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）:_____威视达康_____

产品（Product）:__黄色 WIFI-天线(L=85MM)

型号（Model）:_____WIFI_____

料号（Part Number）:__LXC-202406180001__

制作人（Written By）:_____唐红交_____

签发时间（Issued Date）:__2024-06-18_____

客户 CUSTOMER

频率范围 Frequency range	WIFI:(2.4/5.8)（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

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

8Project:		Author:Wang	**WIFI**
Date: 2024-06-18			
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
2024-06-04	RA	Measured with SUS301 sample.

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

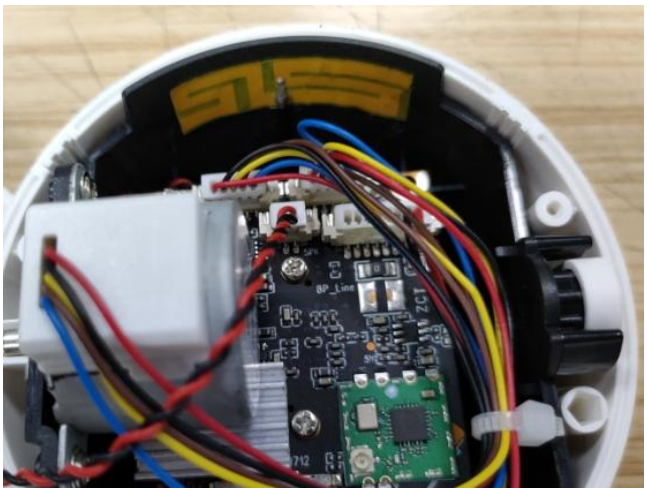
4.1.1 VSWR

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

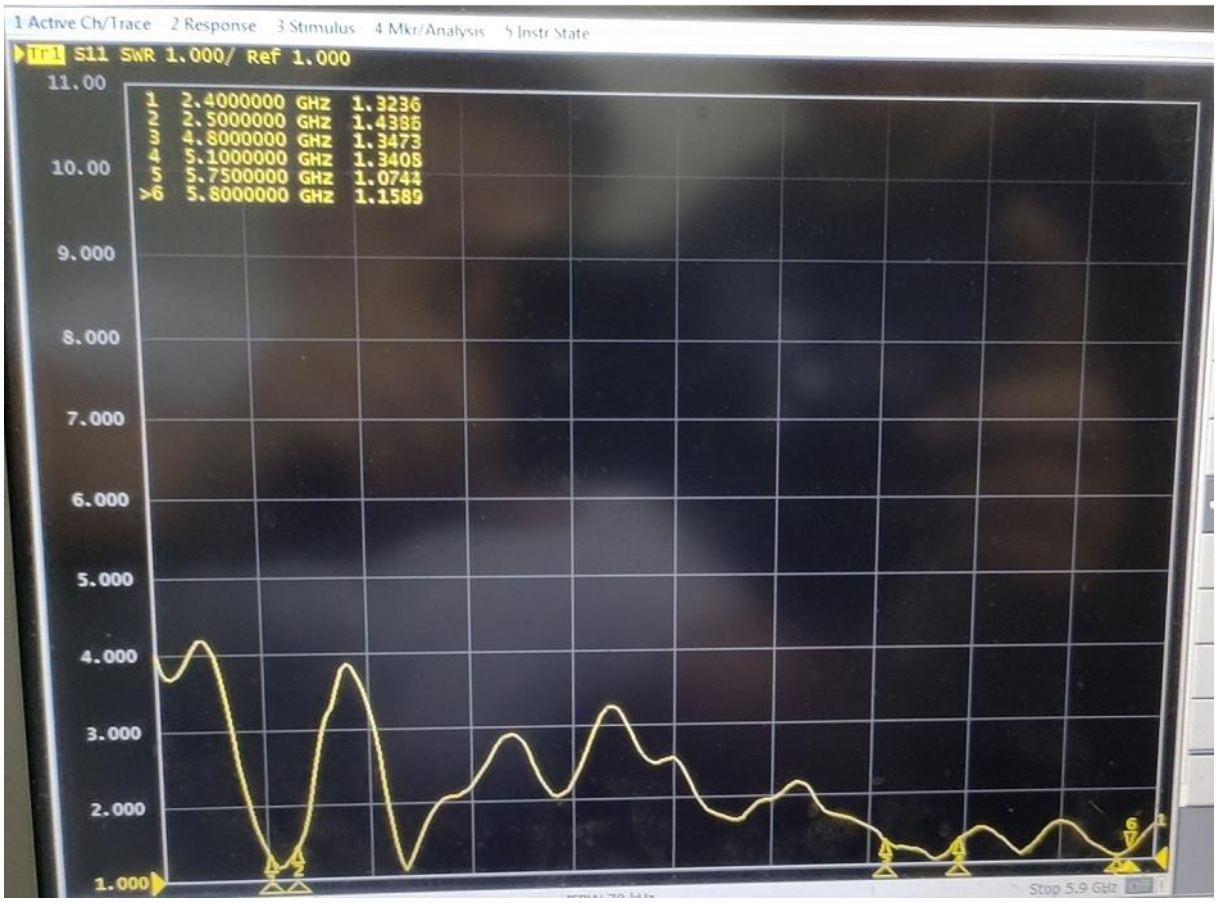
The gain of the antenna was measured in the Lxc's anechoic chamber. Coaxial chokes on the feed cable were used to mitigate surface currents. The chamber provides less than –30 dB reflectivity from 800 MHz through 3 GHz and an 18" diameter spherical quite zone. The measurement results are calibrated using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

