

Shenzhen Lxc Electronics Technology Co ., Ltd

APPROVAL SHEET

For

小辣椒 WIFI 天线 project

Antenna componentst

频率范围 Frequency range	WIFI:(890MHz-910MHz))
驻波比系数 VSWR	<4.0
输入阻抗 Input Impedance	50 (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

RF by		Checked by	
ME by		Date	
Customer Confirm			

Project:		Author:Wang	File Name: 小辣椒 WIFI 天线
Date: 2024-11-05			
TEST:	Language:	Check: Zhong	
A	English		
地址：深圳市龙华区大浪街道华芳路 12 号金瑞华工业园 C 栋 4 楼			
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Revision History

Date	Revision	Description of Changes
2024-11-05	RA	Measured with SUS301 sample.

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小辣椒 WIFI 天线 PROJECT 1

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1 Technical Summary

This report summarizes the electrical results of the proposed antenna to support the 小辣椒 WIFI 天线 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

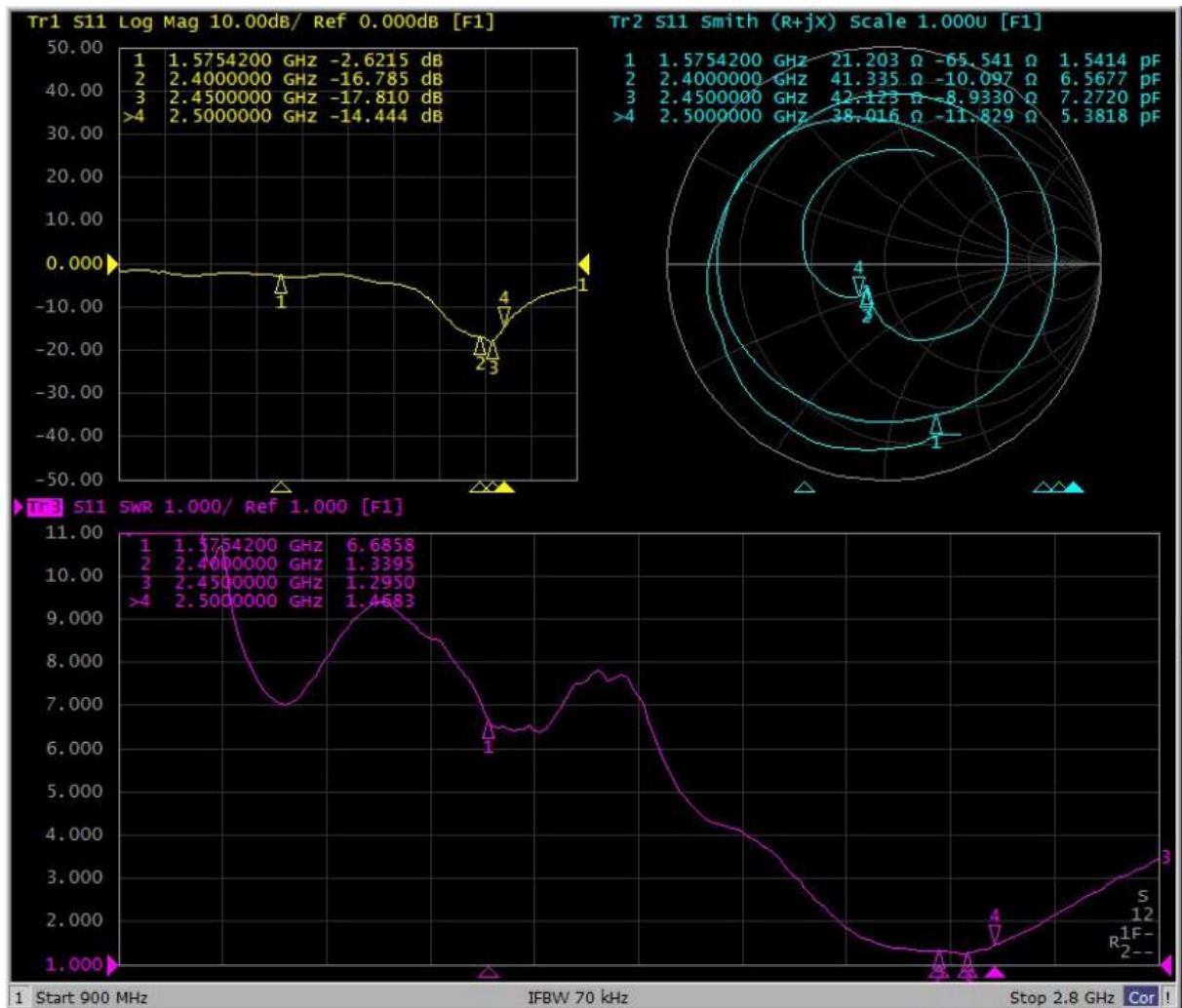
The gain of the antenna was measured in the Lxc's anechoic chamber. Coaxial chokes on the feed cable were used to mitigate surface currents. The chamber provides less than -30 dB reflectivity from 800 MHz through 3 GHz and an 18" diameter spherical quiet zone. The measurement results are calibrated using both dipole and leaky wave horn standards.

