

Antenna specification

Antenna Sample Confirmation From

Name of supplier	Shenzhen Wildfires Outdoor Products Co.,LTD.				
Customer name	Le Chang				
Sample name	PCB antenna				
model	ALC-01-A				
Sample size					
Inspection item	Performance test	Visual inspection	Structure	In the news	Test results
Notes					
Quality Audit		Project Audit		Business confirm ation	
The following is to be completed by the client					

TEL: 0755-23203435 fax: 0755-23203435

Room 8403-8405, Jinxing Building, Building A, LianchengFa Optoelectronic Intelligence Industrial Park, Hangcheng Street, Bao'an District, Shenzhen, Guangdong Province, China

Customer feedback	
Customer signature/seal	
	date:

Antenna Test Report

Test Unit: Shenzhen Wildfires Outdoor Products Co.,LTD.			
Materials	Spring		
Antenna form	PCB	Polarization mode	Linear
Application scenario			
Working band	433Mhz	VSWR	≤2

TEL: 0755-23203435 fax: 0755-23203435

Room 8403-8405, Jinxing Building, Building A, LianchengFa Optoelectronic Intelligence Industrial Park,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong Province, China

Power	Max: 2W	Impedance	50Ω
dB	≥-1dB		
Test Equipment	HPE5071C、Shielding Room、3D automatic turntable		
<p>Antenna Description::</p> <p>1. Grounding processing and picture description: no</p> <p>2. Need to change the motherboard to match: no</p> <ul style="list-style-type: none"> ● Test voltage: 3V, 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. <p>Specification: test the specified power level, all indicators must conform to the specifications.</p>			

TEL: 0755-23203435 fax: 0755-23203435

Room 8403-8405, Jinxing Building, Building A, LianchengFa Optoelectronic Intelligence Industrial Park,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong Province, China

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

TEL: 0755-23203435 fax: 0755-23203435

Room 8403-8405, Jinxing Building, Building A, LianchengFa Optoelectronic Intelligence Industrial Park,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong Province, China

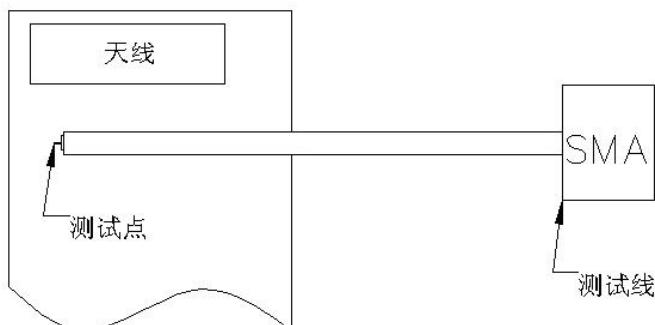
1. Project Image

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

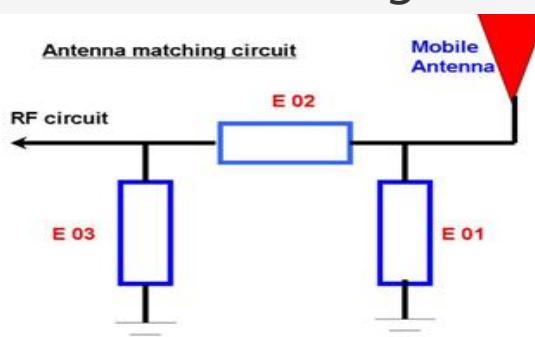
2. Test Fixture

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

TEL: 0755-23203435 fax: 0755-23203435

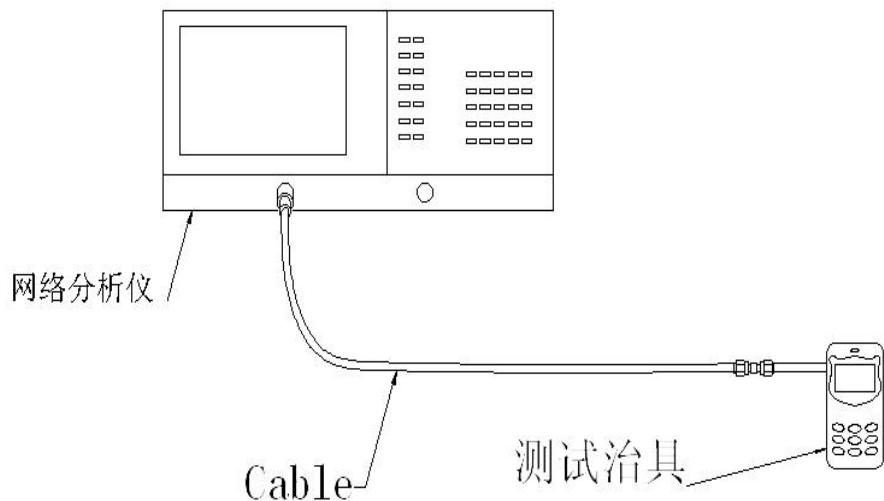
Room 8403-8405, Jinxing Building, Building A, LianchengFa Optoelectronic Intelligence Industrial Park, Hangcheng Street, Bao'an District, Shenzhen, Guangdong Province, China