4.1.3 Matching Circuit Description



4.2 Measurement Data

4.2.1 Active result（WIFI）

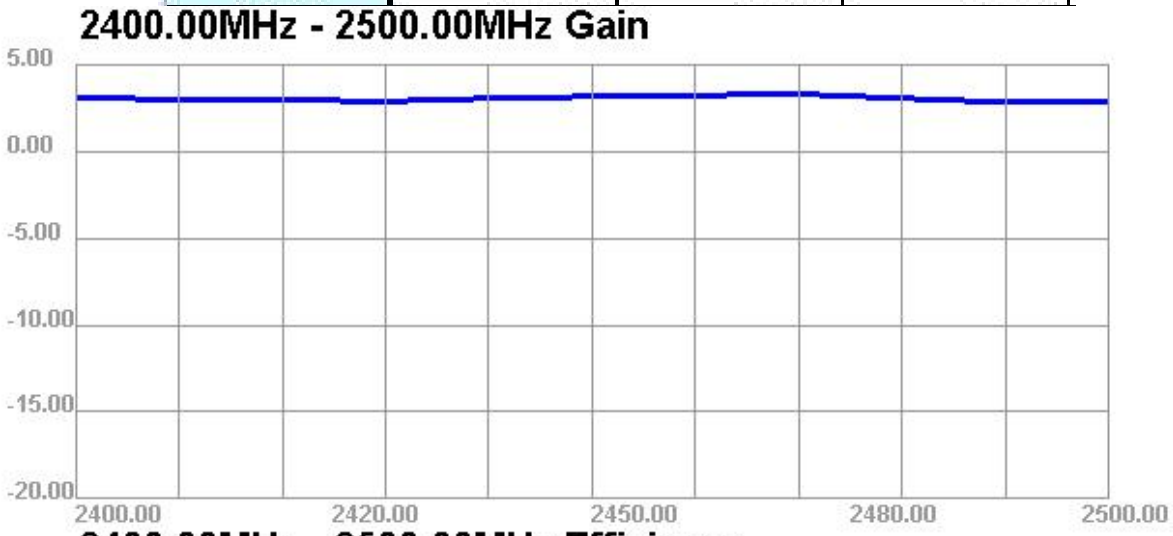


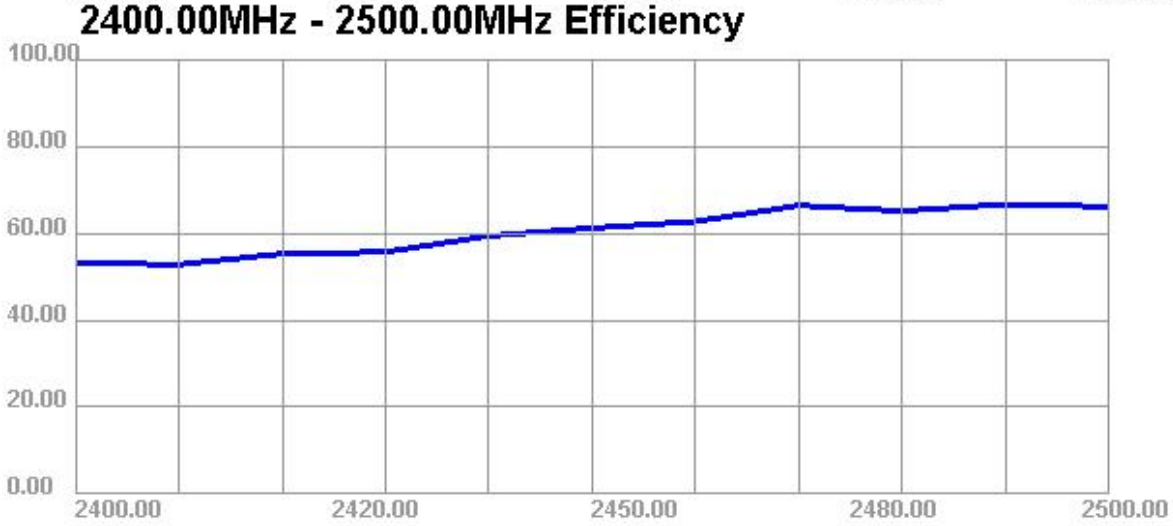
有源测试数据

天线测试报告	802.11B Antenna Performance Table			802.11G Antenna Performance Table		
Channel	CH 1	CH 6	CH11	CH 1	CH 6	CH 11
Max Power(dBm)	20.3	20.5	20.7	20.3	19.5	19.9
TRP(dBm)	17.2	17.4	17.8	17.4	16.6	16.8
Sensitivity(dBm)	-89.5	-89.7	-90.3	-78.5	-78.7	-79.9
TIS(dBm)	-87.3	-87.6	-88.9	-76.7	-76.9	-77.5

天线测试报告	802.11N Antenna Performance Table		
