

Antenna Specification

Version: V2.3

Update Date: September 06,2023

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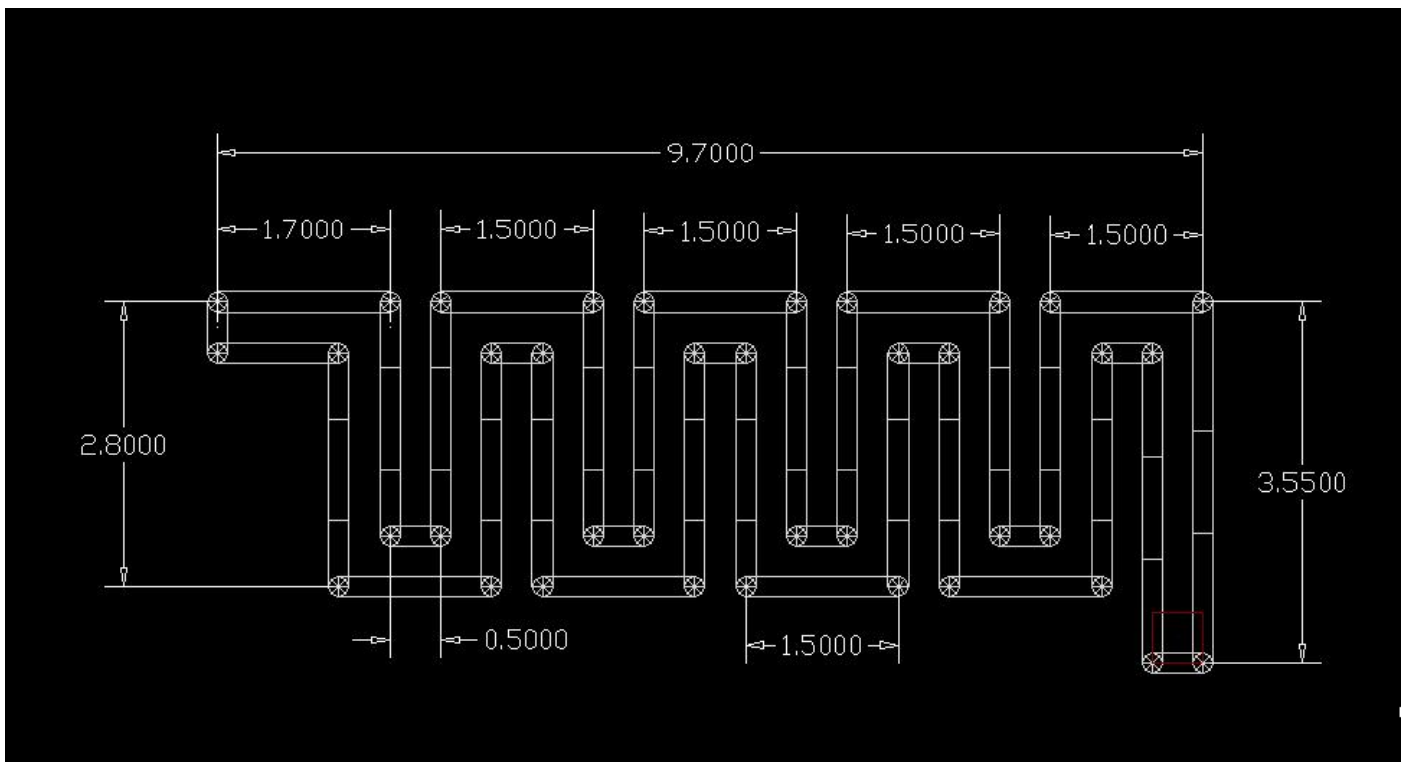
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1 Antenna size (Unit: mm)



2 Antenna specification parameters

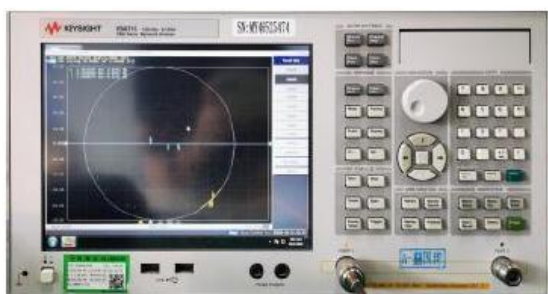
number	Parameter item	Description
1	Center operating frequency	2441MHz
2	Work bandwidth	2400---2480Mhz
3	Rate of data signalling	1Mbps
4	Antenna type	On-board PCB antenna (default)
5	Antenna gain	-1.09dBi
6	Impedance	50ohm
7	Modem type	GFSK

3 Test condition

Test engineer	Jesse Guan
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TEST CONDITION

