TEST REPORT

APPLICANT	:	Gemstar Technology(Yangzhou) Co.Ltd
PRODUCT NAME	:	Remote control
MODEL NAME	:	EOS PR4 Digit-lessremote
TRADE NAME	:	N/A
BRAND NAME	:	N/A
STANDARD(S)	:	IEEE Std 149-2021
RECEIPT DATE	:	2024-01-29
TEST DATE	:	2024-01-29
ISSUE DATE	:	2024-01-30

Edited by: Fang Jinshan(Rapporteur)

Approved by: Chi Shide(Supervisor)

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DIRECTORY

1. Technical Information 3
1.1. Applicant and Manufacturer Information 3
1.2. Equipment Under Test (EUT) Description 3
2. Test Results 4
2.1. Applied Reference Documents 4
2.2. Test Conditions 4
2.3. Measurement Uncertainty 4
2.4. Test Results lists 5
Annex A Test Setup Photos 6
Annex B Figures 7
1. 2D Radiation Pattern 7
2. 3D Radiation Pattern 12
Annex C EUT Photos 15
Annex D General Information 27
1.1 Identification of the Responsible Testing Laboratory 27
1.2 Identification of the Responsible Testing Location 27
1.3 Test Equipments Utilized 27

Change History		
Version	Date	Reason for change
1.0	2024-01-30	First edition

1.Technical Information

Note: Provide by Applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Gemstar Technology(Yangzhou) Co.Ltd
Applicant Address:	Room 606, Guofa building, #3110 Renmin Road, Suzhou,Jiangsu Province, China
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.	1#&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(°C):	10 – 30

2.3. Measurement Uncertainty

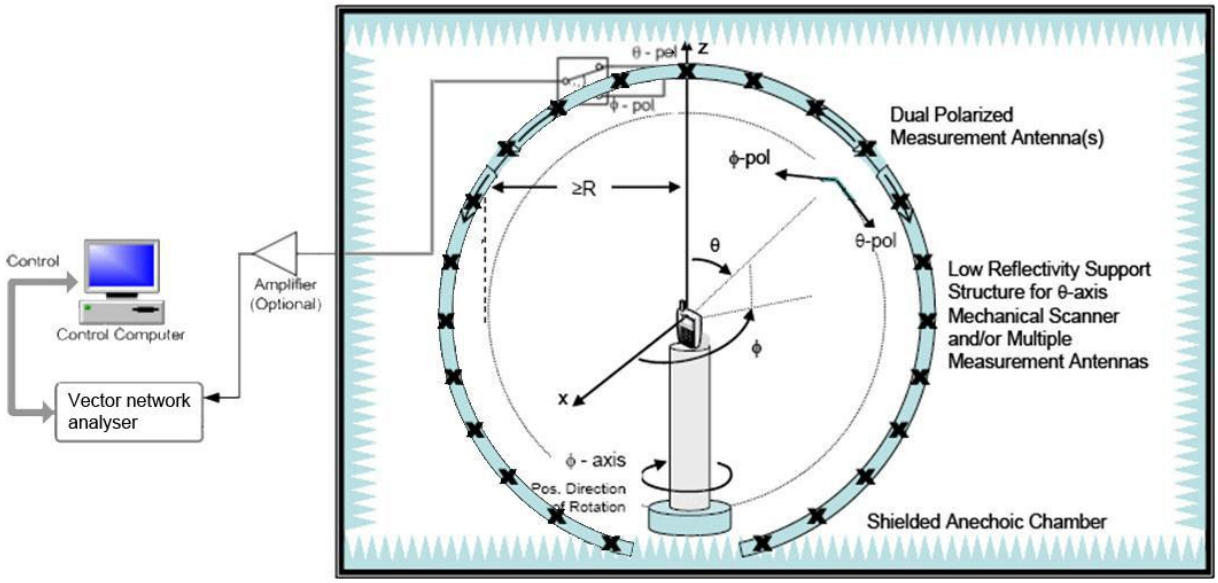
The uncertainty is calculated using the methods suggested in the “Guide to the Expression of Uncertainty in Measurement” (GUM) published by ISO. When the test result is a critical value,we will use the measurement uncertainty give the judgment result based on the 95% Confidence intervals.

2.4. Test Results lists

2.4.1. Gain and Efficiency

Frequency (MHz)	Gain(dBi)		Efficiency(%)		Efficiency(dB)	
	1#	2#	1#	2#	1#	2#
2400	-3.06	-3.15	22.21	21.98	-6.53	-6.58
2402	-3.05	-3.12	22.19	22.00	-6.54	-6.58
2410	-3.27	-3.30	21.60	21.45	-6.66	-6.68
2420	-3.38	-3.32	21.24	21.10	-6.73	-6.76
2430	-3.29	-3.35	21.01	20.76	-6.78	-6.83
2440	-3.21	-3.29	21.60	21.26	-6.66	-6.72
2450	-2.88	-3.07	22.61	22.14	-6.46	-6.55
2460	-2.78	-2.89	23.29	22.65	-6.33	-6.45
2470	-2.64	-2.86	23.64	22.84	-6.26	-6.41
2480	-2.55	-2.77	24.24	23.24	-6.16	-6.34
2490	-2.55	-2.79	24.49	23.38	-6.11	-6.31
2500	-2.21	-2.57	25.39	24.13	-5.95	-6.17

