

Antenna Specification

MODEL:BP-202

Version: V2.3

Update Date: September 06,2023

Shenzhen Yilian Internet of Things Co., Ltd. All rights reserved

The specifications of this product are subject to change without notice.

Shenzhen Yilian Internet of Things Co., Ltd. reserves the right to make changes to the specifications and materials contained in it without prior notice, and at the same time damage (including consequential damage) caused by trust in the materials cited, including But not limited to errors in printing and other errors related to this publication, Yilian Internet of Things will not be held responsible.

Contents

Contents	- 1 -
1 Antenna size (Unit: mm)	- 1 -
2 Antenna specification parameters	- 1 -
3 Test condition	- 2 -
4 Testing environment	- 3 -
5 Deoning frequency of antenna network	- 5 -
6 Antenna test efficiency	- 5 -
7 2D fig(2450MHz)	- 6 -
8 3D fig	- 7 -

1 Antenna size (Unit: mm)



2 Antenna specification parameters

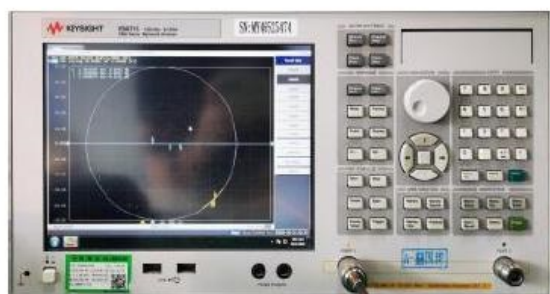
number	Parameter item	Description
1	Center operating frequency	2441MHz
2	Work bandwidth	2400---2480Mhz
3	Rate of data signalling	1Mbps
4	Antenna type	On-board PCB antenna (default)
5	Antenna gain	-1.09dBi
6	Impedance	50ohm
7	Modem type	GFSK

3 Test condition

Test engineer	Jesse Guan
Phone	(+86)18975824147
Email	Jesse.guan@unictron.com
Confirm	Joy Zhu
Date	2023/9/5

TEST CONDITION

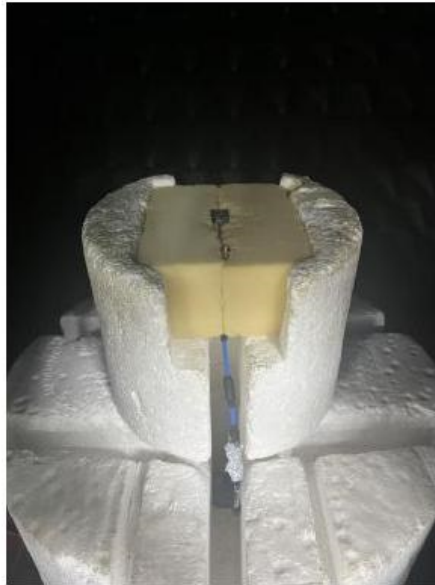
ITEM	INSTRUMENT	MANUFACTURER	CALIBRATION TIME
s parameter	E5062A	Agilent	2023.3.27
Passive efficiency	E5071C/RayZone 1800	Keysight/GTS	2023.3.10



