



Antenna Test Report

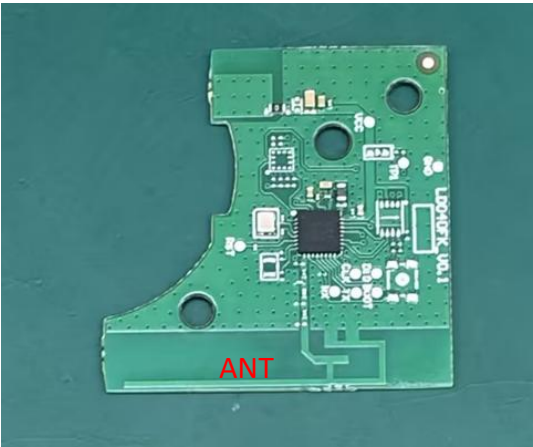
Project No	P26037B6D	PCB Version	LD040FK_V1.0
Tester	MoQi	Date	2026.4.3
Auditing	MoQi	Date	2024.4.3
Approval		Date	

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一、Project Information

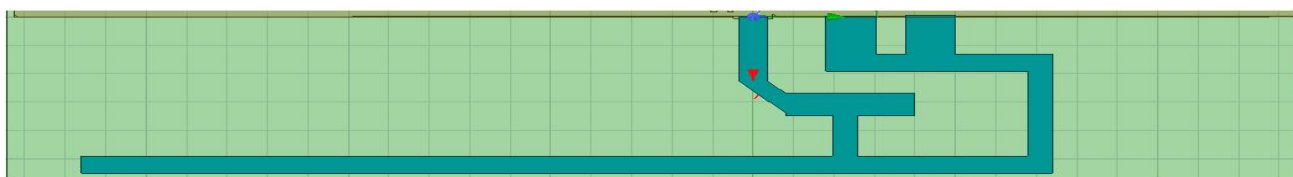
- 1. Antenna Coding: [ANT-BBNCNC26013](#)
- 2. Antenna Type: [Onboard Antenna](#)
- 3. Model of the DUT: [DTB10](#)
- 4 .Test Data : [2026.4.3](#)
- 5 .Product picture:

