Shenzhen Lxc Electronics Technology Co ., Ltd

APPROVAL SHEET

Acknowledgment Letter

(Customer) :_____ino era_____

(Product) :__2.4G/WIFI Antenna (L=65MM)_

(Model) :__LXC1BL65202411200001

(Part Number) :__Y7-PM0300492___

(Written By) :___Tang Hongjiao___

(Issued Date) :___2024-11-20_____

CUSTOMER

(Frequency range)	WIFI:2400-2500/5150-5850（MHz）
(VSWR)	<2.0
(Input Impedance)	50（Ω）
(Polarization)	Vertical Polarization
（3dB）HPW	180° H-plane 120° E-plane
(Antenna type)	PCBantenna（Built-inWIFI antenna antenna）
(Antenna gain MAX (dBi)	5dBi+/-1
（Antenna supplier）	Shenzhen Lxc Electronics Technology Co ., Ltd
（Antenna Model）	Y7-PM0300492

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

8Project:		Author:Wang	File Name:
Date: 2024-11-20			**Y7-PM0300492**
TEST:	Language:	Check: Zhong	
A	English		

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

Date	Revision	Description of Changes
2024-11-20	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

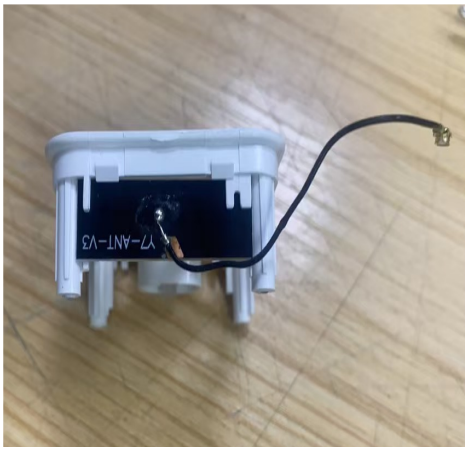
4.1.1 VSWR

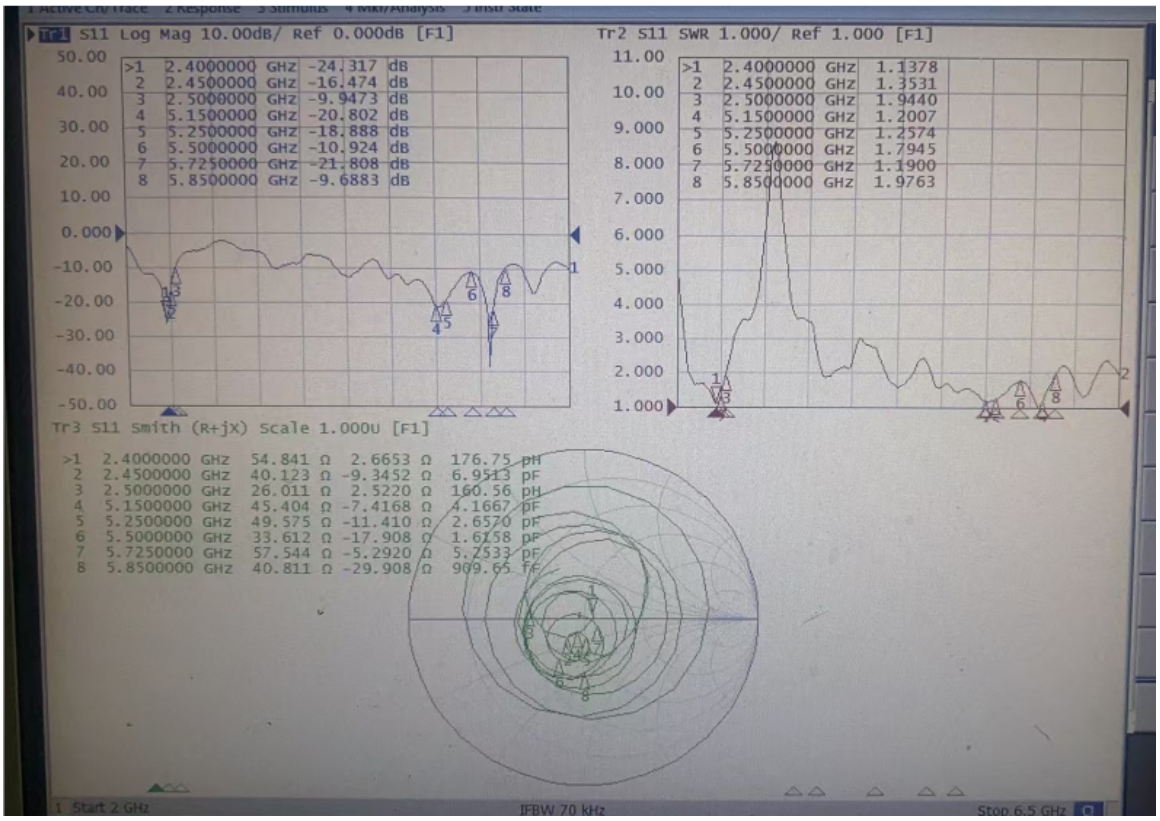
VSWR measurements (S11) were performed using an Agilent 8753D Network Analyzer and the previously described test fixture. Coaxial chokes were used to mitigate surface currents on the outside of the cabling. The testing was performed in free space.

