



Antenna Test Report

Project No	P25096B5D	PCB Version	LD030F6_V1.0
Tester	Moqi	Date	2025.8.28
Auditing		Date	
Approval		Date	

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一、Project Information

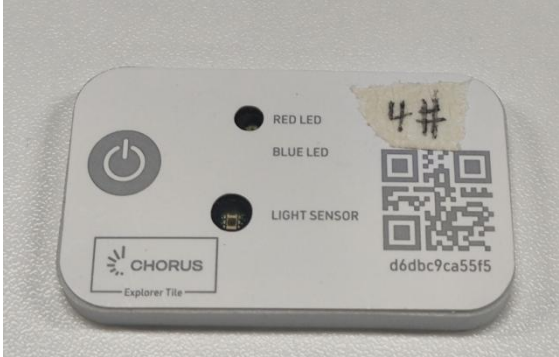
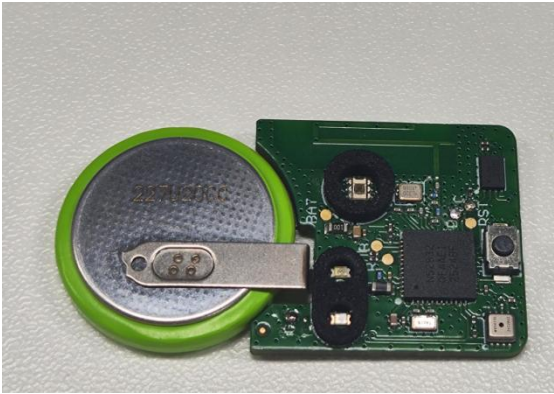
1. Antenna Coding： ANT-BBNCNC25019

2. Antenna Type： PCB onboard Antenna

3. Model of the DUT： Explorer LiLT

4 .Test Data ： 2025.8.28

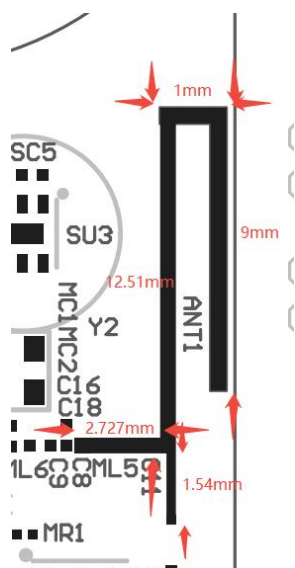
5 .Product picture：

Product appearance	
PCB board and antenna	

二、Technical Specification

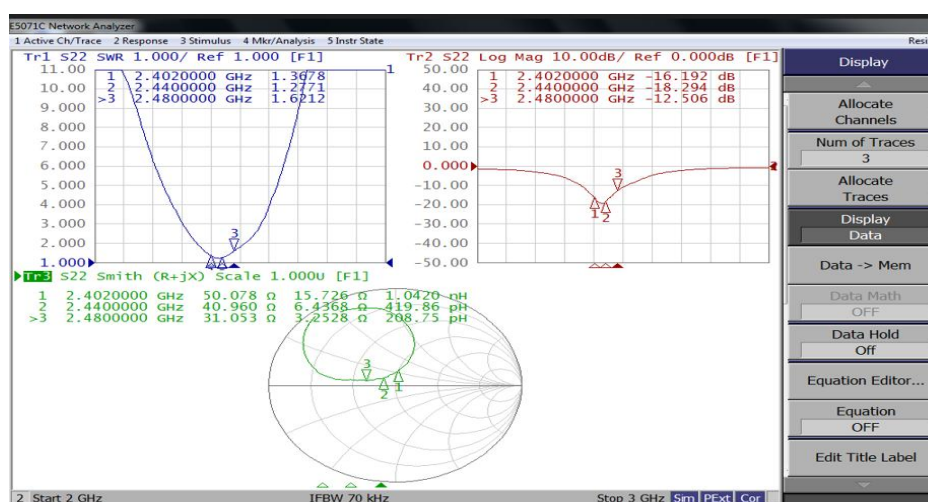
Electrical Specifications	
Frequency Range	2400-2480 MHz
Peak Gain	0.33 dBi
Efficiency	39.36%
Return Loss	≤ -12.5 dB (MAX)
VSWR	≤ 1.62 (MAX)
Bandwidth ($S_{11} \leq -10$ dB)	160 MHz
Input Impedance	50 Ω
Radiation direction	Omni
Polarization Type	Linear
Lightning Protection	DC grounding
Power Capacity	1000mW (30dBm)
Mechanical Specifications	
Antenna Size	14.05 x3.727mm
Core Radiator	Copper
Substrate material	FR4
Substrate thickness	
Substrate Size (mm)	
Coaxial wire	
Connect Type	
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



