

Antenna Specification

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Contents

Contents..... - 1 -

1 Antenna size (Unit: mm) - 1 -

2 Antenna specification parameters..... - 2 -

3 Test conditions..... - 2 -

4 Testing environment - 3 -

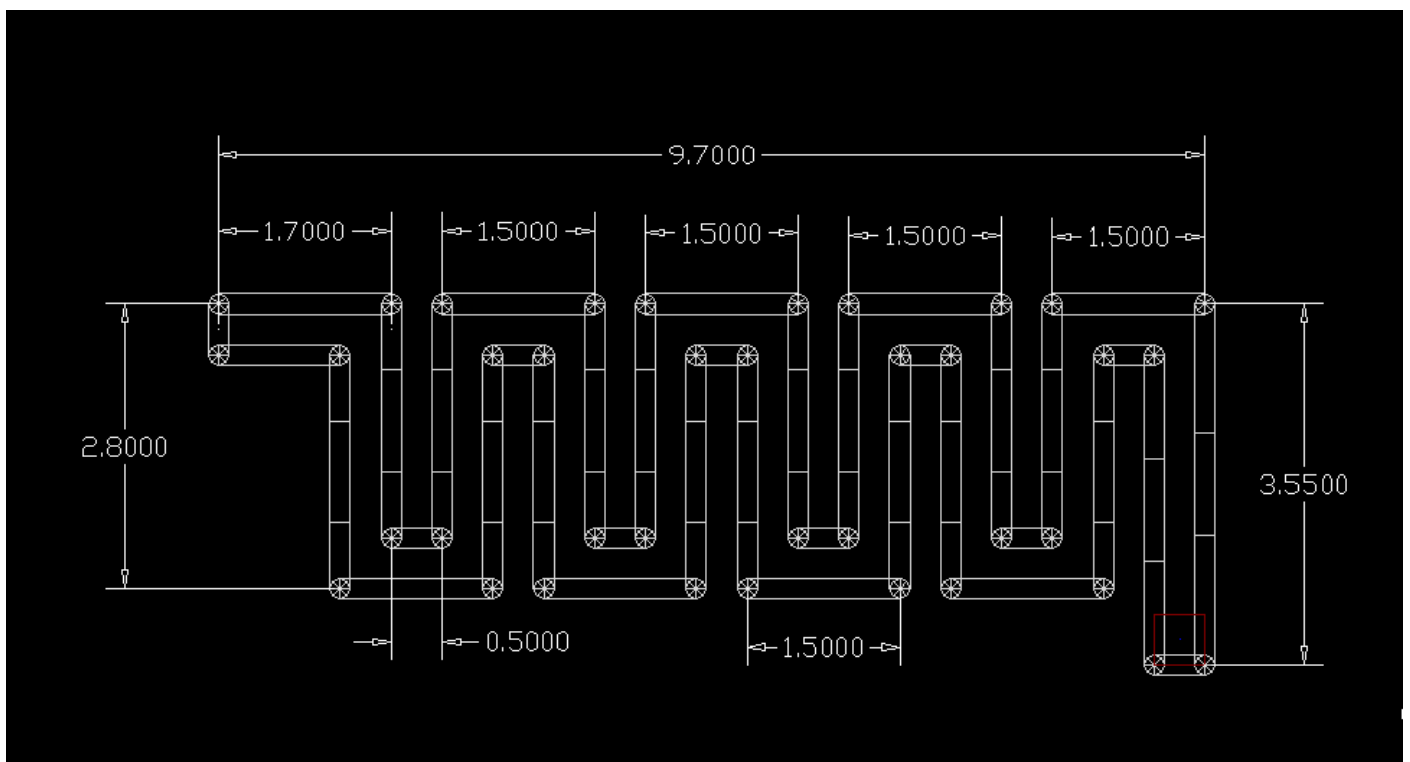
5 Deoning frequency of antenna network - 4 -

6 Antenna test efficiency - 5 -

7 2D fig..... - 6 -

8 3D fig..... - 7 -

1 Antenna size(Unit: mm)



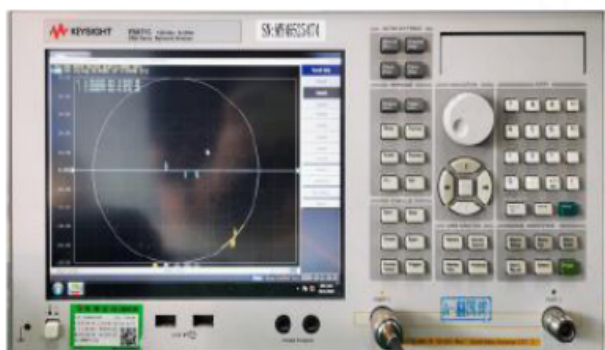
2 Antenna specification parameters

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	-1.0dBi
6	Impedance	50ohm
7	Modem type	GFSK

