



Antenna Test Report

Project No	WN3054LD0T	PCB Version	LD025Fd_V1.0
Tester	ZHUWANLI	Date	2025-07-03
Auditing		Date	
Approval		Date	

Contents

一、Project Information	3rd
二、Technical Specification	4th
三、The shape and size of the antenna	5th
四、The result of the test	5th
1 .VSWR & Return loss & Smith	5th
2. Antenna Testing Environment	6th
3 .Gain and Efficiency	7th
4 .3D Radiation Pattern	8th
5. 2D Radiation Pattern	9th

一、Project Information

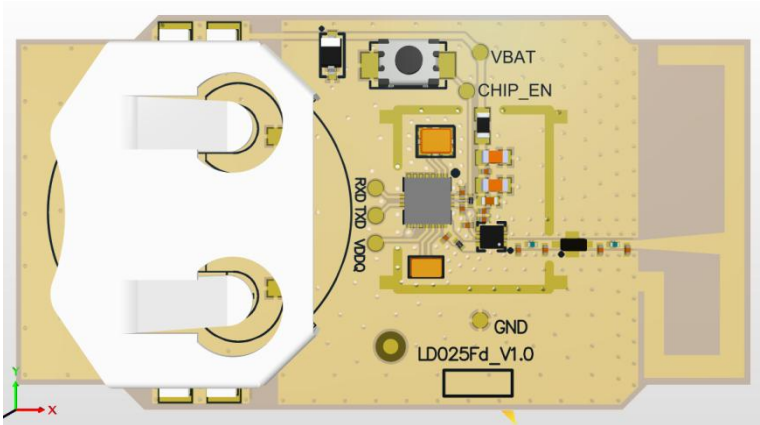
1. Antenna Coding: ANT-BBNCNC25016

2. Antenna Type: PIFA

3. Model of the DUT: WN3054LD0T

4. Test Data : 2025-07-03

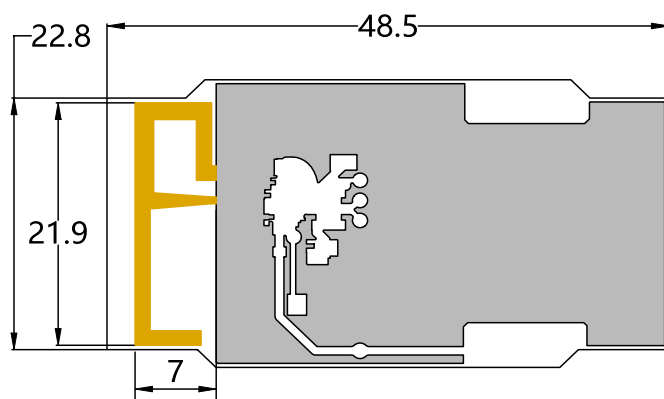
5. Product picture:

Product appearance	
PCB board and antenna	

二、Technical Specification

Electrical Specifications	
Frequency Range	2400-2480 MHz
Peak Gain	3.74 dBi
Efficiency	81.5%
Return Loss	≥ 18 dB (MAX)
VSWR	≤ 2.0 (MAX)
Bandwidth (S11 ≤ -10 dB)	600 MHz
Input Impedance	50 Ω
Radiation direction	Omni
Polarization Type	Linear
Lightning Protection	DC grounding
Power Capacity	1000mW (30dBm)
Mechanical Specifications	
Antenna Size	21.9 x 7 mm
Core Radiator	Copper
Substrate material	FR4
Substrate thickness	0.8 mm
Substrate Size (mm)	48.5 x 26 mm
Coaxial wire	Not required
Connect Type	Not required

