



REPORT No.: SZ22120038E01

TEST REPORT

APPLICANT : DongGuan Mae Tay Electronic Co., Ltd.

PRODUCT NAME : Dual Mode Keyboard

MODEL NAME : KB051

TRADE NAME : N/A

BRAND NAME : N/A

STANDARD(S) : IEEE Std 149-2021

RECEIPT DATE : 2022-12-02

TEST DATE : 2022-12-05

ISSUE DATE : 2022-12-12



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MORLAB

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Change History		
Version	Date	Reason for change
1.0	2022-12-12	First edition



1. Technical Information

Note: Provide by manufacturer.

1.1. Applicant and Manufacturer Information

Applicant:	DongGuan Mae Tay Electronic Co., Ltd.
Applicant Address:	Bei Huan Road Industrial Area, Chang Ping Town, Dongguan City, Guangdong Province, P.R.C
Manufacturer:	N/A
Manufacturer Address:	N/A

1.2. Equipment Under Test (EUT) Description

Wireless Type	Bluetooth
Frequency	2400MHz-2500MHz
IMEI	N/A
Sample No.	2#

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:	+10 °C to +30 °C

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.

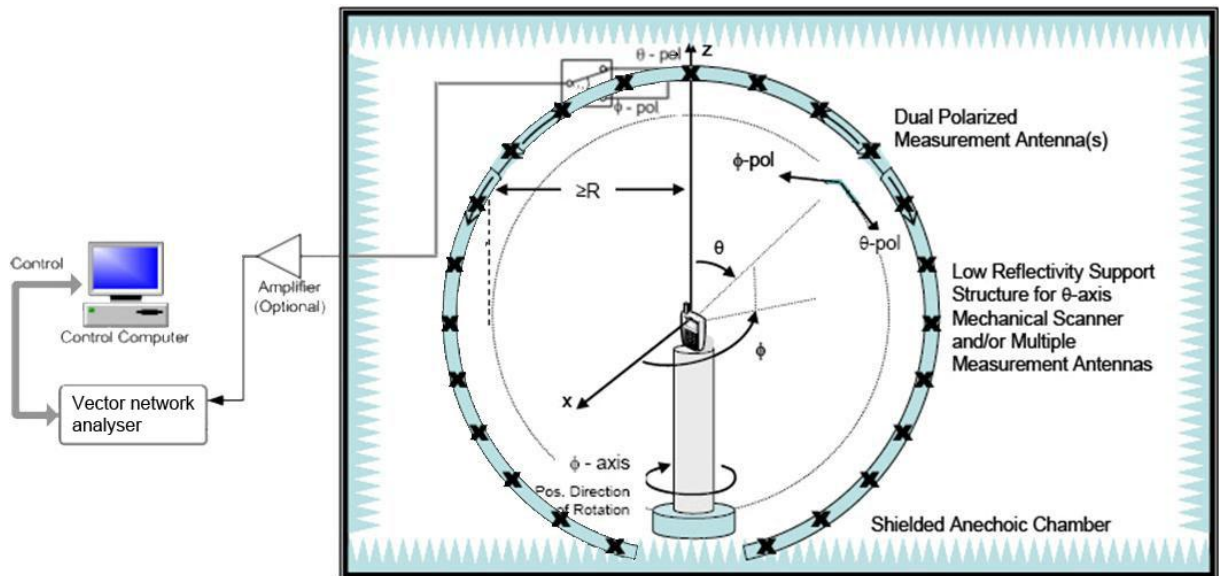
Item	Measurement Uncertainty(dB)
Gain	±0.5
VSWR	±0.2
Measurement Uncertainty(95% Confidence Interval) K=2	

