Certificate #6613.01

3D Antenna Measurement Summary Report

REPORT NO.:	PSU-QBJ2505160110OT02
PLATFORM MANUFACTURER:	Shenzhen Linkiing Technology Co.,LTD
PLATFORM NAME:	Bluetooth Module
ANTENNA TYPE:	PCB Antenna
TESTED DATE:	2025.05.15-05.16
ISSUED:	2025.05.21

APPLICANT:	Shenzhen Linkiing Technology Co.,LTD
ADDRESS :	Floor 2, Building 5, Lihe Industrial Area, 1055 SongBai Road, Xili Town, Nanshan District, Shenzhen, China
ISSUED BY :	Huarui 7layers High Technology (Suzhou) Co., Ltd.
ADDRESS :	ower N, Innovation Center, 88 Zuyi Road, High-tech District, Suzhou City, Anhui Province China

RELEASE CONTROL RECORD

REPORT NO.	REASON FOR CHANGE	DATE ISSUED
PSU-QBJ2505160110OT02	Original release	2025.05.21

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GENERAL INFORMATION

APPLICANT:	Shenzhen Linkiing Technology Co.,LTD
MANUFACTURER:	Shenzhen Linkiing Technology Co.,LTD
MODEL NO.:	FDS-BS07
HARDWARE VERSION:	V1.1
SOFTWARE VERSION:	V1.2

Test Standard: ANSI/IEEE Std. 149 1979.

PREPARED BY : Ding Fangshun , **DATE :** 2025.05.21

Ding Fang Shun / Engineer

APPROVED BY : Sun Pei bo , **DATE :** 2025.05.21

Sun Pei Bo / Manager

1. Test Equipment List

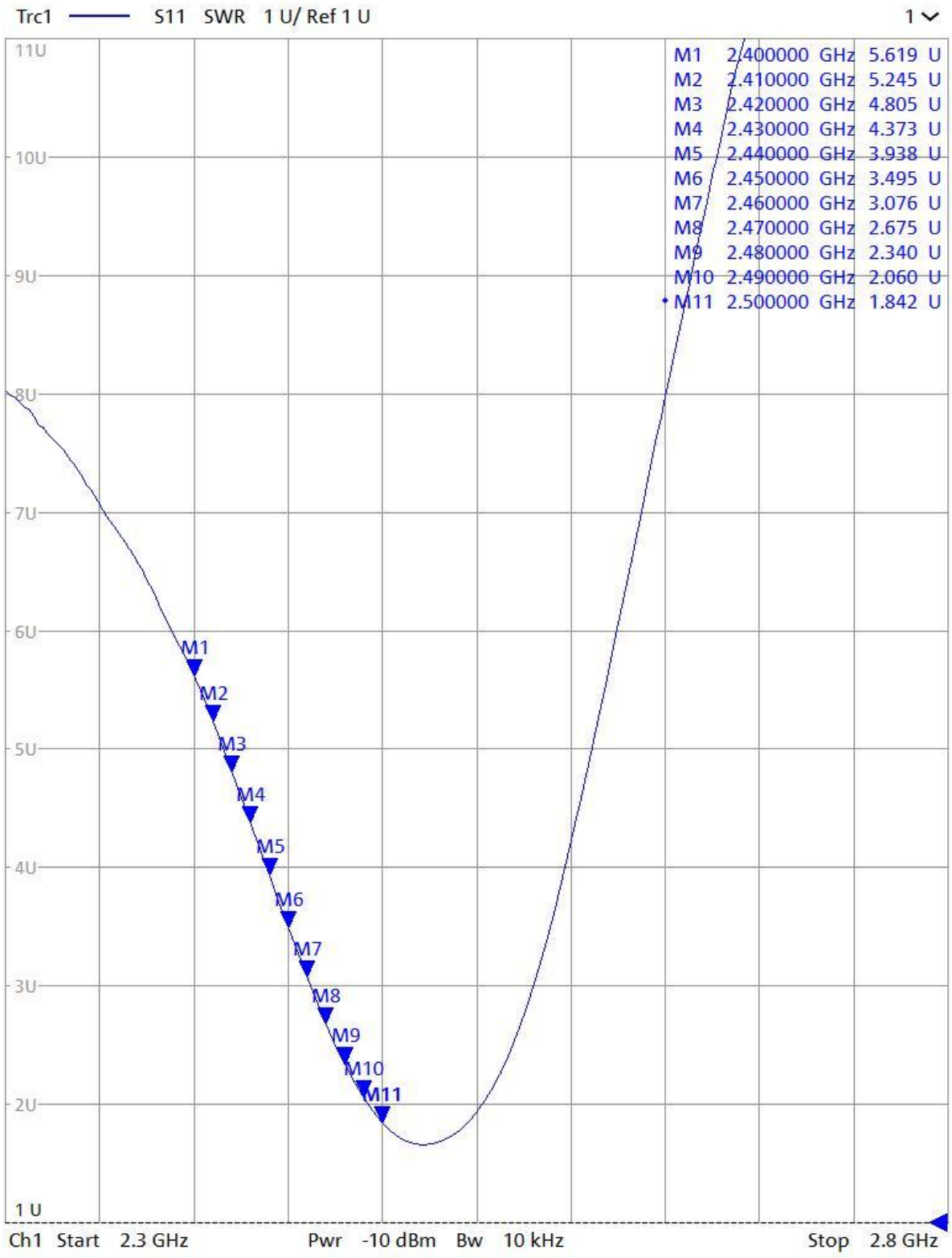
TYPE OF EQUIPMENT	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DUE DATE
Network Analyzer	ZND	102314	2026.03.28
OTA Chamber	TS8991	N/A	N/A
Measurement Antenna	TC-TA18	101095	N/A