4 Testing environment

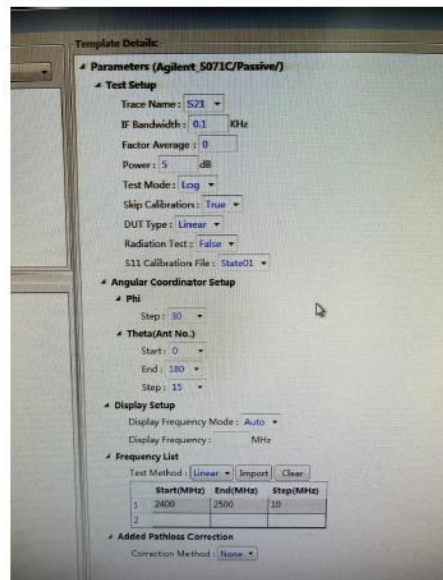
Test setup and environment

1. Test environment diagram

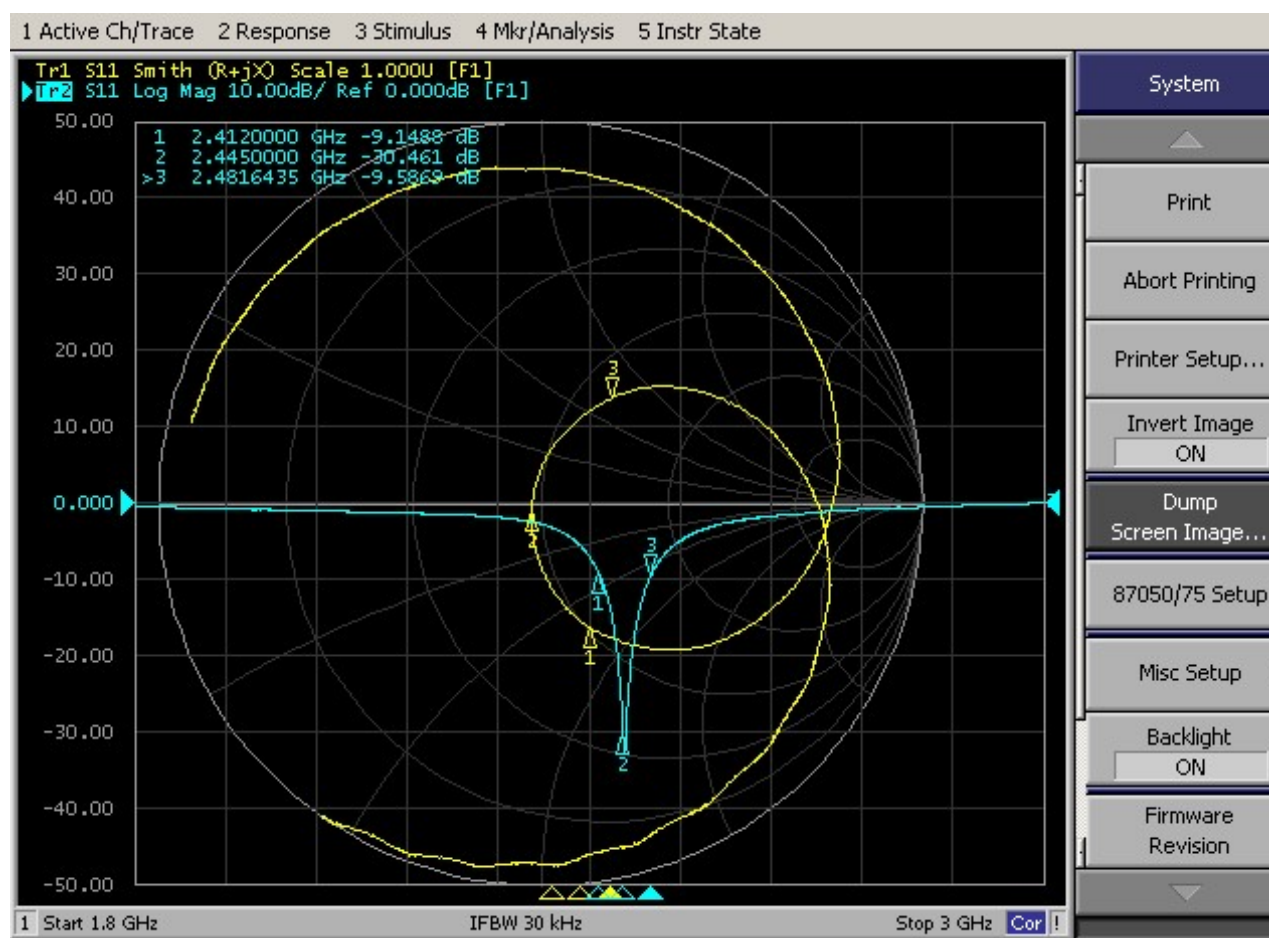


Test setup and environment

2. Test setup diagram



5 Deoning frequency of antenna network



The return loss of the antenna at 2.445ghz is - 30dB and the impedance is about 50. Bandwidth 80m

