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=70MM)_

型号（Model）:_ Y4-4G/5.G

料号（Part Number）:_ YN-PM0300473 _

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-PM0300473

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

8Project:		Author:Wang	File Name:
Date: 2024-07-18			**YN-PM0300473 天线**
TEST:	Language:	Check: Zhong	
A	English		

Address: 4th Floor, Building C, Jinruihua Industrial Park, No. 12 Huafang Road, Dalang Street, Longhua District, Shenzhen, China
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Revision History

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

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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

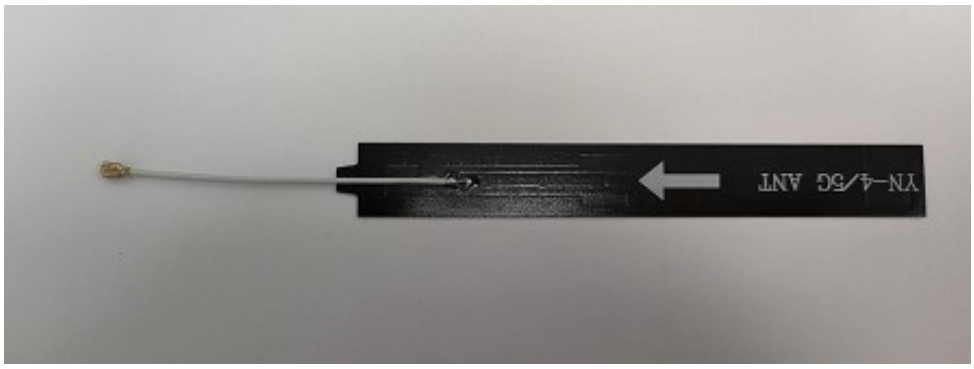
4.1.1 VSWR

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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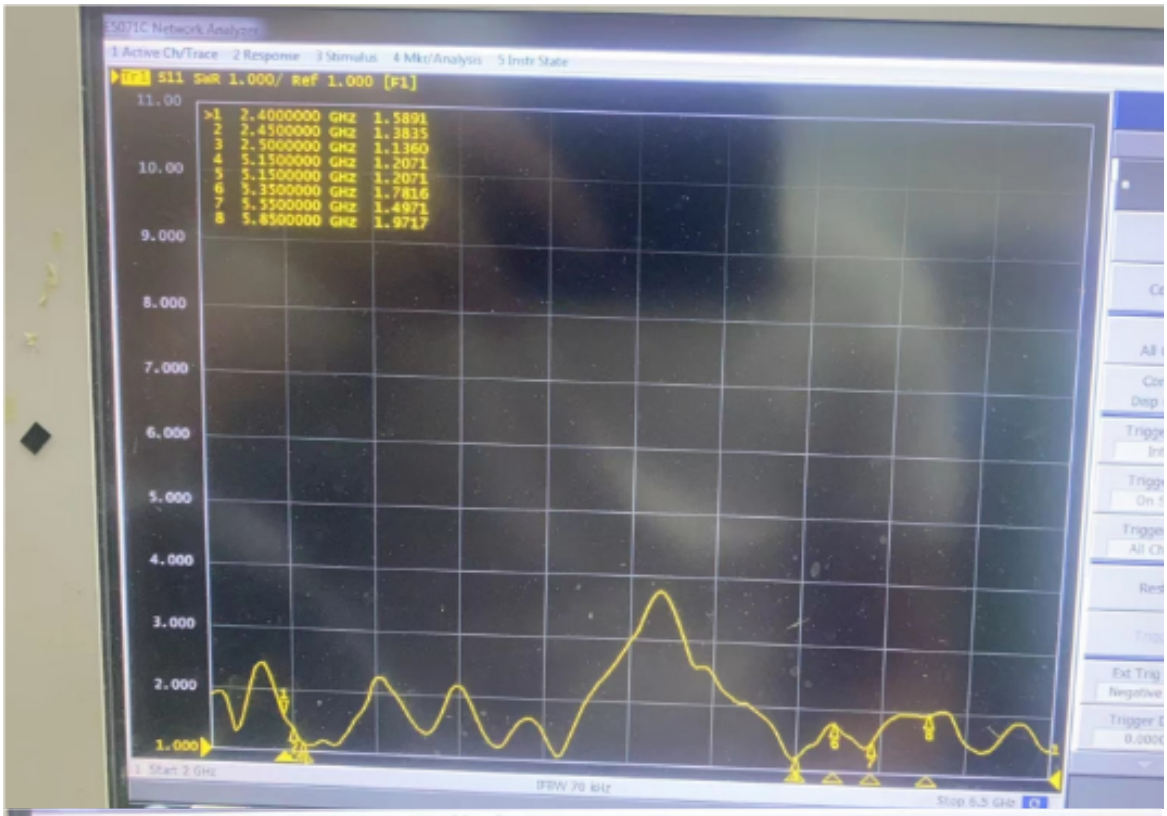
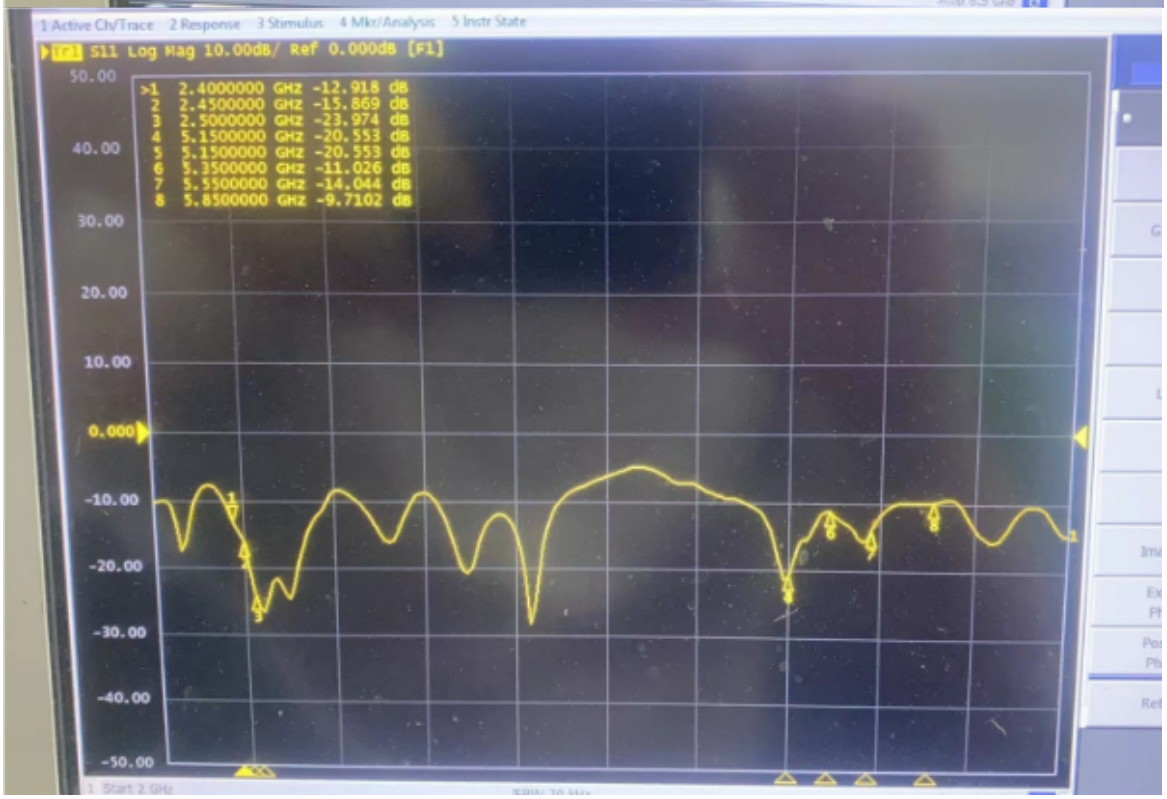
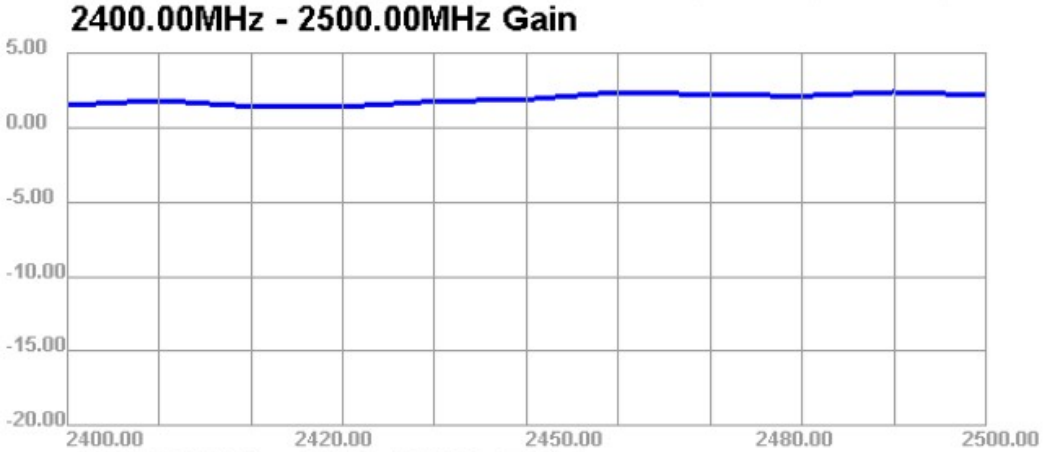
4.2 Measurement Data