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



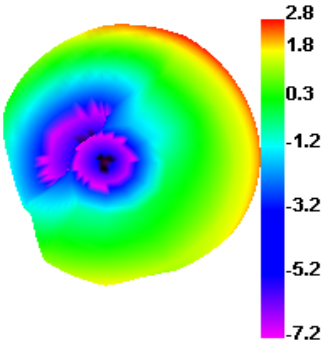


4.2 Measurement Data

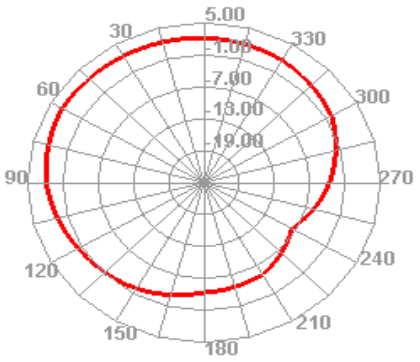
4.2.1 Active result（WIFI）

Freq	Effi	Gain
(MHz)	(%)	(dBi)
2400	57.38	2.83
2410	58.56	2.94
2420	55.61	2.74
2430	55.57	2.74
2440	60.77	3.08
2450	63	3.16
2460	66.06	3.24
2470	61.87	2.78
2480	61.95	2.62
2490	63.81	2.7
2500	62.56	2.68

