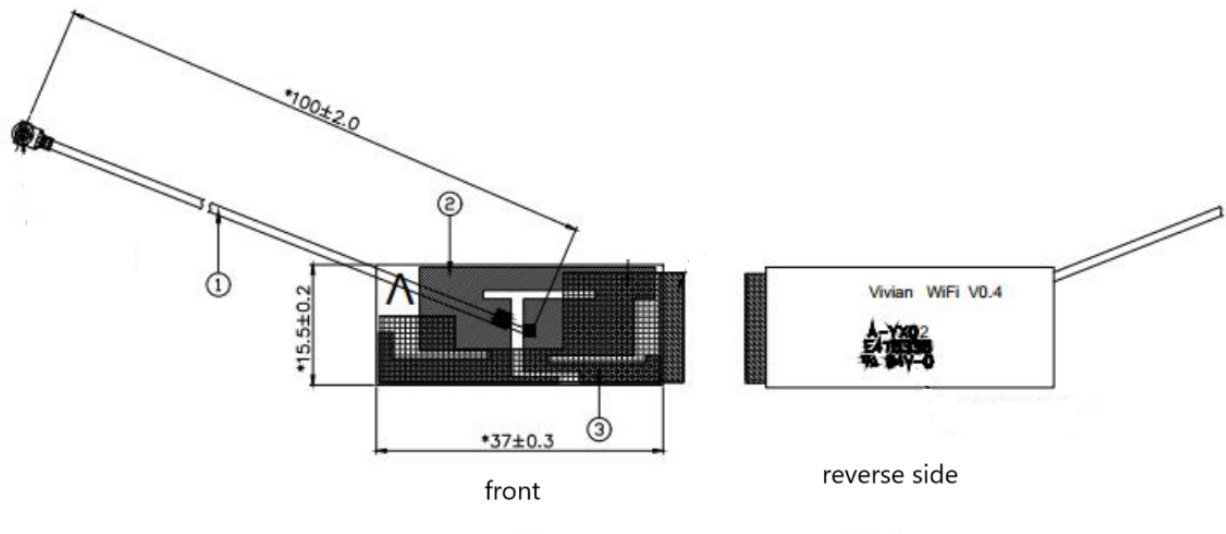


Antenna report

1: 天线样品 antenna photo



Antenna Type	Band(S)	Dimension (mm)
PCB antenna	2.4GHz - 2.5GHz	37*15.5

2: 测试步骤程序 Test method and standard

Name	Parameter	Method	Standard no.
Antenna performance	Radiation efficiency	IEEE Standard Test Procedures for Antennas	ANSVIEEE Std 149-2021
测试地点 test location	Dongguan South Star Technology Co., Ltd No. 3, Nanfang 1st Road, Chigang, Humen Town, Dongguan City		
测试人员 test person	Wangdongyang		
测试日期test date	2024-08-21		

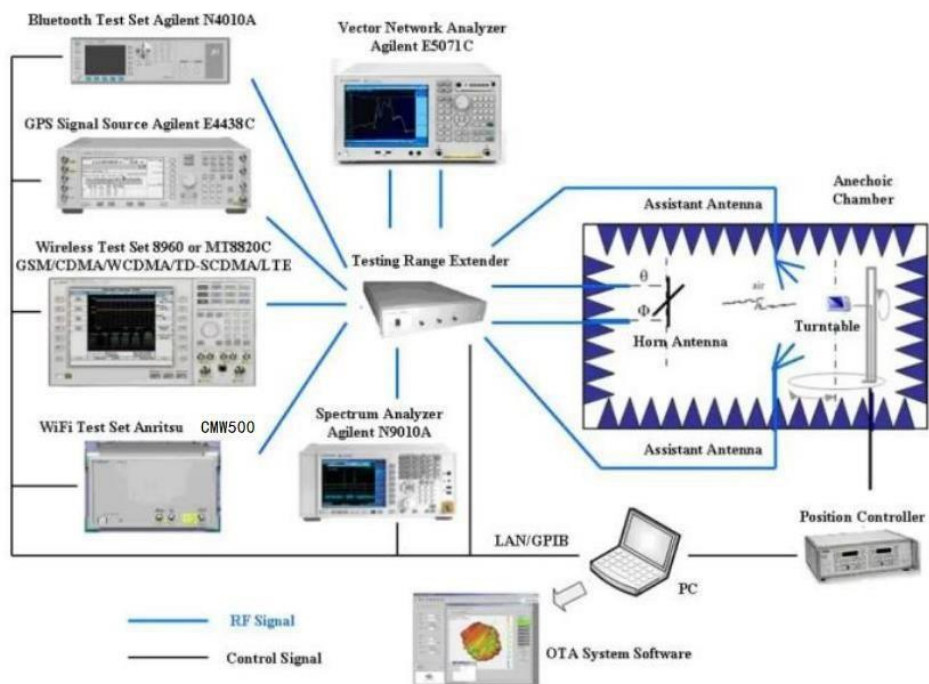
3：测试设置照片test set up



4：设备清单 test equipment list

Number	Device name	model	manufacturer	ID	Calibration date	Calibration expiration date
1	Full anechoic chamber	AMS-8923	ETS -Lindgren	5421	2024/3/26	2025/3/25
2	Rotary table puller	EMCO2090	ETS -Lindgren	125967	/	/
3	Switching unit	OSP120	Rohde & Schwarz	100939	/	/
4	Network analyzer	Agilent E5071C	Agilent	101539	2024/3/26	2025/3/25
5	Integrated measuring instrument	R&S CMW500	Rohde & Schwarz	130259	2024/3/26	2025/3/25