2.4. Test Results lists

2.4.1. Gain and Efficiency

Frequency(MHz)	Efficiency (%)	Gain (dBi)
2400	15.21	-3.53
2410	18.84	-2.55
2420	21.56	-2.01
2430	22.36	-1.63
2440	23.40	-1.33
2450	23.25	-1.41
2460	21.96	-1.65
2470	20.19	-1.60
2480	18.08	-1.94
2490	16.52	-2.70
2500	15.40	-3.54

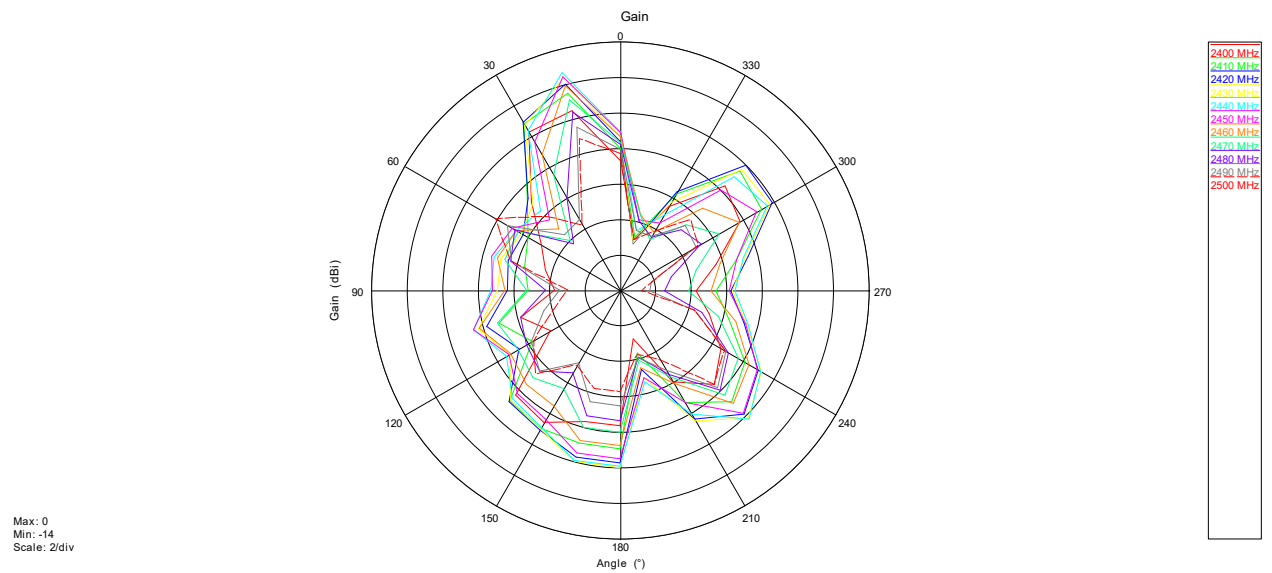
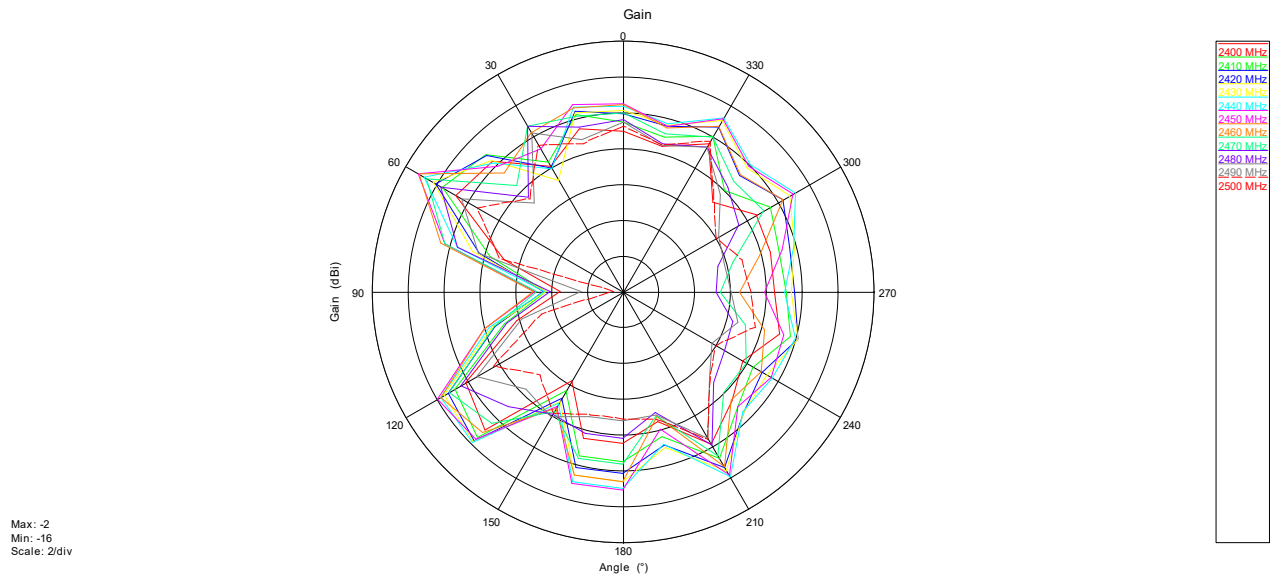
Annex A Test Setup Photos

