



Antenna Test Report

Project No	P24034B7R	PCB Version	LS011FX_PCB_V3.0
Tester	ZHUWANLI	Date	2025-02-10
Auditing		Date	
Approval		Date	

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一、Project Information

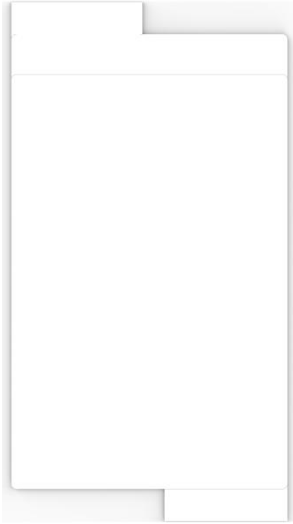
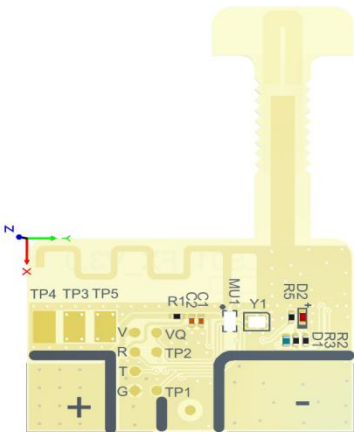
1. Antenna Coding: ANT-BBNCNC22027

2. Antenna Type: IFA

3. Model of the DUT: P24034B7R

4. Test Data : 2025-02-10

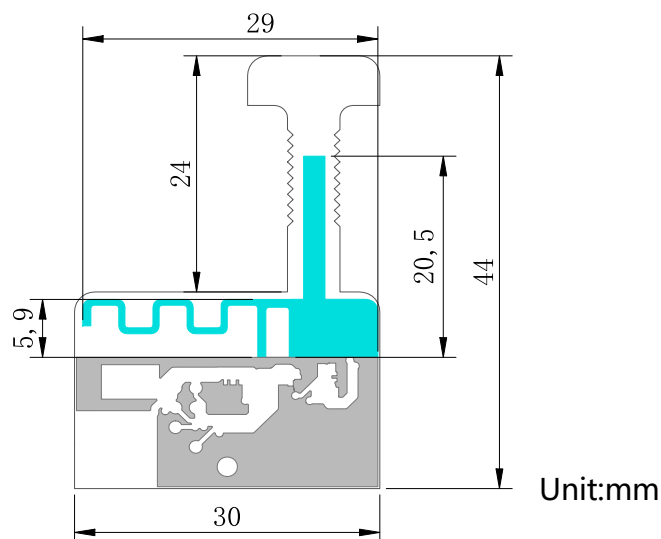
5. Product picture:

Product appearance	
PCB board and antenna	

二、Technical Specification

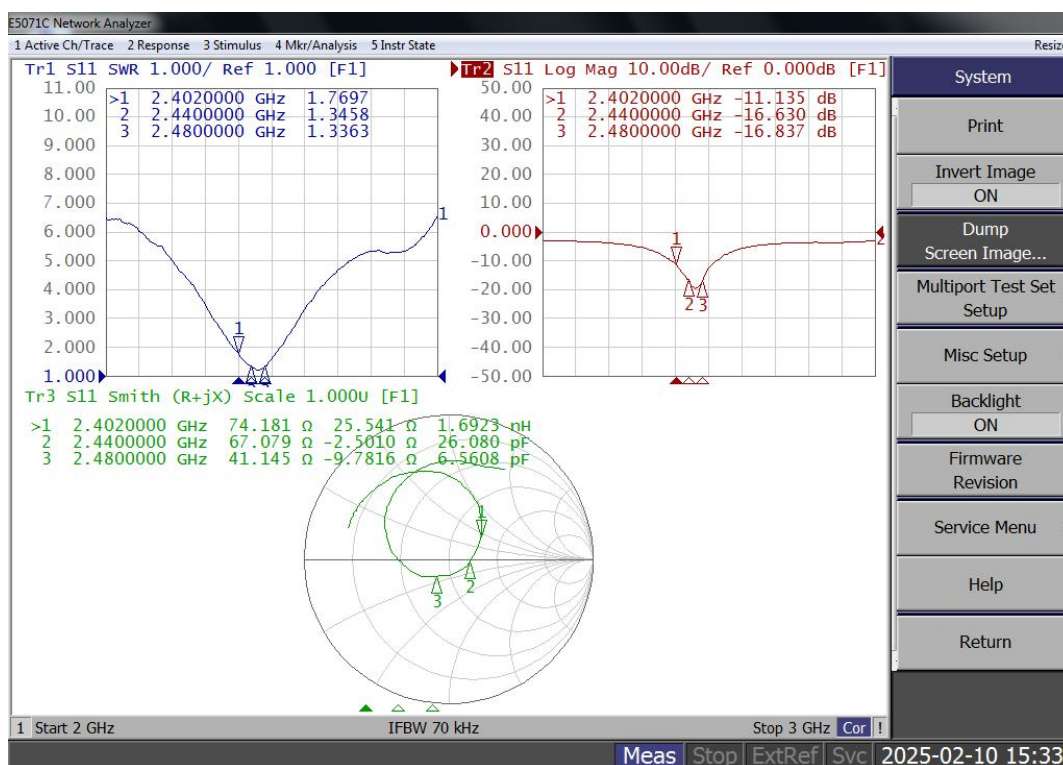
Electrical Specifications	
Frequency Range	2400-2480 MHz
Peak Gain	1.75 dBi
Efficiency	60.7%
Return Loss	≥ 11 dB (MAX)
VSWR	≤ 2.0 (MAX)
Bandwidth (S11 $\leq$ -10dB)	100 MHz
Input Impedance	50 Ω
Radiation direction	Omni
Polarization Type	Linear
Lightning Protection	DC grounding
Power Capacity	1000mW (30dBm)
Mechanical Specifications	
Antenna Size	5.9 x 29 mm
Core Radiator	Copper
Substrate material	FPC
Substrate thickness	0.1 mm
Substrate Size (mm)	30 x 44 mm
Coaxial wire	Not required
Connect Type	Not required
Operating Temperature	-20 ~50°C
Storage Temperature	5 ~40°C

