

Antenna Specification

Antenna picture	
Antenna Type	antenna
Antenna Peak Gain	-1.66dBi
Operating Band	2400-2500MHz
Test laboratory name and Address	Building 5, No.568, Jinjian Road, Biquan Street, Bishan District, Chongqing, China
Antenna Manufacturer	Chongqing Xin Hongyuan Technology Co, Ltd
Model name	Food 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 measure antenna passive data such as antenna efficiency, antenna gain, and 2D&3D pattern. The coordinates and topology are shown as follows:

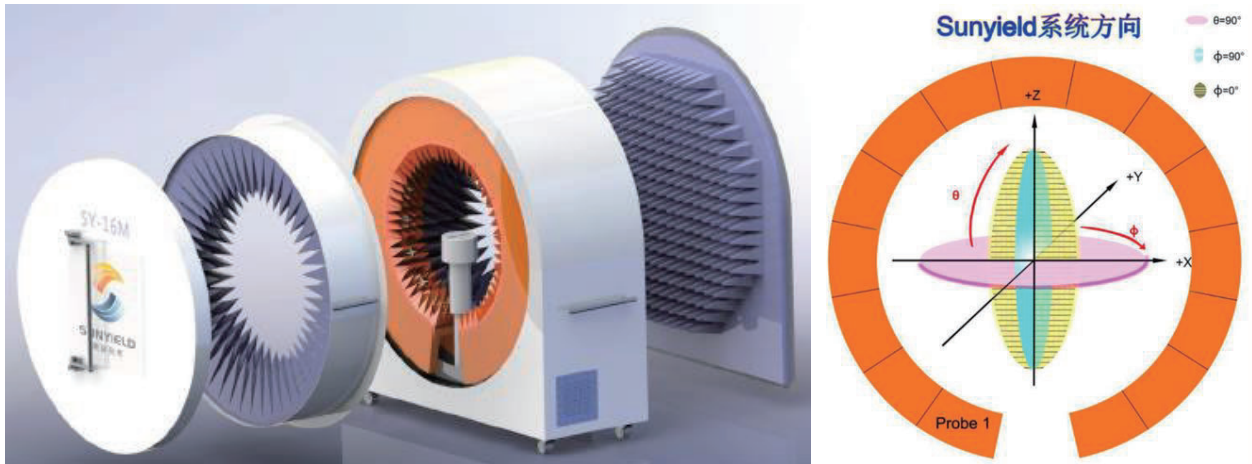


Figure 1 SY-16 OTA system

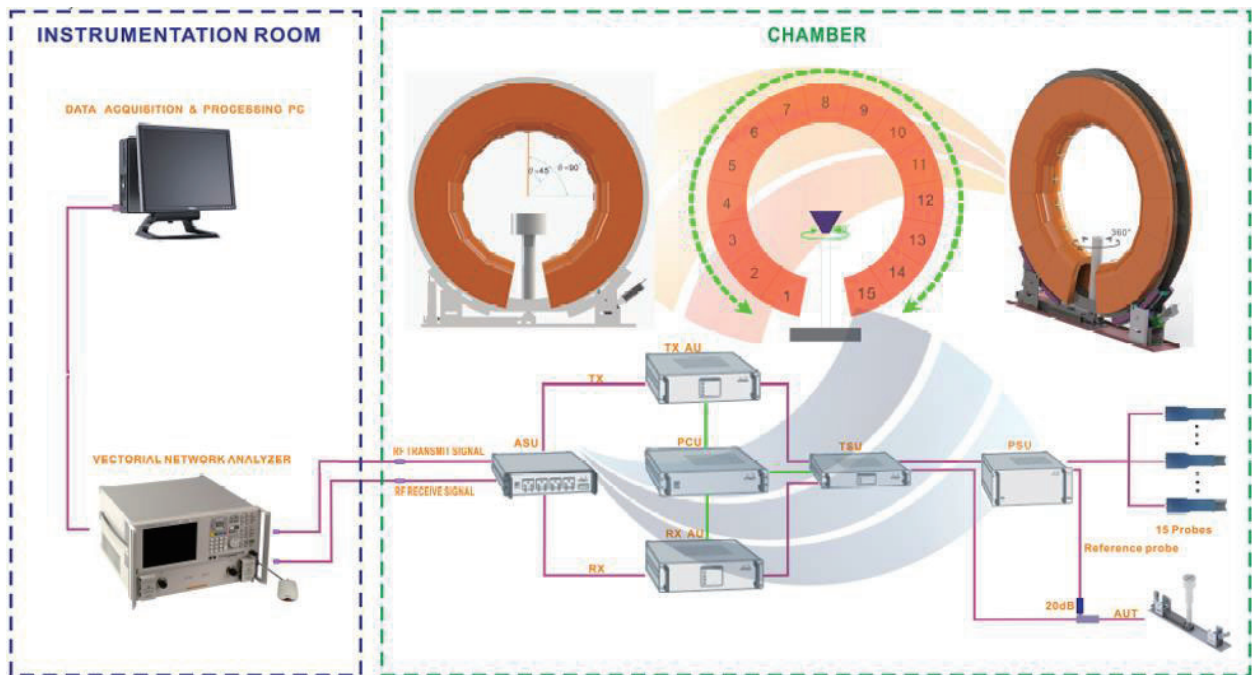


Figure 2 OTA measurement topology

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

Fre (MHz)	Eff (%) (dB)	Gain (dB)
2400	38.85	0.31