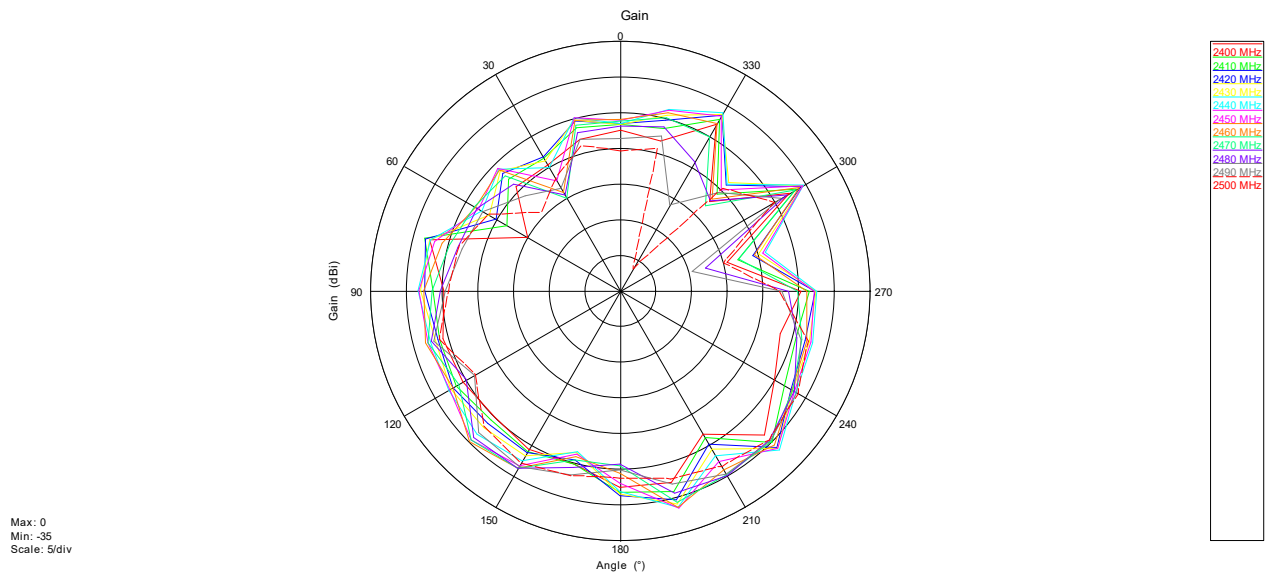




Annex B Figures

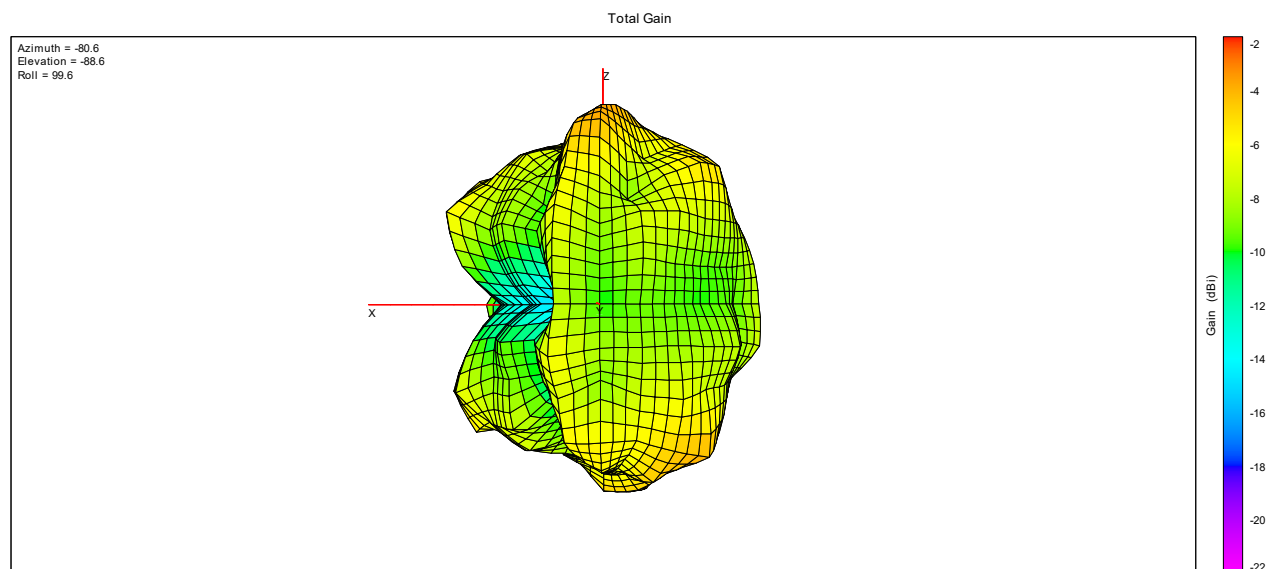
