

森沛（深圳）有限公司

零件承认书

产品信息	Manufacturer	Shenzhen Lianxingchuang Electronic Technology Co., Ltd			
	Name	WiFi Main Antenna			
	Model	LXC-MGS01-08-MAIN			
	森沛适用机型	MGS101-08			
	森沛料号	928-2003121-L45			
	森沛物料描述	Cable WiFi Main antenna, 2.4G+5G, 线长 200mm , 500hm/OD 0.81mm, 双锡黑线 , FPC type, 31.0x21.0mm, KCC 四代端子, RoHS			
硬件确认	产品电气性能			确认人/日期	
测试确认	测试可靠性			确认人/日期	
结构确认	结构认定			确认人/日期	
系统确认	系统认定			确认人/日期	
品质确认	产品可靠性/外观			确认人/日期	
此份分发以下部门:		本样品:		签 发	
☐ 品质部 ☐ 采购部 ☐ 系统结构部 ☐ 硬件部 ☐ 供应商		☐ 限量采购 ☐ 限定应用机型 ☐ 部分承认 ☐ 完全承认 ☐ 其他		供应商审核 (森沛) 总经理签署	

8Project:		Author:Wang	File Name: MGS101-8 Main Antenna
Date: 2025-03-20			
TEST:	Language:	Check: Zhong	
A	English		
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Phone: +86-755-29195258 Fax: +86-755-29590286			

频率范围 Frequency range	WIFI:(2.4/5.8MHz)
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

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Revision History

Date	Revision	Description of Changes
2025-03-20	RA	Measured with SUS301 sample.

深圳市连兴创电子科技有限公司	1
PROJECT	2
ANTENNA COMPONENTST	2
1 TECHNICAL SUMMARY	4
2 GENERAL DESCRIPTION	4
2.1 Components/Part revisions	4
3 MECHANICAL DESCRIPTION	4
4 ELECTRICAL PERFORMANCE	4
4.1 Set-up	4
4.1.1 VSWR	4
4.1.2 Gain & Radiation Patterns	4
4.1.3 Matching Circuit Description	4
4.2 Measurement Data	6
4.2.1 Active result (GSM)	6
6 Mechanical drawing	5
7 RELIABILITY TESTS	10
7.1 Test content	10
7.2 Test results	10
8 CONCLUSION	9

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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

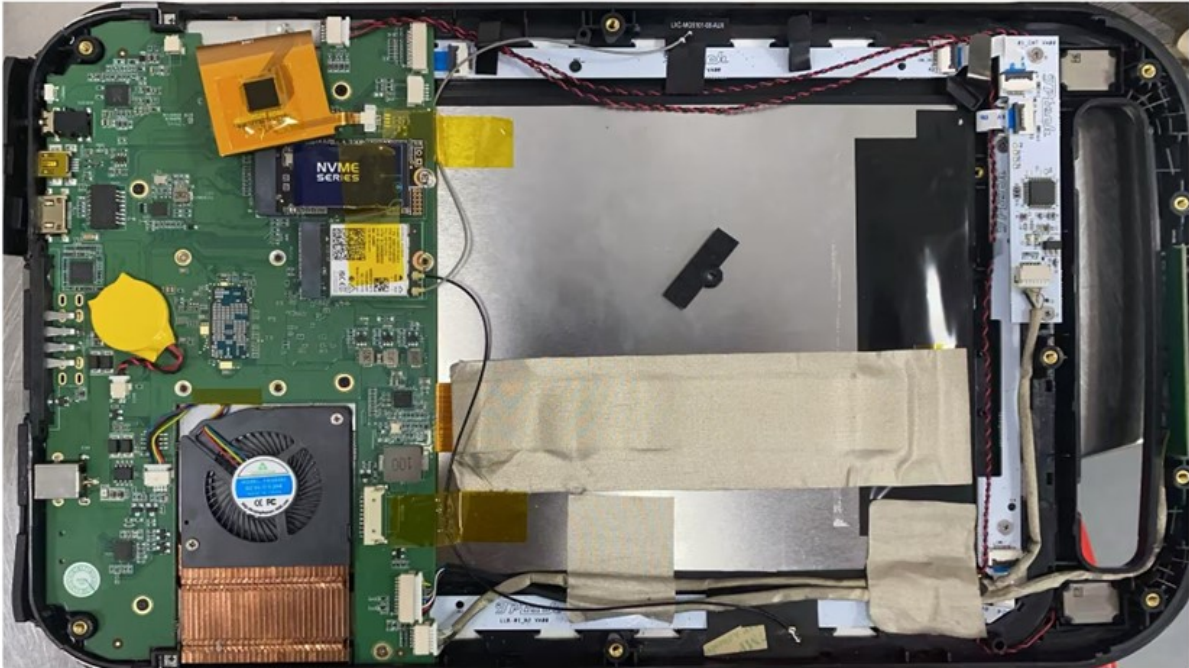
The gain of the antenna was measured in the Lxc's anechoic chamber. Coaxial chokes on the feed cable were used to mitigate surface currents. The chamber provides less than -30 dB reflectivity from 800 MHz through 3 GHz and an 18" diameter spherical quiet zone. The measurement results are calibrated using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

