

Shenzhen Lxc Electronics Technology Co ., Ltd

深圳市连兴创电子科技有限公司

3DB-外置天线 project

Antenna componentst

频率范围 Frequency range	2400~2500 (MHz)
驻波比系数 VSWR	<3.0
输入阻抗 Input Impedance	50±5 (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:3DB-外置天线		Author:Wang	File Name: 3DB-外置天线
Date: 2020-08-17			
TEST:	Language:	Check: Zhong	
A	English		
地址:深圳市龙华新区东环一路柏佳润工业区 3 栋 2 楼			
电话: 0755-29195258 传真: 0755-29590286			
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Revision History

Date	Revision	Description of Changes
2020-06-04	RA	Measured with PCB sample.

1 Technical Summary

This report summarizes the electrical results of the proposed antenna to support the **3DB-外置天线** 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

No changed..

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4.2 Measurement Data

4.2.1 Active result

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

注：2.45G 的 WIFI 效率标准是 40-50%。（数值越大性能越好）

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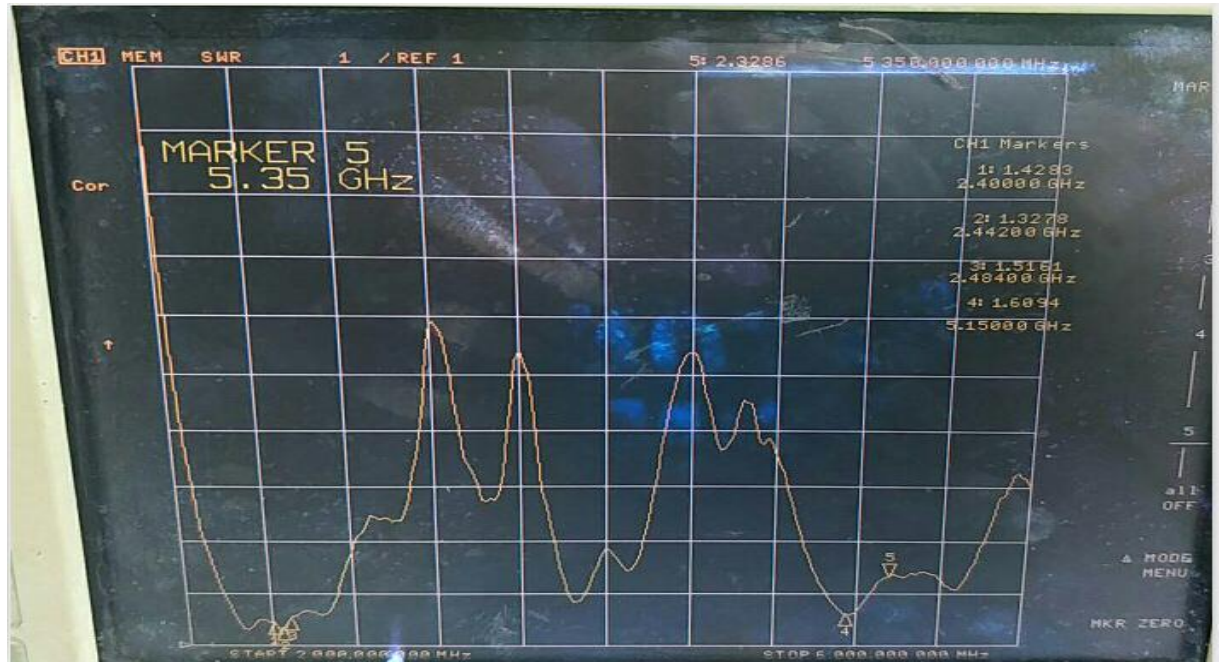
5

