



REPORT No.: SZ26060524T01

TEST REPORT

APPLICANT : Zhejiang Lierda Internet of Things Technology Co., Ltd.

PRODUCT NAME : L-WF29A2A0 Dual-band IoT Wi-Fi Module

MODEL NAME : L-WF29A2A0

TRADE NAME : N/A

BRAND NAME : N/A

STANDARD(S) : IEEE Std 149-2021

RECEIPT DATE : 2026-06-29

TEST DATE : 2026-07-06

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Approved by:

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MORLAB

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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	8
Annex B Figures	9
1. 2D Radiation Pattern	9
2. 3D Radiation Pattern	10
3. VSWR	13
4. Return Loss	14
5. Impedance	14
Annex C EUT Photos	15
Annex D Testing Laboratory Information	18
1. Identification of the Responsible Testing Laboratory	18
2. Identification of the Responsible Testing Location	18
3. Test Equipment Utilized	18
3.1 Test Equipments	18
3.2 Test Software	18
Notes	19

Change History		
Version	Date	Reason for change
1.0	2026-07-24	First edition

Note: the latest revision of the report supersedes all previous version.



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Zhejiang Lierda Internet of Things Technology Co., Ltd.
Applicant Address:	Room 1402, Building 1, No.1326, Wenyi West Road, Cangqian street, Yuhang District, Hangzhou, Zhejiang Prov.,China
Manufacturer:	Zhejiang Lierda Internet of Things Technology Co., Ltd.
Manufacturer Address:	Room 1402, Building 1, No.1326, Wenyi West Road, Cangqian street, Yuhang District, Hangzhou, Zhejiang Prov.,China

1.2. Equipment Under Test (EUT) Description

Wireless Type	N/A
Test frequency band	2400MHz-2500MHz/5150MHz-5850MHz
Antenna Type	N/A
Serial Number	N/A
Sample number	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

Notes: Any additions, deviation, or exclusions from the method shall be noted in the "Remark".

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.



2.4. Test Results lists

2.4.1. Gain & Efficiency

Frequency(MHz)	Gain(dBi)	Efficiency(%)
2400	0.86	30.46
2410	1.01	31.37
2420	0.99	31.35
2430	0.95	31.30
2440	1.15	32.44
2450	1.23	33.08
2460	1.37	33.72
2470	1.32	33.33
2480	1.36	33.10
2490	1.33	32.76
2500	1.28	32.51
5150	2.30	45.83
5200	1.87	45.93
5250	2.58	52.43
5300	2.25	51.31
5350	2.58	56.12
5400	2.33	53.38
5450	2.12	52.23
5500	1.91	54.01
5550	1.35	50.98
5600	2.10	51.42
5650	2.44	51.15
5700	2.89	52.68
5750	3.00	54.34
5800	2.79	50.26



5850	3.03	51.60
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2.4.2.VSWR

Frequency(MHz)	VSWR
2400	2.43
2450	1.42
2500	1.24
5150	2.16
5500	1.52
5850	1.74

2.4.3.Return Loss

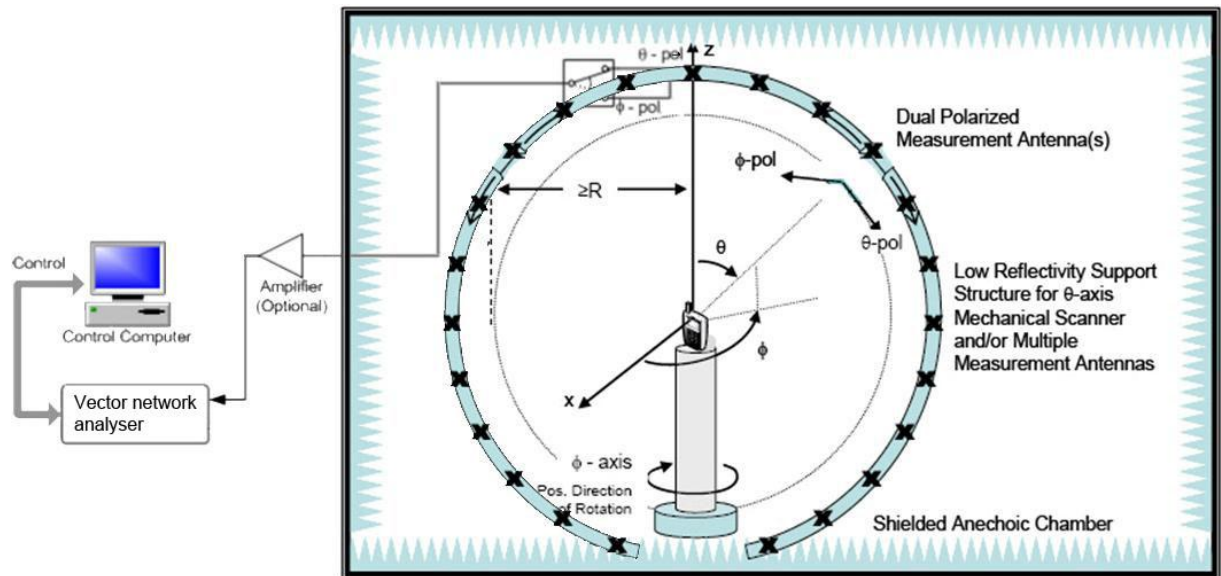
Frequency(MHz)	Return Loss(dB)
2400	-7.57
2450	-15.99
2500	-19.27
5150	-8.69
5500	-13.62
5850	-11.32



2.4.4.Impedance

Frequency(MHz)	Impedance(Ω)
2400	41.94
2450	59.39
2500	43.00
5150	105.62
5500	42.69
5850	77.74

