



REPORT No. : SZ21030355E01

TEST REPORT

Applicant : CHANG YOW TECHNOLOGIES INTERNATIONAL CO., LTD.

PRODUCT NAME : Bluetooth Antenna

MODEL NAME : BLE003

TRADE NAME : N/A

BRAND NAME : N/A

STANDARD(S) : ANSI/IEEE Std 149-2008

RECEIPT DATE : 2021-04-06

TEST DATE : 2021-04-07

ISSUE DATE : 2021-04-09

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Chi Shide(Supervisor)

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Change History		
Version	Date	Reason for change
1.0	2021-04-09	First edition



1. Technical Information

Note: Provide by manufacturer.

1.1. Manufacturer and Factory Information

Applicant:	CHANG YOW TECHNOLOGIES INTERNATIONAL CO., LTD.
Applicant Address:	No.88, Shuren 6th St., Wufeng Dist., Taichung City 413, Taiwan (R.O.C.)
Manufacturer:	CHANG YOW TECHNOLOGIES INTERNATIONAL CO., LTD.
Manufacturer Address:	No.88, Shuren 6th St., Wufeng Dist., Taichung City 413, Taiwan (R.O.C.)

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

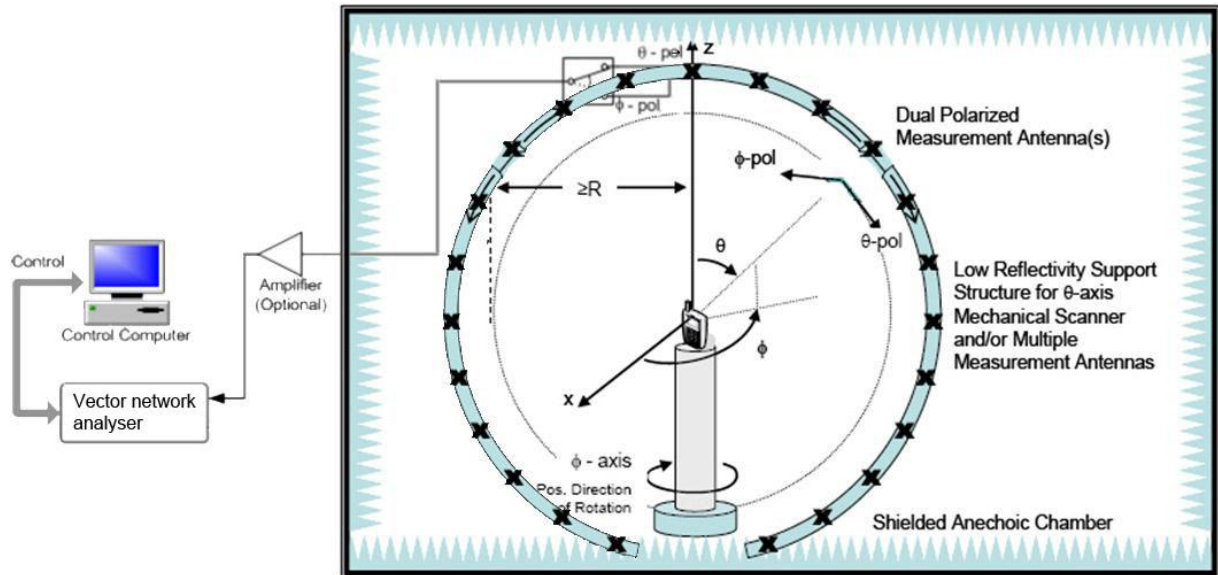
Frequency	Gain(dBi)	Efficiency
2400MHz	-6.13	9.51%
2442MHz	-3.96	16.69%
2484MHz	-3.03	17.18%