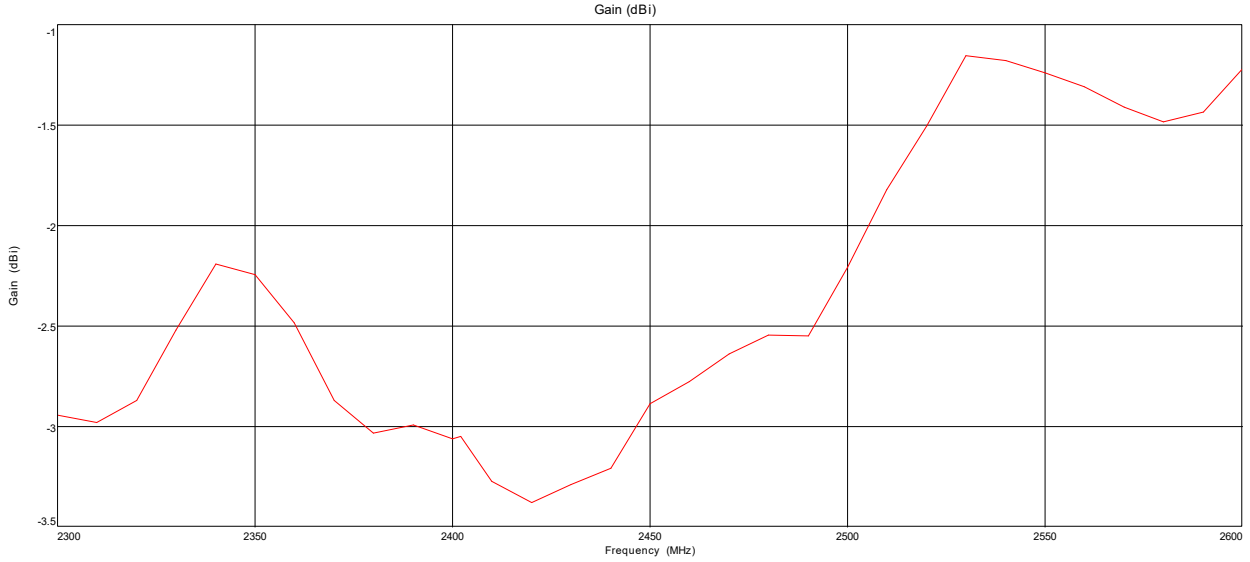
Annex A Test Setup Photos



Annex B Figures

1. 2D Radiation Pattern

Gain



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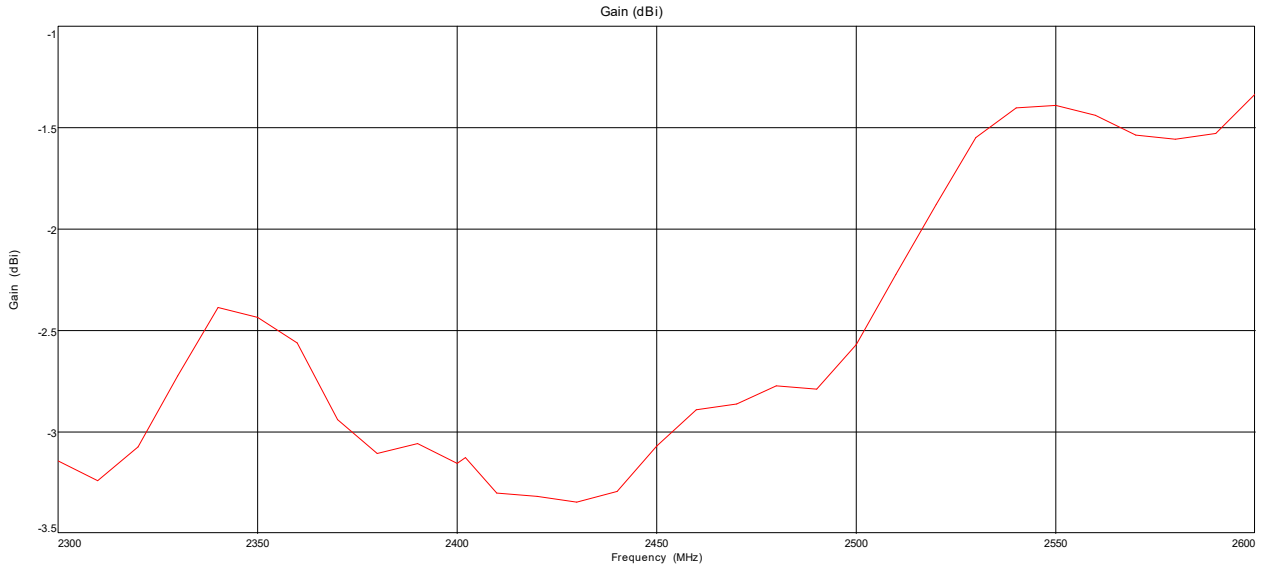
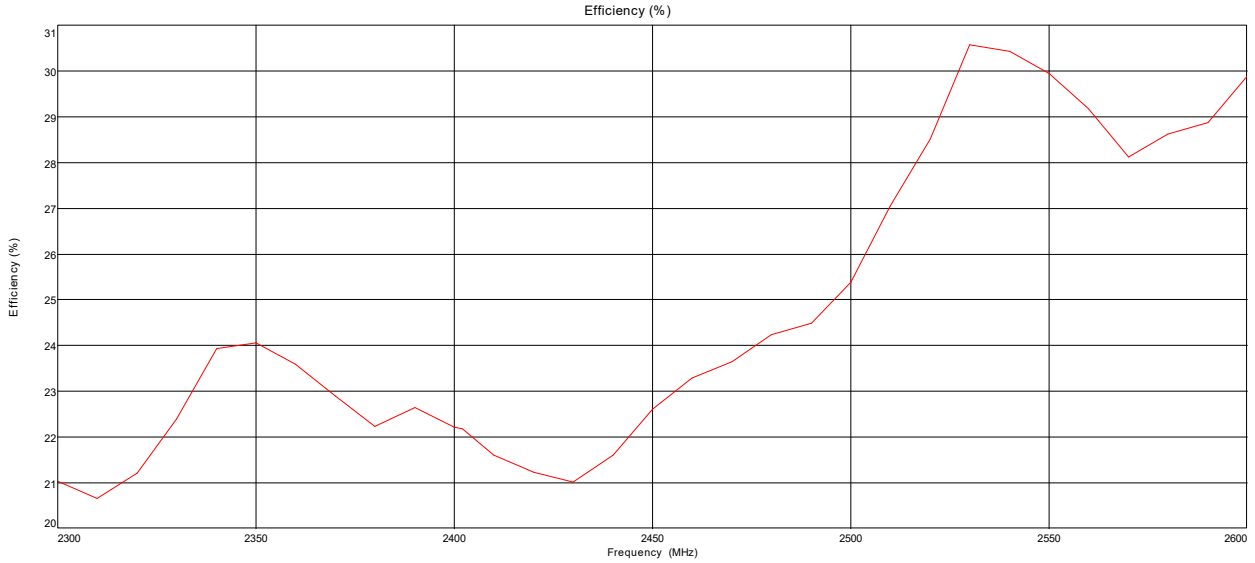


2#

Efficiency



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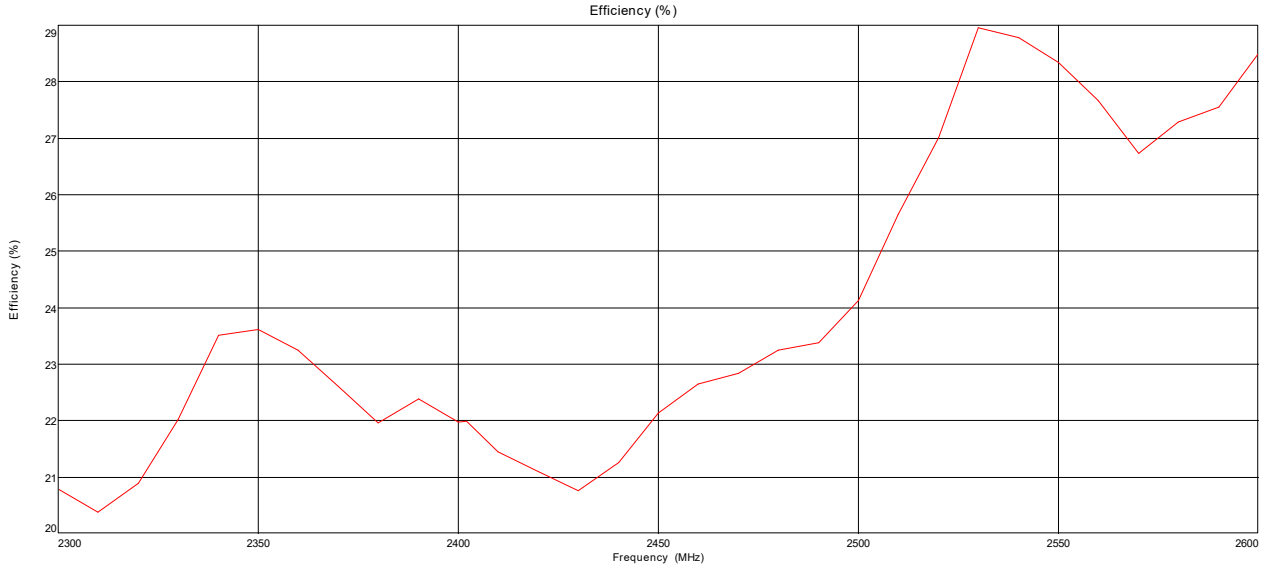
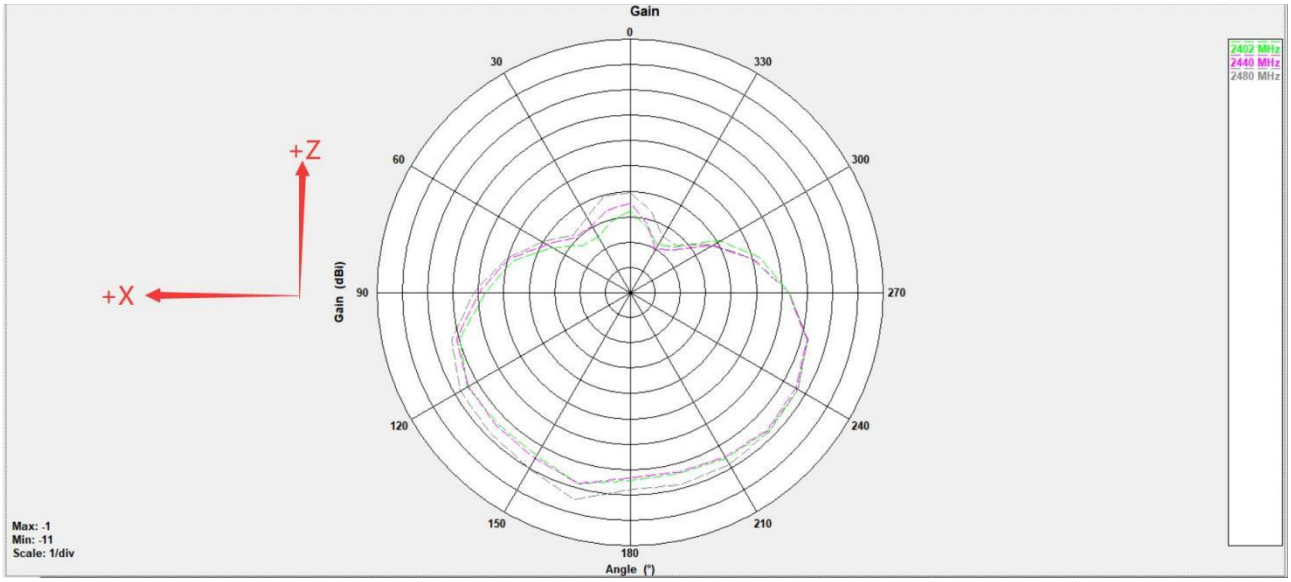
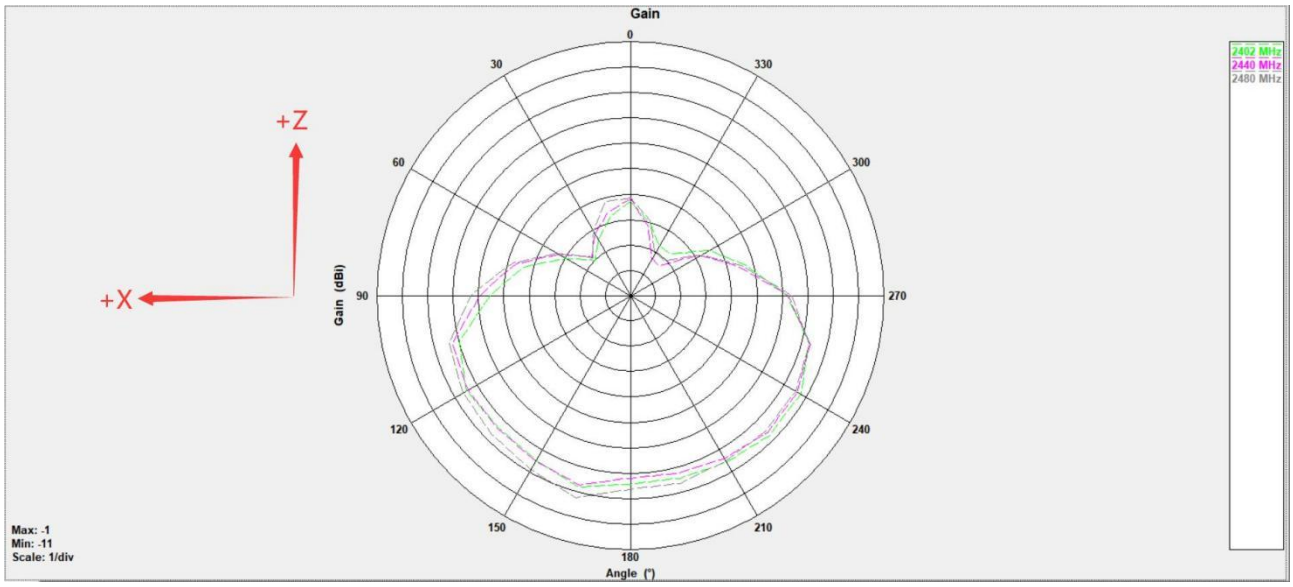


