深圳市艾汇科技有限公司
Shenzhen Aihui Technology Co., LTD

天线规格书

Antenna Sample Confirmation From

供应商名称 Vendor Name	深圳市艾汇科技有限公司 ShenZhen Aihui Technology Co., Ltd				
客户名称 Customer Name	极摩客 GMK				
样品名称 Sample Name	M6 ultra				
产品型号 Part Number	FPC				
样品规格 Specification	主天线(0.81)黑色 线长95MM. (4代端子) 副天线(0.81)灰色 线长143MM. (4代端子) The main antenna (0.81) black wire is 95MM long (4th generation terminal). The secondary antenna (0.81) gray wire is 143MM long (4th generation terminal).				
检验项目 Inspection Item	性能测试 Performance	外观检查 Total Appearance	结构 structure	其它 Others	检验结果 Inspection Result
品质审核 QA Audit		工程审核 Engineer Audit	曹杨	业务确认 Sales Confirm	
以下由客户填写 The following are filled by Customer					
客户意见 Customer Evaluation					
客户签字/盖章 Signation/ Chapter by Customer	日期/date:2025.08.16				

Address: Room 402, Building C, Juxin Technology Industrial Park, Nanchang Community, Gushu, Xixiang, Bao'an District, Shenzhen City
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Antenna Test Report

测试单位：深圳市艾汇科技有限公司 Test by：ShenZhen Aihui Technology Co.，Ltd			
材料 Material	FPC+Coaxial line		
天线类型 Antenna Type	PIFA	极化方式 Polarization mode	Linear
应用场景 Application			
工作频段 Band	2400Mhz-2500Mhz 5100Mhz-5850Mhz	VSWR	≤2
功率 Power	Max： 2W	阻抗 Impedance	50Ω
增益 dBi	≥1dBi		
测试设备 Test Equipment	HPE5071C、Shielding Room、3D automatic turntable		

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Antenna Description:：
1. Grounding processing and picture description: no
2. Need to change the motherboard to match: no

- Test voltage: 3.6V, check the antenna contact is good before testing.
- The RF cable of the integrated tester is kept in a natural state and can not be curled.

Specification:test the specified power level, all indicators must conform to the specifications.

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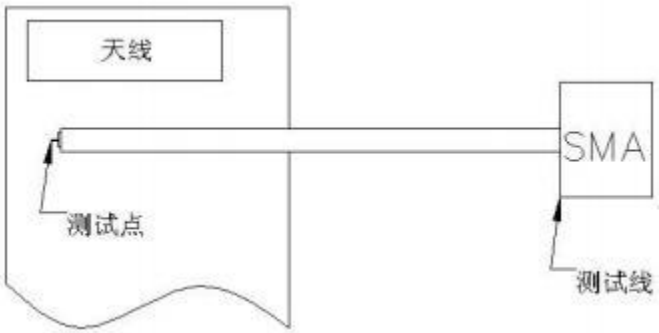
1、Project picture

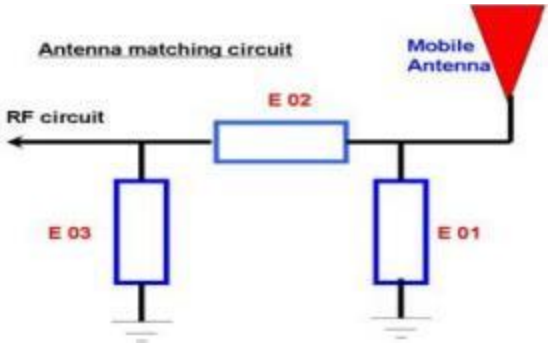
Note: The final prototype of the antenna performance verified by the customer will be retained by our company for at least one year to facilitate the analysis and resolution during the antenna mass production

2、Test fixture

Objective: To test the passive parameters of the antenna as accurately as possible.
Manufacturing method: The manual machine tool uses a 50-ohm coaxial cable. One end is connected to the test point at the rear end of the matching circuit on the mobile phone's mainboard (the front end of the RF test hole), and the other end is connected to the SMA connector.
The schematic diagram is as follows



3、 Antenna matching circuit



修改点/Modify

E01	E02	E03
No	No	No

Note: The match has not been modified.

