



# Antenna Information

Antenna picture	
Antenna Type	Internal monopole antenna
Antenna Peak Gain	-4.16 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.
Model name	13aFA-G500SG-G1Z/13aFA-ST800SG-G1Z/13aFA-ST500SG-G3Z/13aFA-A800SG-G1Z
DUT photo	
Report Date	2023-04-20

OTA measurement

### Test System

The SY-16 OTA system is an anechoic chamber, which can measure antenna passive data such as antenna efficiency, antenna gain, and 2D&3D pattern. The coordinates and topology are shown as follows:

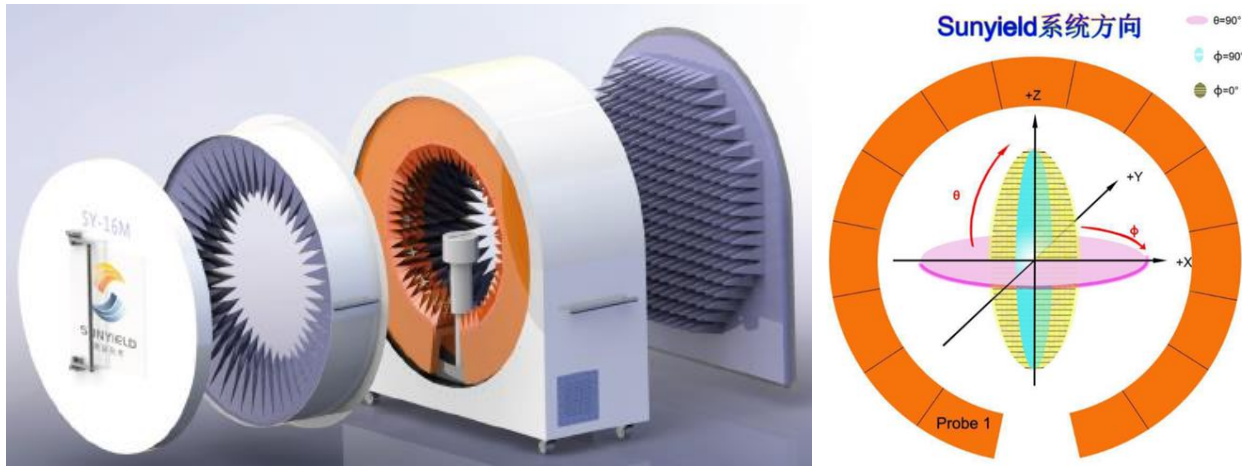


Figure 1 SY-16 OTA system

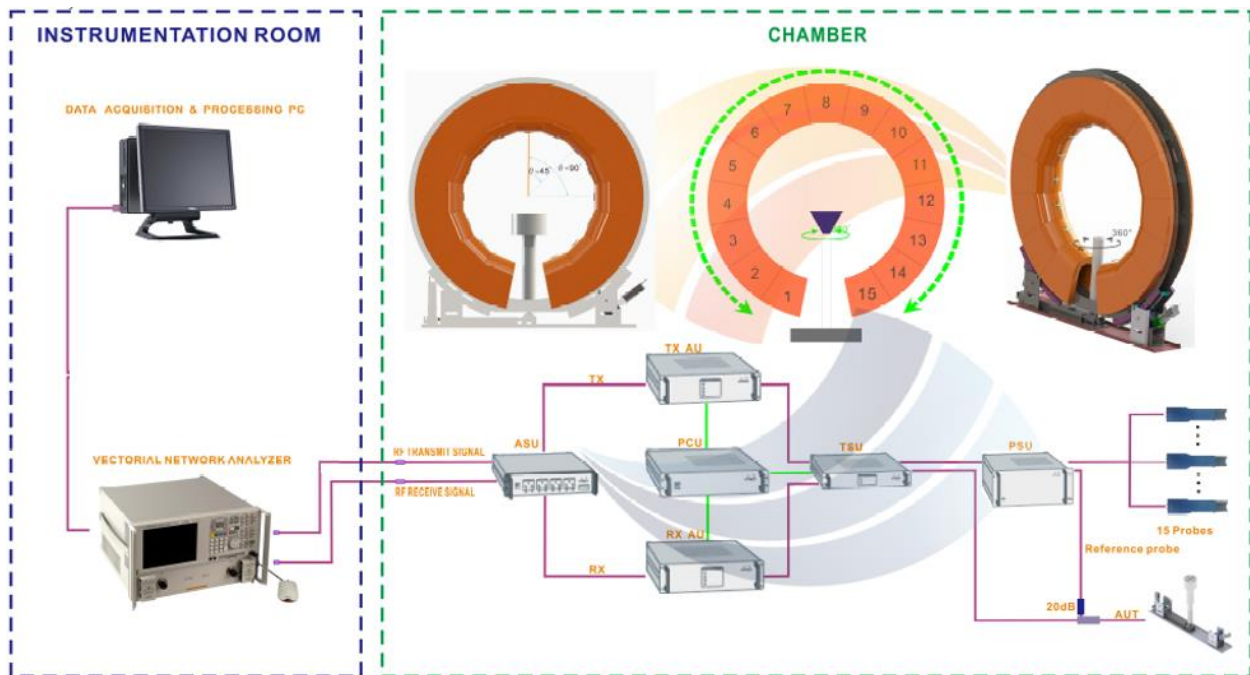


Figure 2 OTA measurement topology

Test Result

Efficiency and Gain

Table 1 Antenna Efficiency and Gain

Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency (%)
2400	-5.99	-10.01	9.98
2410	-5.57	-9.57	11.03
2420	-5.22	-9.09	12.32
2430	-5.40	-9.44	11.37
2440	-5.18	-9.38	11.53
2450	-4.34	-8.77	13.27
2460	-4.16	-8.73	13.41
2470	-4.92	-9.49	11.24
2480	-4.73	-9.46	11.32
2490	-4.24	-9.07	12.39
2500	-4.58	-9.74	10.63