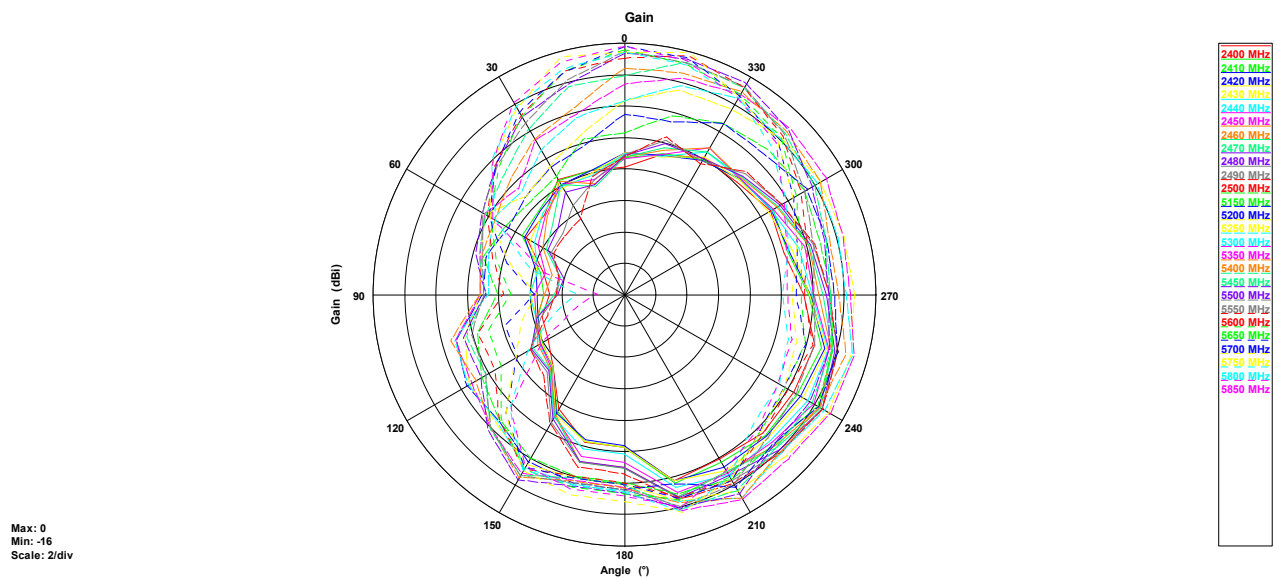
Annex A Test Setup Photos



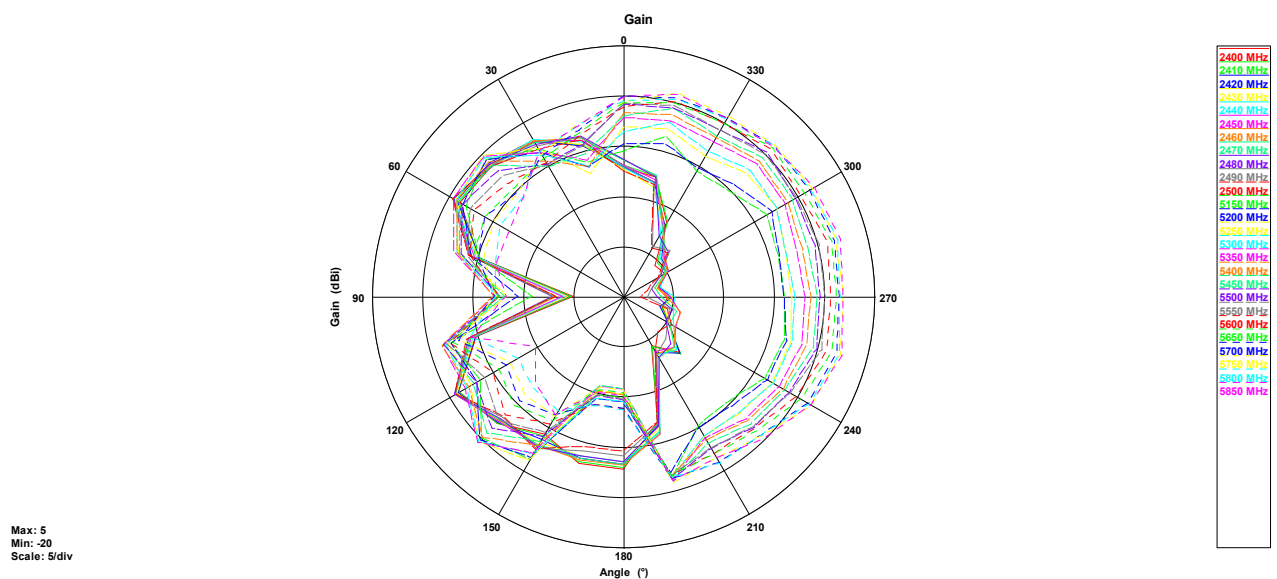
Annex B Figures

1. 2D Radiation Pattern