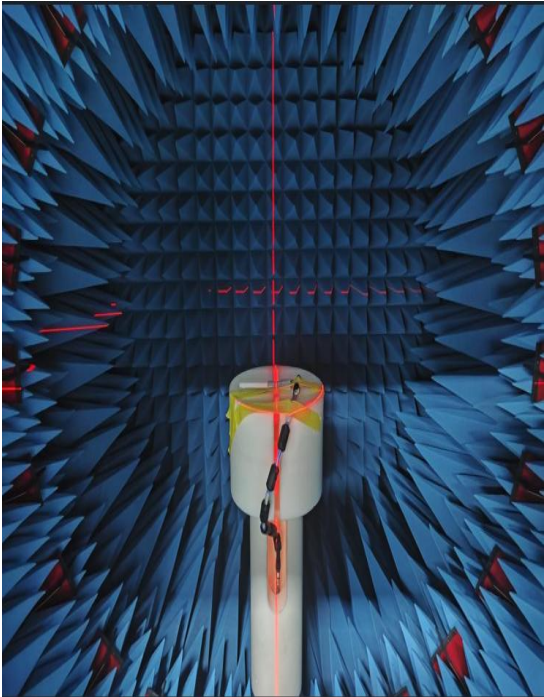
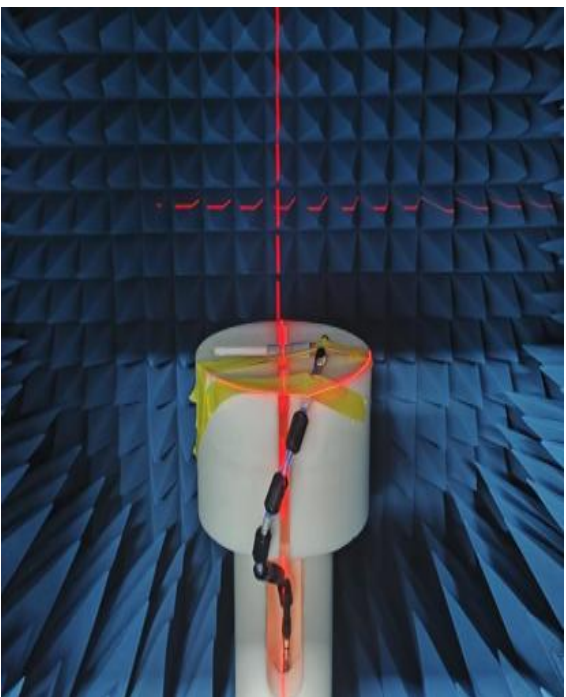
Frequency (MHz)	Return Loss (dB)	VSWR
2402	-16.1	1.36
2440	-18.2	1.27
2480	-12.5	1.62
Bandwidth (S11≤-10dB)	160	