2. Measurement Uncertainty

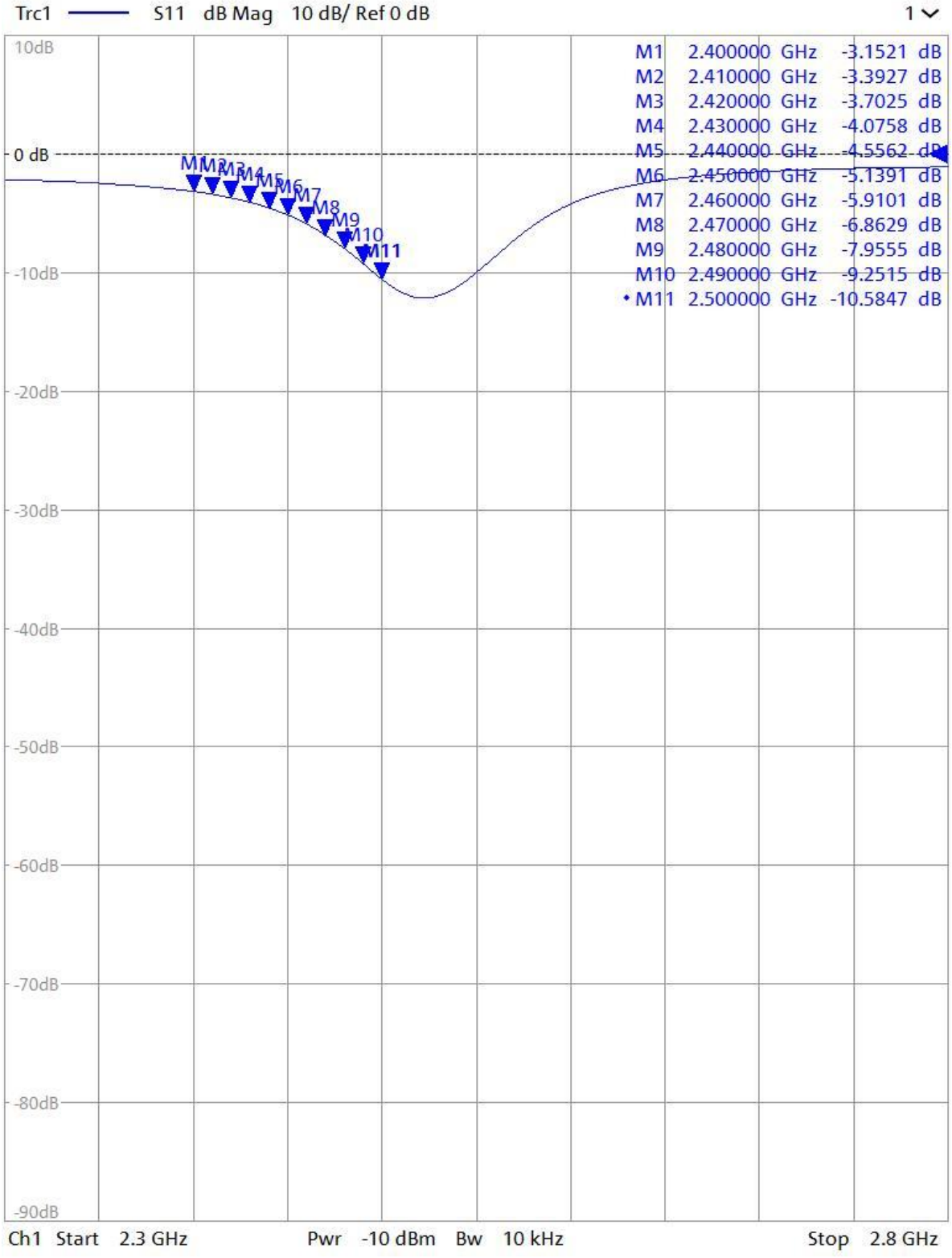
Expanded Uncertainty for Measurement (k=2 or 95% Confidence Level) at Passive antenna test over frequency range 780 – 2200MHz is +/- 1.52 dB.

