Shenzhen Lxc Electronics Technology Co ., Ltd

深圳市连兴创电子科技有限公司

APPROVAL SHEET

承认书

客户（Customer）:_____

产品（Product）:_ 2.4G/5G Antenna(L=150MM)_

型号（Model）:_ Y4-4G/5.G

料号（Part Number）:_ YN-PM0300472 _

制作人（Written By）:_ 唐红交_

签发时间（Issued Date）:_2024-07-18_

客户 CUSTOMER

频率范围(Frequency range)	WIFI:2400-2500 5150-5850（MHz）
驻波比系数(VSWR)	<2.0
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
天线类型(Antenna type)	PCB Antenna（Built-in 内置天线 antenna）
天线增益峰值(Antenna gain MAX (dBi)	3dBi+/-1
天线供应商（Antenna supplier）	Shenzhen Lxc Electronics Technology Co ., Ltd
天线型号（Antenna Model）	YN-PM0300472

RF by		**Checked by**	
ME by		**Date**	
Customer Confirm			

8Project:		Author:Wang	File Name:
Date: 2024-07-18			**YN-PM0300472 天线**
TEST:	Language:	Check: Zhong	
A	English		

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Revision History

Date	Revision	Description of Changes
2024-07-18	RA	Measured with SUS301 sample.

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PROJECT 2

ANTENNA COMPONENTST 3

1 TECHNICAL SUMMARY 3

2 GENERAL DESCRIPTION 3

2.1 Components/Part revisions 3

3 MECHANICAL DESCRIPTION 3

4 ELECTRICAL PERFORMANCE 3

4.1 Set-up 3
4.1.1 VSWR 3
4.1.2 Gain & Radiation Patterns 3
4.1.3 Matching Circuit Description 3

4.2 Measurement Data 5
4.2.1 Active result（GSM） 5

6 Mechanical drawing 5

7 RELIABILITY TESTS 11

7.1 Test content 11

7.2 Test results 11

8 CONCLUSION 9

1 Technical Summary

This report summarizes the electrical results of the proposed antenna to support the 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

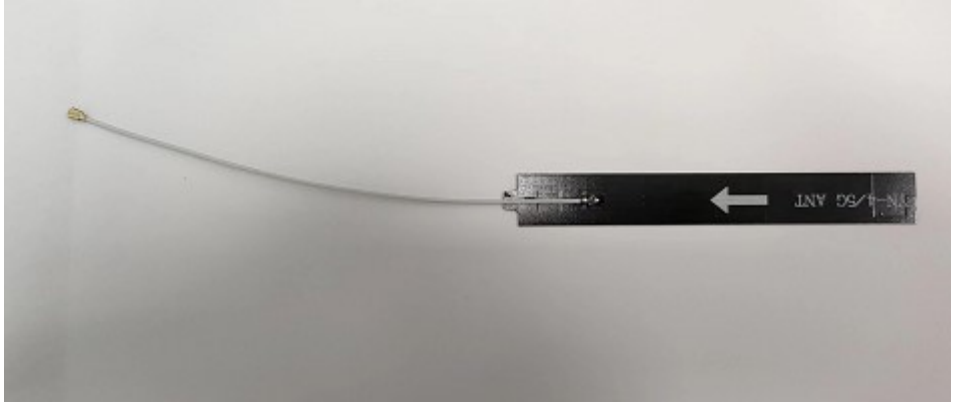
4.1.1 VSWR

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

4.1.3 Matching Circuit Description



整机有源测试数据

WiFi(5G/A)	CH	功率(54M)	灵敏度(54M)	WiFi(2.4G/G)	CH	功率(54M)	灵敏度(54M)
	36	15.34	-75.64		1	14.35	-71.28
	149	15.46	-75.52		6	14.28	-71.45
	165	16.15	-74.61		11	14.68	-70.82
WiFi(2.4G/B)	CH	功率(11M)	灵敏度(11M)	WiFi(2.4G/N)	CH	功率(MCS7)	灵敏度(MCS7)
	1	14.41	-80.47		1	13.12	-68.72
	6	14.49	-81.20		6	13.32	-68.46
	11	14.70	-80.05		11	13.18	-68.84