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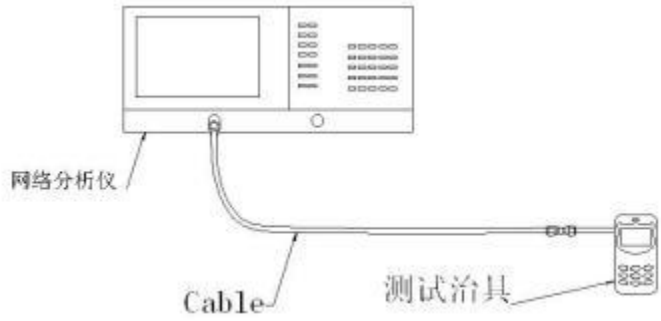
4. S11 Test

4.0 S11 Test Method Description

Test equipment: Network analyzer (E5071C)

Test method: Export a 50-ohm CABLE from the instrument's test port, calibrate it with a calibration piece, and then connect it to the SMA connector of the manual mechanism. Record the return loss and standing wave ratio corresponding to the relevant frequency points.

The test schematic diagram is as follows:



5、 Darkroom testing equipment and data

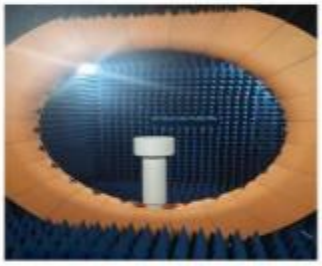
6.0 Testing equipment

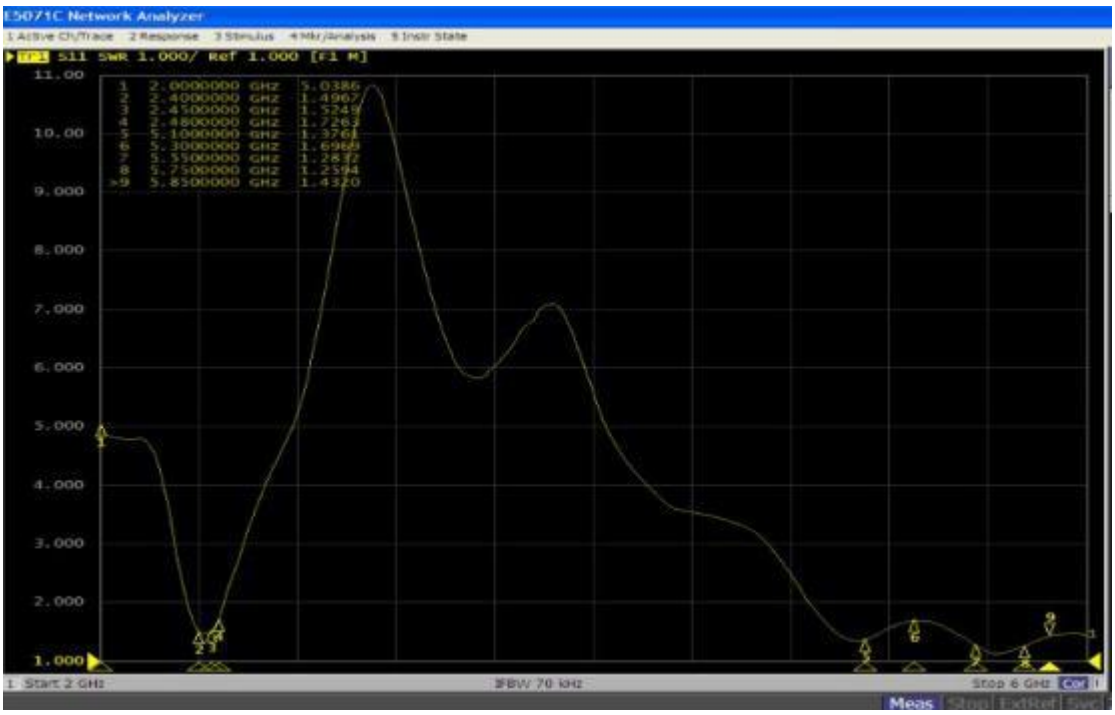
Test system: Shielded anechoic chamber

Test environment: Temperature 22℃±3℃, humidity 50%±15%

Test equipment: When testing passive data, the network analyzer AgilentE5071C is used

When testing active data, use the comprehensive tester CMW500





6.Antenna active test data

Frequency Band	2.4GWIFI-B			5GWIFI-A		
channel	L	M	H	L	M	H
TRP	12.85	13.33	13.21	12.36	12.52	11.93
TIS			-71.58			-69.32
Frequency Band	2.4WIFI-G			2.4WIFI-N		
