



REPORT No.: SZ23070285E01

TEST REPORT

APPLICANT : Wuxi Ghostyu Electronics Co.,Ltd

PRODUCT NAME : Bluetooth Module

MODEL NAME : BLE520-A

TRADE NAME : Ghostyu

BRAND NAME : Ghostyu

STANDARD(S) : IEEE Std 149-2021

RECEIPT DATE : 2023-07-31

TEST DATE : 2023-07-31

ISSUE DATE : 2023-08-03



Edited by:

Fang Jinshan

Fang Jinshan(Rapporteur)

Approved by:

Chi Shide

Chi Shide(Supervisor)

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MORLAB

Shenzhen Morlab Communications Technology Co., Ltd., FL.1-3, Building A,
FeiYang Science Park, No.8 LongChang Road,Block67, BaoAn District,
ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555

Http://www.morlab.cn

Fax: 86-755-36698525

E-mail: service@morlab.cn





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Change History		
Version	Date	Reason for change
1.0	2023-08-03	First edition



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Wuxi Ghostyu Electronics Co.,Ltd
Applicant Address:	205 Laboratory Building, No.258 Zhongnan Road, Liangxi District, Wuxi city, Jiangsu Province,China
Manufacturer:	Wuxi Ghostyu Electronics Co.,Ltd
Manufacturer Address:	205 Laboratory Building, No.258 Zhongnan Road, Liangxi District, Wuxi city, Jiangsu Province,China

1.2. Equipment Under Test (EUT) Description

Wireless Type	Bluetooth
Frequency	2400MHz-2500MHz
IMEI	N/A
Sample No.	1#

2. Test Results

2.1. Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title
1	IEEE Std 149-2021	IEEE Recommended Practice for Antenna Measurements

2.2. Test Conditions

Test Environment Conditions:

Relative Humidity(%):	25 – 75
Temperature(°C):	10 – 30

2.3. Measurement Uncertainty

The uncertainty is calculated using the methods suggested in the “Guide to the Expression of Uncertainty in Measurement” (GUM) published by ISO. When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% Confidence intervals.

