

Dongguan Haitai Precision Electronic Technology Co., Ltd.

东莞市海泰精密电子科技有限公司

APPROVAL SHEET

承认书

客户 (Customer) : 哈隆

产品 (Product) : WIFI Antenna

型号 (Model) : FPC-WIFI Antenna

料号 (Part Number) : HT1BL70202502270001

制作人 (Written By) : 唐红交

签发时间 (Issued Date) : 2025-02-27

客户 CUSTOMER

频率范围 Frequency range	WIFI:(2.4/2.5GHz)
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	陈金文	Checked by	黄宗琦
ME by		Date	2025.02.27
Customer Confirm			

Revision History

Date	Revision	Description of Changes
2025-02-27	RA	Measured with sample.

东莞市海泰精密电子科技有限公司	1
PROJECT	2
ANTENNA COMPONENTST	3
1 TECHNICAL SUMMARY	3
2 GENERAL DESCRIPTION	3
2.1 Components/Part revisions	3
3 MECHANICAL DESCRIPTION	3
4 ELECTRICAL PERFORMANCE	3
4.1 Set-up	3
4.1.1 VSWR	3
4.1.2 Gain & Radiation Patterns	3
4.1.3 Matching Circuit Description	3
4.2 Measurement Data	4
4.2.1 Active result (GSM)	4
6 Mechanical drawing	5
7 RELIABILITY TESTS	9
7.1 Test content	9
7.2 Test results	9
8 CONCLUSION	9

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

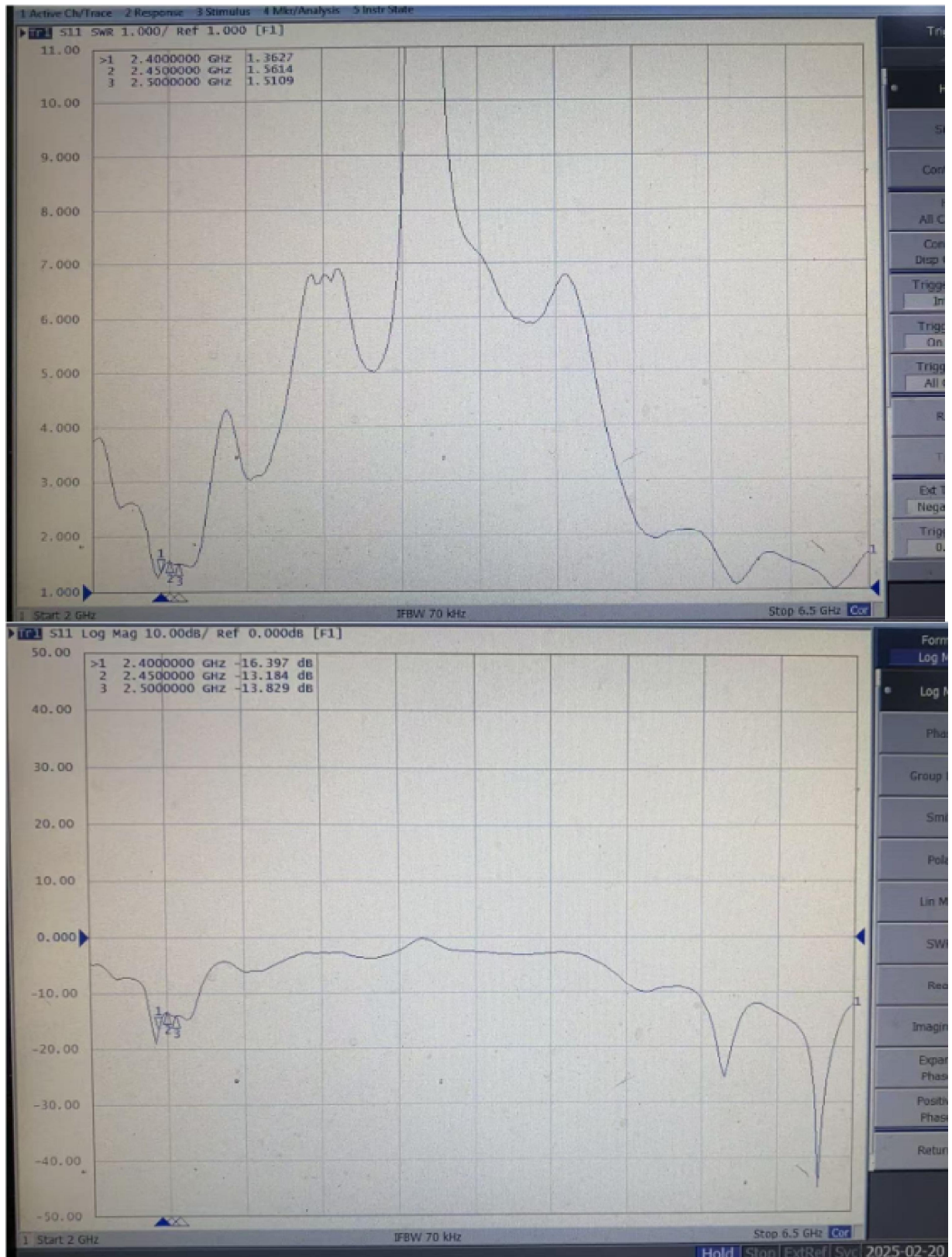
The gain of the antenna was measured in the Lxc's anechoic chamber. Coaxial chokes on the feed cable were used to mitigate surface currents. The chamber provides less than -30 dB reflectivity from 800 MHz through 3 GHz and an 18" diameter spherical quiet zone. The measurement results are calibrated using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