Phi=0°

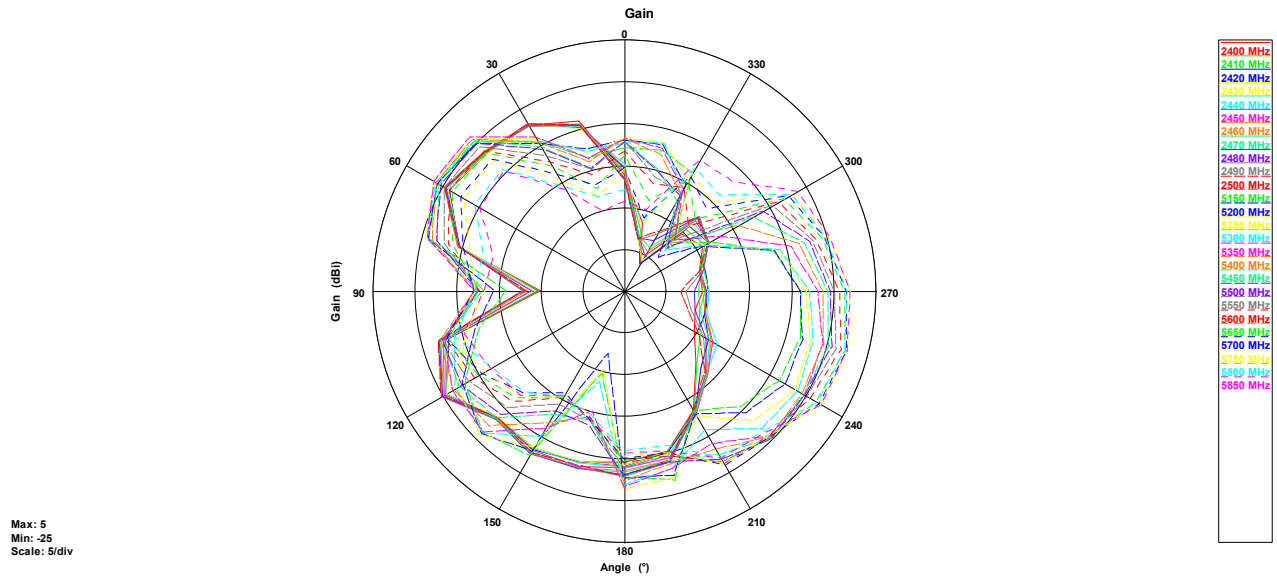


Phi=90°

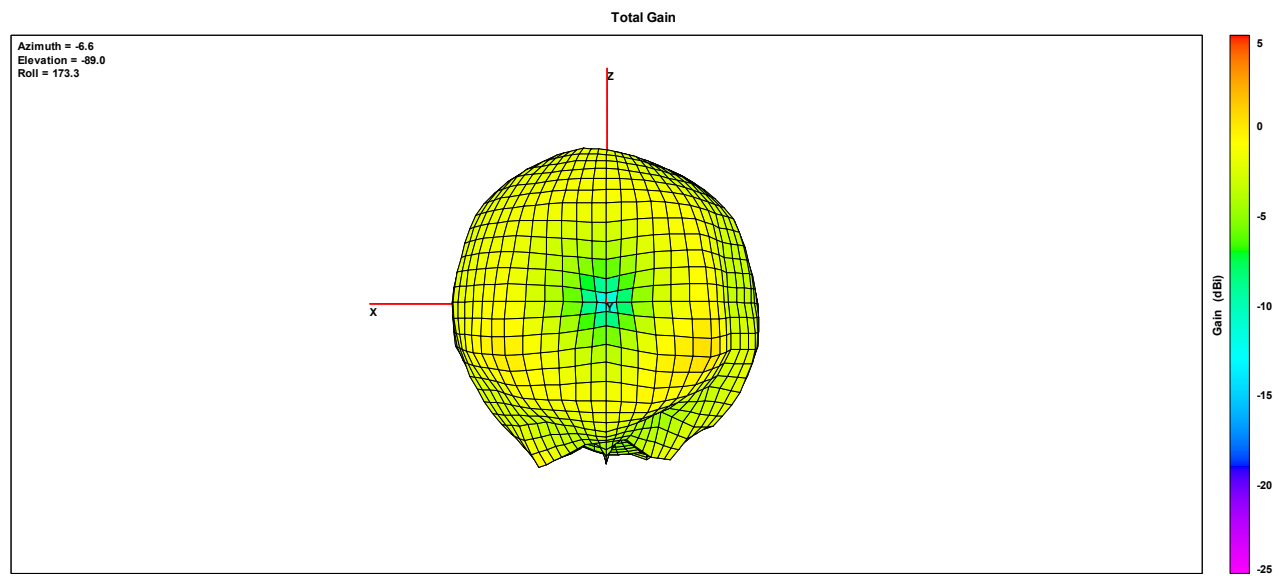




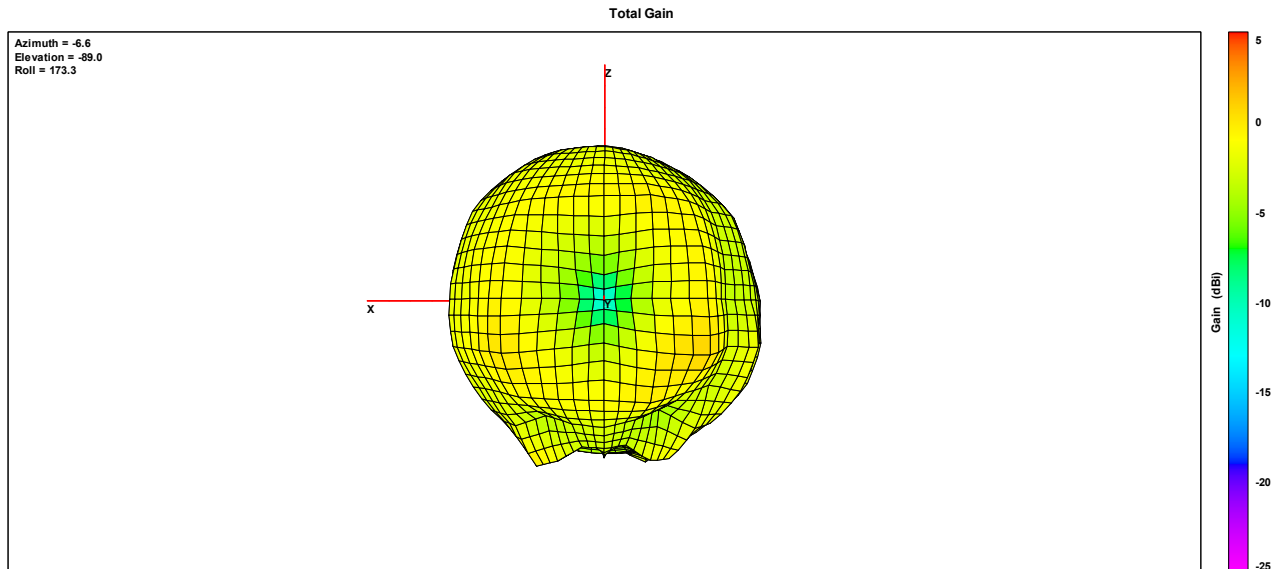
