

## Antenna specification

### Antenna Sample Confirmation From

<b>Name of supplier</b>	ShenZhen Aihui Technology Co. , Ltd				
<b>Customer name</b>	Wan mo si				
<b>Sample name</b>	RS866				
<b>model</b>					
<b>Sample size</b>	Antenna 1: WIFI/BT FPC Anterna line length: 60mm 4-generation terminal 0.81 diameter "Radxa" logo  Antenna 2: WIFI/BT FPC Anterna line length: 50mm 4-generation terminal 0.81 diameter "Radxa" logo				
<b>Inspection item</b>	<b>Performance test</b>	<b>Visual inspection</b>	<b>Structure</b>	<b>In the news</b>	<b>Test results</b>
<b>Notes</b>					

# Shenzhen Aihui Technology Co. , Ltd.

Quality Audit		Project Audit		Business confirm ation	
The following is to be completed by the client					
Customer feedback					
Customer signature/seal					
<b>date:</b>					

## Antenna Test Report

Test Unit: Shenzhen Aihui Technology Co. , Ltd.

Address: 402TEL: 0755-23203435fax: 0755-23203435, Block C, Juxin Science and  
Technology Industrial Park, Nanchang community, xixiang, Baoan District, Shenzhen

# Shenzhen Aihui Technology Co. , Ltd.

Materials	FPC		
Antenna form	PIFA	Polarization mode	Linear
Application scenario	Wifi /BT		
Working band	GSM/WCDMA/LTE/ WIFI/GPS/BT	VSWR	≤2
Power	Max: 2W	Impedance	50Ω
dBi	≥		
Test Equipment	HPE5071C、Shielding Room、3D automatic turntable		
<p><b>Antenna Description::</b></p> <p><b>1. Grounding processing and picture description: no</b></p> <p><b>2. Need to change the motherboard to match: no</b></p> <ul style="list-style-type: none"><li>● Test voltage: 3.6V, check the antenna contact is good before testing.</li><li>● The RF cable of the integrated tester is kept in a natural state and can not be curled.</li></ul> <p>Specification:test the specified power level, all indicators must conform to the specifications.</p>			

1. Project Image

2. Test Fixture

3. Antenna matching circuit

4. S11 test

5. Antenna passive efficiency and gain

6. Darkroom test equipment and data

7. Schematic diagram of antenna assembly

8. Antenna environment handling

9. Antenna mass production index

10. Structural drawing

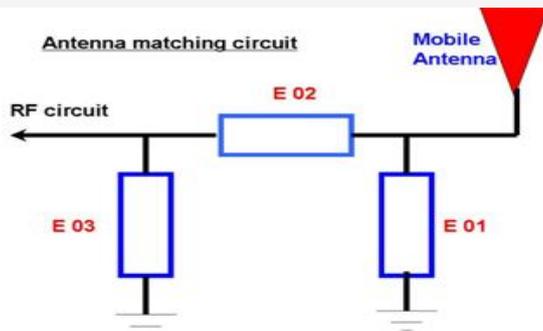
## 1. Project Image

The final verification antenna performance prototype in our company for at least one year, easy to analyze and solve the problem of antenna mass production, to ensure the quality of antenna shipment

## 2. Test Fixture

Objective: to test the passive parameters of antenna as accurately as possible. Making Method: the handset is made of a 50 ohm coaxial cable, one end of which is connected to the test point of the back end of the matching circuit of the handset motherboard (front end of the RF test hole) , and the other end is connected to the SMA joint. The diagram is as follows:

## 3. Antenna matching circuit



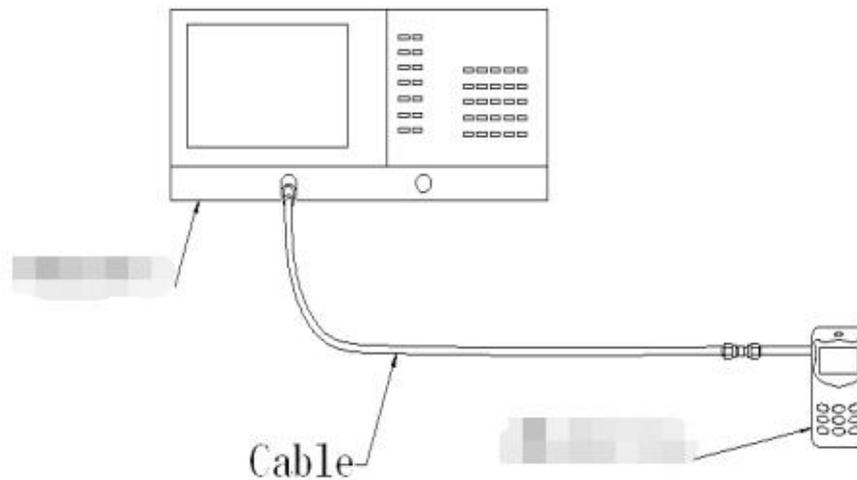
### Modify

E01	E02	E03
No	No	No

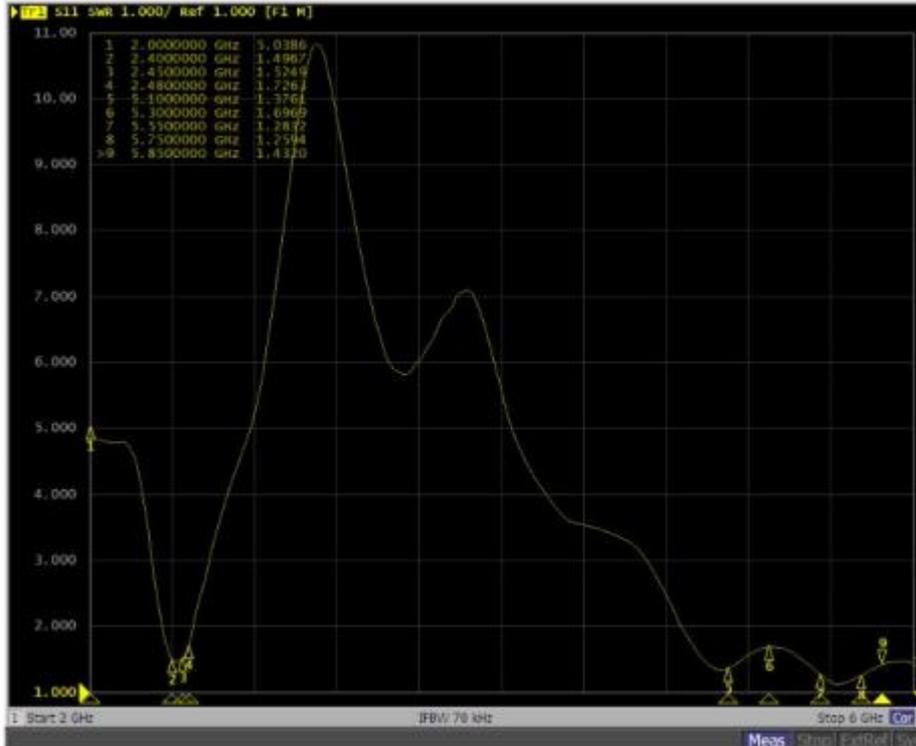
Note: The match is unmodified.

## 4.S11 test

4.0 4.0s11 test method description of test equipment: Network Analyzer (E5071C) test method: a 50 ohm CABLE is used to export from the instrument test port. The SMA connector for connecting the handset is calibrated using a calibration piece, record the echo loss and standing wave ratio corresponding to the relevant frequency points. The test schematic is as follows:



## 5.Passive VSWR of antenna

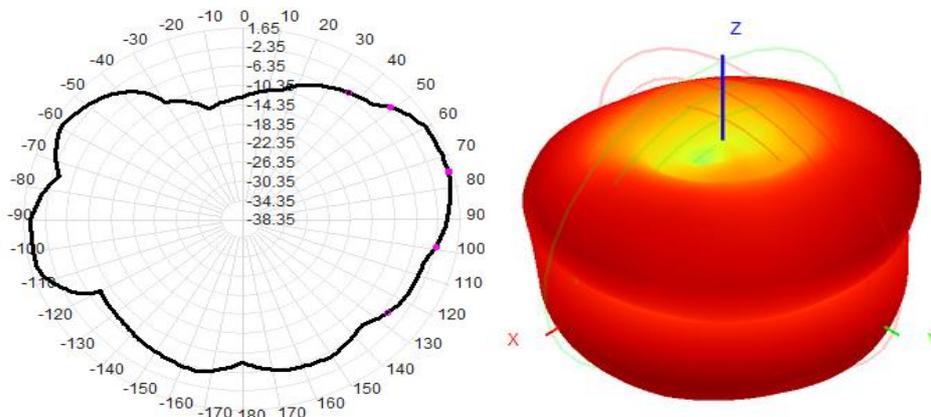


## 5.2 Passive antenna test data

Test data :		
WIFI 2.4G		
Freq(MHz)	Efficiency (%)	Gain (dBi)
2400	55.25	1.25
2410	55.41	1.47
2420	57.65	1.35
2430	59.65	1.44