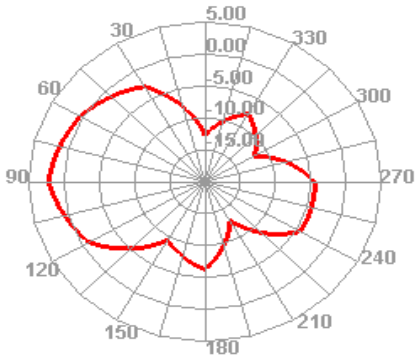
2400.000MHz



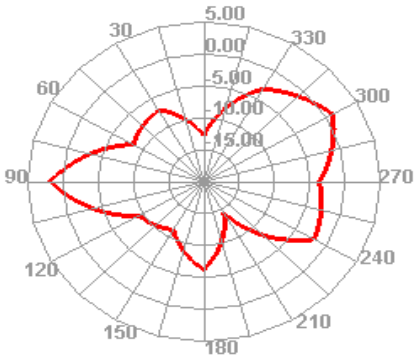
2400.000MHz H



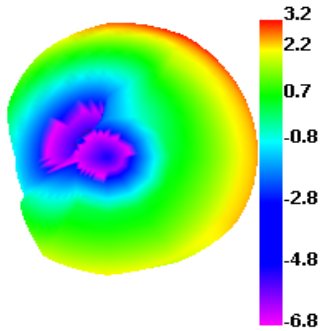
2400.000MHz E1



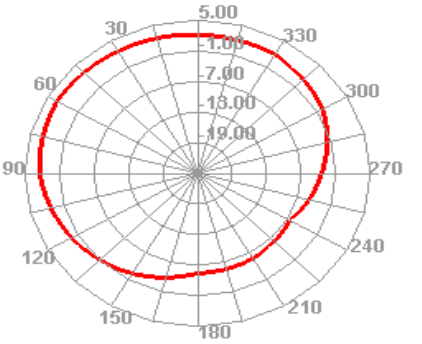
2400.000MHz E2



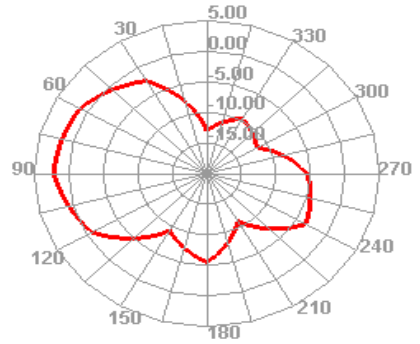
2450.000MHz



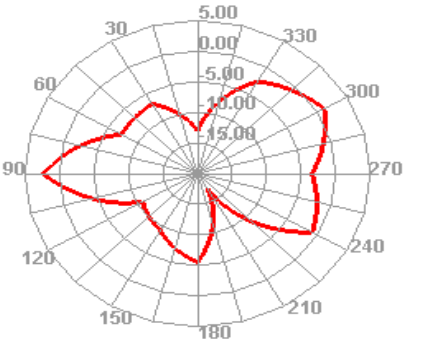
2450.000MHz H



2450.000MHz E1



2450.000MHz E2



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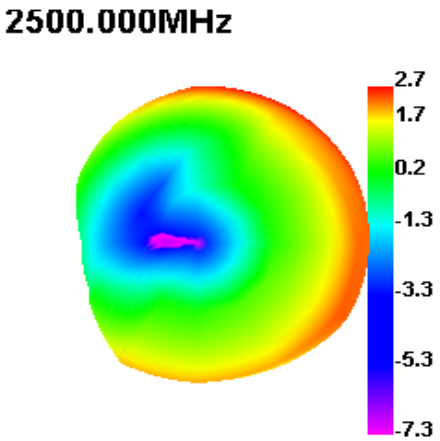

