

Antenna Specification

Antenna picture	
Antenna Type	Metal Antenna
Antenna Peak Gain	:-2.21dBi
Operating Band	920 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	Motion
Test Date	2024-9-18
Test Conductor	zhuwei

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:

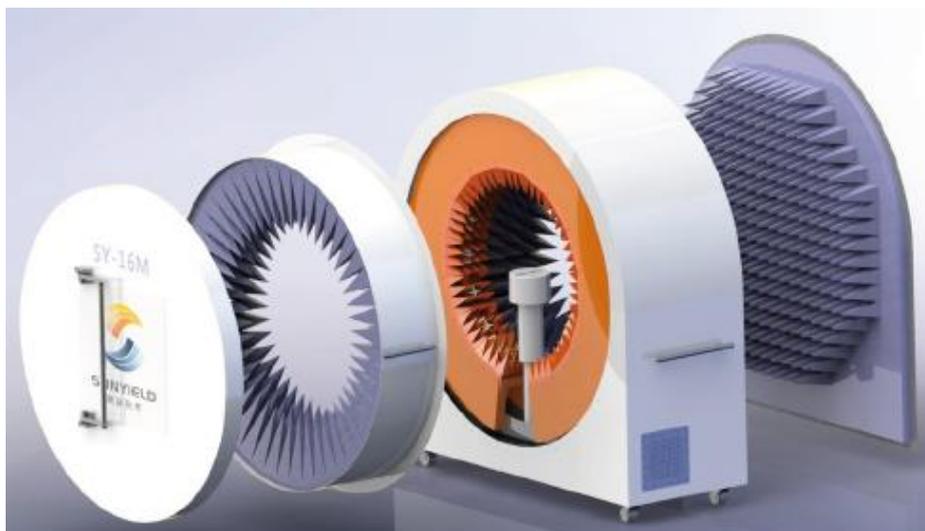


Figure 1 SY-16 OTA system



Figure 2 RayZone2800 OTA system

Equipment List

Table 1 Equipment List

Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
<input checked="" type="checkbox"/>	Network Analyzer	Keysight	E5071C	MY46527808	2025/1/9	2026/1/8
<input type="checkbox"/>	Network Analyzer	Keysight	E5071C	MY46108051	2024/4/19	2025/4/18
<input checked="" type="checkbox"/>	Anechoic Chamber	Sunyield	SY-16	SI1727	2024/4/28	2025/4/27
<input type="checkbox"/>	Anechoic Chamber	General Test System	RayZone2800	CT10121244 B5079	2024/5/10	2025/5/9

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	<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)	Efficiency (%)
860	-2.96	-5.13	30.69
862	-2.93	-5.11	30.82
864	-2.87	-5.04	31.30
866	-2.67	-4.83	32.90
868	-2.43	-4.58	34.85
870	-2.32	-4.47	35.73
914	-1.68	-3.77	41.98
916	-1.90	-3.98	40.02
918	-2.13	-4.21	37.96

920	-2.21	-4.30	37.15
922	-2.11	-4.22	37.84
924	-1.96	-4.09	39.02
926	-2.16	-4.08	39.12

