Shenzhen Aihui Technology Co. , Ltd.

Antenna specification

Antenna Sample Confirmation From

Name of supplier	ShenZhen Aihui Technology Co.，Ltd				
Customer name	Suo da				
Sample name	HDV265K				
model					
Sample size	Wire length: 60mm 3rd generation terminals				
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					

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.

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	2.4G-WIFI	VSWR ≤2
Power	Max：2W	Impedance 50Ω

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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.	

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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
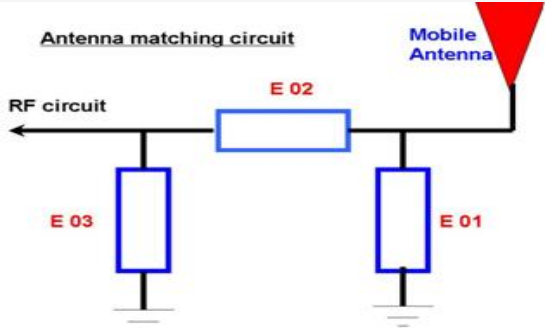
Shenzhen Aihui Technology Co. , Ltd.

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.

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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:
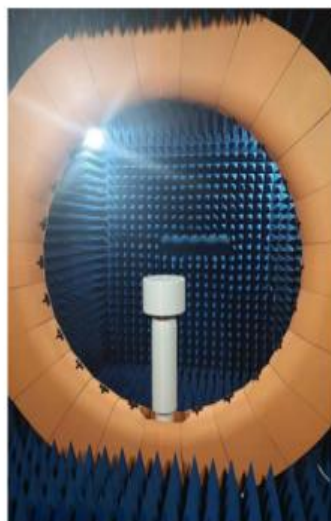

网络分析仪   Cable   测试治具
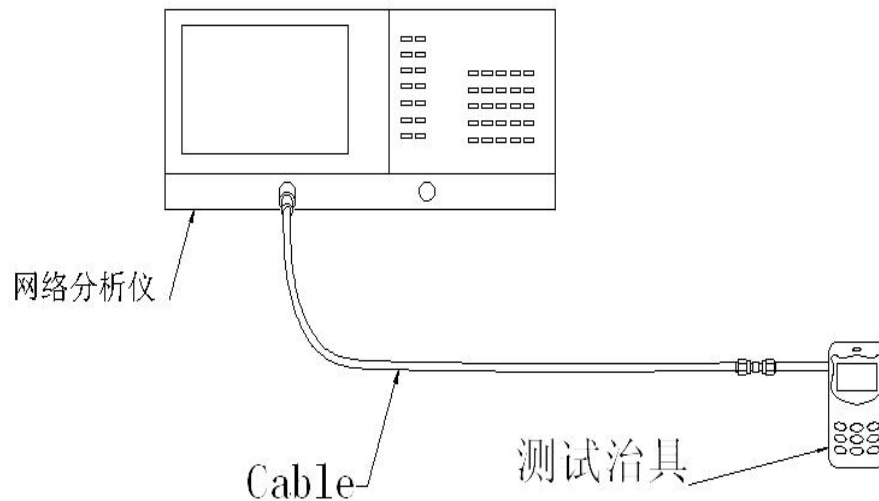
5.Darkroom test equipment and data