2.3.2. Return Loss

Frequency	Return Loss(dB)
2400MHz	-6.78
2442MHz	-4.58
2484MHz	-4.19

Annex A Photographs

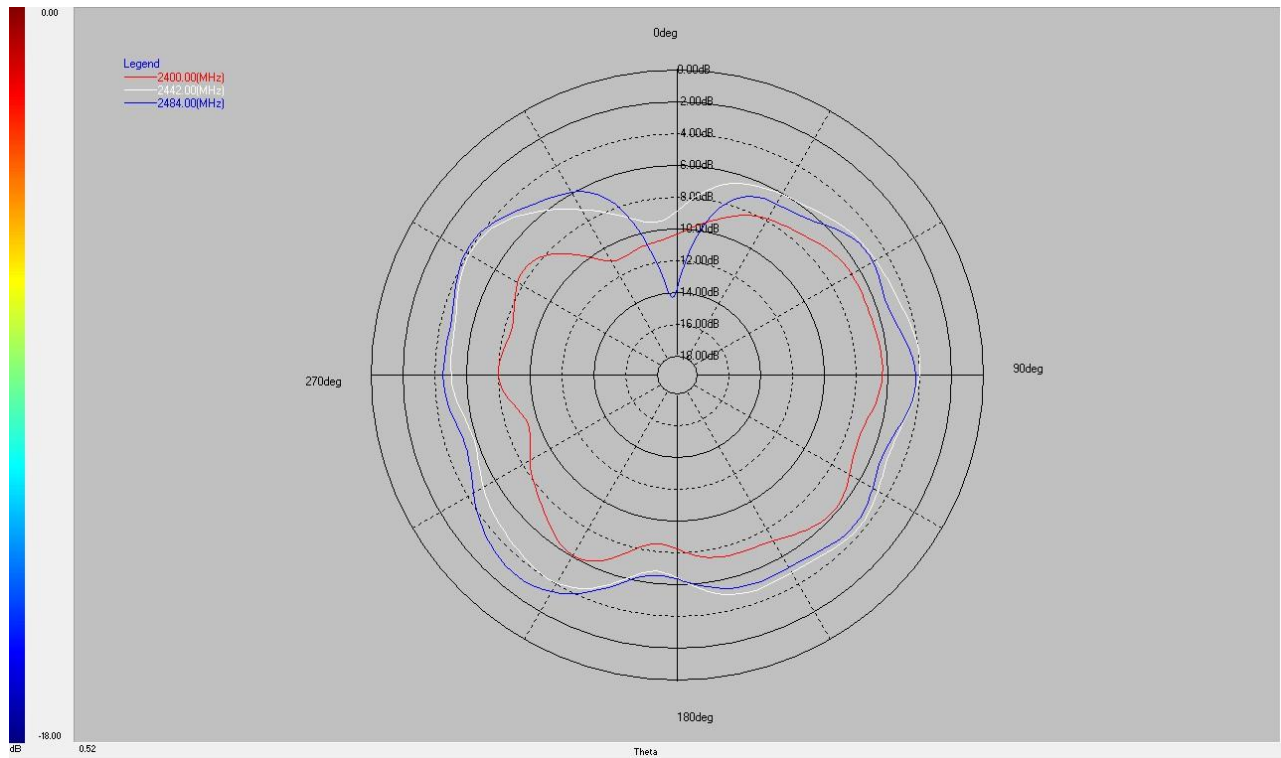
