

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	明致MZ				
样品名称 Sample Name	M55				
产品型号 Part Number					
样品规格 Specification	三合一天线：丝印：M55-WGB-AH				
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					
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. 18				

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+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	2.4G WiFi	VSWR	≤2
功率 Power	Max : 2W	阻抗 Impedance	50Ω
增益 dBi	1.49dBi		
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.			

1、测试制具 Testing equipment

2、天线匹配电路 Antenna matching circuit

3、S11 测试Testing

3.0 S11 测试方法说明 Test Method Description

4、天线无源效率和增益Passive efficiency and gain of antenna

5、暗室测试设备和数据Darkroom testing equipment and data

5.0 测试设备Test equipment

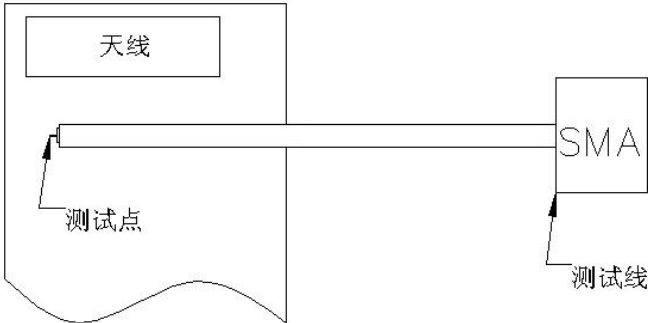
5.1 有源测试数据Active test data

6、天线环境处理Antenna environment processing

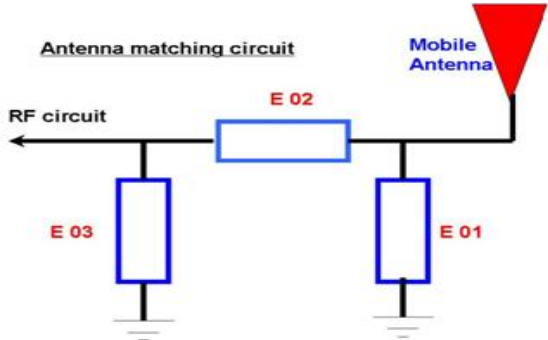
1、测试制具Testing equipment

目的：尽可能准确地测试天线的无源参数。
制作方法：手机制具是用一根 50 欧姆的同轴电缆，一端连在手机主板的匹配电路后端（射频测试孔前端）的测试点上，另一端连接 SMA 接头。示意图如下：

Purpose: To test the passive parameters of the antenna as accurately as possible.
Production method: The mobile phone tool is made by using a 50 ohm coaxial cable, with one end connected to the testing point at the back end of the matching circuit (front end of the RF test hole) of the mobile phone motherboard, and the other end connected to an SMA connector. The schematic diagram is as follows:



2、天线匹配电路Antenna matching circuit



修改点/Modify

E01	E02	E03
No	No	No

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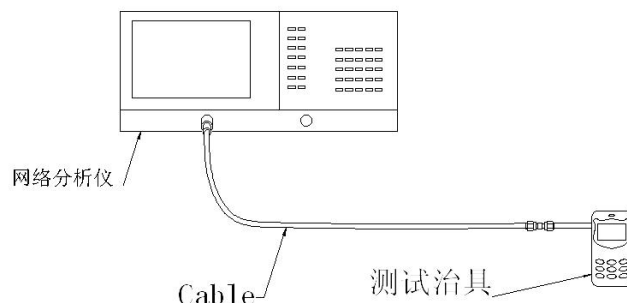
3. S11 测试test

3.0 S11 测试方法说明Test Method Description

测试设备test equipment: 网络分析仪(E5071C) Network analyzer (E5071C)

测试方法test method: 用一根 50 欧姆 CABLE 电缆从仪器测试端口导出, 使用校准件校准后连接手机制具的 SMA 接头, 记录相关频点对应的回波损耗和驻波比。

Export a 50 ohm CABLE cable from the instrument test port, calibrate it with a calibration piece, and connect it to the SMA connector of the mobile phone fixture. Record the corresponding return loss and standing wave ratio at the relevant frequency points.