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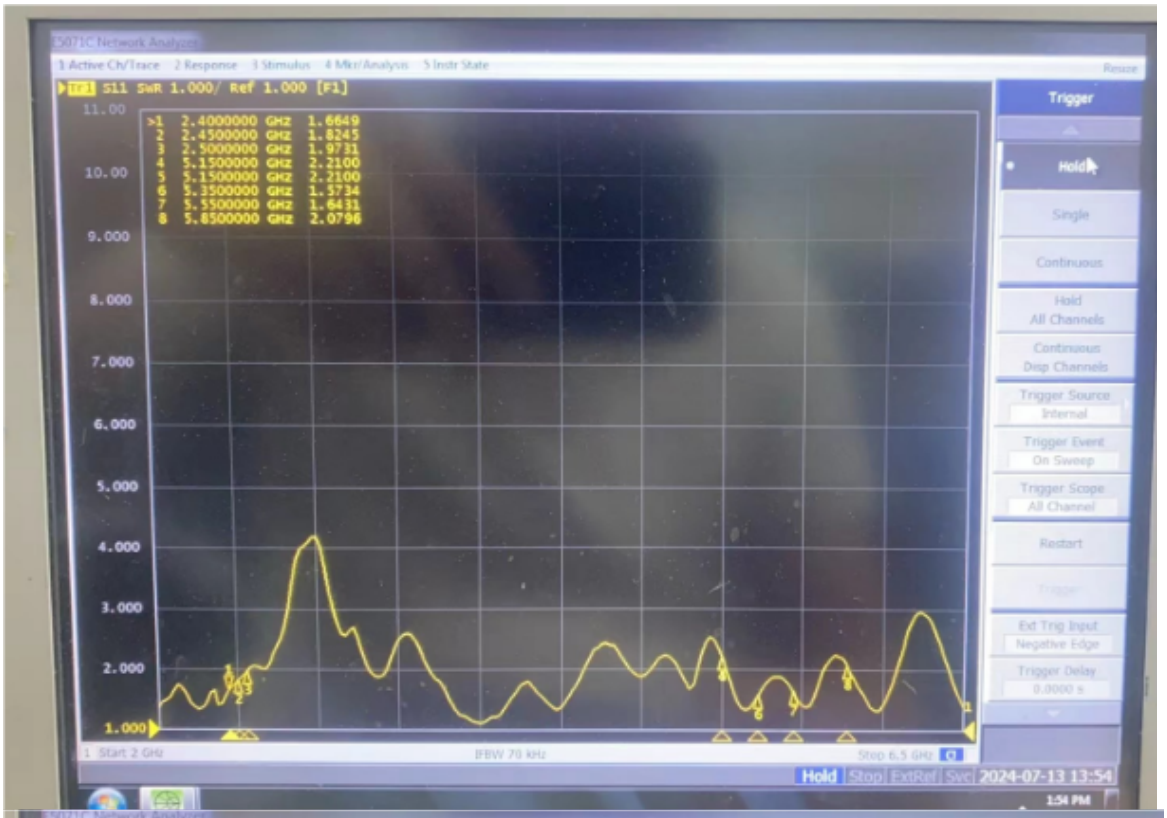
