



## **Gentong Communication Technology Co.,Ltd**

Fifth Floor ,Build No 5, Fujian Branch of The National University Science Park, Quanzhou City, Fujian Province, China  
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# Antenna Specification

Issue Date: February 1, 2023

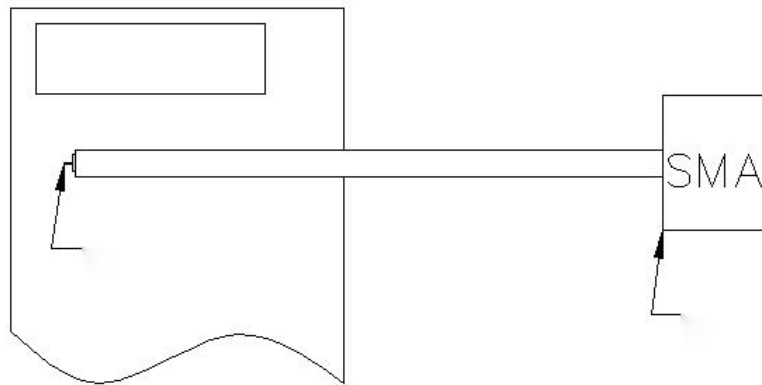
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## 1 Passive test

Purpose: To test the antenna's passive parameters as accurately as possible.

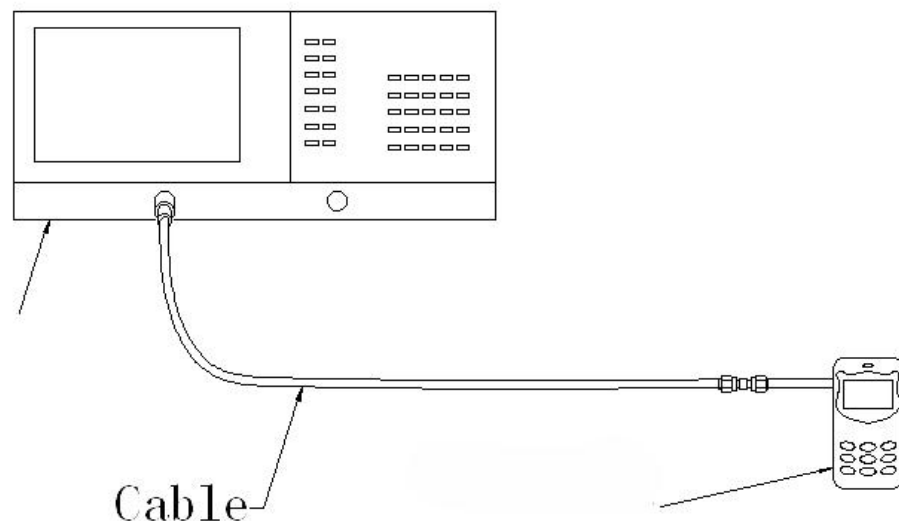
Method: The fixture uses a 50  $\Omega$  coaxial cable. One end is connected to the test point on the back end of the matching circuit (in front of the RF test port) on the phone's motherboard, and the other end is connected to an SMA connector. The schematic diagram is as follows:



## 2 S11 test

Test equipment: Network Analyzer(Agilent 8753D)

Test procedure: Use a 50-ohm cable to lead out from the port of Network Analyzer, calibrate it with the calibration kit, and then connect it to the SMA connector of the tool. Record the return loss and standing wave ratio corresponding to the relevant frequency points.