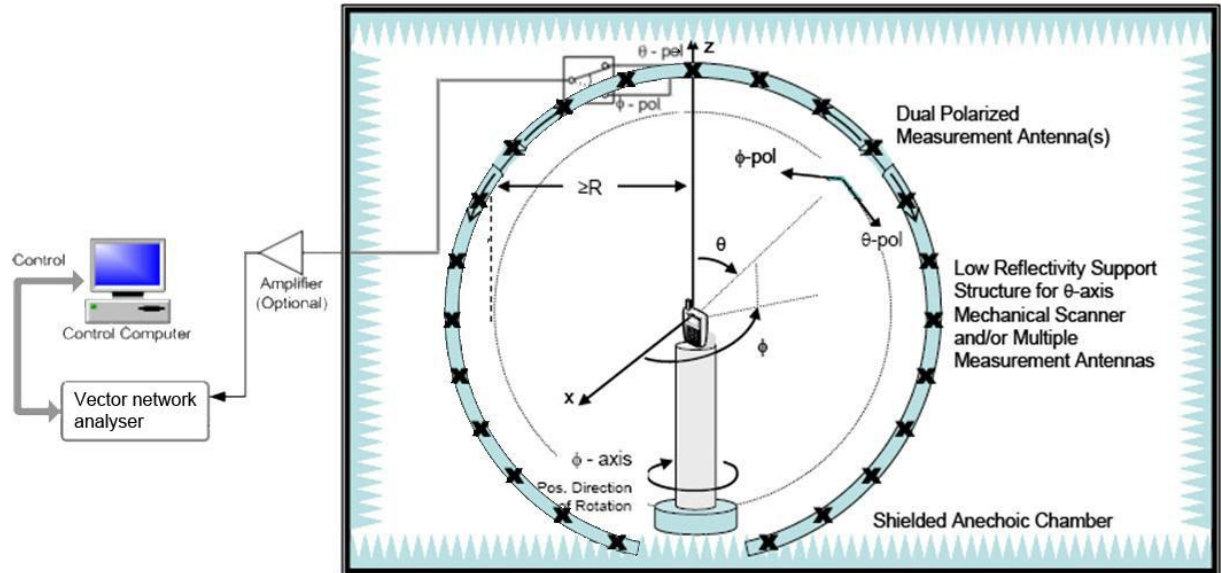


2.4. Test Results lists

2.4.1. Gain

Frequency (MHz)	Gain(dBi)
2400	-0.65
2410	-0.55
2420	-0.54
2430	-0.42
2440	-0.07
2450	0.22
2460	0.72
2470	0.76
2480	0.55
2490	0.48
2500	0.83