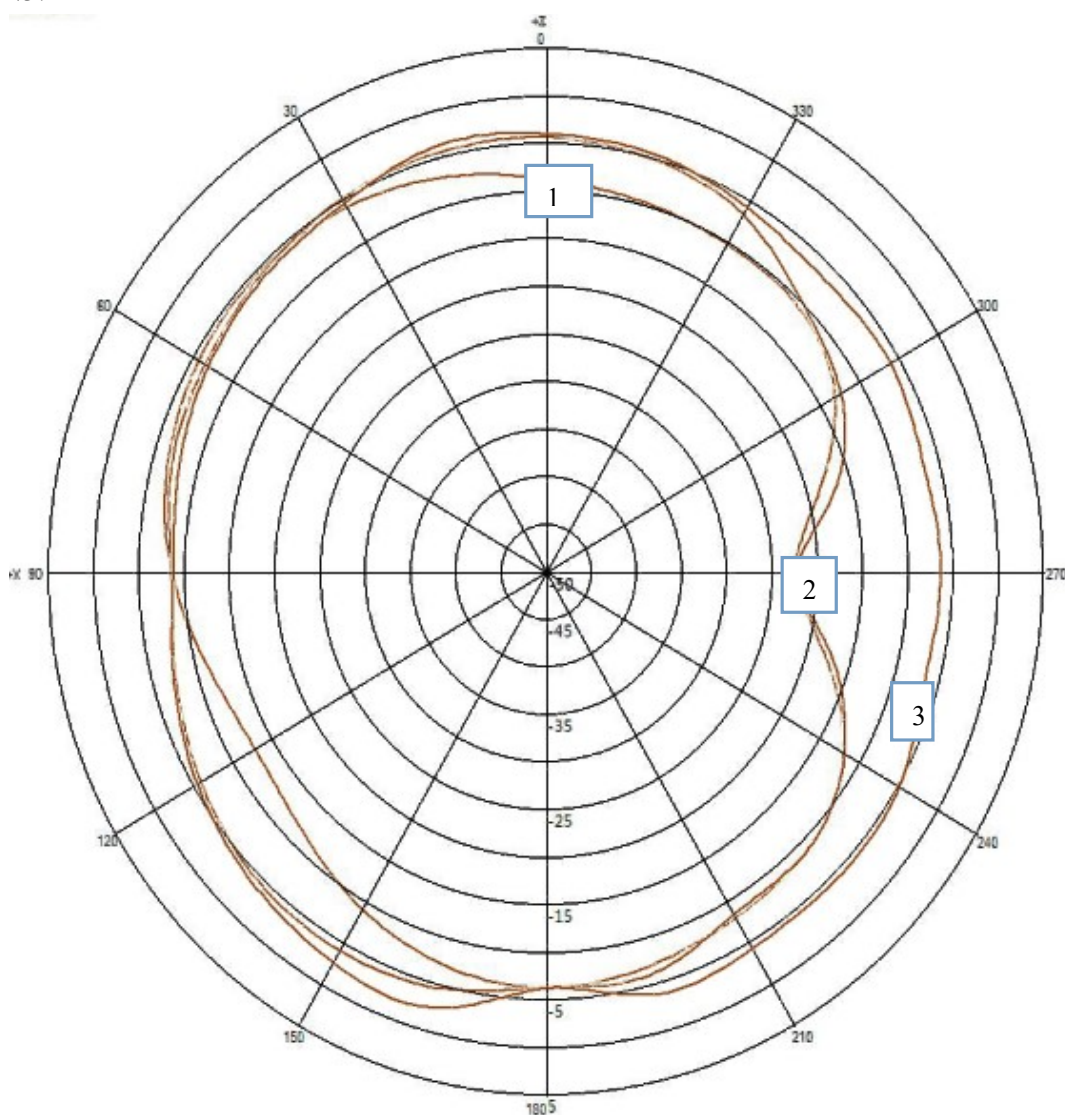
6 Antenna test efficiency

passive test for 2.4g				
Freq (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency (%)	
2400	-2.125670268	-6.512982178	22.32039018	
2410	-1.839793728	-6.350555158	23.17098436	
2420	-1.64029678	-6.246810655	23.7311582	
2430	-1.328848956	-5.925152964	25.5555189	
2440	-1.132319256	-5.799553085	26.30538676	
2450	-1.087960046	-5.849299265	26.00579133	
2460	-1.316358881	-6.006721723	25.08001707	
2470	-1.579335991	-6.245067499	23.74068524	
2480	-1.962892418	-6.454212193	22.62448909	

2490	-2.50538583	-6.753449407	21.11811056
2500	-3.031894388	-7.252236224	18.8267943

7 2D fig(2450MHz)

- (1) XY-Plane
- (2) ZY-Plane
- (3) ZX-Plane



8 3D fig

