



TEST REPORT

APPLICANT : Shanghai Zenchant Electornics Co.,LTD
PRODUCT NAME : Dual Bluetooth Module
MODEL NAME : ZEN-BDM10-V2.0
TRADE NAME : Zenchant
BRAND NAME : Zenchant
STANDARD(S) : ANSI/IEEE Std 149-2008
RECEIPT DATE : 2021-01-29
TEST DATE : 2021-02-01
ISSUE DATE : 2021-02-03

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Chi Shide(Supervisor)

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Change History		
Version	Date	Reason for change
1.0	2021-02-03	First edition



1. Technical Information

Note: Provide by manufacturer.

1.1. Applicant and Manufacturer Information

Applicant:	Shanghai Zenchant Electornics Co.,LTD
Applicant Address:	Room 1202, building a, Noble international, 908 Xiuwen Road, Minhang District, ShangHai
Manufacturer:	N/A
Manufacturer Address:	N/A

1.2. Equipment Under Test (EUT) Description

Wireless Type	Bluetooth
Hardware Version	N/A
Software Version	N/A

2. Test Results

2.1. Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title
1	ANSI/IEEE Std 149-2008	IEEE Standard Test Procedures for Antennas

2.2. Test Conditions

Test Environment Conditions:

Relative Humidity:	25 ... 75 %
Temperature:	+10 °C to +30 °C

2.3. Test Results lists

2.3.1. Gain and Efficiency

Frequency	Gain(dBi)	Efficiency
2400MHz	2.31	31.10%
2410MHz	2.11	30.42%
2420MHz	2.10	30.37%
2430MHz	1.47	25.37%
2440MHz	1.48	25.36%
2450MHz	1.22	23.74%
2460MHz	1.61	26.76%
2470MHz	1.86	28.44%
2480MHz	1.52	26.33%
2490MHz	0.15	18.95%
2500MHz	-0.61	15.95%

2.3.2. VSWR and Impedance

Frequency	VSWR	Impedance (Ω)
2400MHz	1.87	65.31
2440MHz	1.17	56.60
2480MHz	1.33	38.15

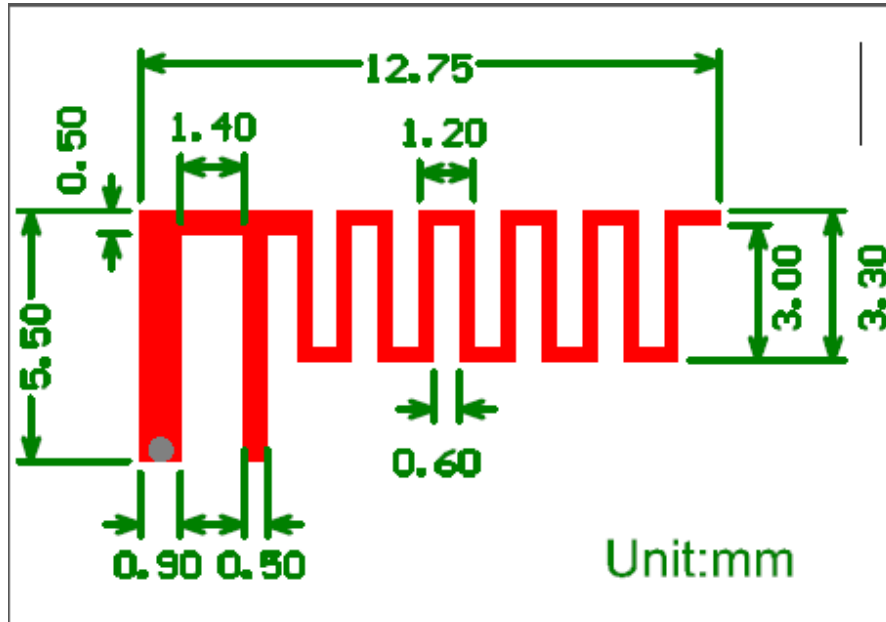
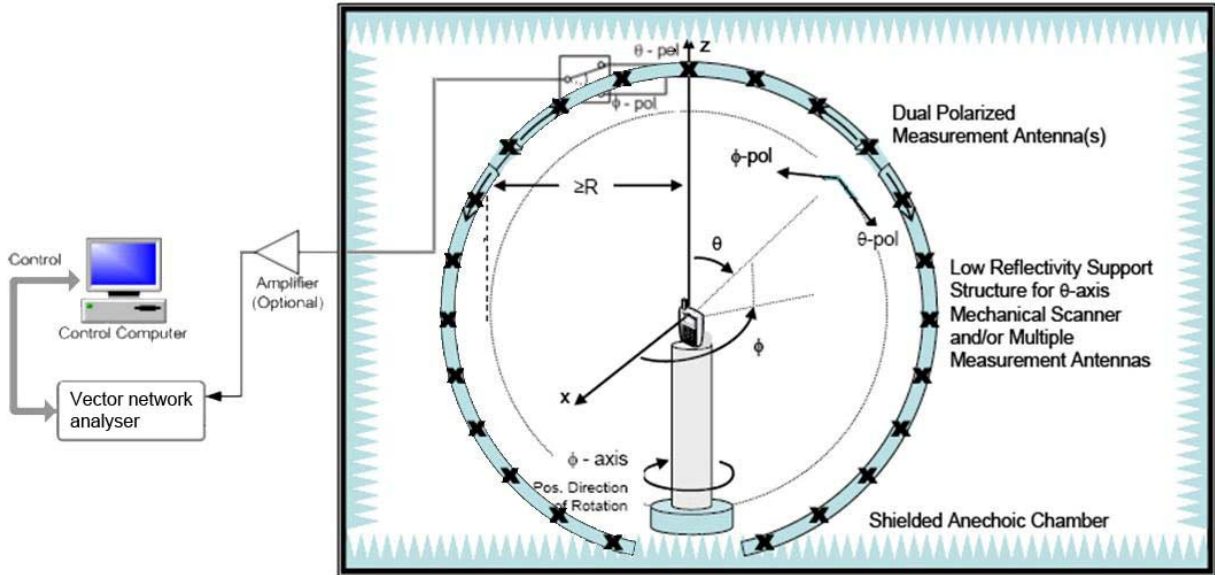