4、暗室测试设备和数据Darkroom testing equipment and data

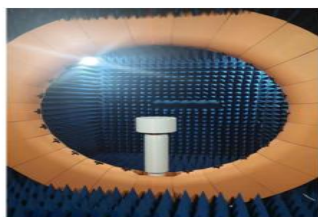
6.0 测试设备test equipment

测试系统test system: 屏蔽暗室Shielded darkroom

测试环境test environment: 温度 $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$, 湿度 $50\% \pm 15\%$ Temperature $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$, humidity $50\% \pm 15\%$

测试设备test equipment: 测试无源数据时, 使用网络分析仪 AgilentE5071C

When testing passive data, use the network analyzer Agilent E5071C

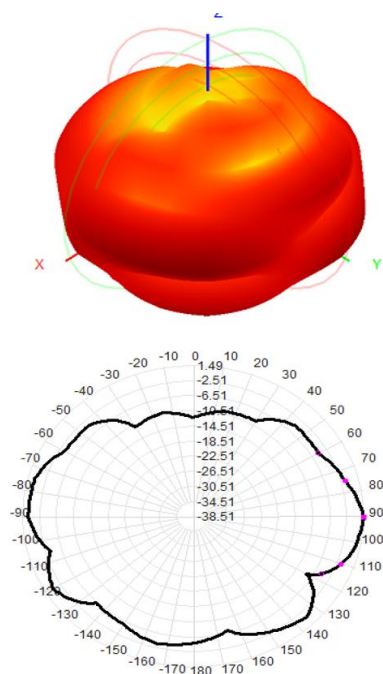


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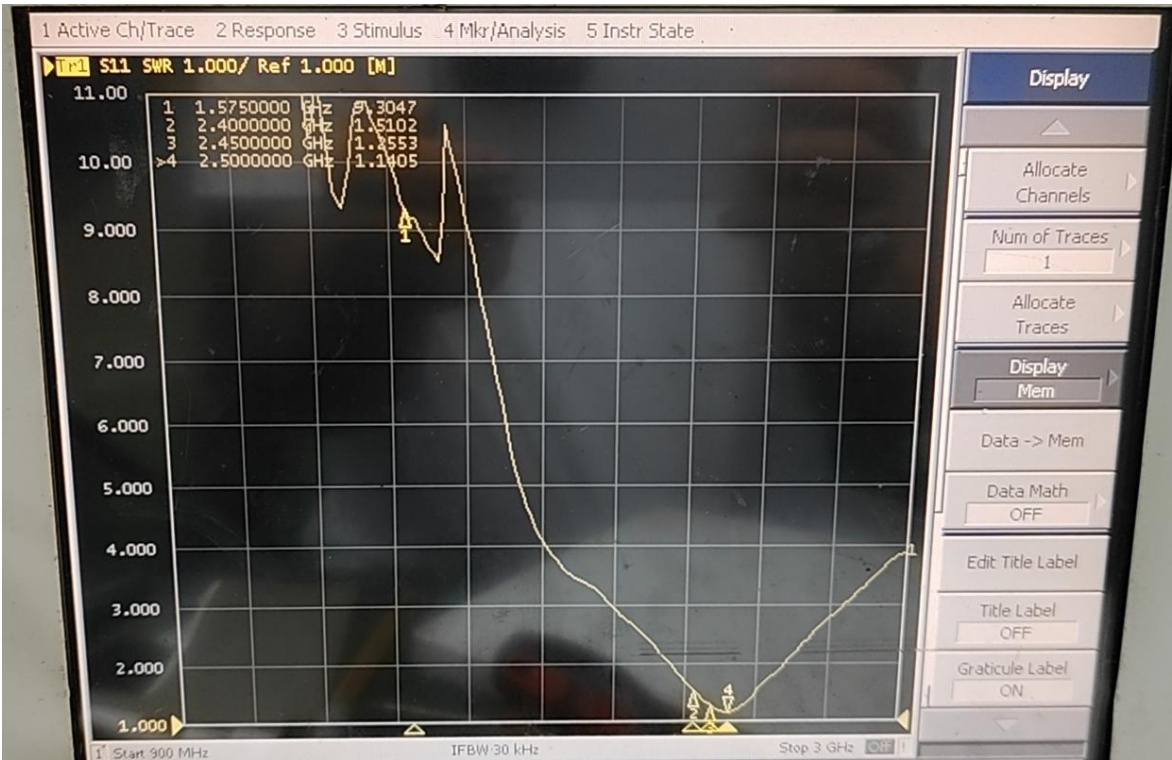
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5.1 天线无源数据Passive antenna data