Channel	CH1	CH6	CH11
Max Power(dBm)	18.4	18.5	19.7
TRP(dBm)	16.7	16.9	17.3
Sensitivity(dBm)	-72.3	-72.5	-72.8
TIS(dBm)	-69.5	-69.8	-70.3

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	52.18	-2.74	2.09
2410	52.84	-2.77	2.23
2420	53.31	-2.57	2.37
2430	55.72	-2.54	2.48
2440	56.42	-2.26	2.56
2450	56.53	-2.13	2.61
2460	57.34	-2.02	2.65
2470	57.43	-1.78	2.69
2480	58.16	-1.86	2.72
2490	59.27	-1.76	2.79
2500	60.16	-1.79	2.83





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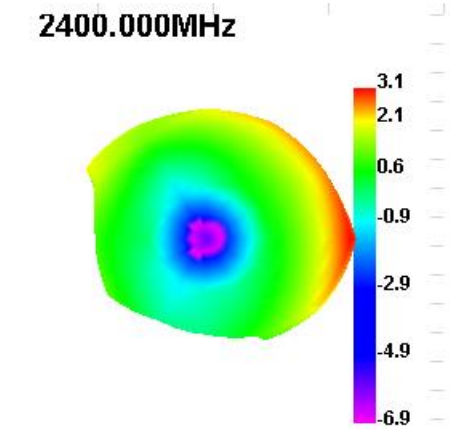