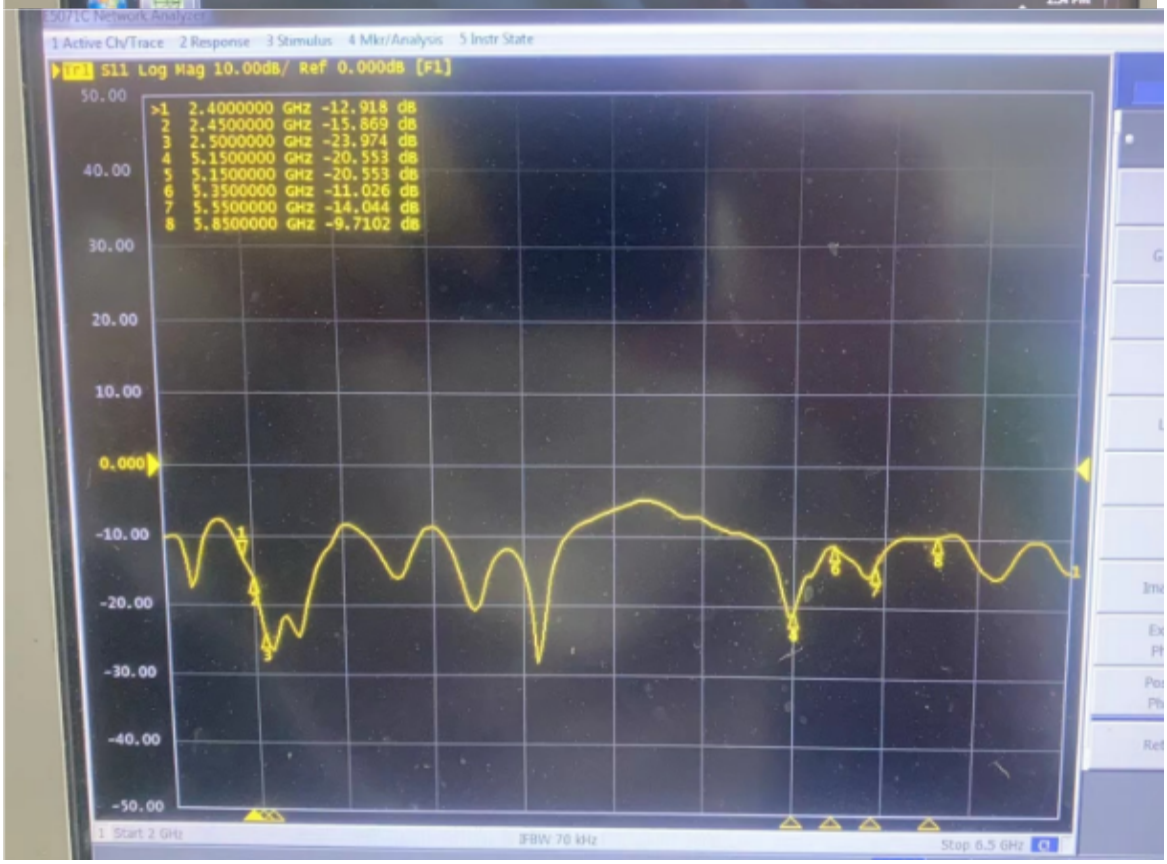
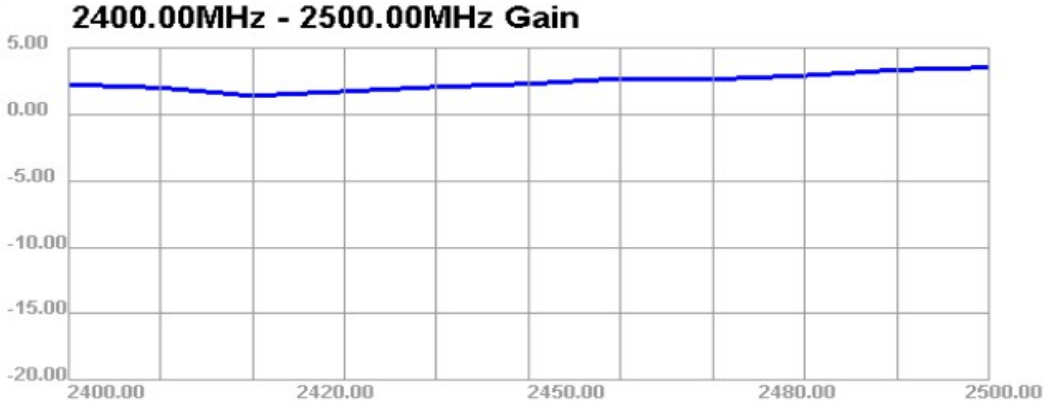
4.2 Measurement Data