Radiation Pattern

Table 4 Product coordinates

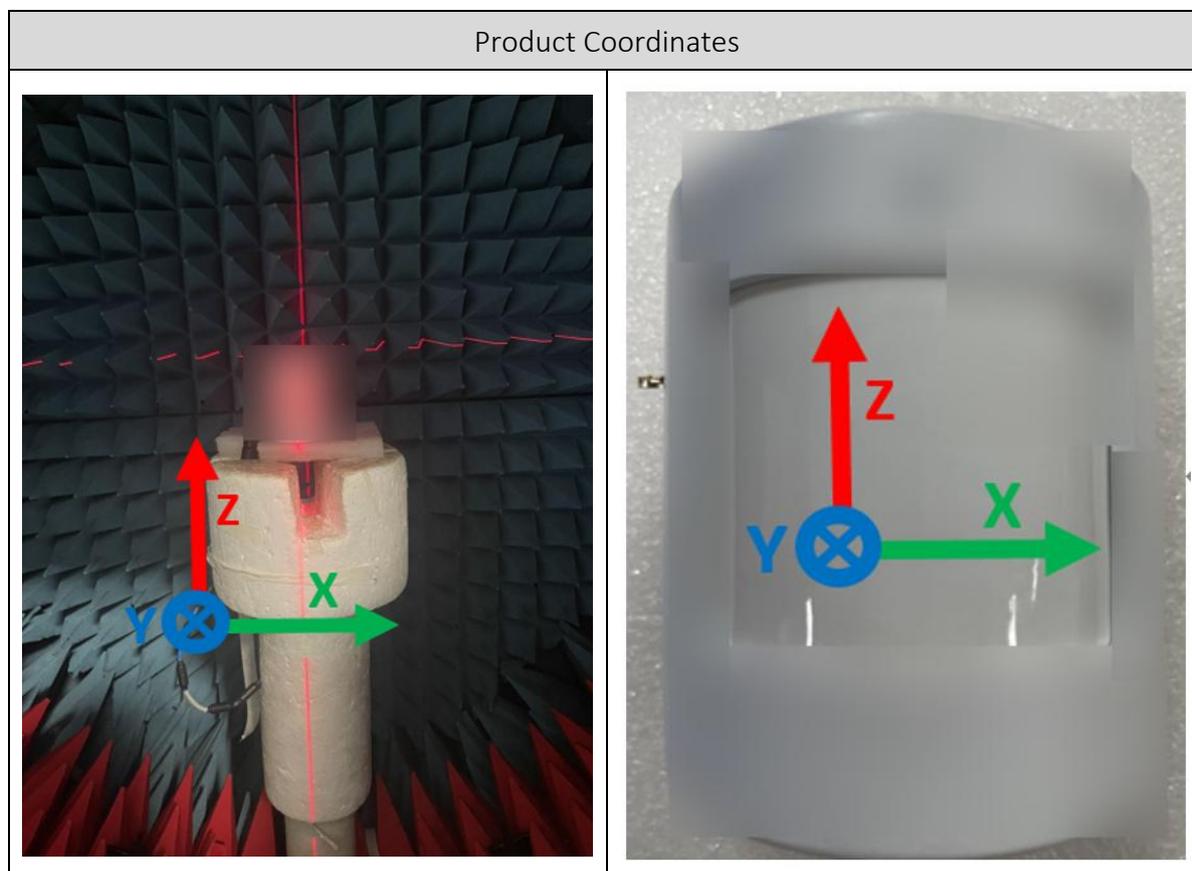


Table 5 3D radiation pattern

