



Antenna Test Report

Project No	P25126B5DF	PCB Version	LD033FL_V0.2
Tester	MoQi	Date	2025.10.16
Auditing	MoQi	Date	2025.10.16
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	9th
5. 2D Radiation Pattern	10th

一、Project Information

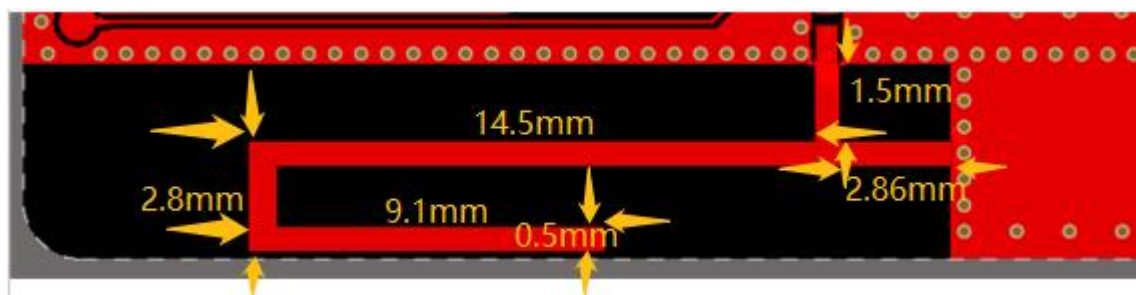
- 1. Antenna Coding：ANT-BBNCNC25035
- 2. Antenna Type： Onboard Antenna
- 3. Model of the DUT： GREENBDG01
- 4. Test Data ： 2025. 10. 16
- 5. Product picture：