4.1.3 Matching Circuit Description

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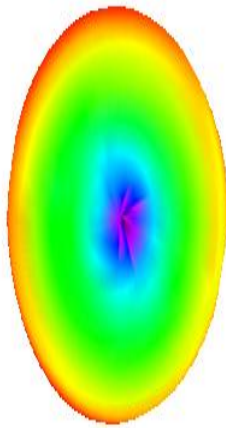
4.2 Measurement Data

4.2.1 Active result (2.4G/WIFI)

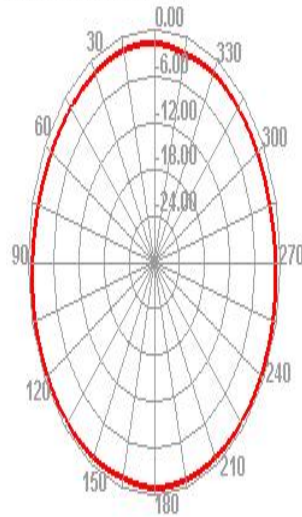


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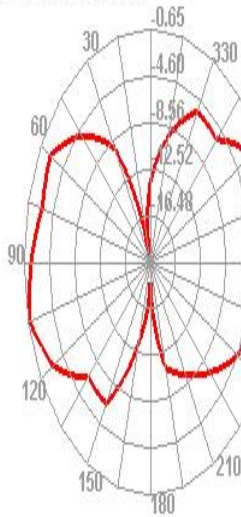
2450.000MHz