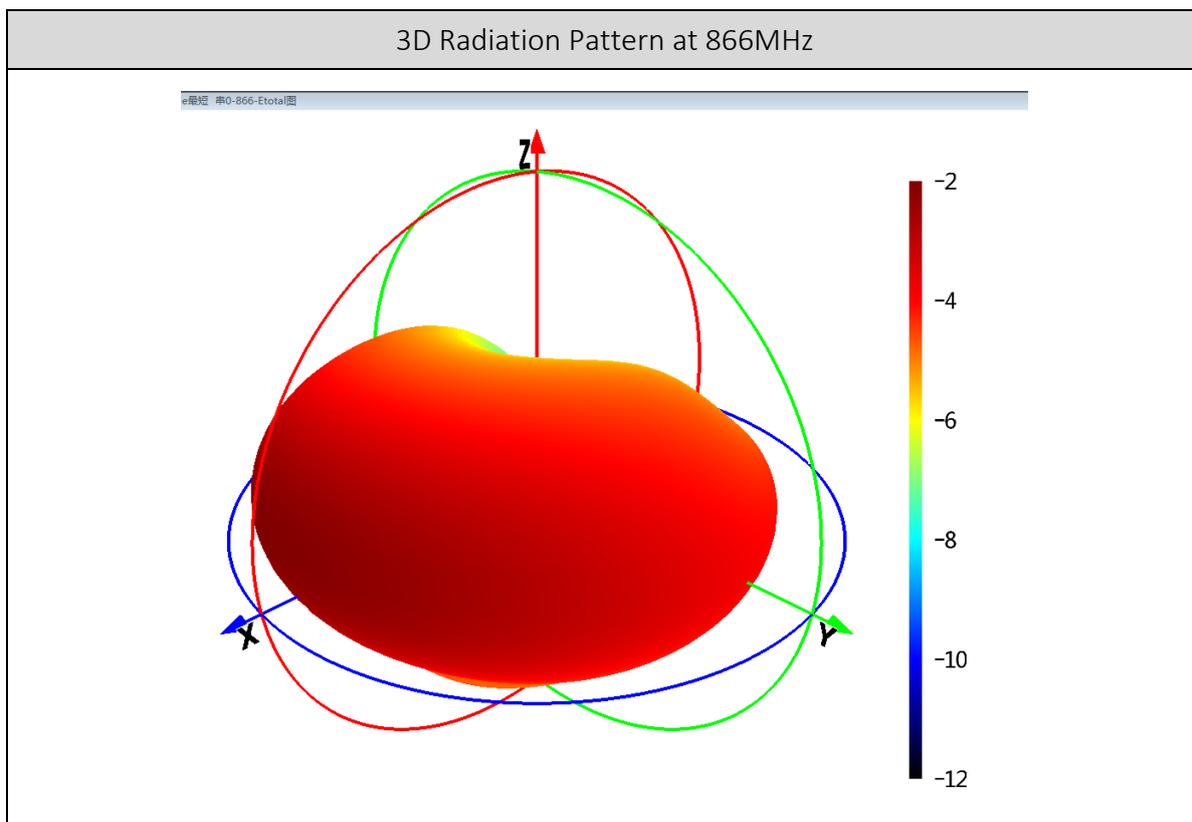


Table 6 Radiation pattern in XY Plane



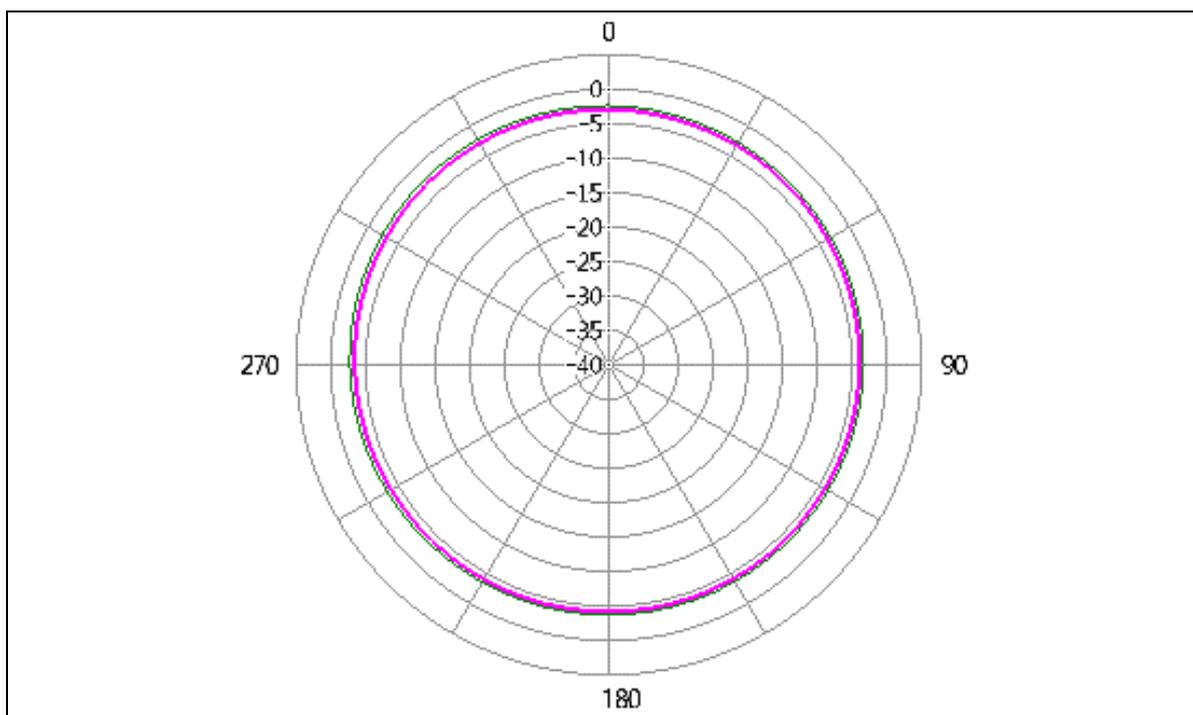