Product appearance	
PCB board and antenna	

二、Technical Specification

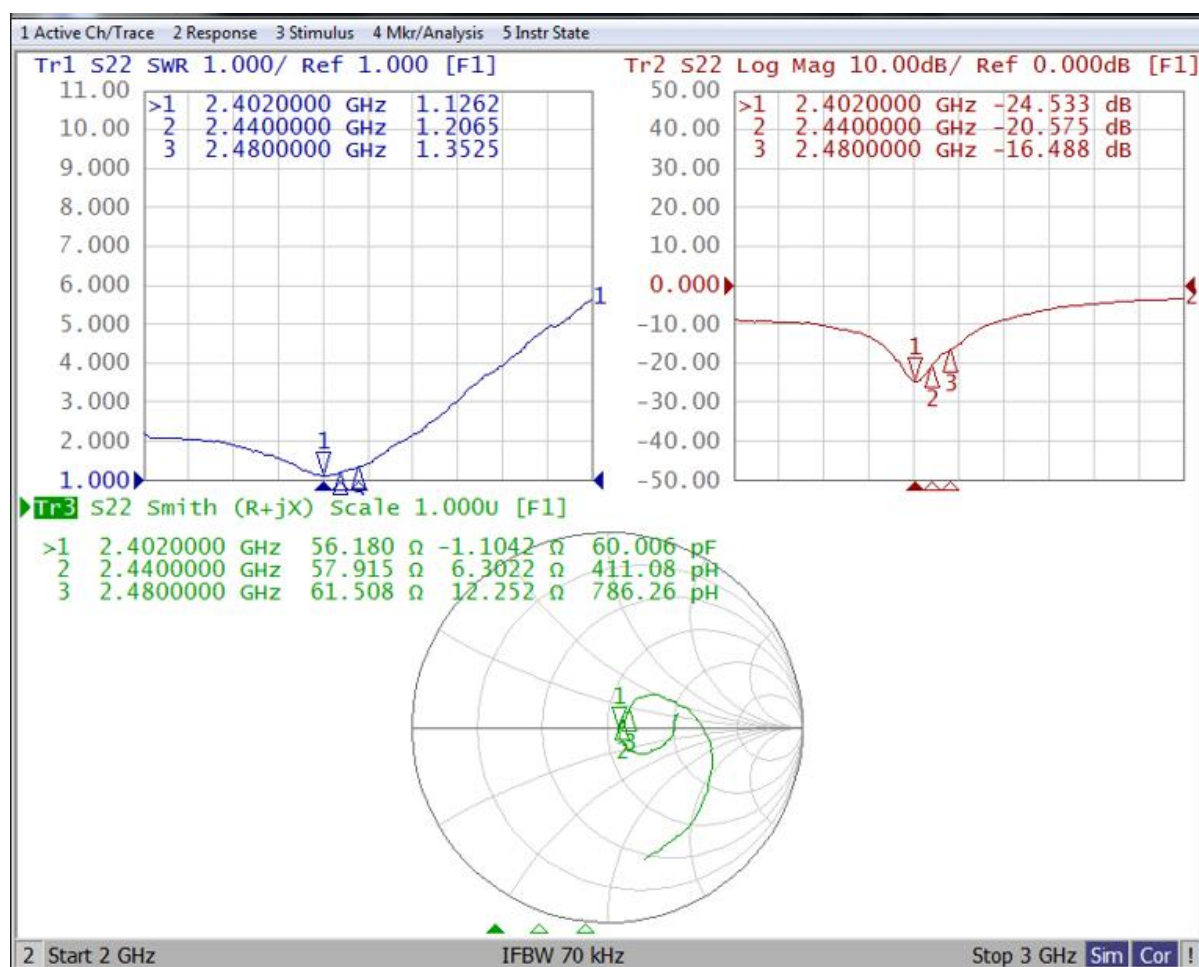
Electrical Specifications	
Frequency Range	2400-2480 MHz
Peak Gain	2.96 dBi
Efficiency	71.04%
Return Loss	≥24.5 (MAX)
VSWR	≤1.35 (MAX)
Bandwidth (S11≤-10dB)	380MHz
Input Impedance	50 Ω
Radiation direction	Directional ANT
Polarization Type	Linear
Lightning Protection	DC grounding
Power Capacity	1000mW (30dBm)
Mechanical Specifications	
Antenna Size	24*5.55mm
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



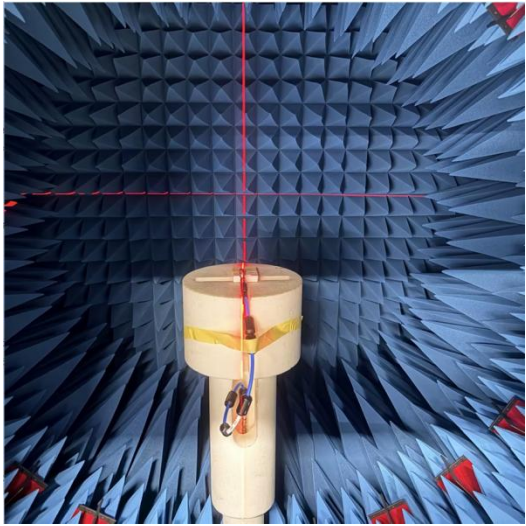
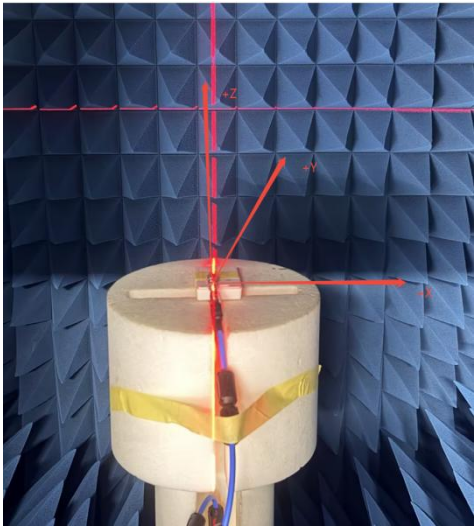
四、The result of the test