2.3.3.Return Loss

Frequency	Return Loss (dB)
2400MHz	-10.35
2440MHz	-21.60
2480MHz	-16.76

Annex A Photographs

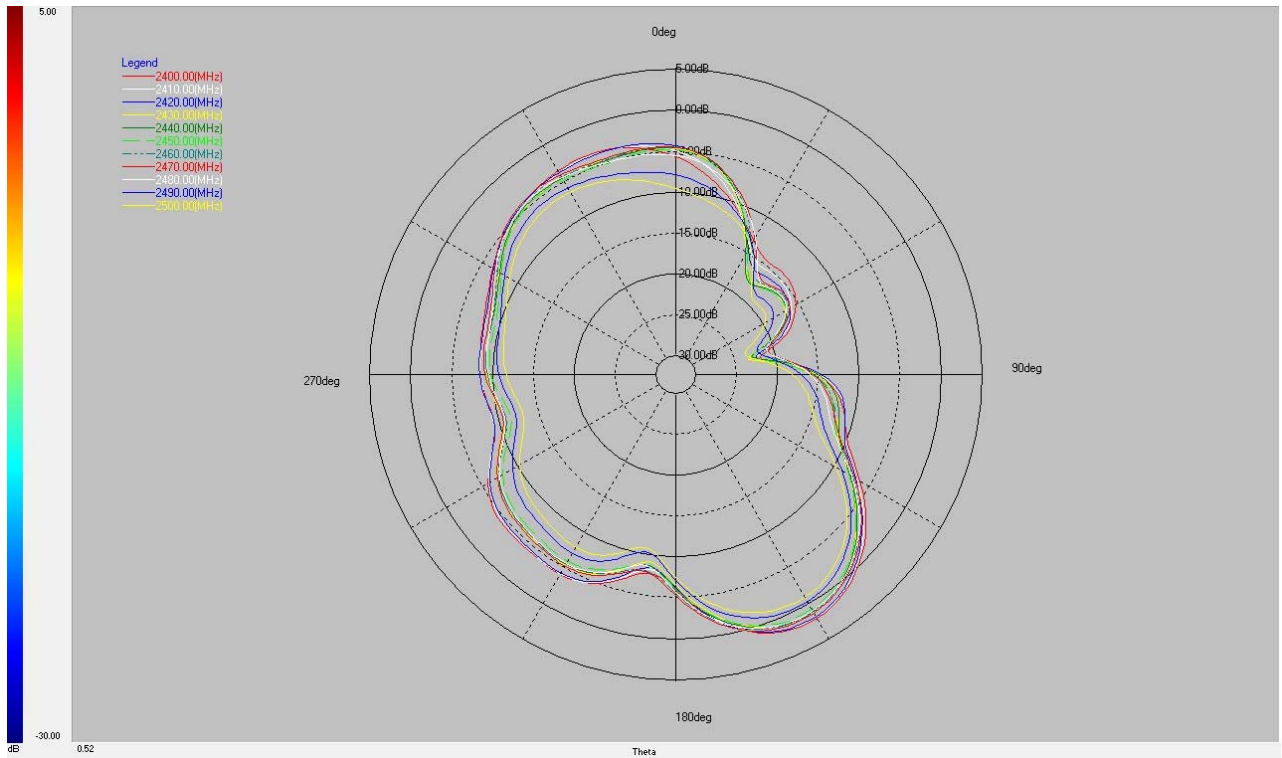
1. Test Setup



Annex B Figures

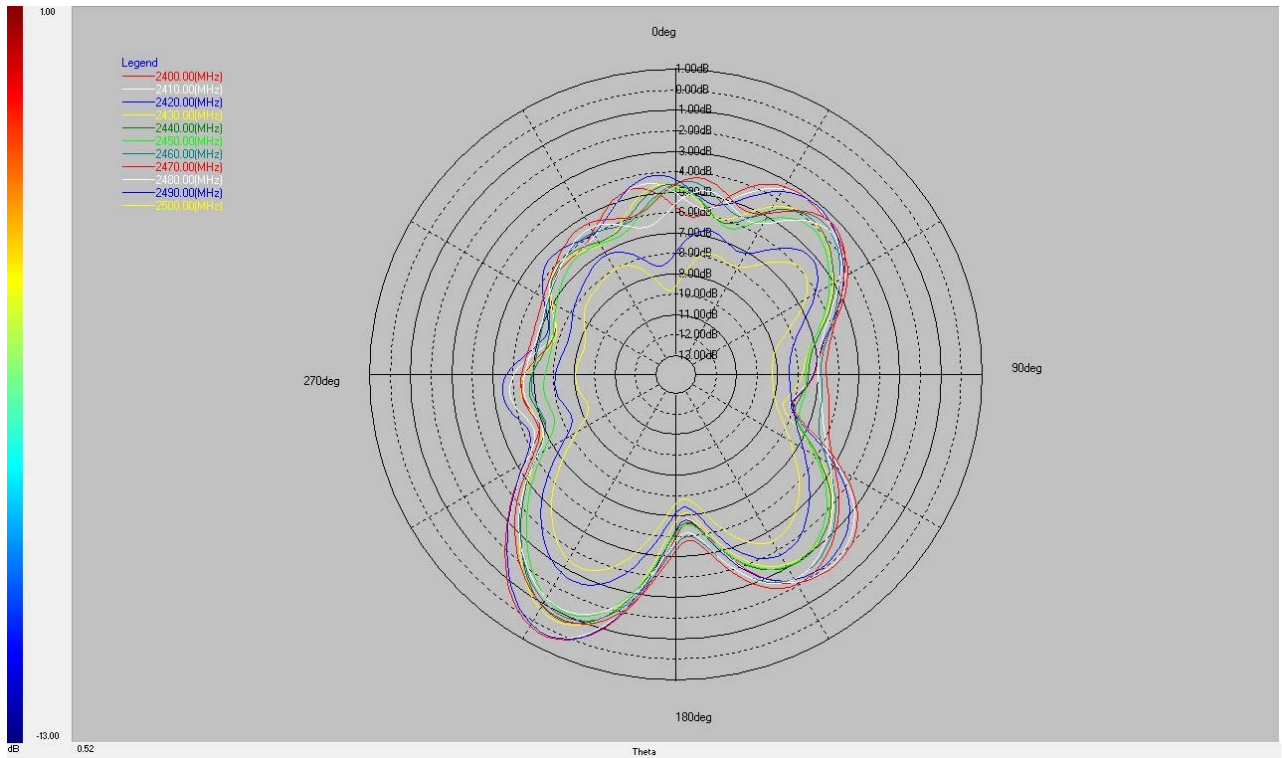