1. 2D Radiation Pattern



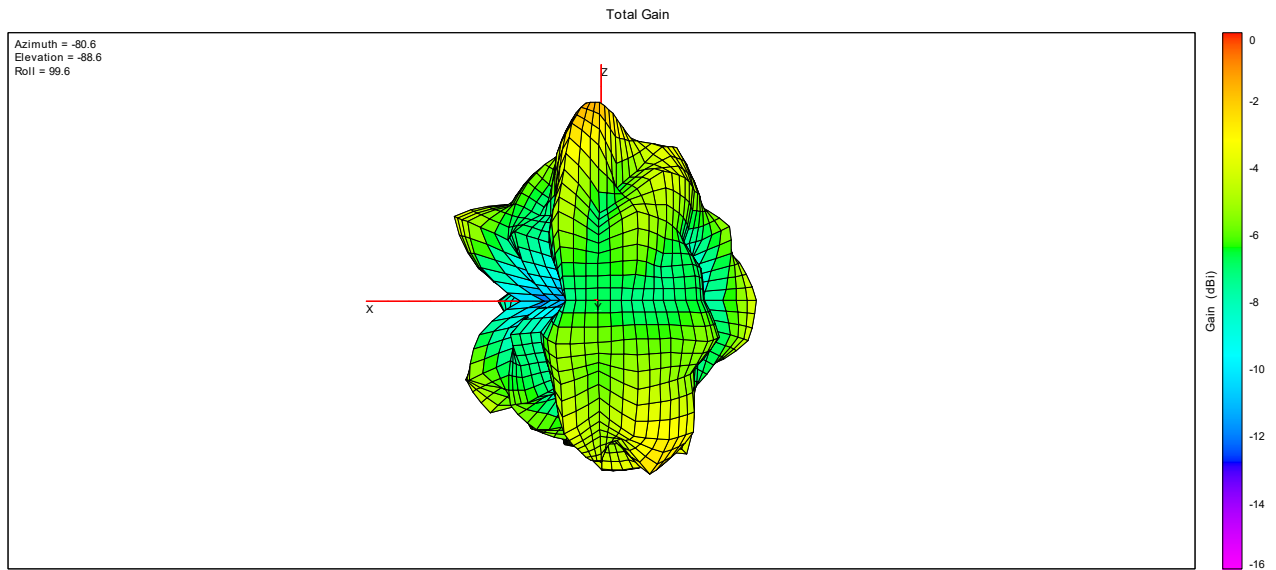