3. Characteristics of antenna

3.1. S11-VSWR



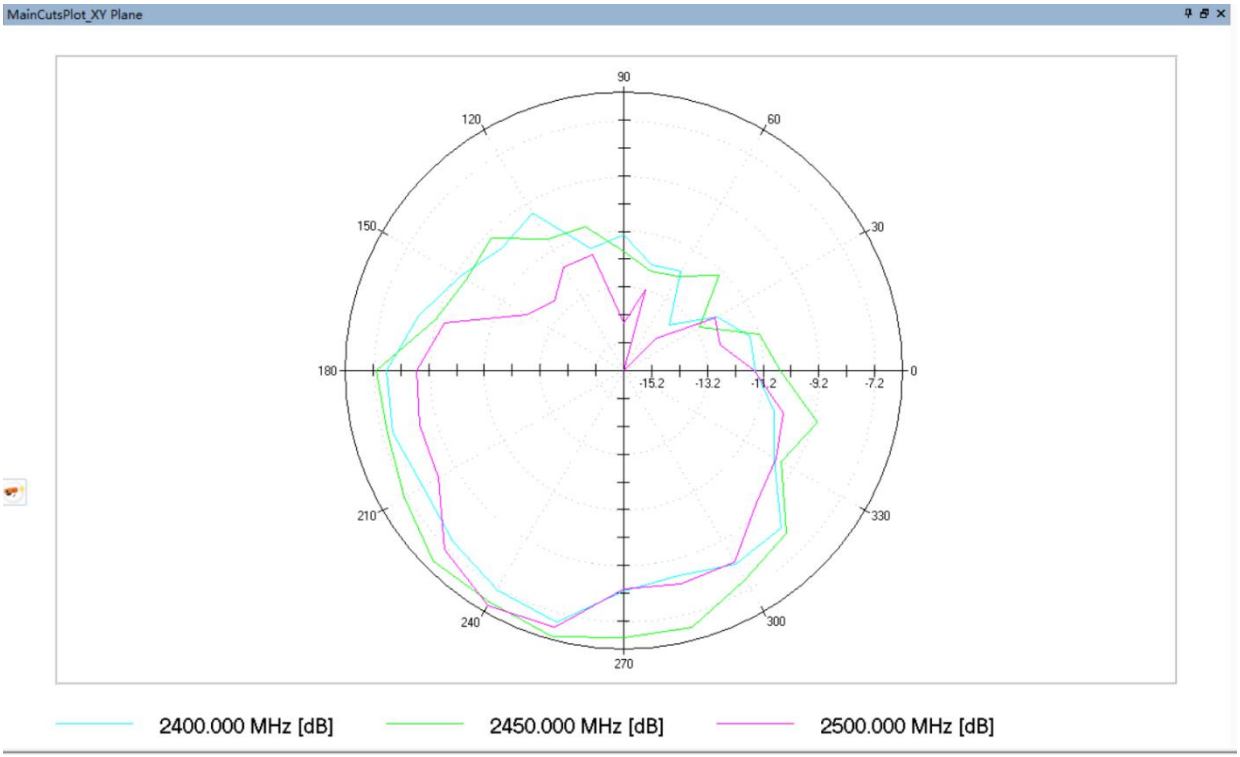
3.2. S11-ReturnLoss

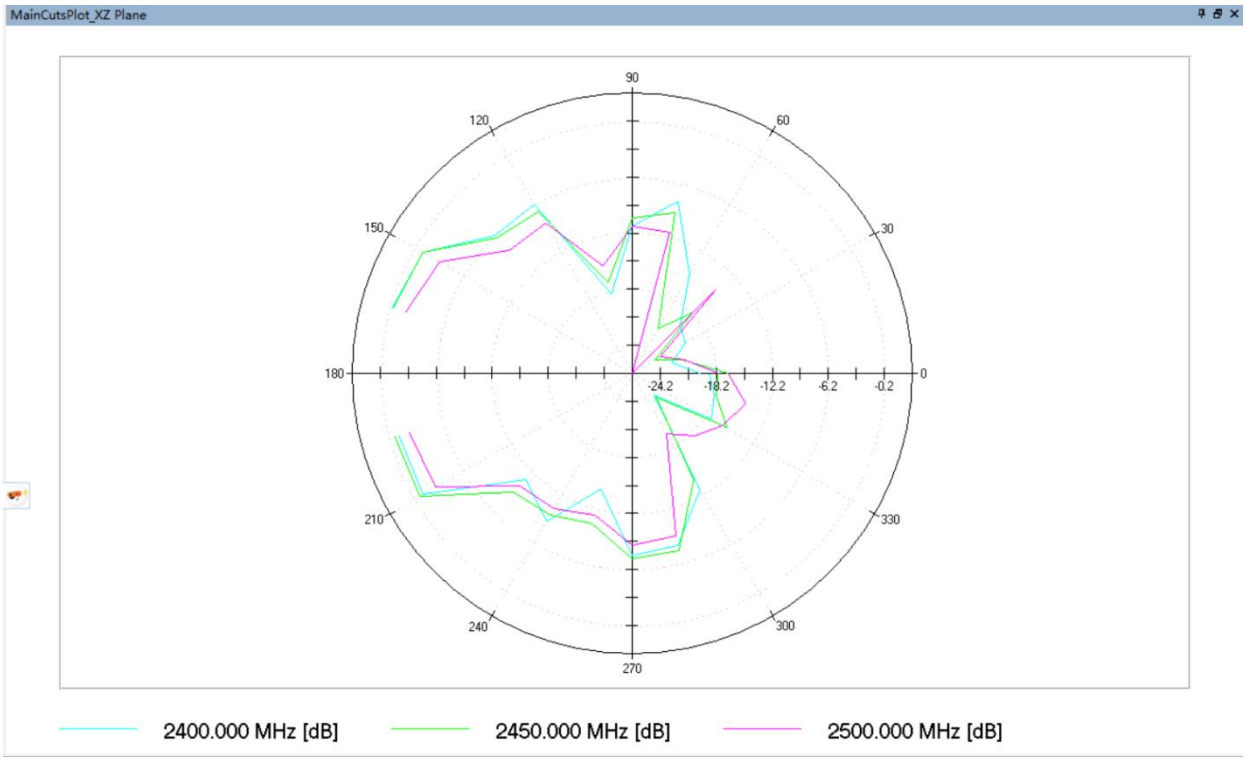


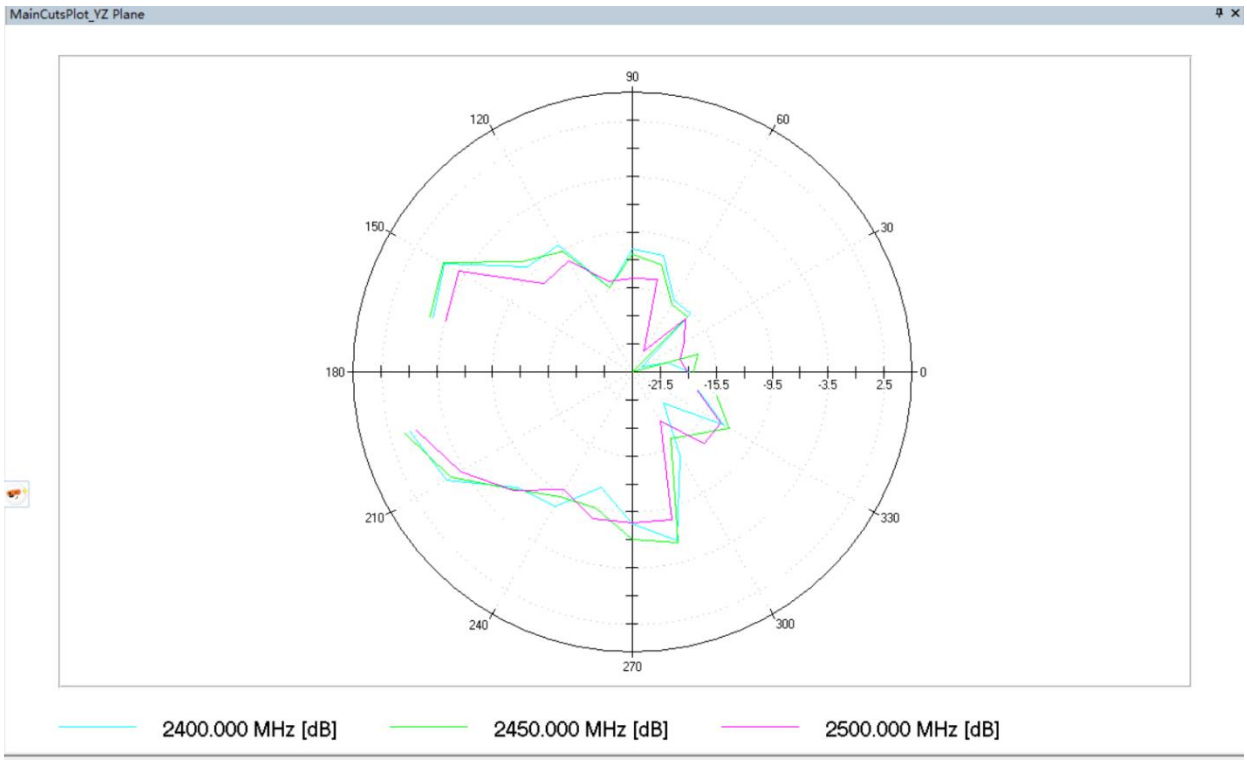
3.3. 3D Antenna Gain-Free Space

Frequency (MHz)	Directivity (dBi)	Efficiency (dB)	Efficiency (%)	Gain (dBi)
2400	8.2	-7.8	16.7	0.4
2410	8.3	-7.5	17.7	0.8
2420	8.6	-7.6	17.5	1.0
2430	8.5	-7.6	17.2	0.8
2440	8.9	-7.5	17.6	1.3
2450	8.6	-7.6	17.3	1.0
2460	8.8	-8.2	15.3	0.6
2470	9.0	-8.1	15.6	1.0
2480	9.2	-8.5	14.2	0.7
2490	9.1	-9.0	12.6	0.1
2500	9.1	-9.2	11.9	-0.1

3.4. Antenna Pattern






MainCutsPlot_YZ Plane
90
120
60
150
30
180
0
210
330
240
300
270
-21.5
-15.5
-9.5
-3.5
2.5
2400.000 MHz [dB]
2450.000 MHz [dB]
2500.000 MHz [dB]