## 5.1.Test Equipment

Test system: shielded darkroom

The temperature was 22 ° C ± 3 ° C and the humidity was 50% ± 15%

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

5.2. Passive antenna test data

测试数据：

WIFI 2.4G

Freq(MHz)	Efficiency (%)	Gain (dBi)
2400	50.21	1.22
2410	54.33	1.30
2420	52.22	1.42
2430	54.63	1.22
2440	49.85	1.31
2450	48.65	1.25
2460	51.22	1.09
2470	51.36	1.01
2480	52.14	0.58
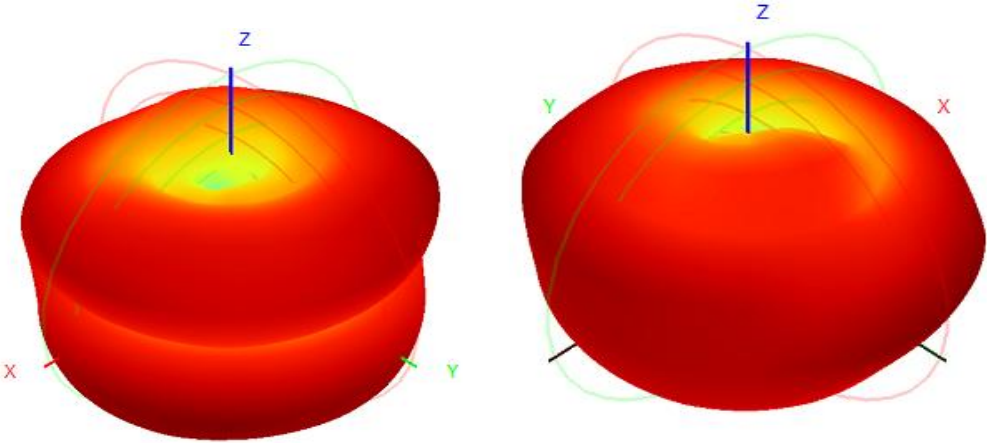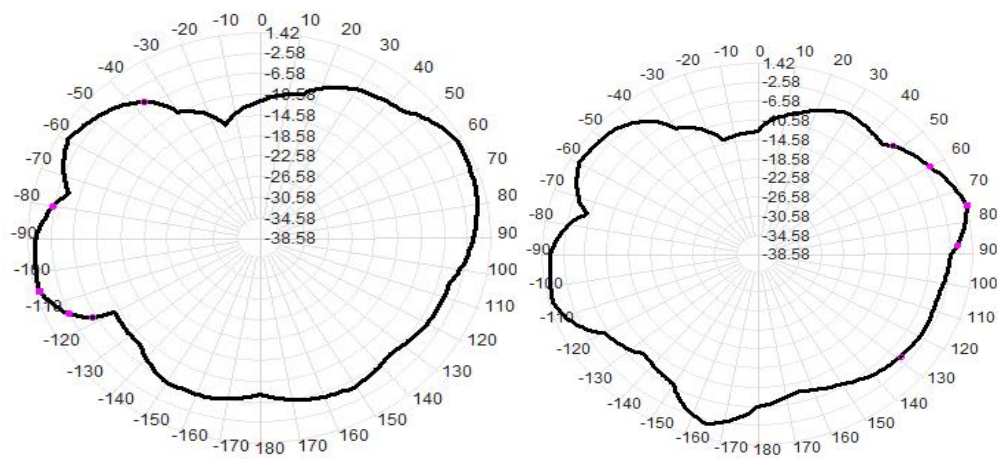
6.Real-time WiFi results
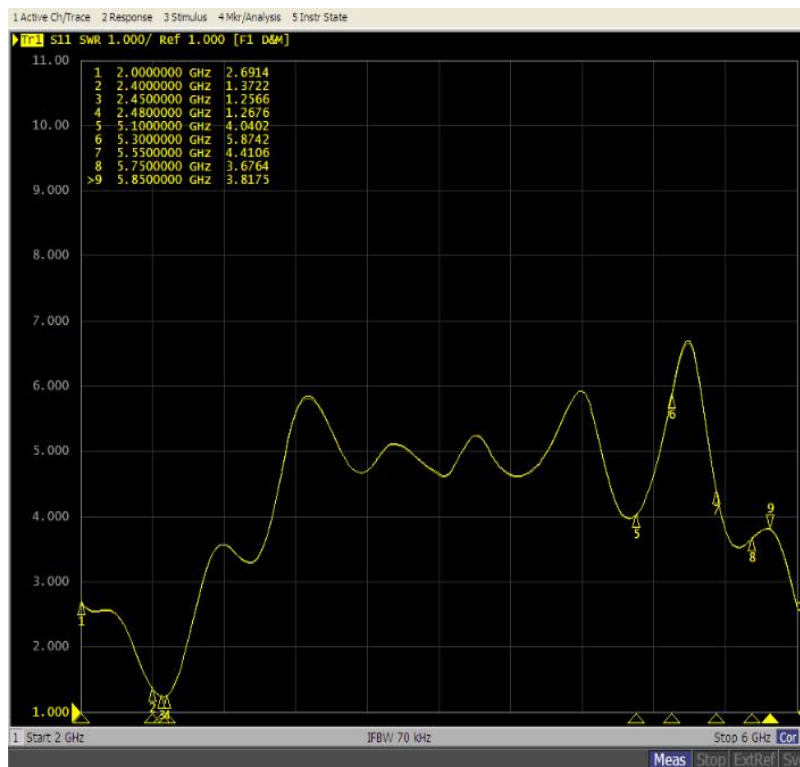
7.Schematic diagram of antenna assembly
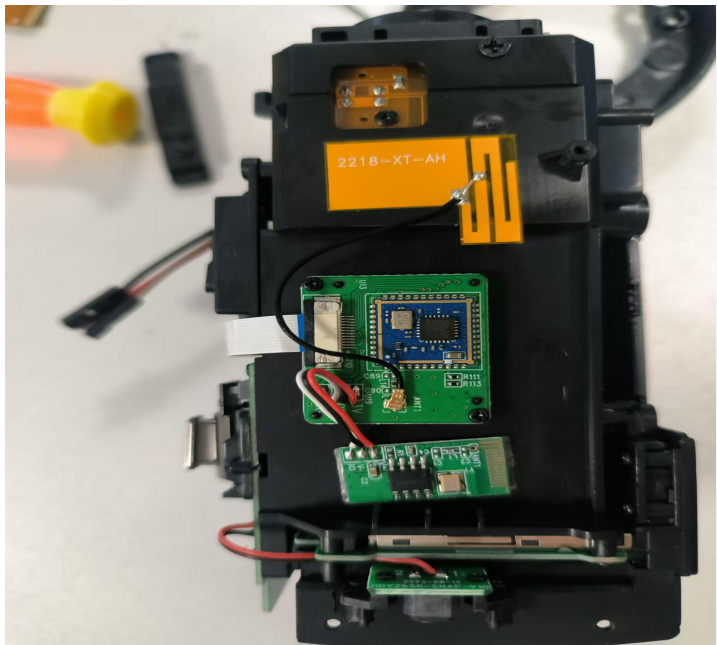
8.Antenna environment handling

Prototype environmental processing

9.Antenna mass production index

When the antenna is mass-produced, the SWR 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
2400MHZ -2500MHZ	VSWR（Massproduction performance）
	<VSWR(Recognition of performance)+0.5

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10. Structural drawings

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 3001se 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.

18,49

21,89

2218-XT-AH

Generation 3 head

*7.5±0.10 *2.0±0.10 Ø0.8I *60.00±0.5mm

*1.0±0.10

Material description				Shenzhen Aihui Technology Co. , Ltd.			
①	FPC antenna	⊕⊂		Type	HDV265K	Date	2024/12/27
②	Coaxial line something 0.81(Black)	○	0.02	Brand name		Design	SEANZHANG
③	IPEX Connector (3rd Generation)	◎	Ø0.03	Material number	2218-XT-AH	Audit	Structure
④		⊥	0.02	Material Quality	FPC		Radio frequency
		▱	0.04	Die Treatment		Confirm	
		∠	0.02	Appearance treatment		Unit ㎜ Proportion FIT Version R: A	