



Antenna Test Report

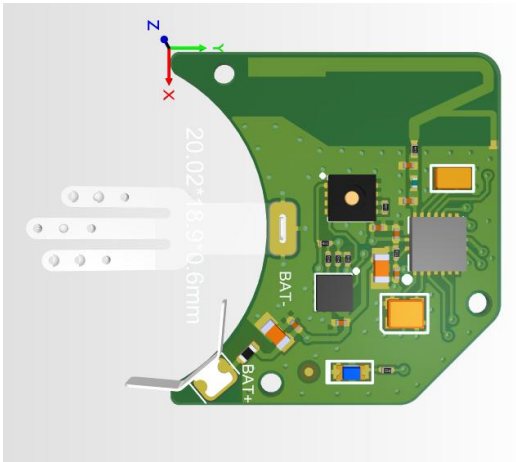
Project No	MTB12-D1004	PCB Version	LS046Fd_V1.0
Tester	ZHUWANLI	Date	2026-04-09
Auditing		Date	
Approval		Date	

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一、Project Information

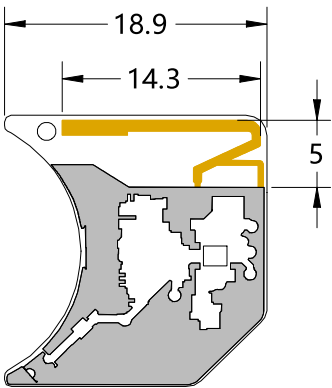
- 1. Antenna Coding：ANT-BBNCNC26016
- 2. Antenna Type：IFA
- 3. Model of the DUT：MTB12-D1004
- 4 .Test Data ：2026-04-09
- 5 .Product picture：

Product appearance	
PCB board and antenna	

二、Technical Specification

Electrical Specifications	
Frequency Range	2400-2480 MHz
Peak Gain	2.54 dBi
Efficiency	71.7%
Return Loss	≥ 10 dB (MAX)
VSWR	≤ 2.0 (MAX)
Bandwidth (S11 ≤ -10 dB)	300 MHz
Input Impedance	50 Ω
Radiation direction	Omni
Polarization Type	Linear
Lightning Protection	DC grounding
Power Capacity	1000mW (30dBm)
Mechanical Specifications	
Antenna Size	5 x 14.3 mm
Core Radiator	Copper
Substrate material	FR4
Substrate thickness	0.6 mm
Substrate Size (mm)	20.2 x 18.9 mm
Coaxial wire	Not required
Connect Type	Not required