2. Antenna Testing Environment

(1).Test Equipment : SATIMO, SG24-L, Agilent-E5071C

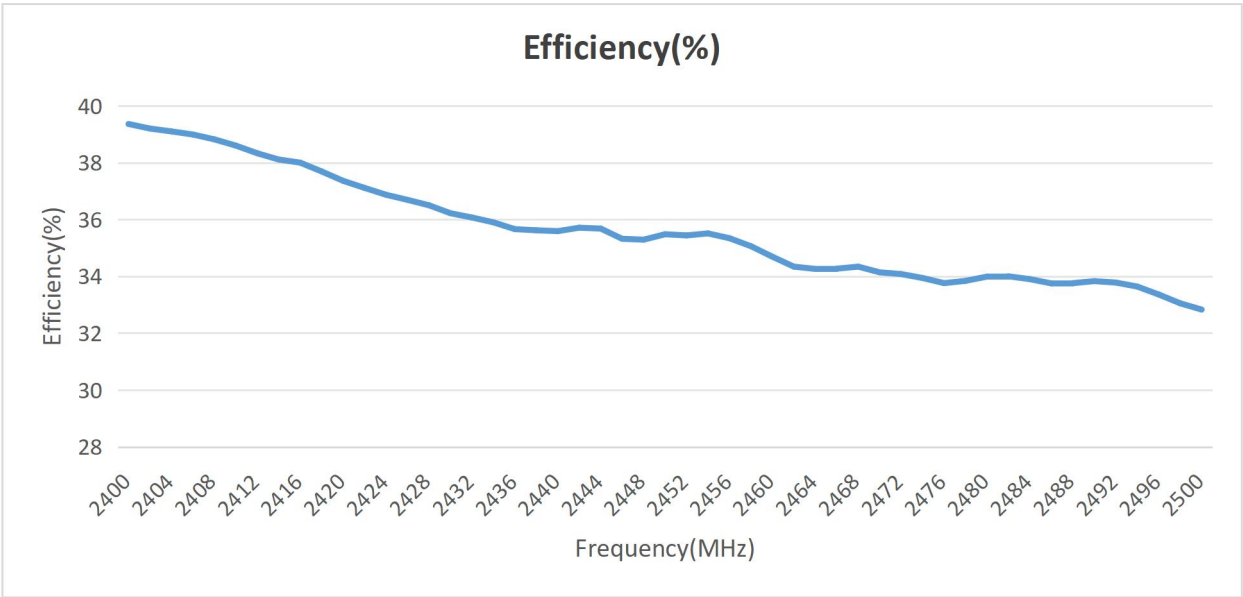
(2).Test Engineer : moqi

(3).Test Environment : The microwave unreflected chamber

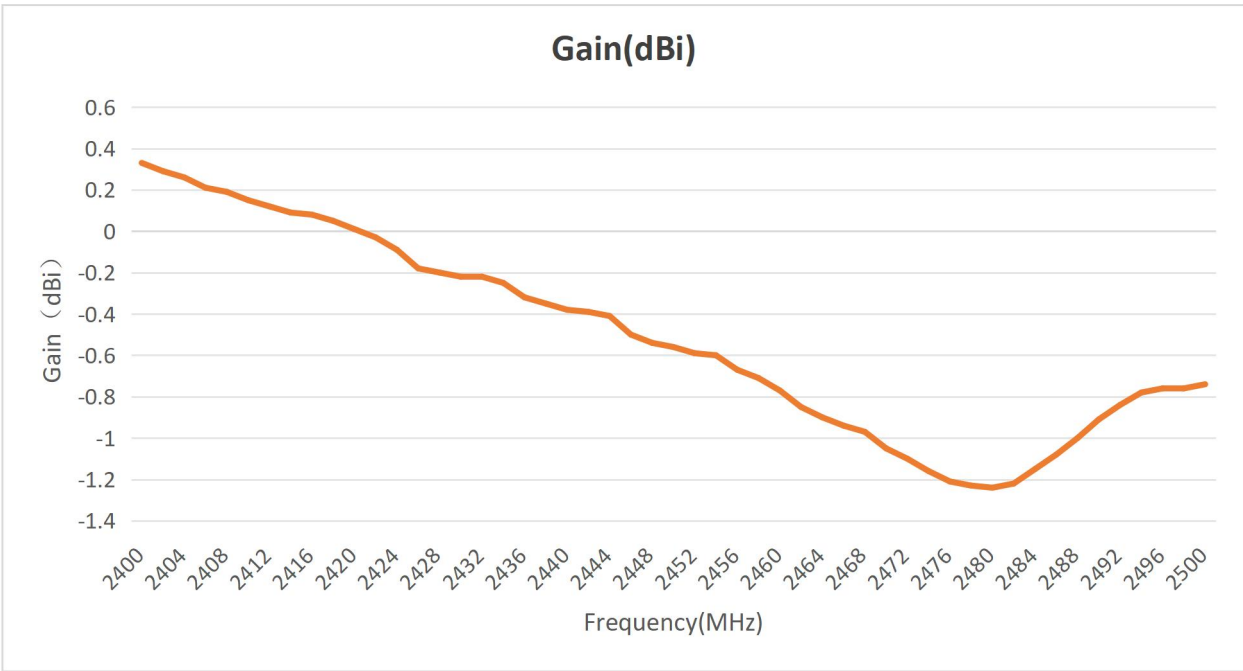
Inside the microwave anechoic chamber	Product coordinate axis position
	

