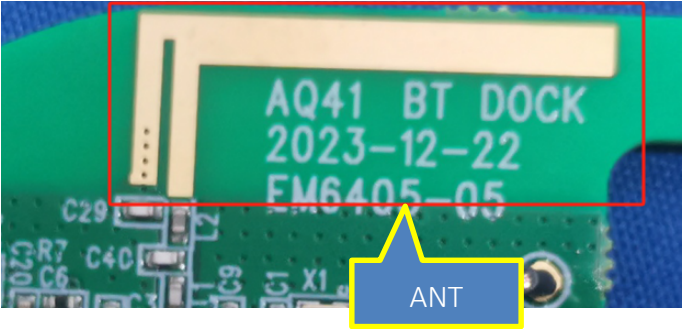


# Antenna Specification

|                                  |                                                                                         |
|----------------------------------|-----------------------------------------------------------------------------------------|
| Antenna picture                  |       |
| Antenna Type                     | PCB antenna                                                                             |
| Antenna Peak Gain                | 2.53dBi                                                                                 |
| 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 - Dock                                                          |
| 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:

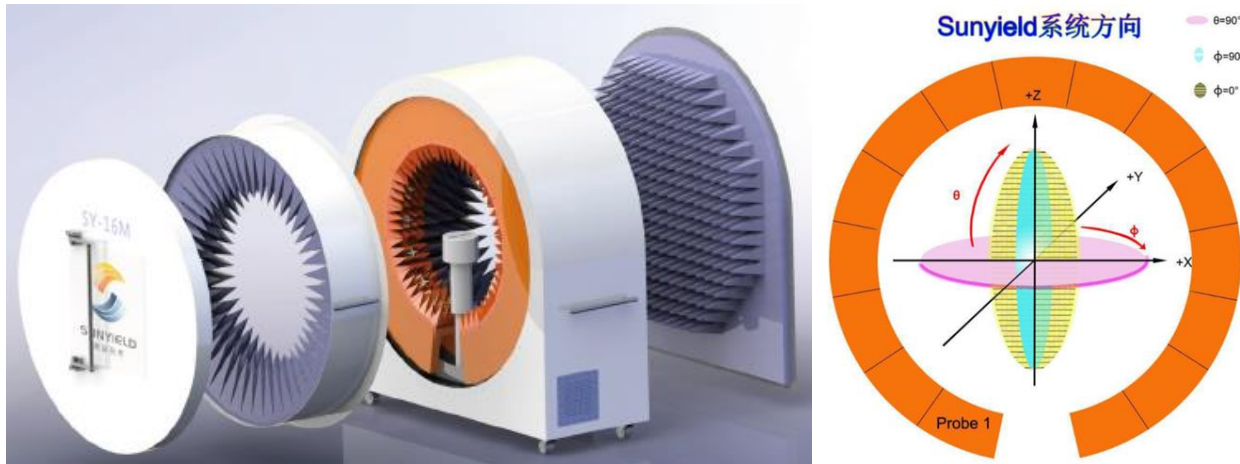


Figure 1 SY-16 OTA system

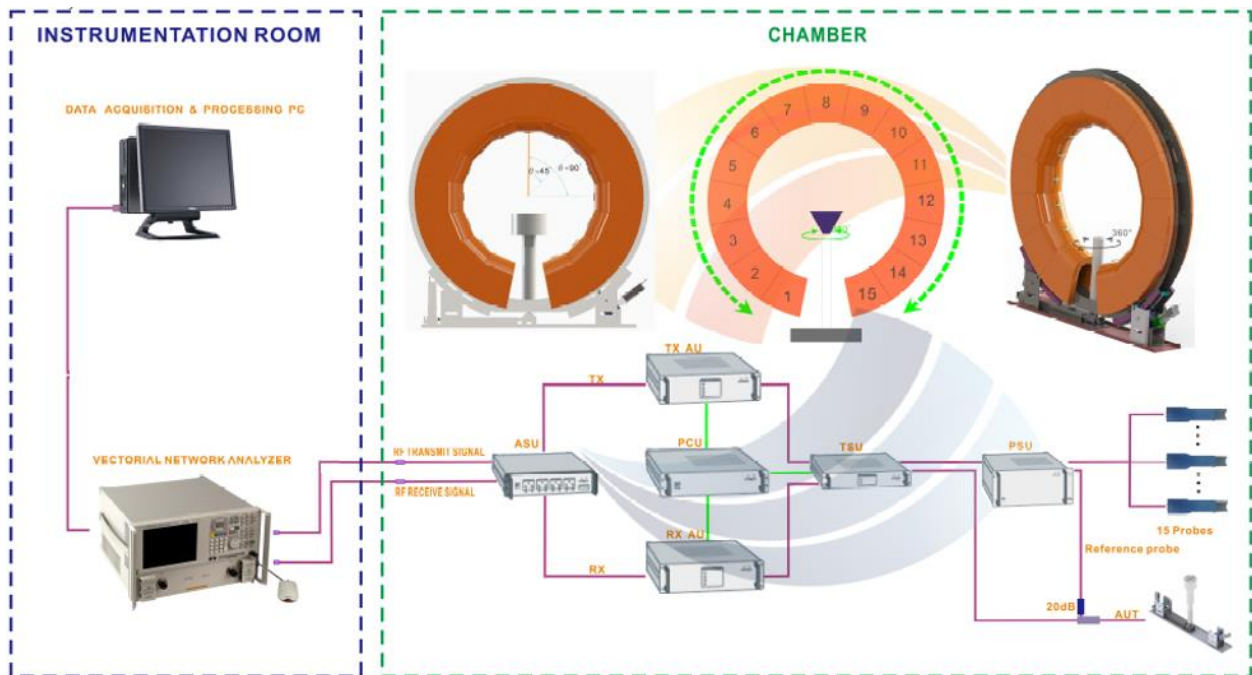


Figure 2 OTA measurement topology

## 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

| Frequency (MHz) | Gain (dBi) | Efficiency (dBi) |
|-----------------|------------|------------------|
| <b>2400</b>     | 2.33       | <b>49.00%</b>    |
| <b>2410</b>     | 2.53       | <b>49.20%</b>    |
| <b>2420</b>     | 2.52       | <b>50.10%</b>    |
| <b>2430</b>     | 2.35       | <b>50.30%</b>    |