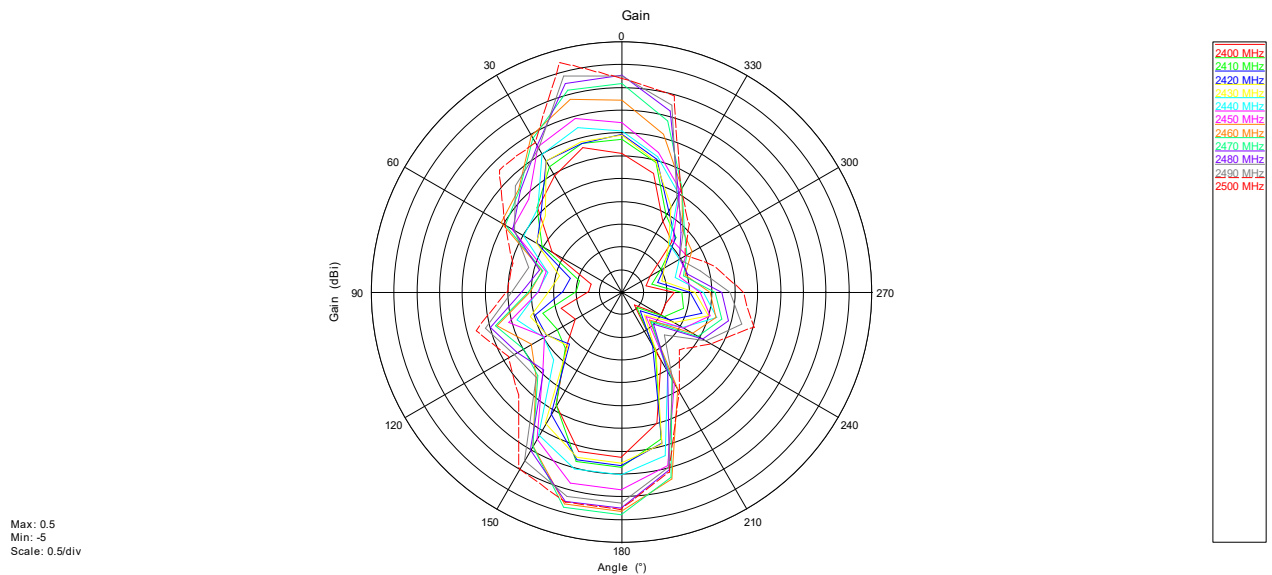
Annex A Test Setup Photos



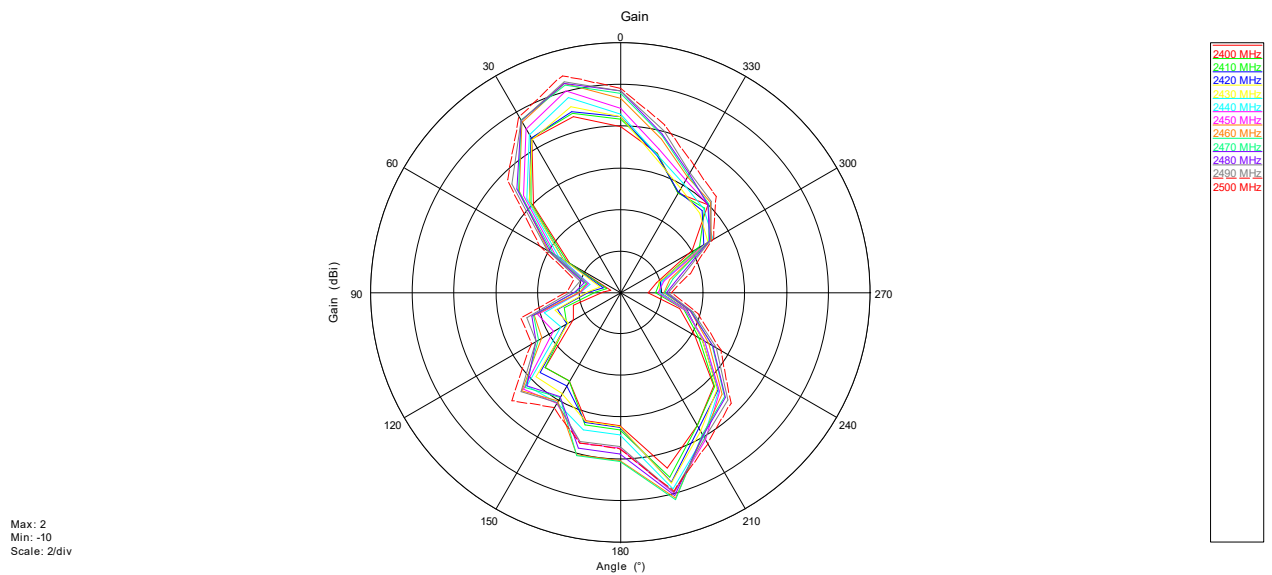


Annex B Figures

1. 2D Radiation Pattern



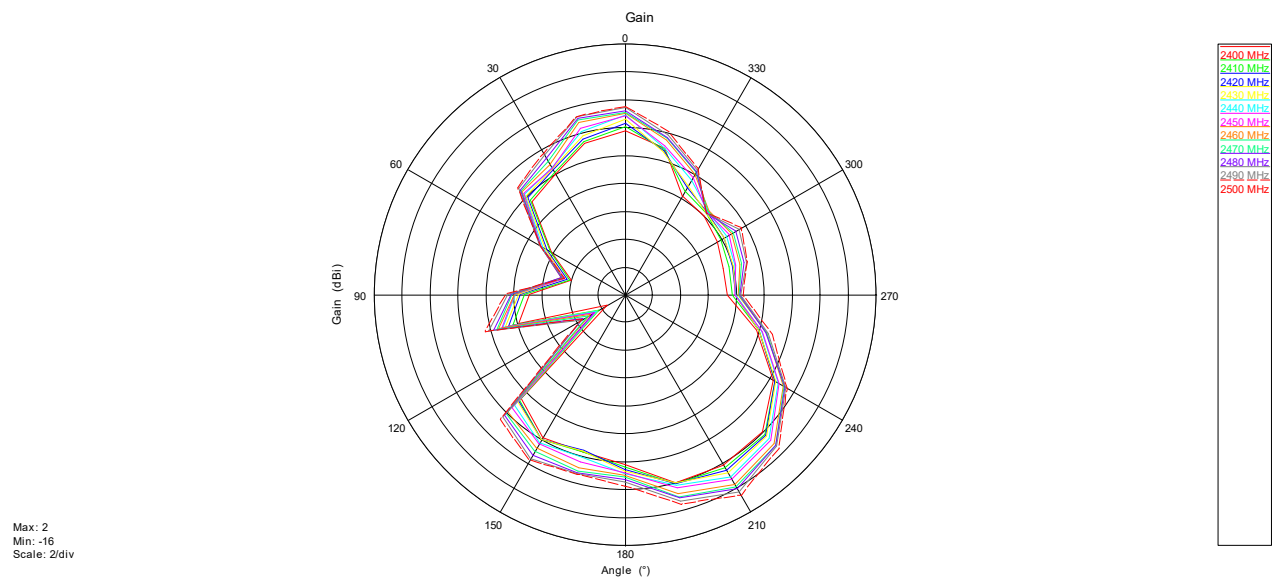