4.1.3 Matching Circuit Description



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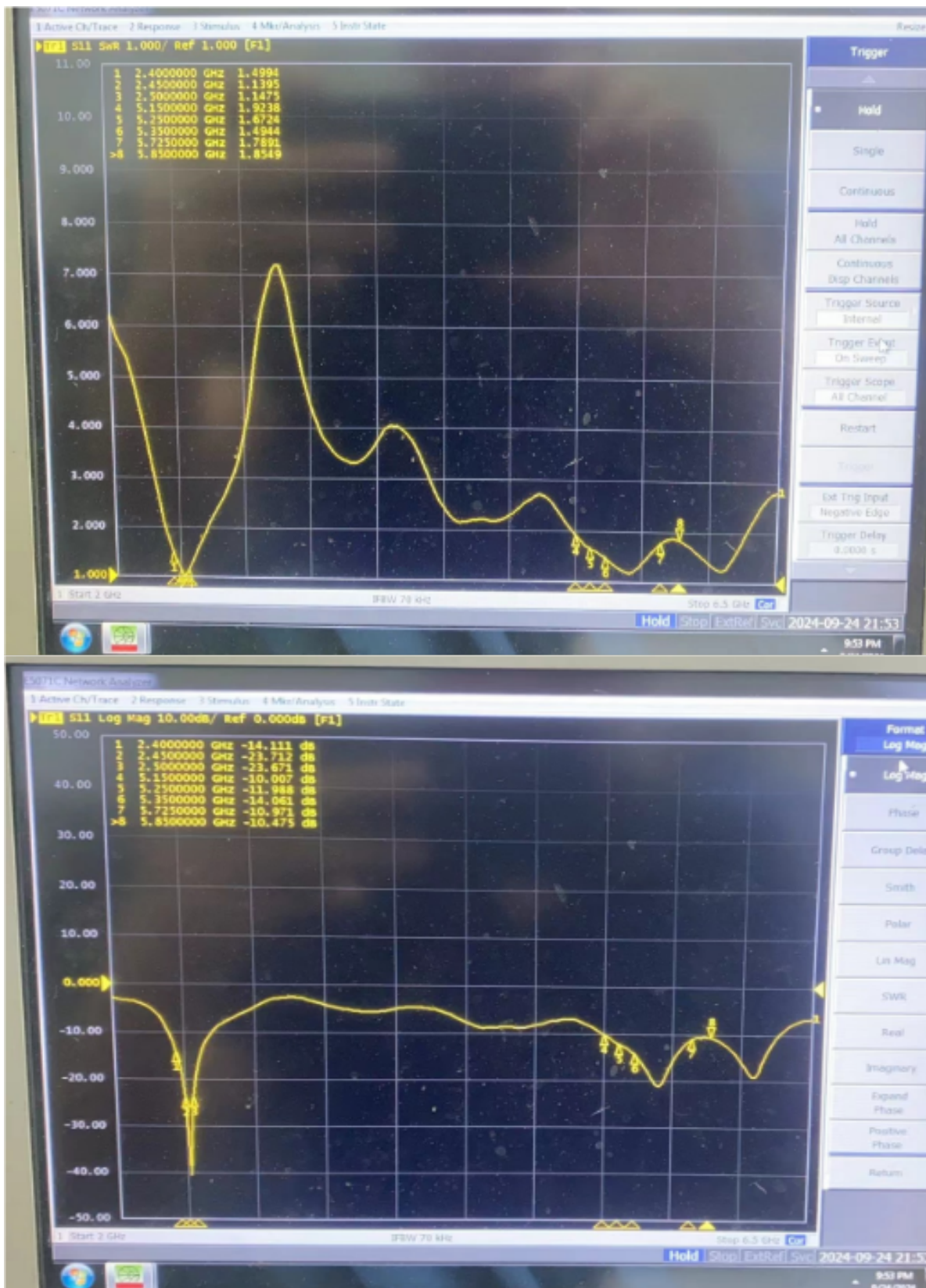
境处理，主天线附近没接导电布，导电布尽量远离天线线路部分。副天线附近喇叭线避开天线区域。