| <b>2440</b>     | 2.12       | <b>50.40%</b>    |
| <b>2450</b>     | 1.85       | <b>50.40%</b>    |
| <b>2460</b>     | 1.41       | <b>49.30%</b>    |
| <b>2470</b>     | 0.84       | <b>48.20%</b>    |
| <b>2480</b>     | 0.2        | <b>47.80%</b>    |
| <b>2490</b>     | 0.48       | <b>46.60%</b>    |
| <b>2500</b>     | 0.71       | <b>45.80%</b>    |

## Radiation Pattern

Table 4 Product coordinates

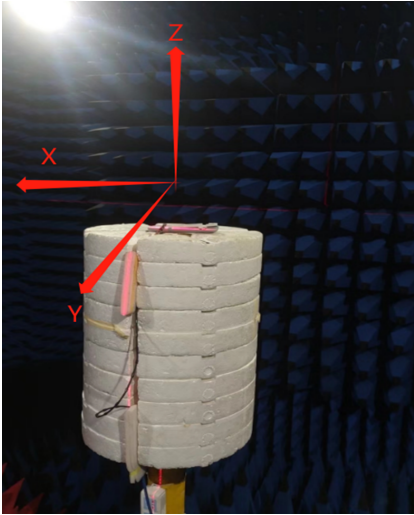
| Product Coordinates                                                               |                                                                                    |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|  |  |

Table 5 3D radiation pattern

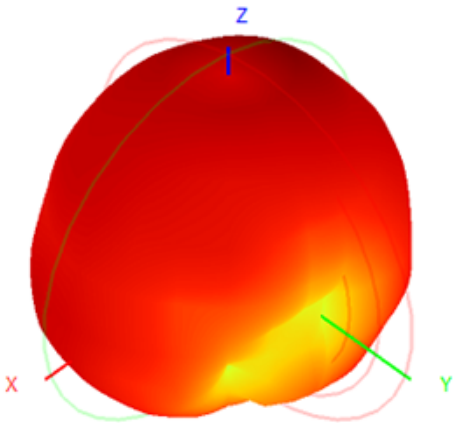
| 3D Radiation Pattern at 2450MHz                                                      |
|--------------------------------------------------------------------------------------|
|  |

Table 6 Radiation pattern in XY Plane

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

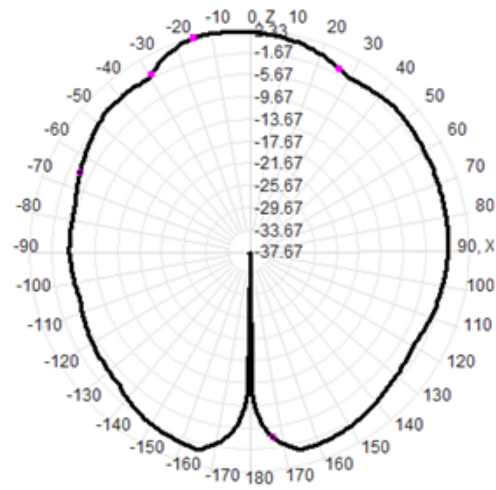


Table 7 Radiation pattern in XZ Plane

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

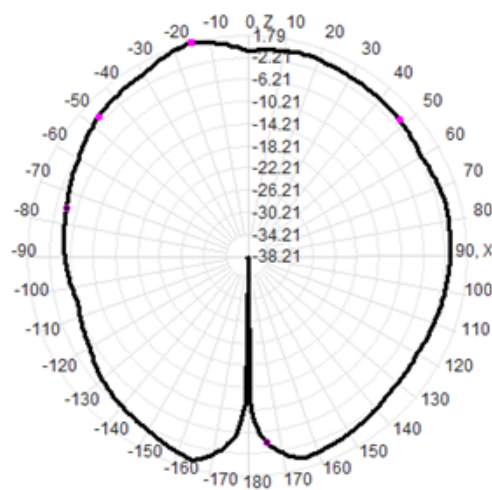


Table 8 Radiation pattern in YZ Plane

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

