

**Antenna specification**

**Antenna Sample Confirmation From**

<b>Name of supplier</b>	ShenZhen Aihui Technology Co. , Ltd				
<b>Customer name</b>	Ke Jin Ming				
<b>Sample name</b>	412A				
<b>model</b>	Projector				
<b>Sample size</b>	115m, wire diameter 1.13, first generation terminal/150mm, wire diameter 1.13, first generation terminal (black)				
<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>					
<b>Quality Audit</b>		<b>Project Audit</b>		<b>Business confirmation</b>	
<b>The following is to be completed by the client</b>					

# Shenzhen Aihui Technology Co. , Ltd.

Customer feedback	
Customer signature/seal	<b>date:</b>

## Antenna Test Report

Test Unit: Shenzhen Aihui Technology Co. , Ltd.			
Materials	FPC		
Antenna form	FPC	Polarization mode	Linear
Application scenario	Wifi /Bluetooth		
Working band	2400Mhz-2500Mhz 5100Mhz-5850Mhz	VSWR	≤2

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# Shenzhen Aihui Technology Co. , Ltd.

Power	Max: 2W	Impedance	50 $\Omega$
dBi	$\geq$		
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

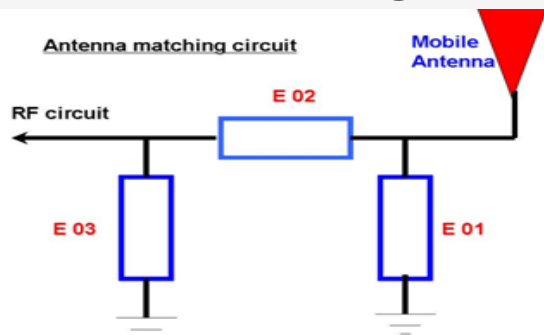
The final verification antenna performance prototype in our company for at least one year, easy to analyze and solve the problem of antenna mass production, to ensure the quality of antenna shipment

