

# Antenna Specification

Antenna picture	
Antenna Type	PCB Antenna
Antenna Peak Gain	4.42 dBi
Operating Band	2400 MHz ~ 2483.5 MHz
Test laboratory name and Address	IoT Antenna Test Laboratory, 3 / A, LEEDARSON LIGHTING CO., LTD. Xingtai Industrial Park, Changtai Economic Development Zone, Zhangzhou, 363900, China
Antenna Manufacturer	LEEDARSON LIGHTING CO., LTD.
Test Date	2024.04.20
Test Conductor	Zhuwei

## Test System

The SY-16 OTA system and RayZone2800 OTA system are anechoic chambers, which can measure antenna passive data such as antenna efficiency, antenna gain, and 2D&3D pattern. The systems are shown as follows:



Figure 1 SY-16 OTA system



Figure 2 RayZone2800 OTA system

## Equipment List

Table 1 Equipment List

Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
<input checked="" type="checkbox"/>	Network Analyzer	Keysight	E5071C	MY46527808	2024/1/9	2025/1/8
<input type="checkbox"/>	Network Analyzer	Keysight	E5071C	MY46108051	2024/4/20	2025/4/19
<input checked="" type="checkbox"/>	Anechoic Chamber	Sunyield	SY-16	SI1727	2024/5/10	2025/5/9
<input type="checkbox"/>	Anechoic Chamber	General Test System	RayZone2800	CT10121244 B5079	2024/5/20	2025/5/19

## Test Method

Table 2 Test Method

Name	Antenna Performance				
Parameter	Radiation Efficiency				
Test Method	IEEE Standard Test Procedures for Antennas				
Standard No.	ANSI/IEEE Std 149-2021				
Test Software	PMS-V2.8.5	<input checked="" type="checkbox"/>	MaxSign-V1.4.3	<input type="checkbox"/>	

## Test Result

### Efficiency and Gain

Table 3 Antenna Efficiency and Gain

Frequency (MHz)	Gain (dBi)	Efficiency (dB)
2400	4.42	-2.79
2410	3.57	-2.73
2420	3.85	-2.42
2430	3.62	-2.55
2440	3.57	-2.55
2450	3.13	-2.22
2460	3.35	-2.07
2470	3.94	-2.45
2480	3.15	-2.39

