

Antenna Efficiency Test

1、 hardware test

2、 software test

3、 Data Reading

1、 hardware test

1.1 PCBA Bare Board Testing

Weld the RF connection cable to the bare board, then connect it to the OTA device. The connection diagram between the RF cable and the bare board is shown in Figure 1:

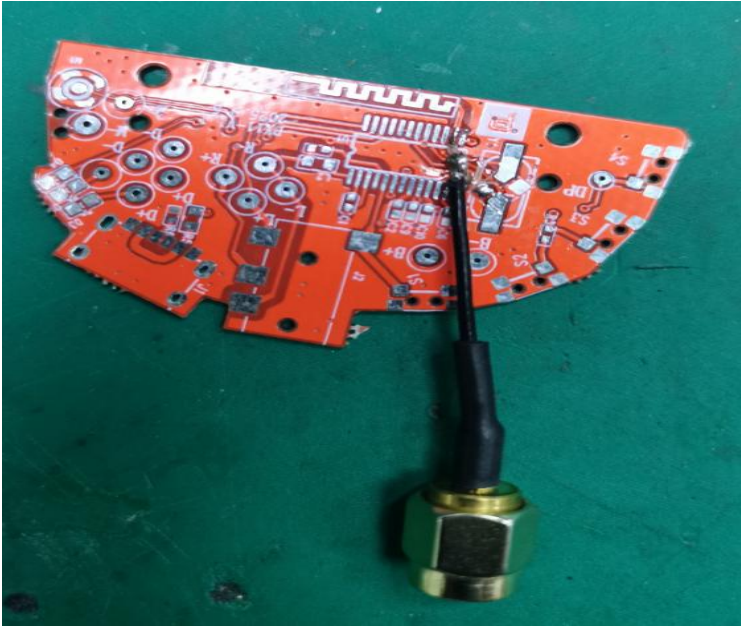


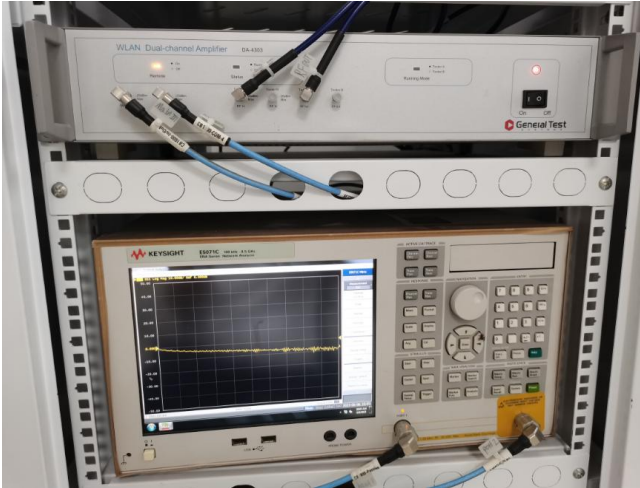
图 1

1.2 、 Facility Environment

The equipment required for this test includes a computer, spectrum analyzer, amplifier, and darkroom. Connect them as shown in Figures 2, 3, and 4.

Manufacturer :

Guangdong Pangpai technology CO., Ltd.
Building H-2,Jinxin Industrial Zone,South Of Xingguojing Road, Shangbao Residents Committee, Gurao Town, Shantou, Guangdong