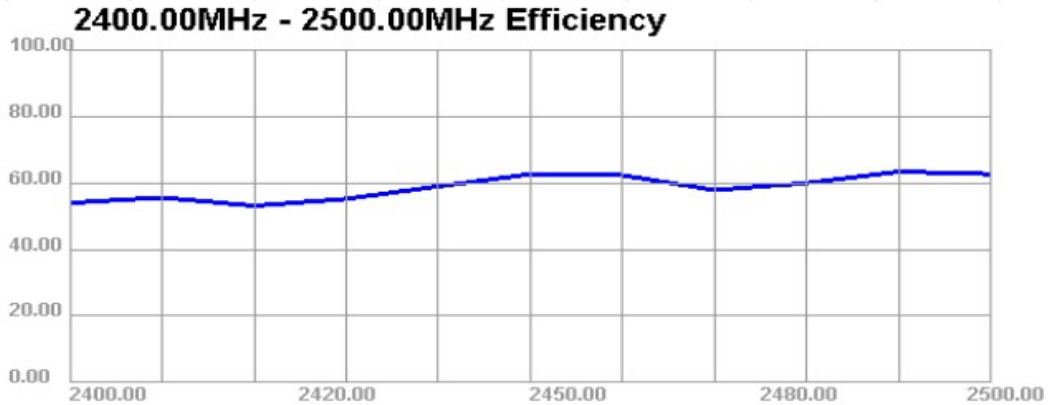
4.2.1 Active result（2.4G/5.8G/WIFI）





Freq	Effi	Gain
(MHz)	(%)	(dBi)
2400	54. 02	2. 23
2410	55. 63	1. 99
2420	53. 15	1. 39
2430	55. 22	1. 71
2440	58. 98	2. 05
2450	62. 66	2. 29
2460	62. 31	2. 68
2470	57. 88	2. 62
2480	59. 98	2. 91
2490	63. 4	3. 33
2500	62. 68	3. 51





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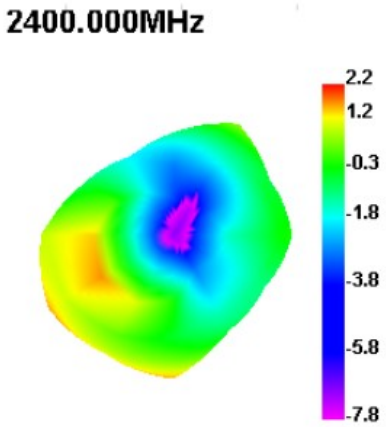