## Radiation Pattern

Table 4 Product coordinates

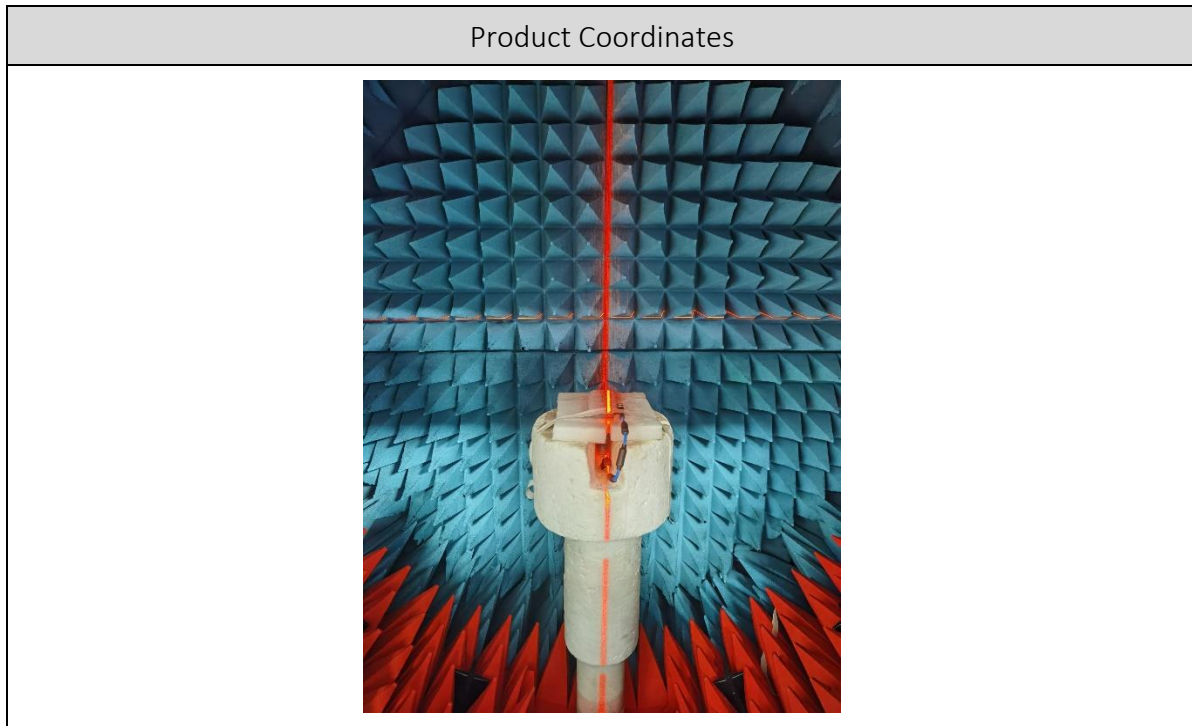


Table 5 3D radiation pattern

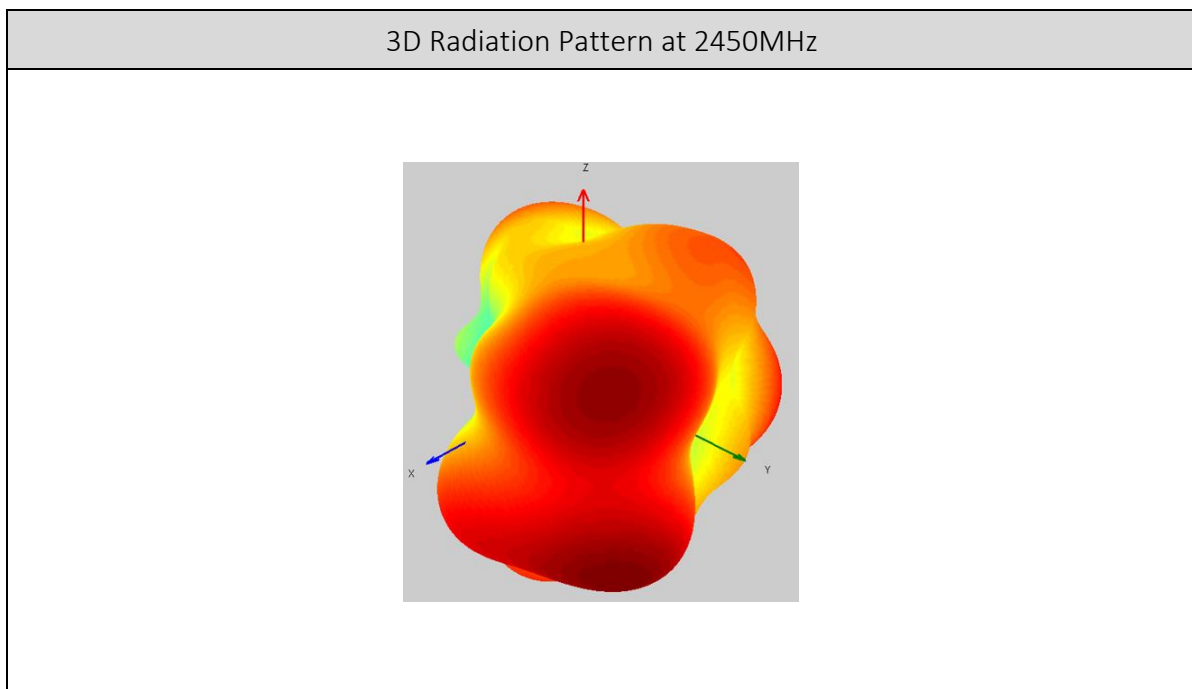