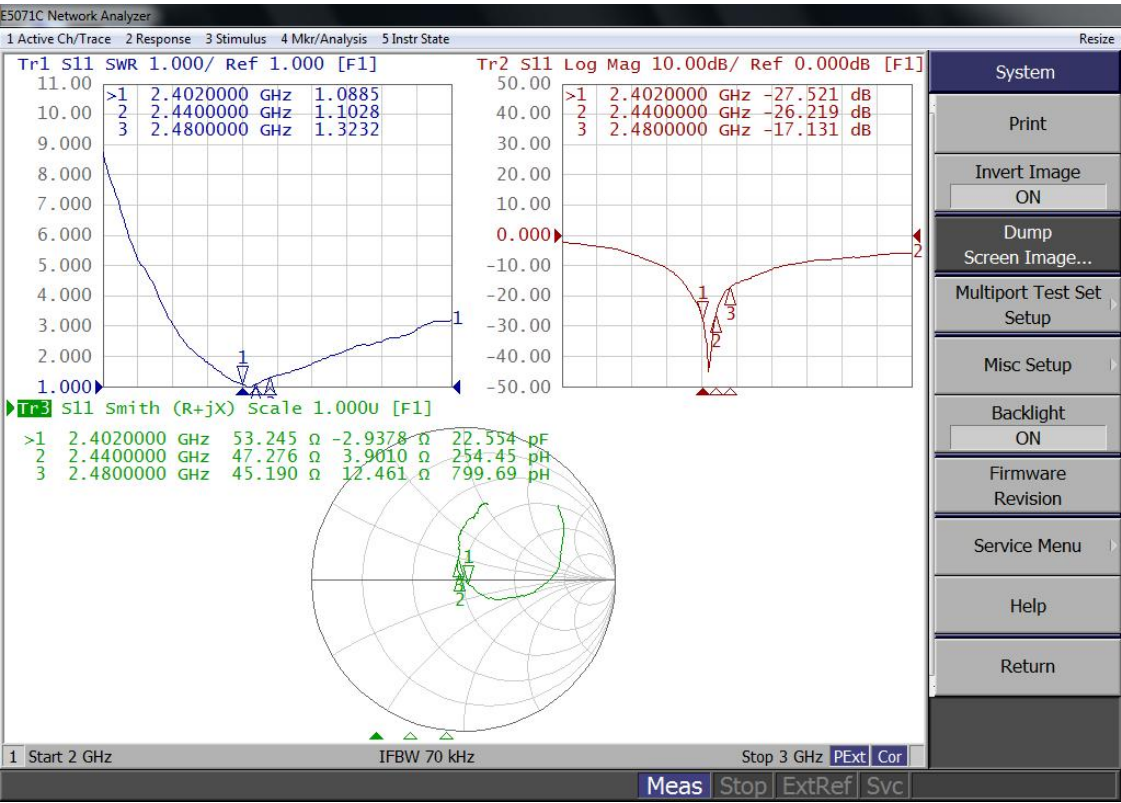
三、The shape and size of the antenna



Unit:mm

四、The result of the test

1 .VSWR & Return loss & Smith

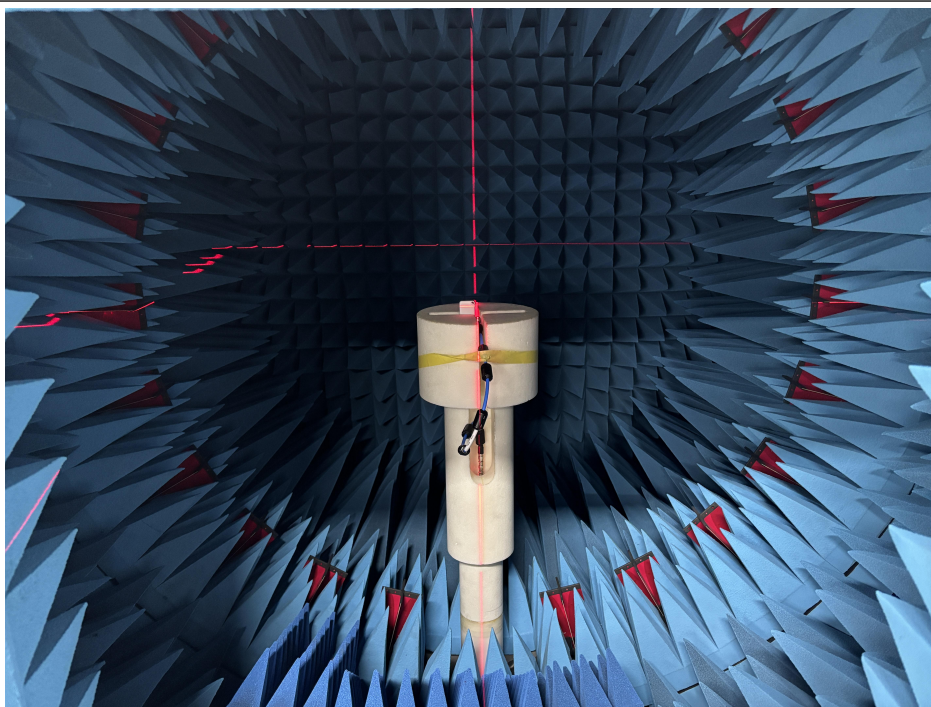


Frequency (MHz)	Return Loss (dB)	VSWR
2402	27.5	1.08
2440	26.2	1.10
2480	17.1	1.32
Bandwidth (S11≤-9.8dB)	300	