2400MHz

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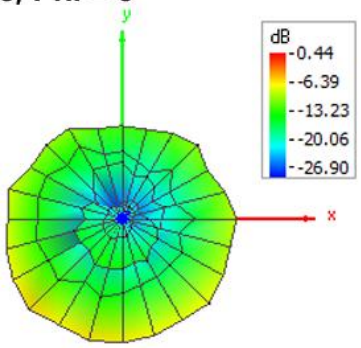

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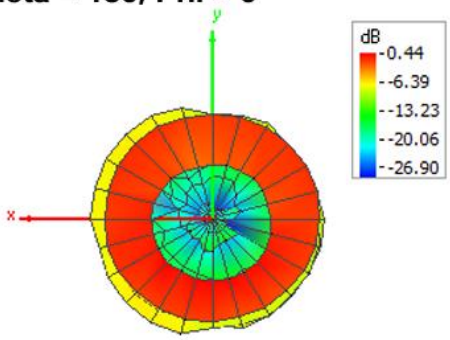

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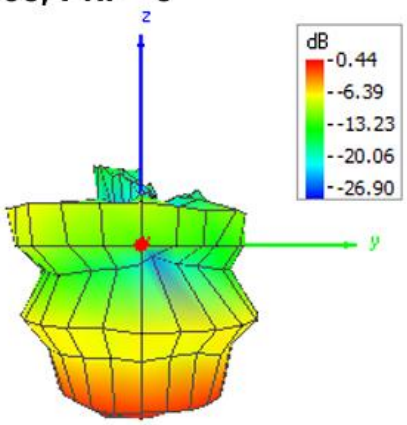

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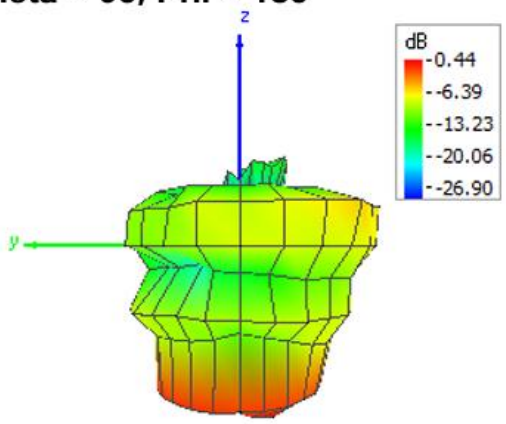

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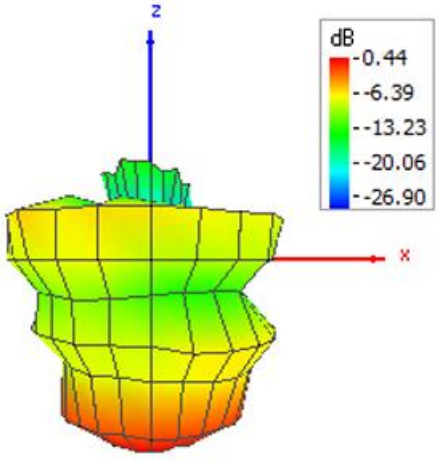

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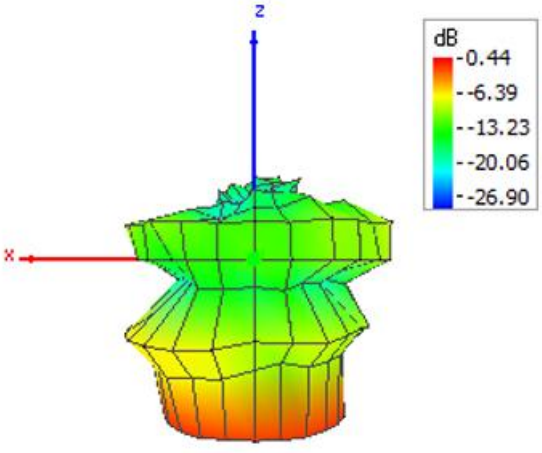
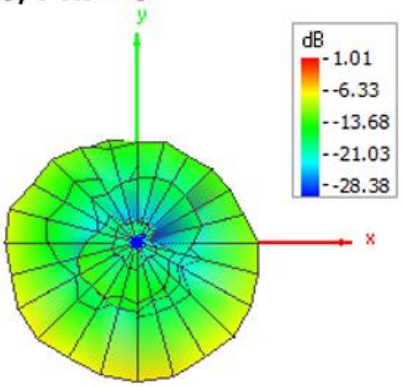


2450MHz

Theta = 0, Phi = 0



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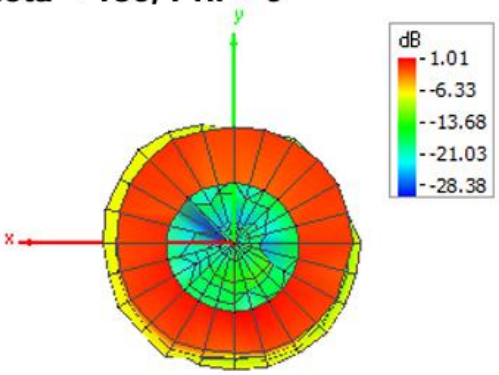