4.1.3 Matching Circuit Description

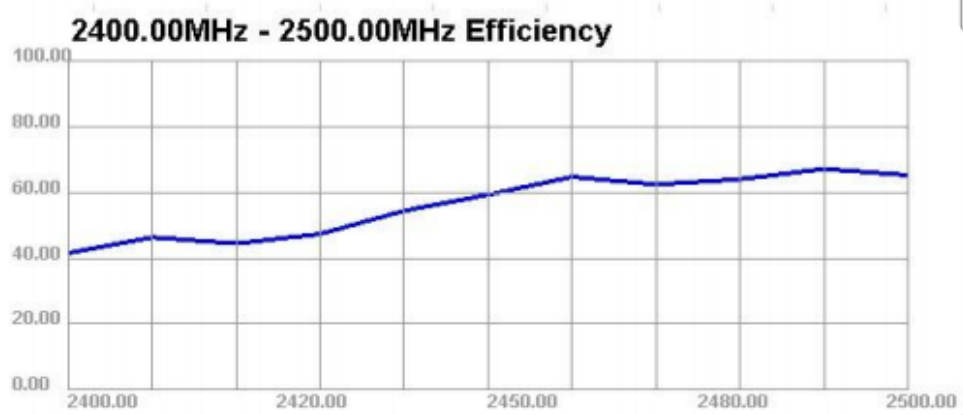


4.2 Measurement Data

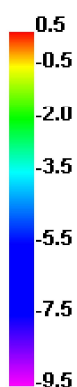
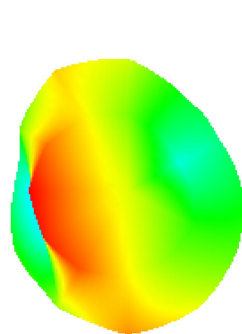
4.2.1 Active result (WIFI)



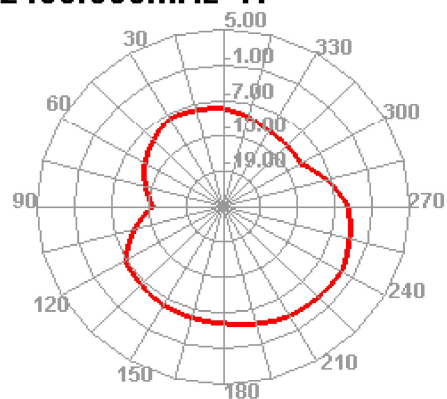
Freq	Effi	Gain
(MHz)	(%)	(dBi)
2400	37.25	0.47
2410	37.18	0.7
2420	38.01	0.59
2430	39.54	0.56
2440	40.27	0.51
2450	42.07	0.08
2460	41.91	0.59
2470	40.49	0.47
2480	42.84	0.67
2490	44.02	0.99
2500	42.93	1.21