1. Test Setup



Annex B Figures

1. 2D Radiation Pattern

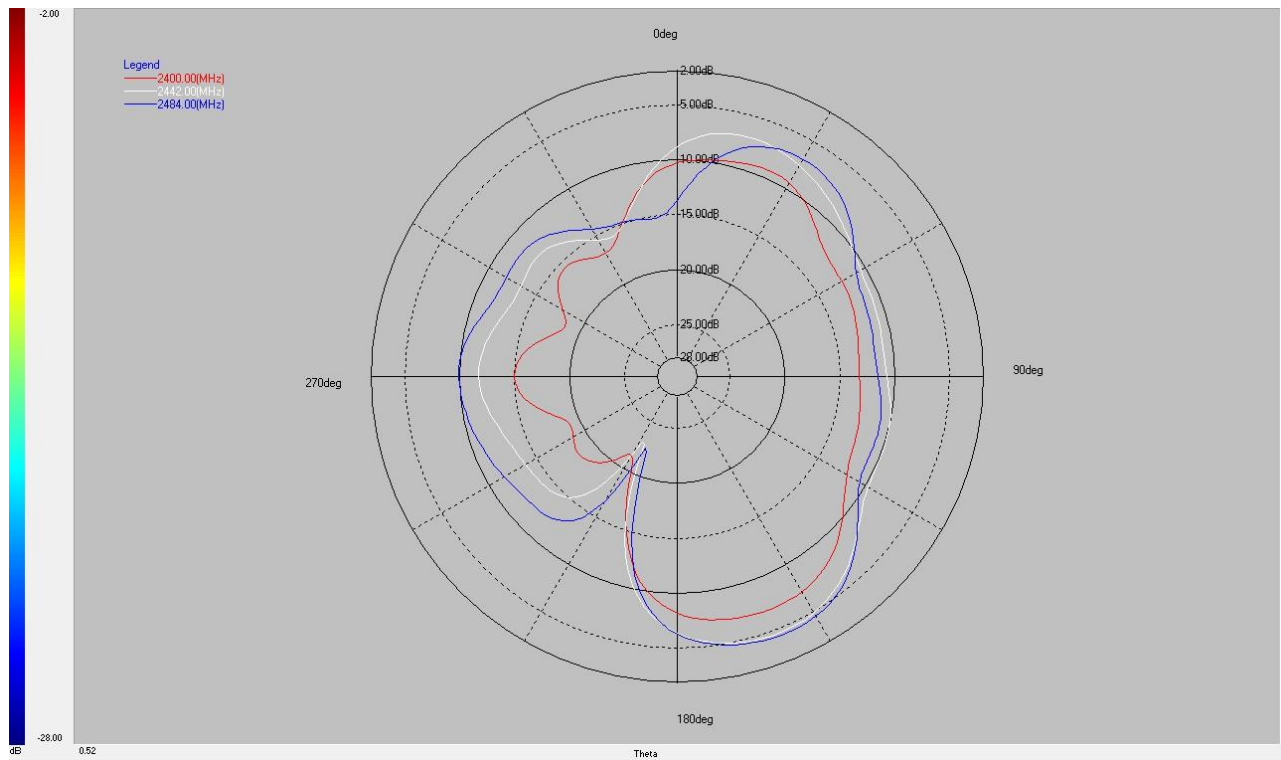
Phi=0°