Phi=0°



Phi=90°

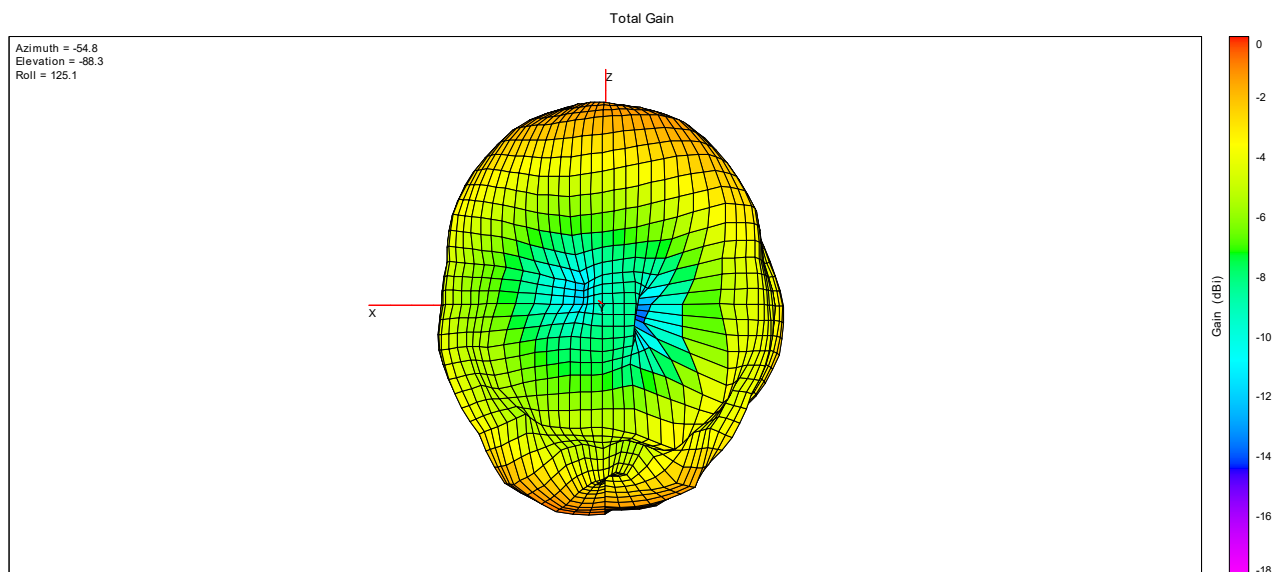


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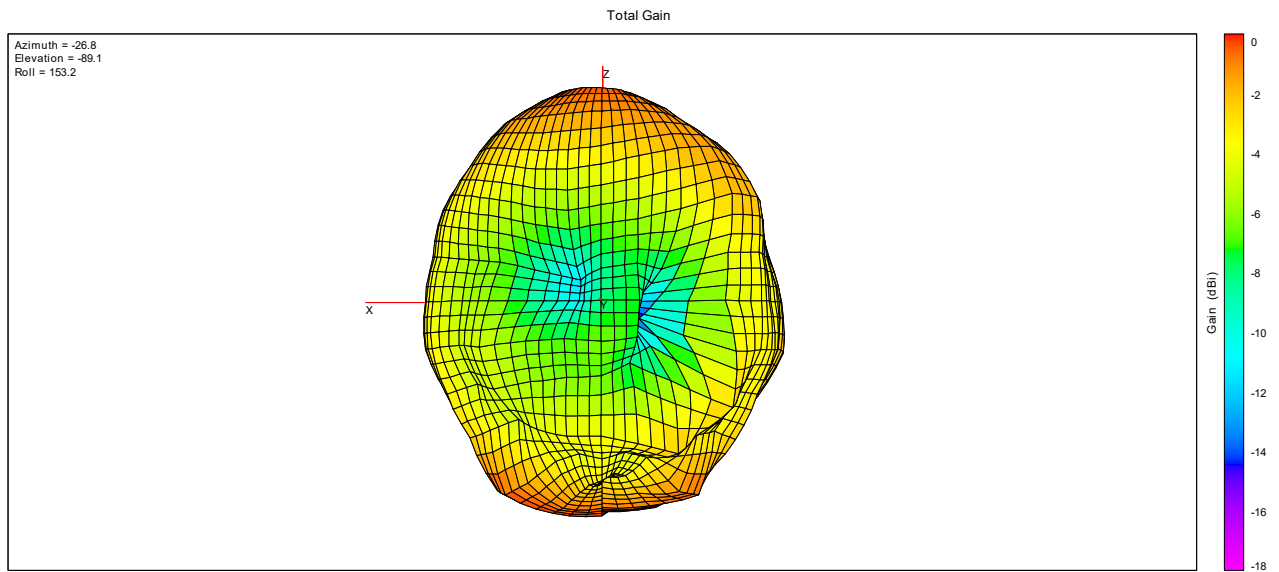