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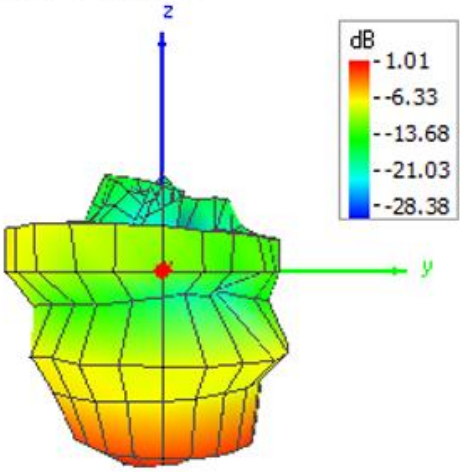

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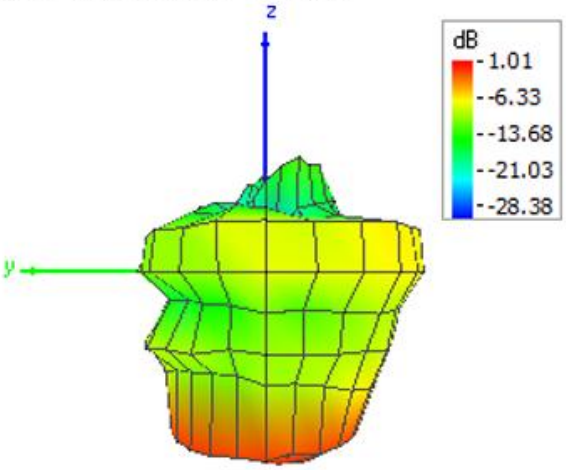
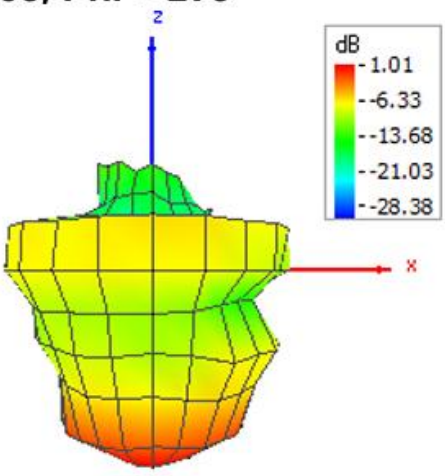


Theta = 90, Phi = 270



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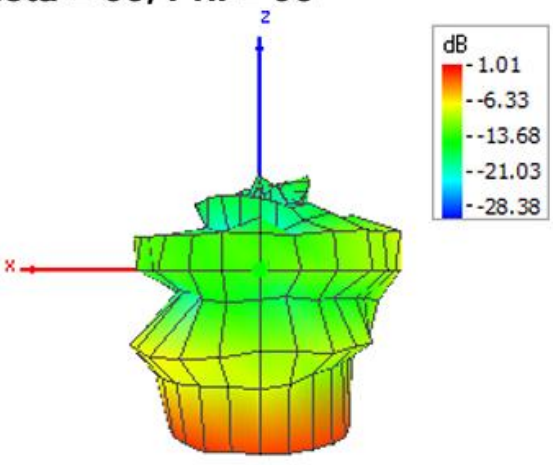

2500MHz

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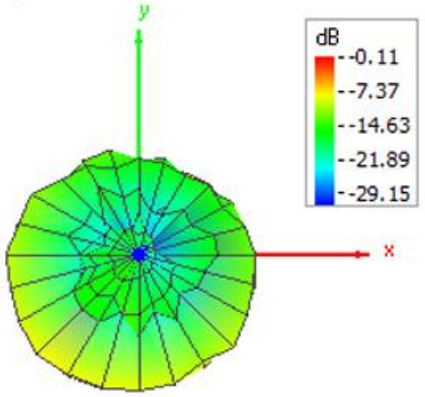

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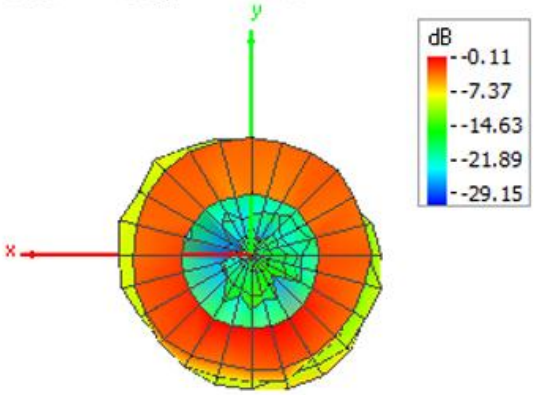