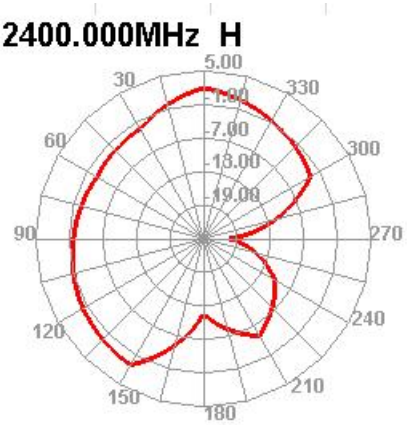

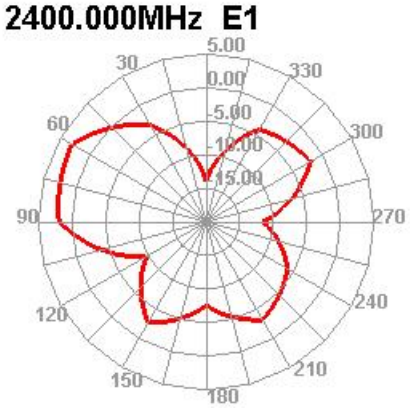

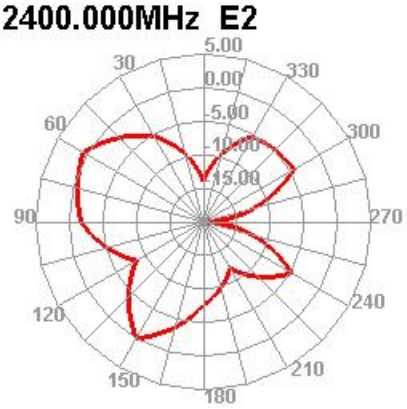

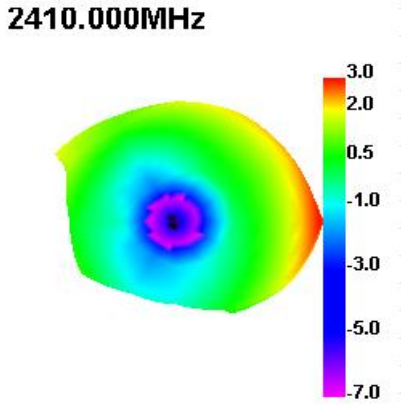

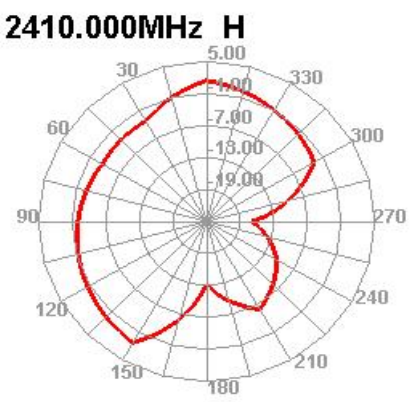

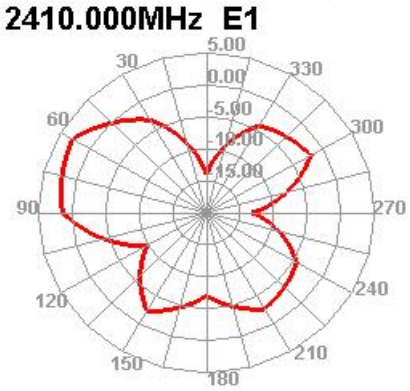

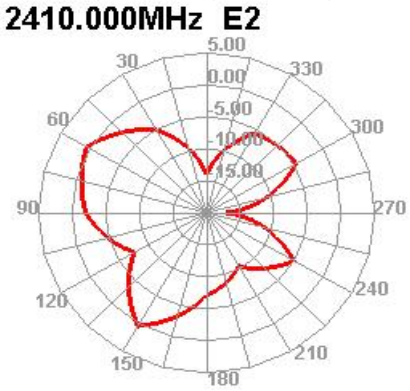

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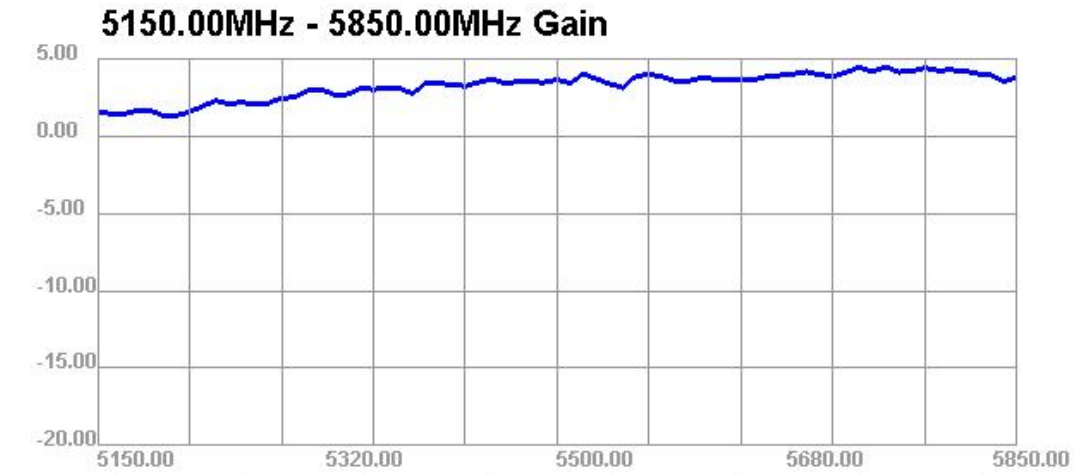
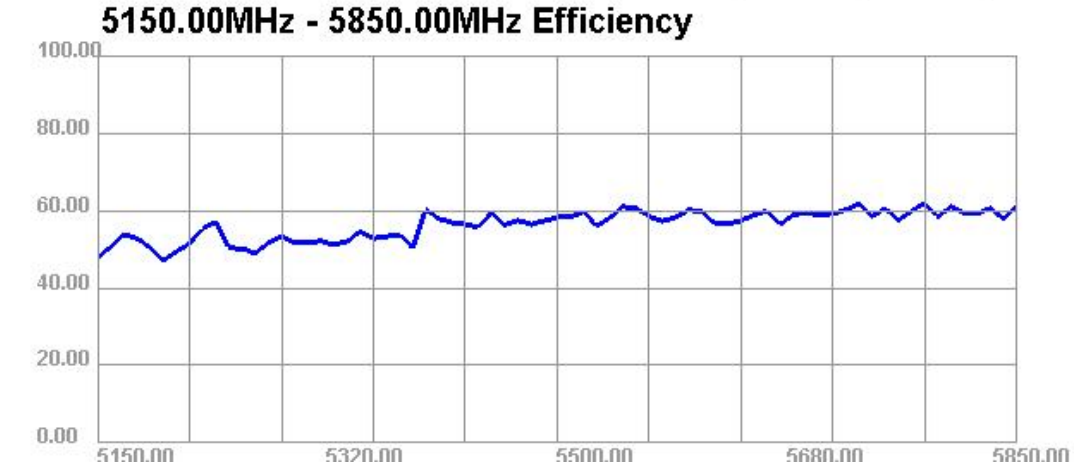
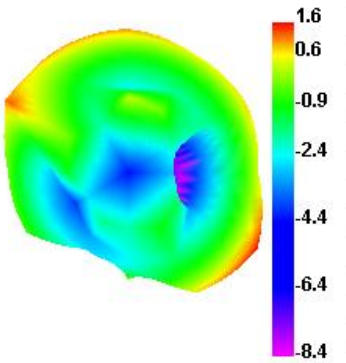
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	50.84	-3.2	2.55
5160	50.91	-2.95	2.44
5170	53.82	-2.69	2.46
5180	52.88	-2.77	2.64
5190	50.48	-2.97	2.66
5200	49.24	-3.26	2.32
5210	49.42	-3.06	2.33
5220	51.52	-2.88	2.56
5230	55.3	-2.57	2.93
5240	57.23	-2.42	2.28
5250	50.33	-2.98	2.09
5260	50.22	-2.99	2.17
5270	48.98	-3.1	2.03
5280	51.73	-2.86	2.11
5290	53.3	-2.73	2.46
5300	51.79	-2.86	2.49
5310	51.68	-2.87	2.94
5320	52.18	-2.83	3.01
5330	51.18	-2.91	2.68
5340	52.01	-2.84	2.68
5350	54.68	-2.62	3.09
5360	52.86	-2.77	3.01
5370	53.3	-2.73	3.09