Table 6 Radiation pattern in XY Plane

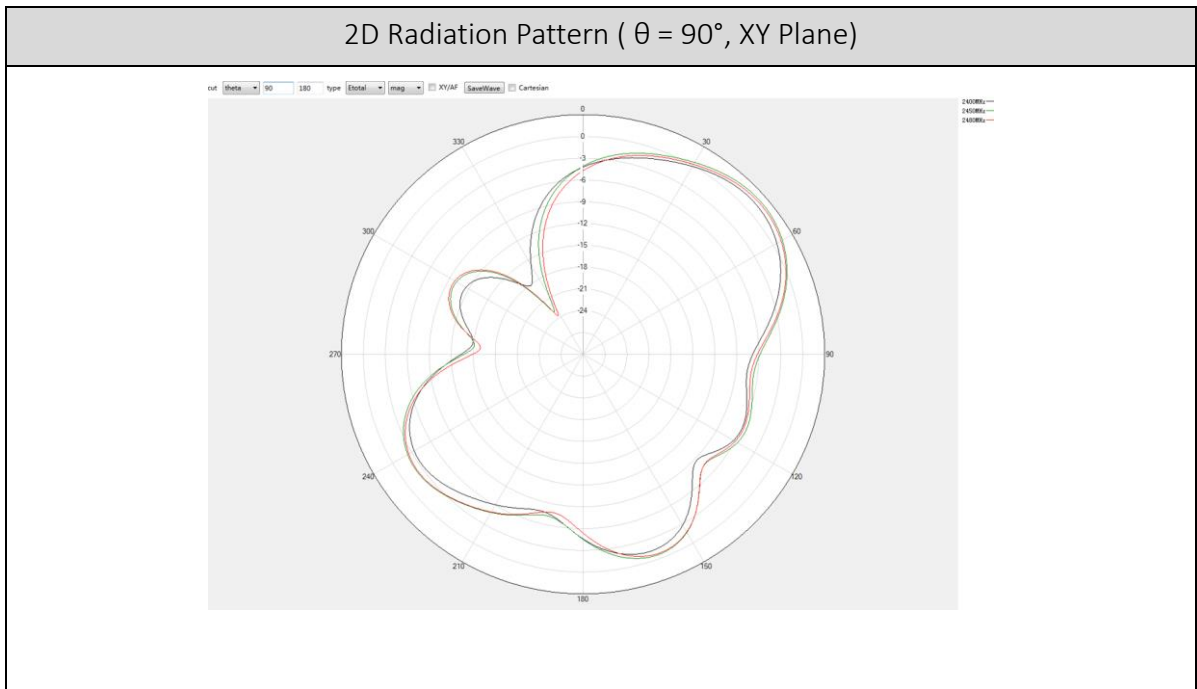


Table 7 Radiation pattern in XZ Plane

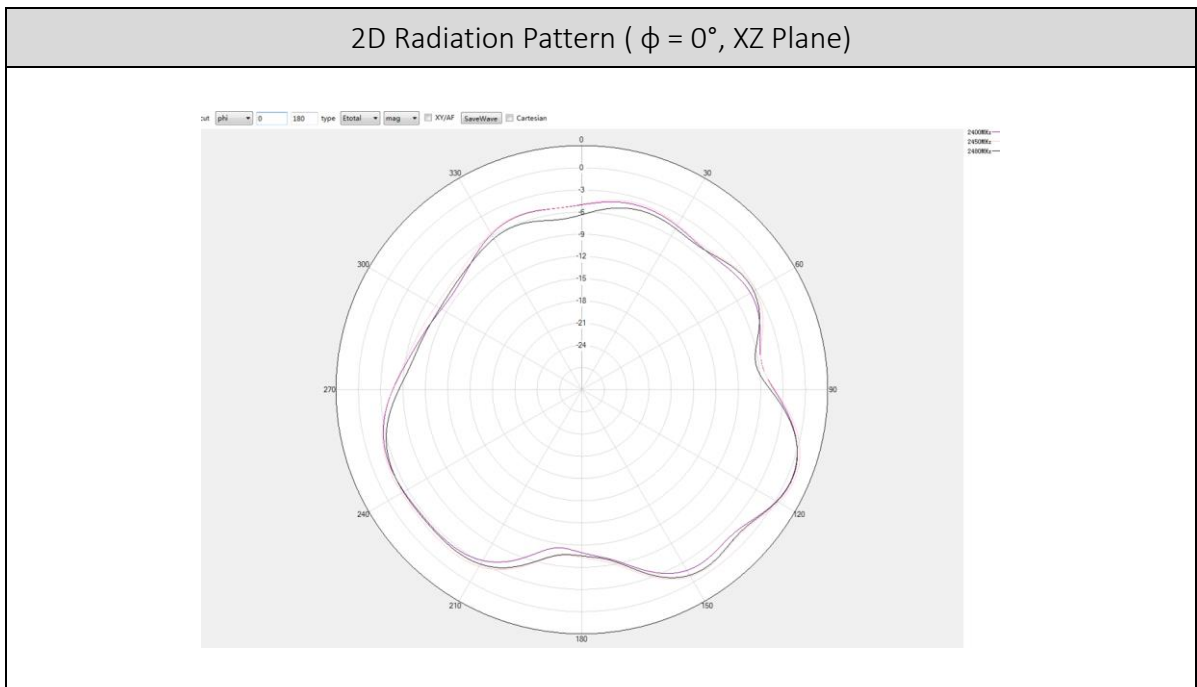


Table 8 Radiation pattern in YZ Plane