Radiation Pattern

Table 2 Product coordinates

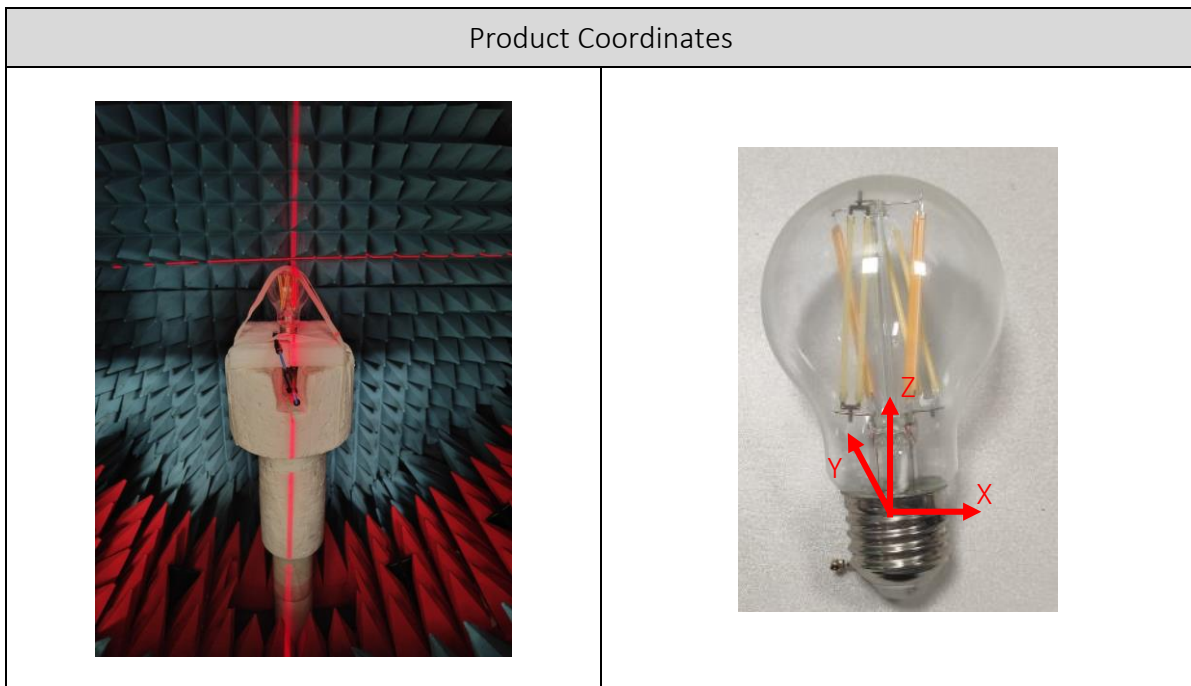


Table 3 3D radiation pattern