Theta=90°



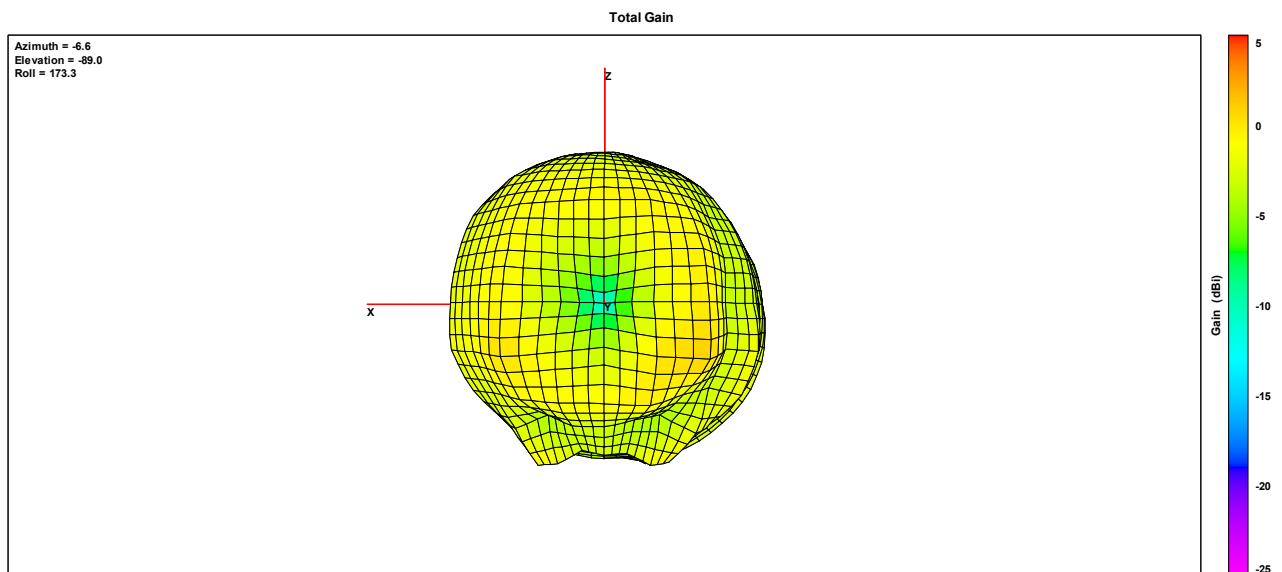
2. 3D Radiation Pattern



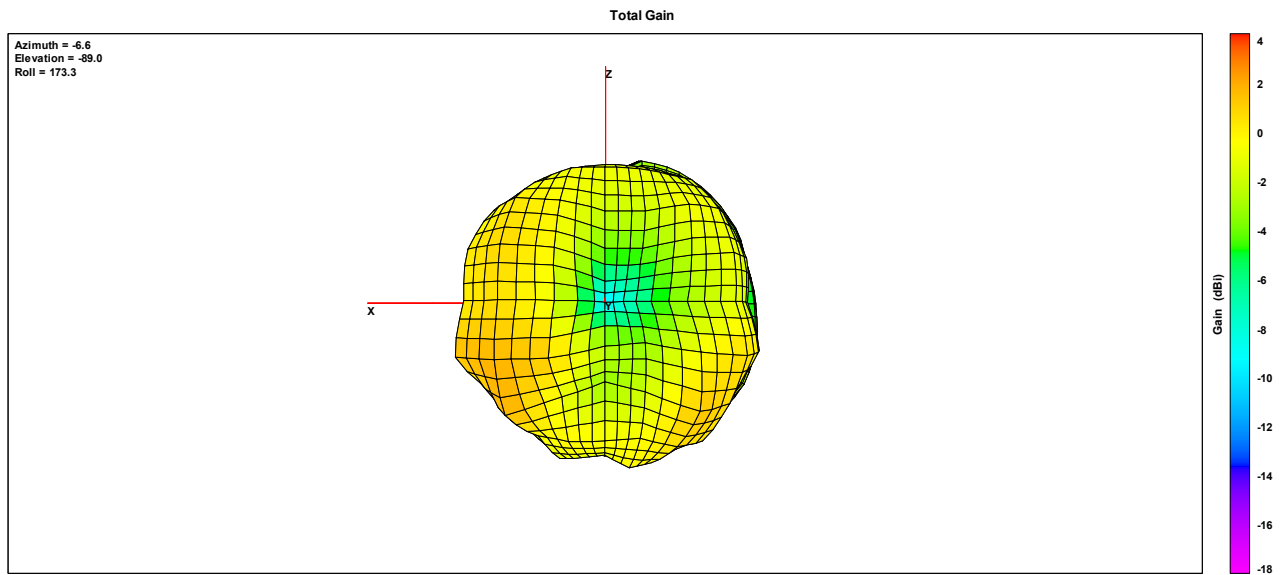
2400MHz