5380	53.78	-2.69	3.11
5390	50.33	-2.98	2.71
5400	60.27	-2.2	3.47
5410	57.92	-2.37	3.4
5420	56.91	-2.45	3.31
5430	56.42	-2.49	3.23
5440	55.8	-2.53	3.46
5450	59.59	-2.25	3.69
5460	56.29	-2.5	3.43
5470	57.54	-2.4	3.5
5480	56.43	-2.48	3.49
5490	57.37	-2.41	3.47
5500	58.29	-2.34	3.63

5510	58.34	-2.34	3.42
5520	59.76	-2.24	3.51
5530	56.02	-2.52	3.7
5540	58.12	-2.36	3.37
5550	61.06	-2.14	3.13
5560	60.62	-2.17	3.87
5570	58.55	-2.32	3.98
5580	57.27	-2.42	3.82
5590	58.2	-2.35	3.56
5600	60.17	-2.21	3.55
5610	59.79	-2.23	3.79
5620	56.76	-2.46	3.68
5630	56.56	-2.47	3.7
5640	57.45	-2.41	3.6
5650	58.91	-2.3	3.62
5660	59.94	-2.22	3.88
5670	56.49	-2.48	3.92
5680	58.98	-2.29	3.72
5690	59.39	-2.26	3.15
5700	58.88	-2.3	3.96
5710	59.26	-2.27	3.85
5720	60.22	-2.2	3.91
5730	61.8	-2.09	3.46
5740	58.63	-2.32	3.45
5750	60.52	-2.18	3.48
5760	57.48	-2.4	3.64
5770	59.96	-2.22	3.69
5780	61.97	-2.08	3.71
5790	58.48	-2.33	3.24
5800	61.07	-2.14	3.27
5810	59.34	-2.27	3.2
5820	59.25	-2.27	3.53
5830	60.59	-2.18	3.98
5840	57.94	-2.37	3.53
5850	61.11	-2.14	3.79