2#

Phi=0°

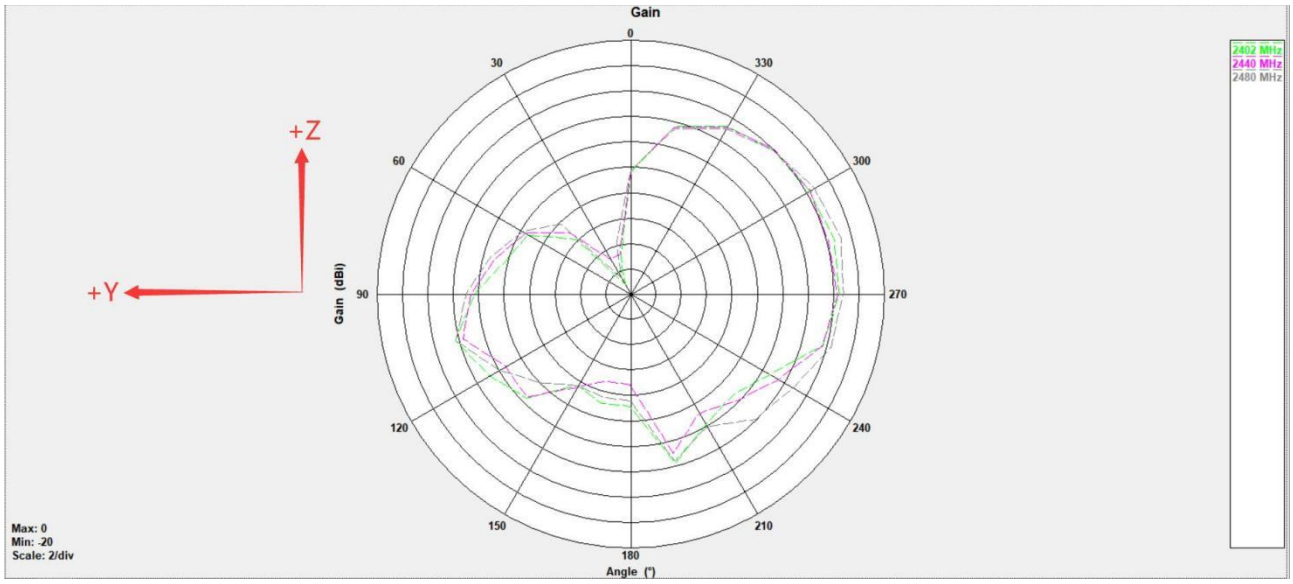

Gain
0
30
330
60
300
90
270
120
240
150
210
180
Angle (°)
Gain (dBi)
+Z
+X
2402 MHz
2440 MHz
2480 MHz
Max: -1
Min: -11
Scale: 1/div

1#

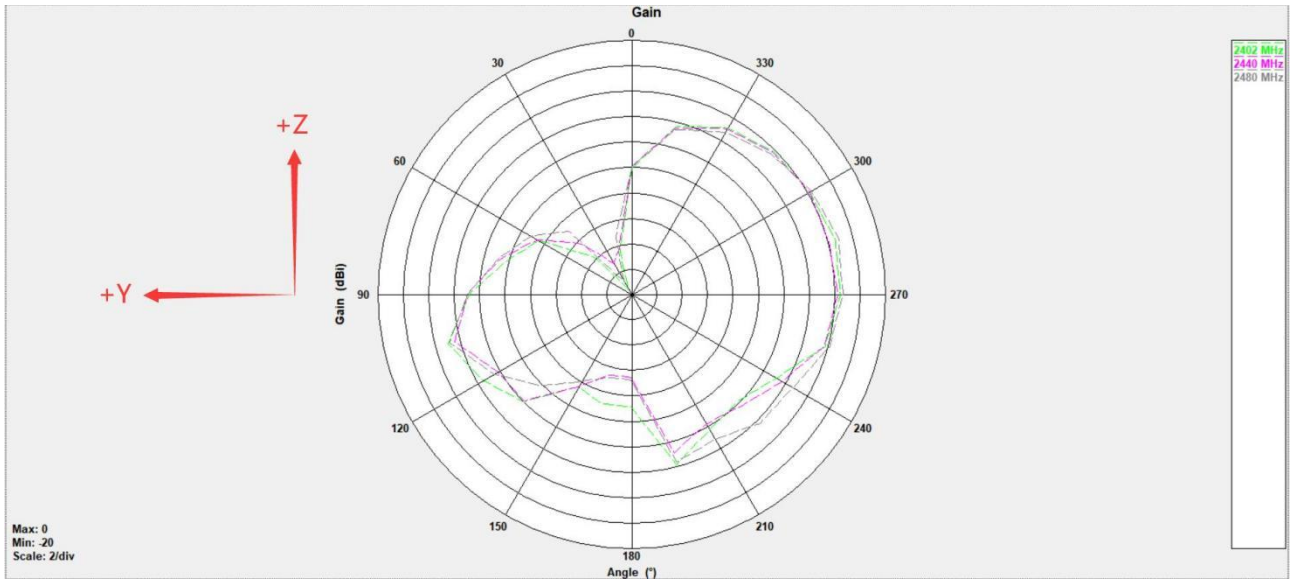

Gain
0
30
330
60
300
90
270
120
240
150
210
180
Angle (°)
Gain (dBi)
+Z
+X
2402 MHz
2440 MHz
2480 MHz
Max: -1
Min: -11
Scale: 1/div

2#

Phi=90°

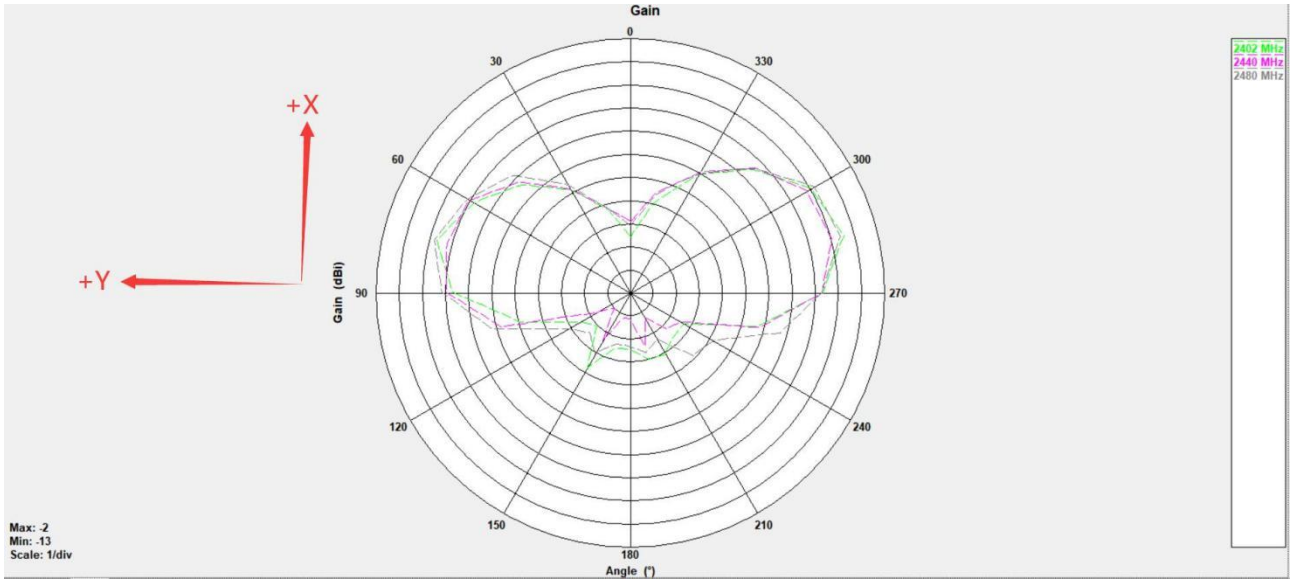

Gain
0
30
330
60
300
90
270
120
240
150
210
180
Angle (°)
Gain (dBi)
+Z
+Y
2402 MHz
2440 MHz
2480 MHz
Max: 0
Min: -20
Scale: 2/div