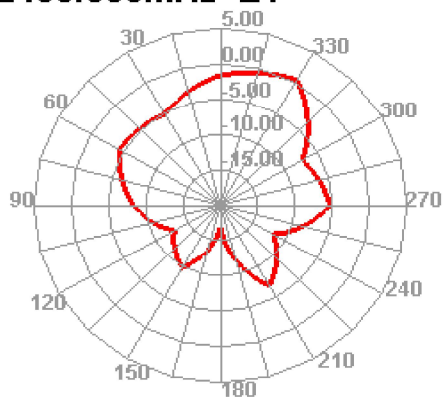
2400.000MHz



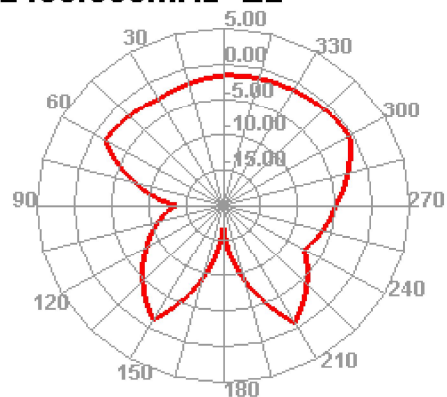
2400.000MHz H



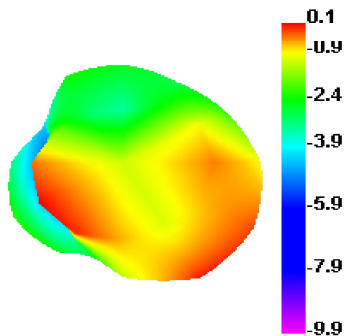
2400.000MHz E1



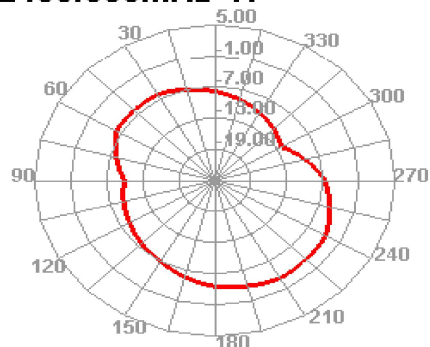
2400.000MHz E2



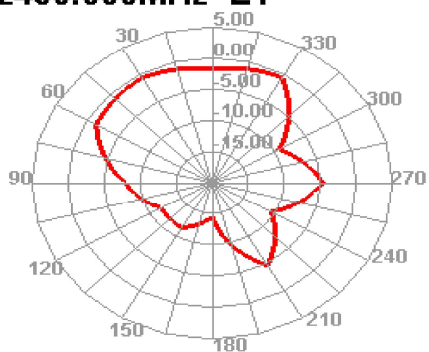
2450.000MHz



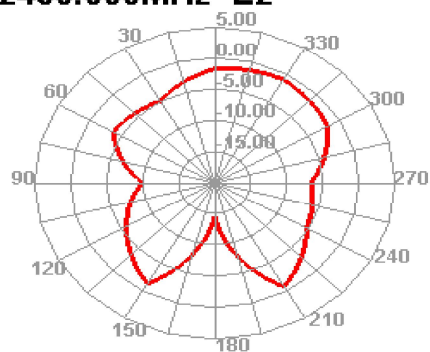
2450.000MHz H