Product appearance	
PCB board and antenna	

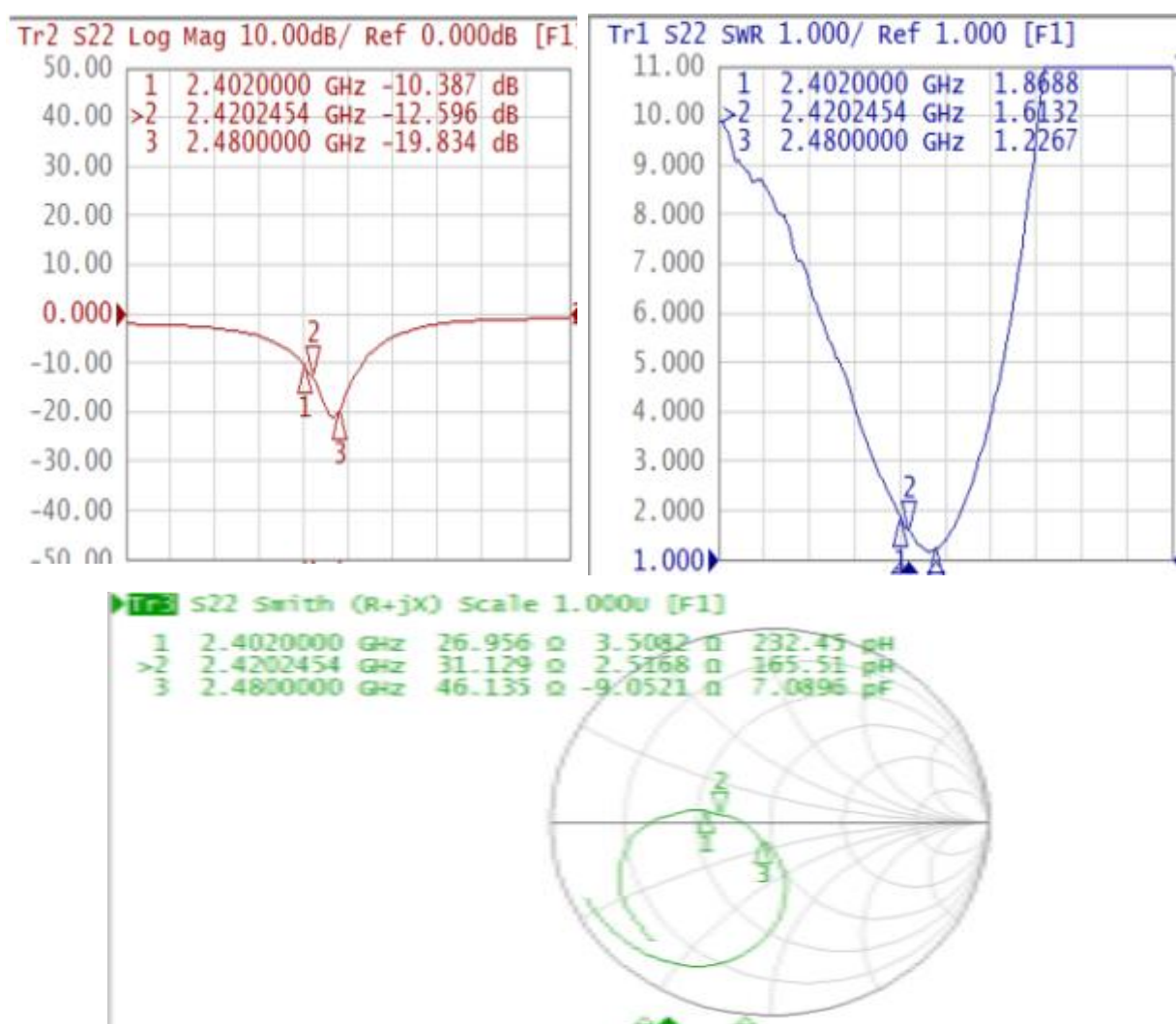
二、Technical Specification

Electrical Specifications	
Frequency Range	2400-2480 MHz
Peak Gain	2.77 dBi
Efficiency	60.12%
Return Loss	» 19dB (MAX)
VSWR	≤1.8 (MAX)
Bandwidth (S11≤-10dB)	70MHz
Input Impedance	50 Ω
Radiation direction	Directional ANT
Polarization Type	Linear
Lightning Protection	DC grounding
Power Capacity	1000mW (30dBm)
Mechanical Specifications	
Antenna Size	17.36 x4.3mm
Core Radiator	Copper
Coaxial wire	无
Connect Type	IPEX-4
Operating Temperature	-40 to +85° C
Storage Temperature	-40 to +85° C