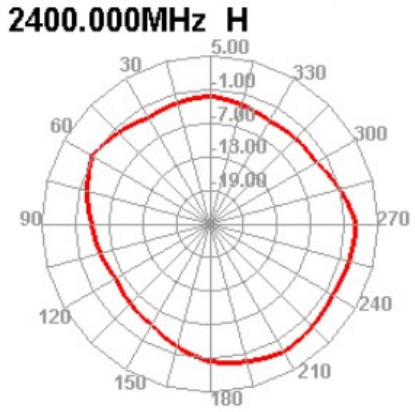

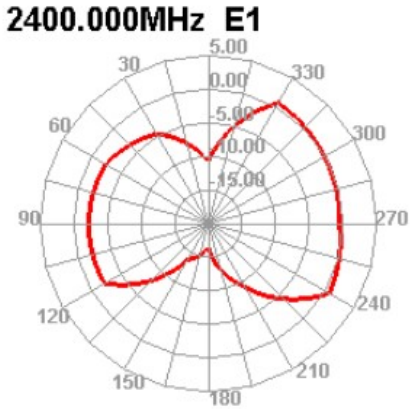

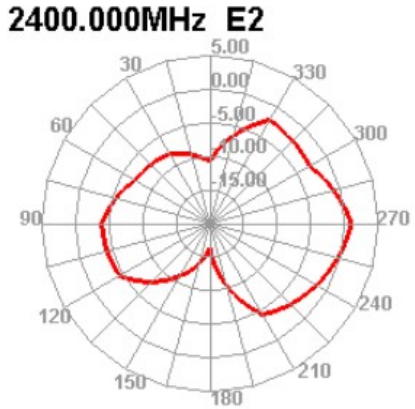

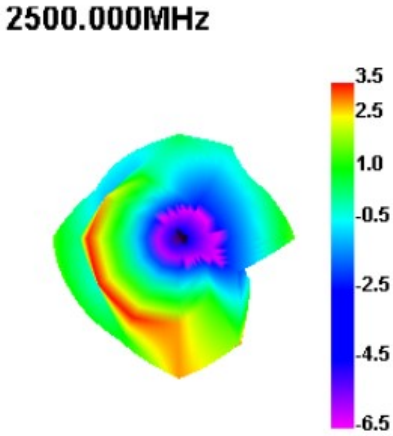

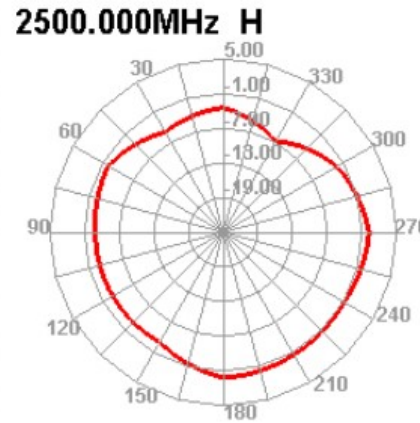

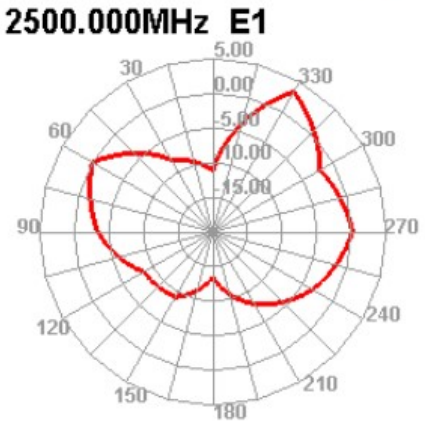

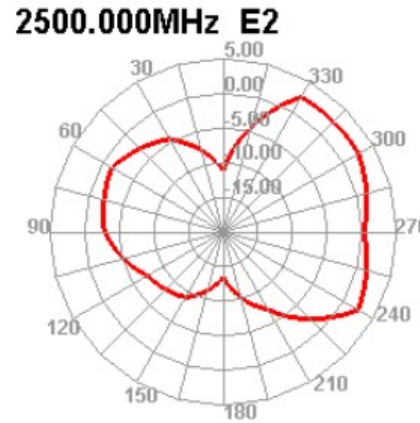