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4.2 Measurement Data

4.2.1 Active result (WIFI)



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2.4G/5G-有源测试数据

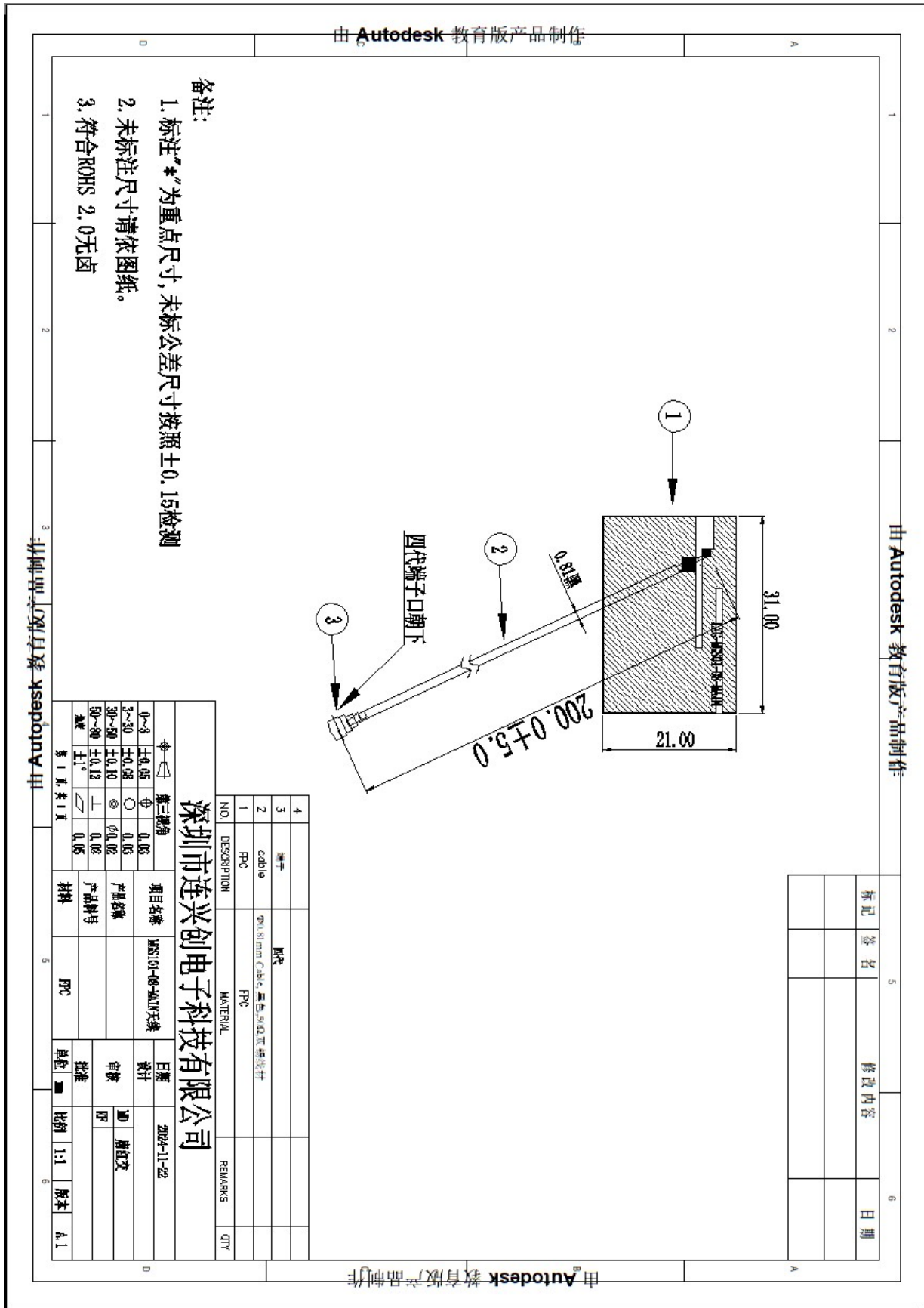
WiFi(5G/A)	CH	功率(54M)	灵敏度(54M)	WiFi(2.4G/G)	CH	功率(54M)	灵敏度(54M)
	36	10.3	-72.3		1	10.2	-71.3
	149	10.6	-72.2		6	10.7	-71.5
	165	10.7	-72.5		11	10.2	-71.7
WiFi(2.4G/B)	CH	功率(11M)	灵敏度(11M)	WiFi(2.4G/N)	CH	功率(MCS7)	灵敏度(MCS7)
	1	11.1	-84.6		1	10.5	-67.3
	6	11.5	-84.7		6	10.2	-67.8
	11	11.6	-84.9		11	10.3	-67.4

