深圳市艾汇科技有限公司

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	皓擎				
样品名称 Sample Name	M103				
产品型号 Part Number	平板电脑				
样品规格 Specification	WiFi天线：线长50mm 3代端子 15.3*20.8mm，丝印：M103-WIFI-AH-V1				
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
备注 Remark					
品质审核 QA Audit		工程审核 Engineer Audit		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:				

Antenna Test Report

地址：深圳市宝安区西乡固戍南昌社区钜鑫科技产业园 C 座 402
TEL：0755-23203435　　FAX：0755-23203435

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+同轴线**		
天线类型 **Antenna Type**	**MonopoleType**	极化方式 **Polarization mode**	**Linear**
应用场景 **Application**			
工作频段 **Band**	**WIFI2.4G/5G /BT**	**VSWR**	**≤2**
功率 **Power**	**Max：2W**	阻抗 **Impedance**	**50Ω**
增益 **dBi**			
测试设备 **Test Equipment**	**HPE5071C、Shielding Room、3D automatic turntable**		

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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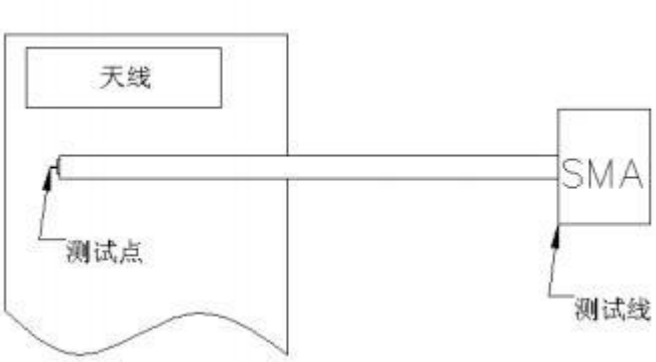
1. Project pictures

Note: The customer finally verified that the antenna performance prototype Abnormal situation, to

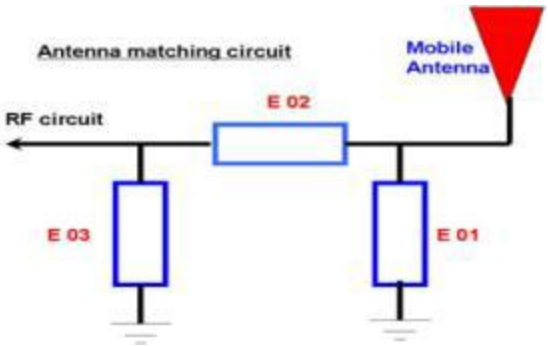
2. Test the manufacturing equipment

Objective: To test the passive parameters of the antenna as accurately as possible.

Preparation method: The hand mechanism is a 50 ohm coaxial cable, one end is connected to the test point of the back end of the mobile phone motherboard (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. The antenna matching circuit



Modify the point / Modify

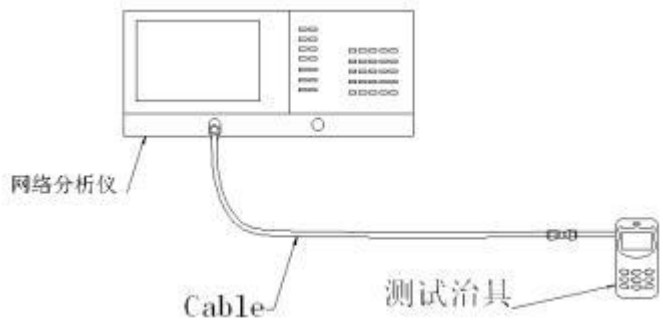
E 01	E 02	E 03
N o	N o	N o

4.0 S 11 Description of the test method

Test Equipment: Network Analyzer (E5071C)

Test method: Export a 50 ohm CABLE cable from the instrument test port, use the SMA connector of the calibration, and record the echo loss and standing wave ratio corresponding to the relevant frequency point.