1#

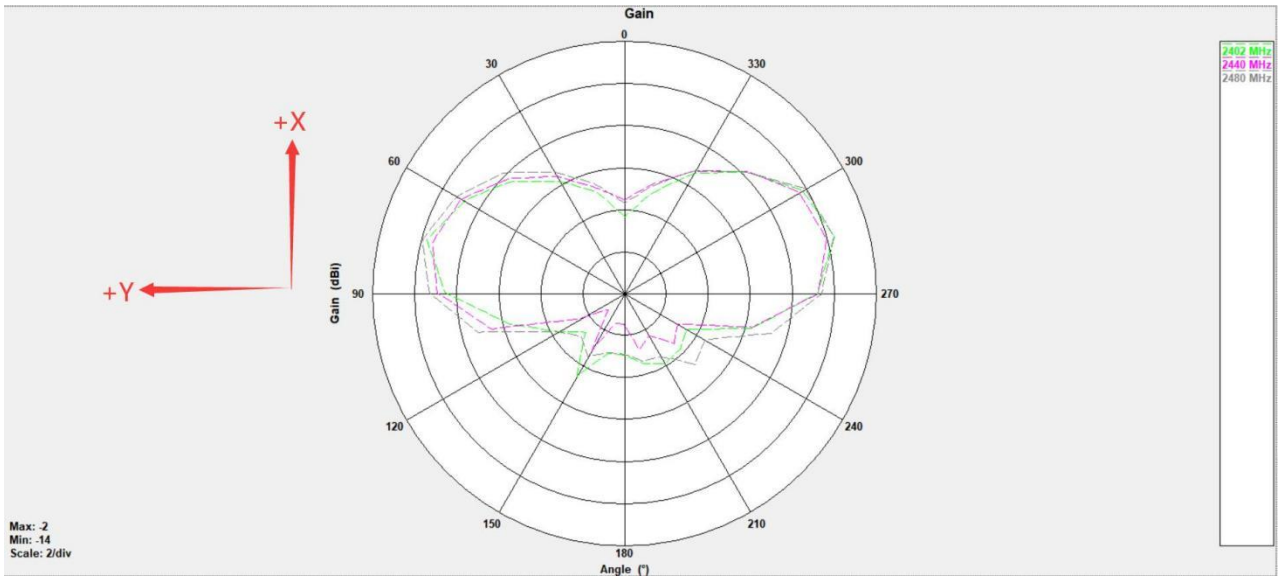

Gain
0
30
330
60
300
90
270
120
240
150
210
180
Angle (°)
Gain (dBi)
+Z
+Y
2402 MHz
2440 MHz
2480 MHz
Max: 0
Min: -20
Scale: 2/div

2#

Theta=90°

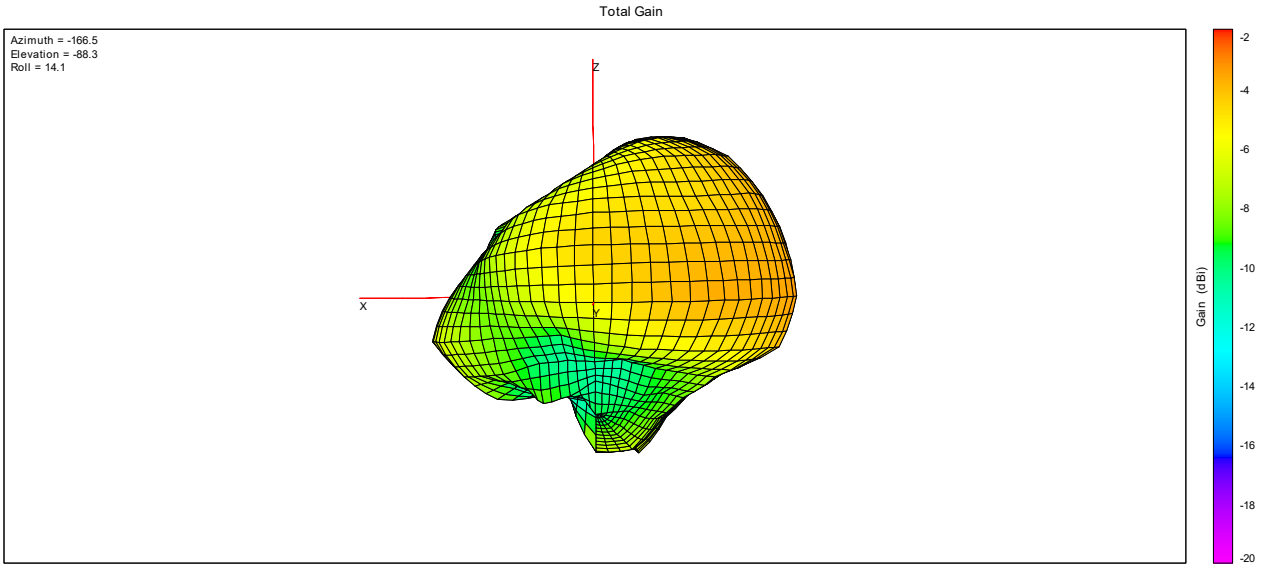

Gain
0
30
330
60
300
90
270
120
240
150
210
180
Angle (°)
Gain (dBi)
+X
+Y
2402 MHz
2440 MHz
2480 MHz
Max: -2
Min: -13
Scale: 1/div

1#

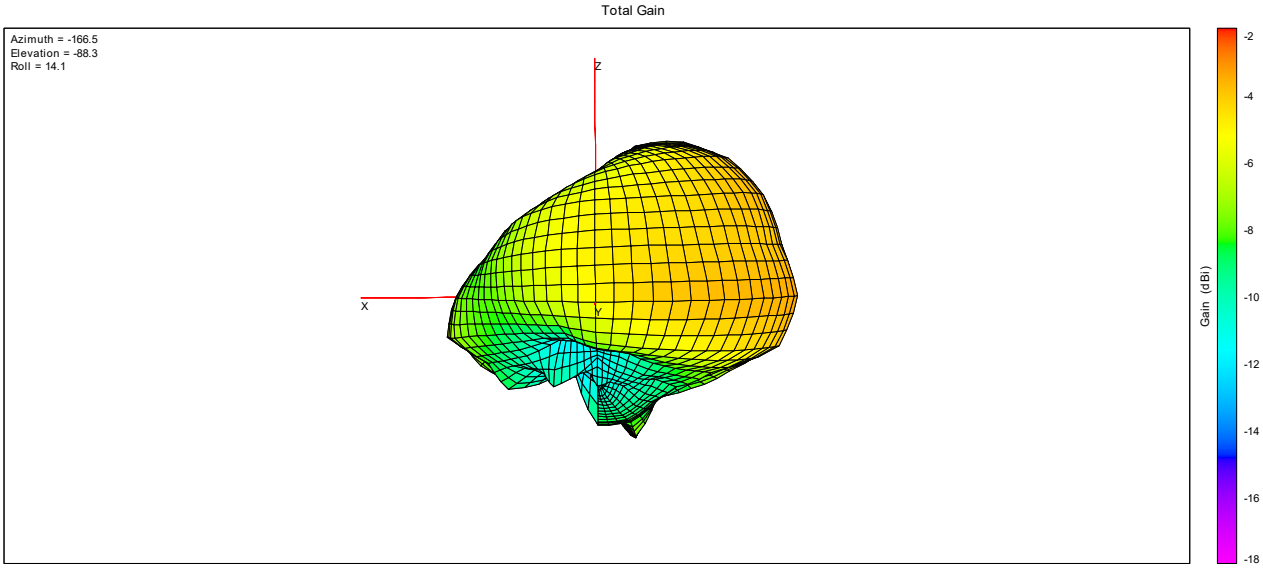

Gain
0
30
330
60
300
90
270
120
240
150
210
180
Angle (°)
Gain (dBi)
+X
+Y
2402 MHz
2440 MHz
2480 MHz
Max: -2
Min: -14
Scale: 2/div