三、The shape and size of the antenna



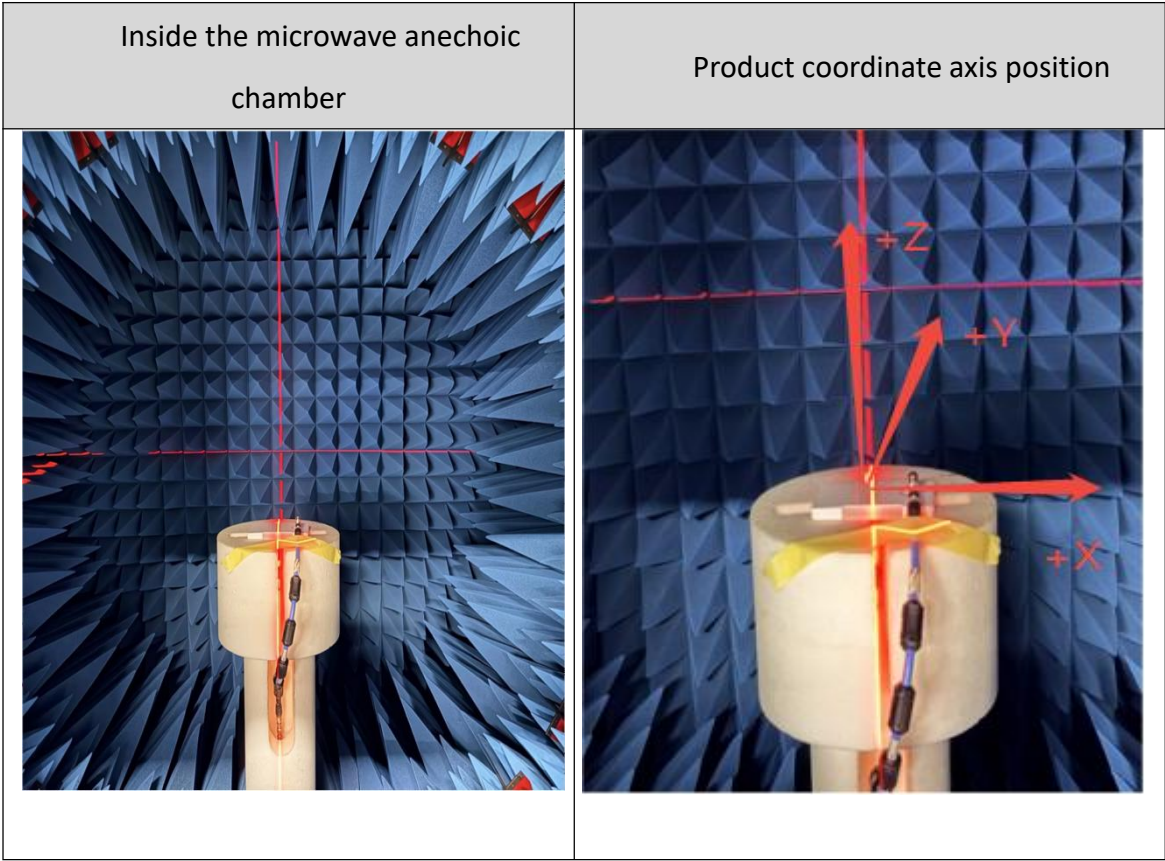
四、The result of the test



1. VSWR & Return loss & Smith

Frequency (MHz)	Return Loss (dB)	VSWR
2402	-10.3	1.86