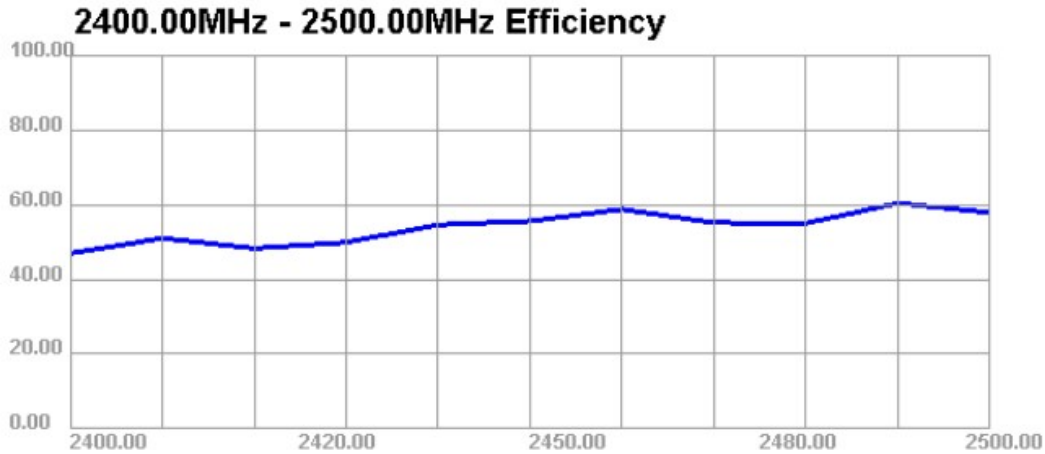
4.2.1 Active result（2.4G/5.8G/WIFI）





Freq	Effi	Gain
(MHz)	(%)	(dBi)
2400	47. 01	1. 48
2410	51. 04	1. 81
2420	48. 34	1. 4
2430	49. 94	1. 39
2440	54. 64	1. 75
2450	55. 63	1. 88
2460	58. 79	2. 35
2470	55. 2	2. 2
2480	55. 05	2. 11
2490	60. 41	2. 37
2500	57. 93	2. 16





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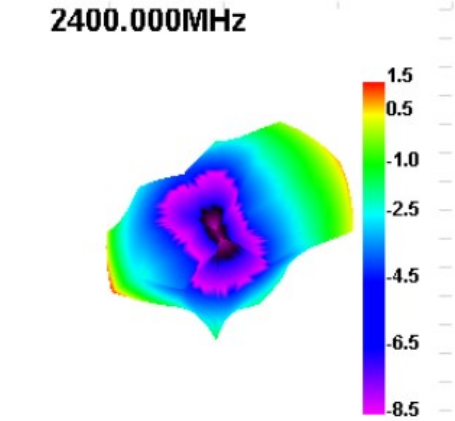

