

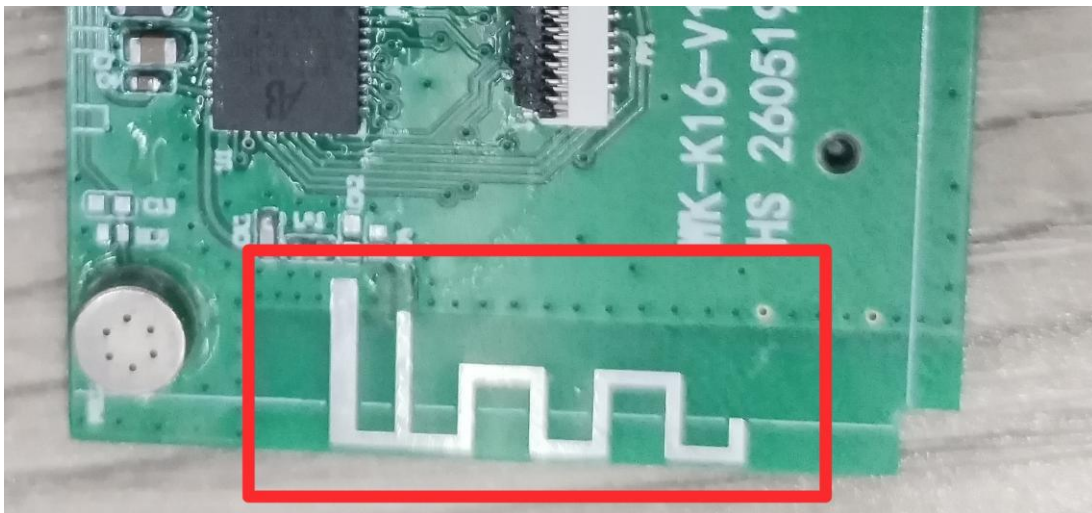
antenna testing

- 1、 hardware testing**
- 2、 Software Testing**
- 3、 data reading**

1、 hardware testing

1.1 、 PCBA bare board testing

Weld the RF connection cable to the bare board, and then connect it to the OTA device. The connection diagram between the RF cable and the bare board is shown below:

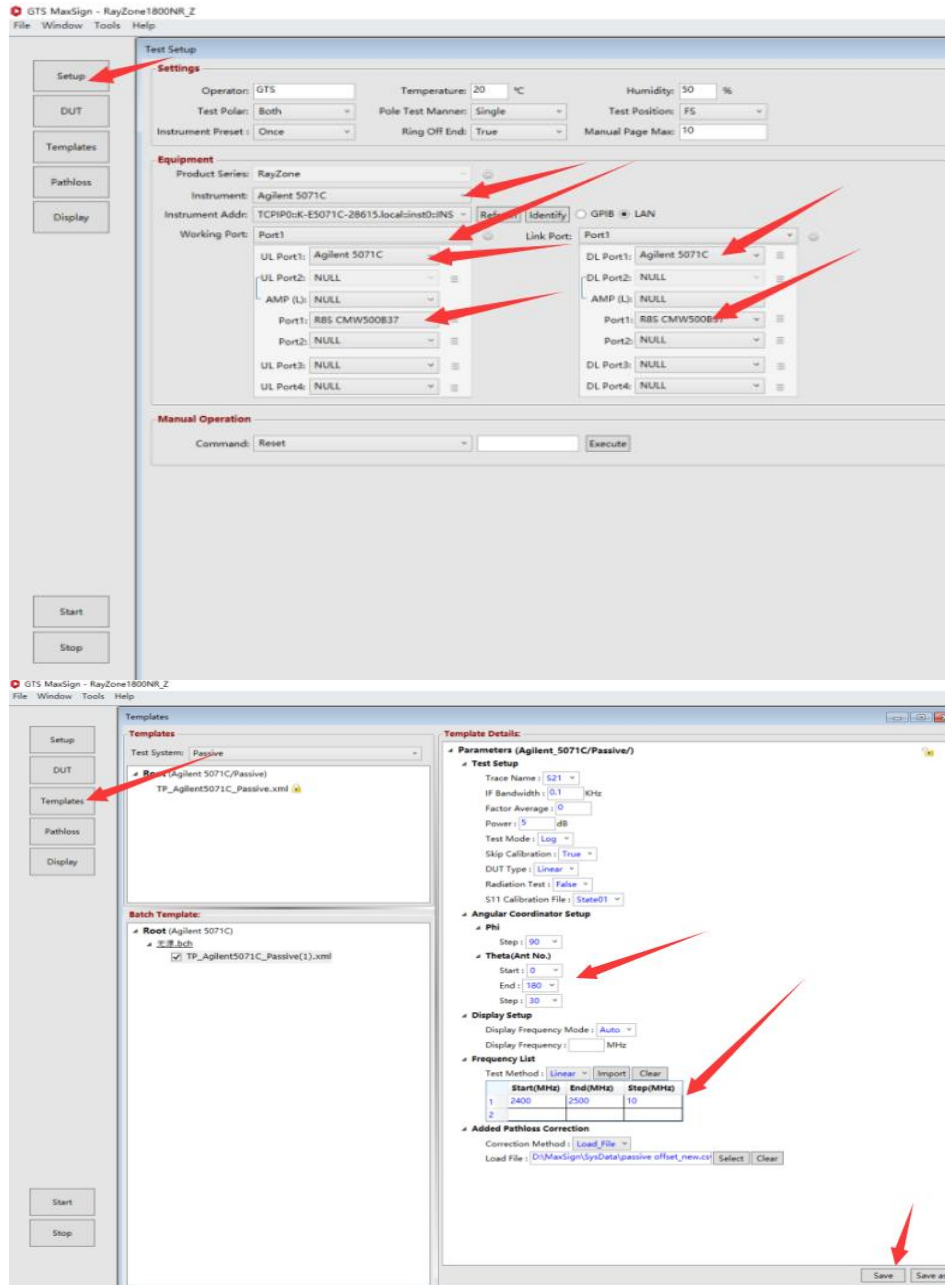


1.2 、 Equipment Environment

The equipment required for this test includes a computer, spectrometer, amplifier, and darkroom, as shown in the following diagram:



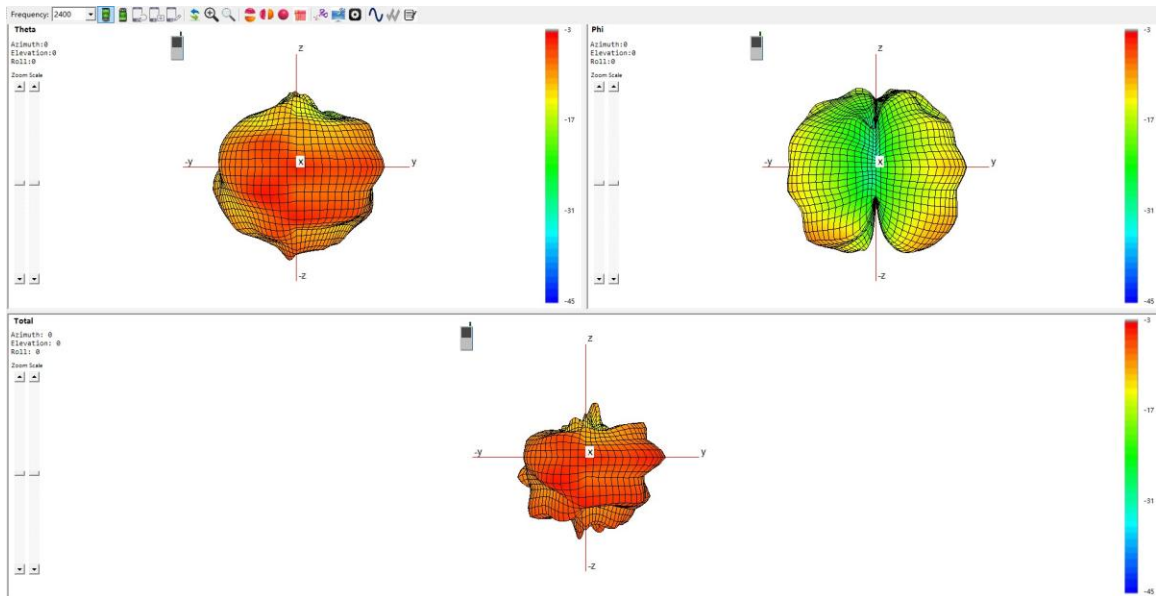
2、Software testing



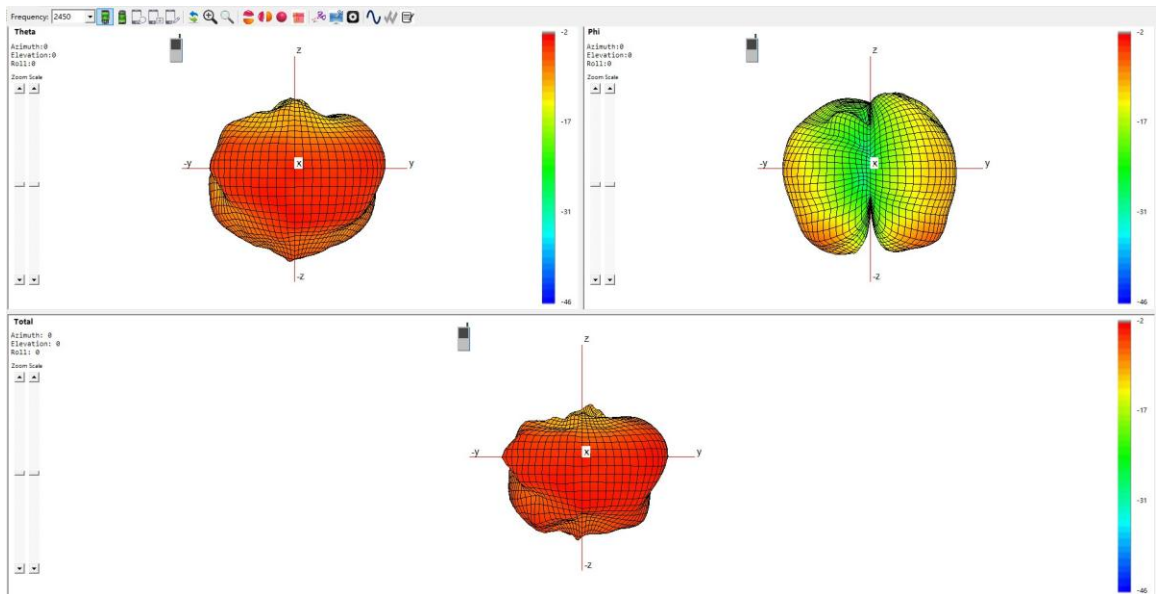
3. Data reading

3.1、Scan the 3D radiation pattern of the antenna

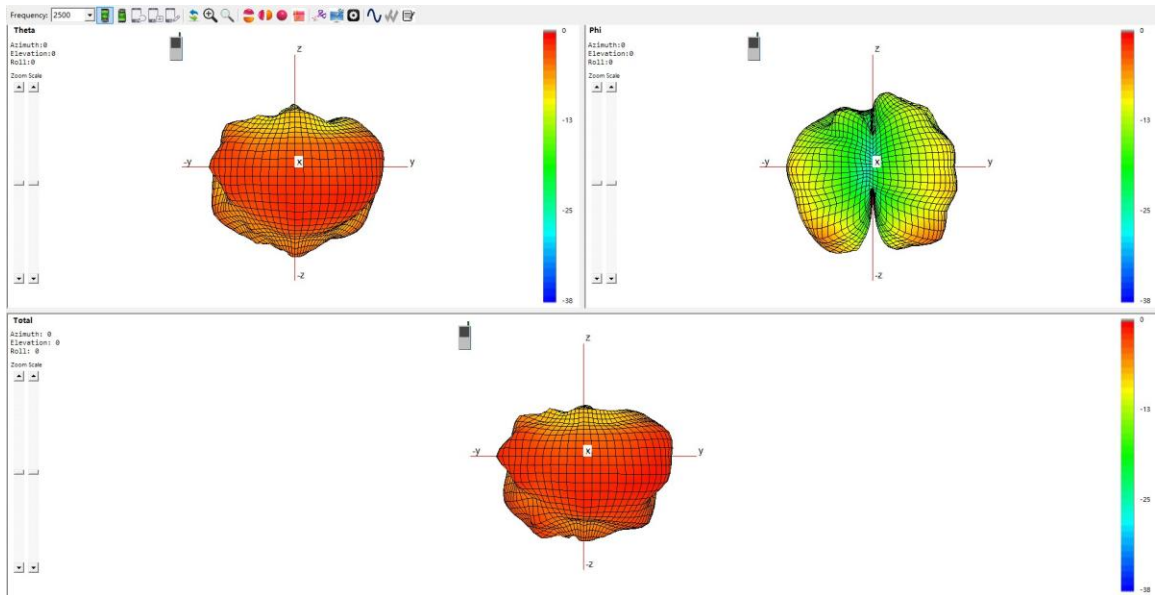
2400MHz:



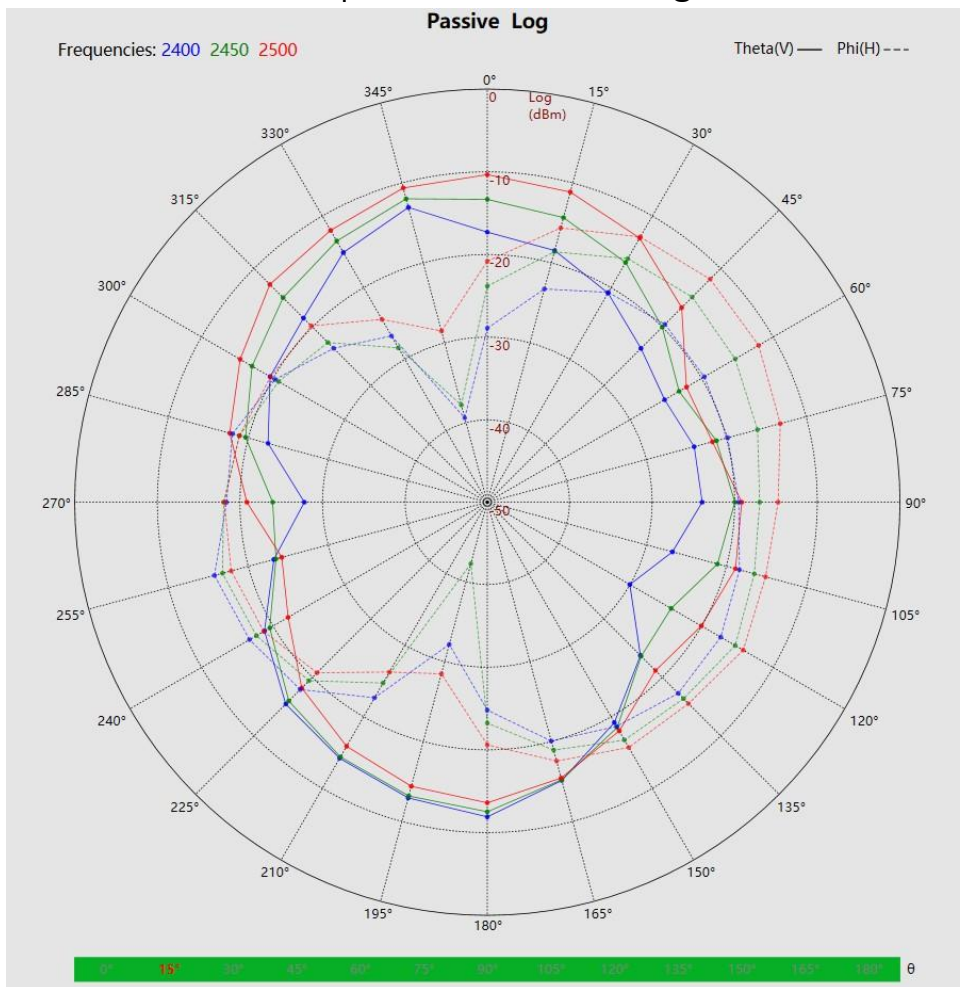
2450MHz:



2500MHz



3.2、2D radiation pattern of scanning antenna



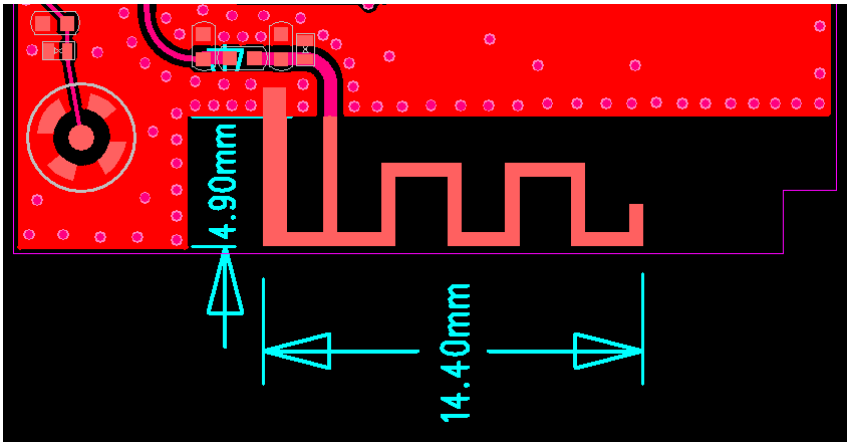
3.3、 Detailed scan output data results, antenna

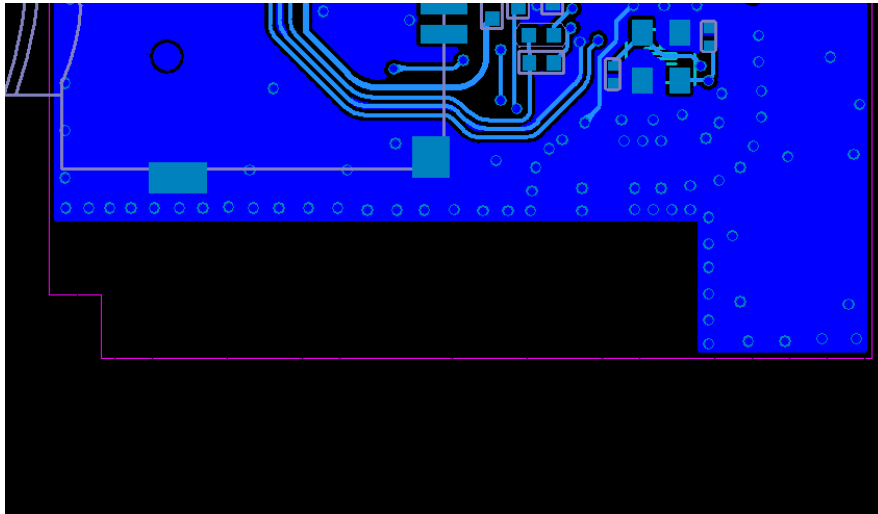
Freq(MHz)	Gain(dBi)	Efficiency(dB)	Efficiency(%)
2400	-3.70	-9.21	12.01
2410	-3.31	-8.63	13.71
2420	-3.03	-8.08	15.57
2430	-3.12	-7.64	17.22
2440	-2.81	-7.32	18.54
2450	-2.44	-6.72	21.28
2460	-2.15	-6.23	23.85
2470	-1.72	-5.98	25.22
2480	-1.10	-5.60	27.54
2490	-0.81	-5.35	29.14
2500	-0.63	-5.01	31.57

Summary

ITEM	ANT SPEC		
Model Name	2.4G ANT		
Antenna plate	PCB antenna		
Center Frequency	2400MHz	2450MHz	2500MHz
	-3.72dBi	-2.54dBi	-0.63dBi
MAX. Gain	-0.63dBi		
Polarization	Horizontal and Vertical		
Impedance	50Ohm		
Manufacture			

AntennaPhoto&Length(mm)





Frequency (MHz)	Gain(dBi)			
	Horizontal		Vertical	
	MAX	MIN	MAX	MIN
2400	-8.69	-44.46	-3.69	-43.43
2450	-5.92	-45.82	-2.48	-35.98
2500	-3.93	-37.33	-1.33	-32.32