



东莞市扬跃电子通信科技有限公司

承認書

SPECIFICATION FOR APPROVAL

Customer Name	Shenzhen City Lingpao Technology Co.,LTD.
Product name	2.4G antenna, feedline length 27mm, stripped wire exposed size 5.3mm (2.4+1.4+1.5), Color: Black
Product number	YY-LP01001-A.0
Prepared By	Tony-Men
Antenna type	External Antenna
Approved By	
Apply Date	Dec. 12, 2023

CUSTOMER SIGNATURE		
Prepared By	Checked By	Approved By

PLEASE RETURN TO US ONE COPY OF "SPECIFICATION FOR APPROVAL" WITH YOUR APPROVED SIGNATURES.

频率范围 Frequency range	2400~2500 (MHz)
增益 Gain	3.5dBi
驻波比系数 VSWR	<2.0
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 180° E-plane

Revision History

Date	Revision	Description of Changes
2023-12-12	RA	Measured with 2.4G Antenna sample.

1 Technical Summary

This report summarizes the electrical results of the proposed antenna to support the 2.4GHz Antenna 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.

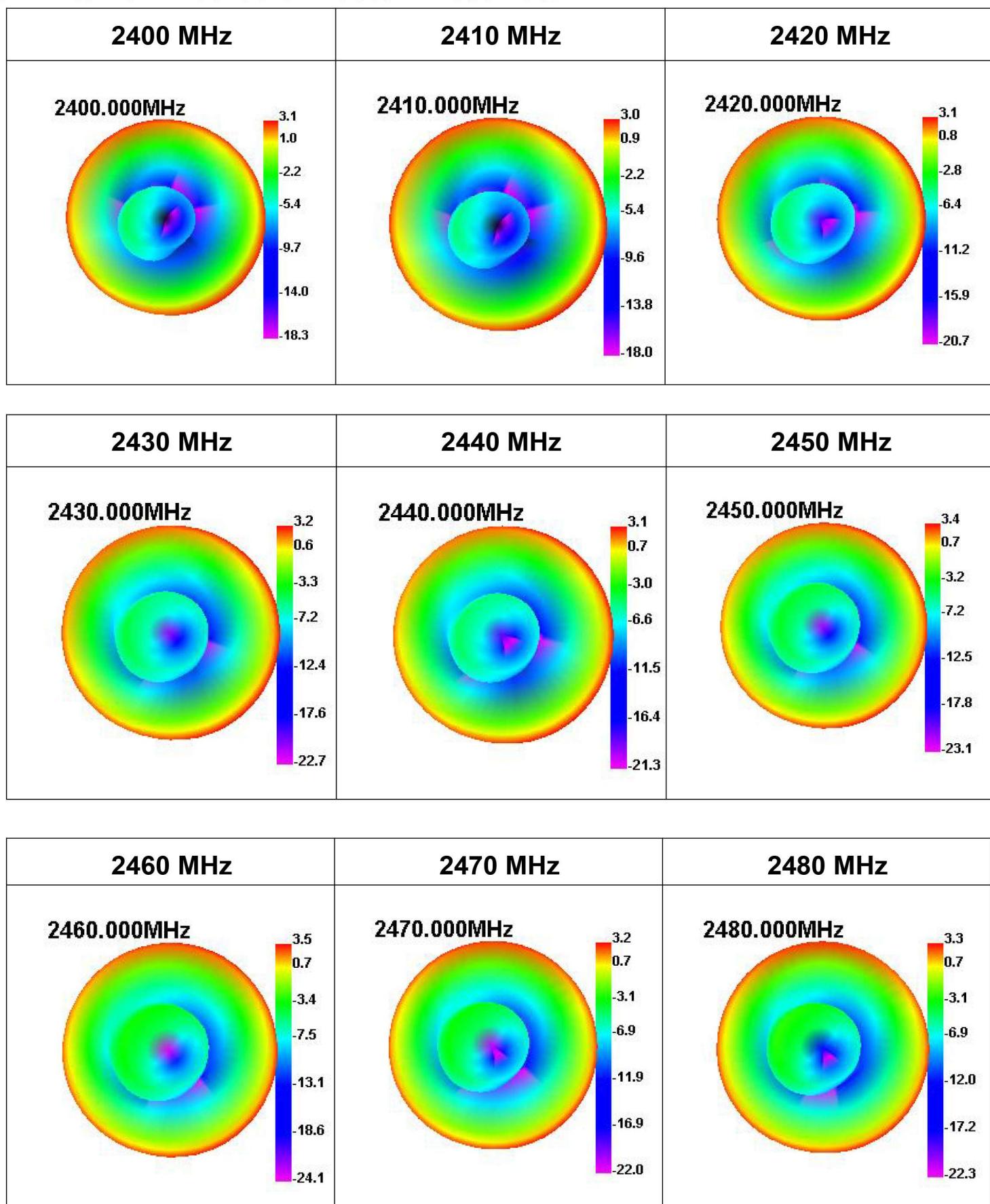