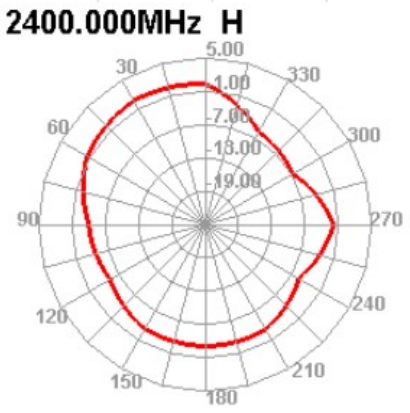

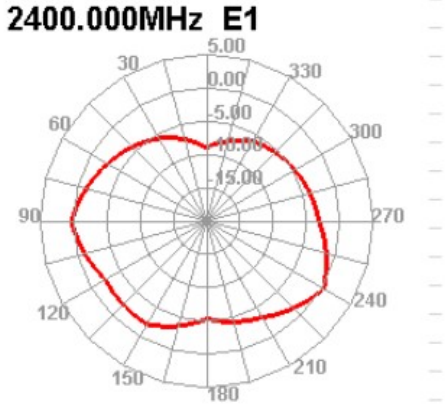

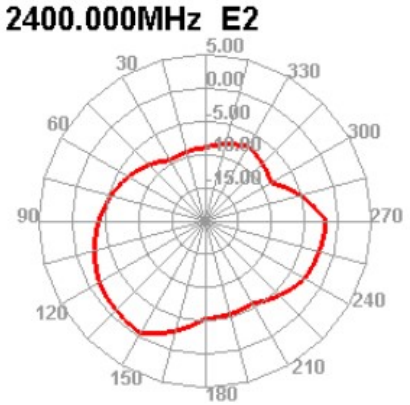

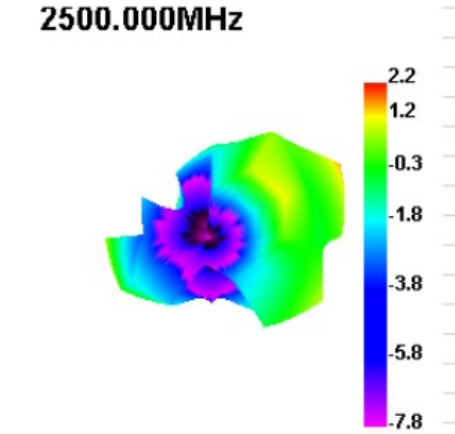

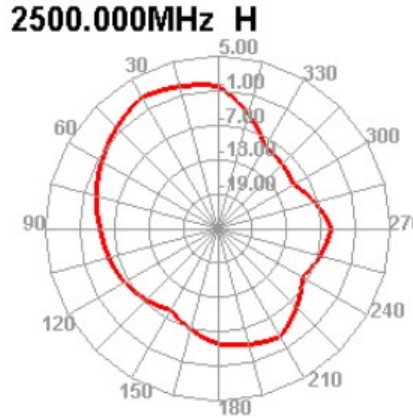

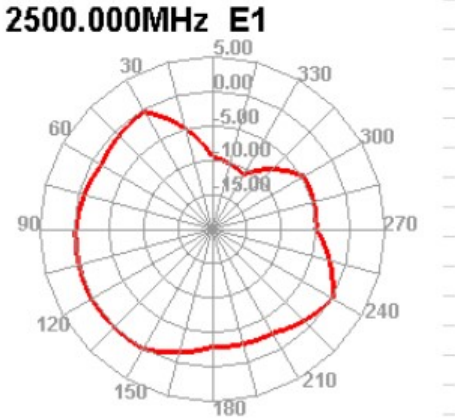

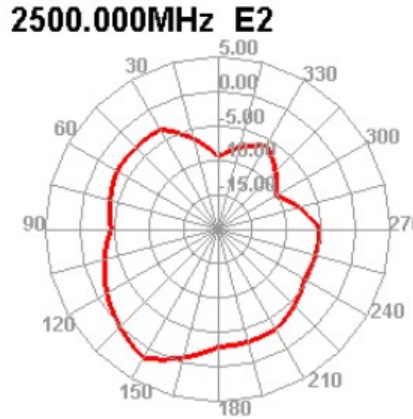