## 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



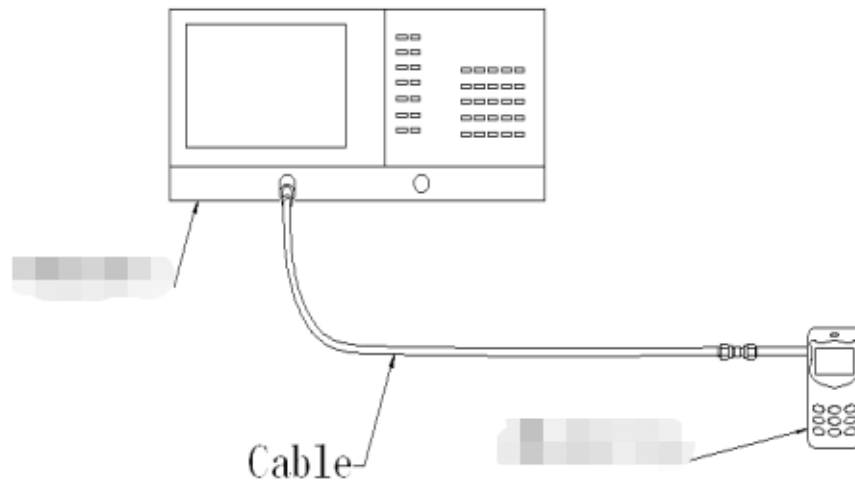
### Modify

E01	E02	E03
No	No	No

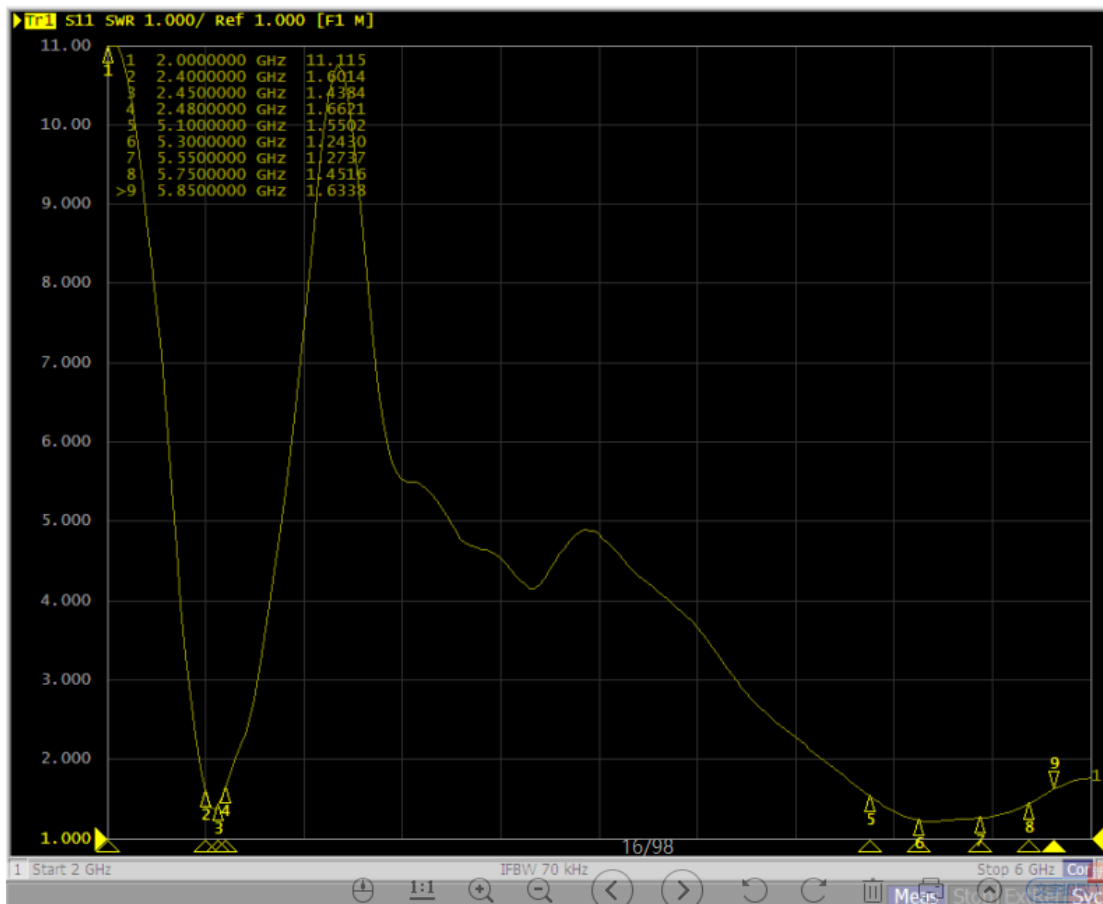
Note: The match is unmodified.

## 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. 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 AGILENTE5071C to test active data, use the omnibus CMW500



## 7.Active antenna test data

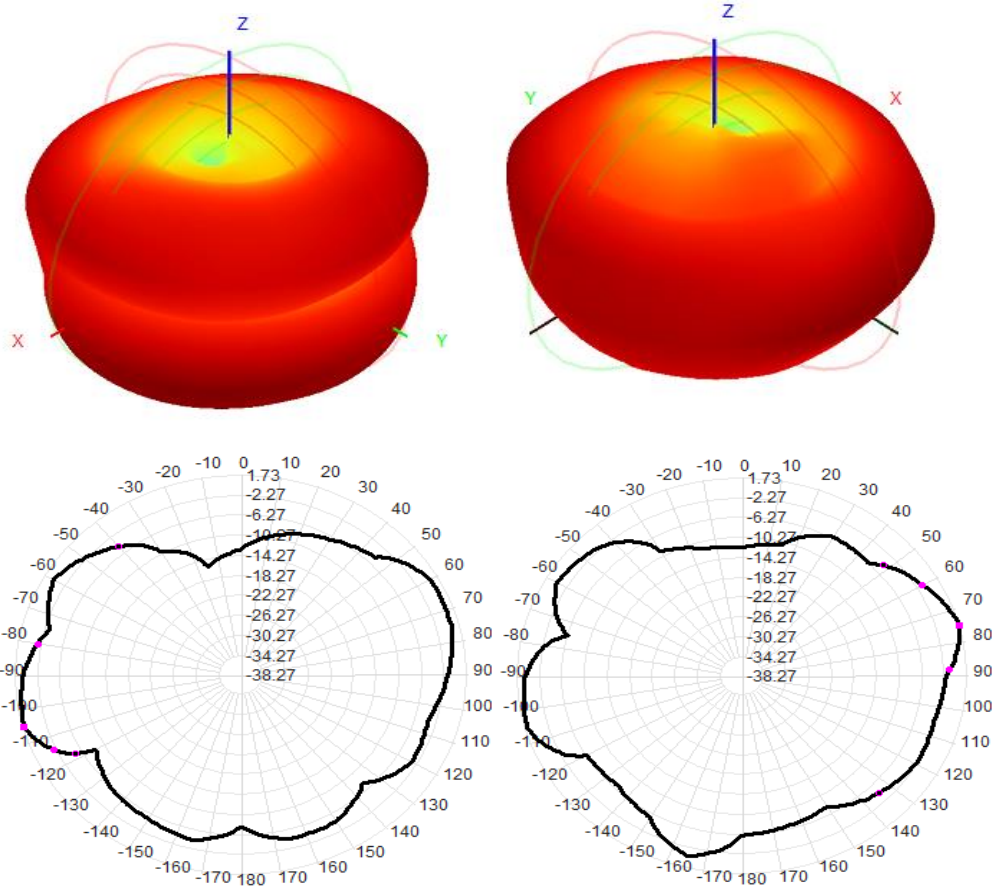
ANT0, ANT1 WIFI 2.4G + ANT0 Bluetooth		
Frequency (MHZ)	Efficiency (%)	Gain (dBi)
2400	59.54	1.30
2410	58.44	1.25
2420	58.35	1.71
2430	57.41	1.33
2440	55.25	1.26
2450	57.61	1.44
2460	54.25	1.05
2470	51.65	1.52
2480	58.41	1.73
2490	58.32	1.55
2500	59.41	1.62