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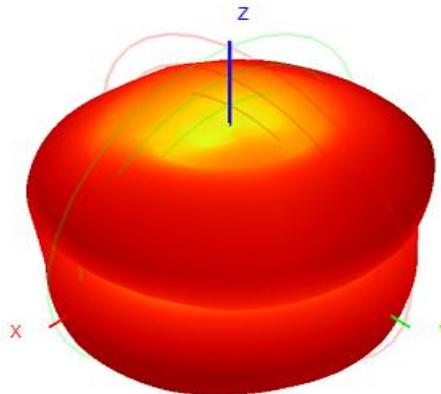
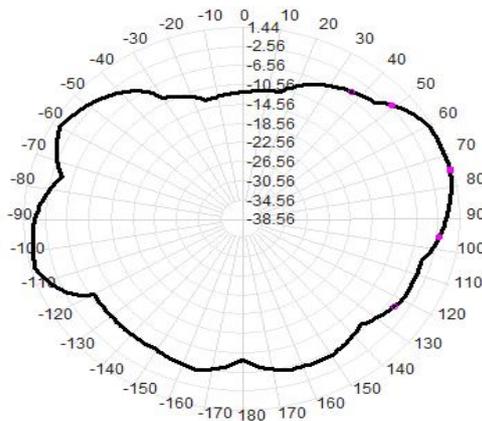
2440	61.41	1.54
2450	60.54	1.52
2460	62.63	1.44
2470	64.15	1.65
2480	59.64	1.23



Test data :		
<b>WIFI 5.8G</b>		
Freq(MHz)	Efficiency (%)	Gain (dBi)
5000	59.54	1.41
5100	57.85	1.30
5200	59.41	1.25
5300	54.71	1.40
5400	55.63	1.21

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5500	57.15	1.31
5600	59.65	1.05
5700	60.22	1.30
5800	61.41	1.25
5850	62.30	1.44



## 6. Test Equipment

Test system: shielded darkroom

The temperature was  $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$  and the humidity was  $50\% \pm 15\%$

Test equipment: when testing passive data, use the Network analyzer AGILENTE5071C to test active data, use the omnibus CMW500



and  
Shenzhen

## 7. Antenna environment handling

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## 8. Antenna mass production index

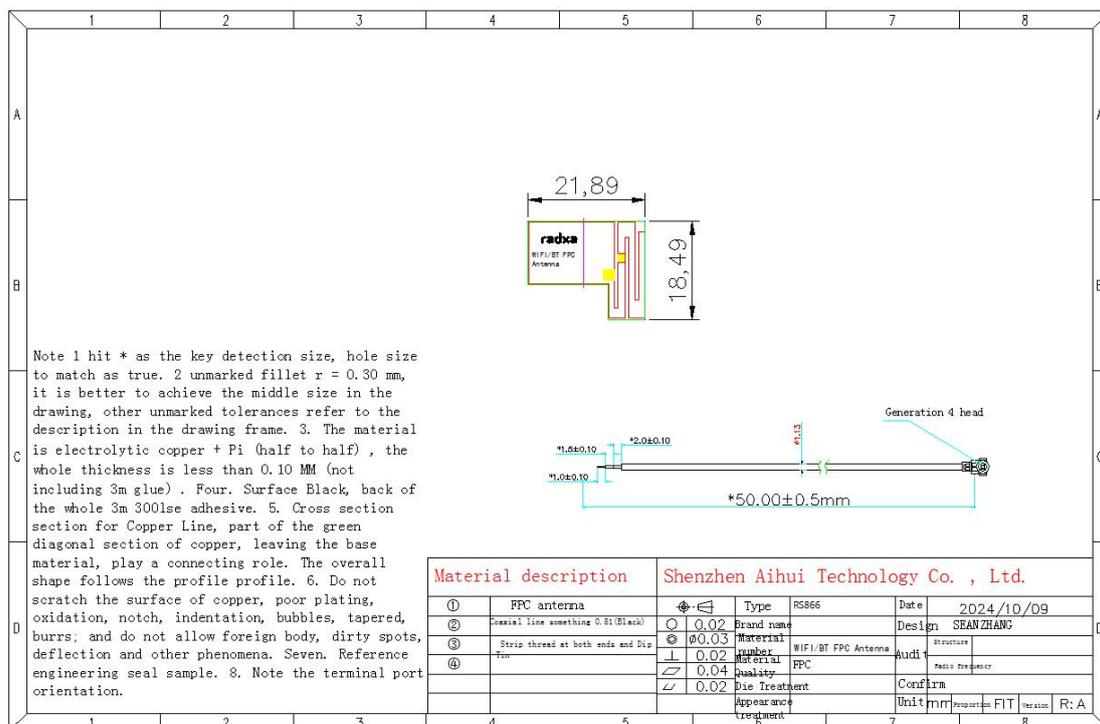
When the antenna is mass-produced, the standing wave ratio is taken as the mass-produced test standard.

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

Frequency	Standard for volume production
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2400 MHZ -2500MHZ	VSWR (Mass Production performance) & LT; VSWR(recognition performance) 0.5
5100 MHZ -5800MHZ	VSWR (Mass Production performance) & LT; VSWR(recognition performance) 0.5

## 9.Structural drawings



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