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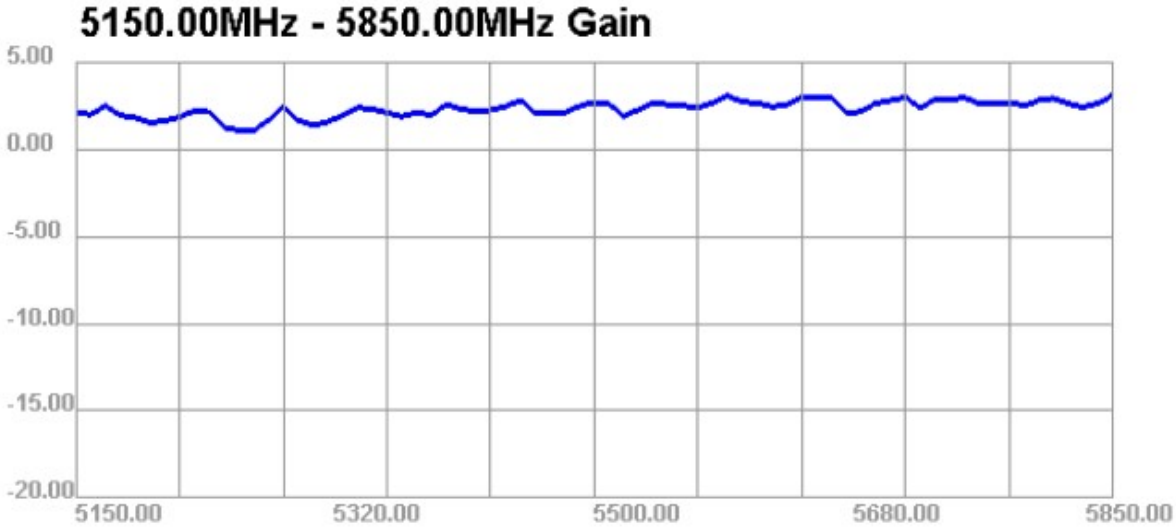
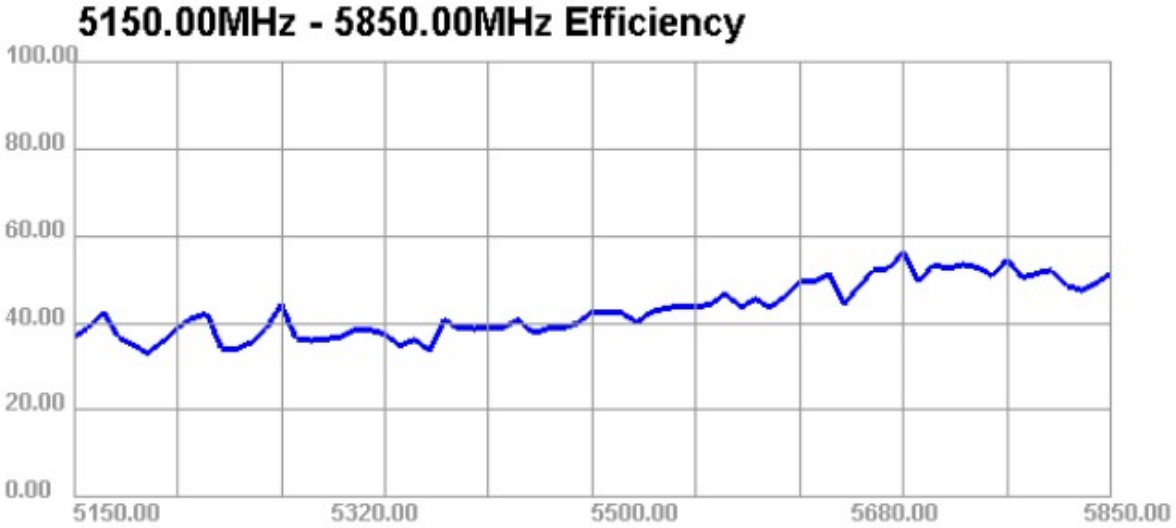
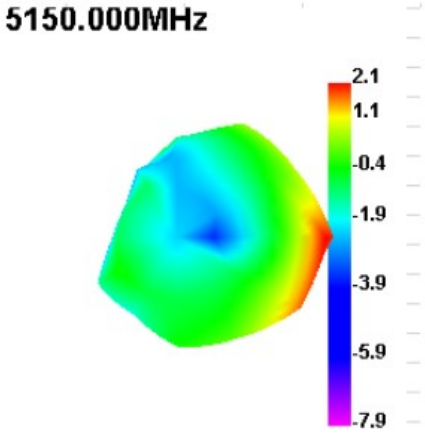
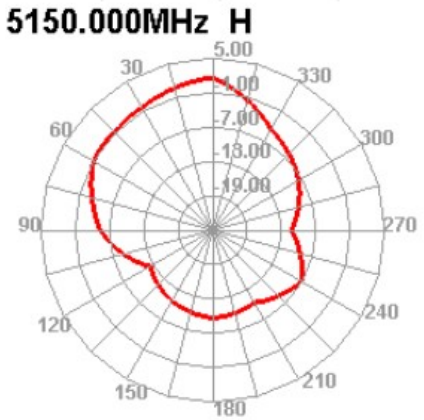
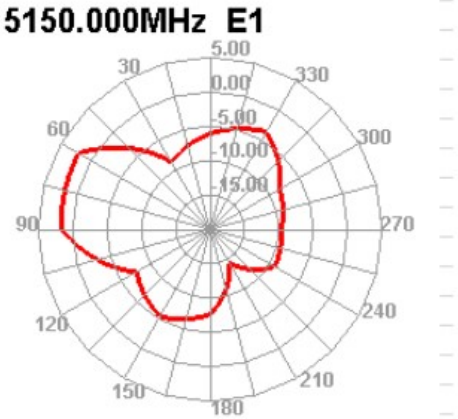
Freq (MHz)	Effi (%)	Gain (dBi)
5150	36. 7	2. 09
5350	38. 46	2. 3
5550	43. 45	2. 57
5650	49. 56	2. 92
5850	51. 41	3. 1