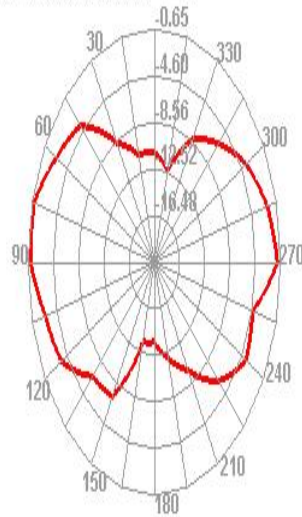
2450.000MHz H



2450.000MHz E1



2450.000MHz E2

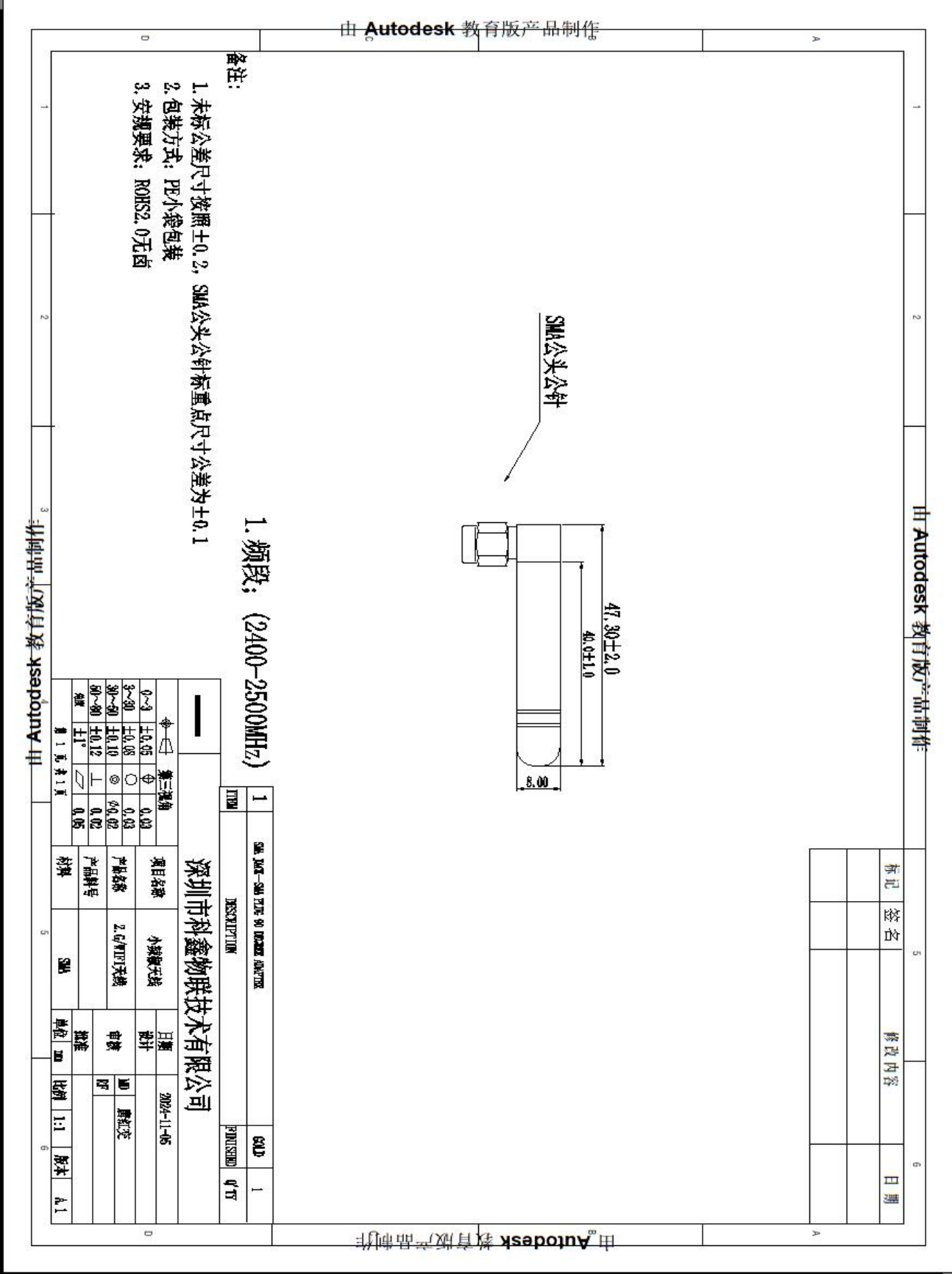


Passive Test For wifi

Freq (MHz)	Effi (%%)	Gain (dBi)
2400	55.8	2.34
2410	58.57	2.4
2420	60.26	2.66
2430	61.87	2.93
2440	60.32	2.03
2450	61.59	2.77
2460	62.43	3.01
2470	58.44	2.4
2480	58.6	2.3
2490	57.74	2.21
2500	57.98	2.25

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6 Mechanical drawing



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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 48HR	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	50	24 小时	OK	技术等级为 9 级 腐蚀<0.4mm
2	50	48 小时	OK	技术等级为 9 级 腐蚀<0.4mm

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Conclusion

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

Shenzhen Lxc Electronics Technology Co ., Ltd ,look forward to your confirmation, thank you for your cooperation !

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