E01	E02	E03
No	No	No

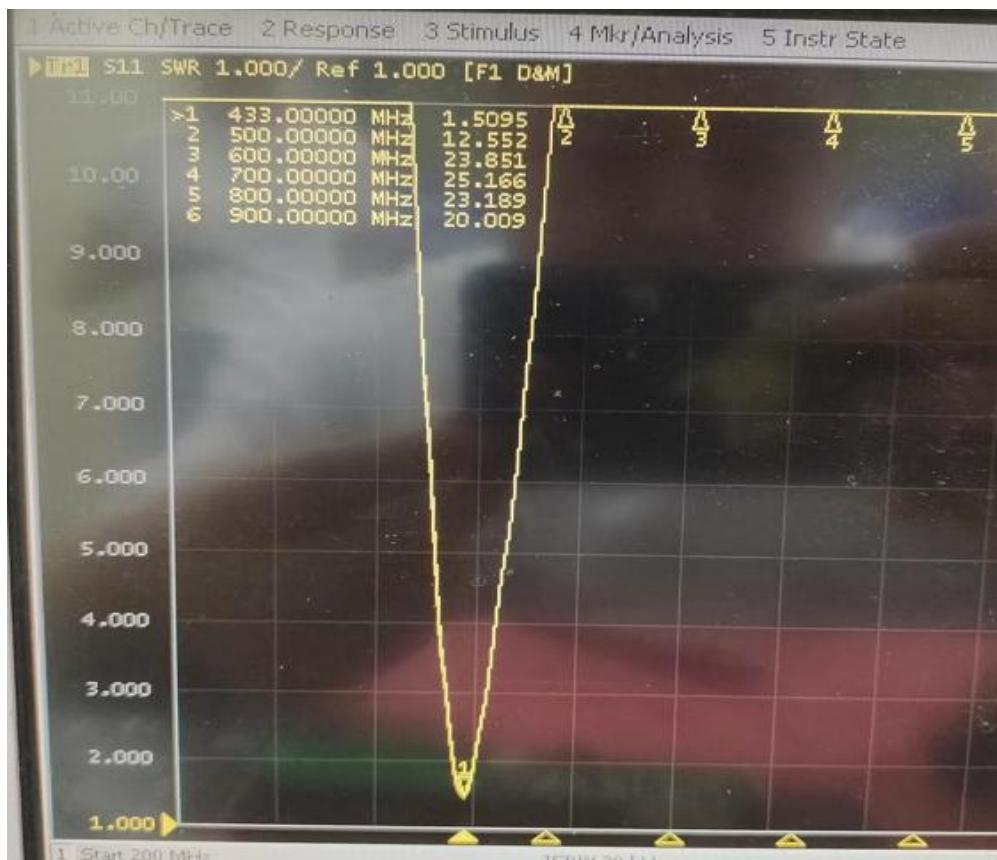
Note: The match is unmodified.

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:



4.1 SWR



TEL: 0755-23203435 fax: 0755-23203435

Room 8403-8405, Jinxing Building, Building A, LianchengFa Optoelectronic Intelligence Industrial Park,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong Province, China

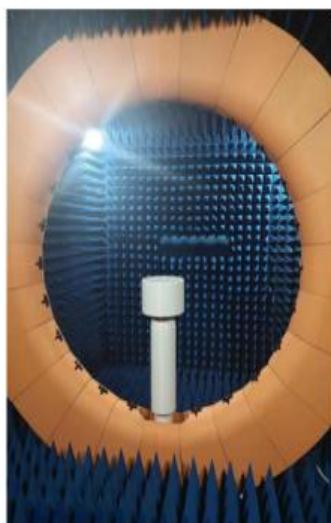
5. Darkroom test equipment and data

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 AGILENT E5071C to test active data, use the omnibus CMW500

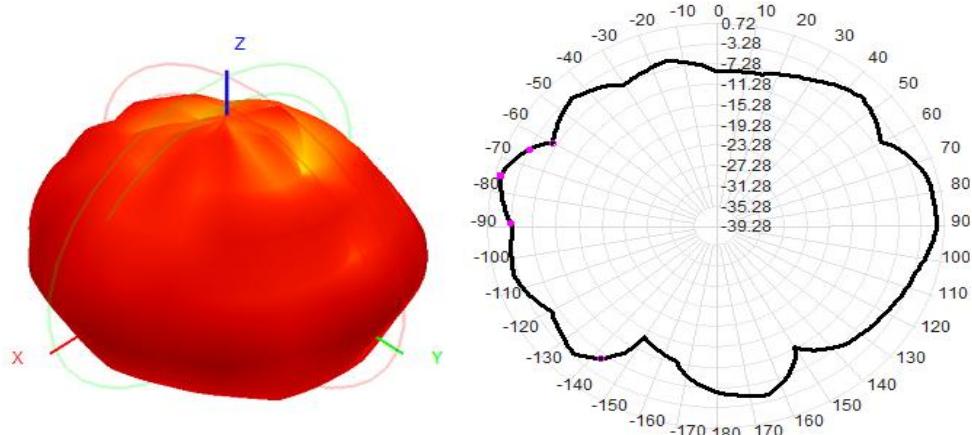


TEL: 0755-23203435 fax: 0755-23203435

Room 8403-8405, Jinxing Building, Building A, LianchengFa Optoelectronic Intelligence Industrial Park, Hangcheng Street, Bao'an District, Shenzhen, Guangdong Province, China