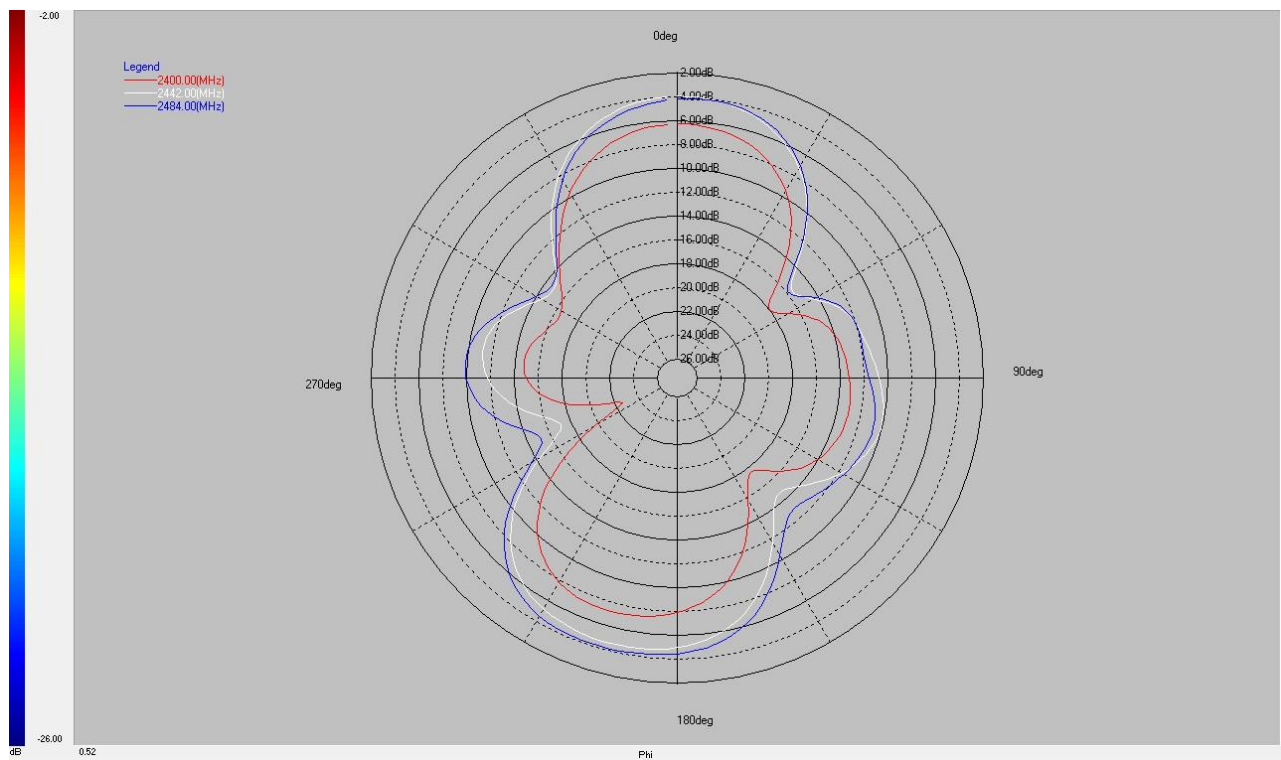


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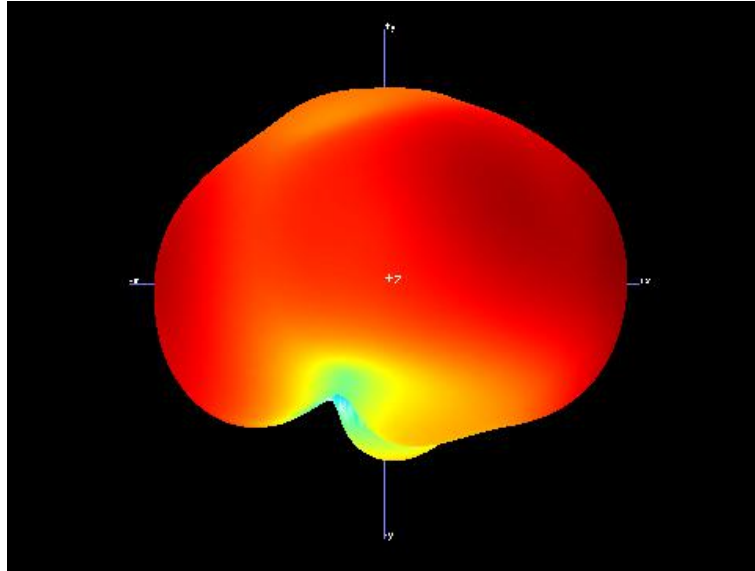
Phi=90°