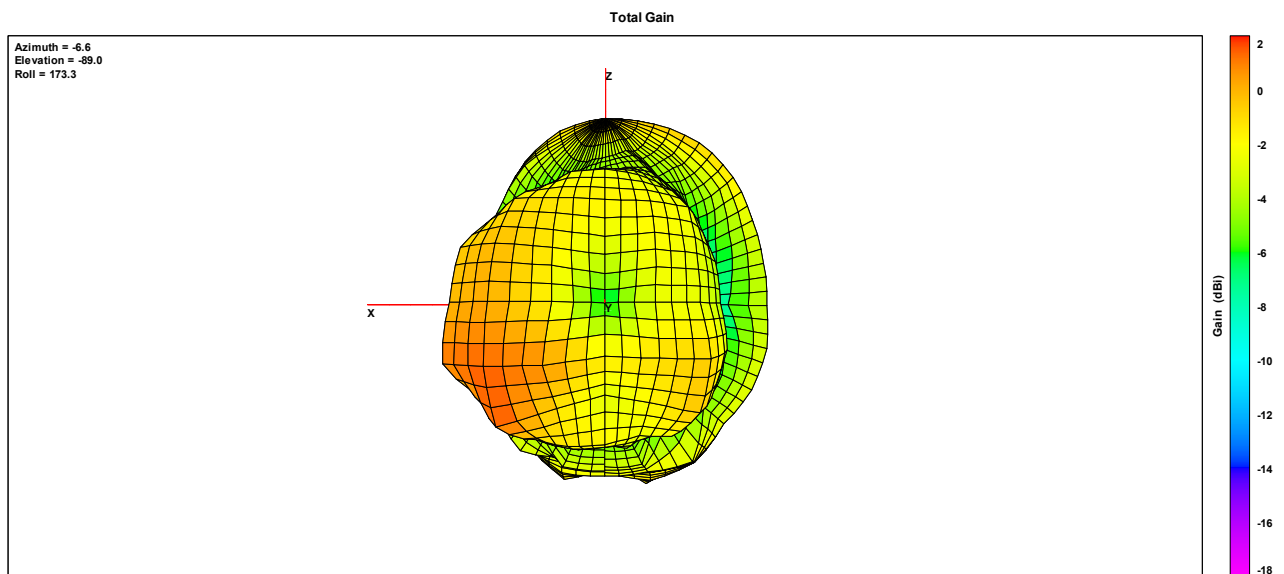
2450MHz



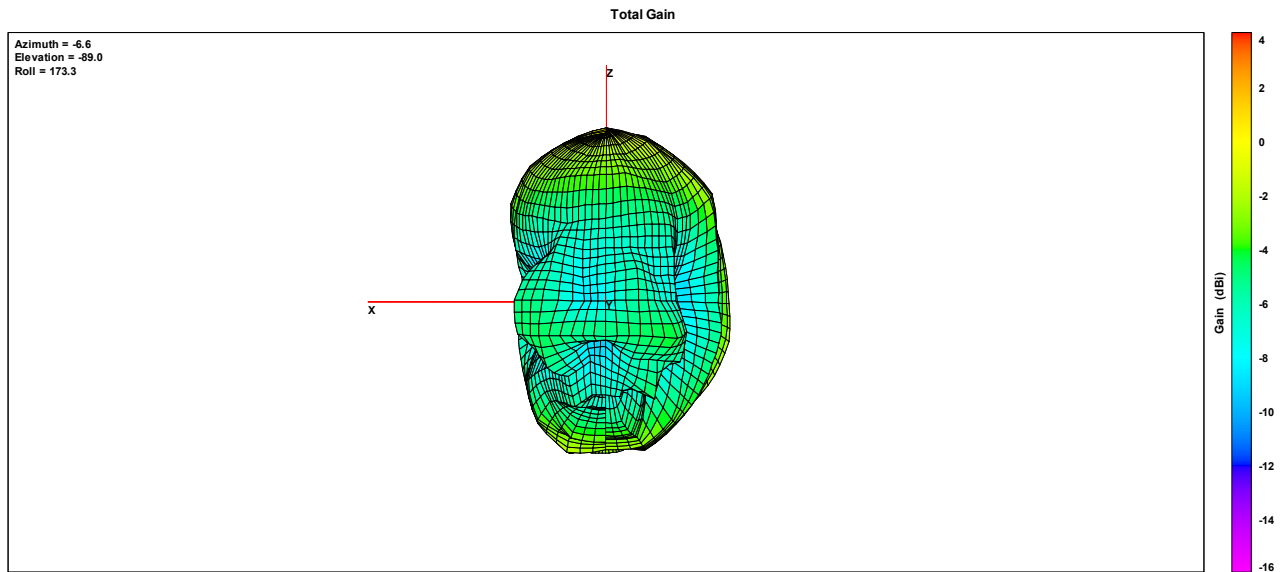
2500MHz



5150MHz

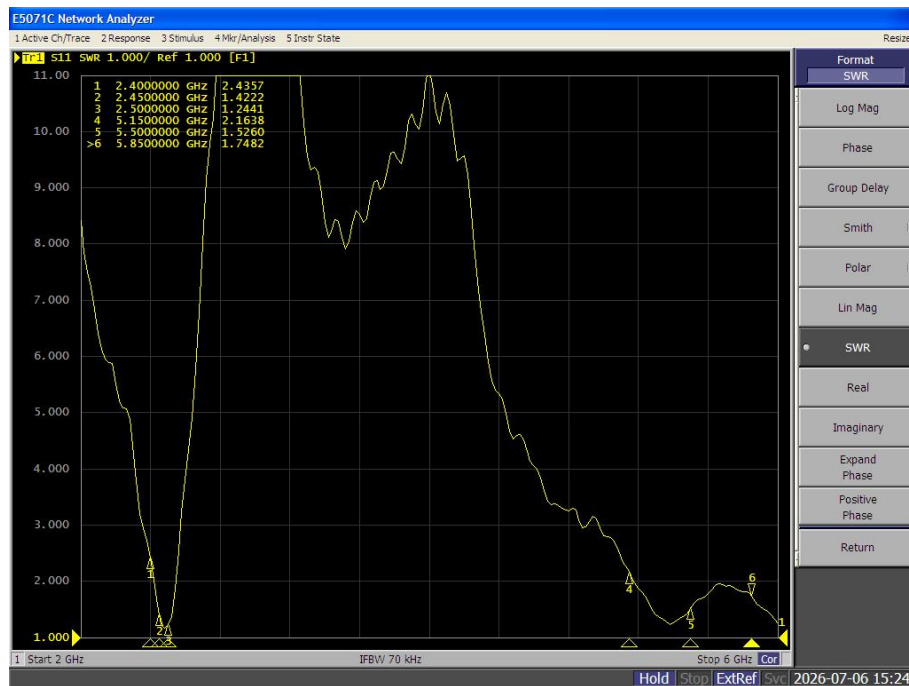