Theta=90°

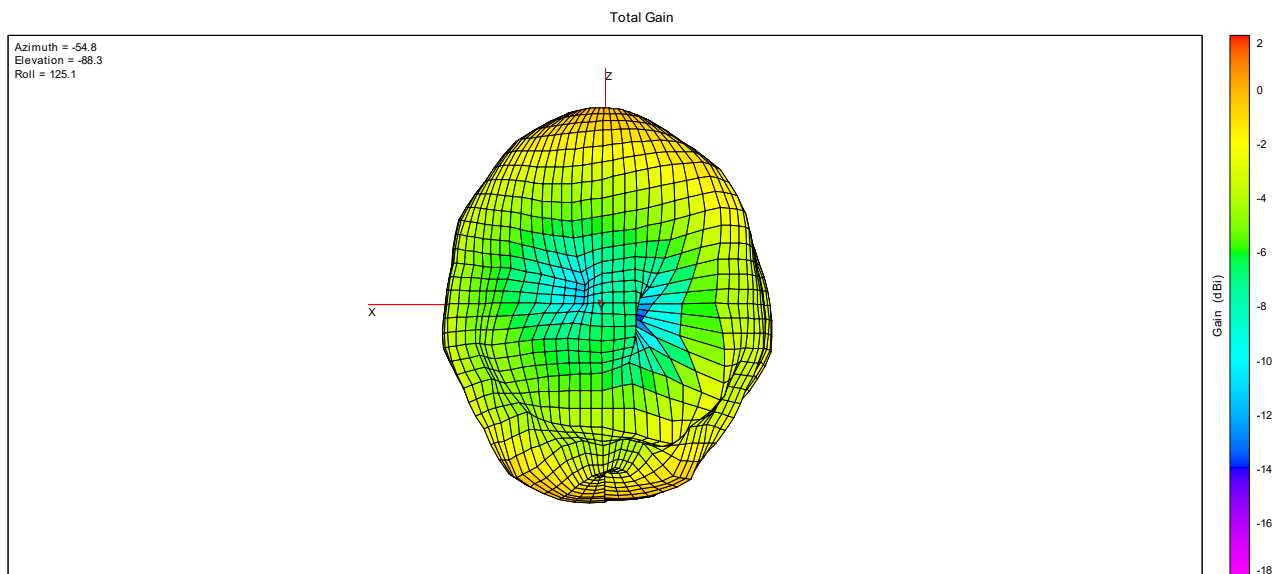
2. 3D Radiation Pattern



2400MHz



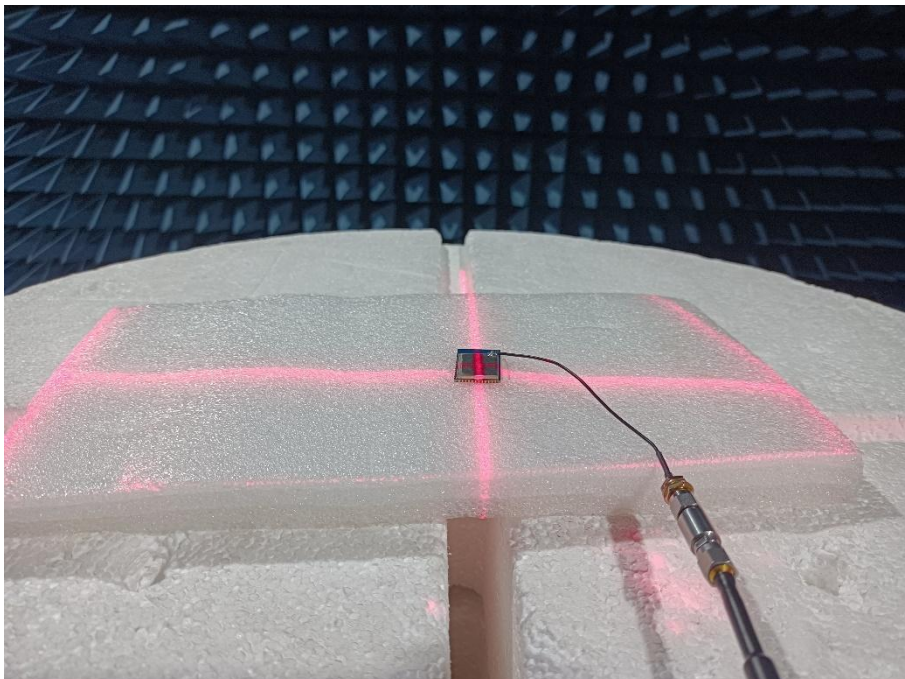