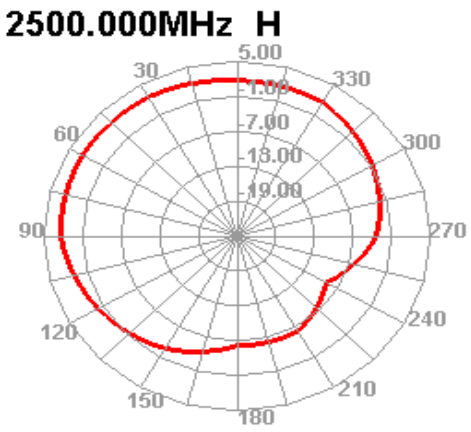

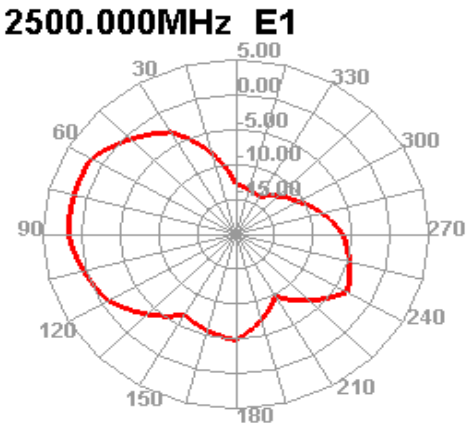

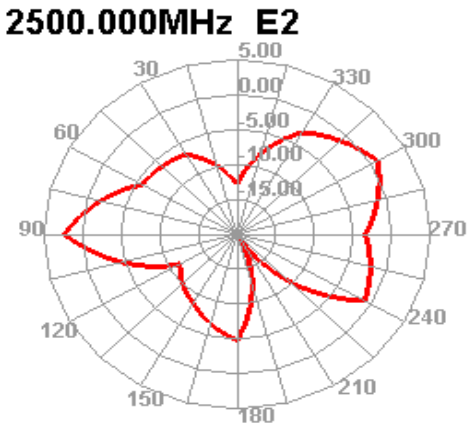

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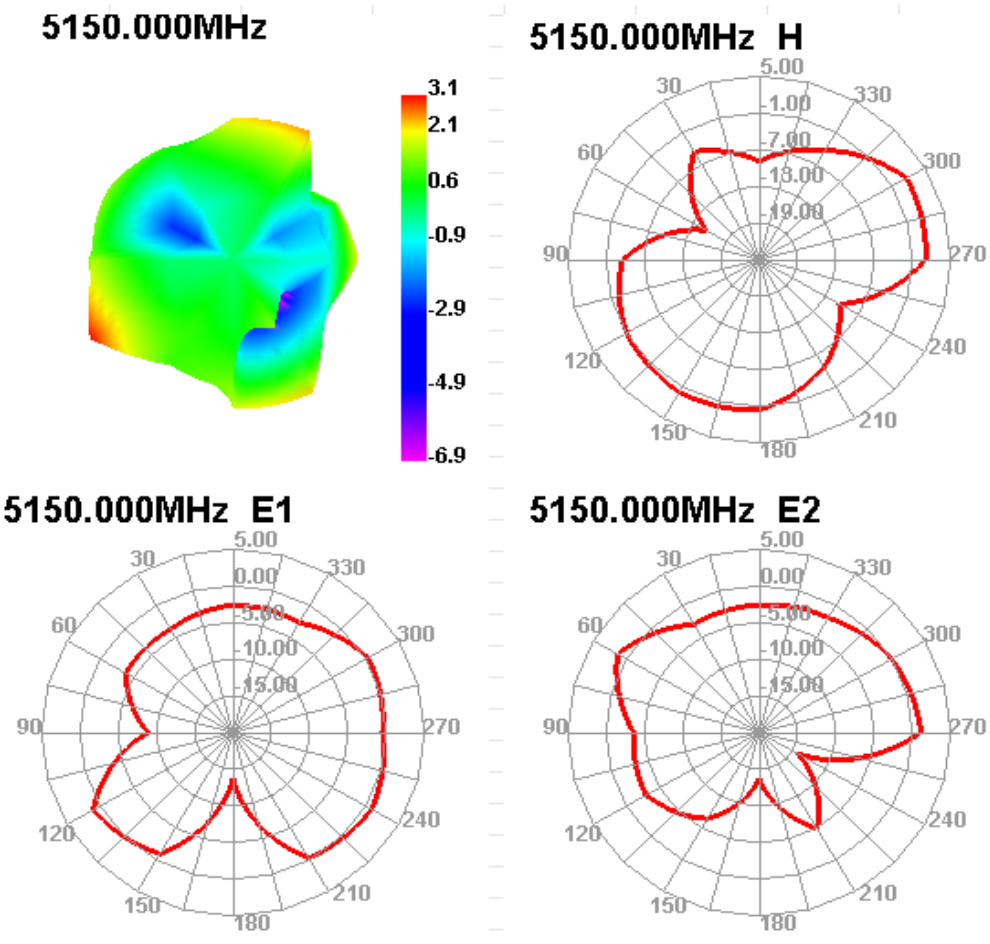
Freq	Effi	Gain
(MHz)	(%)	(dBi)
5150	65. 91	3. 12
5350	78. 62	3. 17
5550	76	2. 69
5650	76. 47	2. 74
5850	65. 96	1. 96



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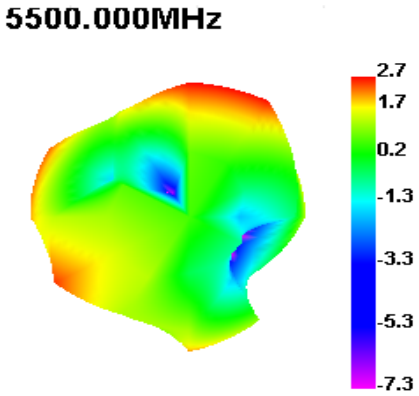