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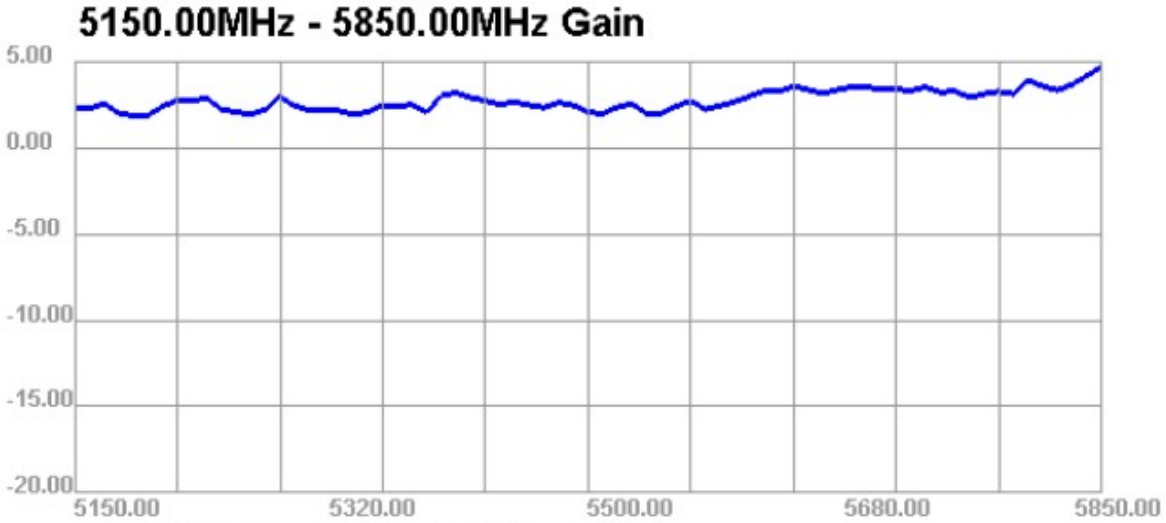
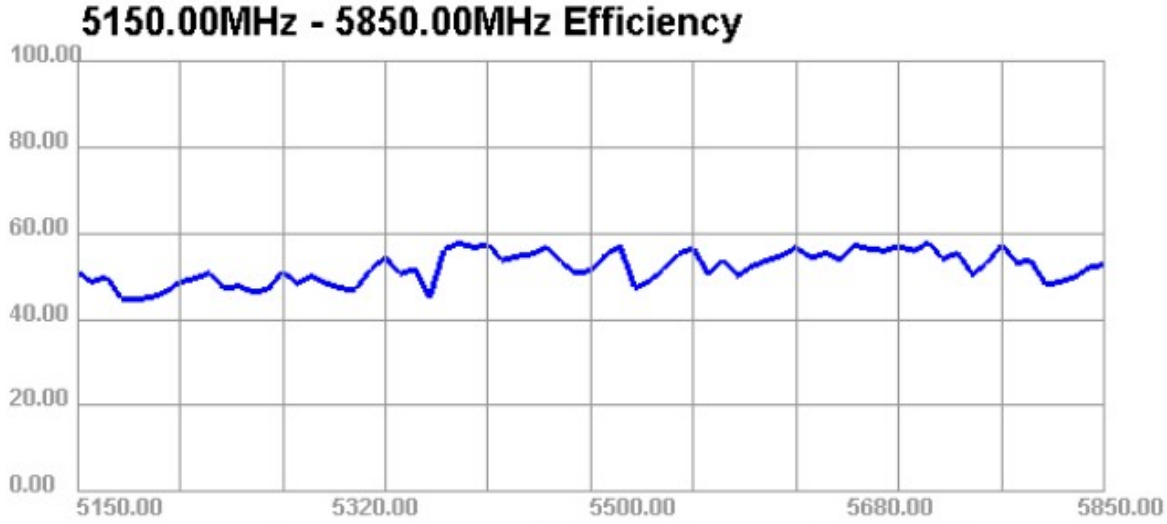
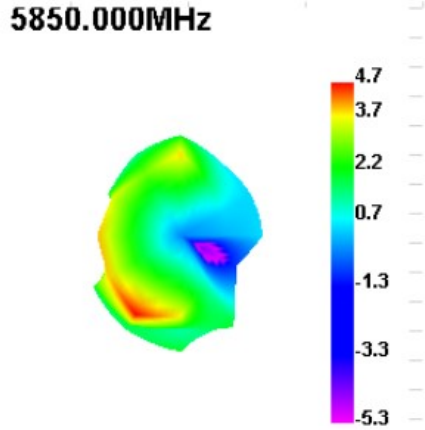
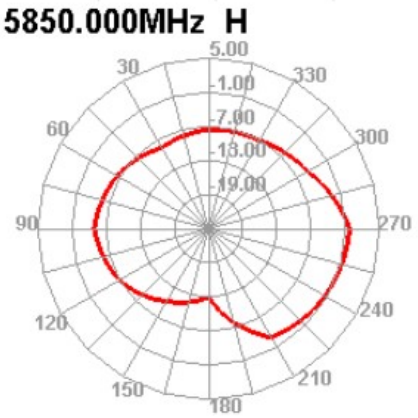
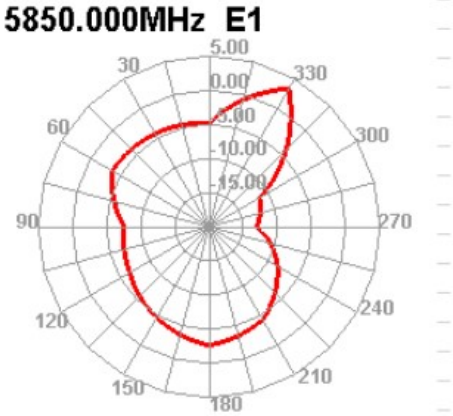
Freq (MHz)	Effi (%)	Gain (dBi)
5150	51. 02	2. 27
5350	51. 61	2. 08
5550	51. 7	1. 98
5650	54. 37	3. 37
5850	52. 66	4. 72