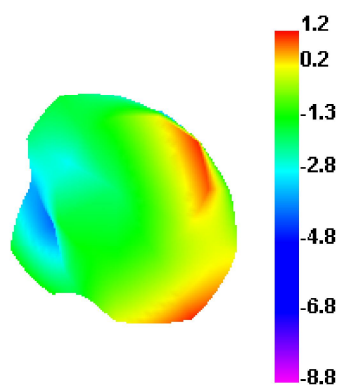
2450.000MHz E1



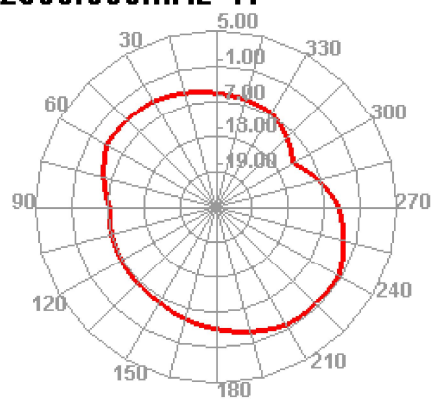
2450.000MHz E2



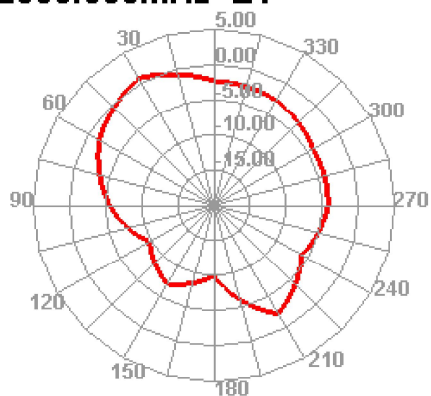
2500.000MHz



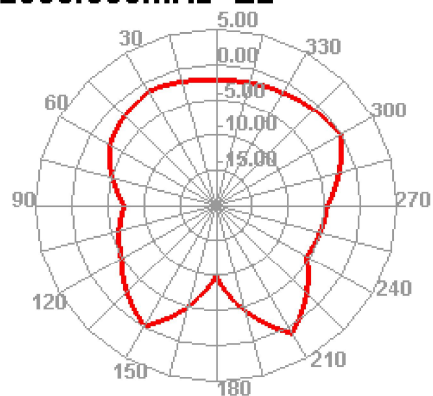
2500.000MHz H



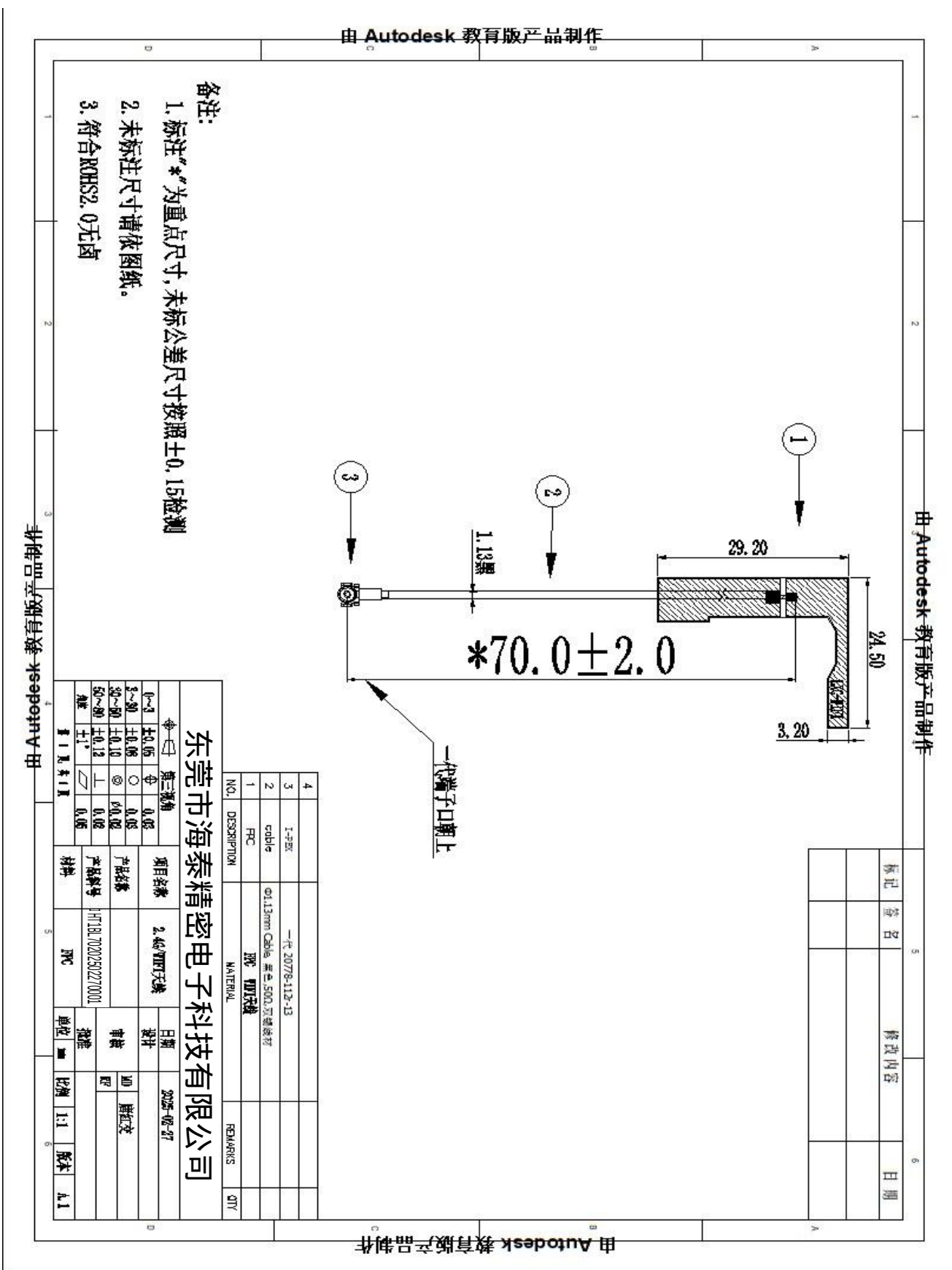
2500.000MHz E1



2500.000MHz E2



6 Mechanical drawing



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.