6 Plots

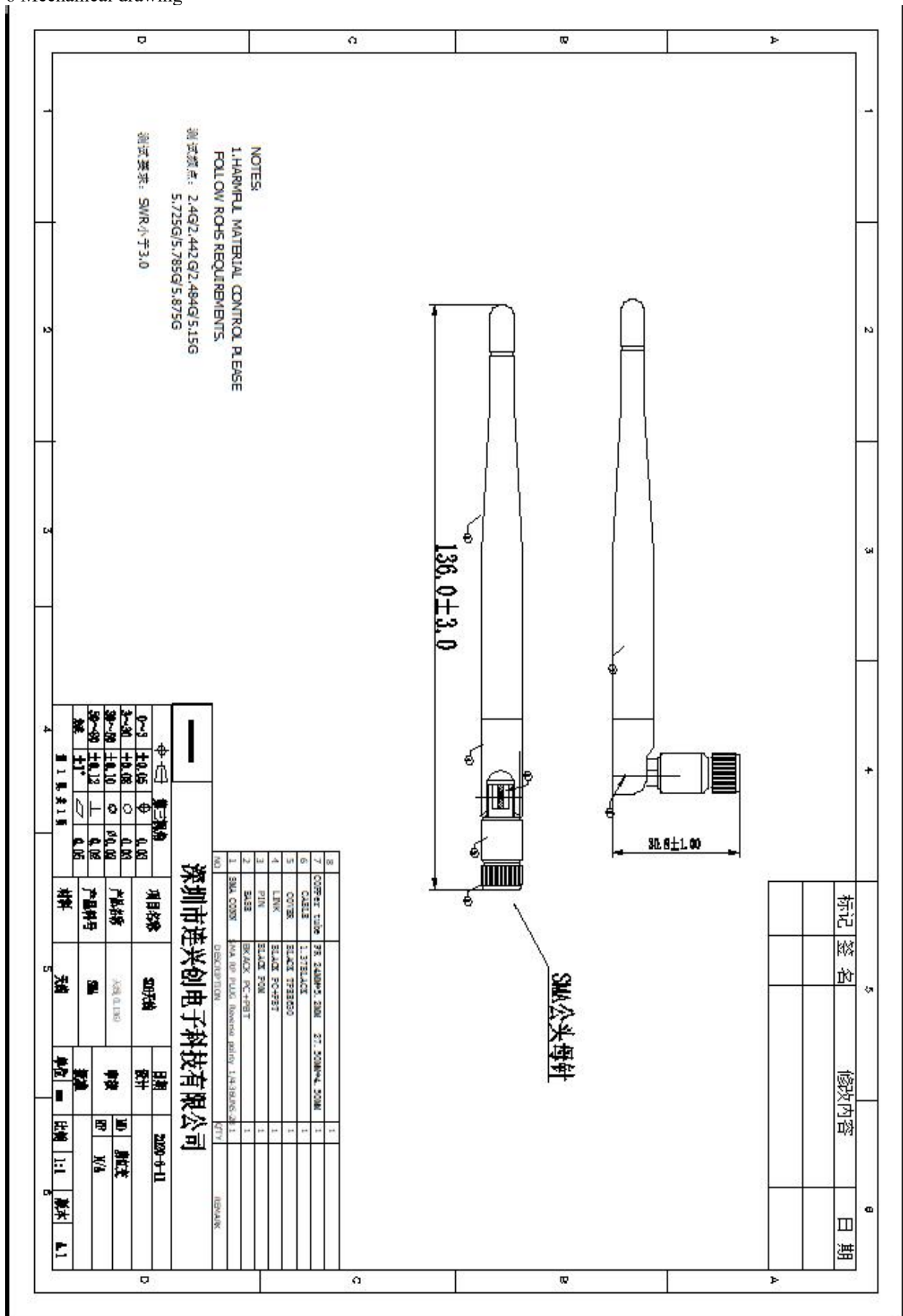
6.1 VSWR



注：驻波系数的标准值为 1.5. (数值越小性能越好)



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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