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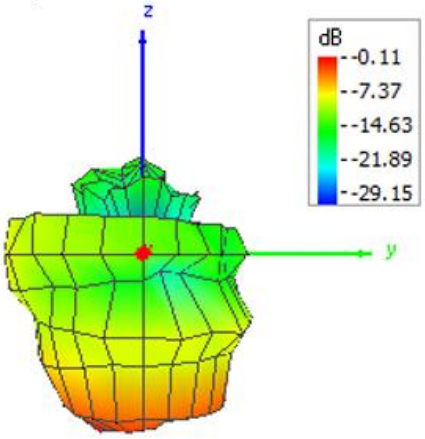
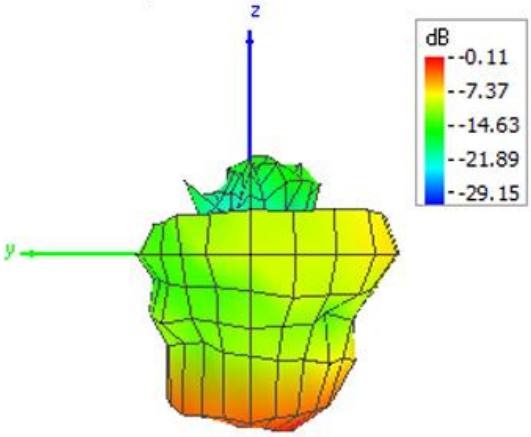
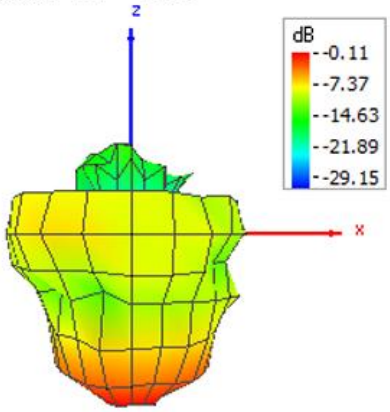


