

## Antenna specification

### Antenna Sample Confirmation Form

Name of supplier	ShenZhen Aihui Technology Co. , Ltd				
Sample name	PR6173				
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					

### Antenna Test Report

Test Unit: Shenzhen Aihui Technology Co. , Ltd.

Materials	FPC coaxial line		
Antenna form	PIFA	Polarization mode	Linear
Application scenario			
Working band	824Mhz-2170Mhz	VSWR	$\leq 2$
Power	Max : 2W	Impedance	50Ω
dBi	$\geq 2$ dBi		
Test Equipment	HPE5071C、Shielding Room、3D automatic turntable		
<p><b>Antenna Description:</b> :</p> <ol style="list-style-type: none"> <li>1. Grounding processing and picture description: no</li> <li>2. Need to change the motherboard to match: no <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> </li> </ol> <p>Specification: test the specified power level, all indicators must conform to the specifications.</p>			

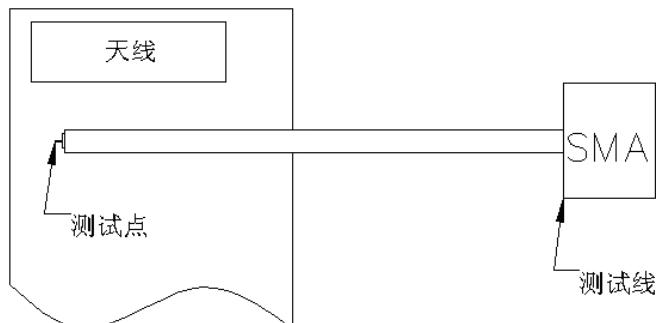
## 1. Project Image

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

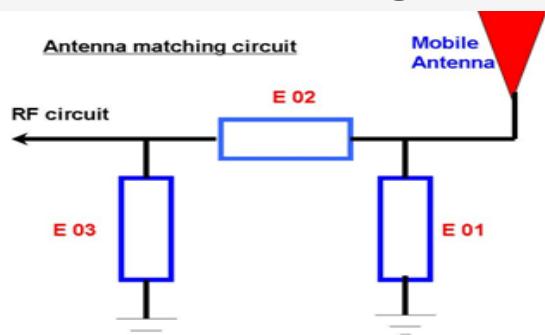
## 2. Test Fixture

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



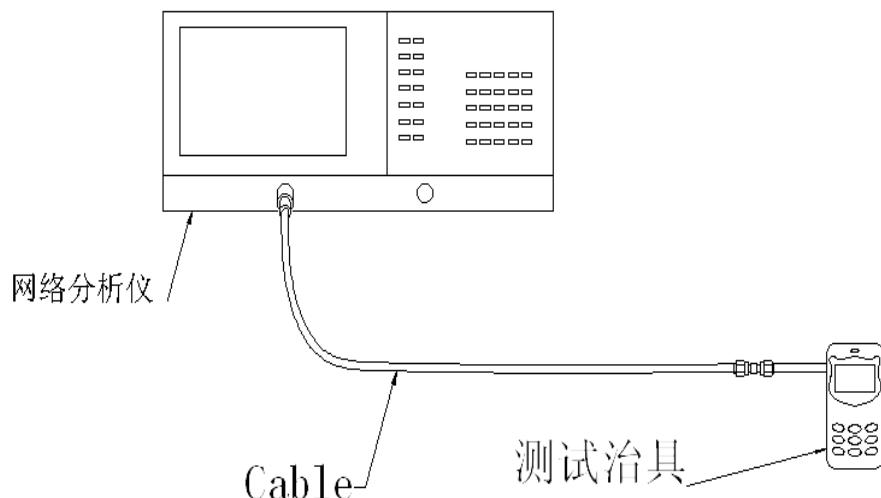
## Modify

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:



## 4.1 SWR



## 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



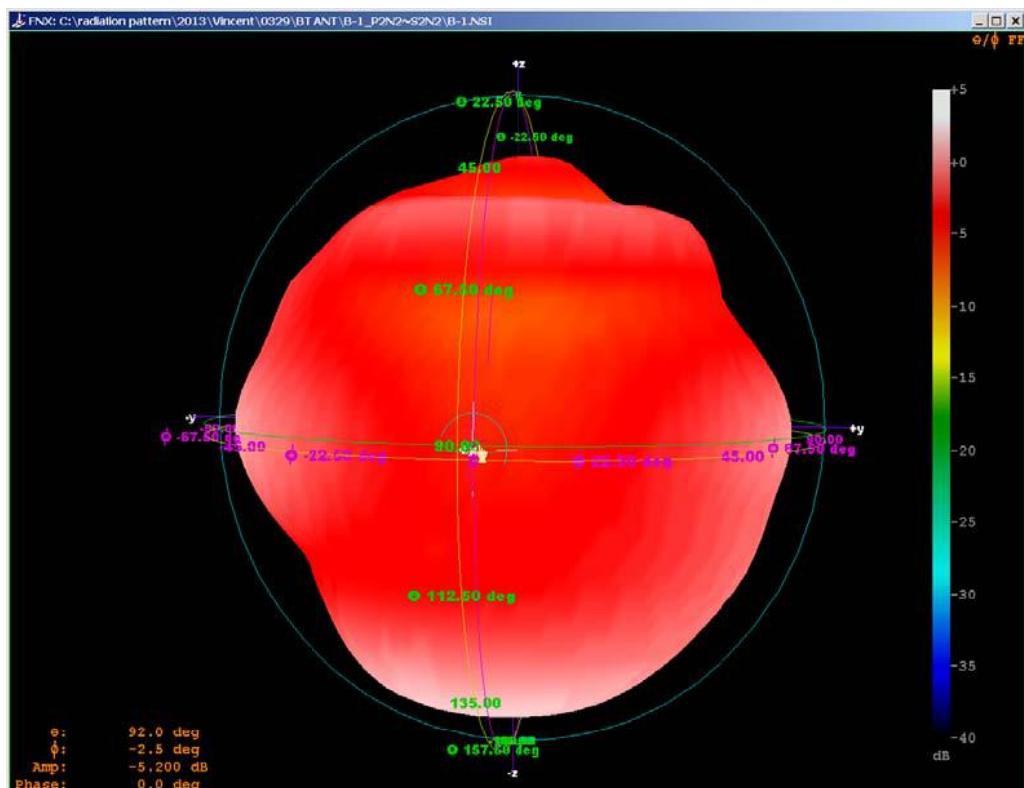
## 6.Active antenna test data

Frequency	Band	GSM; 850			900		
channel		L	M	H	L	M	H
TRP		26. 4	26. 8	27. 9	28. 4	27. 4	26. 9
TIS				-102. 3			-100. 8
Frequency	Band	1800			1900		
channel		L	M	H	L	M	H
TRP		23. 5	23. 5	23. 7	24. 5	25. 8	25. 9
TIS				-101. 2			-104. 6
Frequency	Band	WCDMA 1			WCDMA 2		
channel		L	M	H	L	M	H
TRP					17.5	16.9	17.8
TIS							-101.5

Frequency	Band	WCDMA 5		
channel		L	M	H
TRP		16.8	16.6	16.9
TIS				-102.5

## 7. Passive Antenna Test Data

Frequency/MHz	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Peak Gain/dBi	1.92	1.91	1.93	1.89	1.92	1.88	1.95	2.00	1.88	1.87	1.86
Efficiency/%	52.08	51.99	52.30	51.25	51.28	51.55	51.41	50.59	48.99	48.62	46.25



## 8 Structural drawings