# Shenzhen Aihui Technology Co. , Ltd.

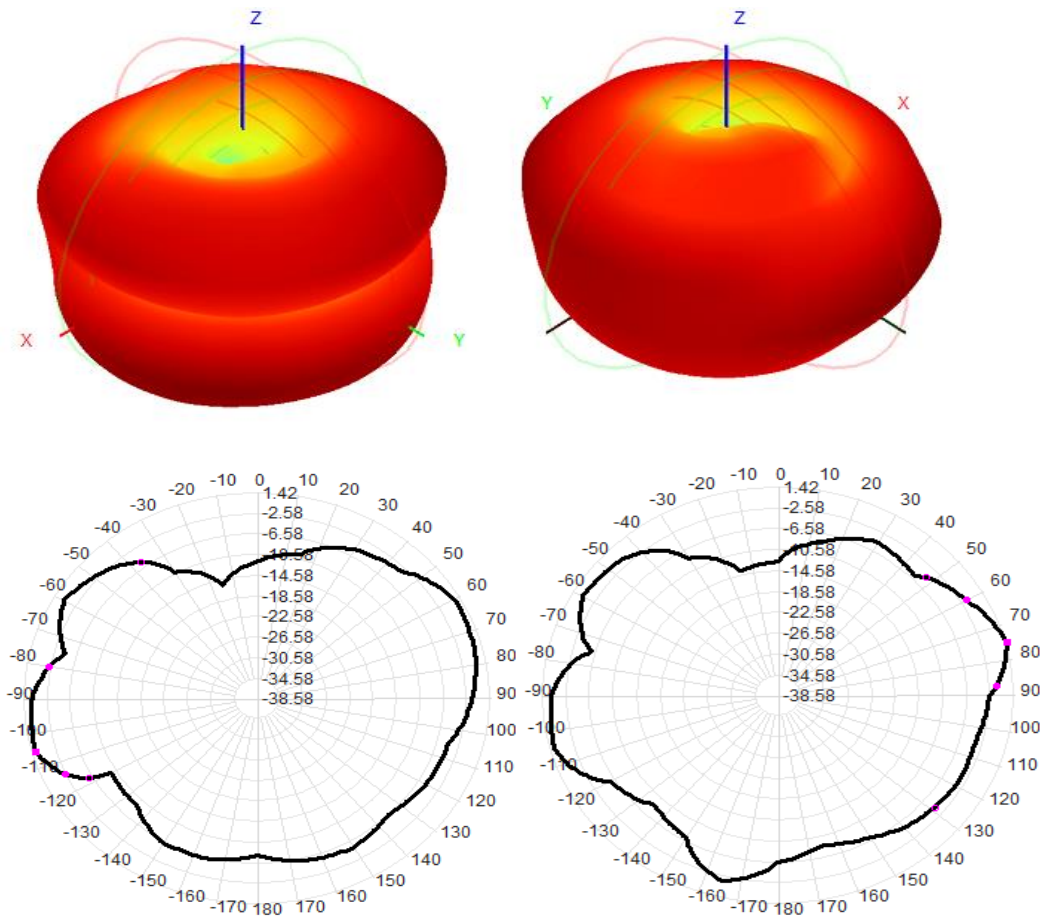
ANT0, ANT1 WIFI: 5G		
Frequency (MHZ)	Efficiency (%)	Gain (dBi)
5100	54.74	1.01
5200	58.65	1.30
5300	57.93	1.02
5400	56.31	1.30
5500	51.44	1.42
5600	58.25	1.15
5700	54.63	1.41
5800	59.32	1.33
5900	51.41	1.02



2.4G



5G



# Size