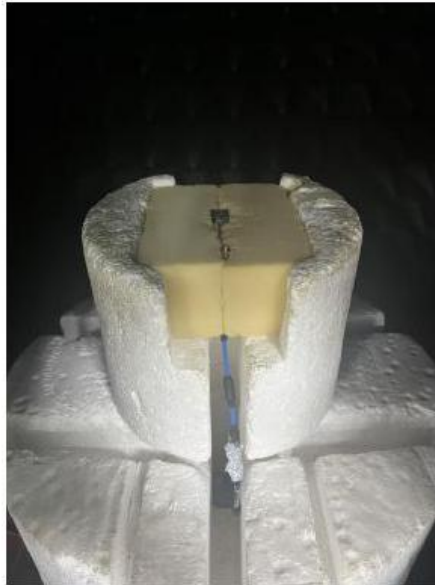
ITEM	INSTRUMENT	MANUFACTURER	CALIBRATION TIME
s parameter	E5062A	Agilent	2023.3.27
Passive efficiency	E5071C/RayZone 1800	Keysight/GTS	2023.3.10



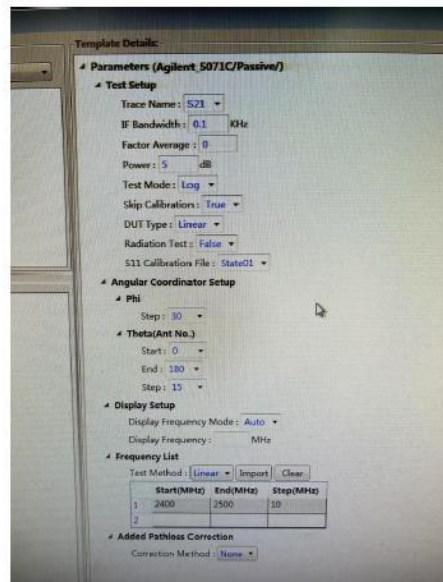
4 Testing environment