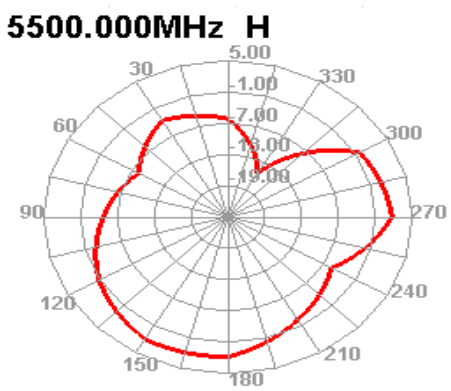

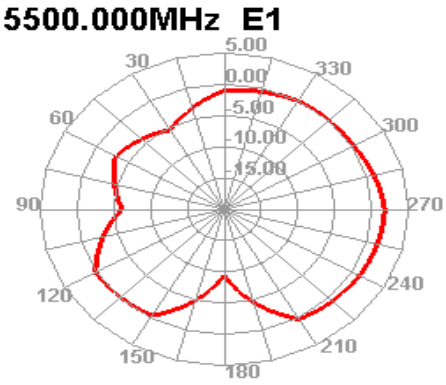

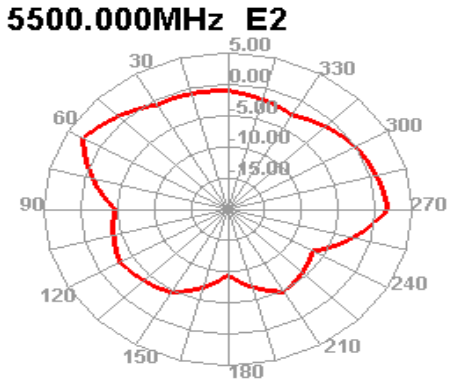

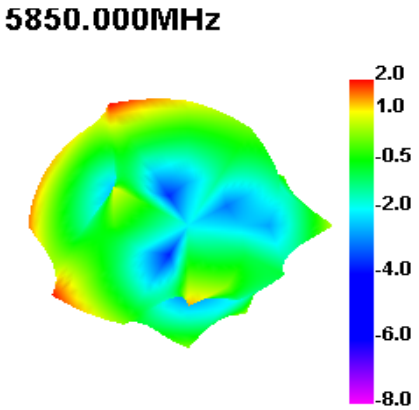

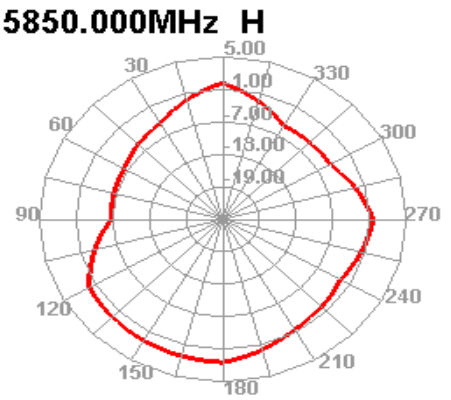

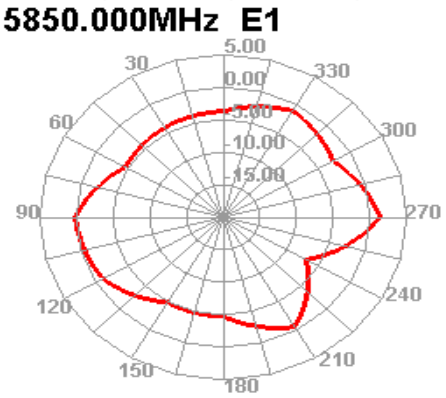

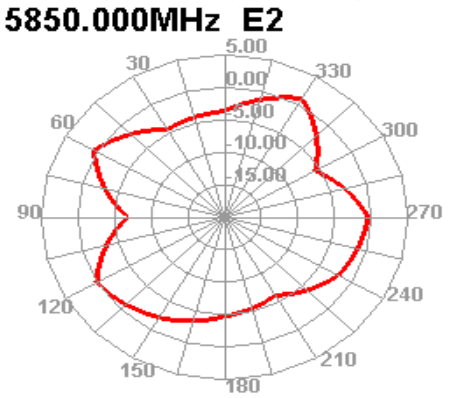

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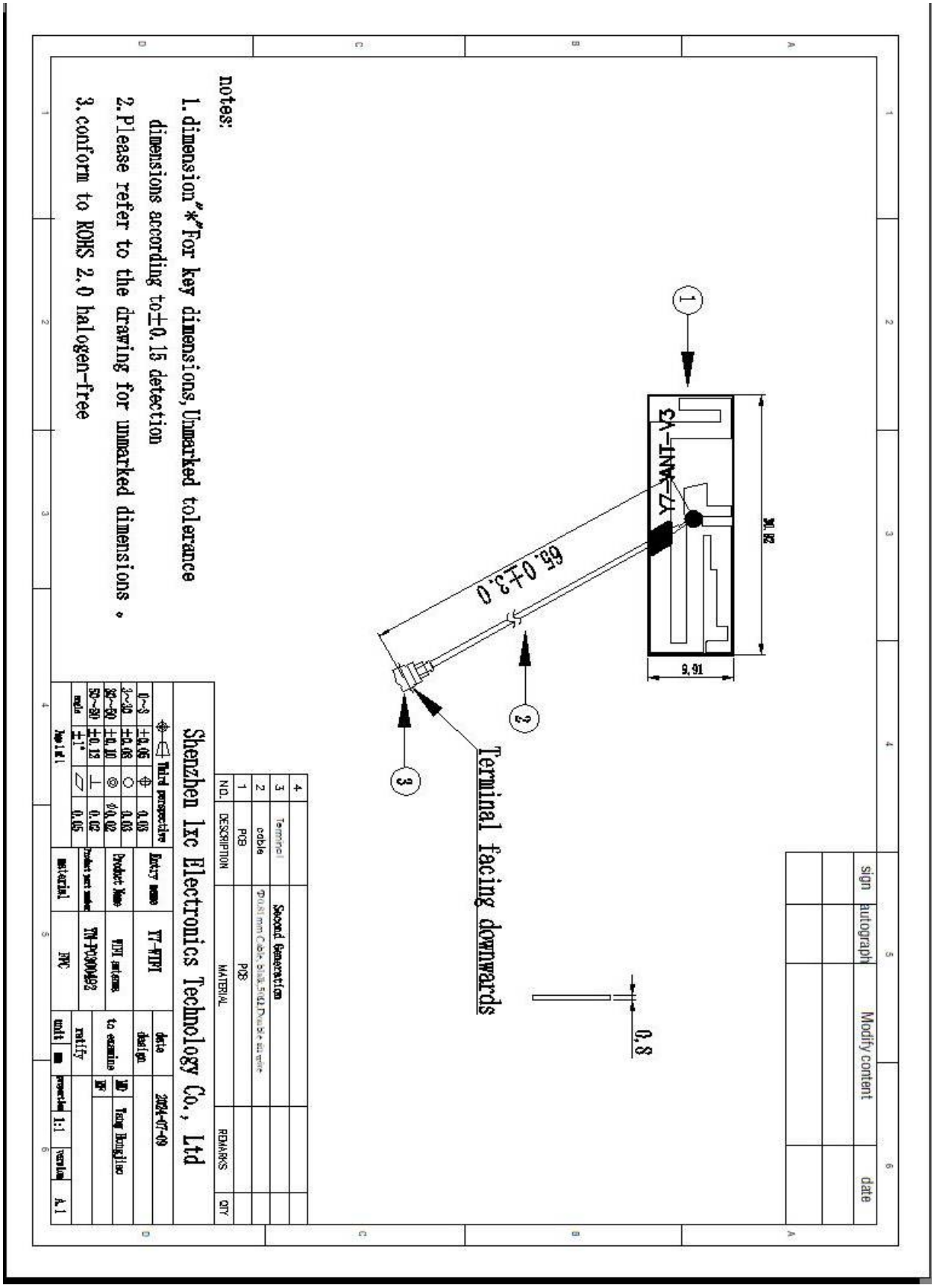
6 Mechanical drawing



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7 Reliability tests

7.1 Test content

No	Pilot projects	Test method	Benchmark
1	Salt water spray test	A solution of 5% salt was sprayed for 48HR	Can not have discoloration, slanting (deformation) off and other shortcomings, corrosion area can not be too large

7.2 Test results

NO	Number of samples	During the trial	The results of the experiment	Notes
1	50	24 hour	**OK**	The technical grade is grade 9 corrosion & LT; 0.4 mm
2	50	48 hour	**OK**	The technical grade is grade 9 corrosion & LT; 0.4 mm

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!