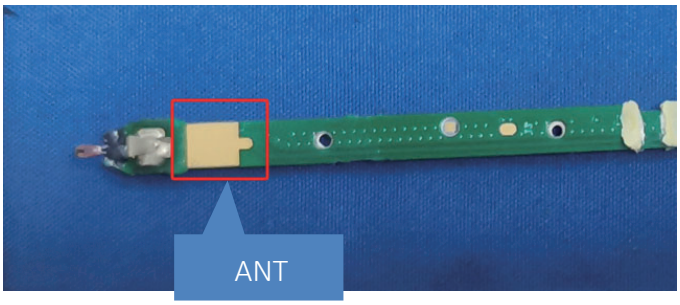
Antenna Specification

Antenna picture	
Antenna Type	antenna
Antenna Peak Gain	-1.66dBi
Operating Band	2400-2500MHz
Test laboratory name and Address	No.3 Zhen an Road, Wu Sha Community, Chang-An Town, Dongguan, Guangdong Province, China
Antenna Manufacturer	Dongguan Wise Ally Industrial Company Ltd
Model name	Smart Probe Thermometer – Probe
DUT photo	
Test Date	2023-6-27
Test Conductor	Fenghuijuan

OTA measurement

Test System

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

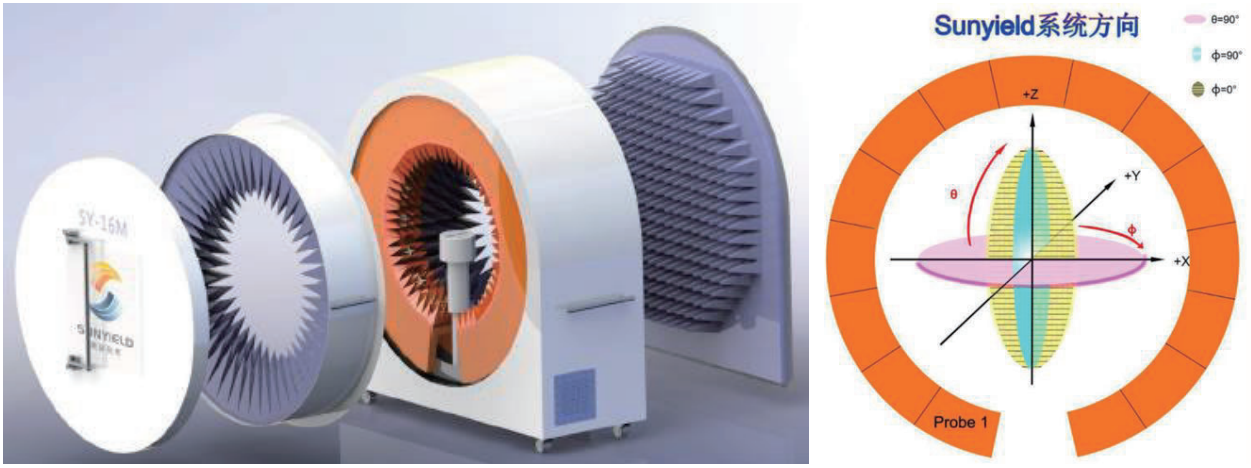


Figure 1 SY-16 OTA system

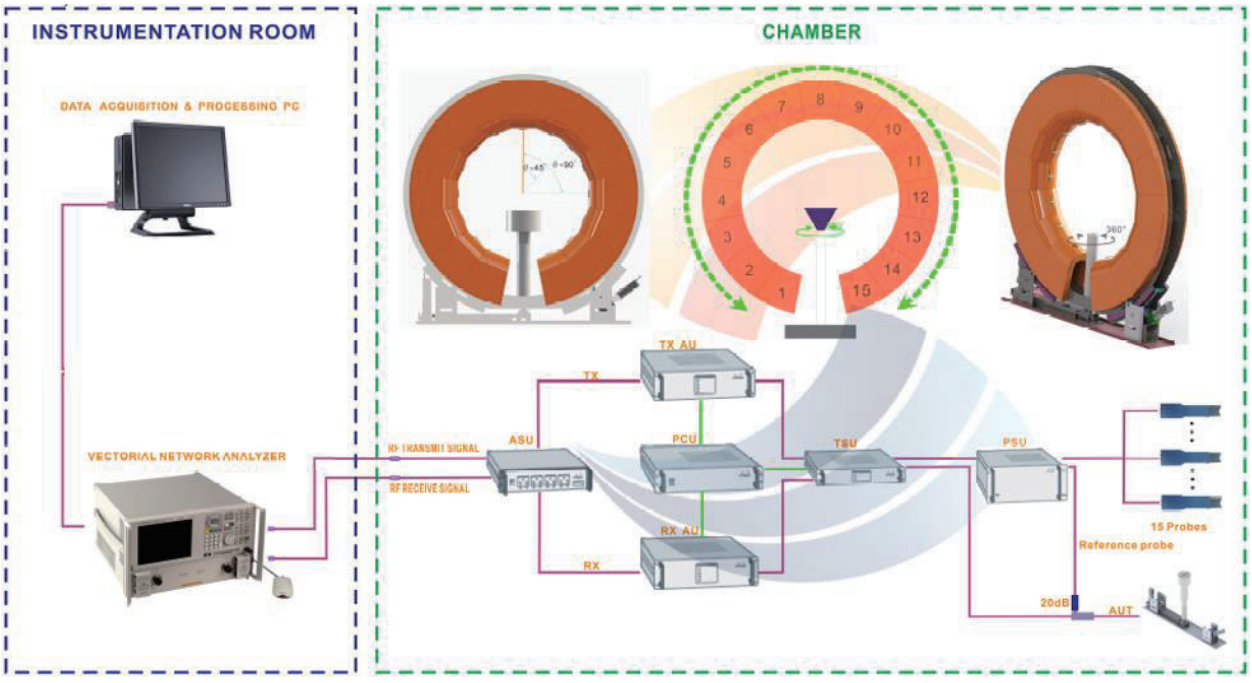


Figure 2 OTA measurement topology

Equipment List

Table 1 Equipment List

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Network Analyzer	Keysight	E5071C	MY46527808	2023/1/9	2024/1/8
Anechoic Chamber	Sunyield	SY-16	SI1727	2023/5/10	2024/5/9

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 Being Used	PMS