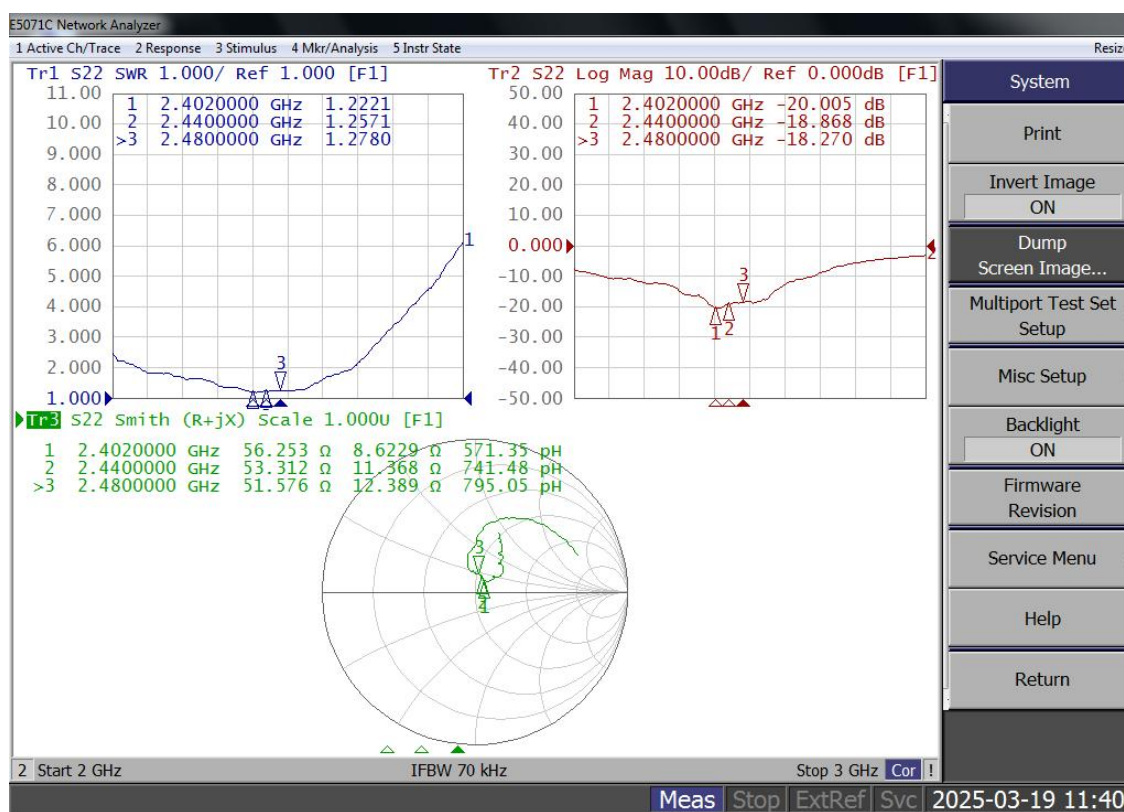
三、The shape and size of the antenna



Unit:mm

四、The result of the test

1 .VSWR & Return loss & Smith



Frequency (MHz)	Return Loss (dB)	VSWR
2402	20.0	1.22
2440	18.8	1.25
2480	18.2	1.27
Bandwidth (S11≤-9.8dB)	600	

