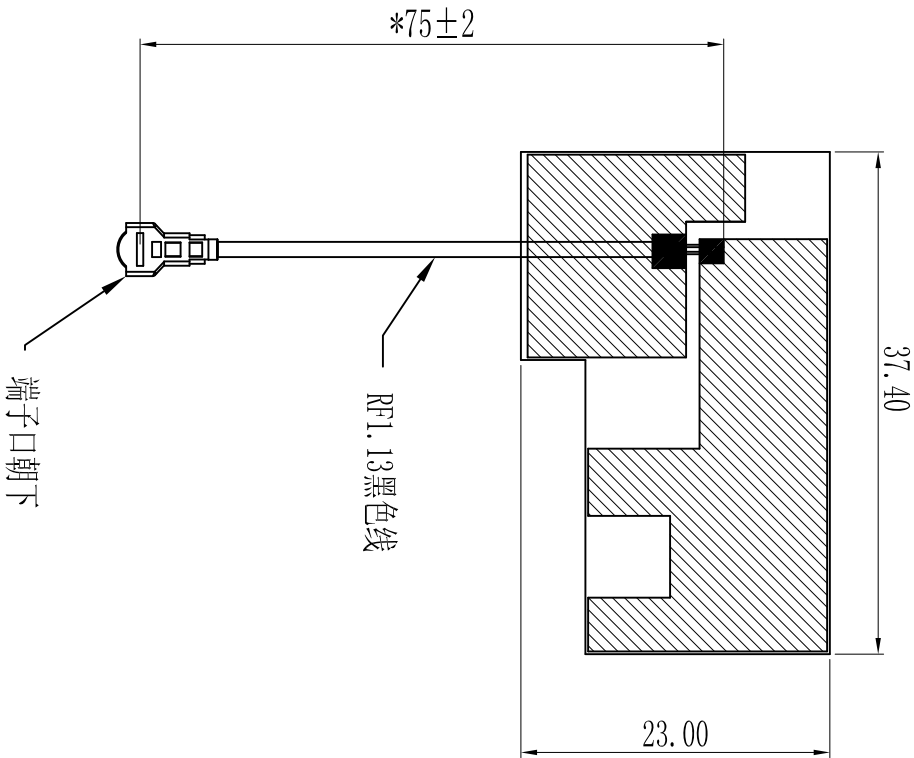
NO	样品数	试验期间	实验结果	备注
1	50PCS	24 小时	OK	技术等级为 9 级 腐蚀<0.4mm

8 Conclusion

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

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技术要求:

1. 材料: FPC(单面板, 电解铜), 半对半基材: PI1812, 表面做黑油, T<0.125mm; 反面背胶类型: 3M-467 (粘性需过热冲击实验);
2. 镀金厚度1u"以上, 不可有镀金后易断裂及脱落、导电不良、电路部分断裂等不良现象; 要求能过24小时盐雾试验。
3. 热冲击实验条件: -40° C~+80° C 24个周期 (一周期为30分钟)
4. 标*号为重点管控尺寸, 未注公差按图框中自由公差管控; 未标注尺寸以菲林片检验为准 (电性能需测试OK)
5. 涂☑为铜箔线路, 涂■的为镀点区域, 涂□的为基材区域
6. 表面不可有污染物、擦伤、黑点;
7. 产品符合ROHS标准.

2	FPC	37.4*23.0	1
2	端子	IPEX 1代	1
1	线材	RF 1.13 Cable黑色 L=75.0mm	1
NO	PART NAME	DESCRIPTION	Q.TY
X. ±		APPR: Lebon Lee	TITLE: FPC天线
.X ± 0.50		CHKD: Kevin Han	
.XX ± 0.15		DR: Zhangjing	
.XXX ±		PART NO: W620120-B-01-P	
X' ±		DWG NO: C-W620120-B-01-P	SHEET: 1 OF 1
X'' ±		CUSTOMER DRAWING	
UNITS: mm		SCALE: 1:1	REV: X1

REV	ECN NO	DESCRIPTION	DESIGN	DATE
X1	TE2022-XXXX	New Drawing	Zhangjing	2022/10/18
1				