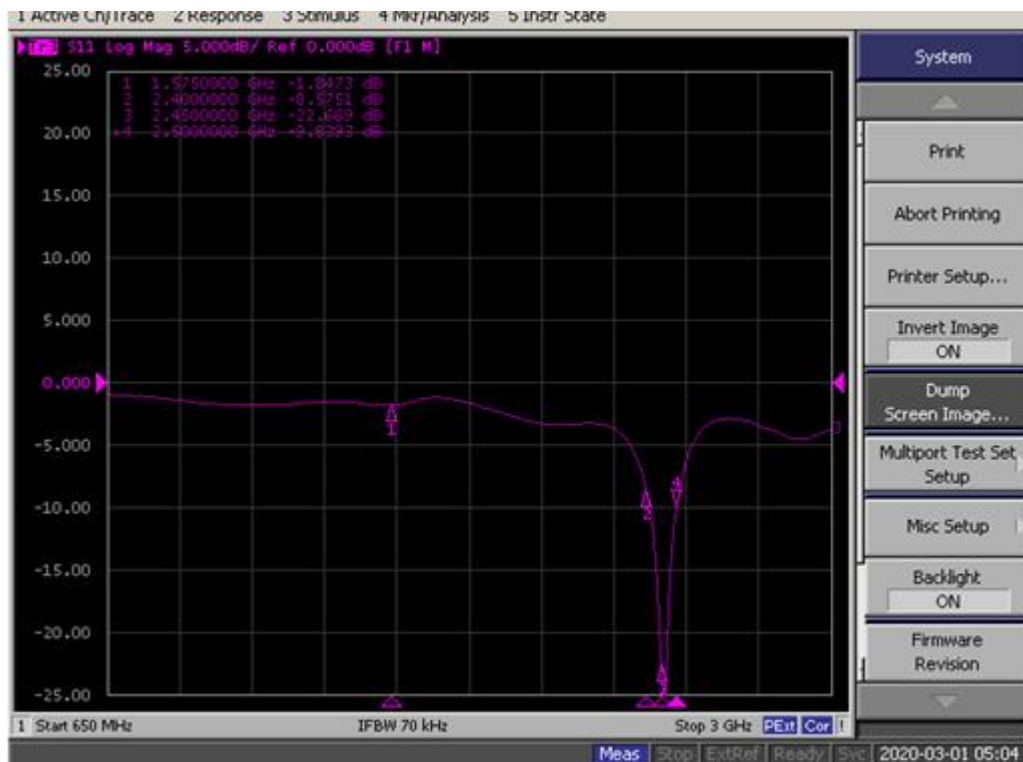


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### S11 parameter

Frequency (MHZ)	2400	2450	2500
Return Loss(dB)	-8.57	-22.66	-9.83
SWR	1.3	1.26	1.29



### 3、Test at Semi-Anchoic Chamber



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### 3.0 Test equipment

test system: ETS Semi-Anchoic Chamber

test conditions: temperature  $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$ , relative humidity:  $50\% \pm 15\%$

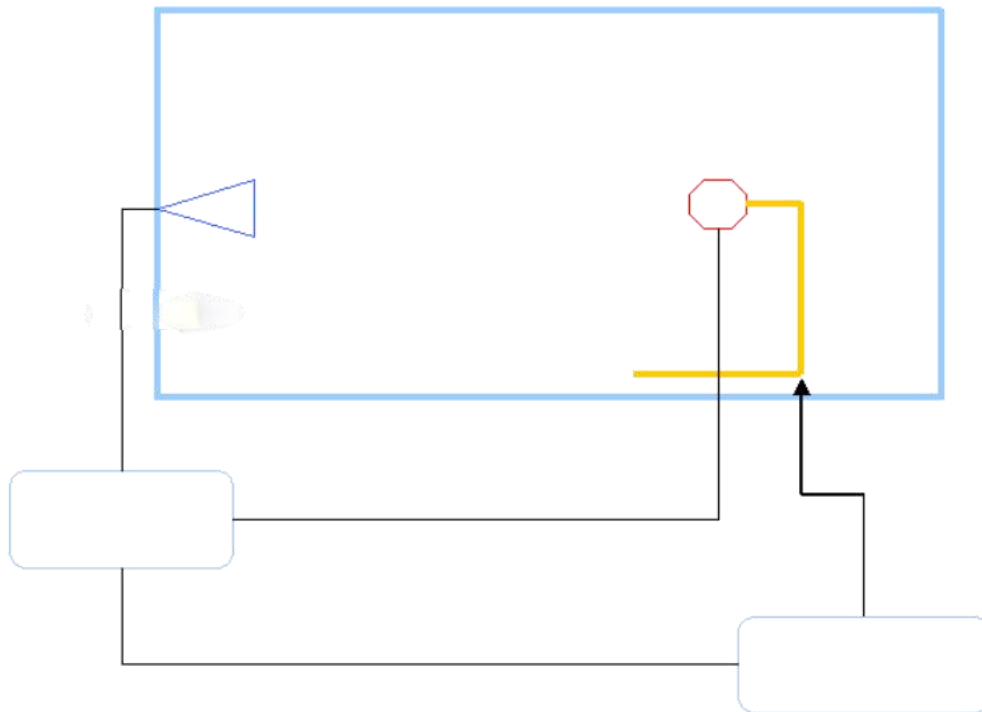
Test equipment:

passive data, Network Analyzer Agilent E5071B will be used

active data, Wireless Communications Test Set Agilent 8960 8820C will be used

### 3.1 Test procedure

The test computer is the controller of the entire system. During testing, the computer controls the turntable to rotate to a certain angle, and then controls the instrument to perform spatial attenuation testing. After the raw data is collected, data compensation and correction are performed to finally obtain the test data.





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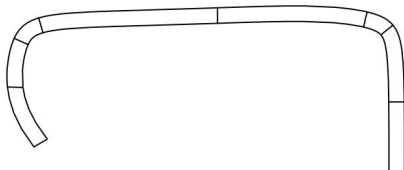
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### 3.2 Test Report :

Freq	Effi	Effi	Gain	Gain
(MHz)	(%%)	(dB)	(dBi)	(dBd)
2400	38.83	-0.41	-1.47	-3.62
2420	40.12	-0.39	-0.93	-3.08
2440	40.33	-0.39	-0.95	-3.1
2460	39.39	-0.40	-0.95	-3.1
2480	38.52	-0.41	-0.9	-3.05
2500	36.55	-0.43	-1.07	-3.22

## 4、Antenna Dimensions

Diameter 1 MM \* Total Length 42.5MM





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