Theta=90°

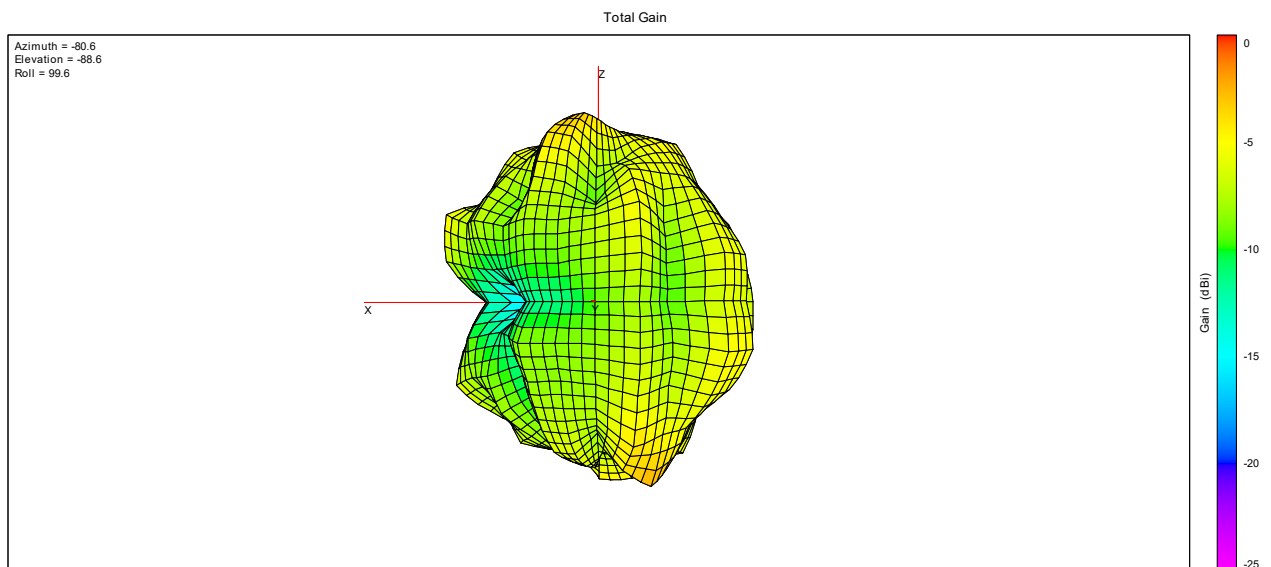
2. 3D Radiation Pattern



2400MHz