3 .Gain and Efficiency

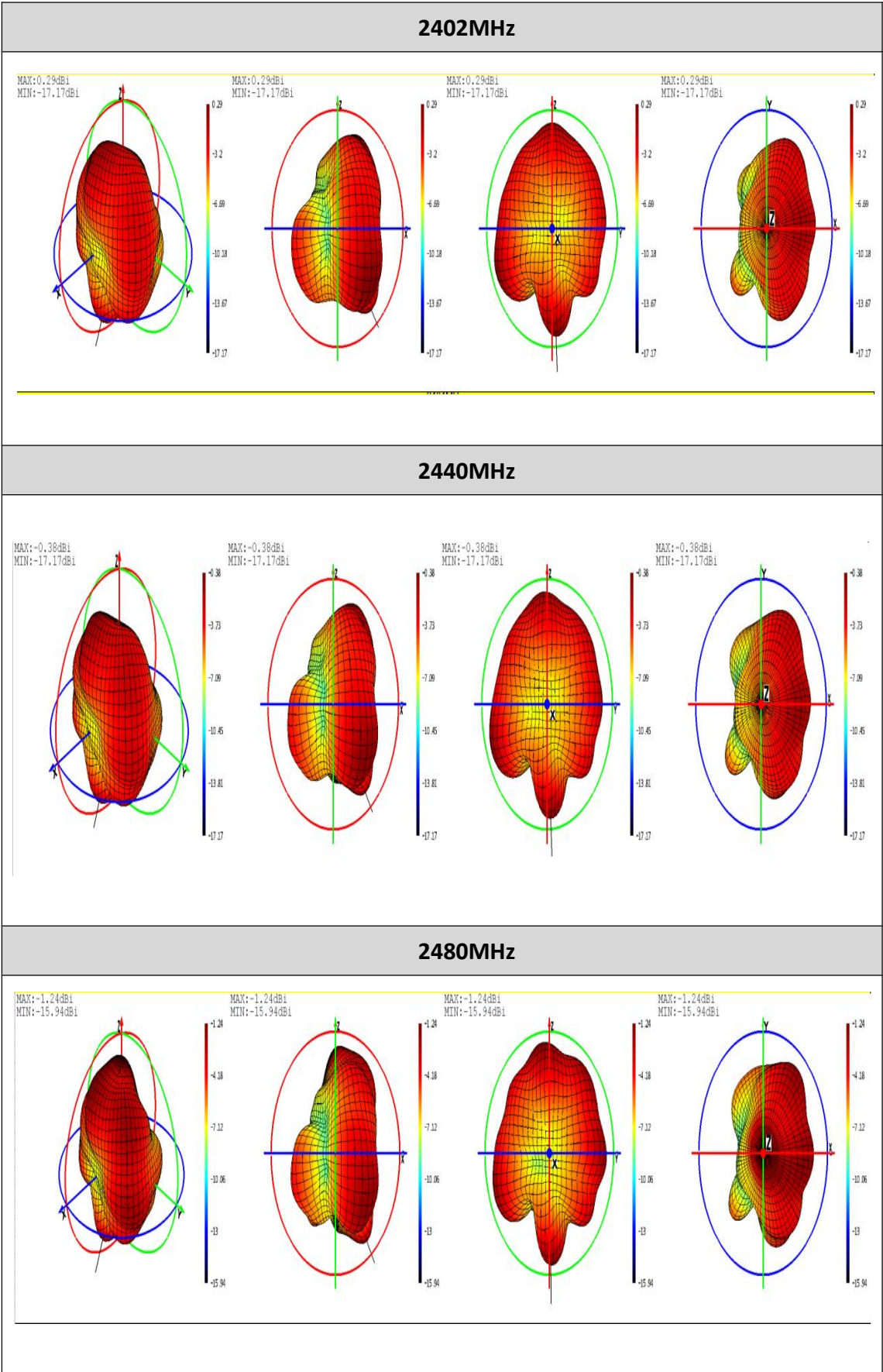
(1).Antenna Efficiency



(2).Antenna Gain

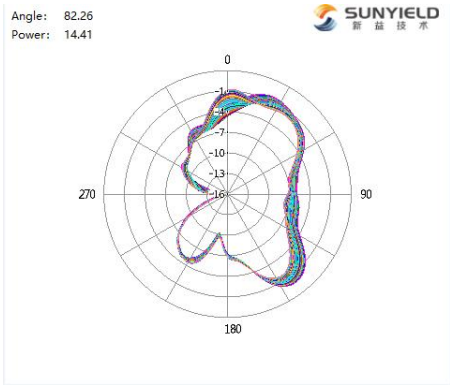


4 .3D Radiation Pattern

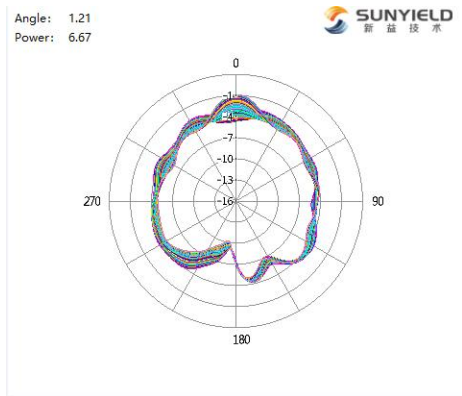


5.2D Radiation Pattern

E1, XZ-Face, $\phi=0^\circ$; (E1, $\theta=0\sim360^\circ$, $\phi=0^\circ$)



E2, YZ-Face, $\phi=90^\circ$; (E2, $\theta=0\sim360^\circ$, $\phi=90^\circ$)



H, XY-Face, $\theta=90^\circ$; (H, $\phi=0\sim360^\circ$, $\theta=90^\circ$)