1. 2D Radiation Pattern

Phi=0°

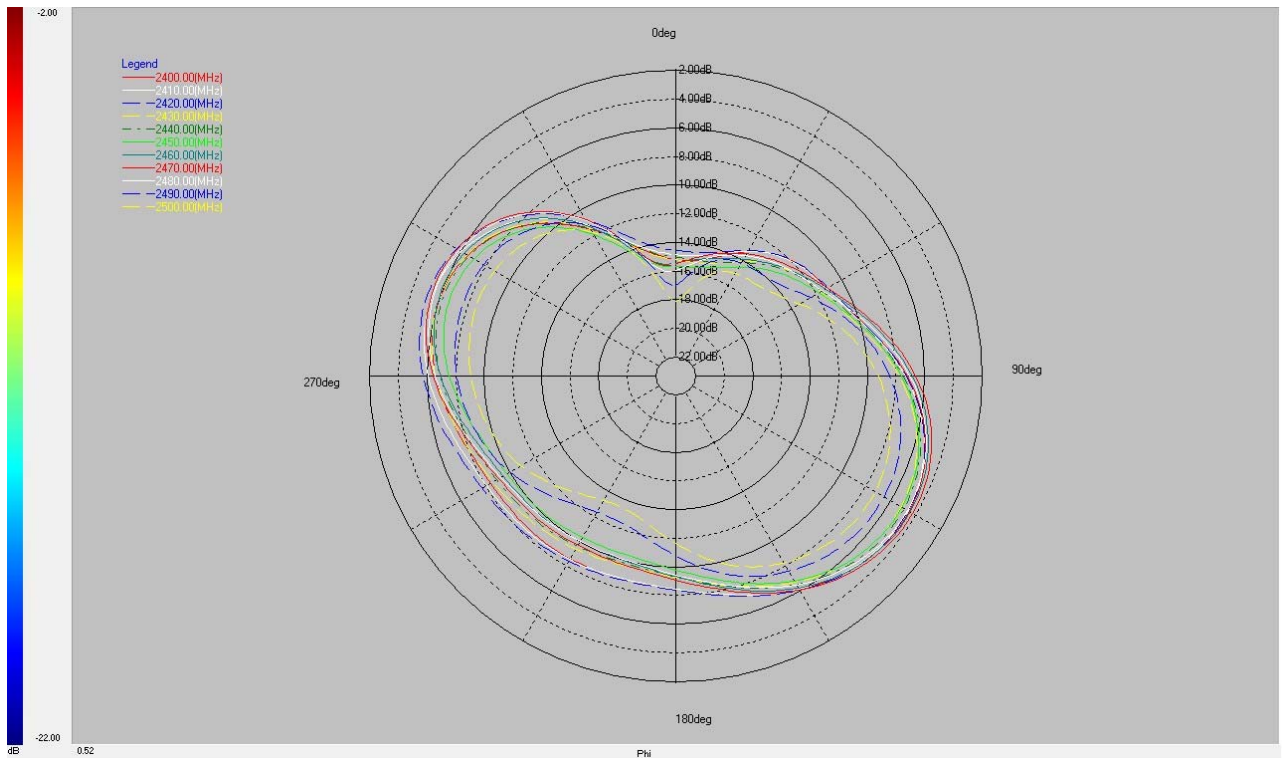




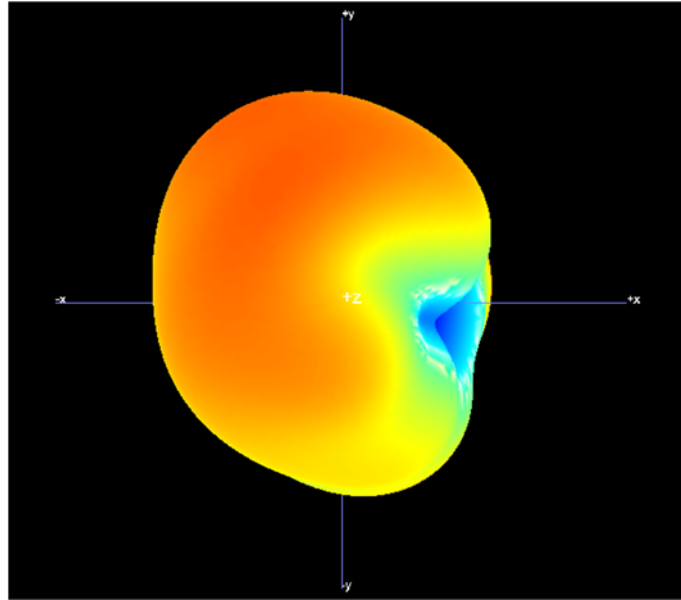
Phi=90°



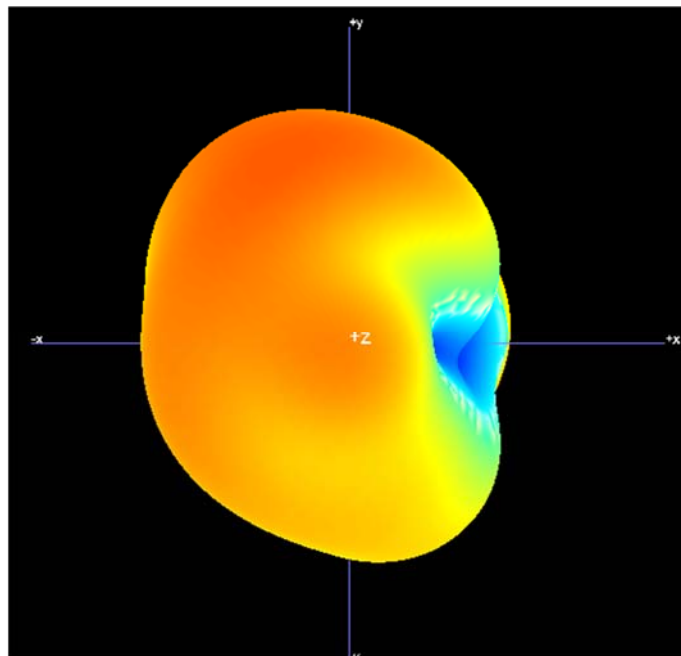
Theta=90°