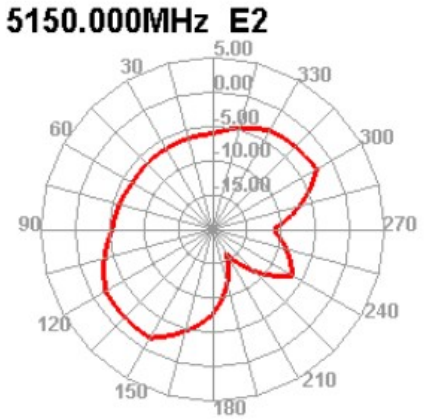


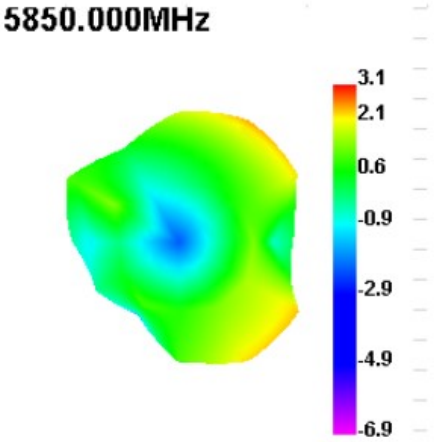


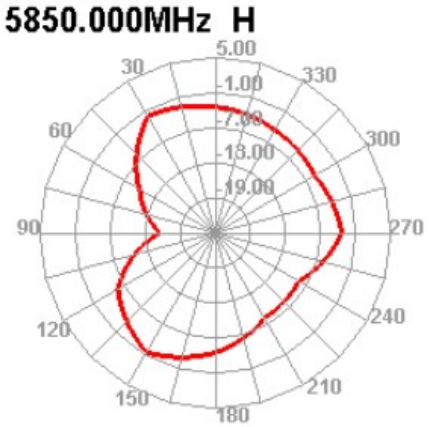


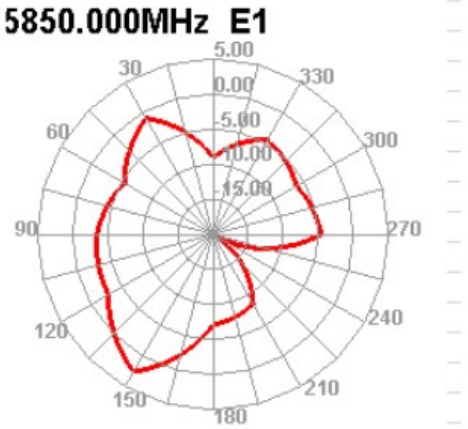


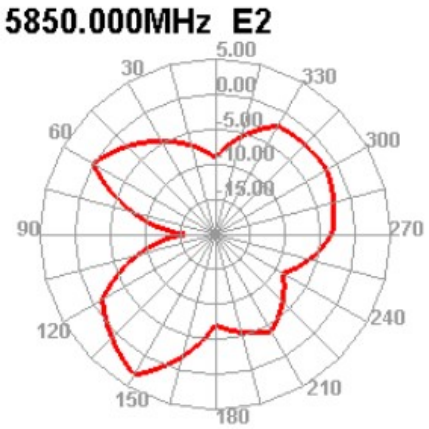