Test setup and environment

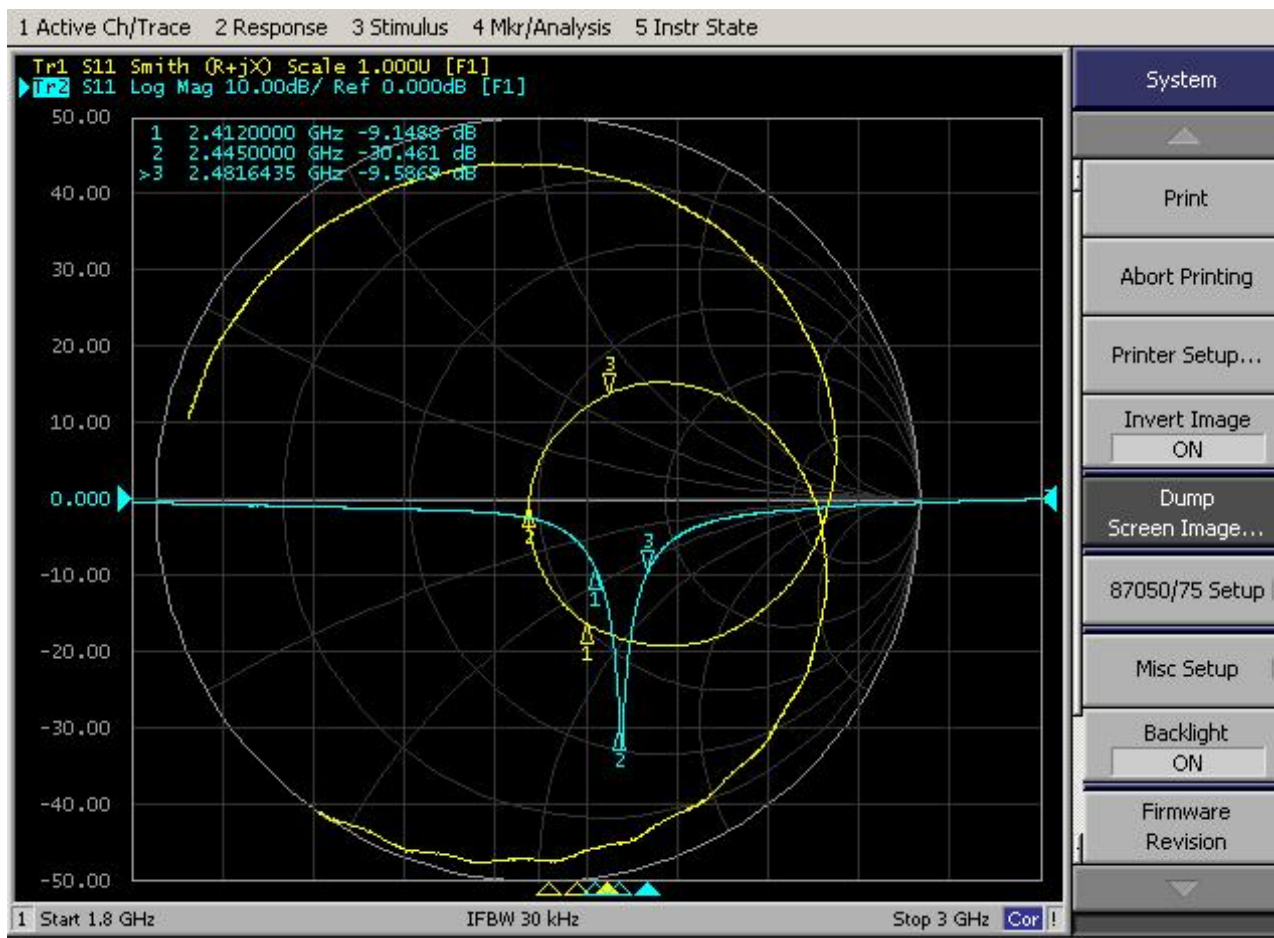
1. Test environment diagram



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

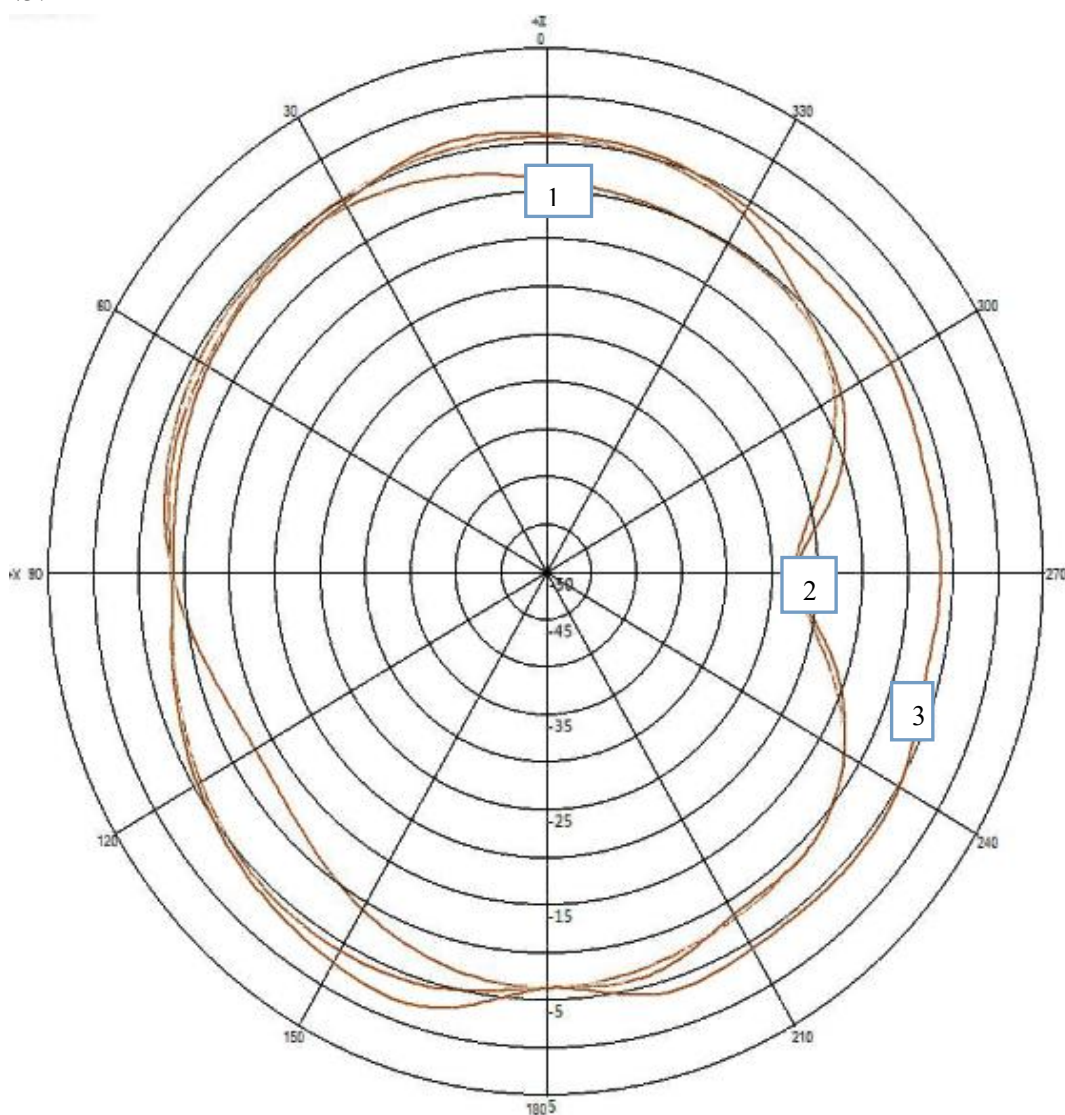
6 Antenna test efficiency

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