2#

2. 3D Radiation Pattern



2402MHz_1#



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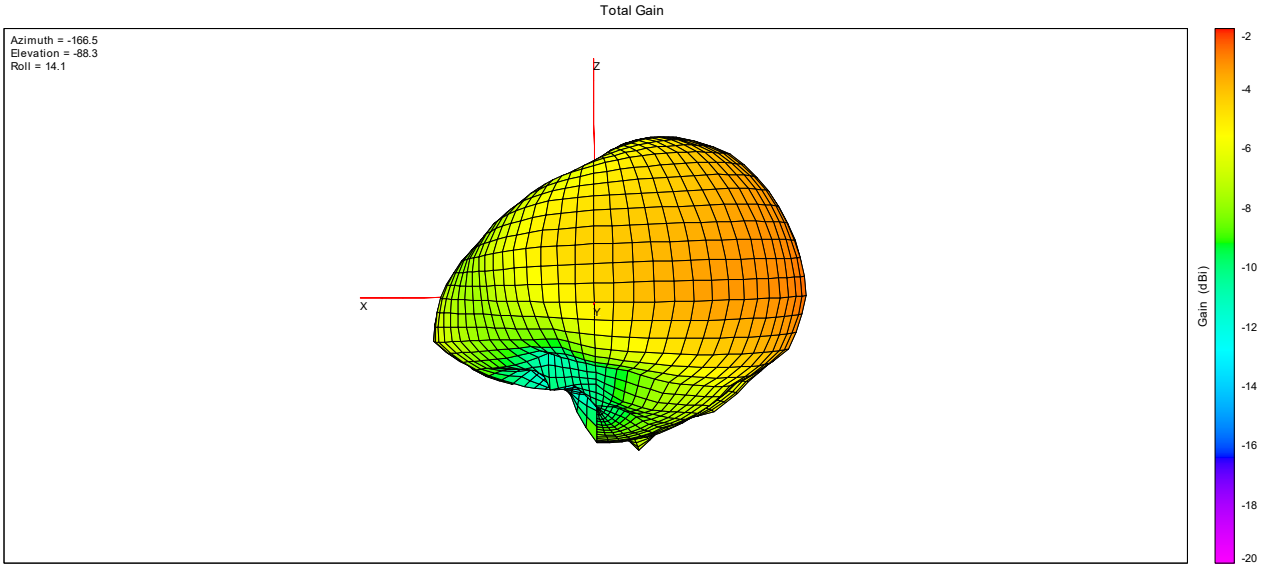
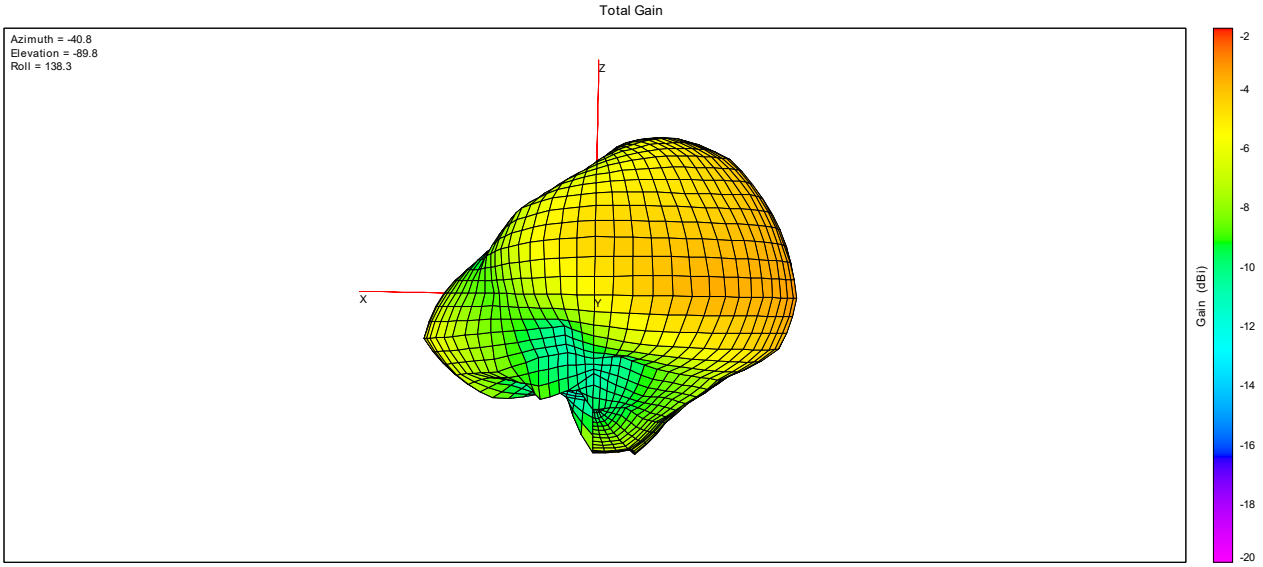
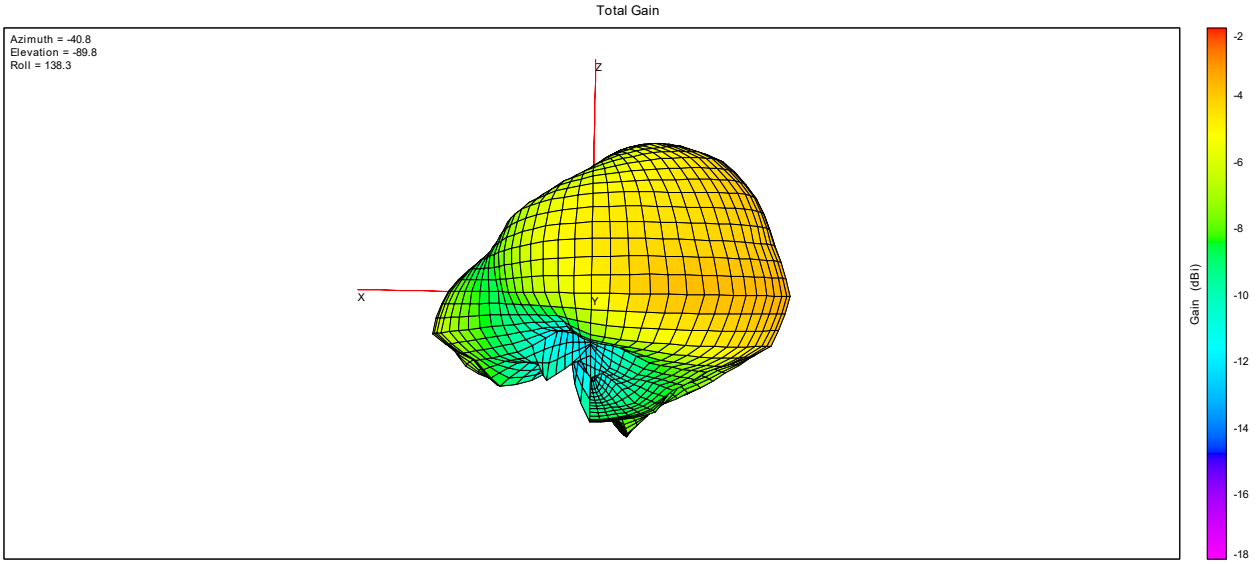


2480MHz_1#



2402MHz_2#



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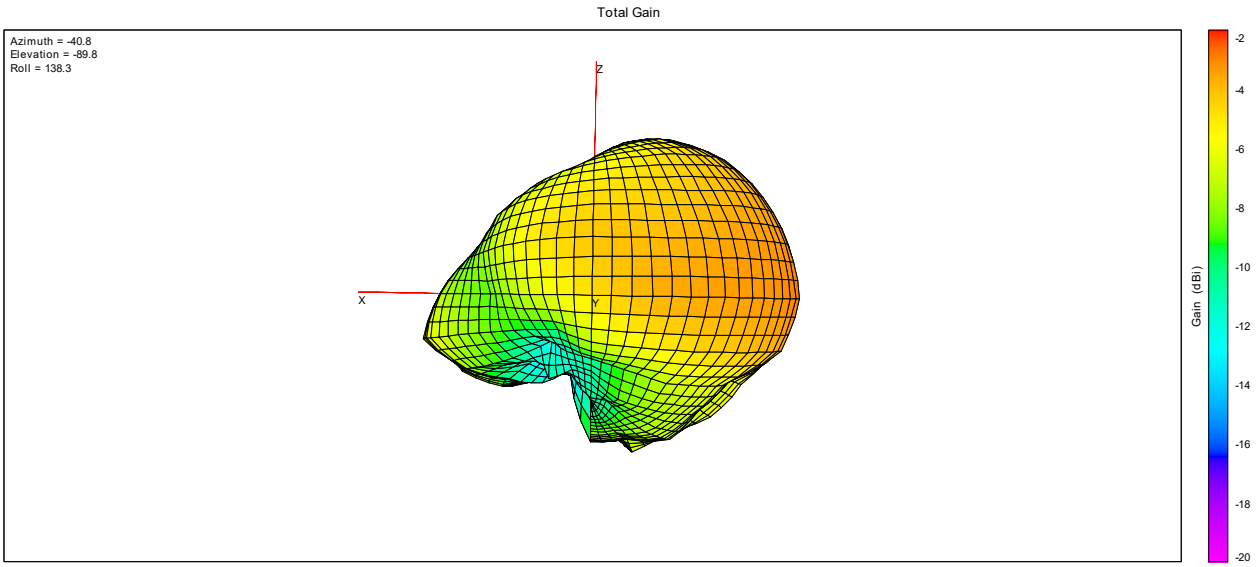
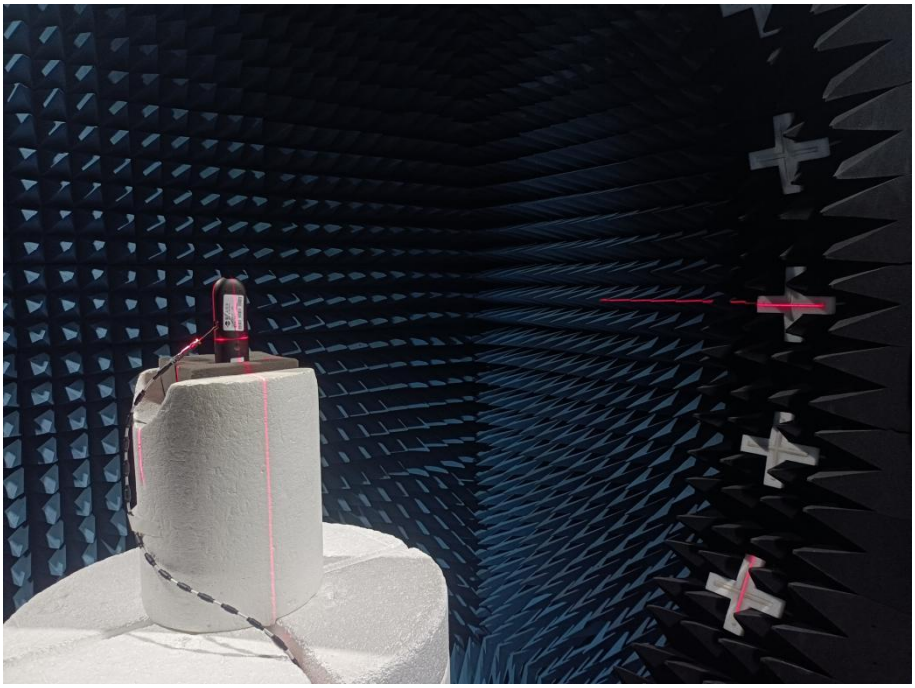
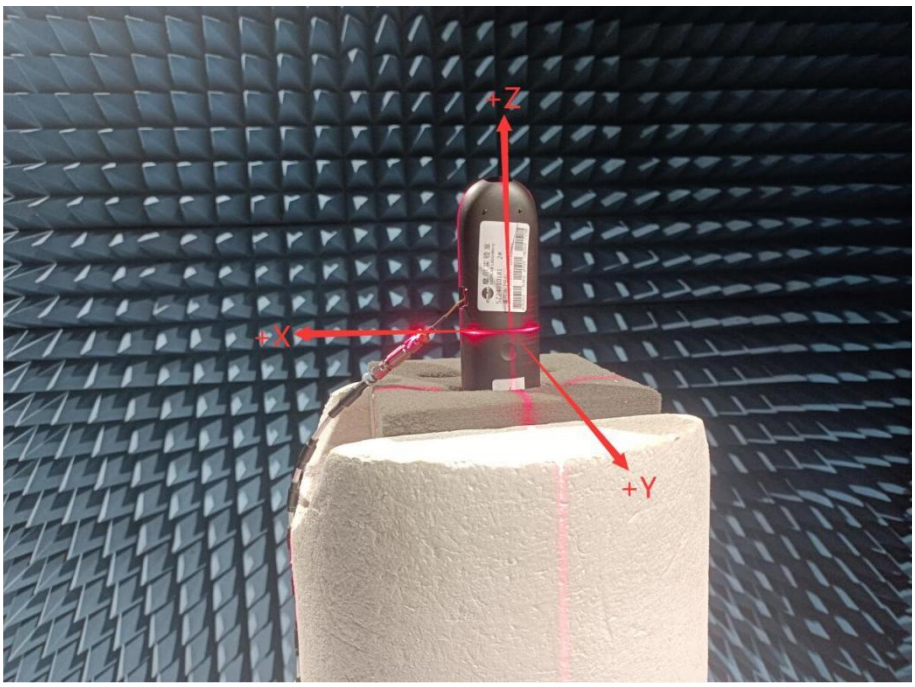