Theta = 90, Phi = 180



Theta = 90, Phi = 270



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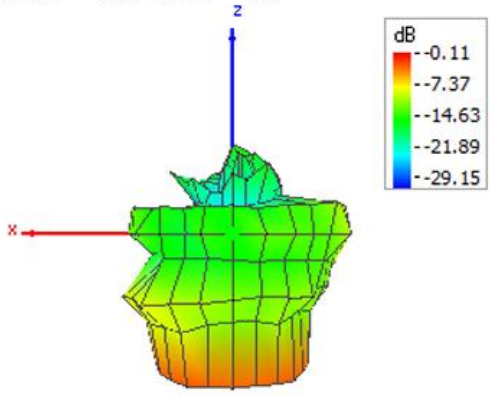
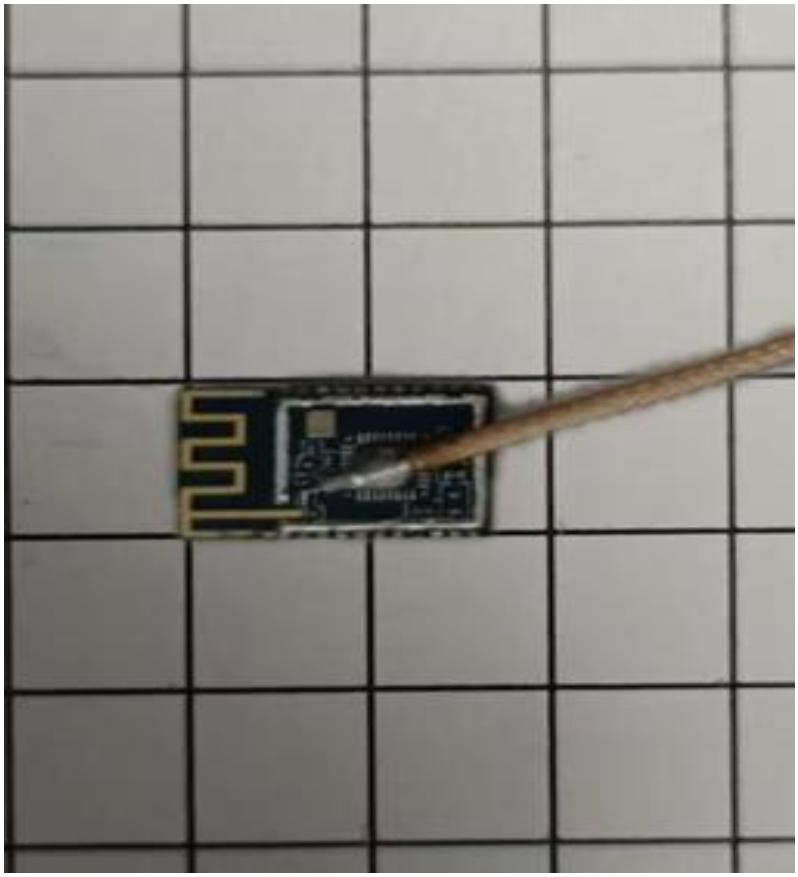
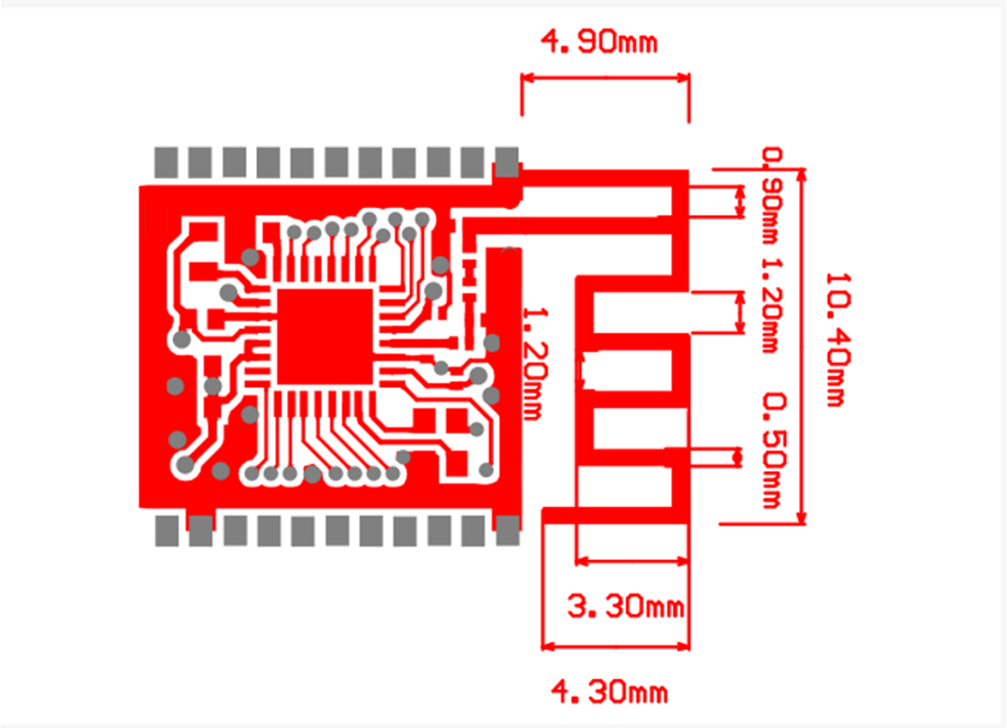
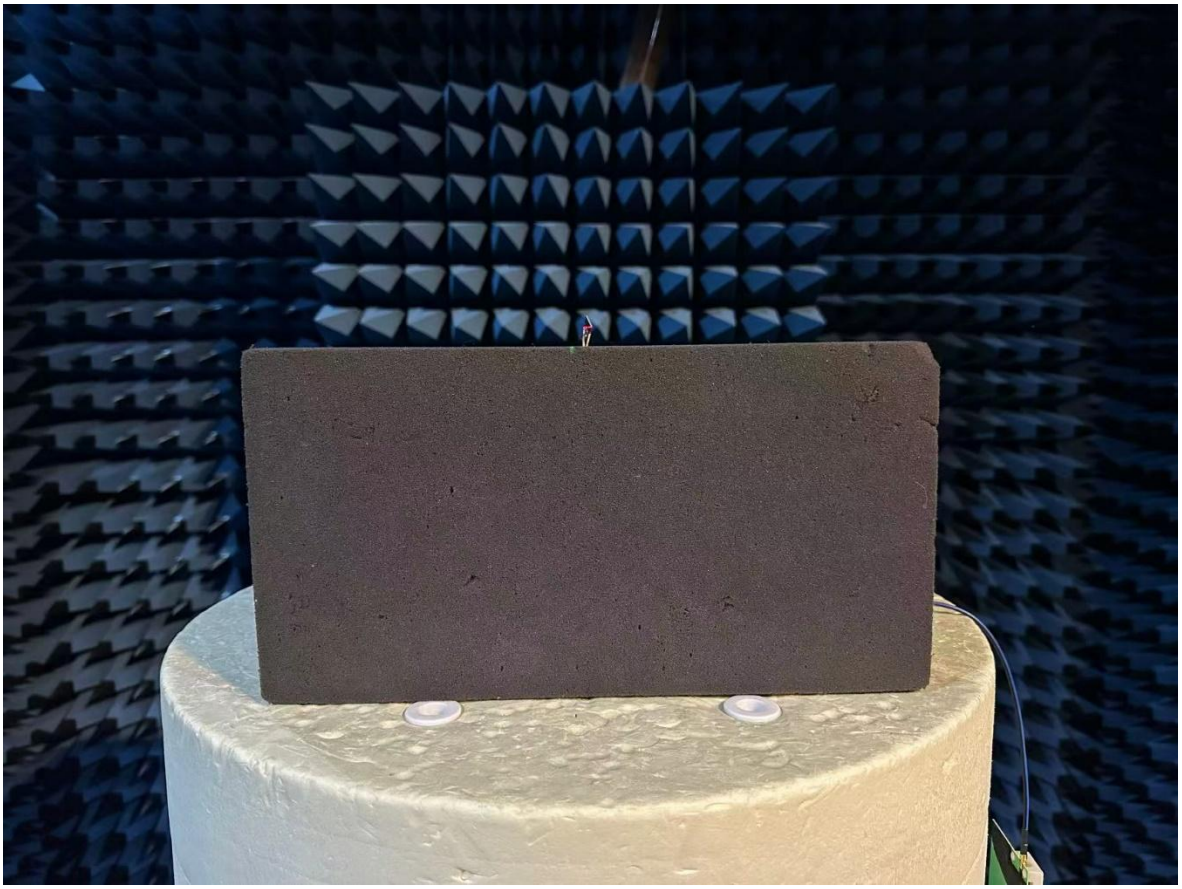


Appendix A. EUT Photograhs





Appendix B. Testing Setup Photo



Free Space