

Antenna Specification

Antenna Type	Metal Monopole Antenna
Antenna Peak Gain	-2.01 dBi
Operating Band	920-920.8 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	Panic Button NA
Test Date	2024-11-29
Test Conductor	Weisong Xiu

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	2024/1/9	2025/1/8
<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 (%)
910	-2.12	-6.68	21.49
912	-1.99	-6.52	22.26
914	-1.94	-6.45	22.66
916	-2.01	-6.49	22.42
918	-2.07	-6.55	22.14
920	-2.01	-6.47	22.53
922	-1.79	-6.25	23.72
924	-1.58	-6.00	25.12
926	-1.53	-5.91	25.64
928	-1.60	-5.96	25.36
930	-1.61	-5.98	25.23

Radiation Pattern

Table 4 Product coordinates

Product Coordinates	

Table 5 3D radiation pattern

3D Radiation Pattern at 920MHz

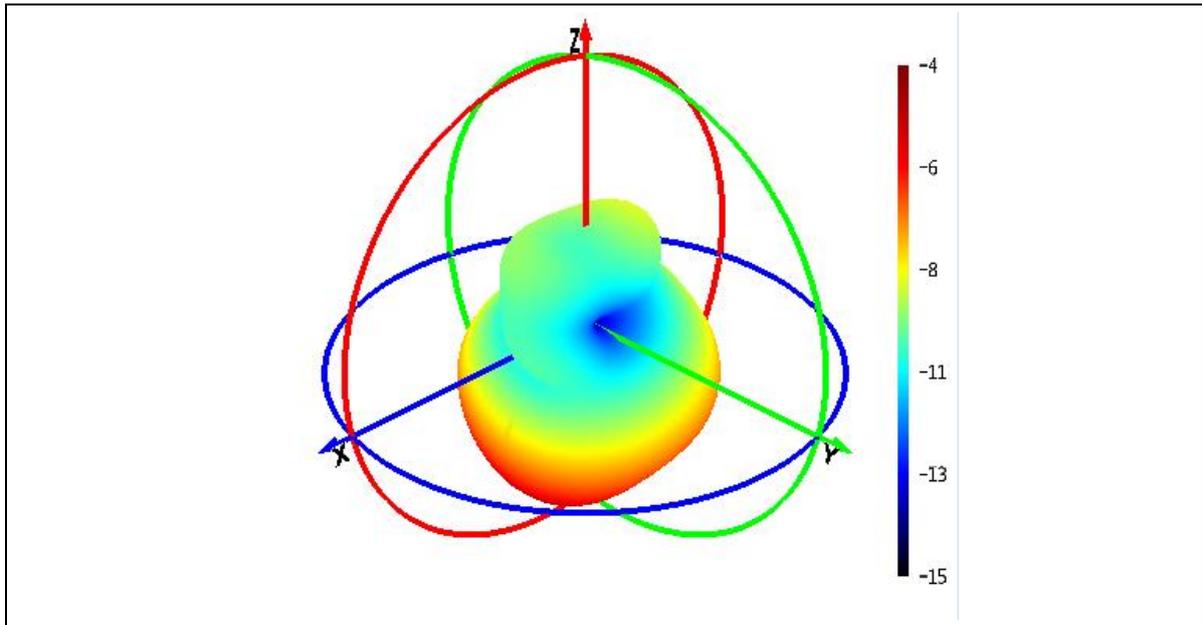


Table 6 Radiation pattern in XY Plane

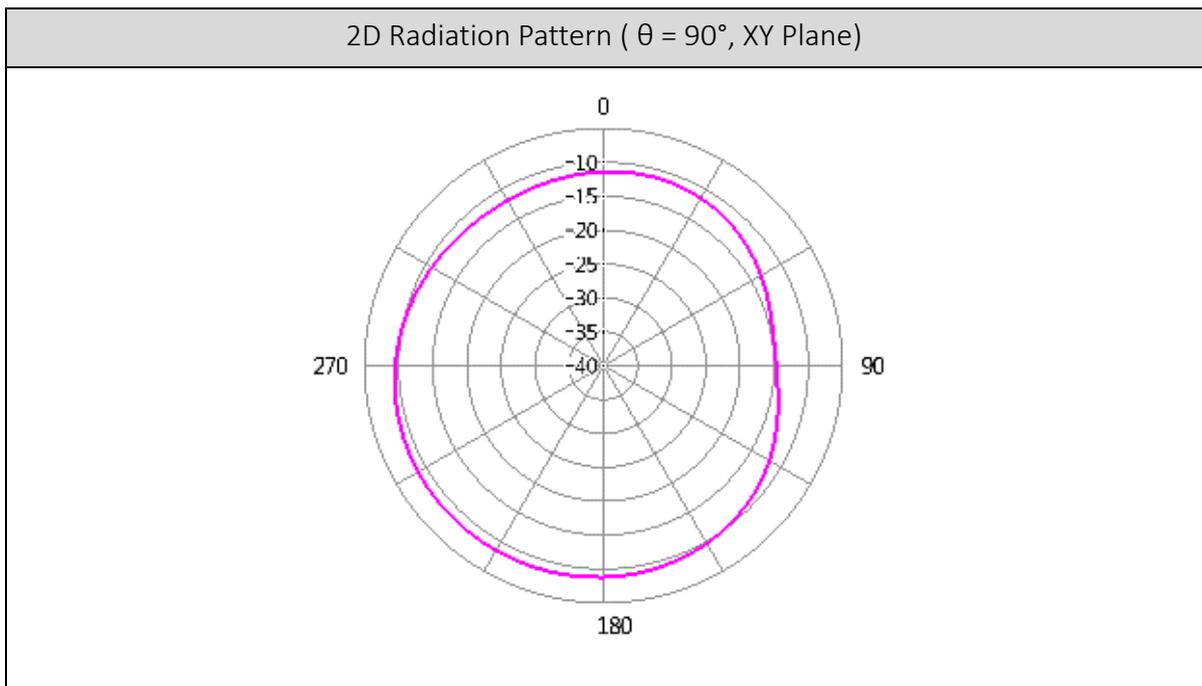


Table 7 Radiation pattern in XZ Plane



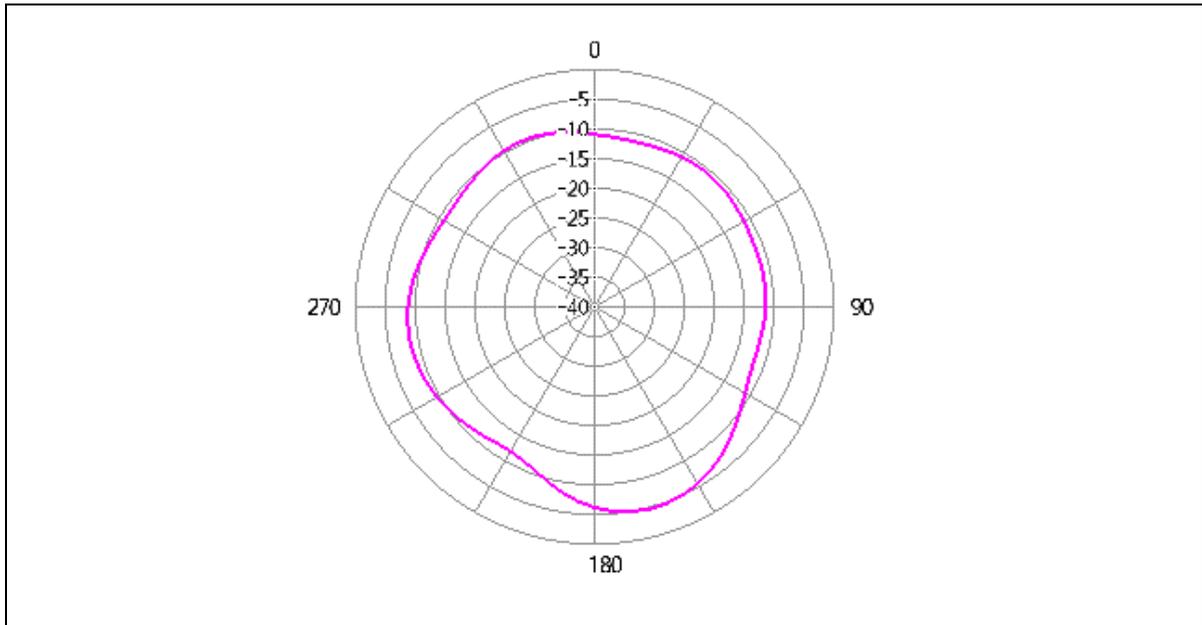


Table 8 Radiation pattern in YZ Plane