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Freq	Effi	Gain
(MHz)	(%)	(dBi)
2400	51.59	2.67
2410	51.72	2.66
2420	50.55	2.5
2430	50.26	2.36
2440	52.61	2.47
2450	53.09	2.2
2460	54.37	1.9
2470	54.77	1.41
2480	54.01	1.42
2490	51.7	1.34
2500	51.41	1.23
Freq	Effi	Gain
(MHz)	(%)	(dBi)
5150	39.95	1.33
5350	62.9	2.23
5550	56.89	1.98
5650	61.36	2.62
5850	56.45	2.51

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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

8 Conclusion

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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	Name	WiFi Aux Antenna			
	Model	LXC-MGS01-08-AUX			
	森沛适用机型	MGS101-08			
	森沛料号	928-1503121-L45			
	森沛物料描述	Cable WiFi AUX antenna, 2.4G+5G, 线长 150mm , 500hm/OD 0.81mm, 双锡灰线 , FPC type, 17.8x22.0mm, KCC 四代端子, RoHS			
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系统确认	系统认定			确认人/日期	
品质确认	产品可靠性/外观			确认人/日期	
此份分发以下部门：		本样品：		签 发	
☐ 品质部 ☐ 采购部 ☐ 系统结构部 ☐ 硬件部 ☐ 供应商		☐ 限量采购 ☐ 限定应用机型 ☐ 部分承认 ☐ 完全承认 ☐ 其他		供应商审核 (森沛) 总经理签署	

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驻波比系数 VSWR	<2.0
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4.1.2 Gain & Radiation Patterns	4
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1 Technical Summary

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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.