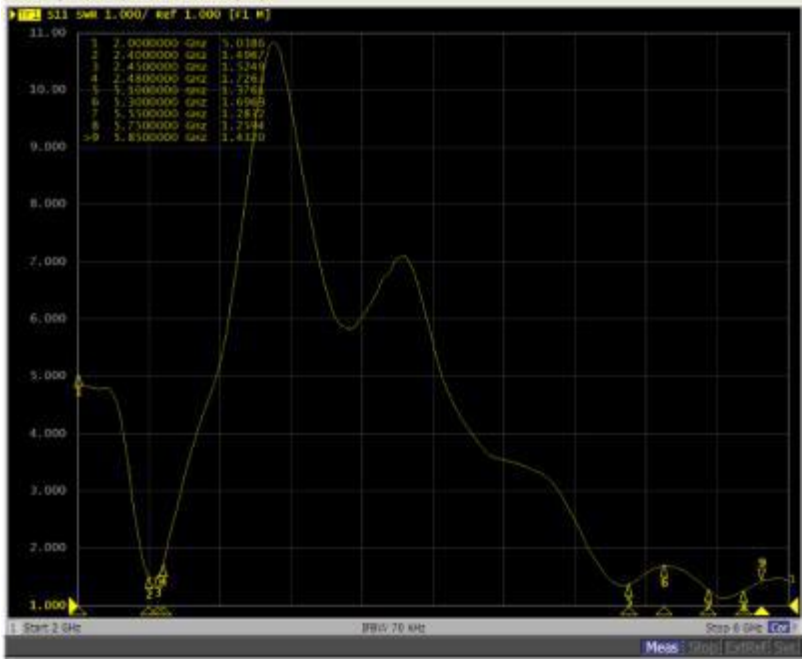
The test schematic diagram is as follows:



Schematic diagram of the test

4.1 S 11 parameter picture

The main set antenna has no passive standing wave ratio



frequency (MHZ)	2400	2500	5150	5850
standing-	1.4	1.6	1.3	1.4

5. Dark room test equipment and data

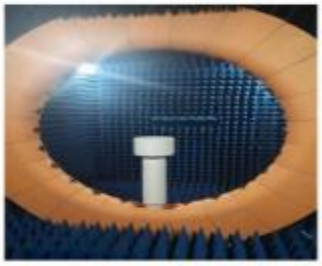
6.0 Test the equipment

Test system: shield the dark room

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

Test equipment: Use the network analyzer AgilentE5071C when testing the passive data

When testing active data, use the comprehensive meter CMW 500



5. The antenna has the active test data

Frequency Band	2.4GWIFI-B模			5.8WIFI-A模		
channel	L	M	H	L	M	H
TRP	12.55	12.64	12.77	12.47	12.45	13.07
TIS			-75.16			
Frequency Band	2.4WIFI-N模			2.4GWIFI-G模		
channel	L	M	H	L	M	H
TRP	10.89	11.06	11.29	11.13	11.57	11.62
TIS			-65.73			-66.81

Frequency Band	2.4GWIFI-AX模(HE0)			5.8WIFI-AX模(HE0)		
channel	L	M	H	L	M	H
TRP	11.25	11.32	11.41	10.25	10.21	11.41
TIS			-78.25			-75.28

test data:		
WIFI &BT 2.4G		
F r eq (MHz)	**Efficienc y (%)**	**Gain (dBi)**
2400	**54.25**	**1.40**
2410	**55.30**	**1.25**
2420	**49.65**	**1.11**
2430	**51.24**	**1.09**
2440	**52.06**	**1.05**
2450	**54.30**	**1.44**
2460	**54.15**	**1.30**
2470	**55.30**	**1.25**
2480	**56.14**	**1.59**
test data:		
WIFI 5.8G		
F r eq (MHz)	**Efficienc y (%)**	**Gain (dBi)**
5000	**54.85**	**1.03**