2440	-12.5	1.61
2480	-19.8	1.22
Bandwidth ($S_{11} \leq -10\text{dB}$)	70	

2. Antenna Testing Environment



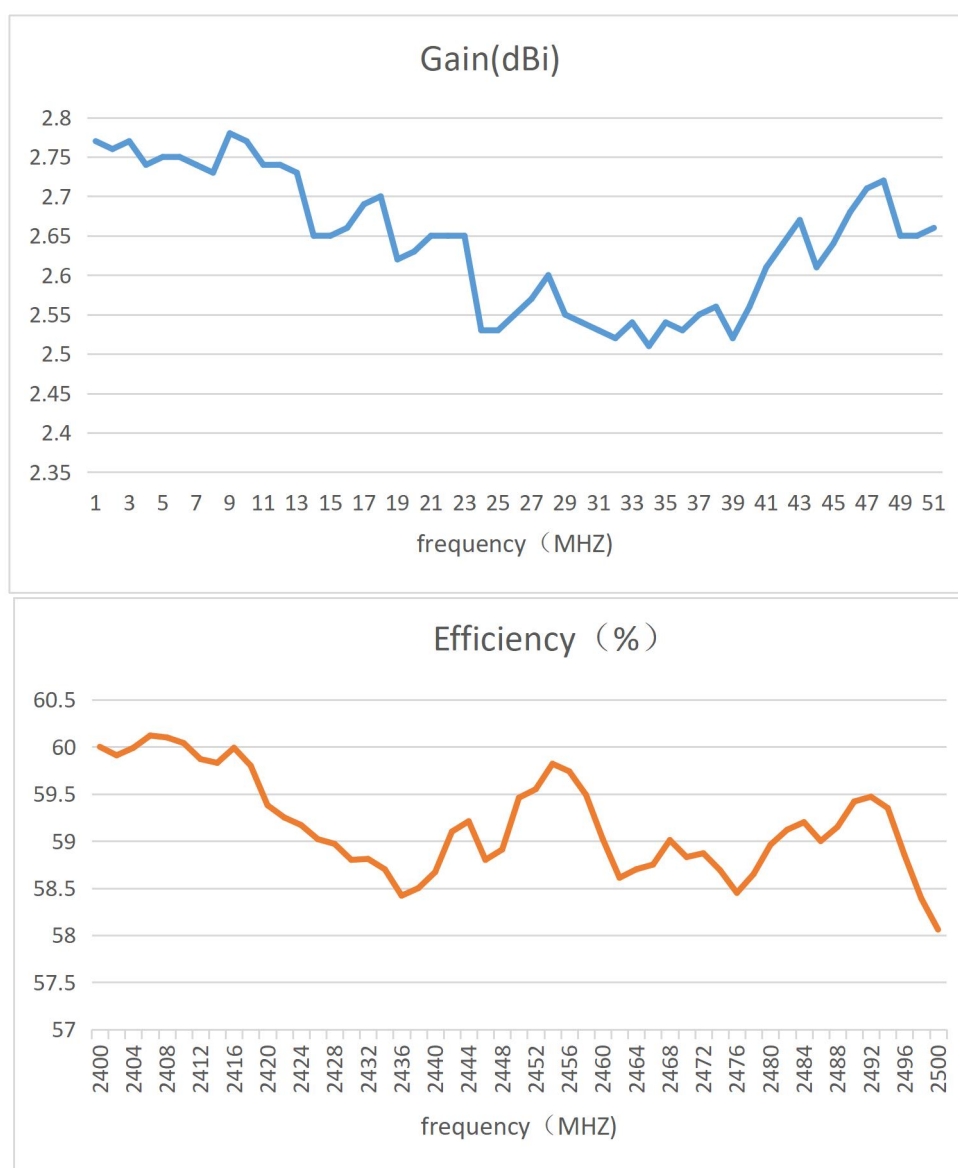
ote: The antenna is in the -x direction.