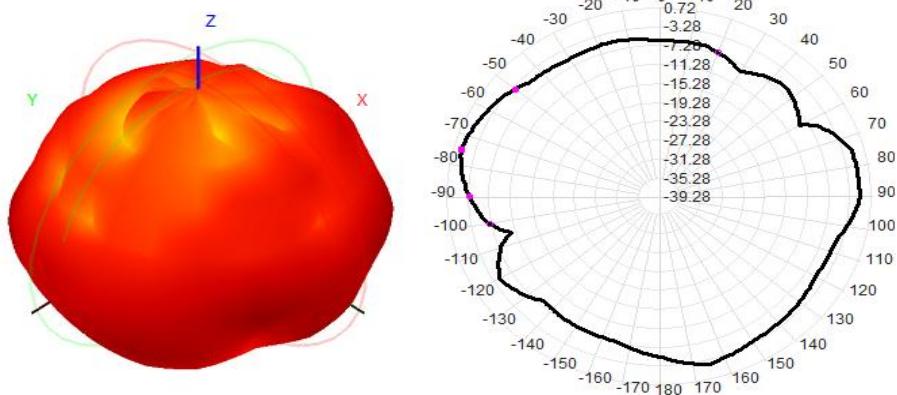
7.Active antenna test data

测试数据:		
433Mhz		
Freq(MHz)	Efficiency (%)	Gain (dBi)
430	30.3	0.23
431	31.2	0.34
432	32.6	0.47
433	33.7	0.56
434	34.3	0.13
435	31.7	0.14
436	32.3	0.27
437	30.4	-0.15
438	29.1	0.18



TEL: 0755-23203435 fax: 0755-23203435

Room 8403-8405, Jinxing Building, Building A, LianchengFa Optoelectronic Intelligence Industrial Park,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong Province, China



8.Schematic diagram of antenna assembly

9.Antenna environment handling

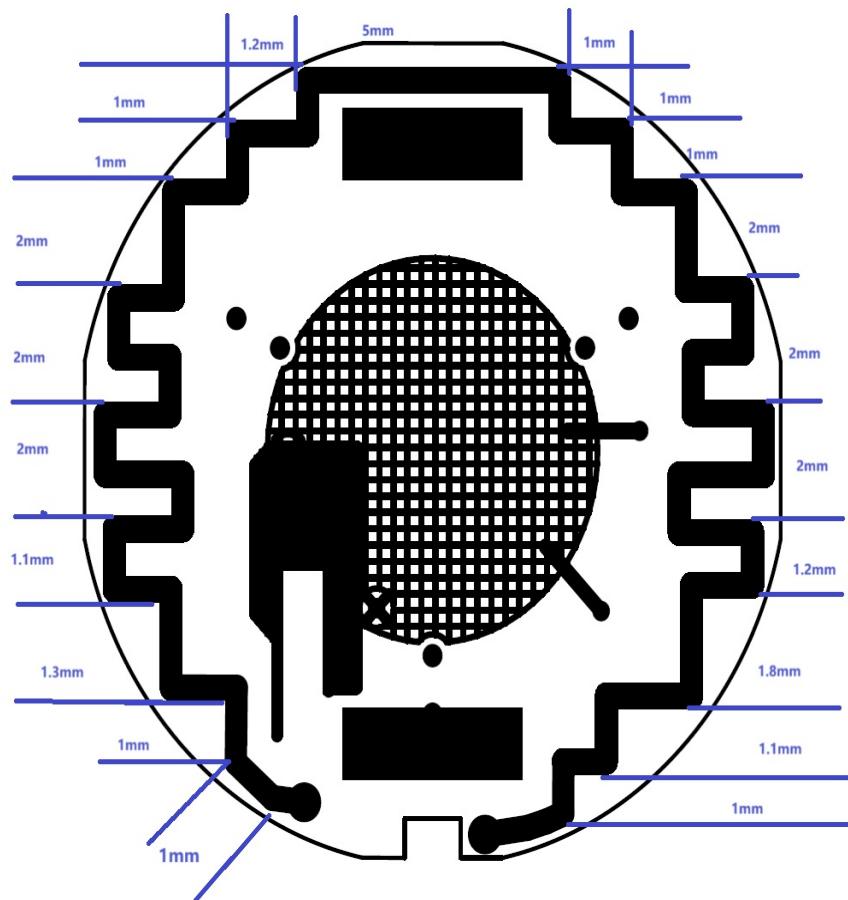
10.Antenna mass production index

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

	VSWR(recognition performance) 0.5
--	-----------------------------------

10.1 Structural drawings



TEL: 0755-23203435 fax: 0755-23203435

Room 8403-8405, Jinxing Building, Building A, LianchengFa Optoelectronic Intelligence Industrial Park,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong Province, China