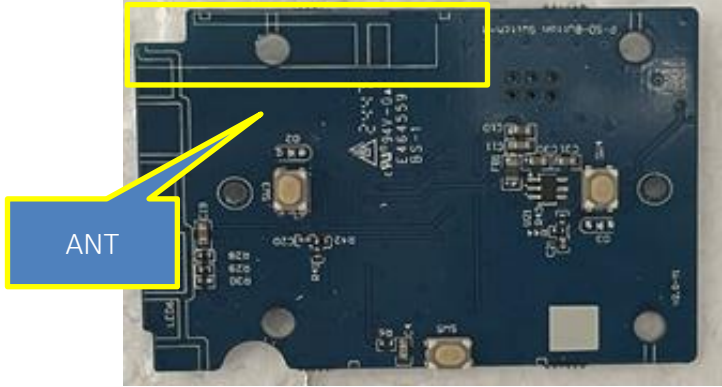
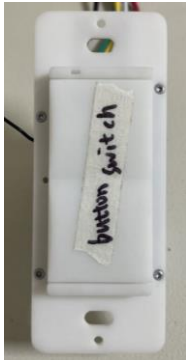


Antenna Specification

Antenna picture	
Antenna Type	PCB IFA antenna
Antenna Peak Gain	1.37dBi
Operating Band	2400-2483.5 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.
Model name	Button Switch
DUT photo	
Test Date	2025-05-10
Test Conductor	Feng Huijuan

OTA measurement

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

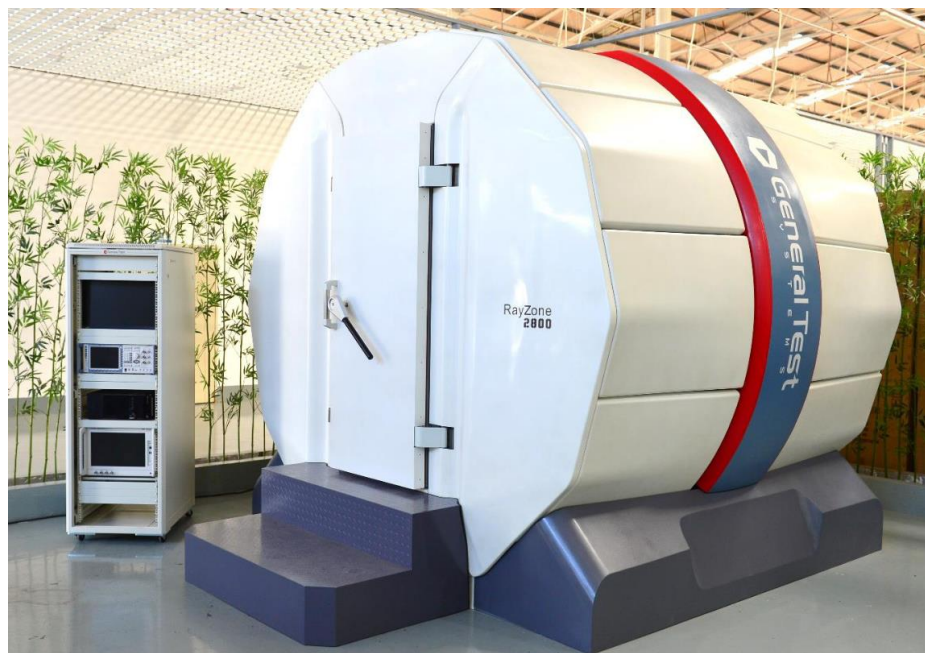


Figure 2 RayZone2800 OTA system

Equipment List

Table 1 Equipment List

Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
☒	Network Analyzer	Keysight	E5071C	MY46527808	2025/1/9	2026/1/8
☐	Network Analyzer	Keysight	E5071C	MY46108051	2025/4/19	2026/4/18
☒	Anechoic Chamber	Sunyield	SY-16	SI1727	2025/4/28	2026/4/27
☐	Anechoic Chamber	General Test System	RayZone2800	CT10121244 B5079	2025/5/10	2026/5/9