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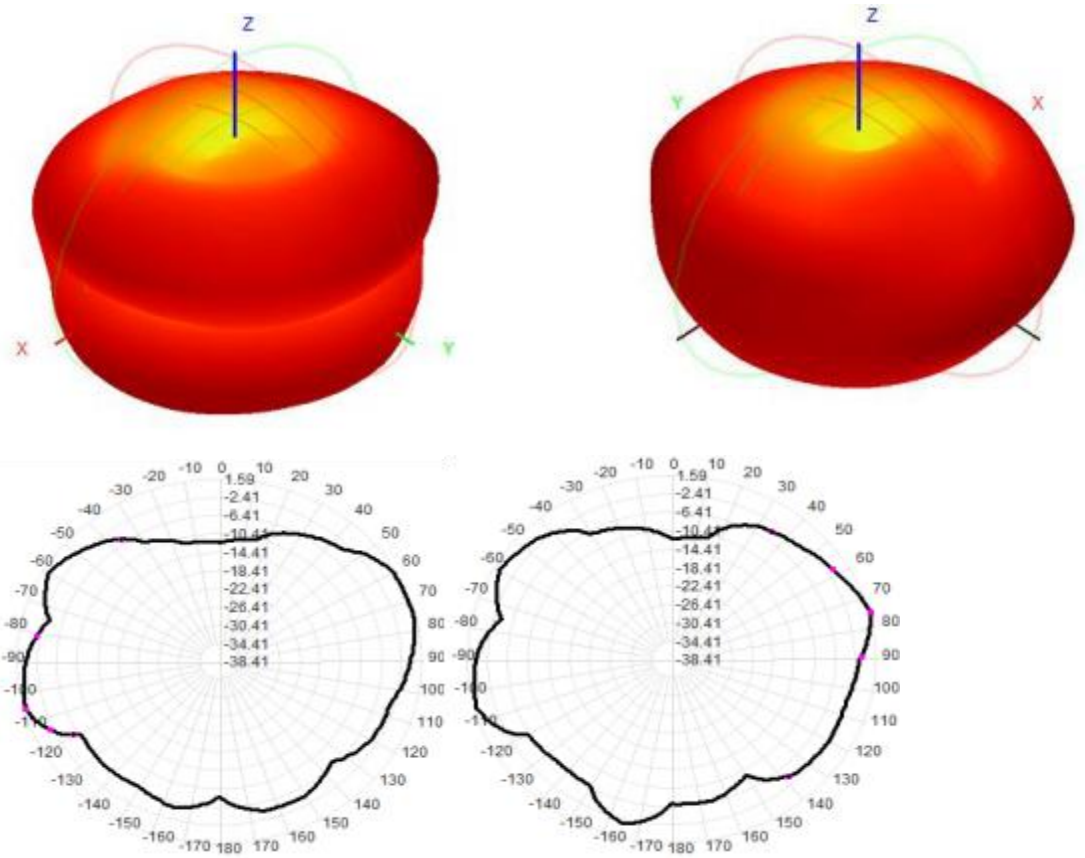
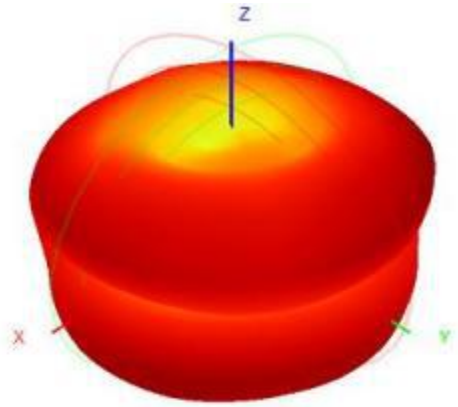
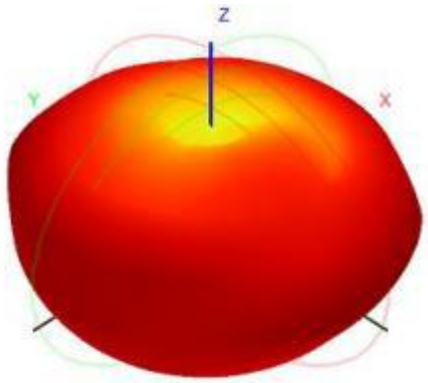
5100	**55.32**	**1.05**
5200	**54.29**	**1.41**
5300	**56.31**	**0.98**
5400	**59.41**	**1.44**
5500	**57.58**	**1.40**
5600	**54.17**	**1.39**
5700	**52.61**	**1.25**
5800	**51.85**	**1.06**
5850	**51.36**	**1.05**