2440MHz



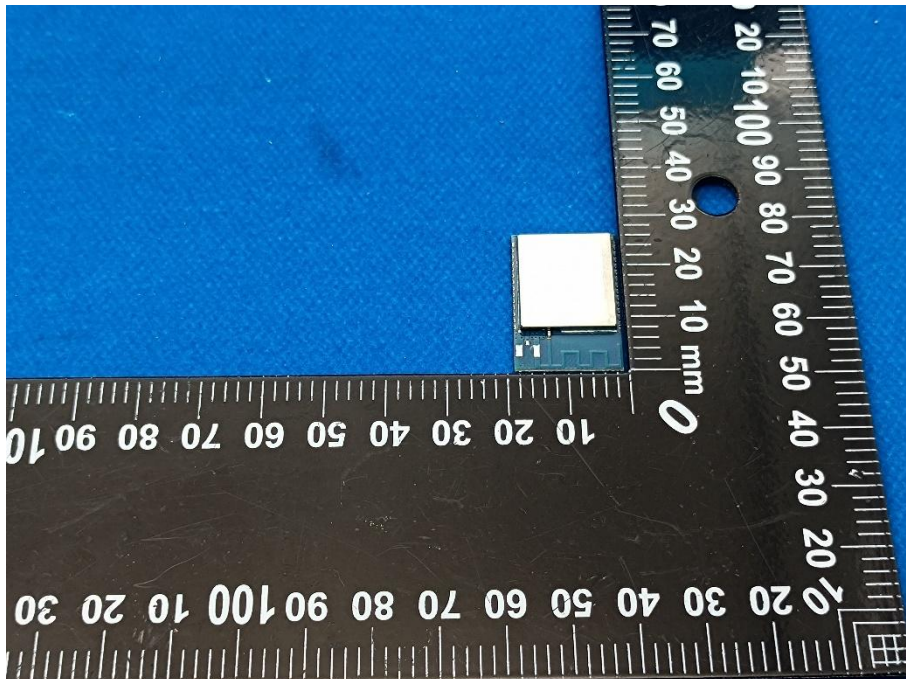
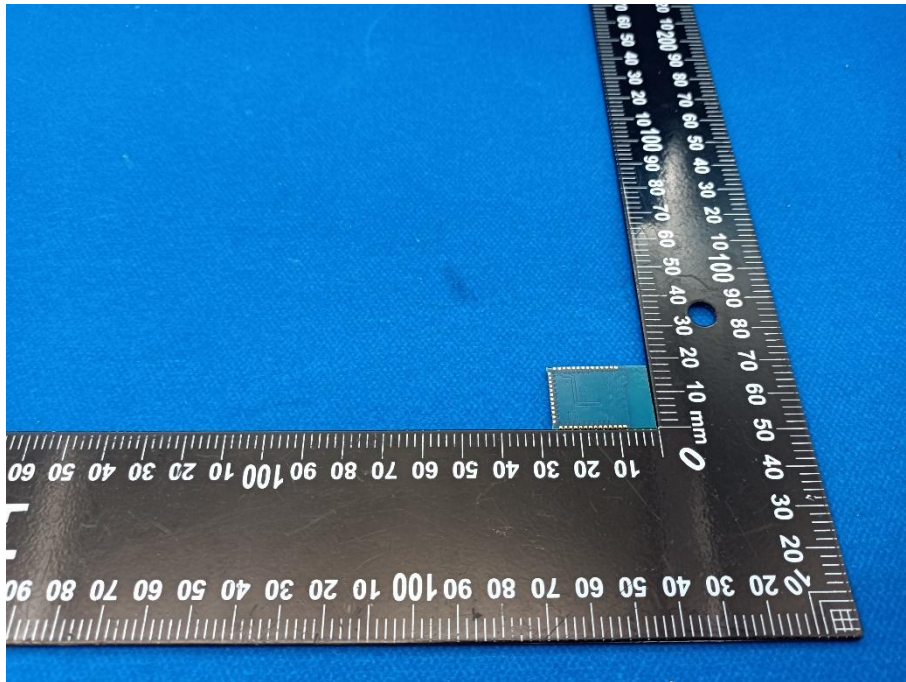
2480MHz