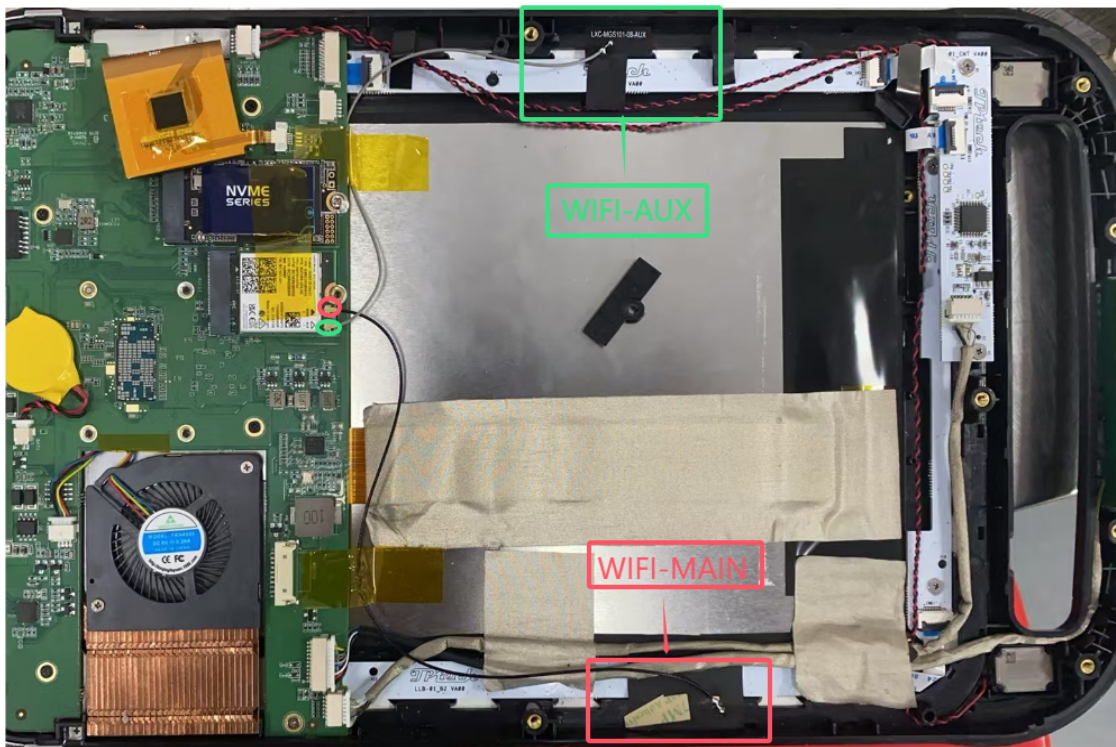
4.1.2 **Gain & Radiation Patterns**

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**

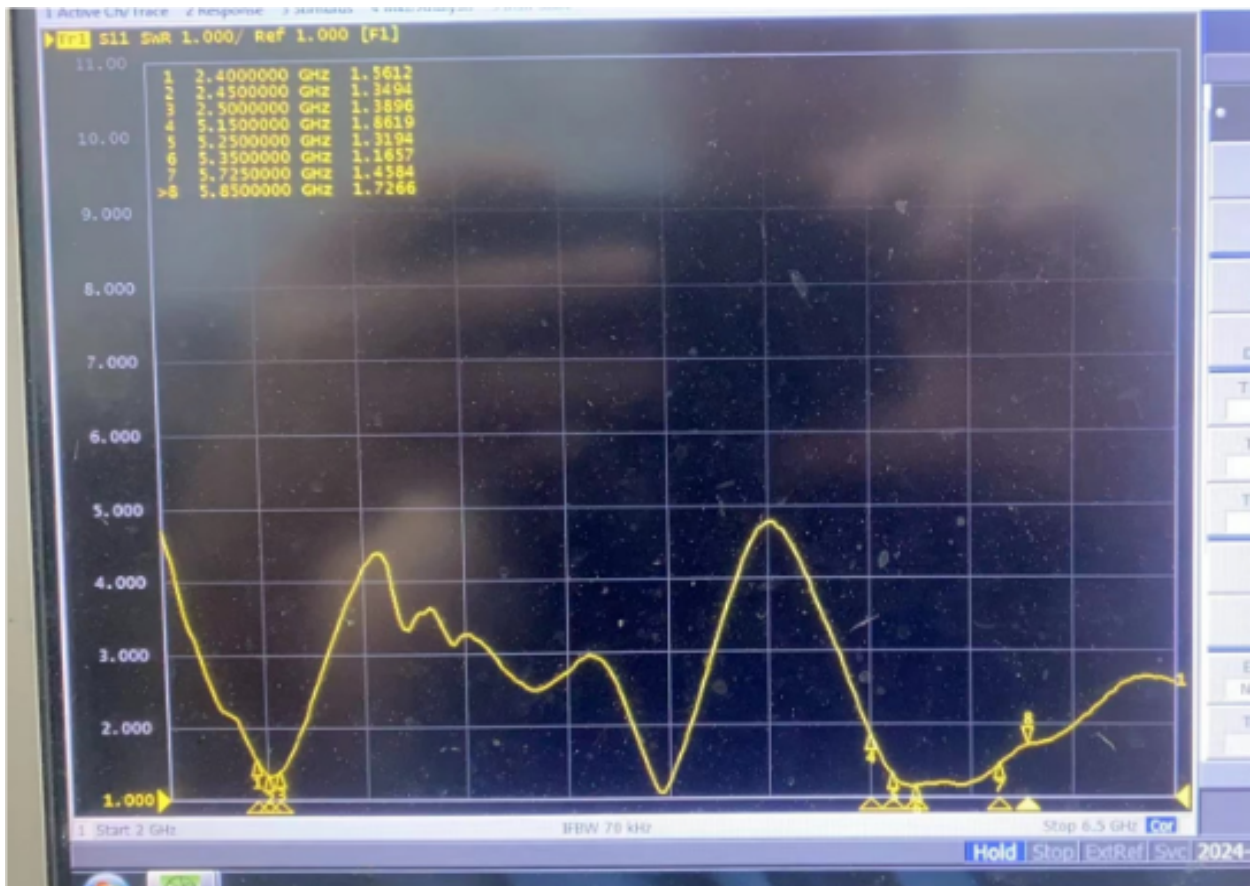


8Project:		Author:Wang	File Name: MGS101-8 AuX Antenna