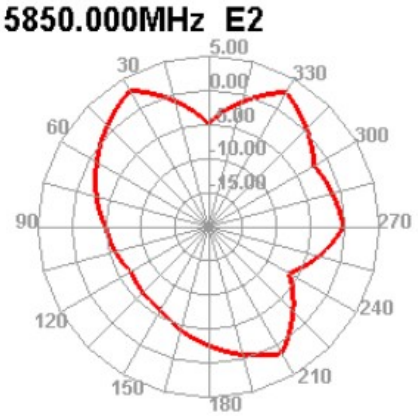


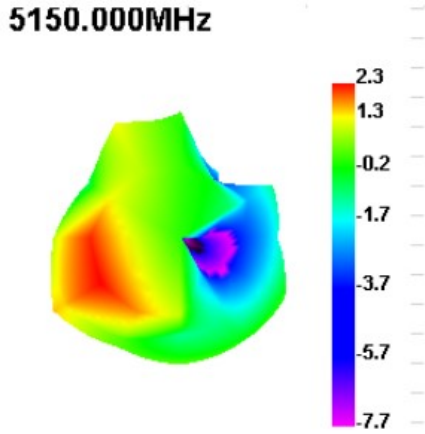


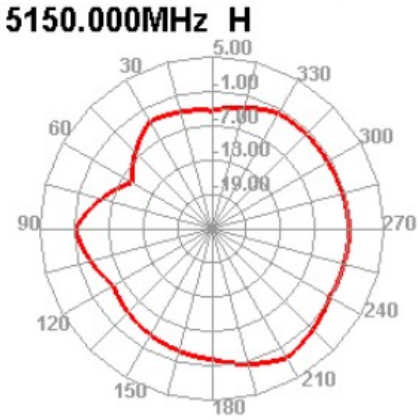


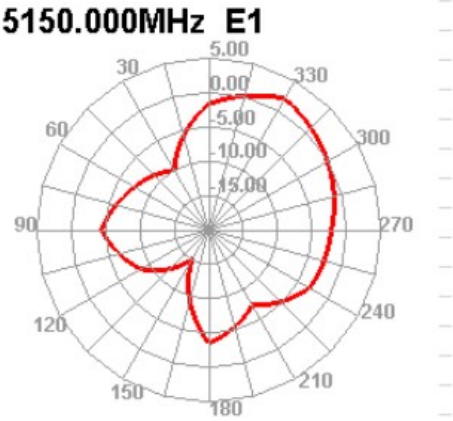


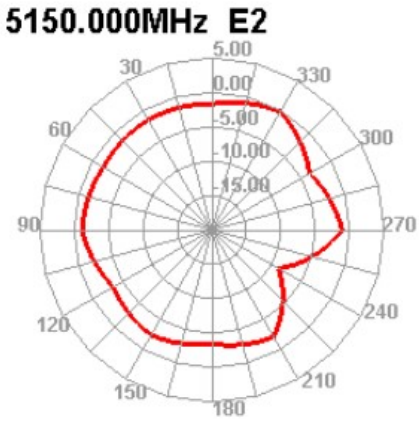