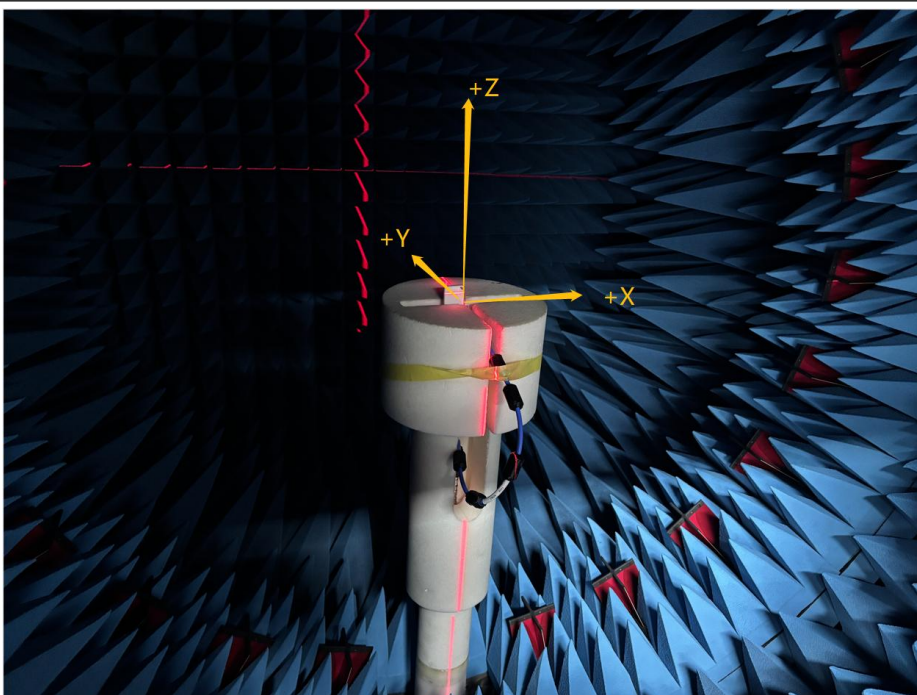
2. Antenna Testing Environment

- (1).Test Equipment : SY-24M, Agilent-E5071C
- (2).Test Engineer : ZHUWANLI
- (3).Test Environment : Microwave anechoic chamber