2480MHz_2#

Annex C EUT Photos

1. Test environment





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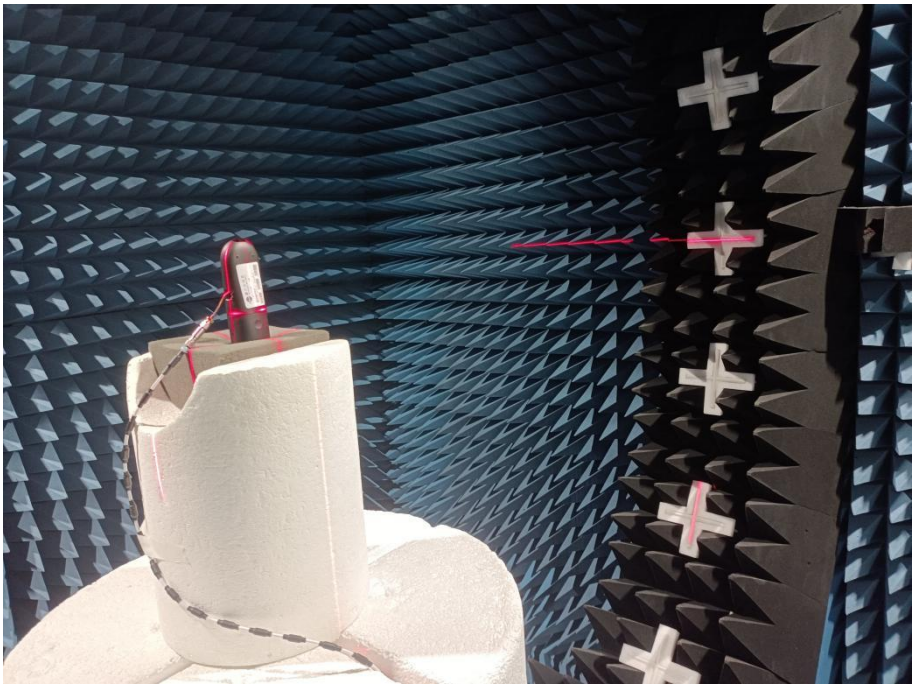
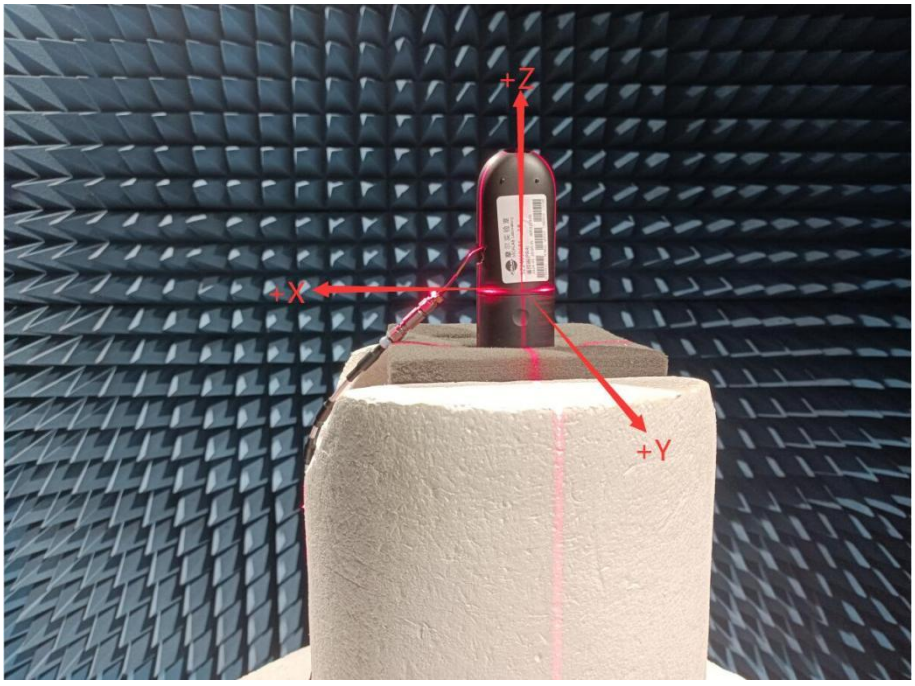
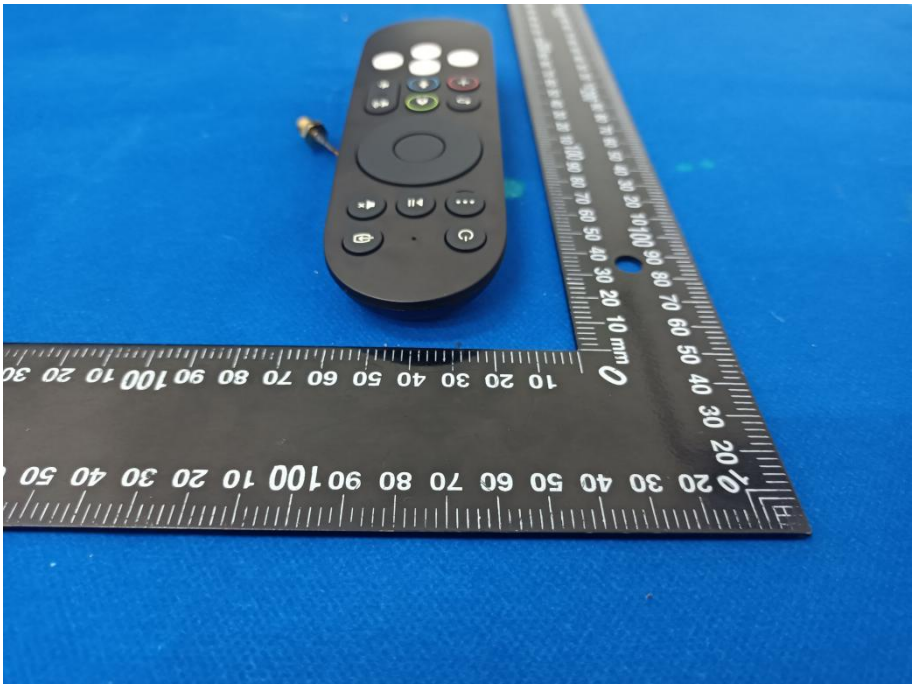
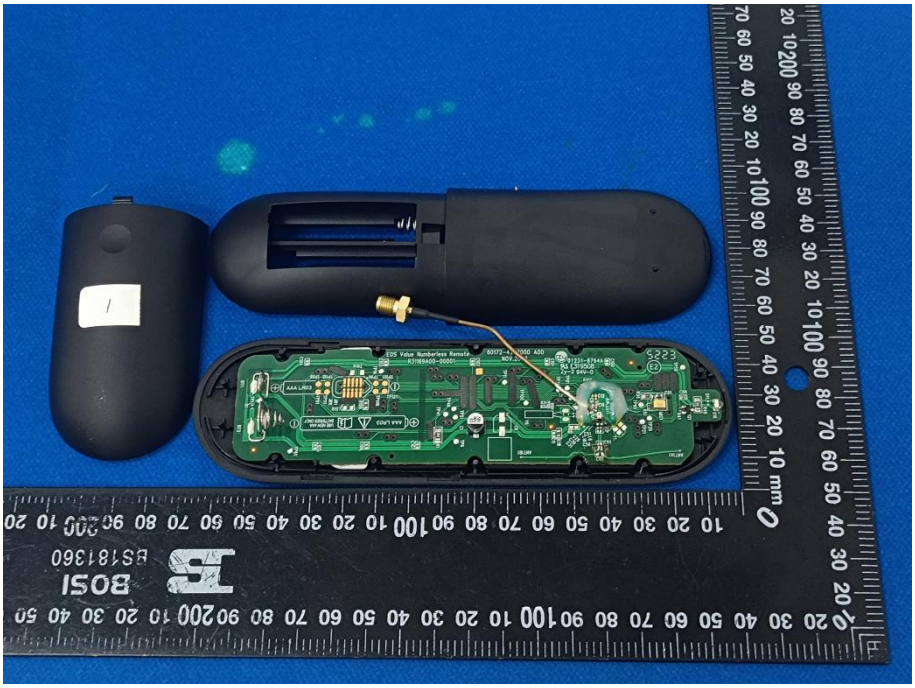