Graph
2

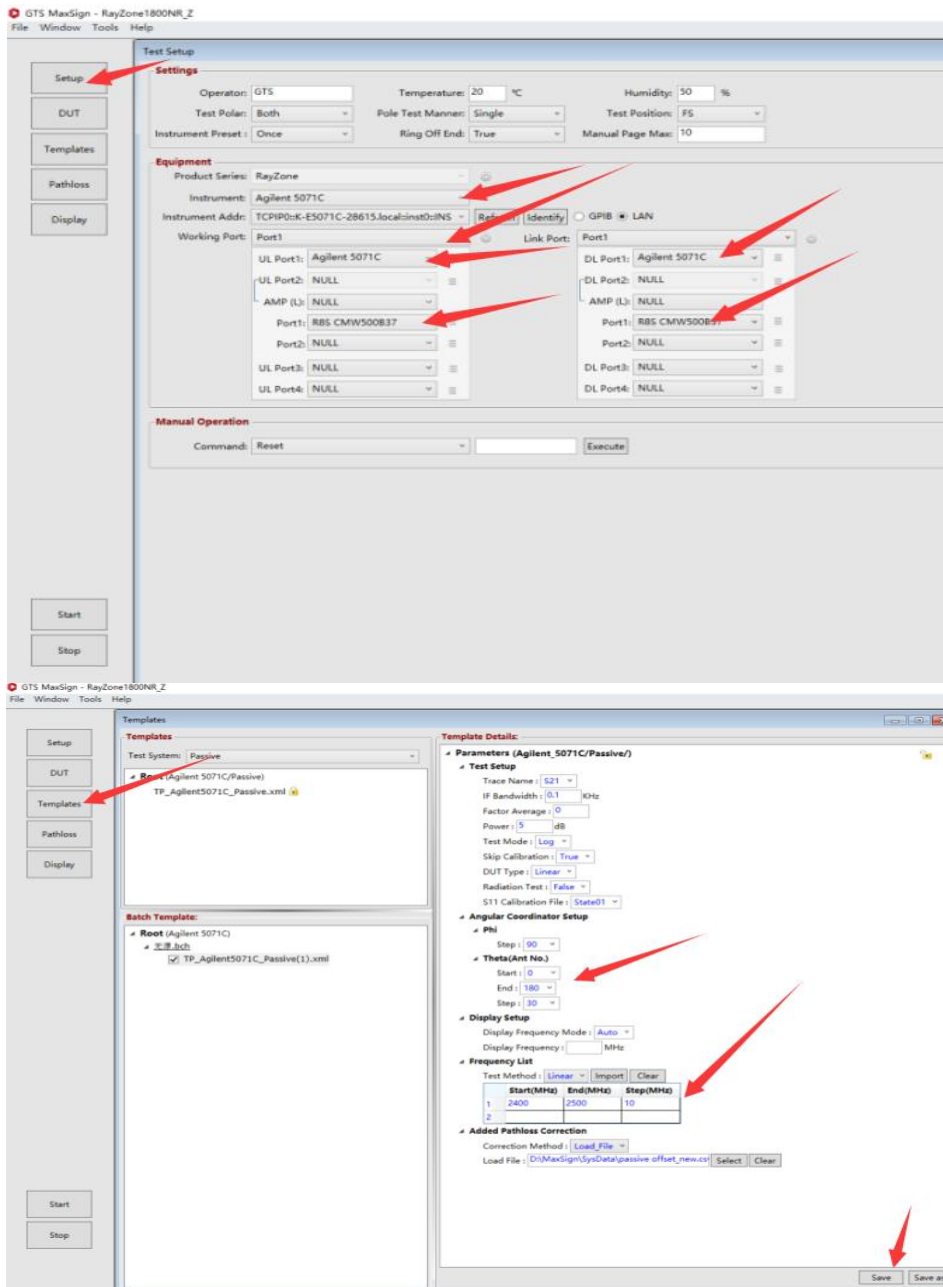


Graph
3



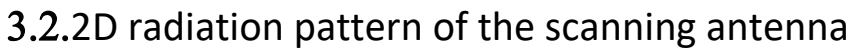
Graph
4

2、 Software Test



3、 Data Reading

3.1.3D Radiation Pattern of the Scanning Antenna



testbed

Unit Test

Analysis

Template

Frequency

2400

TestItem	Pass Log		TestStart	Passive	StartTime	17:29:55		EndTime	17:30:42	TotalTime	00:00:47	CreateTime	2025/11/19	Polariza	Linear
Model	XBE		TestStart	Passive	StartTime	17:29:55		EndTime	17:30:42	TotalTime	00:00:47	CreateTime	2025/11/19	Polariza	Linear
ItemID	ItemName		TestStart	Passive	StartTime	17:29:55		EndTime	17:30:42	TotalTime	00:00:47	CreateTime	2025/11/19	Polariza	Linear
ChNo	Freq	Efficien	Gain	Bandwidth	Power	HP	NHPP	NHPP	HP	ERP	Polariza	Theta	Phi	Theta	
1	2400	-32.044	2.09630	-18.717	90	330	-57.632	-441.80	-6.735	-57.632	144.932	Phi	120	0	0
2	2410	-2.8058	3.20572	-18.599	90	330	-5.3814	-4.0242	-4.5909	-5.2669	1.89814	Phi	120	0	0
3	2420	-2.3158	3.64248	-17.906	90	330	-4.8951	-3.5295	-5.9093	-4.1202	2.45937	Phi	120	0	0
4	2430	-2.1818	3.84089	-17.366	90	330	-4.7950	-3.3888	-5.7575	-4.6778	2.63343	Phi	120	0	0
5	2440	-2.3779	3.69618	-16.743	90	330	-4.9322	-3.5540	-5.9842	-4.6842	2.44326	Phi	120	0	0
6	2450	-2.2942	4.00618	-16.206	90	330	-5.1606	-3.2466	-5.6435	-5.2302	2.80529	Phi	120	0	0
7	2460	-2.1426	4.12189	-15.907	90	330	-4.7320	-3.1900	-5.4641	-4.3041	3.01301	Phi	120	0	0
8	2470	-2.2933	3.89600	-16.114	90	330	-4.8215	-3.4791	-5.8577	-4.7889	2.61679	Phi	120	0	0
9	2480	-2.4152	3.86462	-16.434	90	330	-4.9572	-3.6079	-6.0055	-5.2589	2.61894	Phi	120	0	0
10	2490	-2.8900	3.37733	-16.639	90	330	-5.4266	-4.0616	-6.4729	-5.3945	2.02226	Phi	120	0	0
11	2500	-3.1501	3.15935	-16.524	90	330	-5.6687	-4.3296	-6.7347	-5.6501	1.82798	Phi	120	0	0

Summary

ITEM	ANT SPEC		
Model Name	2.4G ANT		
Antenna plate	PCB antenna		
Center Frequency	2400MHz	2450MHz	2500MHz
	2.8	4.0	3.1
MAX. Gain	4.2		
Polarization	Horizontal and Vertical		
Impedance	50Ohm		
Manufacture			

AntennaPhoto&Length(mm)