channel	L	M	H	L	M	H
TRP	11.32	12.22	12.41	11.41	11.05	11.03
TIS			-68.25			-67.25

Test data：		
WIFI 2.4G		
Freq(MHz)	Efficiency (%)	Gain (dBi)
2400	51.33	0.95
2410	52.45	1.14
2420	55.69	1.32
2430	57.74	1.45
2440	58.65	1.25
2450	51.41	1.30
2460	52.65	1.44
2470	53.04	1.05
2480	54.55	1.25
Test data：		
WIFI 5.8G		
Freq(MHz)	Efficiency (%)	Gain (dBi)
5000	56.34	1.50
5100	51.85	1.47
5200	59.63	1.34

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5300	52.44	1.62
5400	52.82	1.74
5500	57.06	1.58
5600	56.35	1.44
5700	57.14	1.32
5800	58.05	1.05
5850	59.01	1.11

7.0 Antenna assembly drawing

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8.Antenna mass production indicators

When antennas are mass-produced, the standing wave ratio is used as the mass production test standard.
Based on the differences of the projects themselves, the following standards are provided:

频率Frequency	量产标准Mass production standard
2400 MHZ -2500MHZ 5100 MHZ-5850 MHZ	VSWR<VSWR+0.5

9.Structural drawing

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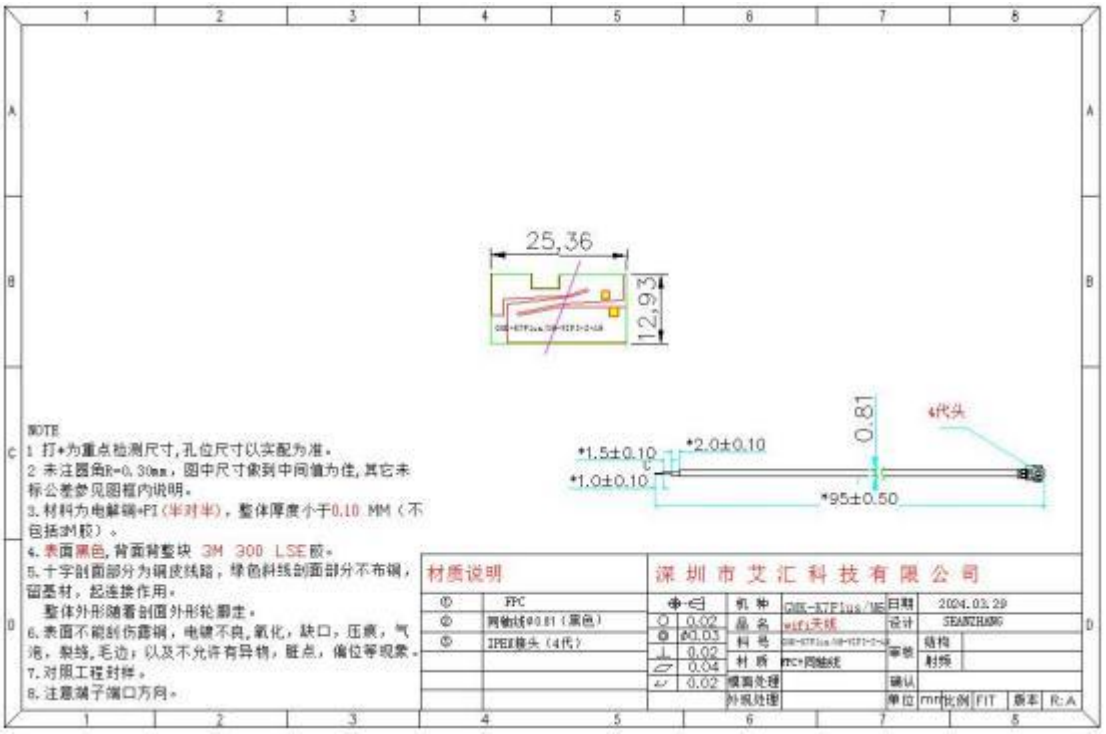