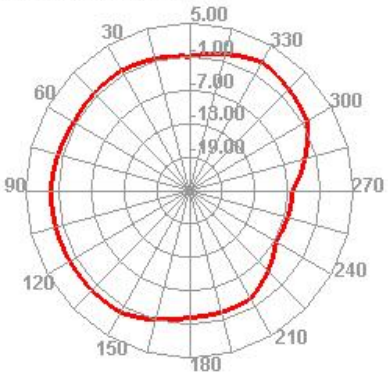

5150.00MHz - 5850.00MHz Gain
5.00
0.00
-5.00
-10.00
-15.00
-20.00
5150.00
5320.00
5500.00
5680.00
5850.00


5150.00MHz - 5850.00MHz Efficiency
100.00
80.00
60.00
40.00
20.00
0.00
5150.00
5320.00
5500.00
5680.00
5850.00

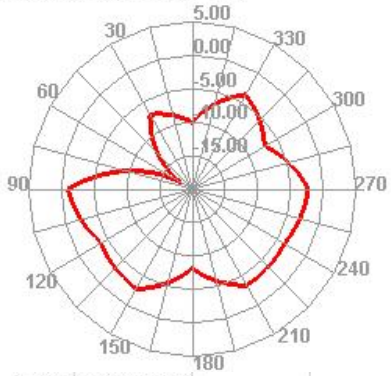
5150.000MHz



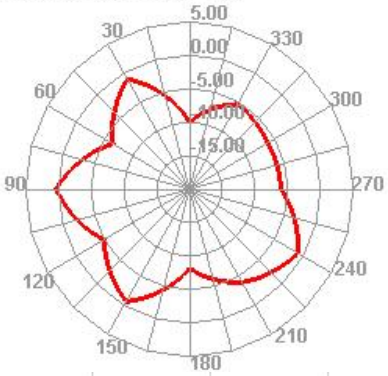
5150.000MHz H



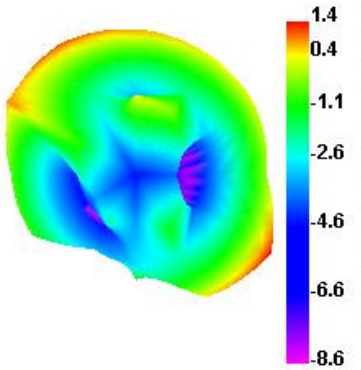
5150.000MHz E1