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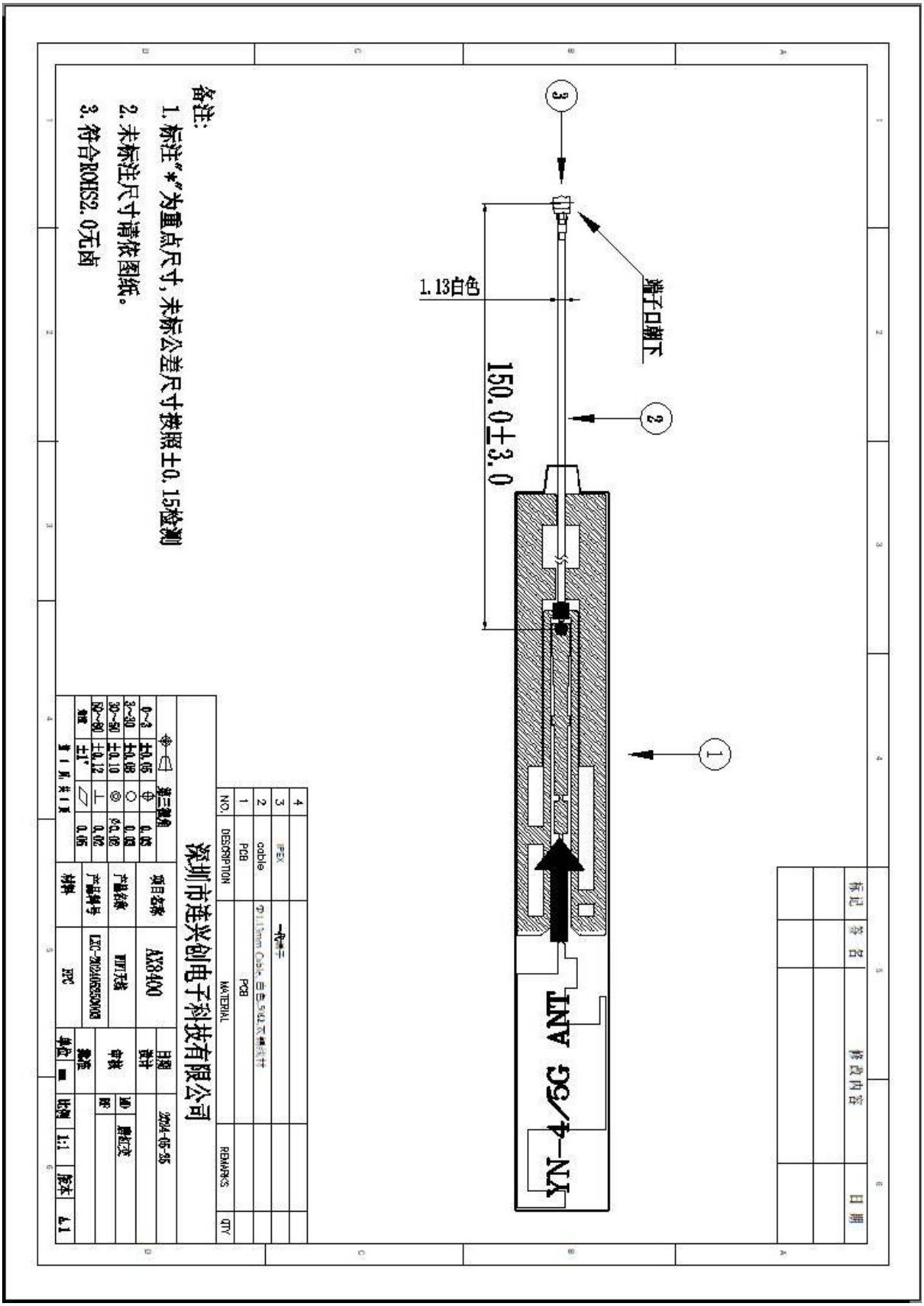
6 Mechanical drawing



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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

8Conclusion

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！