3 Test conditions

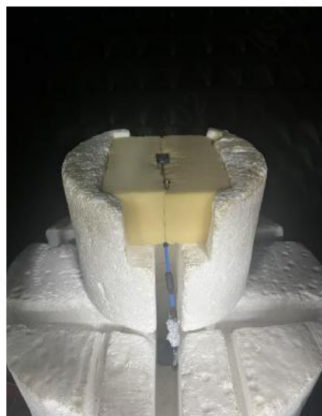
Engineer:	Jesse Guan
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Approval:	Joy Zhu
Date:	2023/9/5

Test Item	Test Equipment	Manufacturer	Calibration Time
S参数	E5062A	Agilent	2023. 3. 27
无源效率	E5071C/RayZone 1800	Keysight/GTS	2023. 3. 10

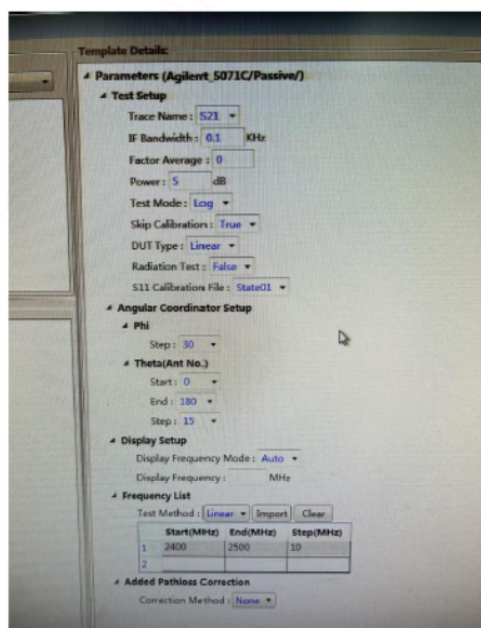


4 Testing environment

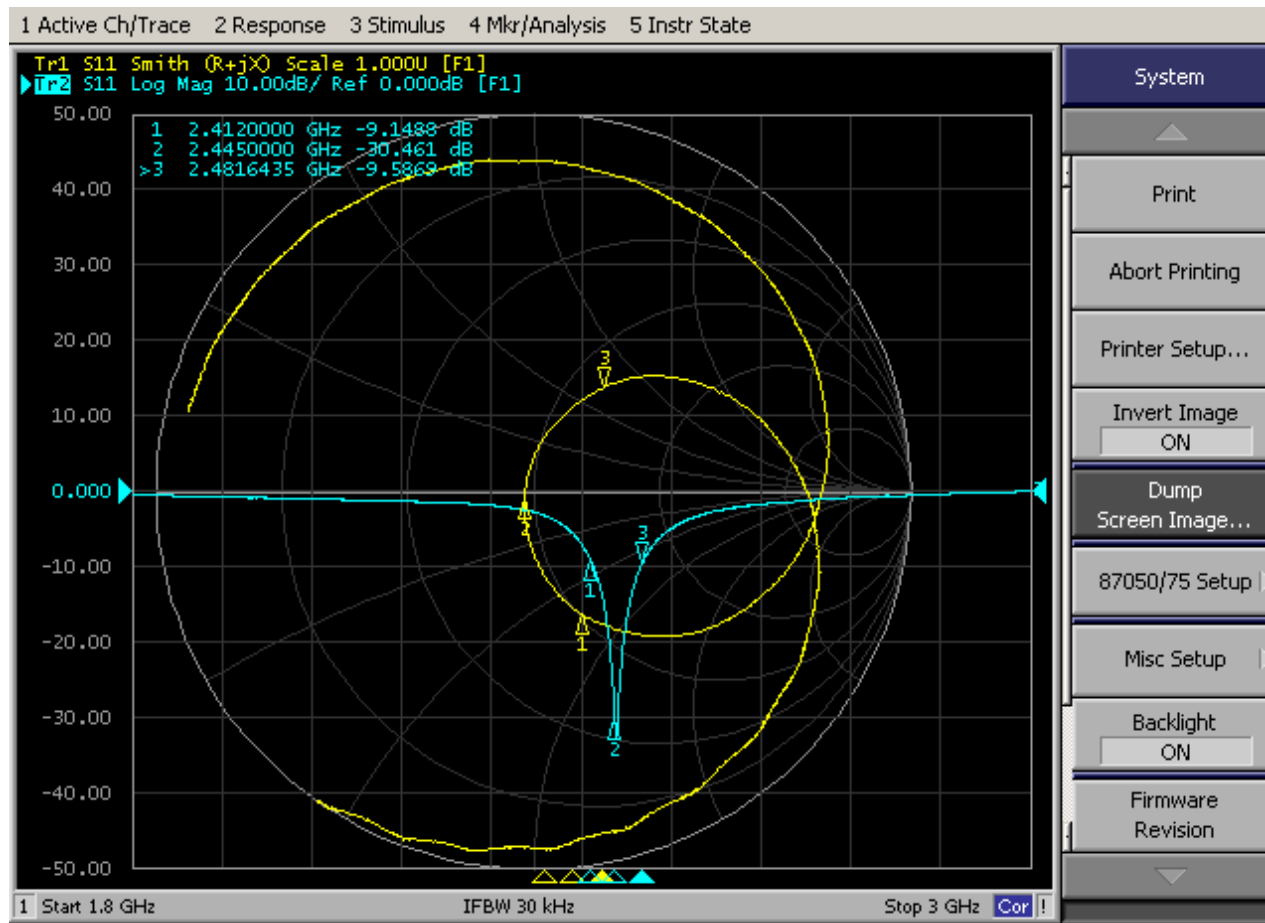
1. Test environment diagram



2. Test setup diagram



5 Deoning frequency of anttenna network