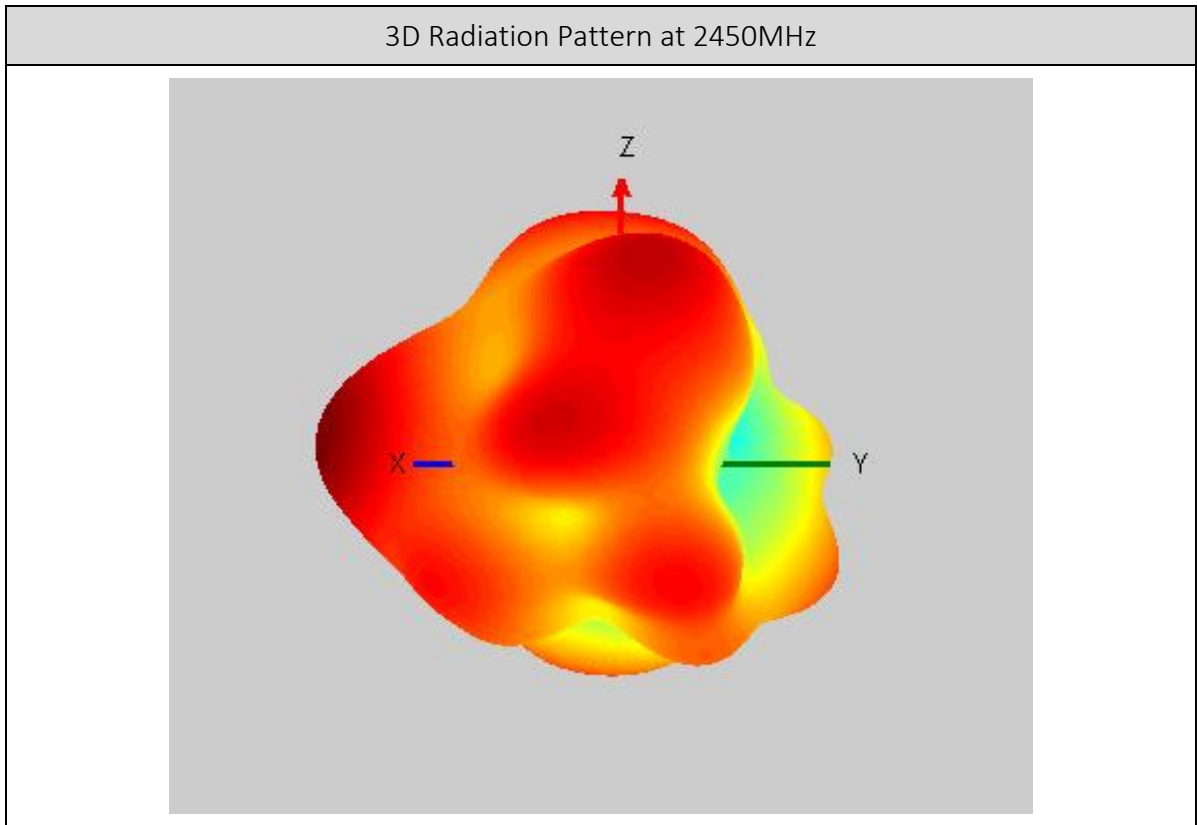


Table 4 Radiation pattern in XY Plane

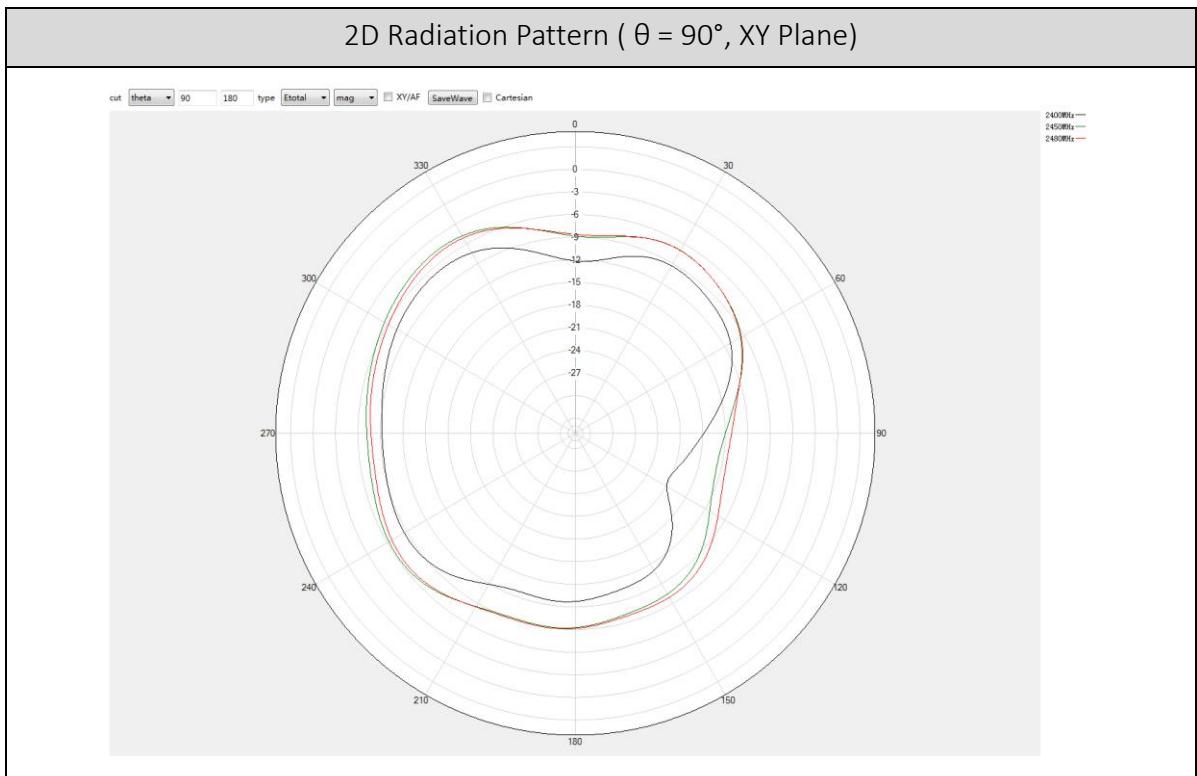