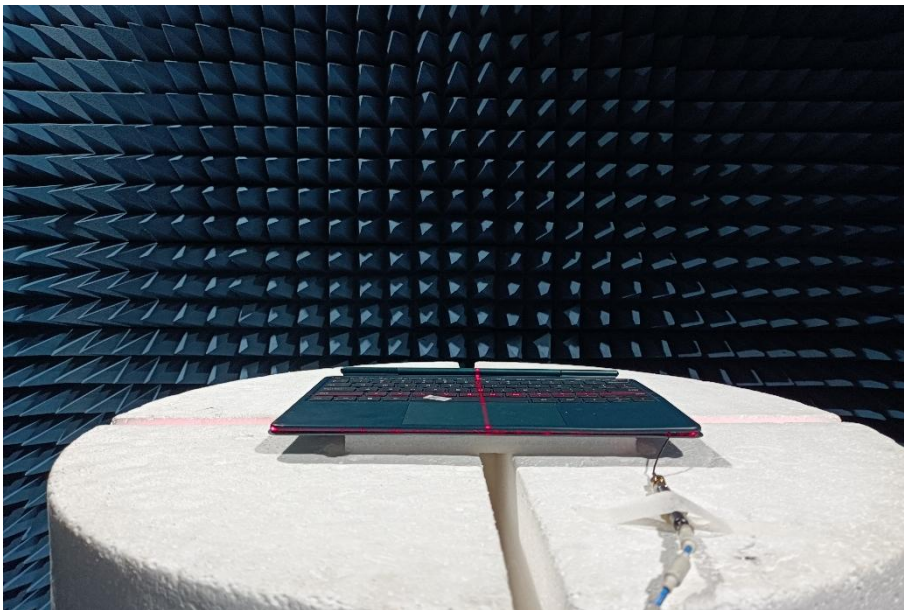
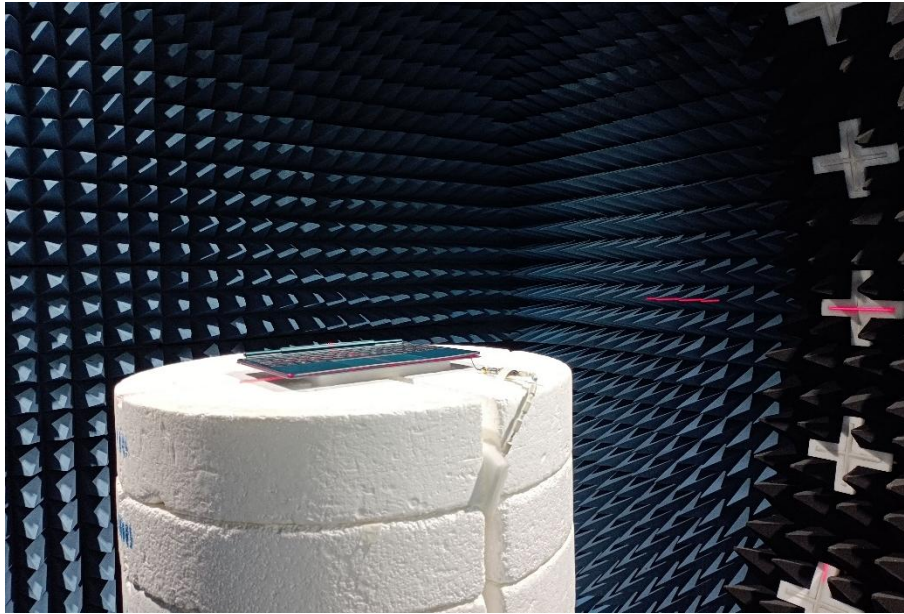
2440MHz