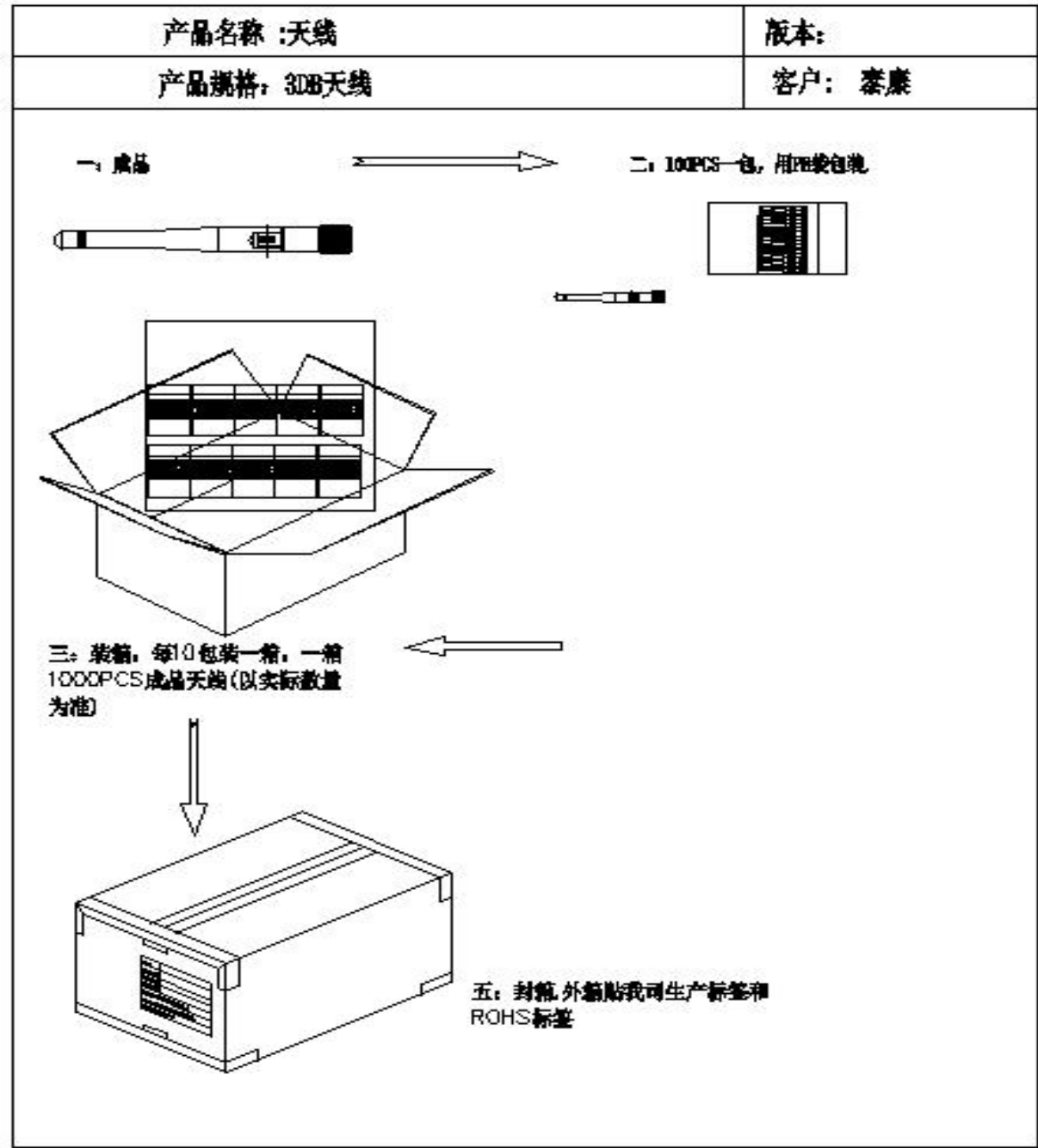
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8 Conclusion

以上数据表明此 WIFI 天线参数均已达标。性能以装机后的实际使用效果为准。

产品包装规范

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批准: _____ 确认: _____ 拟制: 唐红交

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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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