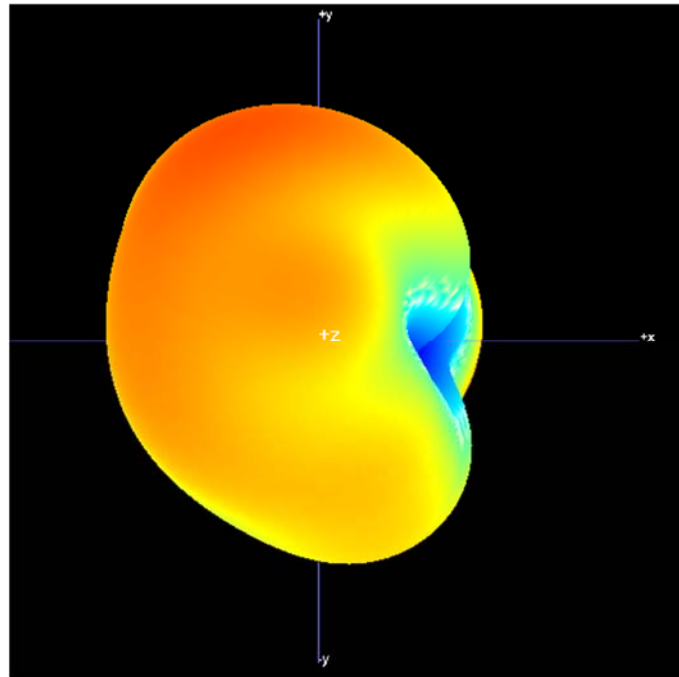
2. 3D Radiation Pattern



2400MHz

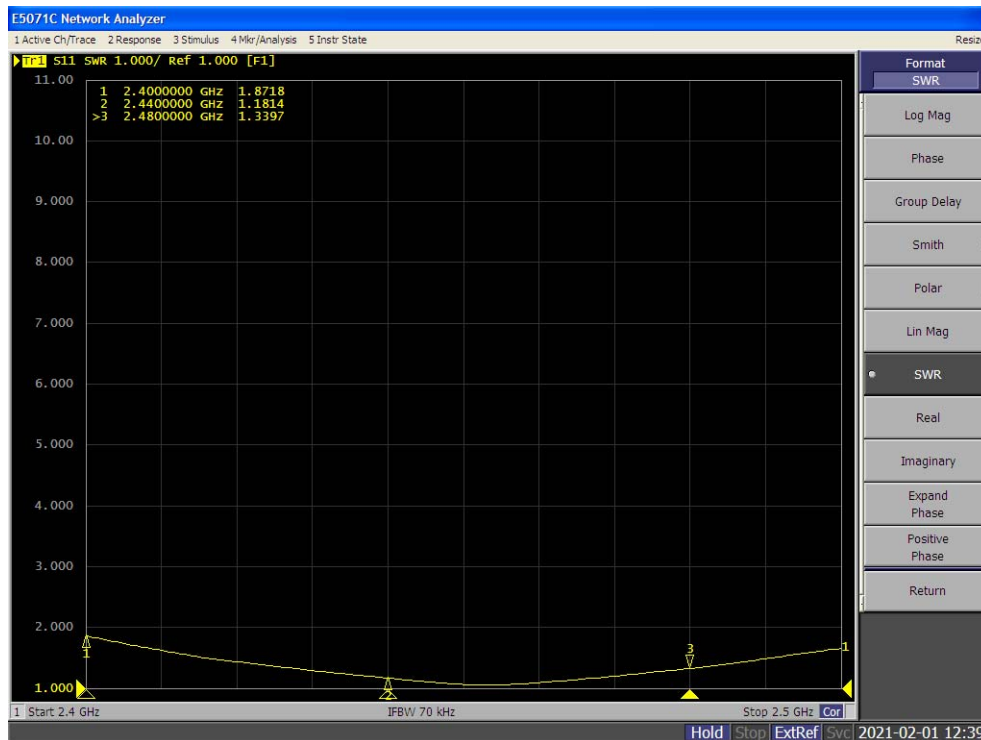


2440MHz

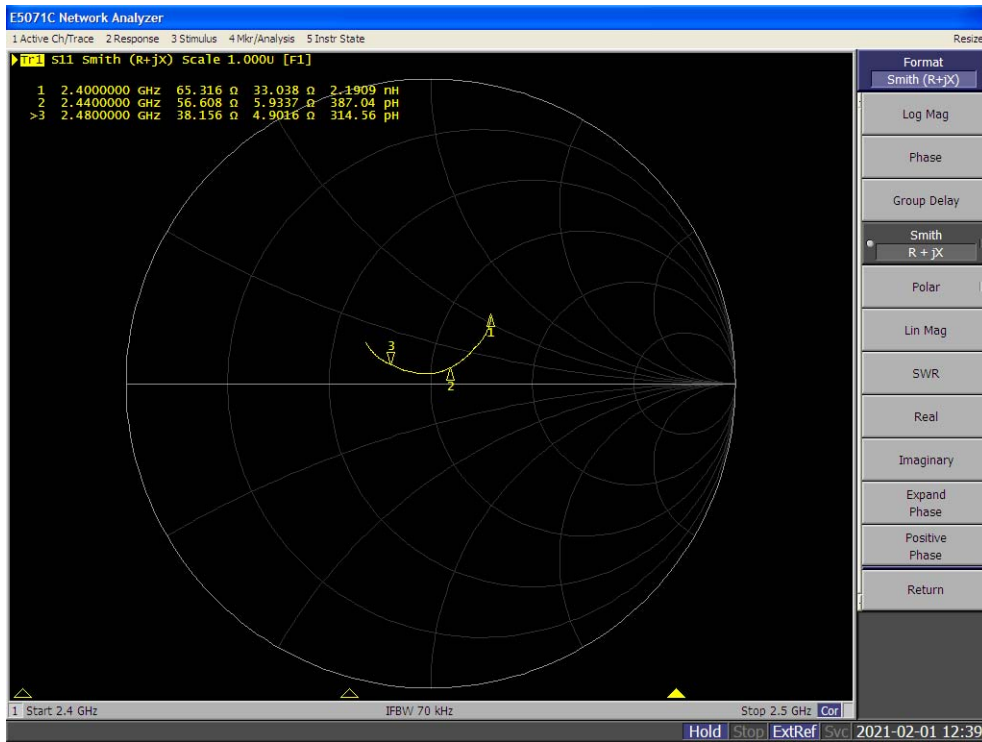


2480MHz

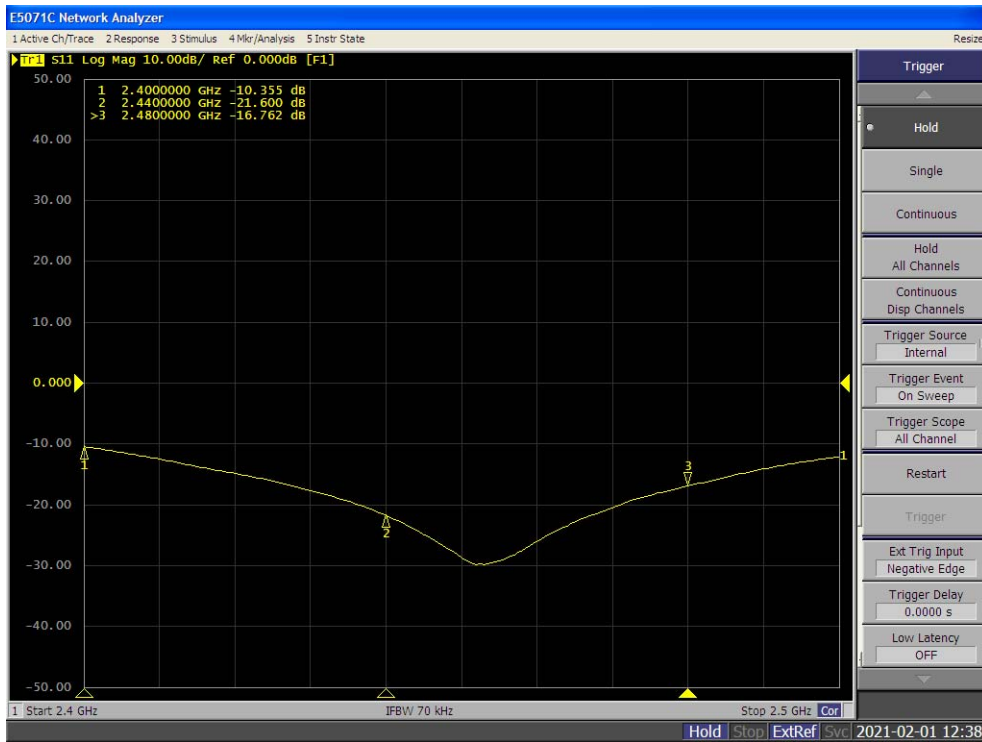
3. VSWR