2410	38.96	0.41
2420	40.12	0.48
2430	40.35	0.49
2440	41.55	0.5
2450	39.65	0.2
2460	39.62	-0.12
2470	38.85	-0.11
2480	38.42	-0.13
2490	37.52	-0.01
2500	37.41	-0.31

Radiation Pattern

Table 4 Product coordinates

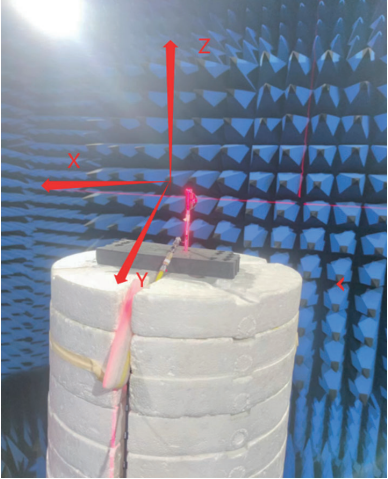

Product Coordinates	
	

Table 5 3D radiation pattern

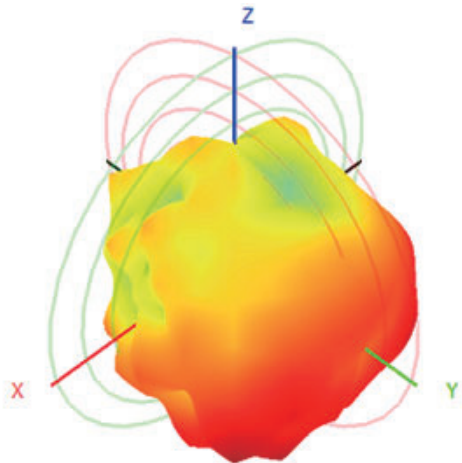
3D Radiation Pattern at 2450MHz


Table 6 Radiation pattern in XY Plane

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

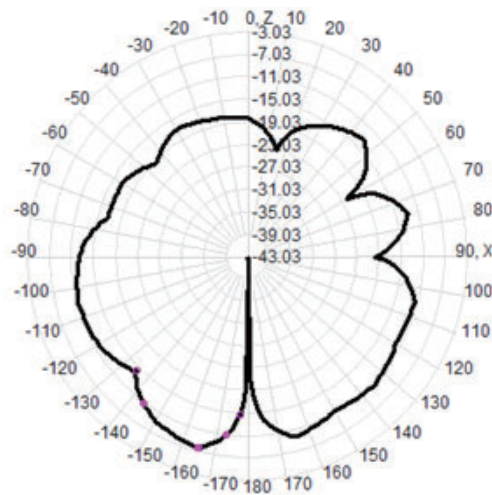


Table 7 Radiation pattern in XZ Plane

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

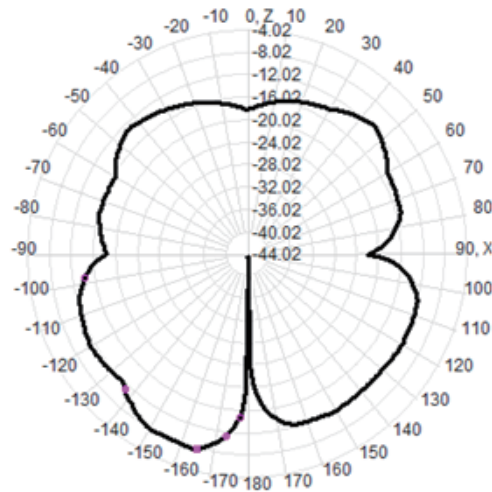


Table 8 Radiation pattern in YZ Plane

2D Radiation Pattern ($\phi = 90^\circ$, YZ Plane)