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	☒	MaxSign-V1.4.3	☐

Test Result

Efficiency and Gain

Table 3 Antenna Efficiency and Gain

Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency (%)
2400	1.14	-2.60	55.00
2410	1.37	-2.41	57.47
2420	1.25	-2.53	55.79
2430	1.12	-2.62	54.72
2440	1.26	-2.44	57.01
2450	1.05	-2.63	54.58
2460	0.81	-2.81	52.35
2470	0.73	-2.83	52.06
2480	0.71	-2.81	52.33
2490	0.55	-2.94	50.83
2500	0.46	-3.01	50.02

Radiation Pattern

Table 4 Product coordinates

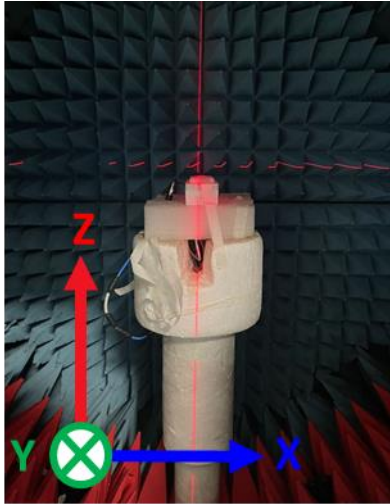
Product Coordinates	
	

Table 5 3D radiation pattern

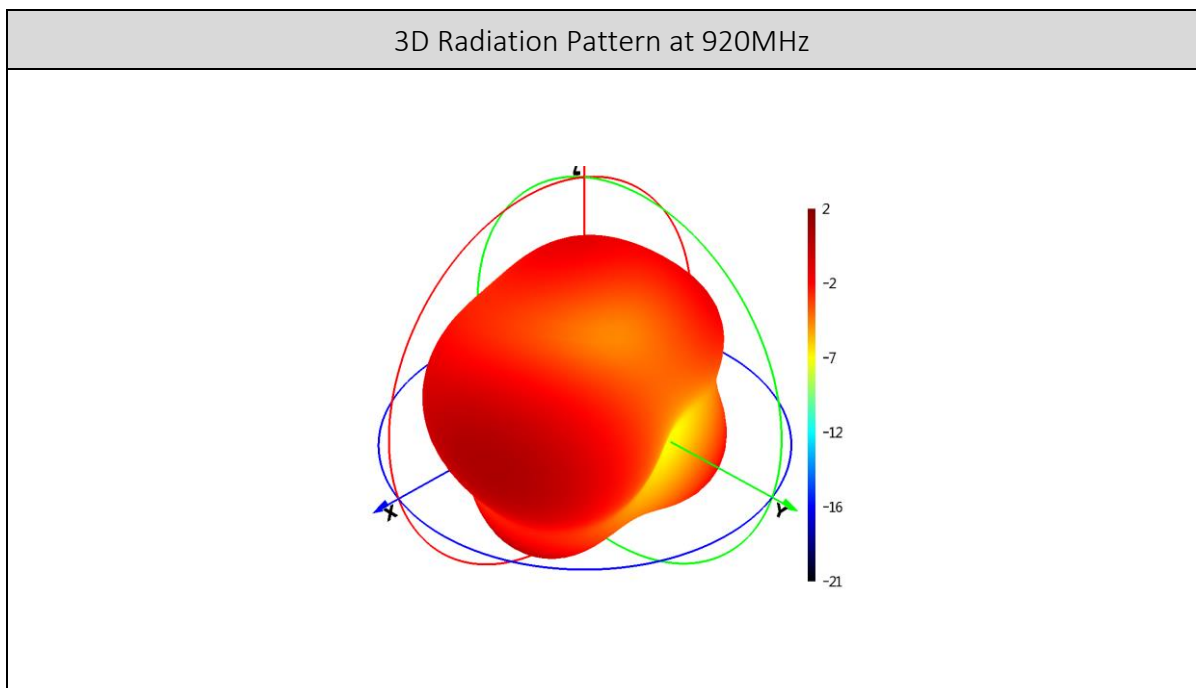


Table 6 Radiation pattern in XY Plane

2D Radiation Pattern ($\theta = 90^\circ$, XY Plane)