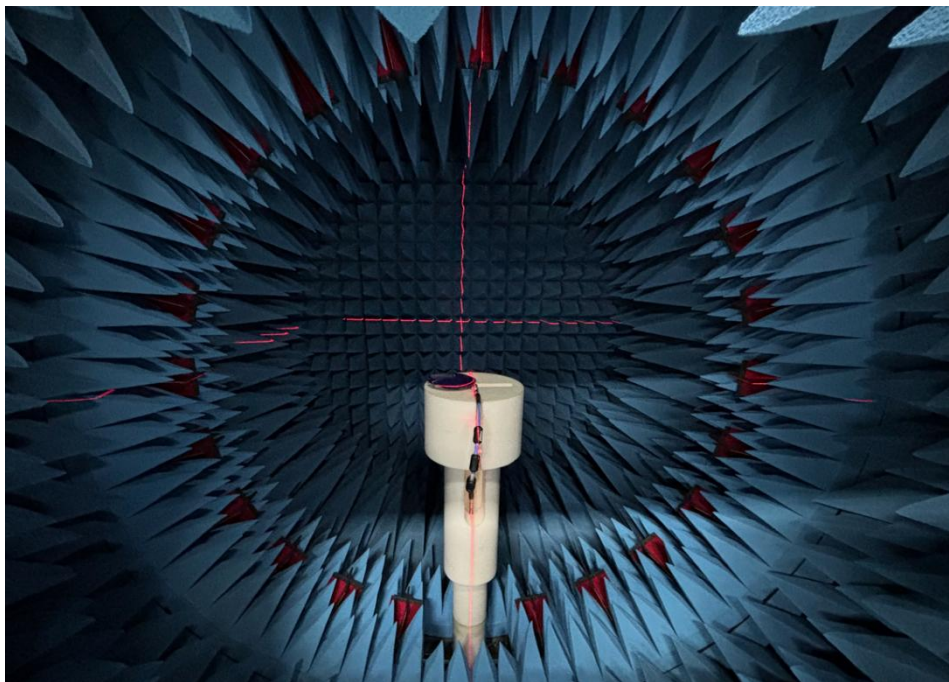
2. Antenna Testing Environment

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

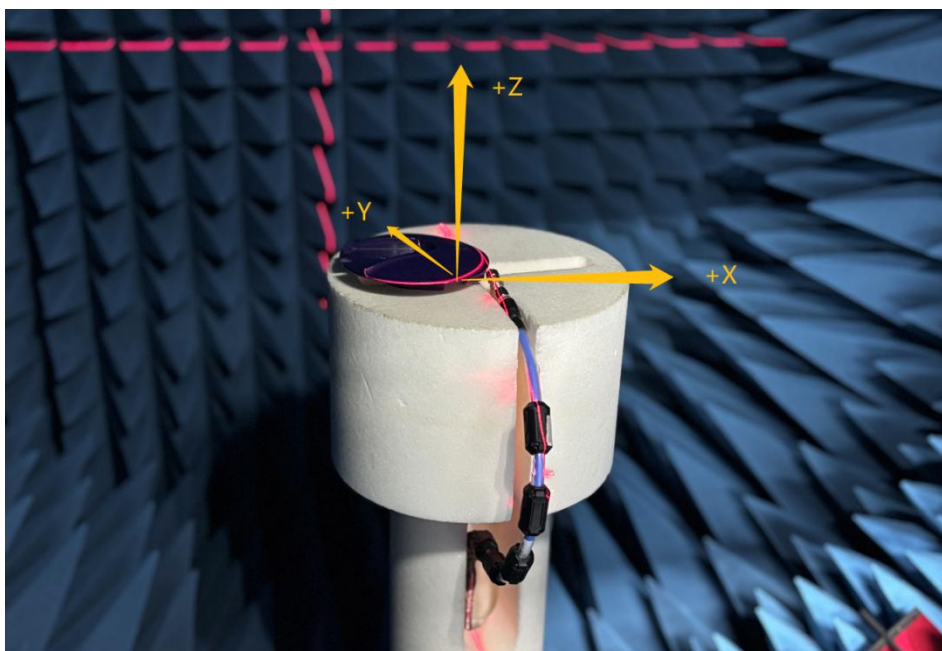
(2).Test Engineer : ZHUWANLI

(3).Test Environment : The microwave unreflected chamber

Inside the microwave anechoic chamber



Product coordinate axis position

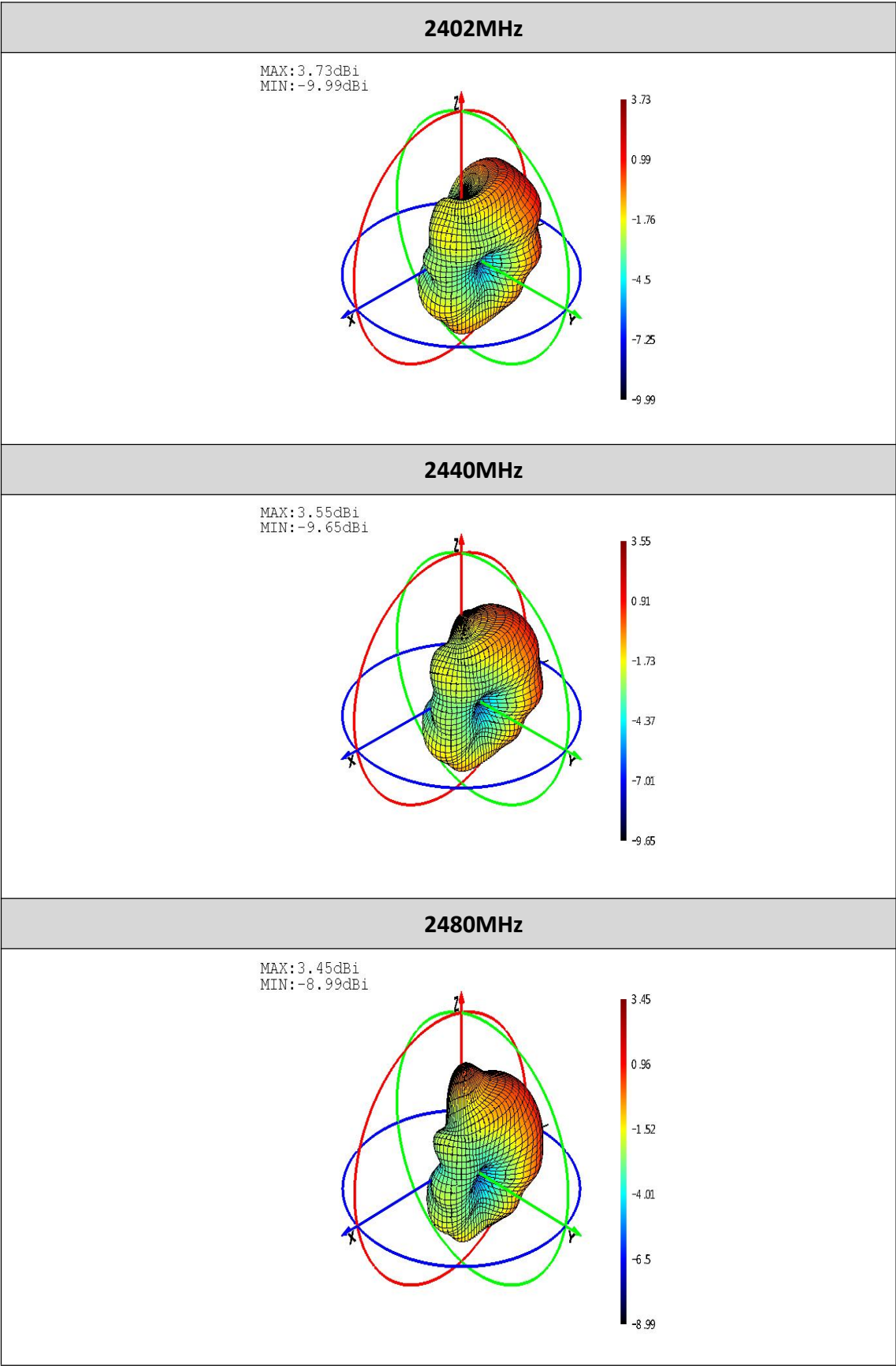


3 .Gain and Efficiency

频率(MHz)	增益(dBi)	效率(%)
2400	3.73	81.51
2402	3.73	81.10
2404	3.73	80.81
2406	3.74	80.61
2408	3.73	80.26
2410	3.72	79.90
2412	3.70	79.48
2414	3.68	79.16
2416	3.70	79.02
2418	3.66	78.61
2420	3.60	77.86
2422	3.56	77.46
2424	3.54	77.17
2426	3.58	77.02
2428	3.56	76.78
2430	3.52	76.34
2432	3.49	76.17
2434	3.51	75.93
2436	3.50	75.54
2438	3.52	75.63
2440	3.55	75.79
2442	3.55	76.25
2444	3.53	76.37
2446	3.45	75.80
2448	3.44	76.04
2450	3.45	76.74
2452	3.47	76.86
2454	3.50	77.15
2456	3.48	76.89
2458	3.48	76.70
2460	3.46	76.29
2462	3.45	75.91
2464	3.46	76.11
2466	3.47	76.36
2468	3.48	76.81
2470	3.45	76.62
2472	3.44	76.84
2474	3.43	76.88
2476	3.41	76.78
2478	3.43	77.29
2480	3.45	77.95

2482	3.46	78.33
2484	3.47	78.59
2486	3.43	78.54
2488	3.45	78.94
2490	3.47	79.52
2492	3.48	79.80
2494	3.47	79.96
2496	3.43	79.80
2498	3.41	79.56
2500	3.42	79.47

4 .3D Radiation Pattern



5.2D Radiation Pattern