5500MHz



5850MHz

3. VSWR

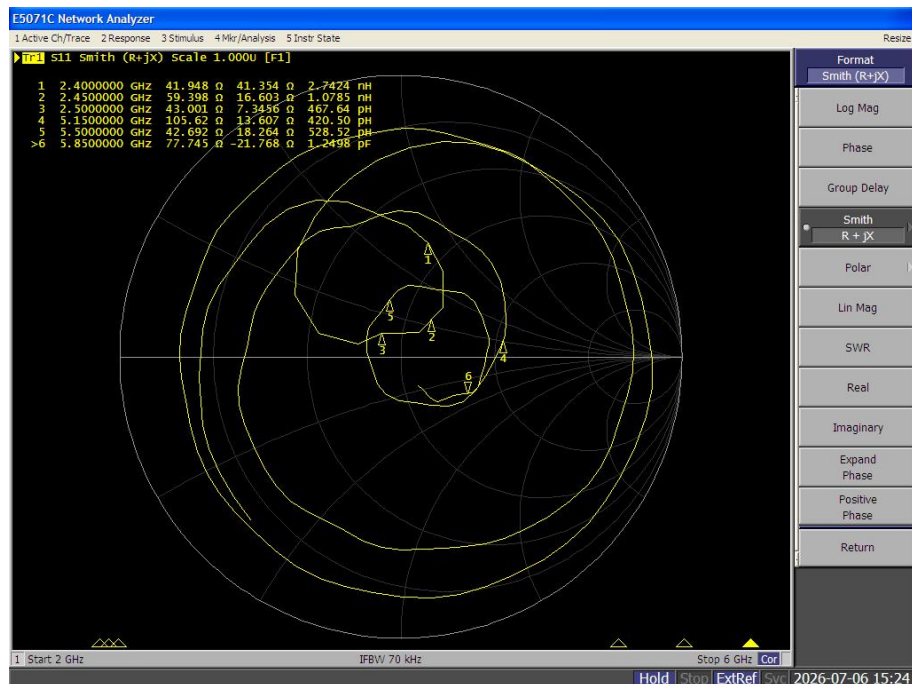




4. Return Loss

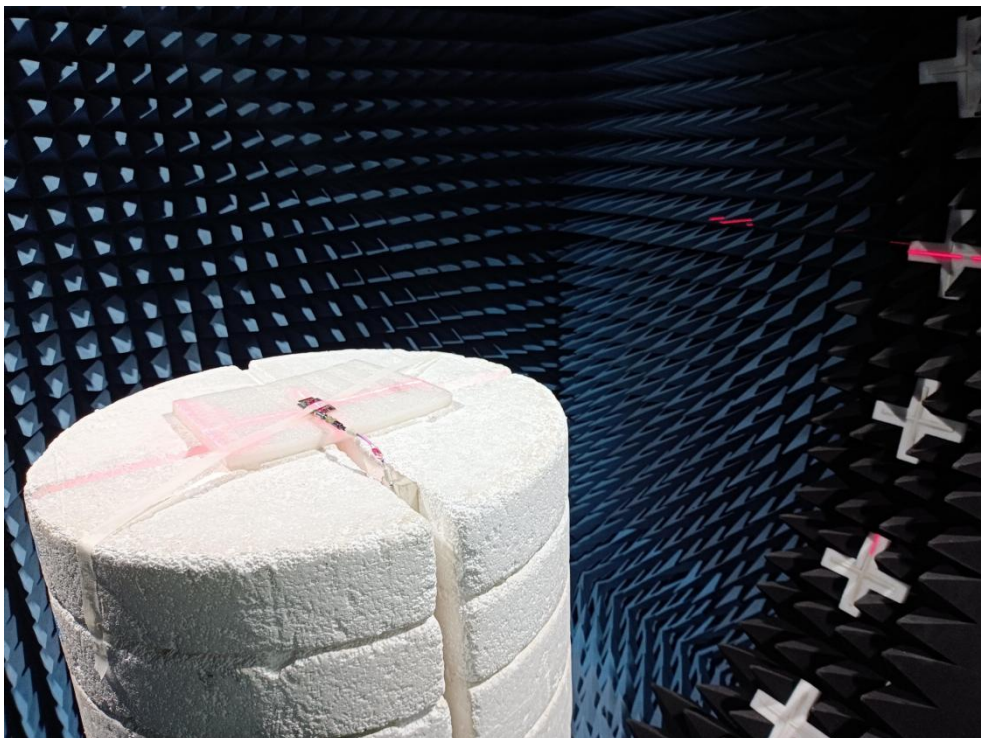