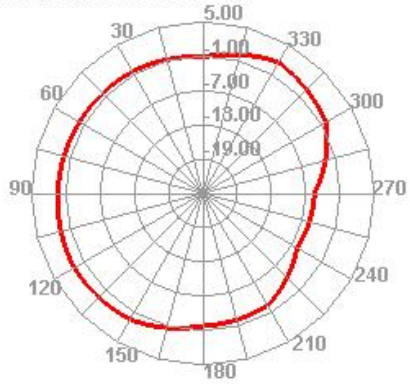
5150.000MHz E2



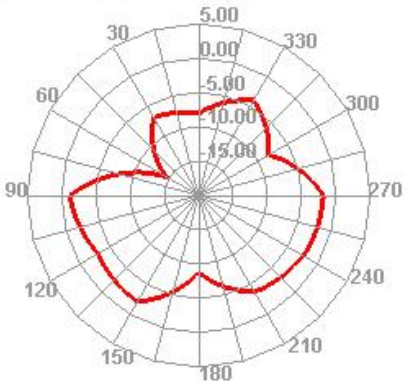
5160.000MHz



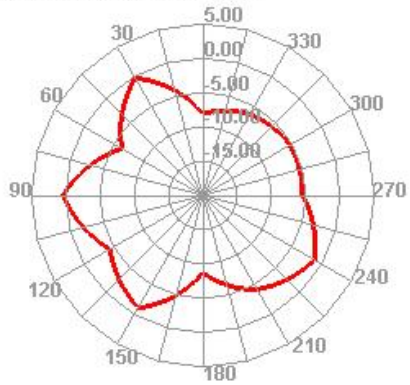
5160.000MHz H



5160.000MHz E1



5160.000MHz E2



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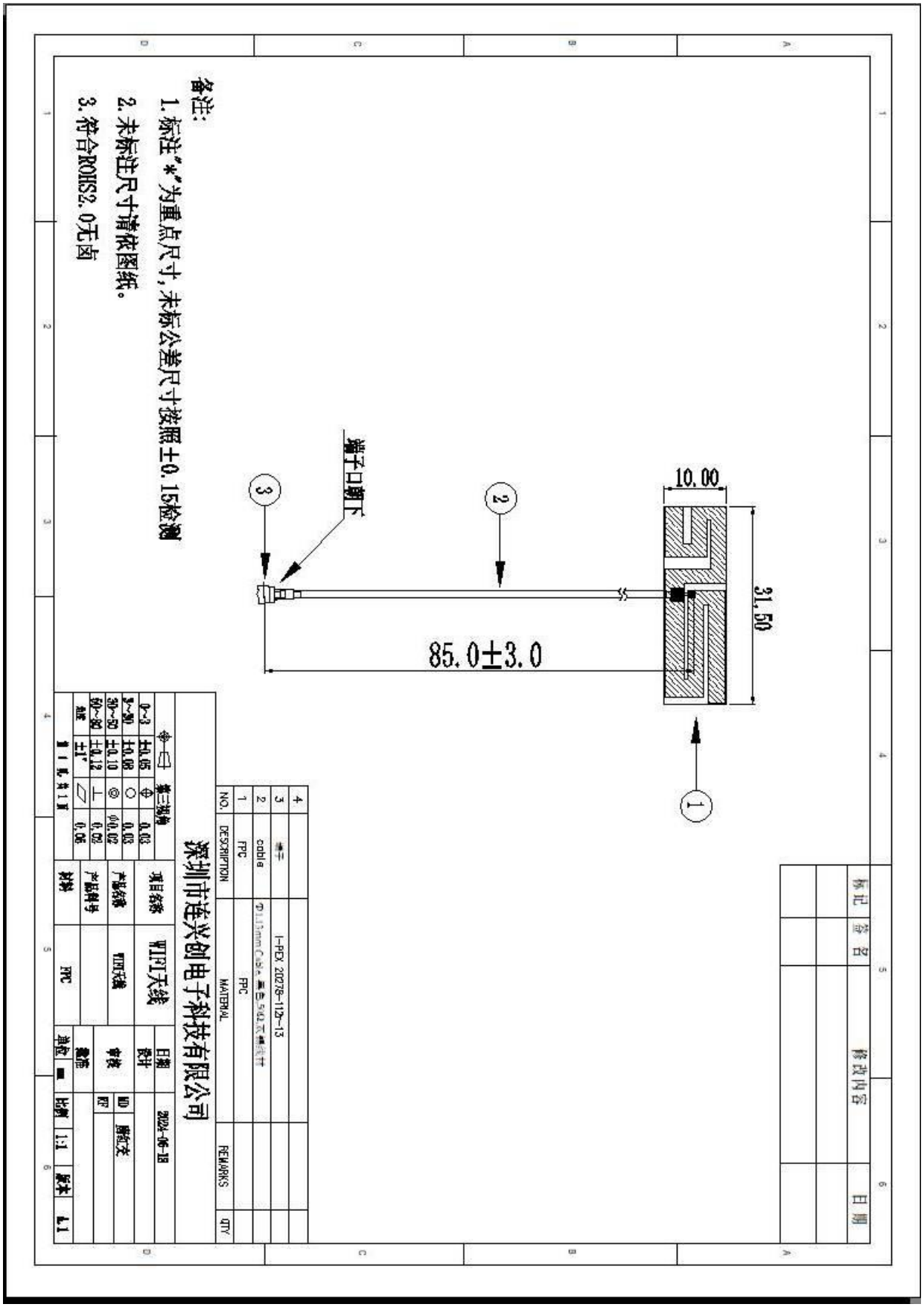
6 Mechanical drawing



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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!