Software Version	V2.8.5

Test Result

Efficiency and Gain

Table 3 Antenna Efficiency and Gain

Frequency (MHz)	Gain (dBi)	Efficiency (dBi)
2400	-2.13	**8.00%**
2410	-2.28	**8.30%**
2420	-2.25	**8.80%**
2430	-2.03	**9.20%**
2440	-1.84	**9.60%**
2450	-1.66	**9.90%**
2460	-1.77	**9.80%**
2470	-2.07	**9.50%**
2480	-2.46	**9.00%**
2490	-3.11	**8.10%**
2500	-3.82	**7.40%**

Radiation Pattern

Table 4 Product coordinates

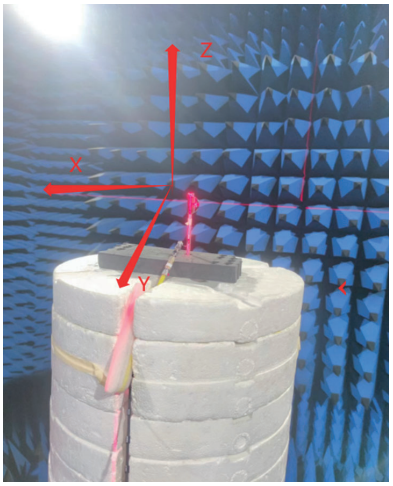
Product Coordinates	
	

Table 5 3D radiation pattern

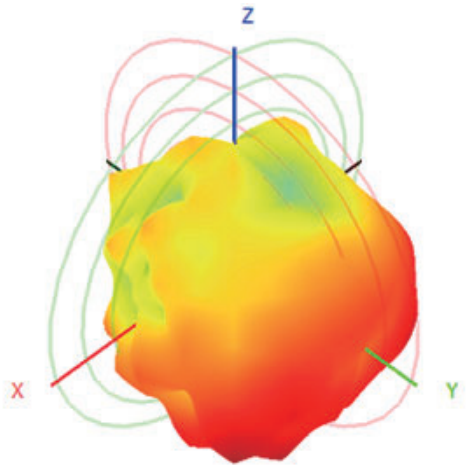
3D Radiation Pattern at 2450MHz


Table 6 Radiation pattern in XY Plane

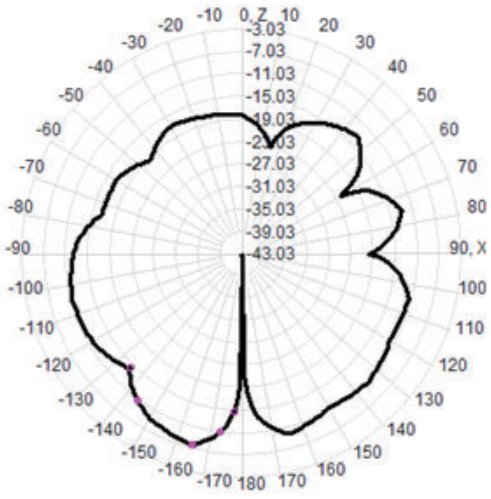
2D Radiation Pattern (θ = 90°, XY Plane)


Table 7 Radiation pattern in XZ Plane

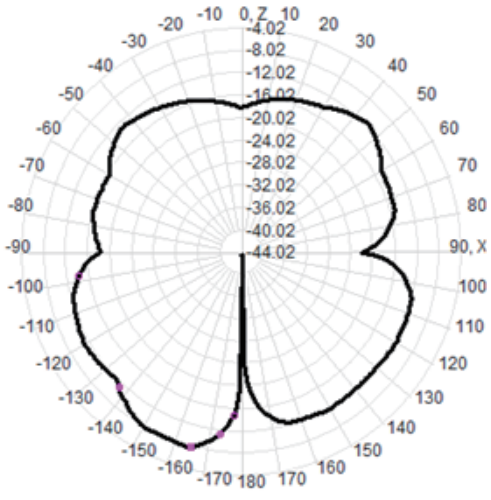
2D Radiation Pattern (ϕ = 0°, XZ Plane)


Table 8 Radiation pattern in YZ Plane

2D Radiation Pattern (ϕ = 90°, YZ Plane)