Table 5 Radiation pattern in XZ Plane

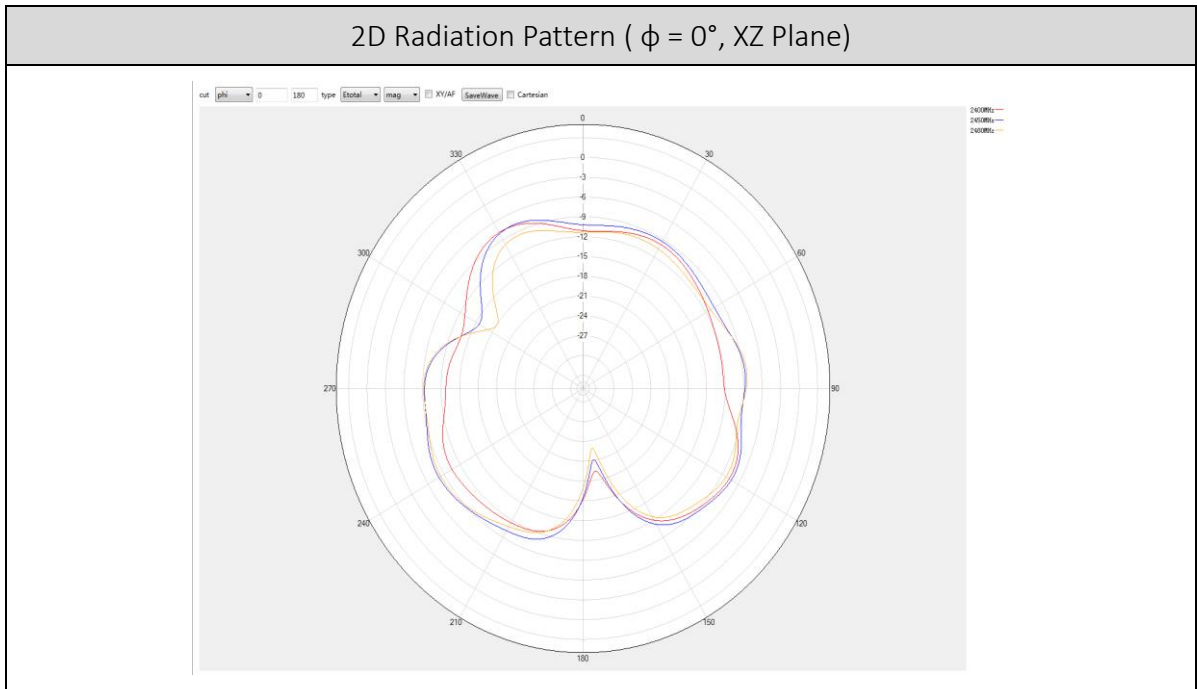


Table 6 Radiation pattern in YZ Plane