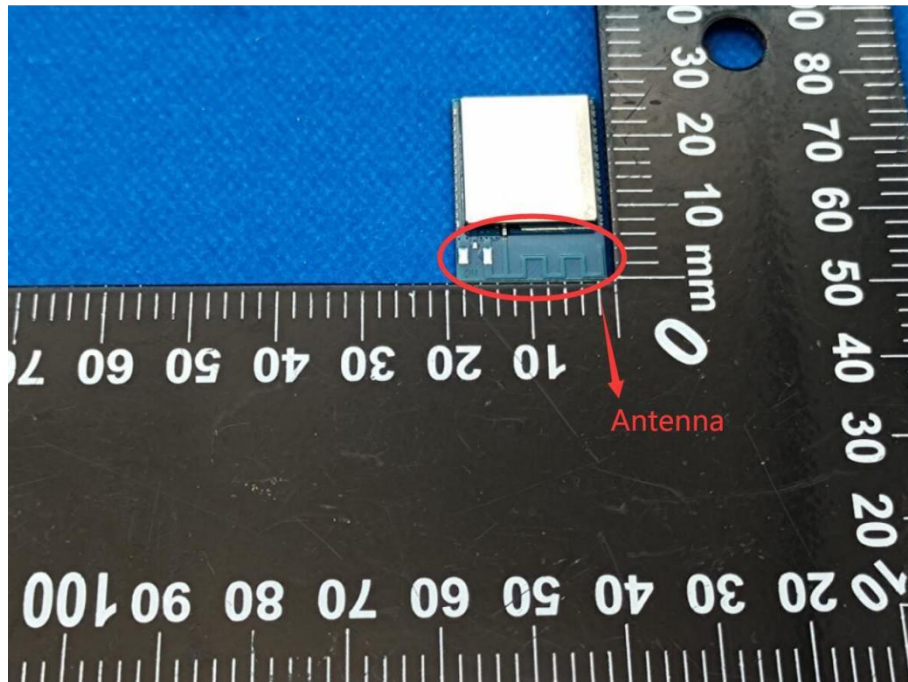
Annex C EUT Photos

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.
Laboratory Address:	FL.1-3, 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.
Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

1.3 Test Equipments Utilized

No.	Equipement Name	Serial No.	Type	Manufacturer	Cal.Date	Cal.Due Date
1	Network Analyzer	MY46110140	E5071C	Agilent	2023.06.21	2024.06.20
2	OTA Chamber	TJ2235-Q1793	AMS-8923 -150	ETS	2022.11.30	2025.11.29
3	Antenna Measurement System	1685	EMQuest EMQ-100 V 1.13 Build 21267	ETS	N/A	N/A

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