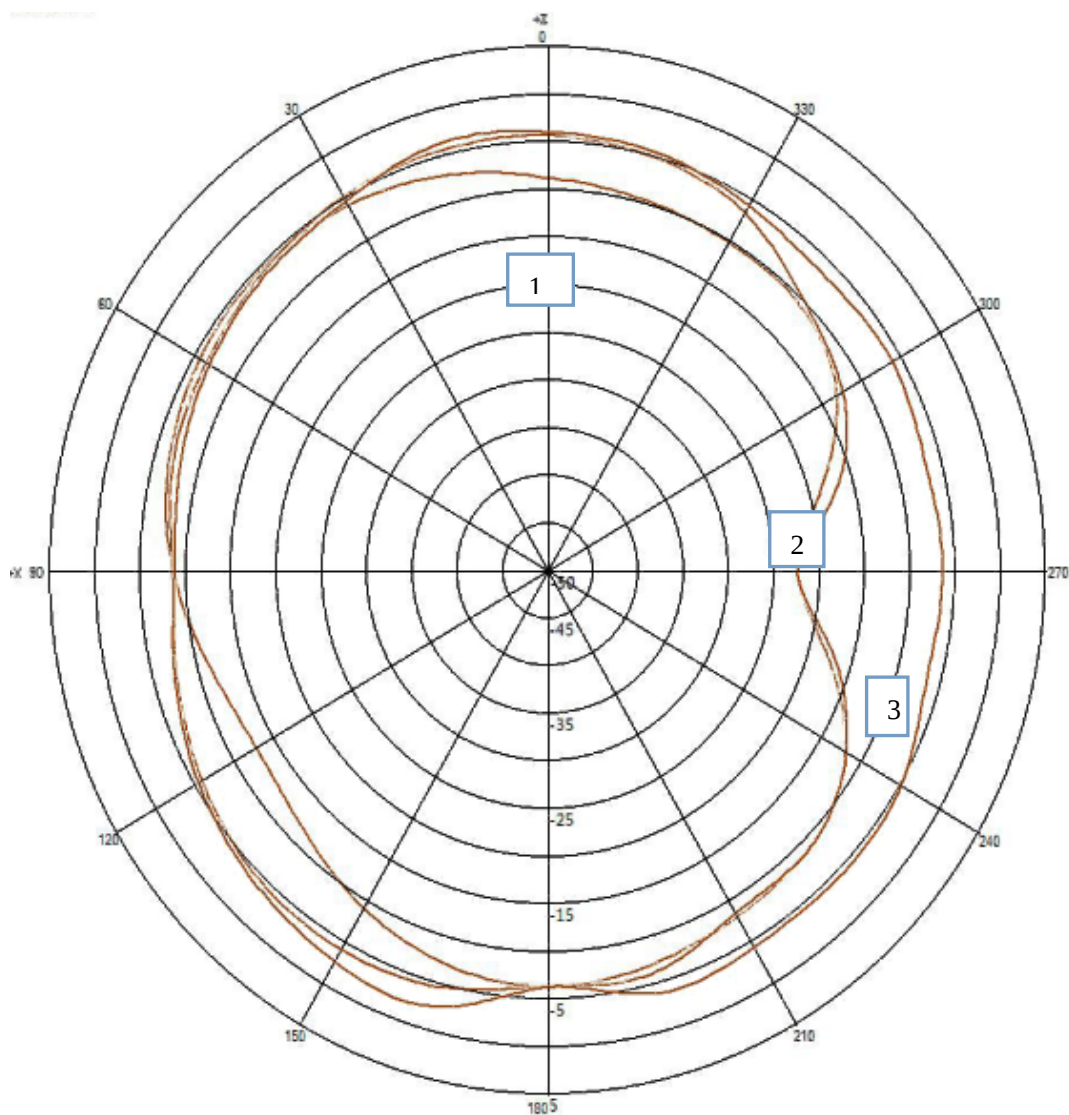
The return loss of the antenna at 2.445ghz is - 30dB and the impedance is about 50. Bandwidth 80m
Experimental environment: Elink laboratory

6 Antenna test efficiency

The return loss of the antenna at 2.445ghz is - 30dB and the impedance is about 50. Bandwidth 80mpassive test for 2.4g			
Freq (MHz)	Gain(dB)	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

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



8 3D fig