三、The shape and size of the antenna



四、The result of the test

1 .VSWR & Return loss & Smith



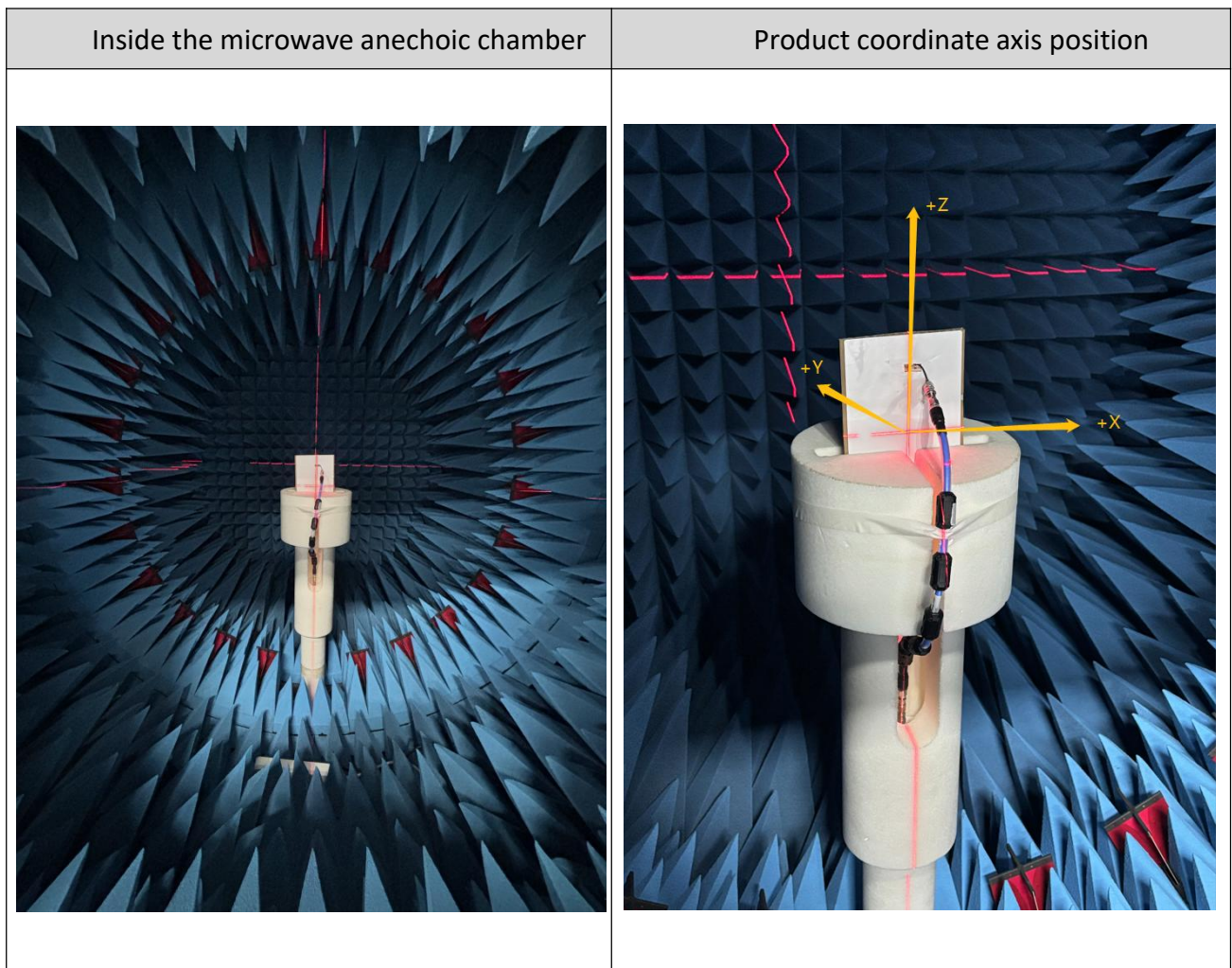
Frequency (MHz)	Return Loss (dB)	VSWR
2402	-11.1	1.76
2440	-16.6	1.34
2480	-16.8	1.33
Bandwidth (S11≤-9.8dB)	100	

