

Antenna specification

Antenna Sample Confirmation From

Name of supplier	ShenZhen Aihui Technology Co. , Ltd				
Customer name	Zhi Niu				
Sample name	H1				
model					
Sample size	Wire length: 160mm 1st generation terminal				
Inspection item	Performance test	Visual inspection	Structure	In the news	Test results
Notes					
Quality Audit		Project Audit		Business confirmation	
The following is to be completed by the client					
Customer feedback					

Customer	
signature/seal	
	date:

Antenna Test Report

Test Unit: Shenzhen Aihui Technology Co. , Ltd.			
Materials	FPC coaxial line		
Antenna type	MonopoleType	Polarization mode	Linear
Application scenario			
Working band	WiFi/BT	VSWR	≤2
Power	Max: 2W	Impedance	50Ω
dBi			
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. 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

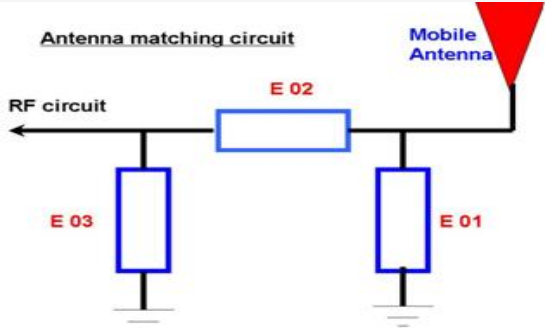
1.Project Image

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



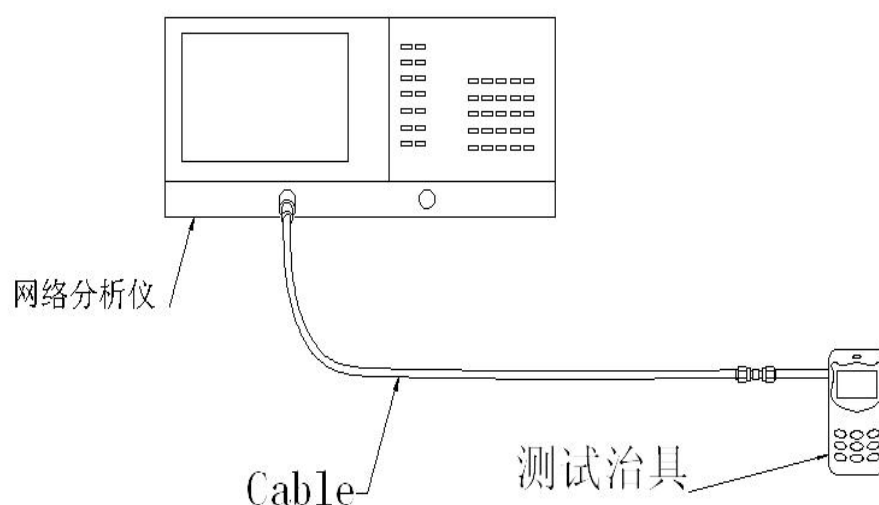
Modify

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:

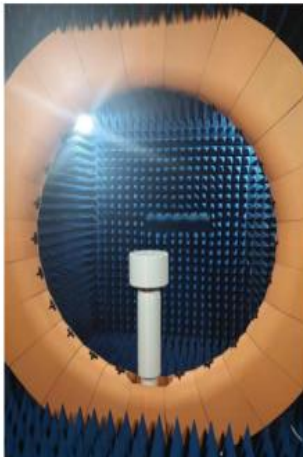


5.Test Equipment

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 AGILENT E5071C to test active data, use the omnibus CMW500



6.Active antenna test data

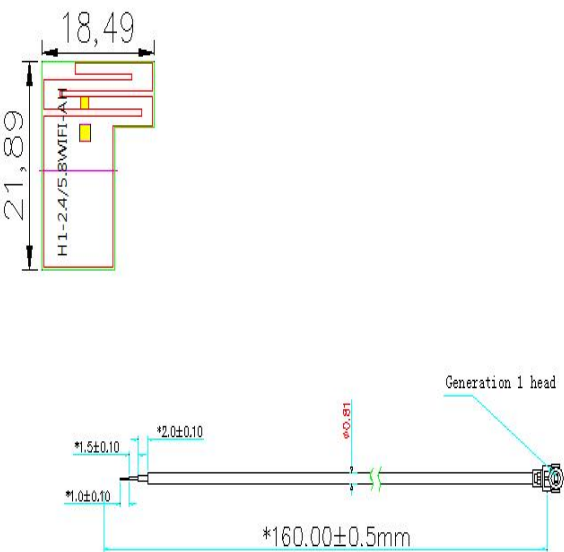
频率 (MHZ)	效率 (%)	增益 (dbi)	WIFI测试数据:		
2400	50.13	1.16	WIFI: 5.8G		
2410	50.15	1.16	频率 (MHZ)	效率 (%)	增益 (dbi)
2420	50.67	1.19	4900	52.3	1.13
2430	51.18	1.25	4950	54.2	1.05
2450	52.34	1.67	5150	53.8	1.30
2460	51.73	1.31	5200	53.5	1.30
2470	51.47	1.28	5250	56.3	1.55
2480	51.19	1.25	5300	55.8	1.43
2490	50.38	1.18	5350	56.7	1.58
2500	50.19	1.19	5400	57.9	1.65
			5450	60.3	1.88
			5500	61.5	2.05
			5550	60.8	1.95
			5600	60.8	1.91
			5650	61.5	2.08
			5700	62.3	2.19
			5750	59.8	1.78
			5800	58.7	1.68
			5850	59.9	1.85

7.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:	Standard for volume production
680MHZ-2700Mhz	VSWR (Mass Production

	performance) & LT; VSWR(recognition performance) 0.5
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8. Structural drawings

<p>Note 1 hit * as the key detection size, hole size to match as true. 2 unmarked fillet r = 0.30 mm, it is better to achieve the middle size in the drawing, other unmarked tolerances refer to the description in the drawing frame. 3. The material is electrolytic copper + Pi (half to half) , the whole thickness is less than 0.10 MM (not including 3m glue) . Four. Surface Black, back of the whole 3m 300lse adhesive. 5. Cross section section for Copper Line, part of the green diagonal section of copper, leaving the base material, play a connecting role. The overall shape follows the profile profile. 6. Do not scratch the surface of copper, poor plating, oxidation, notch, indentation, bubbles, tapered, burrs; and do not allow foreign body, dirty spots, deflection and other phenomena. Seven. Reference engineering seal sample. 8. Note the terminal port orientation.</p>							
<p>Material description</p>				<p>Shenzhen Aihui Technology Co. , Ltd.</p>			
①	FPC antenna		Type	H1	Date	2024/12/25	
②	Cosial line something 1.13(Black)		Brand name		Design	SEANZHANG	
③	IPEX Connector (1rd Generation)		Material number	H1-2.4/5.8WIFI-AH	Audit	Structure	
④			Material	FPC		Radio frequency	
			Quality		Confirm		
			Die Treatment				
			Appearance treatment		Unit	mm	Proportion FIT Version R: A
1	2	3	4	5	6	7	8