Table 7 Radiation pattern in XZ Plane

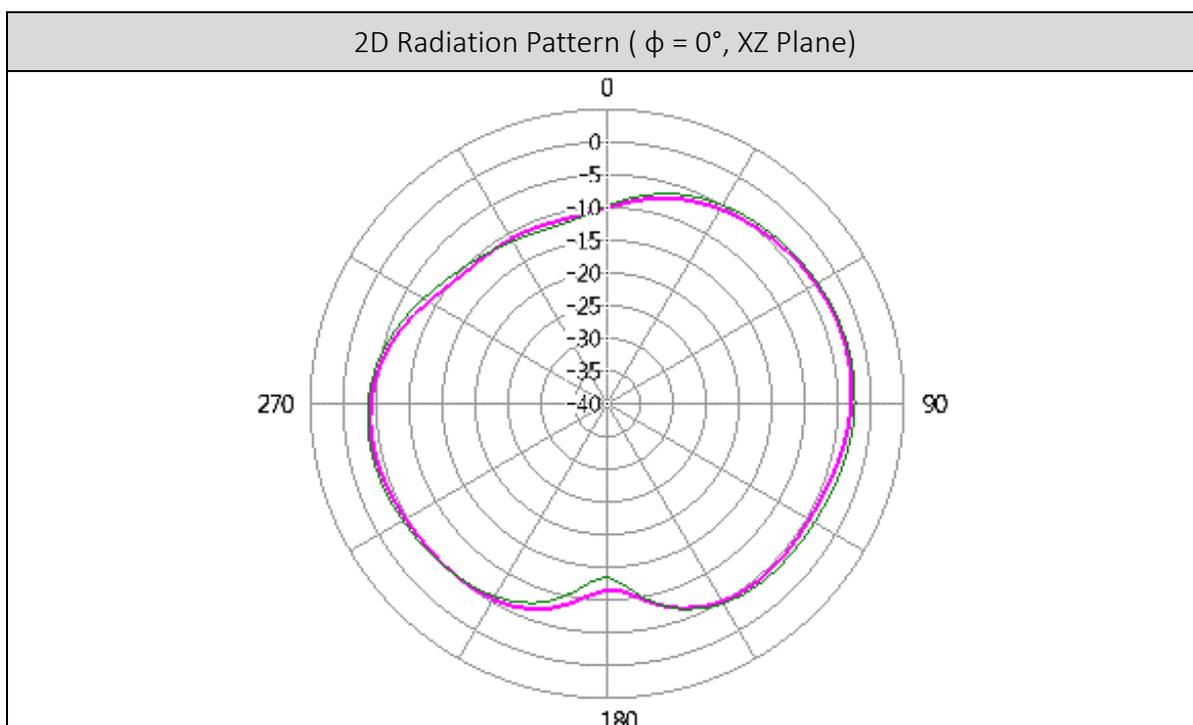


Table 8 Radiation pattern in YZ Plane