3. Gain and Efficiency

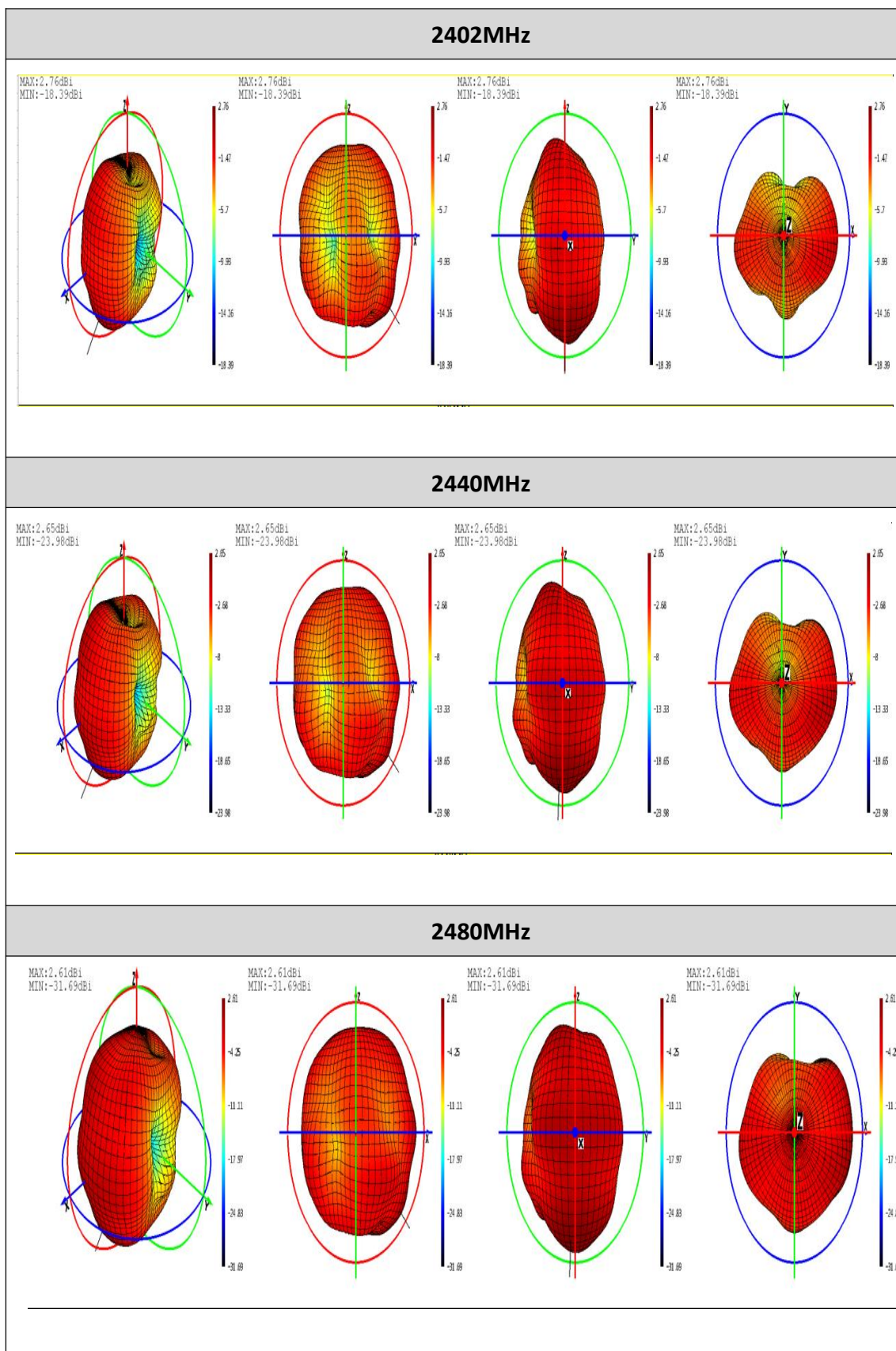
频率(MHz)	增益(dBi)	效率(dB)	效率(%)
2400	2.77	-2.22	60.00
2402	2.76	-2.22	59.91
2404	2.77	-2.22	59.99
2406	2.74	-2.21	60.12
2408	2.75	-2.21	60.10
2410	2.75	-2.22	60.04
2412	2.74	-2.23	59.87
2414	2.73	-2.23	59.83
2416	2.78	-2.22	59.99
2418	2.77	-2.23	59.80
2420	2.74	-2.26	59.38
2422	2.74	-2.27	59.25
2424	2.73	-2.28	59.17
2426	2.65	-2.29	59.02
2428	2.65	-2.29	58.97
2430	2.66	-2.31	58.80
2432	2.69	-2.31	58.81
2434	2.70	-2.31	58.70
2436	2.62	-2.33	58.42
2438	2.63	-2.33	58.50
2440	2.65	-2.32	58.67
2442	2.65	-2.28	59.10
2444	2.65	-2.28	59.21
2446	2.53	-2.31	58.80
2448	2.53	-2.30	58.91
2450	2.55	-2.26	59.46
2452	2.57	-2.25	59.55
2454	2.60	-2.23	59.82
2456	2.55	-2.24	59.74
2458	2.54	-2.26	59.49
2460	2.53	-2.29	59.02
2462	2.52	-2.32	58.61
2464	2.54	-2.31	58.70
2466	2.51	-2.31	58.75
2468	2.54	-2.29	59.01
2470	2.53	-2.30	58.83
2472	2.55	-2.30	58.87
2474	2.56	-2.31	58.69
2476	2.52	-2.33	58.45

2478	2.56	-2.32	58.65
2480	2.61	-2.29	58.96
2482	2.64	-2.28	59.12
2484	2.67	-2.28	59.20
2486	2.61	-2.29	59.00
2488	2.64	-2.28	59.15
2490	2.68	-2.26	59.42
2492	2.71	-2.26	59.47
2494	2.72	-2.27	59.35
2496	2.65	-2.30	58.85
2498	2.65	-2.34	58.39
2500	2.66	-2.36	58.06

(1).Antenna Efficiency and Antenna Gain



4. 3D Radiation Pattern



5. 2D Radiation Pattern