Date: 2025-03-20			
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A	English		
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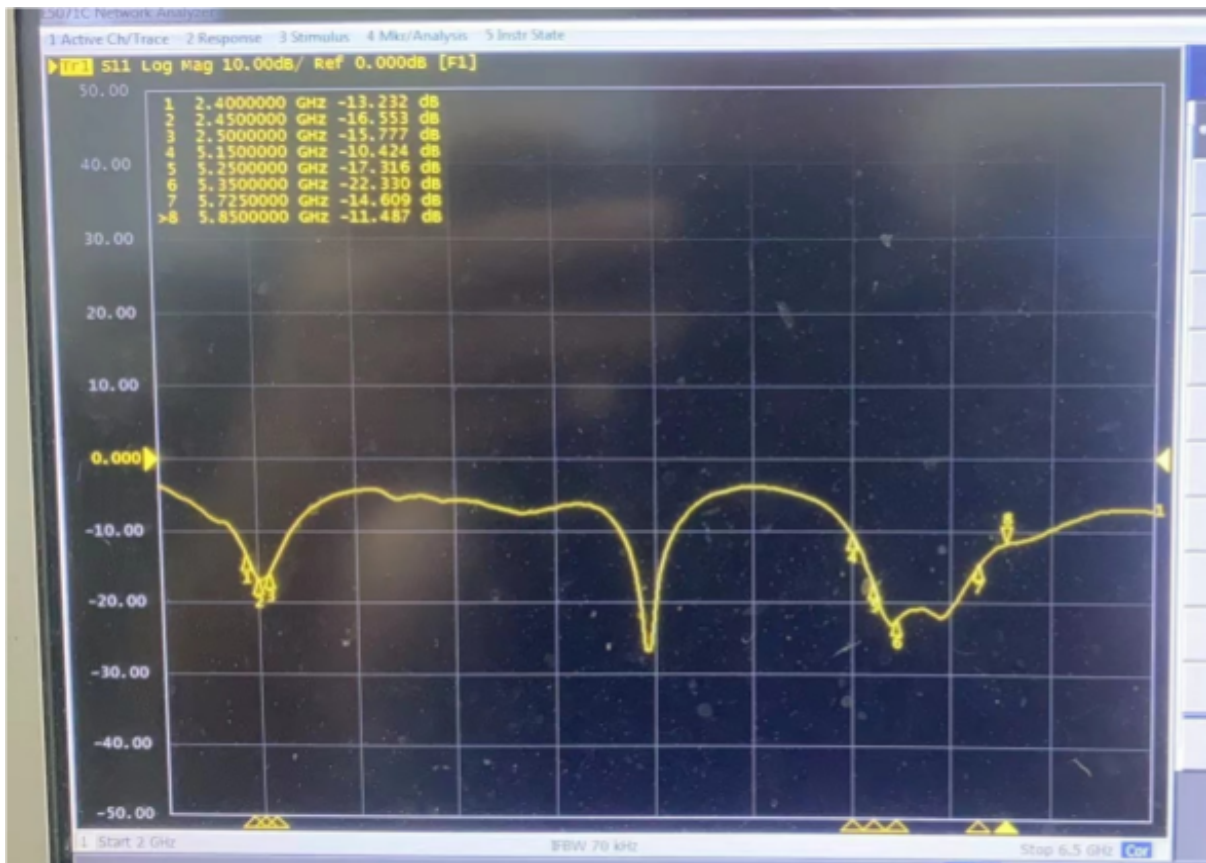