1. VSWR & Return loss & Smith



Frequency (MHz)	Return Loss (dB)	VSWR
2402	-24.5	1.12
2440	-20.5	1.20
2480	-16.4	1.35
Bandwidth (S11≤-10dB)	380	

2. Antenna Testing Environment

Inside the microwave anechoic chamber	Product coordinate axis position
	

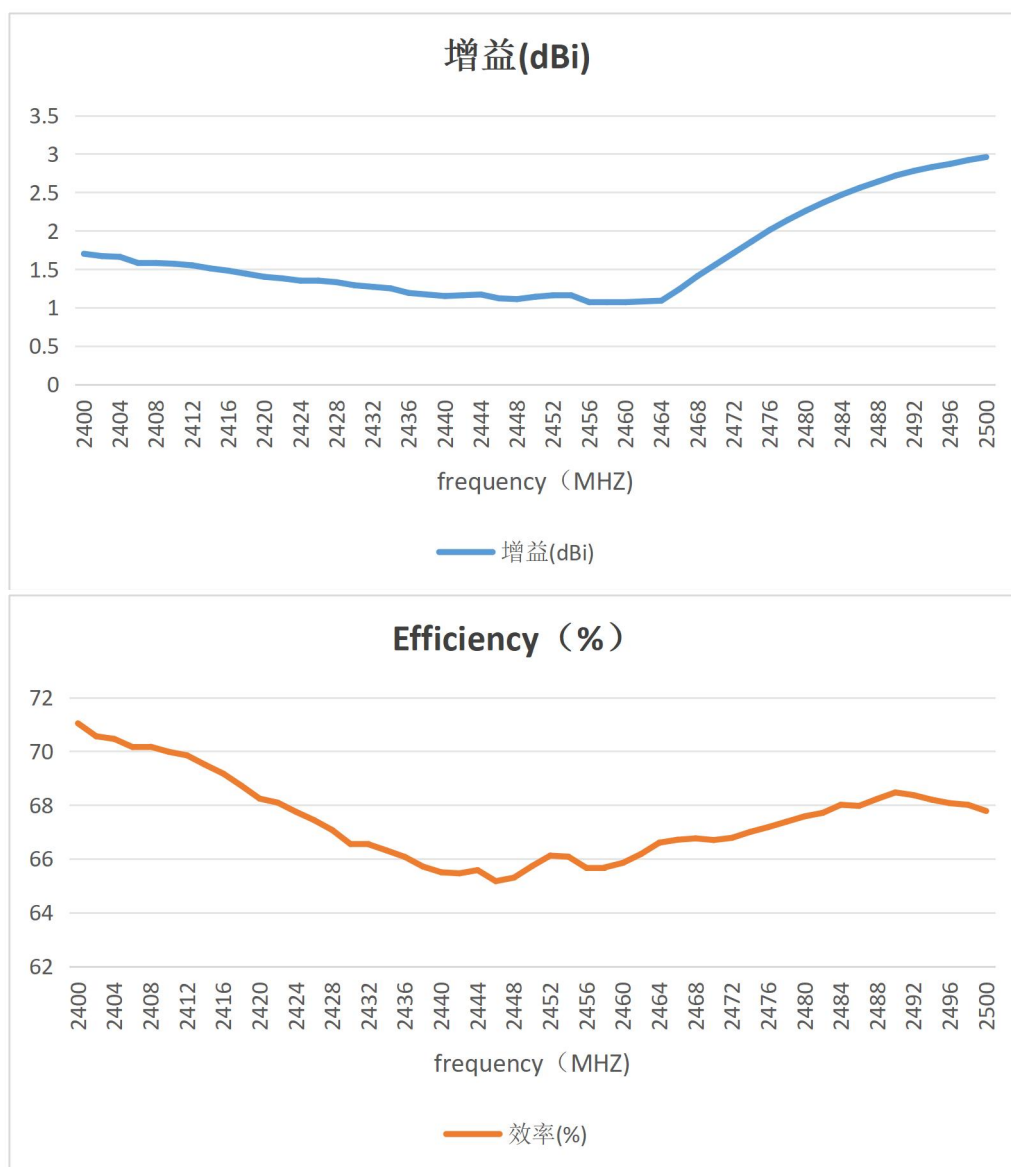
Note: The antenna is in the -x direction.