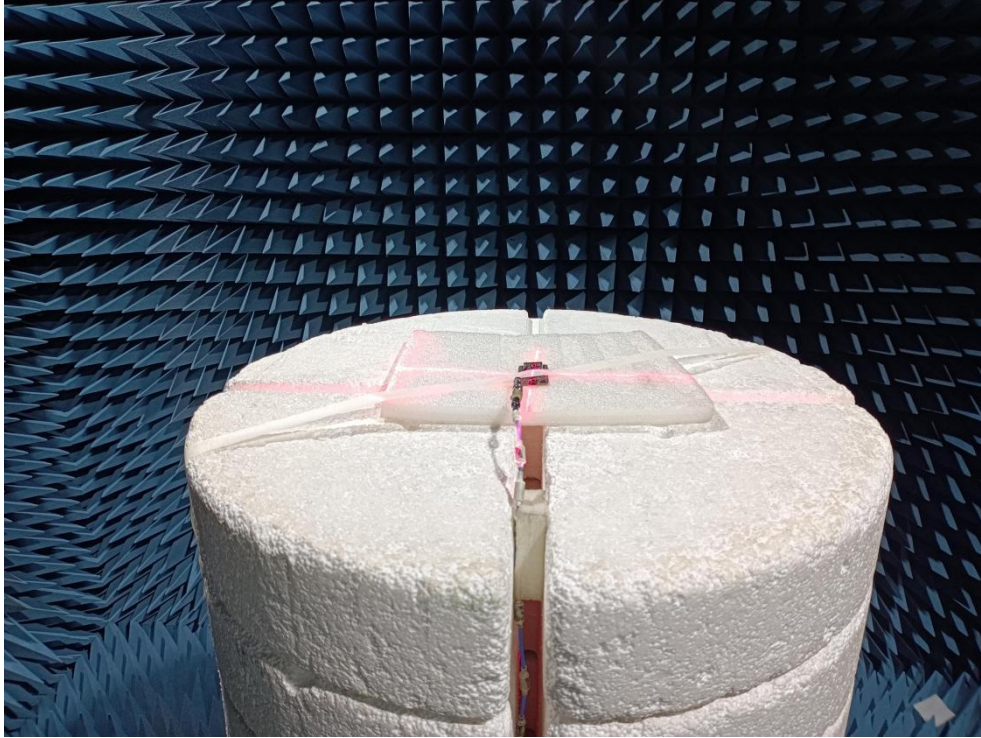


5. Impedance

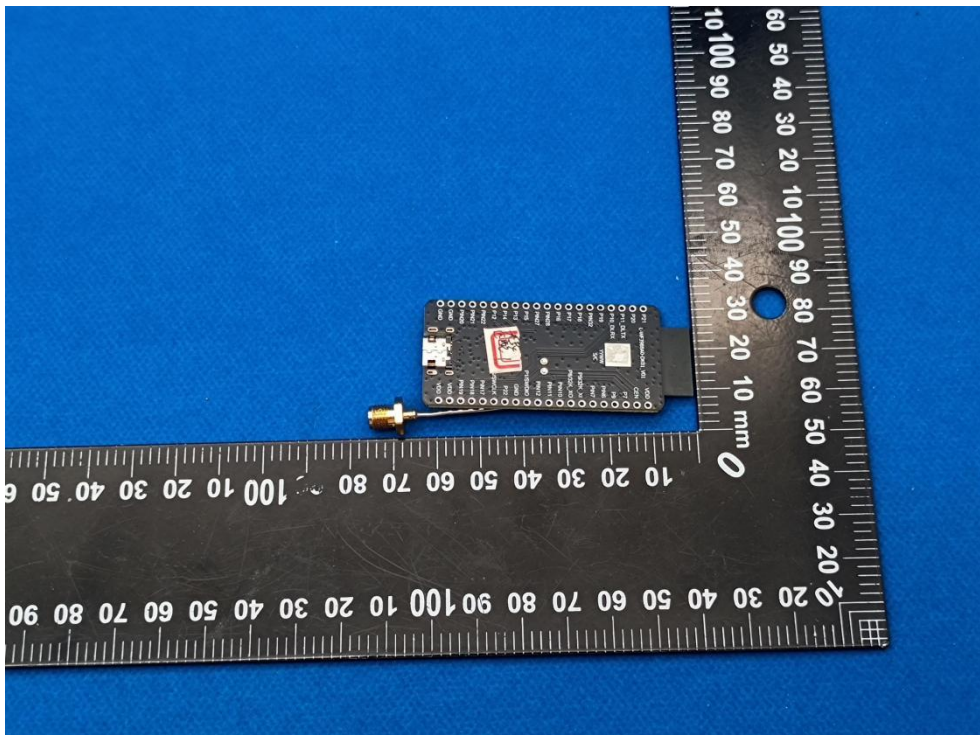
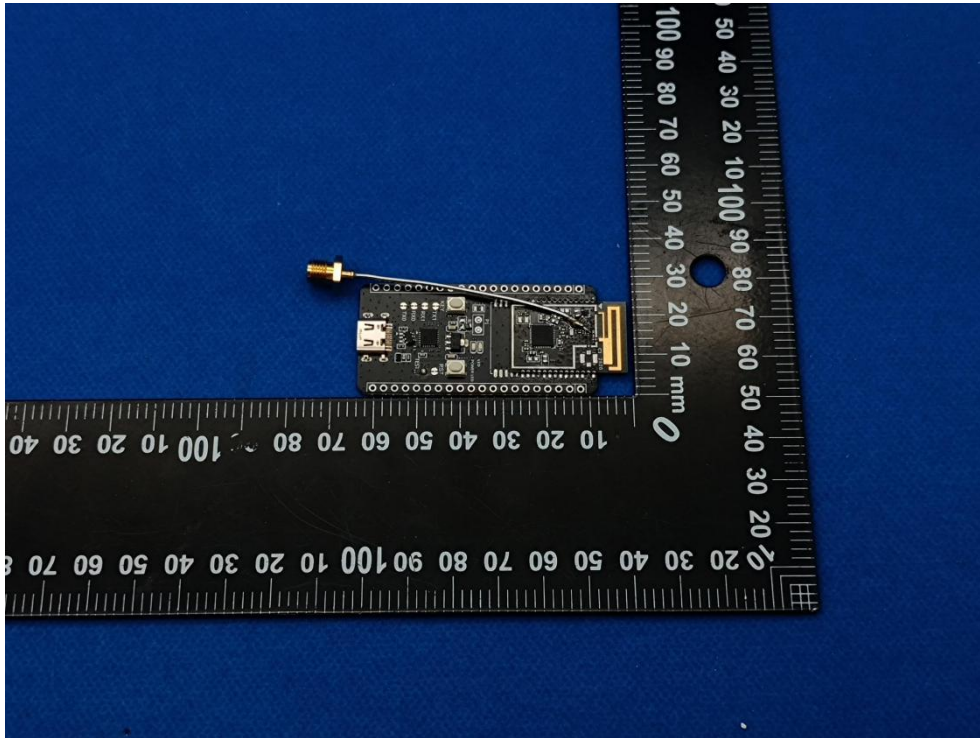