4. Impedance

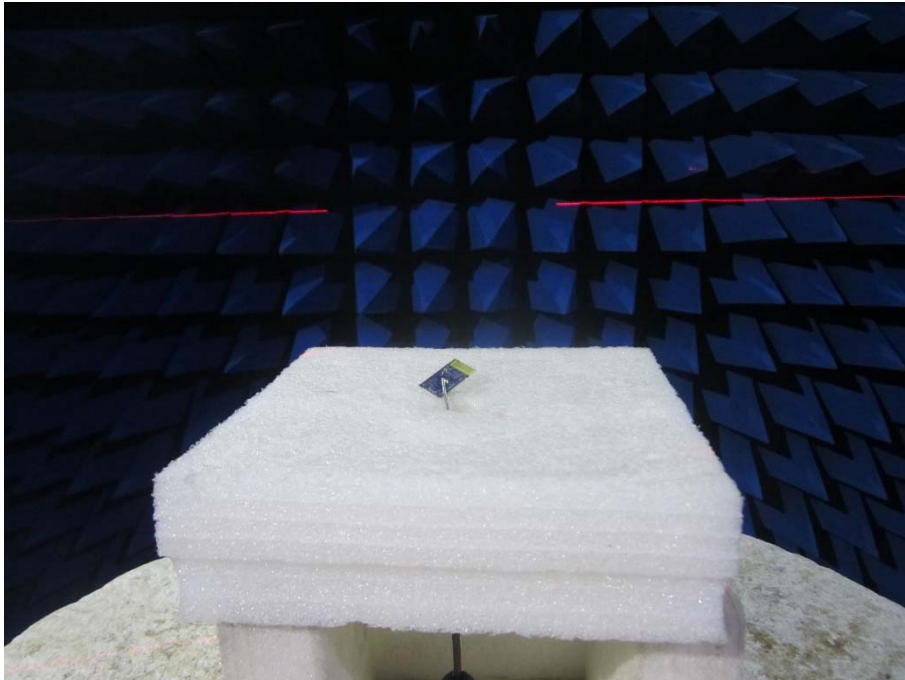


5. Return Loss

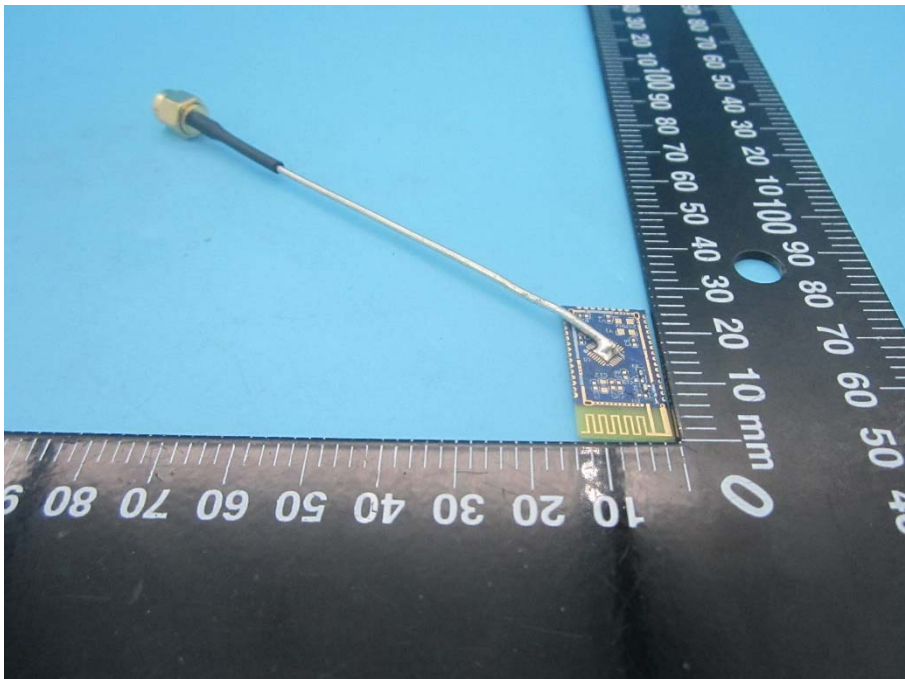


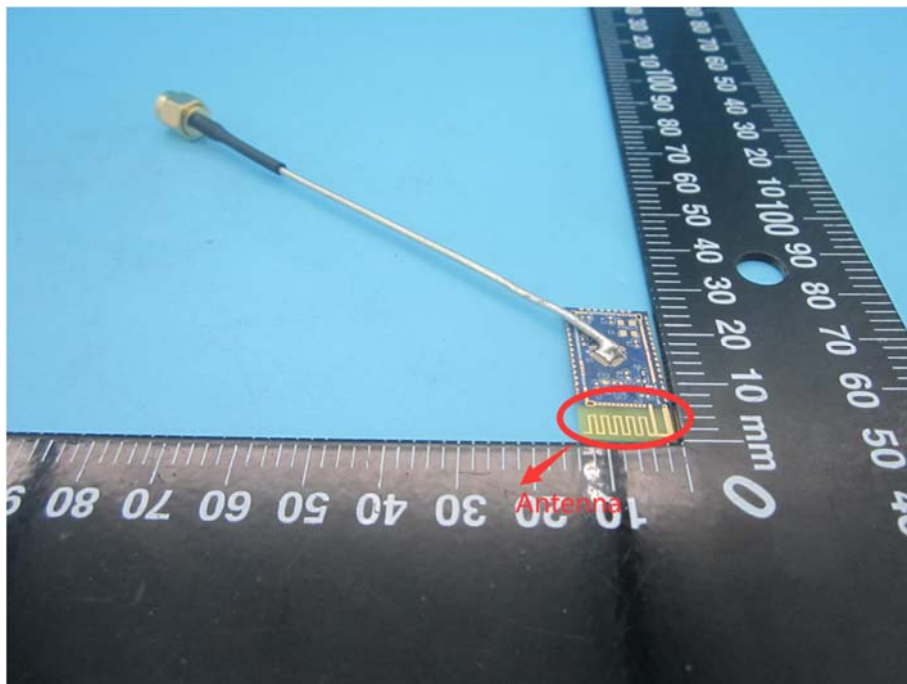
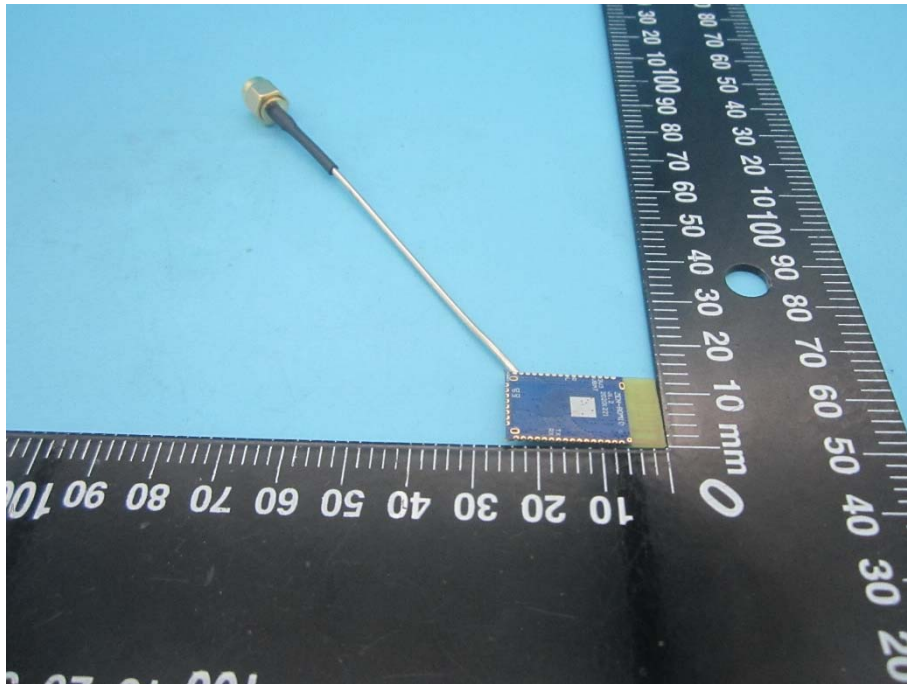
Annex C Photographs

1. Test environment



2. EUT







Annex D General Information

1.1 Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory
Laboratory Address:	FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

1.2 Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory
Address:	FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

1.3 Test Equipments Utilized

1.3.1 List of Test Equipment

No.	Type	Specification
1	E5071C Vector Network Analyzer	Manufacturer: Agilent
2	4*4*4 Full Anechoic Chamber	Manufacturer: Satimo
3	SG24 Multi-probe Antenna Measurement System	Manufacturer: Satimo

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