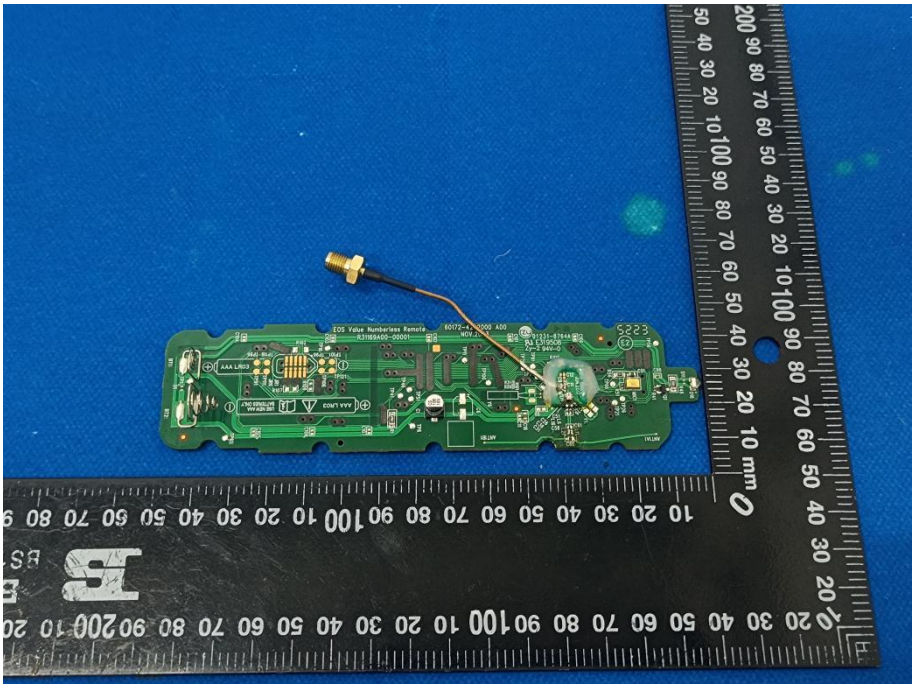


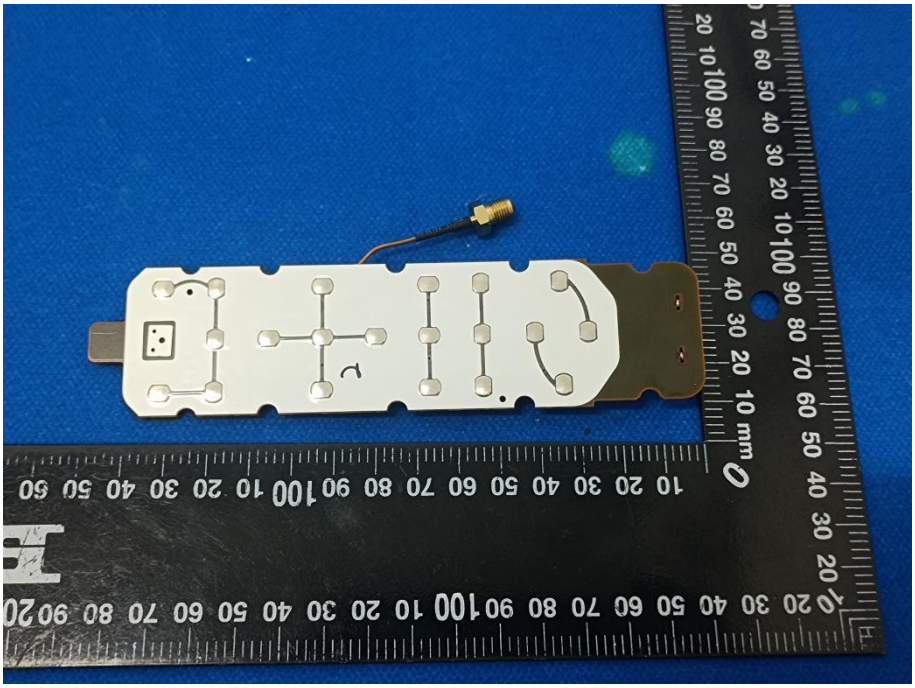
2#

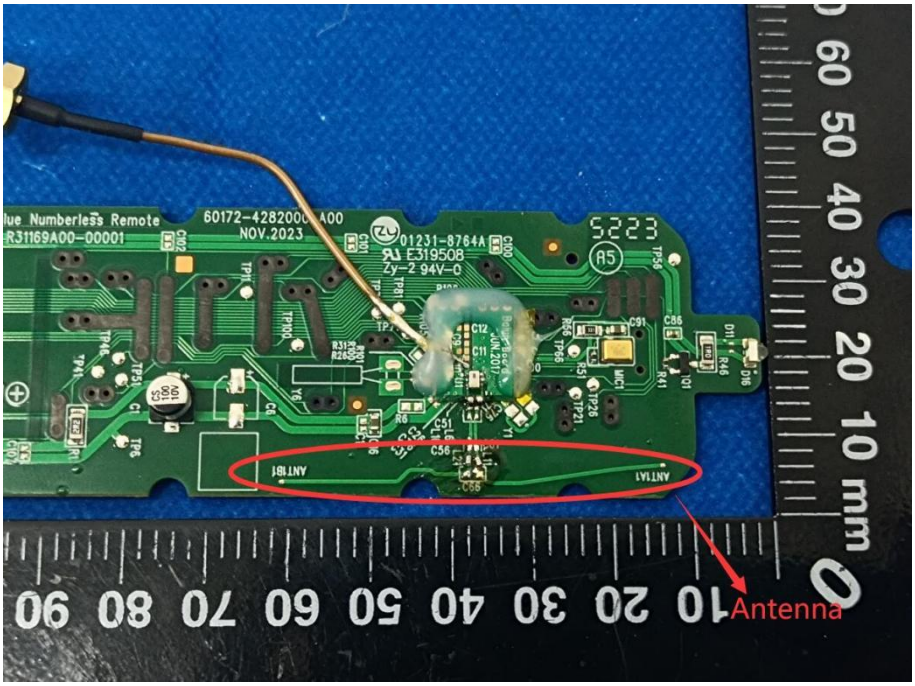
2. EUT











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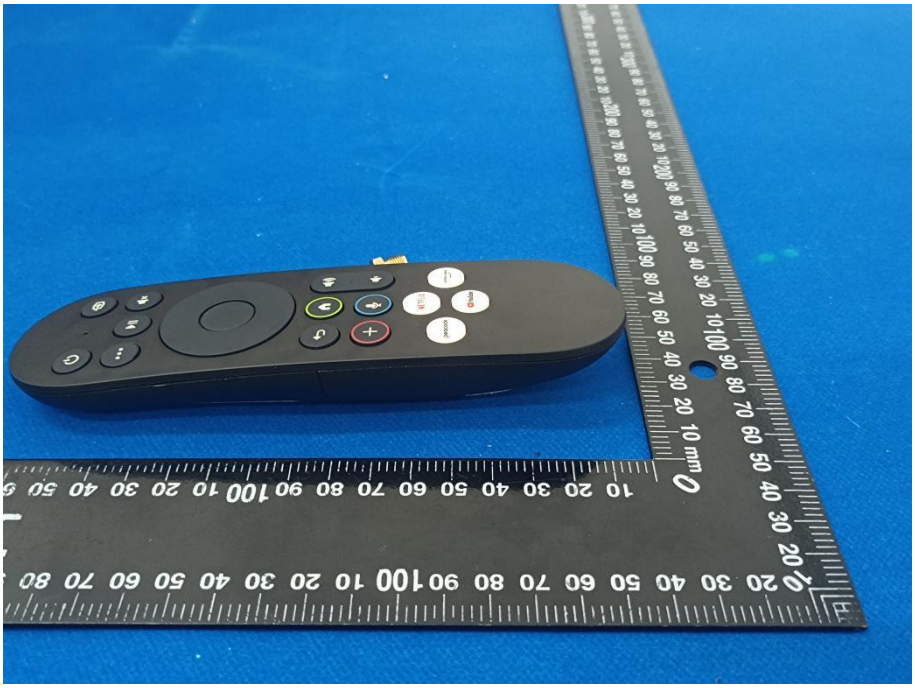