4.1.2 Gain & Radiation Patterns

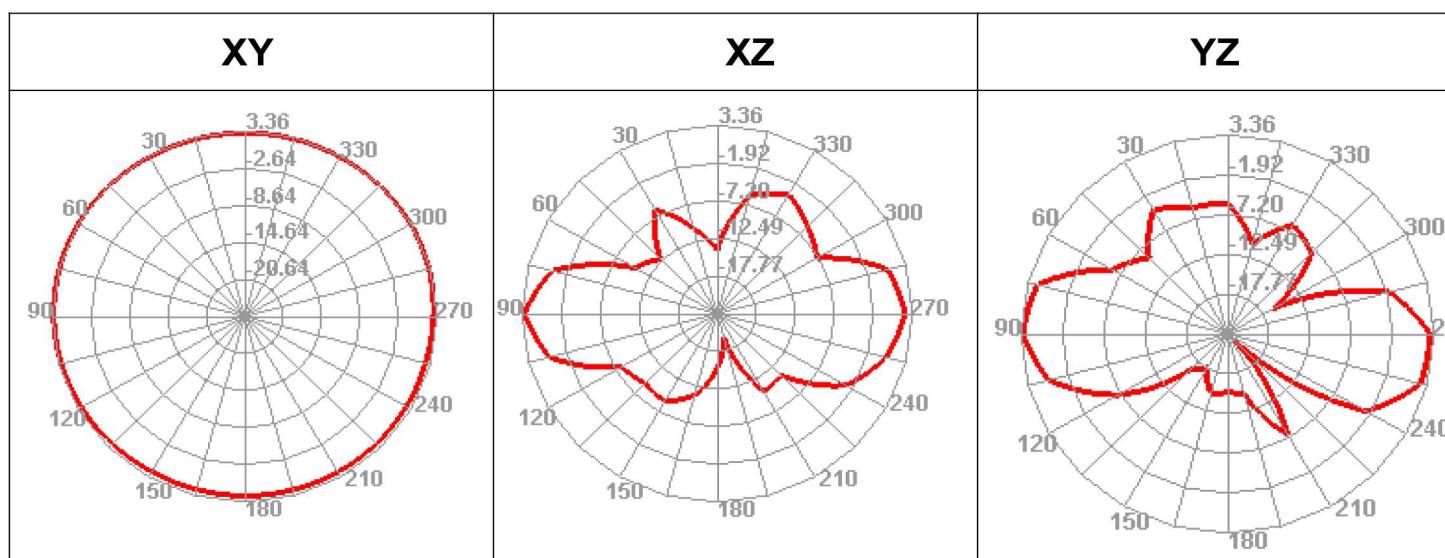
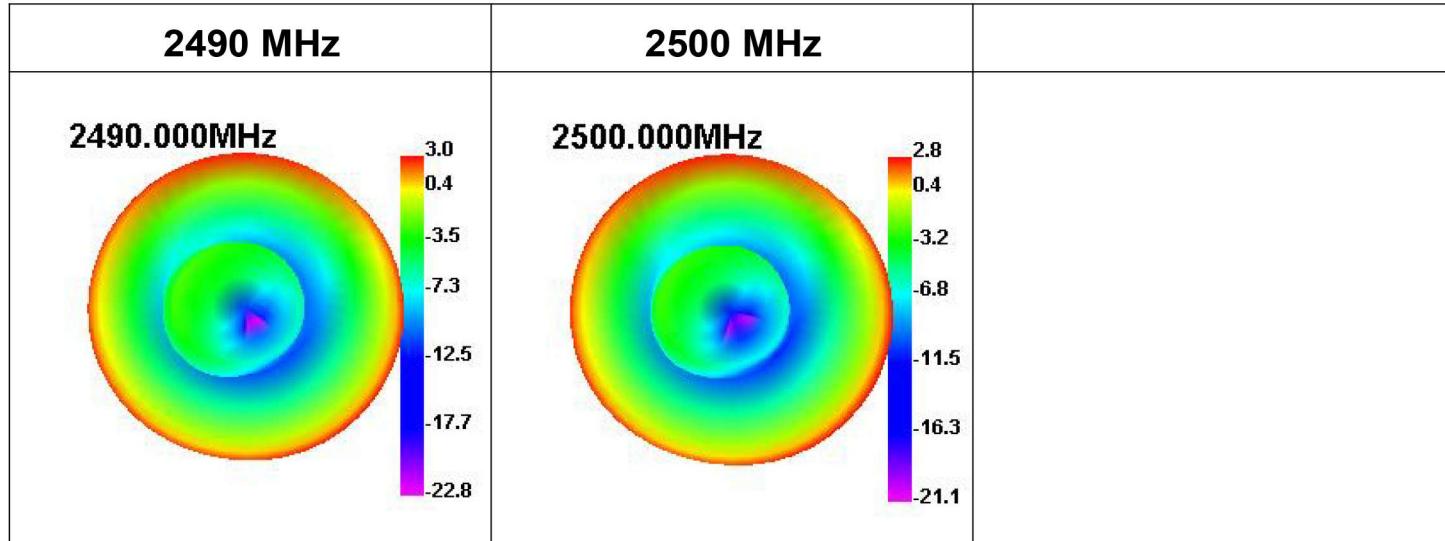
The gain of the antenna was measured in the Lxc's anechoic chamber. Coaxial chokes on the feed cable were used to mitigate surface currents. The chamber provides less than -30 dB reflectivity from 300 MHz through 3 GHz and an 18" diameter spherical quite zone. The measurement results are calibrated using both dipole and leaky wave horn standards.