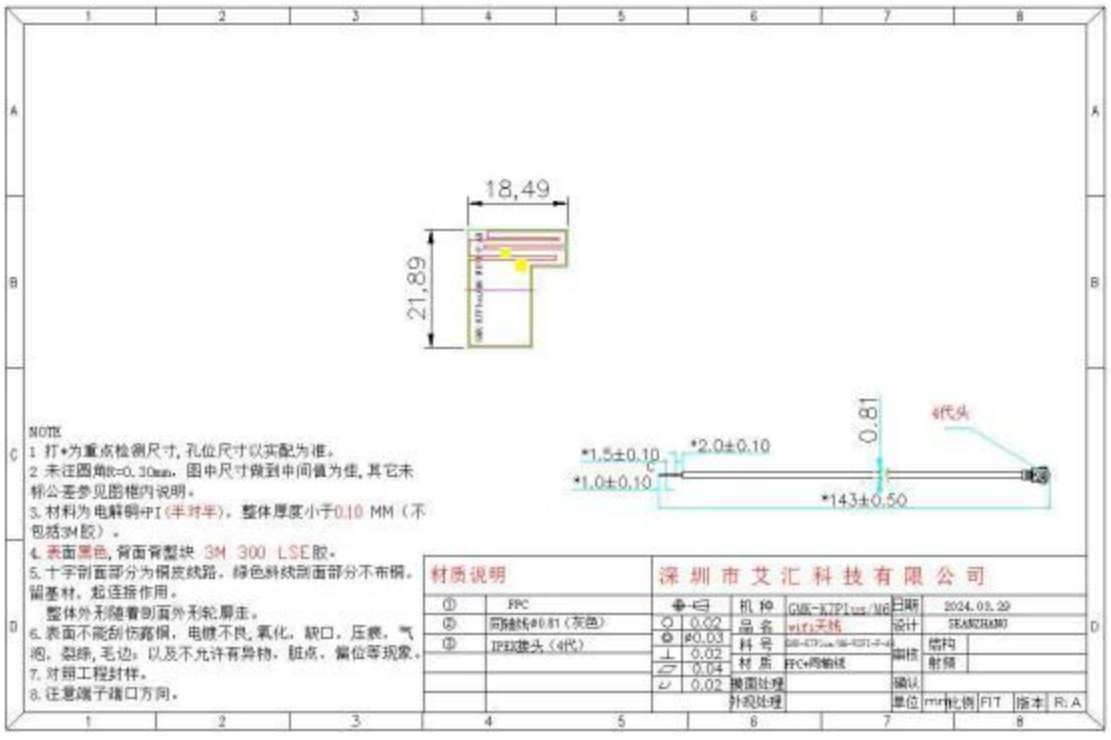

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