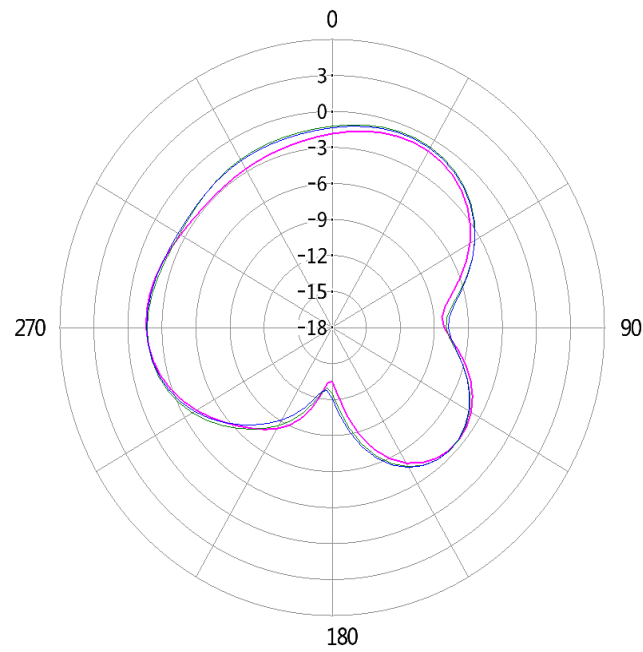


Table 7 Radiation pattern in XZ Plane

2D Radiation Pattern ($\phi = 0^\circ$, XZ Plane)

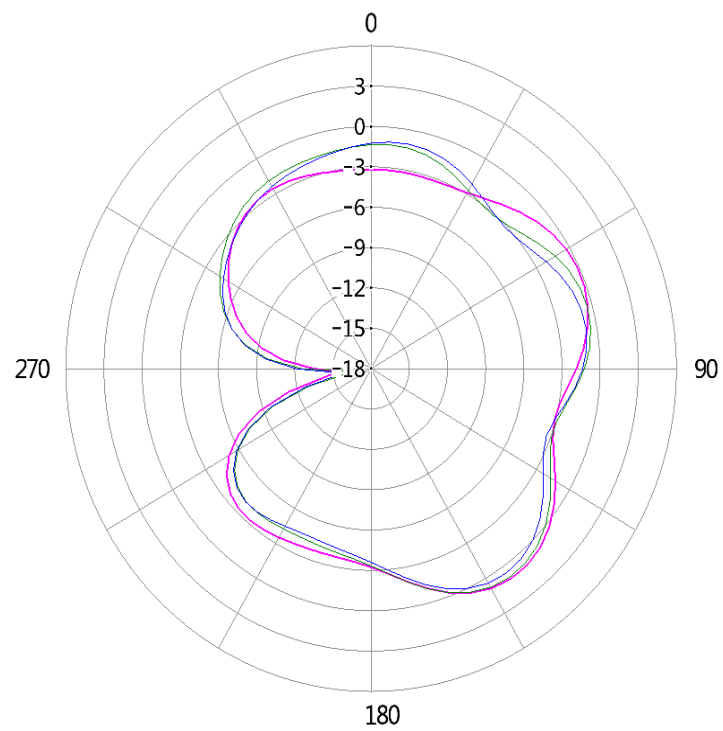


Table 8 Radiation pattern in YZ Plane