Inside the microwave anechoic chamber



Product coordinate axis position

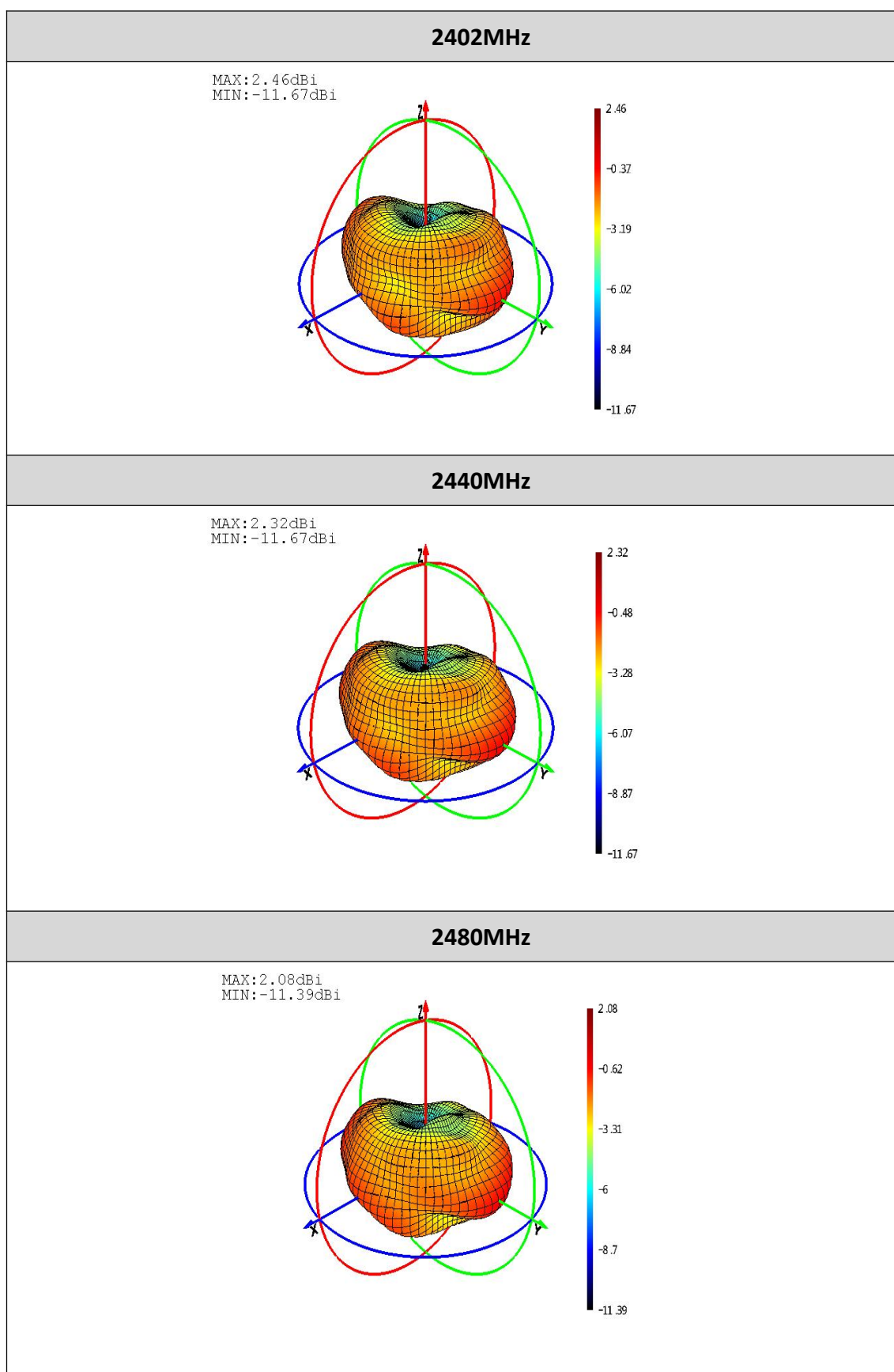


3 .Gain and Efficiency

频率(MHz)	增益(dBi)	效率(%)
2400	2.45	70.35
2402	2.46	70.23
2404	2.46	70.37
2406	2.49	70.36
2408	2.47	70.39
2410	2.47	70.43
2412	2.47	70.33
2414	2.47	70.46
2416	2.54	70.52
2418	2.49	70.52
2420	2.43	70.24
2422	2.40	70.03
2424	2.38	69.86
2426	2.47	70.05
2428	2.45	70.06
2430	2.40	69.92
2432	2.35	69.85
2434	2.30	69.56
2436	2.31	69.62
2438	2.31	69.67
2440	2.32	69.78
2442	2.32	70.25
2444	2.28	70.24
2446	2.22	70.07
2448	2.20	69.94
2450	2.22	70.37
2452	2.27	70.51
2454	2.33	71.04
2456	2.35	71.17
2458	2.32	70.73
2460	2.28	69.98
2462	2.21	69.28
2464	2.20	69.24
2466	2.17	69.51
2468	2.18	69.86
2470	2.13	69.51
2472	2.10	69.29
2474	2.06	68.82
2476	2.06	68.81
2478	2.07	69.07
2480	2.08	69.51

2482	2.06	69.44
2484	2.04	69.18
2486	2.00	68.93
2488	2.01	68.87
2490	2.03	69.13
2492	2.04	69.25
2494	2.03	69.20
2496	2.01	68.79
2498	1.97	68.21
2500	1.96	67.90

4 .3D Radiation Pattern



5.2D Radiation Pattern