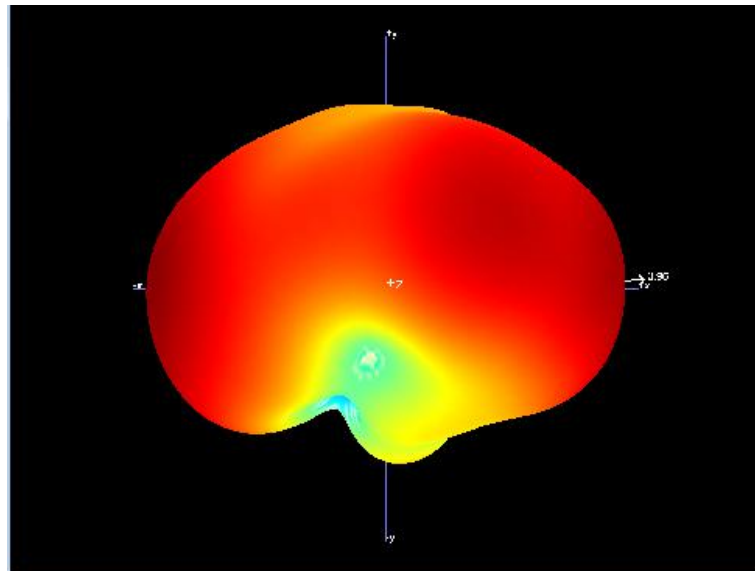
Theta=90°



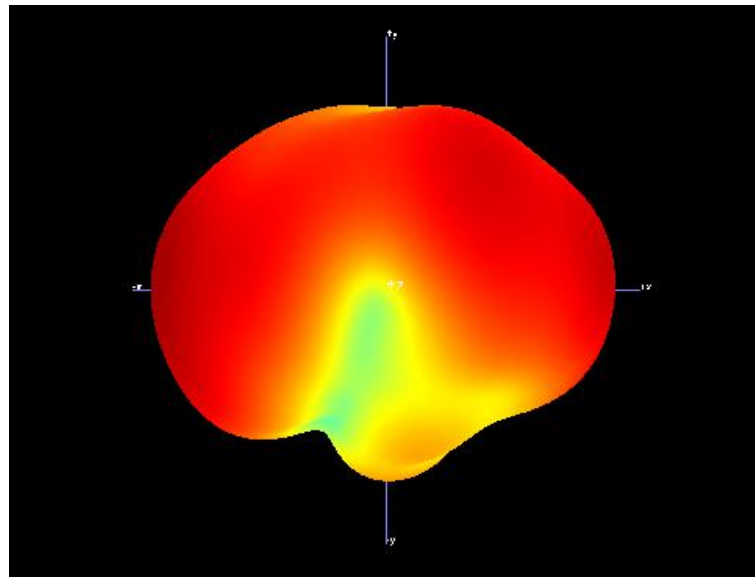
2. 3D Radiation Pattern



2400MHz

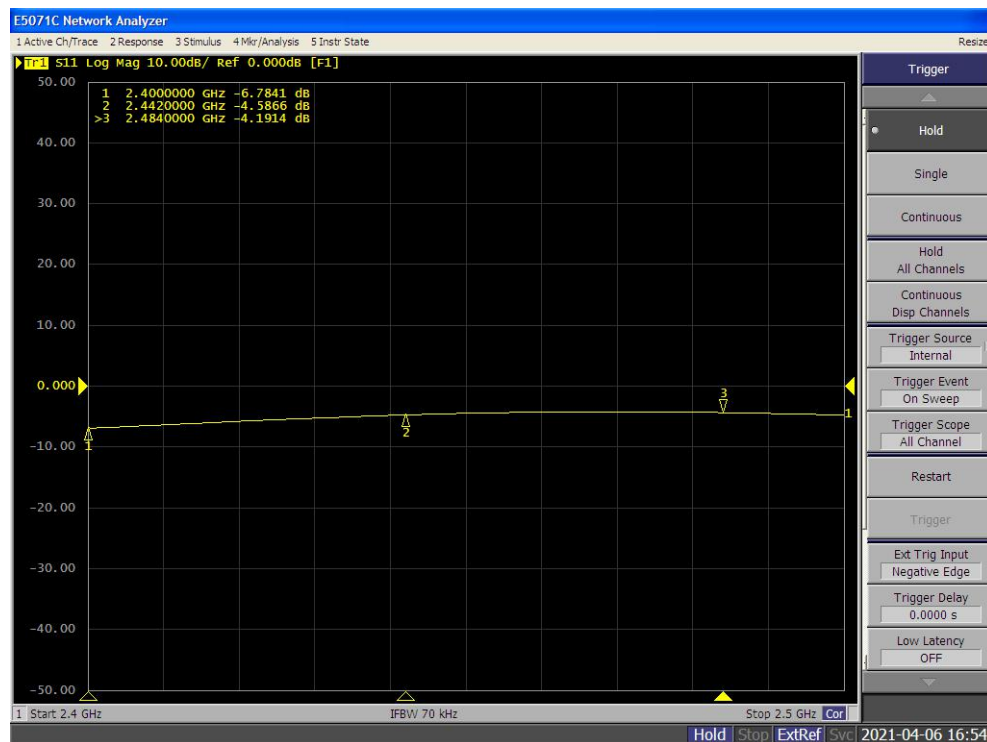


2442MHz



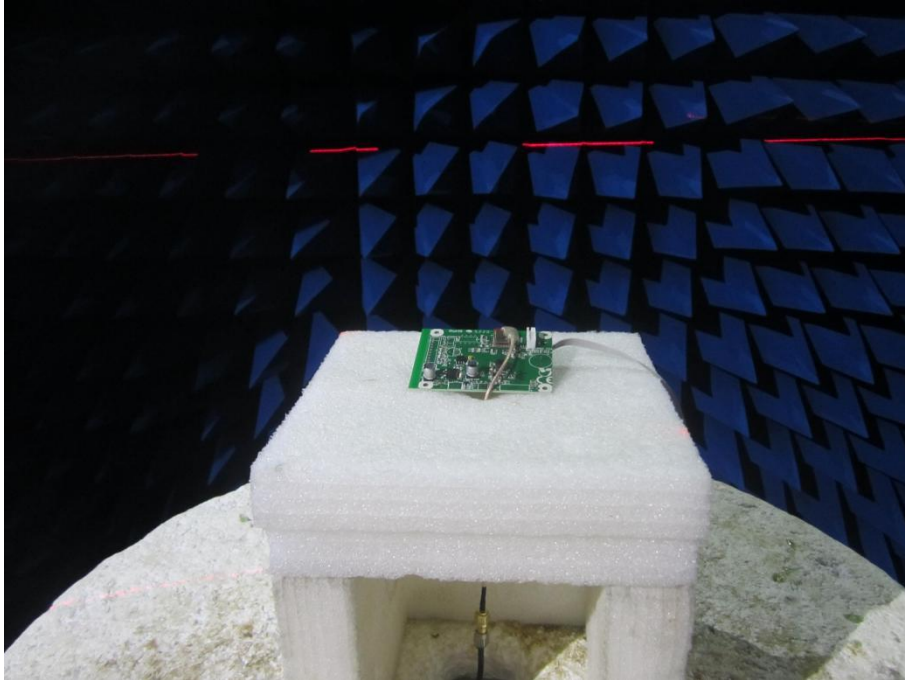
2484MHz

3. Return Loss

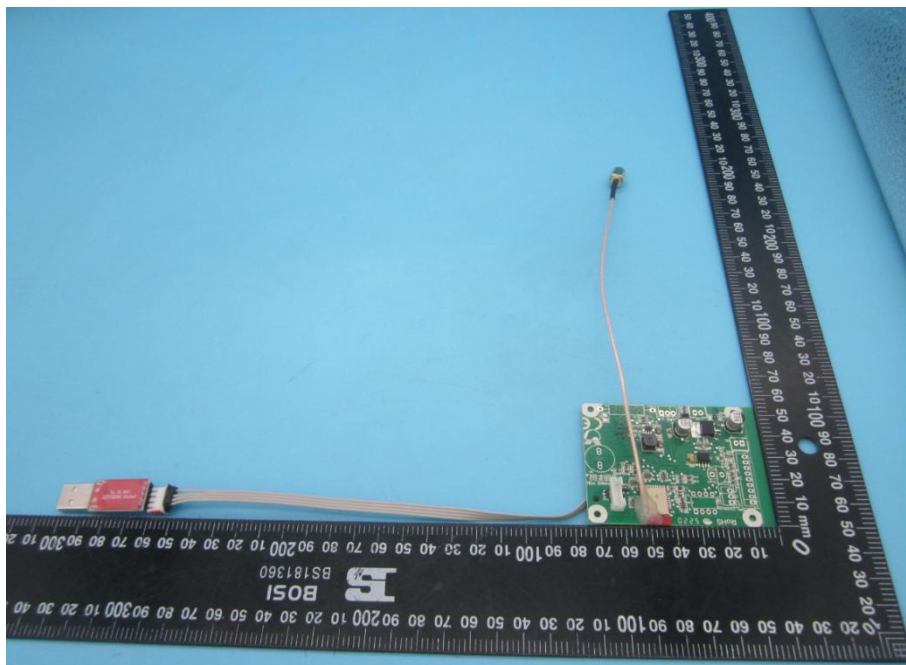