3. Gain and Efficiency

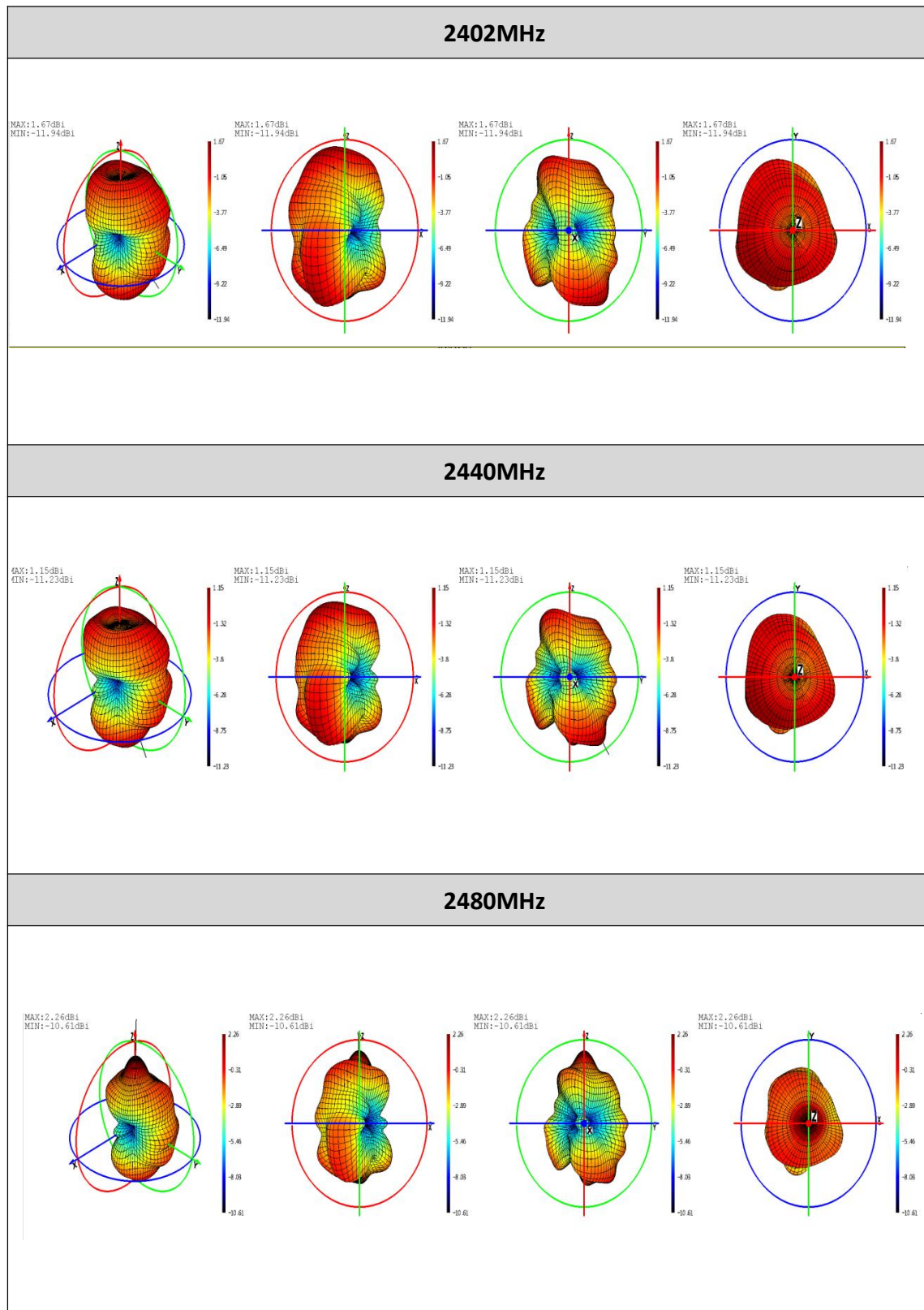
频率(MHz)	增益(dBi)	效率(dB)	效率(%)
2400	1.70	-1.49	71.04
2402	1.67	-1.51	70.56
2404	1.66	-1.52	70.46
2406	1.58	-1.54	70.16
2408	1.58	-1.54	70.17
2410	1.57	-1.55	69.98
2412	1.55	-1.56	69.85
2414	1.51	-1.58	69.50
2416	1.48	-1.60	69.17
2418	1.44	-1.63	68.72
2420	1.40	-1.66	68.24
2422	1.38	-1.67	68.09
2424	1.35	-1.69	67.75
2426	1.35	-1.71	67.44
2428	1.33	-1.73	67.07
2430	1.29	-1.77	66.55
2432	1.27	-1.77	66.54
2434	1.25	-1.78	66.31
2436	1.19	-1.80	66.07
2438	1.17	-1.82	65.71
2440	1.15	-1.84	65.50
2442	1.16	-1.84	65.46
2444	1.17	-1.83	65.58
2446	1.12	-1.86	65.17
2448	1.11	-1.85	65.30
2450	1.14	-1.82	65.73
2452	1.16	-1.80	66.12
2454	1.16	-1.80	66.08
2456	1.07	-1.83	65.66
2458	1.07	-1.83	65.68
2460	1.07	-1.81	65.85
2462	1.08	-1.79	66.18
2464	1.09	-1.77	66.60
2466	1.24	-1.76	66.71
2468	1.41	-1.76	66.76
2470	1.56	-1.76	66.70
2472	1.71	-1.75	66.78
2474	1.86	-1.74	67.00
2476	2.01	-1.73	67.18
2478	2.14	-1.71	67.38
2480	2.26	-1.70	67.58
2482	2.37	-1.69	67.71
2484	2.47	-1.67	68.01