2. Antenna Testing Environment

(1).Test Equipment : SY-24M, Agilent-E5071C

(2).Test Engineer : ZHUWANLI

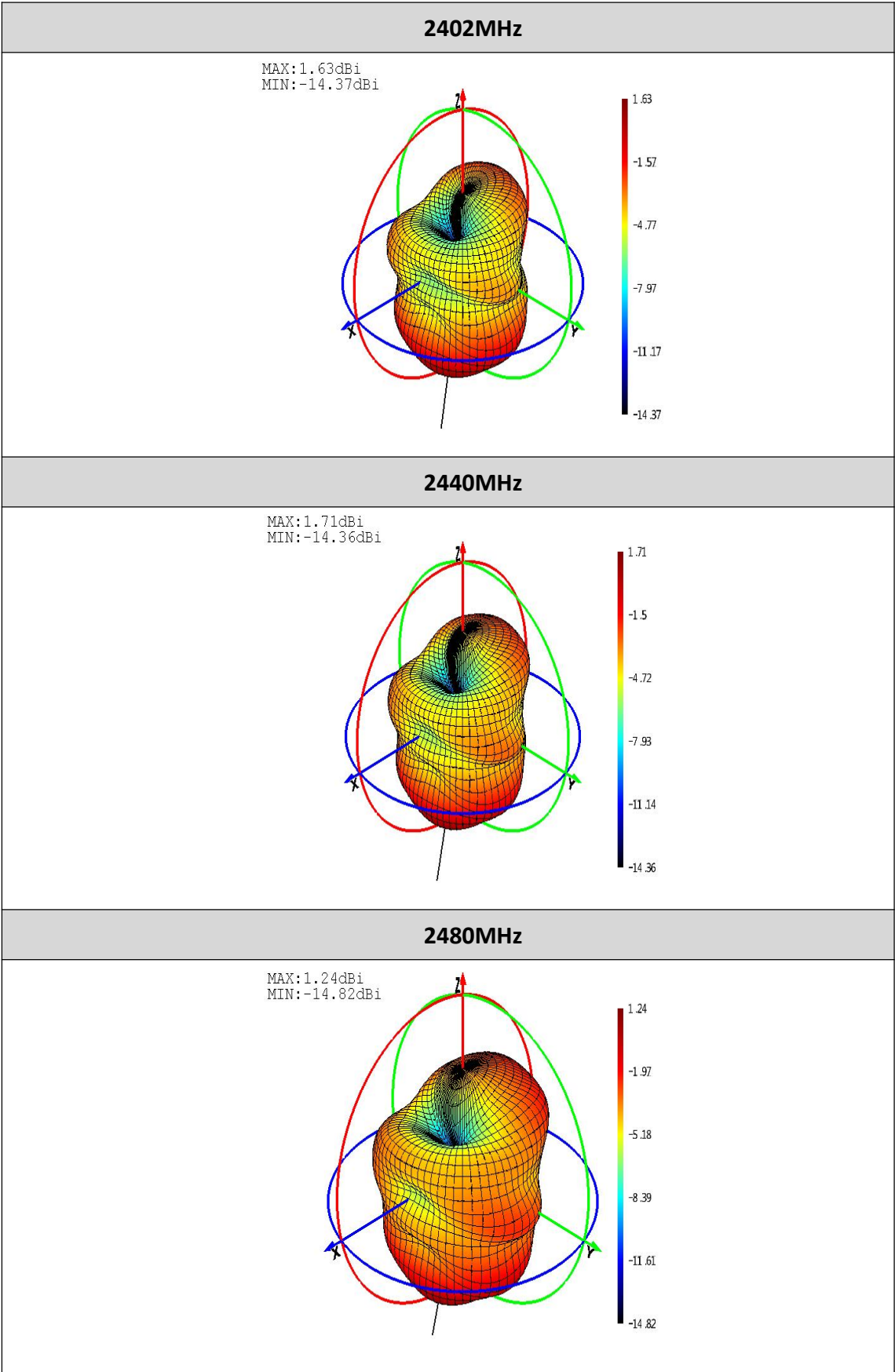
(3).Test Environment : The microwave unreflected chamber



3 .Gain and Efficiency

频率(MHz)	增益(dBi)	效率(%)
2400	1.64	56.30
2402	1.63	56.15
2404	1.66	56.27
2406	1.61	56.28
2408	1.66	56.45
2410	1.69	56.61
2412	1.70	56.61
2414	1.72	56.78
2416	1.67	57.04
2418	1.70	57.28
2420	1.71	57.28
2422	1.72	57.38
2424	1.71	57.40
2426	1.66	57.46
2428	1.69	57.67
2430	1.70	57.69
2432	1.74	57.87
2434	1.75	57.86
2436	1.70	57.87
2438	1.69	57.99
2440	1.71	58.26
2442	1.72	58.83
2444	1.71	58.99
2446	1.61	58.92
2448	1.57	58.91
2450	1.55	59.33
2452	1.54	59.51
2454	1.55	59.91
2456	1.43	60.07
2458	1.43	60.04
2460	1.41	59.70
2462	1.40	59.56
2464	1.40	59.75
2466	1.36	60.12
2468	1.36	60.47
2470	1.33	60.33
2472	1.30	60.28
2474	1.27	60.14
2476	1.23	60.10
2478	1.23	60.30
2480	1.24	60.74
2482	1.23	60.78
2484	1.19	60.63
2486	1.13	60.49
2488	1.10	60.49
2490	1.10	60.63
2492	1.10	60.65
2494	1.08	60.40
2496	1.02	59.97
2498	0.99	59.50
2500	0.97	59.20

4 .3D Radiation Pattern



5.2D Radiation Pattern