WIFI 2. 4G		
Freq(MHz)	Efficiency (%)	Gain (dBi)
2400	53.16	1.14
2410	55.29	1.03
2420	52.46	1.29
2430	57.13	1.35
2440	55.44	1.33
2450	52.49	1.49
2460	53.34	1.38
2470	54.66	1.27
2480	52.08	1.16

5.2 天线 SWR /Antenna SWR



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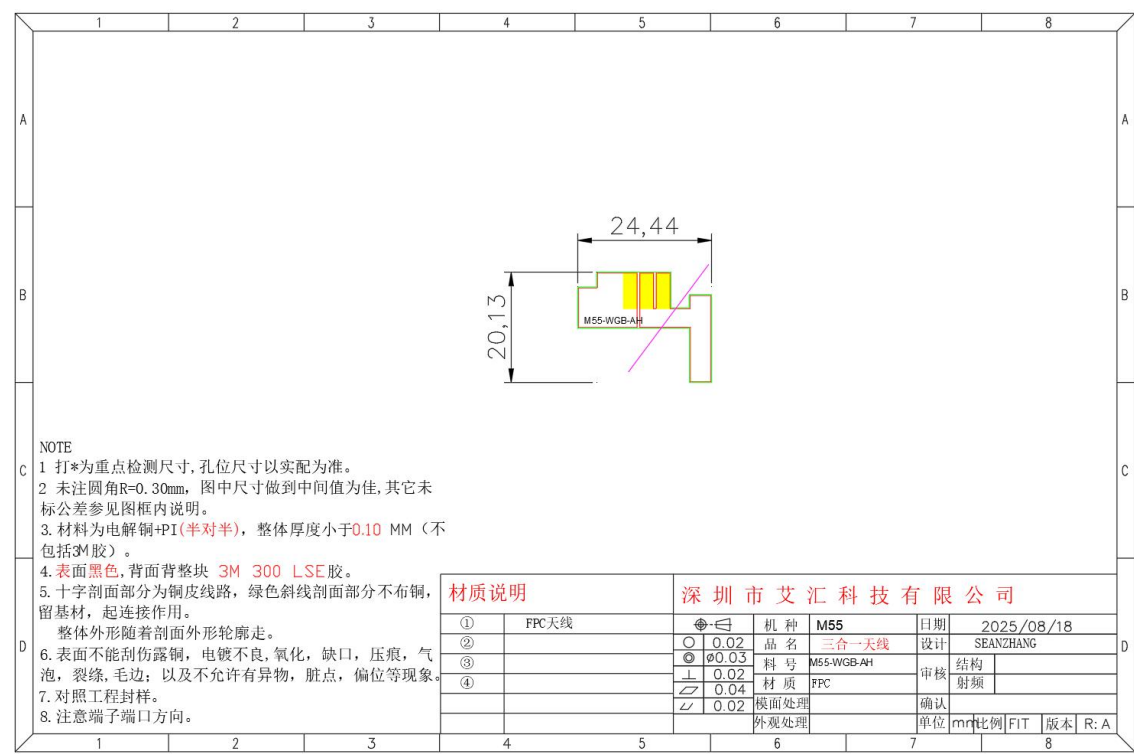
6.天线量产指标Antenna mass production indicators

天线量产时，以驻波比作为量产测试标准。根据项目本身的差异,给出如下标准：

When producing antennas, the standing wave ratio is used as the production testing standard. Based on the differences in the project itself, the following standards are given:

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

7.结构图纸



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