4.1.3 Matching Circuit Description

No changed..

4.2 Antenna – Radiation Pattern Test Data





Freq (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Effi (%)	65.38	64.91	65.63	64.84	63.43	67.03	69.83	67.24	70.11	67.63	66.49
Gain (dBi)	3.1	3.01	3.15	3.17	3.09	3.36	3.5	3.23	3.28	3	2.83

5. Plots

VSWR

注: 驻波系数的标准值

Note: Standard value of VSWR

Serial No.	Frequency	Standing wave
1	2400 Mhz	1.28
2	2450 Mhz	1.43
3	2500 Mhz	1.40



注: 回损的标准值

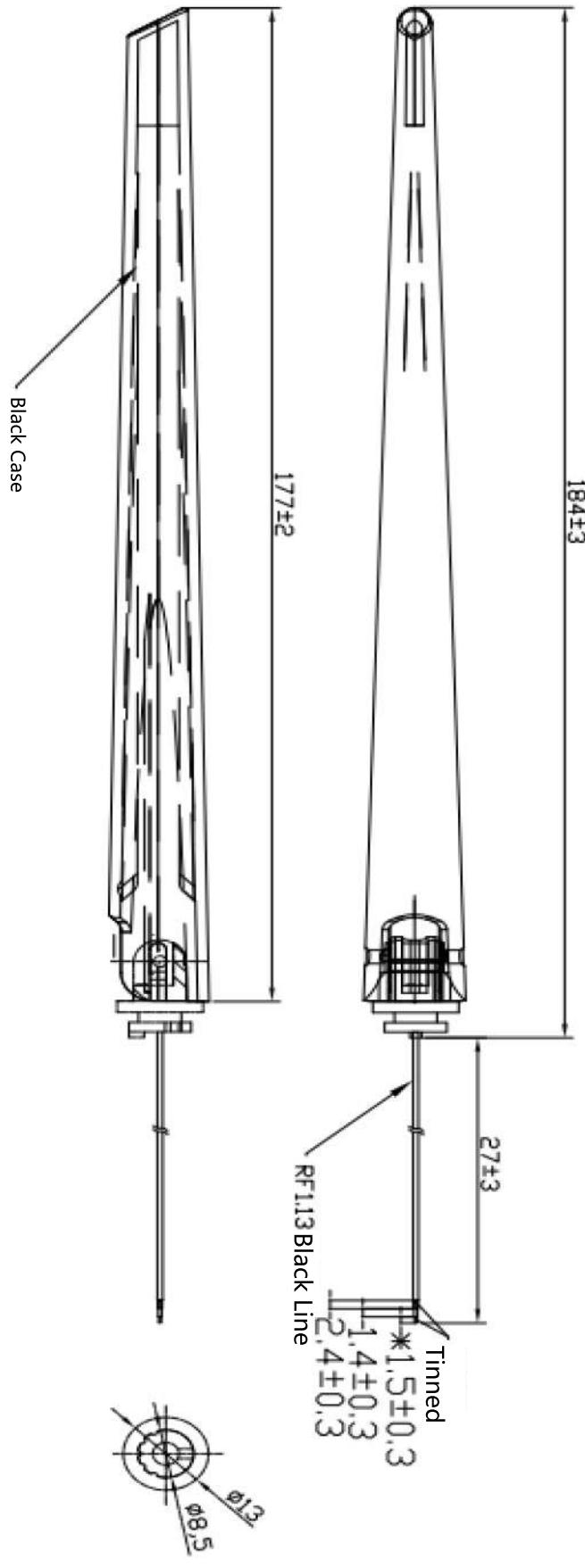
Note: Standard value of return loss



6 Mechanical drawing

RoHS
GJB9001-2008

REV. 5 ORDER NO. 8 DATE



Test Frequency : 2400Mhz-2500Mhz

东莞市扬跃电子通信科技有限公司	
Shenzhen Yangyue Electronic Communication Technology Co., Ltd.	
PART NAME	2.4G antenna feedline length 27mm, stripped wire exposed size 5.3mm (2.4+1.4+1.5), Color:Black
PART NO	YY-LP01001-A.0
APPROVED BY	Customer P/N :
CHECKED BY	DESIGNED BY
Tony-Men	⊕
2023-12-12	UNITS: mm
	XX ±0.50
	SCALE: None
	XX ±0.15
	REVISION: A

7 Reliability tests

7.1 Test content

No	Pilot project	Test method	Benchmarks
1	Salt spray test	Spray a solution of 5% salt concentration for 24HR	No discoloration, distortion, peeling, etc. Corrosion area should not be too large.

7.2 Test results

NO	No. of samples	Testing time	Test results	Note
1	10	24h	OK	Technical grade 9 Corrosion <0.4mm

8 Conclusion

以上数据表明此 2.4G 天线参数均已达标。性能以装机后的实际使用效果为准。

The above data indicates that the parameters of this 2.4G antenna have reached the standard.
Performance is subject to actual use after installation.

From the above test results, we can know the electrical performance of the antenna is seems good.

DongGuan Yangyue Electronic Communication Technology Co., Ltd, look forward to your confirmation,
thank you for your cooperation !