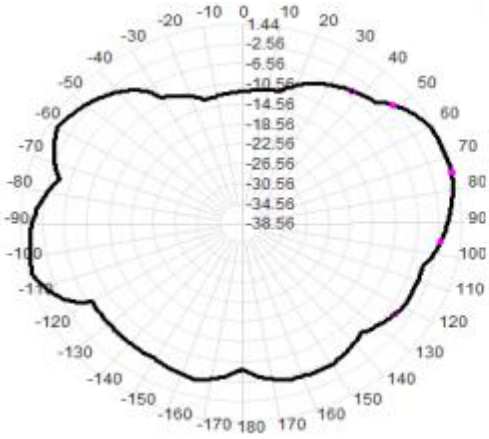
2.4G & BT orientation diagram

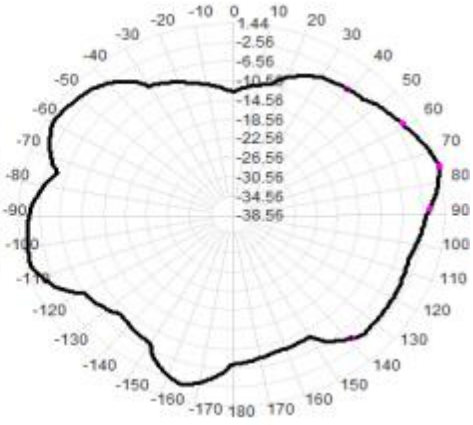


5.8G orientation diagram









6. Schematic diagram of the antenna assembly

7. Treatment of the antenna environment

Did not change

8, antenna mass production index

When the antenna is in mass production, the standing wave ratio is used as the test standard for mass production.

Based on the differences of the project itself, the following criteria are given:

frequency	Mass production standards
2400MHZ -5800MHZ	VSWR (mass production performance) <VSWR (recognized performance) + 0.5

9. Structural drawings

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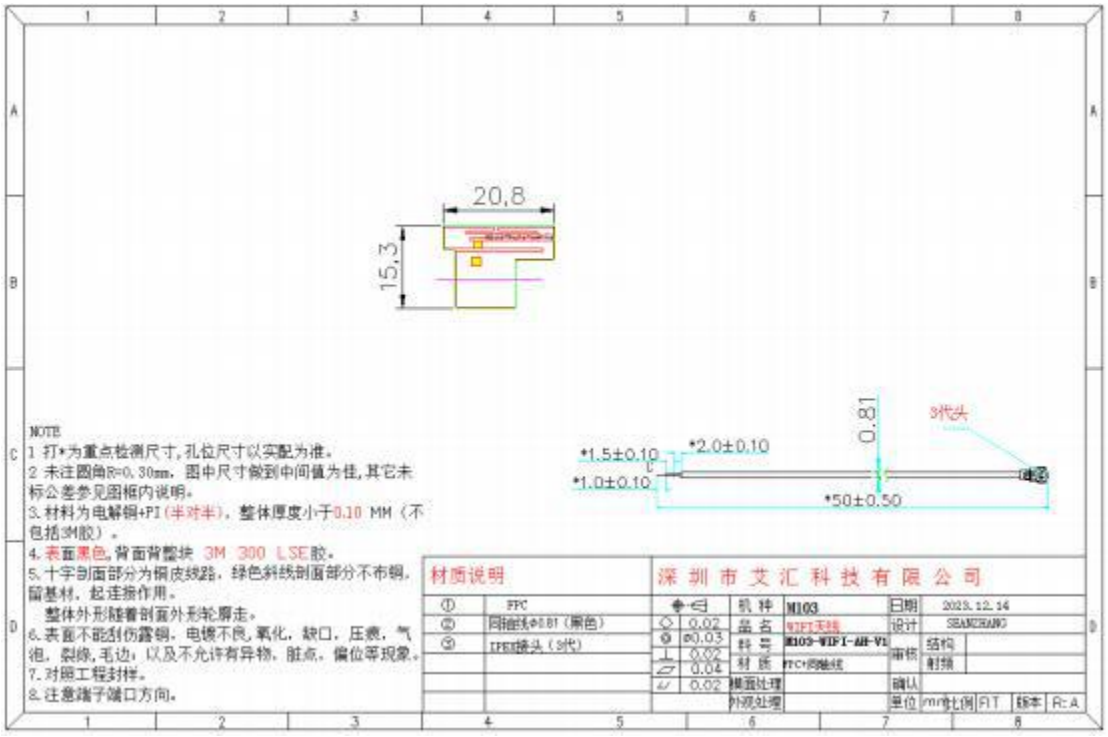

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