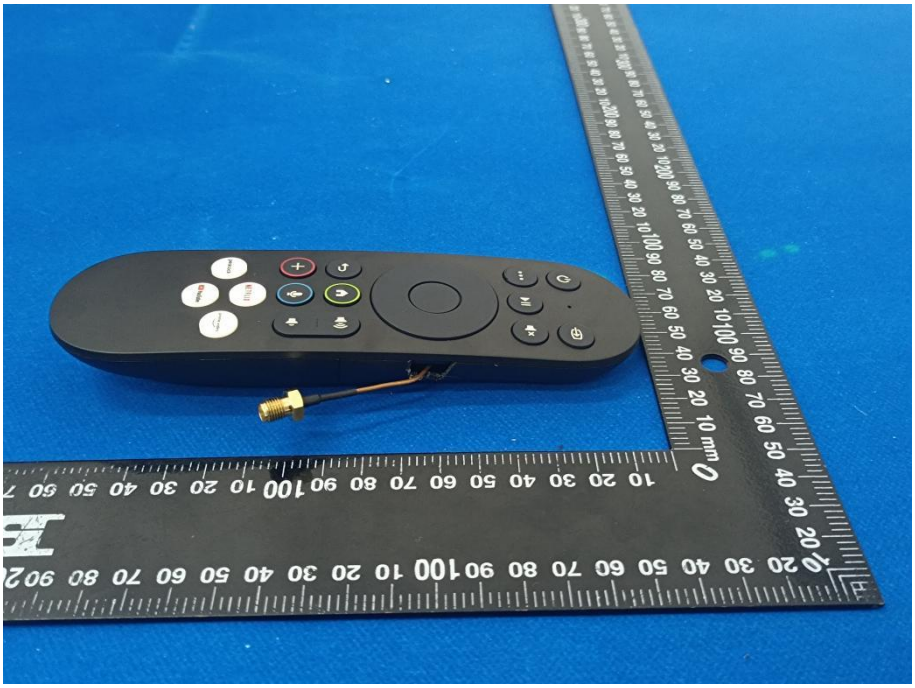

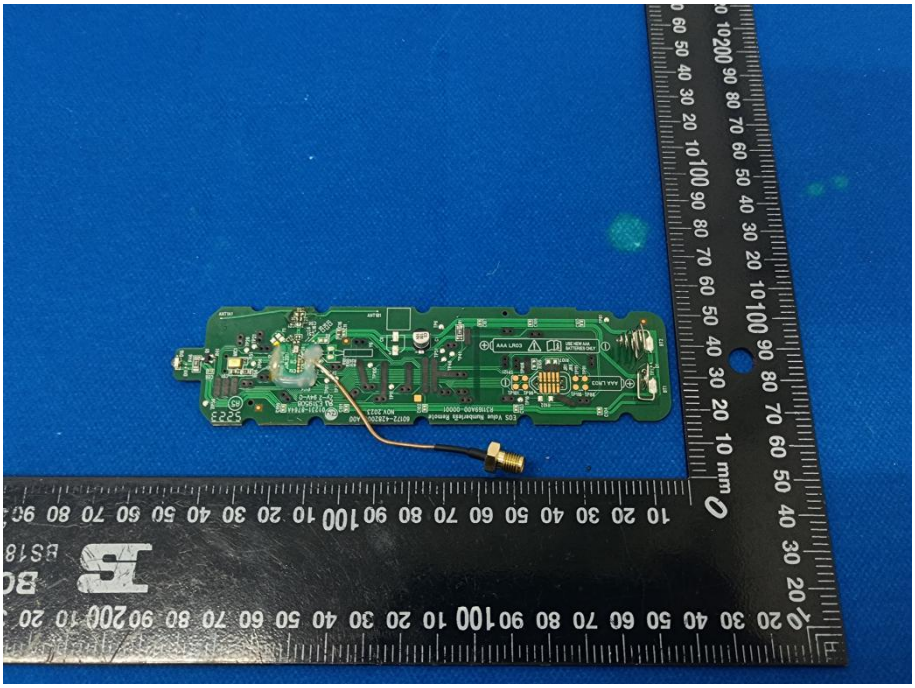

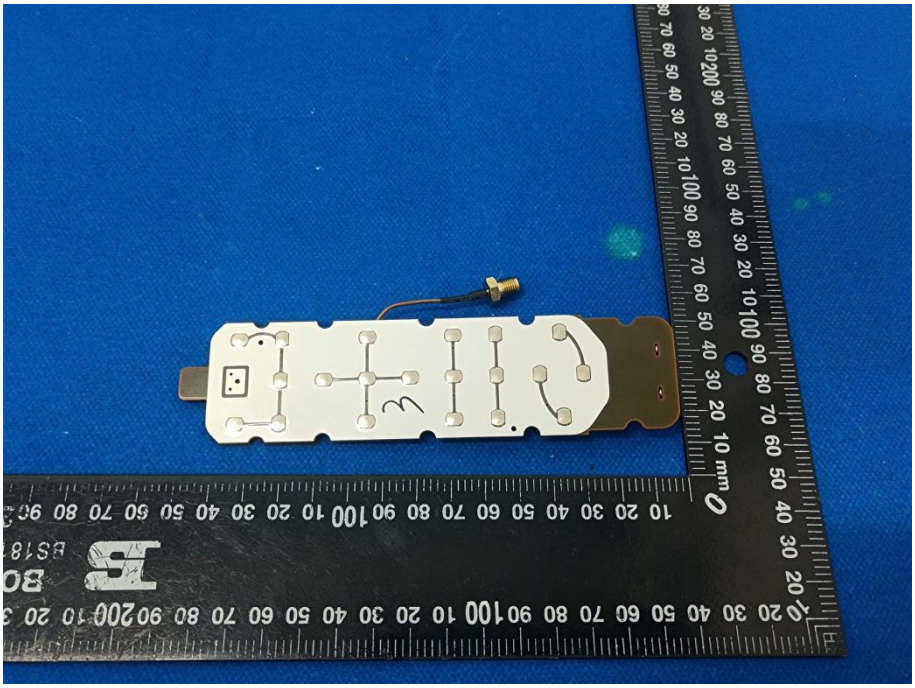

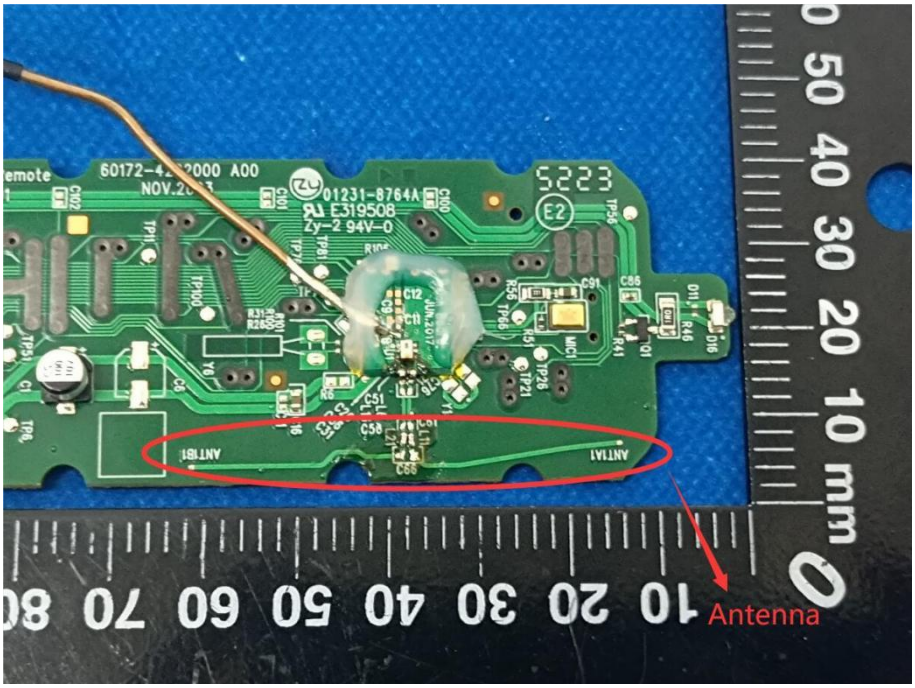

2#

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,Block 67, 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,Block 67, 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-892 3-150	ETS	2022.11.30	2025.11.29

1.4 Test Software Utilized

No.	Software Name	Serial No.	Version	Manufacturer
1	Antenna Measurement System	1685	EMQuest EMQ-100 V 1.13 Build 21267	ETS

END OF REPORT