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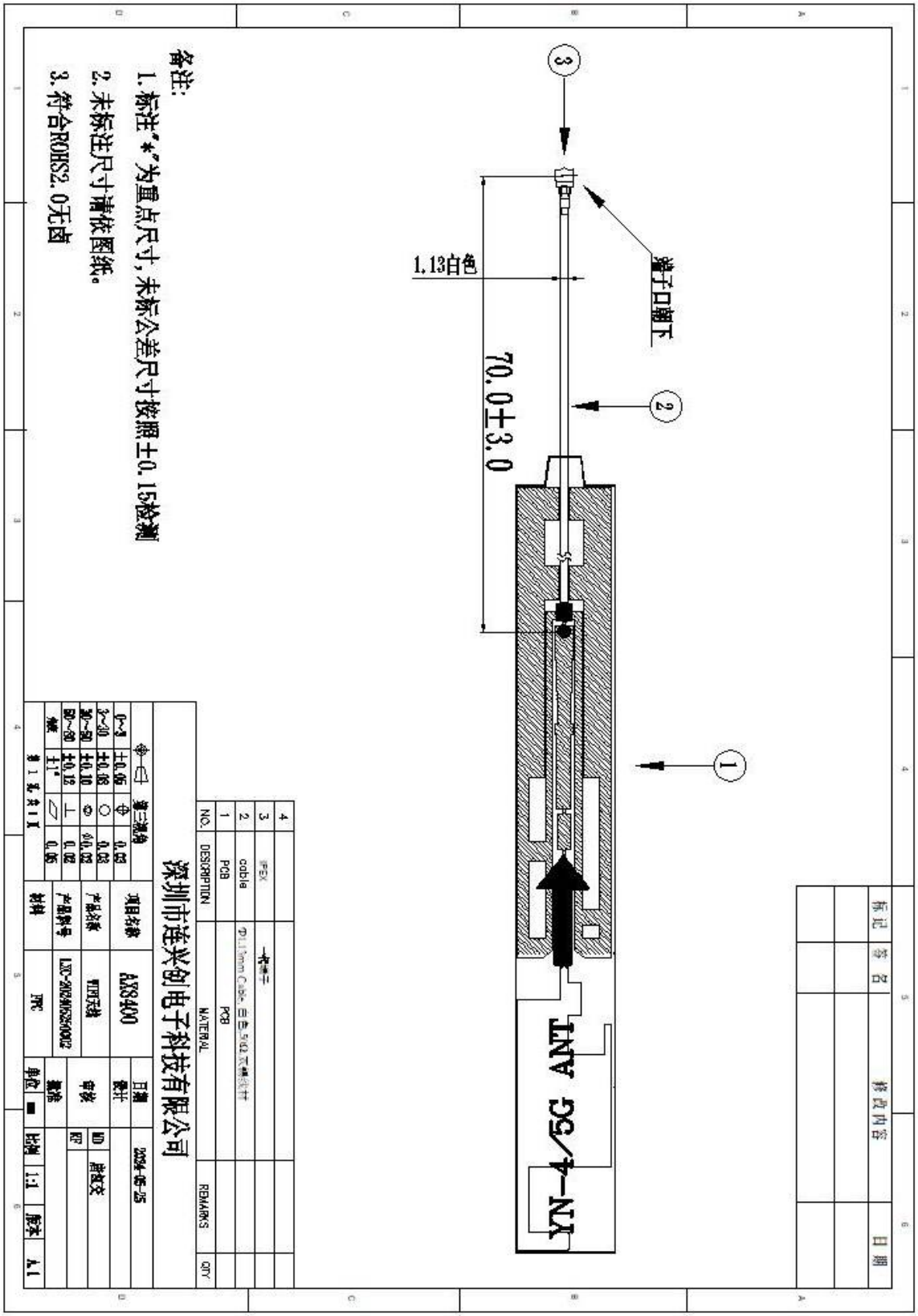
6 Mechanical drawing



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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！