4.2 Measurement Data

4.2.1 Active result (WIFI)



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2.4G/5G-有源测试数据

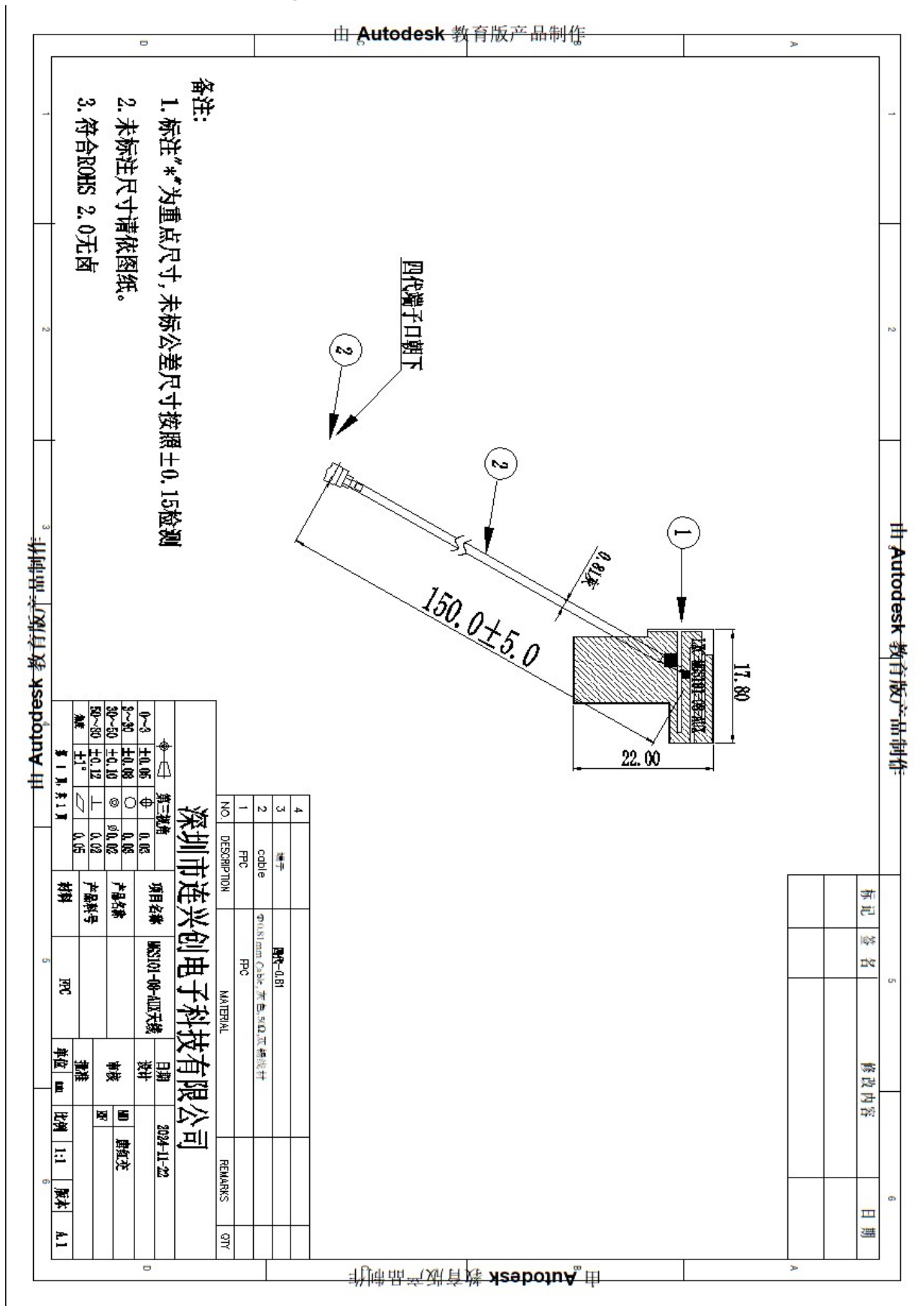
WiFi(5G/A)	CH	功率(54M)	灵敏度(54M)	WiFi(2.4G/G)	CH	功率(54M)	灵敏度(54M)
	36	10.3	-72.3		1	10.2	-71.3
	149	10.6	-72.2		6	10.7	-71.5
	165	10.7	-72.5		11	10.2	-71.7
WiFi(2.4G/B)	CH	功率(11M)	灵敏度(11M)	WiFi(2.4G/N)	CH	功率(MCS7)	灵敏度(MCS7)
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5150	54.59	3.61
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7 Reliability tests

7.1 Test content

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7.2 Test results

NO	样品数	试验期间	实验结果	备注
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8 Conclusion

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

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