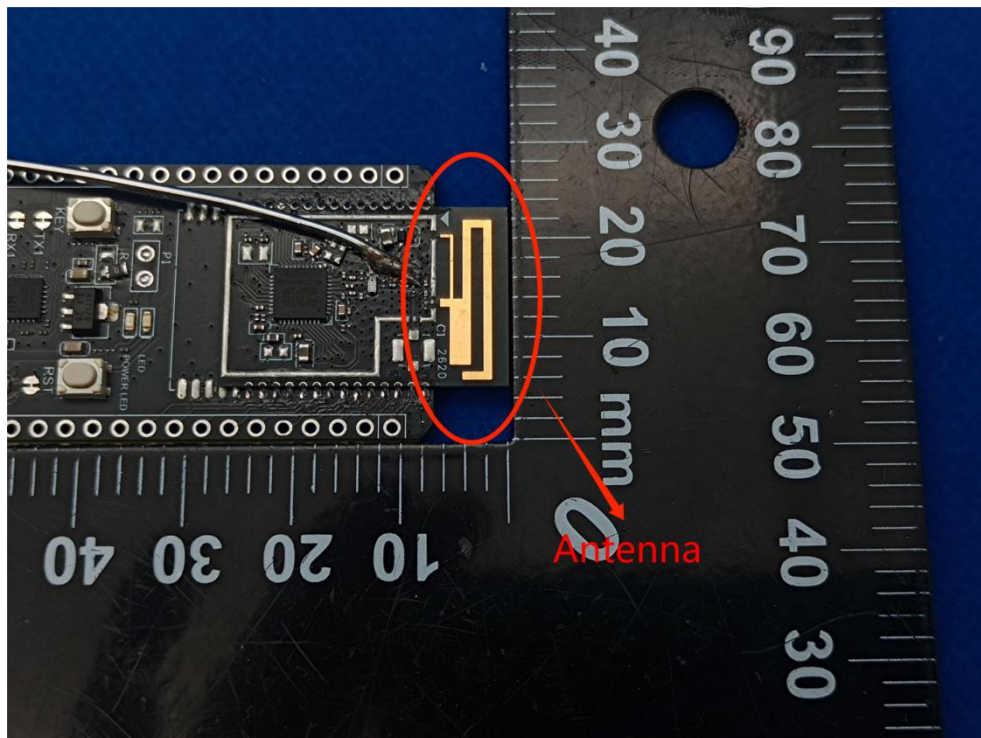
Annex C EUT Photos

1. Test environment



2. EUT







Annex D Testing Laboratory Information

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

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

3. Test Equipment Utilized

3.1 Test Equipments

No.	Equipment Name	Serial No.	Type	Manufacturer	Cal.Date	Cal.Due Date
1	Network Analyzer	MY46110140	E5071C	Agilent	2026.05.19	2027.05.18
2	OTA Chamber	TJ2235-Q1793	AMS-8923 -150	ETS	2025.11.15	2028.11.14

3.2 Test Software

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



Notes

1. The report shall have report stamp or our company stamp.
2. The report shall be invalid without all the signatures of the editor and approver.
3. The report shall not be changed.
4. Any objections must be raised to Morlab within 15 days since the date when the report is received. It will not be taken into consideration beyond this limit.
5. Conformity declaration:
 - ☒ Morlab issues a statement of conformity based on the corresponding standards (default)
 - ☐ Morlab issues a statement of conformity based on the applicant requirement
6. Use of uncertainty of measurement for decisions on conformity (decision rule):

No decision rule is specified by the testing standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule).

————— END OF REPORT —————