2480MHz

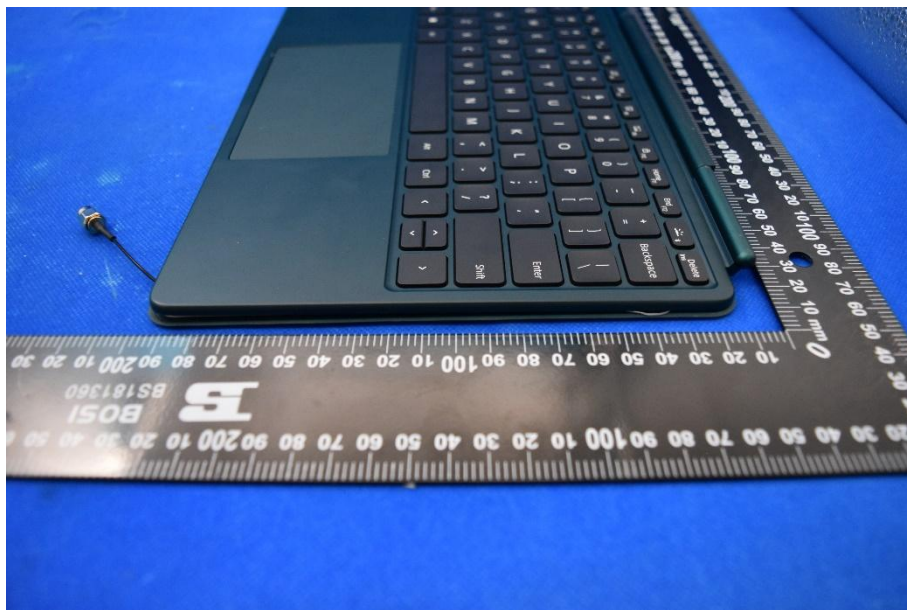
Annex C EUT Photos

1. Test environment

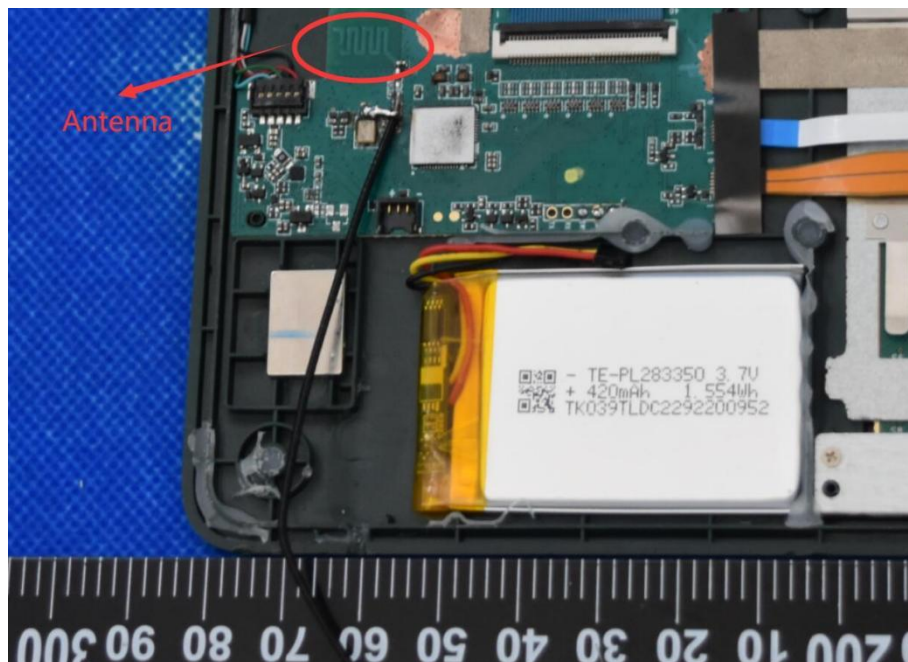


2. EUT











Annex D General Information

1.1 Identification of the Responsible Testing Laboratory

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

Name:	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

No.	Equipement Name	Serial No.	Type	Manufa cturer	Cal.Date	Cal.Due Date
1	Network Analyzer	MY46110140	E5071C	Agilent	2022.07.04	2023.07.03
2	OTA Chamber	TJ2235-Q17 93	AMS-8923-1 50	ETS	2020.01.06	2023.01.05
3	Antenna Measurement System	1685	EMQuest EMQ-100 V 1.13 Build 21267	ETS	N/A	N/A

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