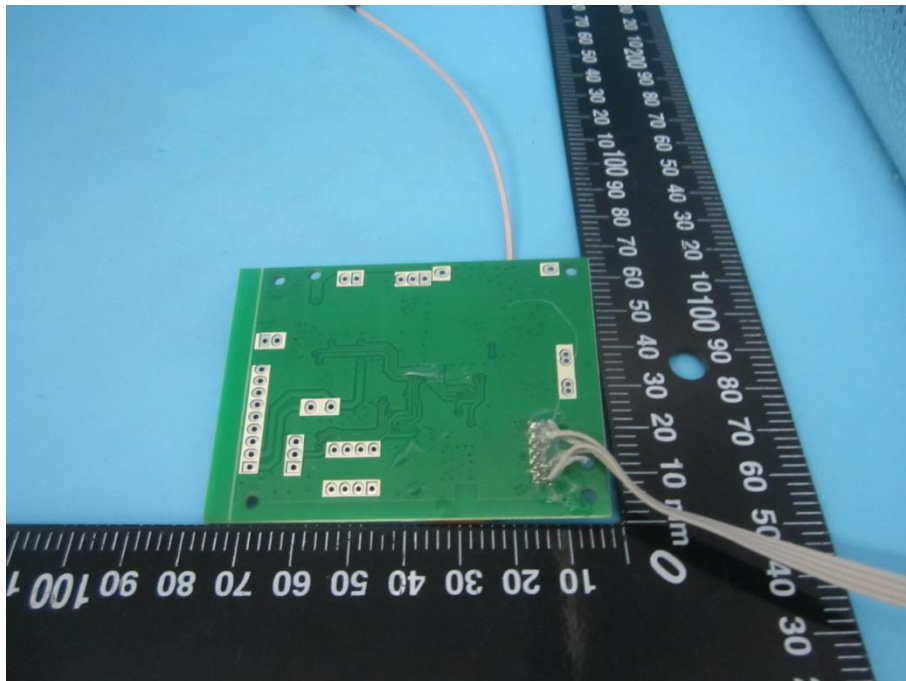
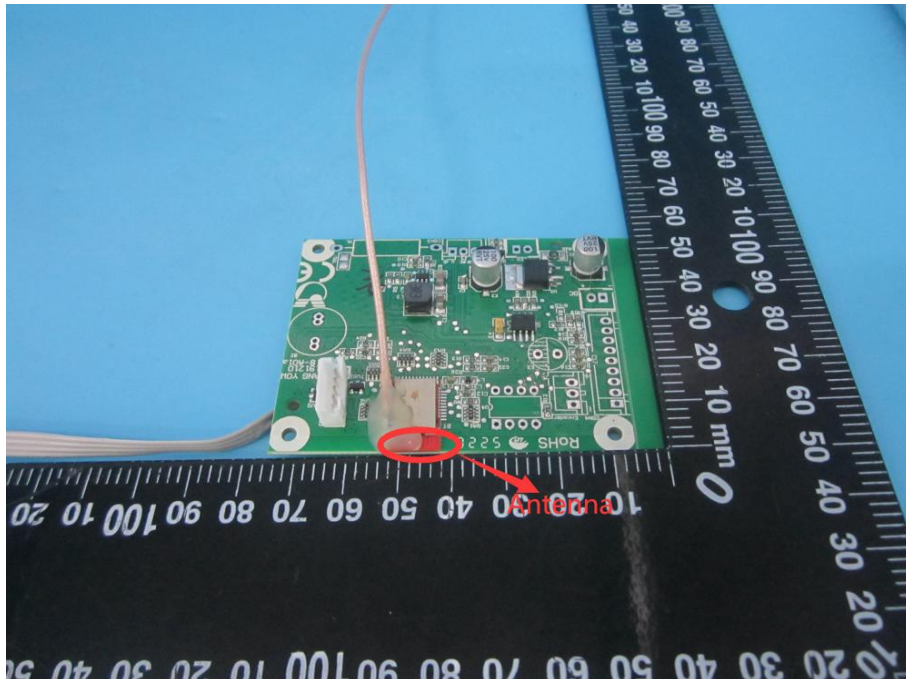
Annex C Photographs

1. Test environment



2. EUT







Annex D General Information

1.1 Identification of the Responsible Testing Laboratory

Laboratory Name:	Morlab Laboratory of Shenzhen Morlab Communications Technology Co., Ltd.
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:	Morlab Laboratory of Shenzhen Morlab Communications Technology Co., Ltd.
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

————— END OF REPORT —————