2486	2.56	-1.68	67.97
2488	2.64	-1.66	68.23
2490	2.72	-1.65	68.47
2492	2.78	-1.65	68.37
2494	2.83	-1.66	68.20
2496	2.87	-1.67	68.07
2498	2.92	-1.67	68.01
2500	2.96	-1.69	67.78

(1).Antenna Efficiency and Antenna Gain

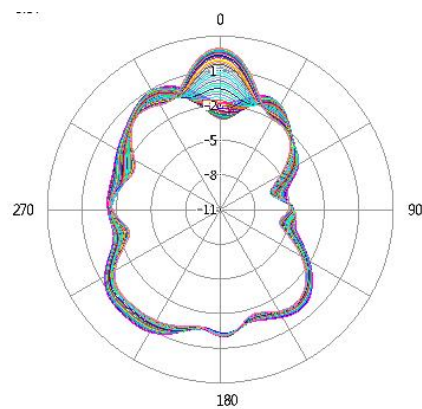


4. 3D Radiation Pattern

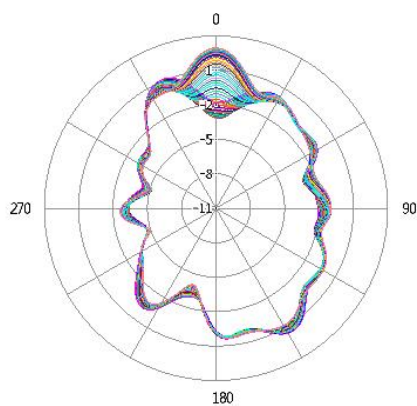


5. 2D Radiation Pattern

E1, XZ-Face, $\phi=0^\circ$; (E1, $\theta=0^\circ\sim 360^\circ$, $\phi=0^\circ$)



E2, YZ-Face, $\phi=90^\circ$; (E2, $\theta=0^\circ\sim 360^\circ$, $\phi=90^\circ$)



H, XY-Face, $\theta=90^\circ$; (H, $\phi=0^\circ\sim 360^\circ$, $\theta=90^\circ$)