5:测试配置图 Test configuration diagram



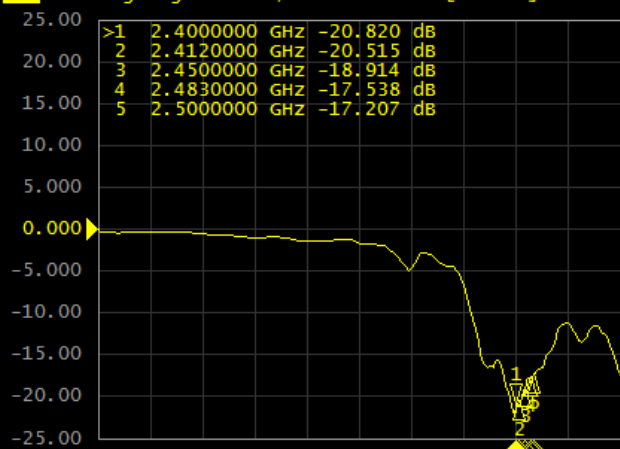
6: 天线增益测试图及数据antenna gain test graph and datas

Freq(Mhz)	Effi(%)	Gain(dBi)
2400	60.82	1.87
2410	63.17	1.82
2420	64.92	1.89
2430	66.13	2.06
2440	65.43	2.11
2450	64.53	2.03
2460	63.89	1.93
2470	63.98	2.02
2480	64.92	1.90
2490	64.68	1.94
2500	63.54	1.93

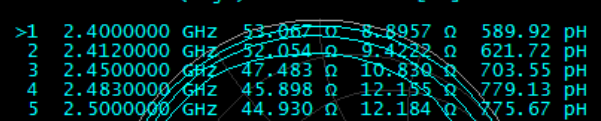
E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

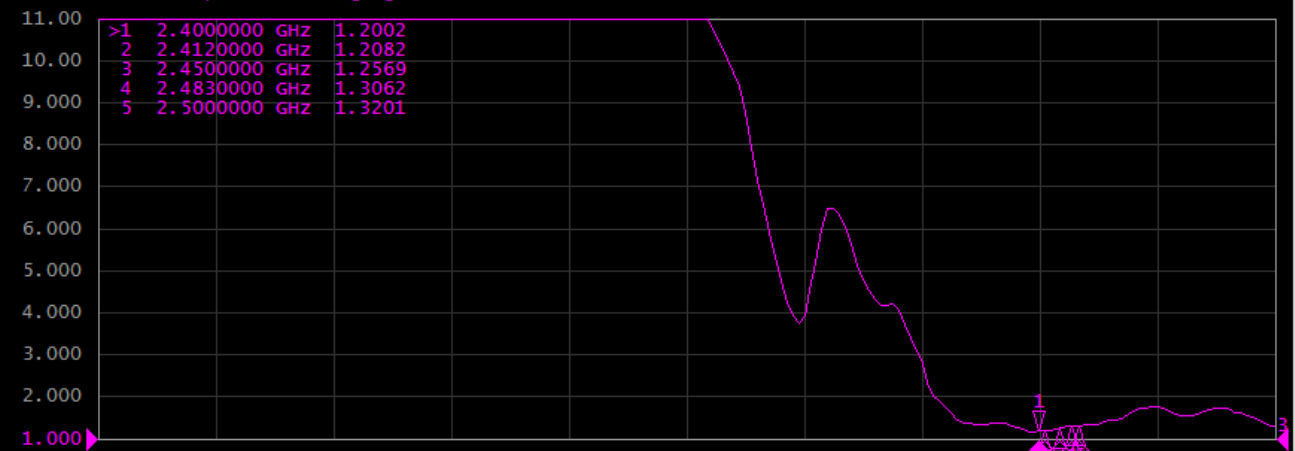
Tr1 S11 Log Mag 5.000dB/ Ref 0.000dB [F2 Del]



Tr2 S11 Smith (R+jX) Scale 1.000u [F2]



Tr3 S11 SWR 1.000/ Ref 1.000 [F2]



1 Start 1 MHz

IFBW 70 kHz

Stop 3 GHz

7 : 测试步骤 Test Procedure

Test Step Flow

1. Maintain the test ambient temperature of 23±2 C, the instrument is powered on and preheated for more than 30 minutes
2. Turn on the darkroom power supply, connect the test cable, and set up the sample according to the standard
3. Outline sets the test content objectives and conducts calibration tests
4. Run the EMQuest OTA software, the test is complete, export the corresponding test diagram and test data, and save to the corresponding directory

Test Principle

The test principle can be seen in accordance with the standard ANSI/IEEE std 149-2021

Test Conditions

1. The analyte, the network analyzer for testing, the test equipment and the test cable connector should have good reliability, stability, dynamic range and measurement accuracy to ensure the correctness of the measurement accuracy
2. The measuring instrument should have a certificate of conformity and be within the effective calibration period
3. The analyte should be complete and undamaged, and the test environment should be kept clean

8 : 测试软件 Test Software

Test software being used: EMT-OTA

Software Version: V2.0