

## Specification

CUSTOMER NAME:

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PRODUCT NAME: TPA08-M3 ZIGBEE-ANTENNA L=70mm

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CUSTOMER P/N:

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UB P/N: UB01C70P2D4686A REV: A

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PRODUCER NAME: Youbi

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Dongguan Youbi Electronics Co.,LTD, Room 101,Building 2,No.9,  
PRODUCER ADDRESS: Xinfu Road,Lin Village,Tangxia Town, Guangdong province

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|              | MANUFACTURER<br>SIGNATURE | CUSTOMER<br>SIGNATURE |
|--------------|---------------------------|-----------------------|
| CHECKED BY:  | Wenqiang. Xiong           |                       |
| APPROVED BY: | Kangjun. Xu               |                       |
| DATE:        | 2024/11/13                |                       |

## 1. Specification table:

| Electrical Specification |                                                                                                  |
|--------------------------|--------------------------------------------------------------------------------------------------|
| Design Specifications    | Types                                                                                            |
| Antenna Type             | PIFA antenna                                                                                     |
| Operating Frequency      | 2400-2500MHz                                                                                     |
| Peak Gain                | 0.64                                                                                             |
| Average Efficiency       | 37.11%                                                                                           |
| Return Loss              | $< -10$                                                                                          |
| Polarization             | Linear                                                                                           |
| Radiation pattern        | Omnidirectional                                                                                  |
| Impedance                | 50 ohm                                                                                           |
| Power handling           | 1W                                                                                               |
| Interface                | Cable+terminal                                                                                   |
| Overall dimensions       | 30.8*17.9*0.35mm                                                                                 |
| Operating Temp.          | -20°C~+70°C                                                                                      |
| Storage Temp.            | -20°C~+70°C                                                                                      |
| Test Standard            | ANSI/IEEE Std 149-1979                                                                           |
| Test Location            | Dongguan Youbi Electronics Co.,LTD Room 101,Building 2,No.9, Xinfu Road,Lin Village,Tangxia Town |

## 2. Test Configurations

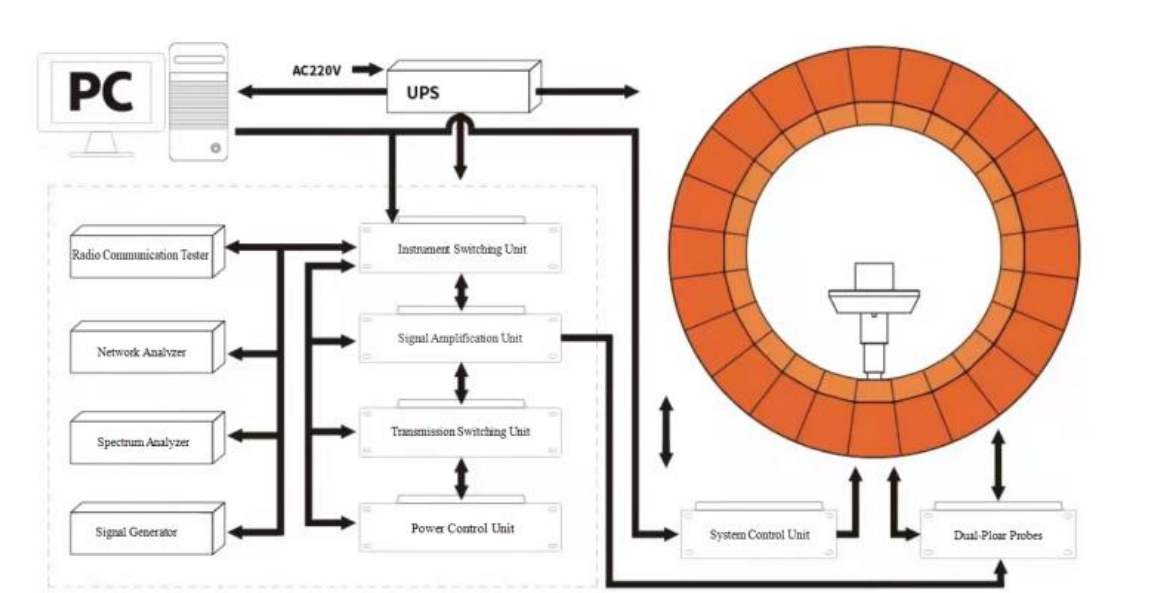
### 2.1 Test Environment

|                            |       |
|----------------------------|-------|
| Temperature (°C)           | 25.4  |
| Humidity (%RH)             | 54    |
| Atmospheric Pressure (kPa) | 100.3 |

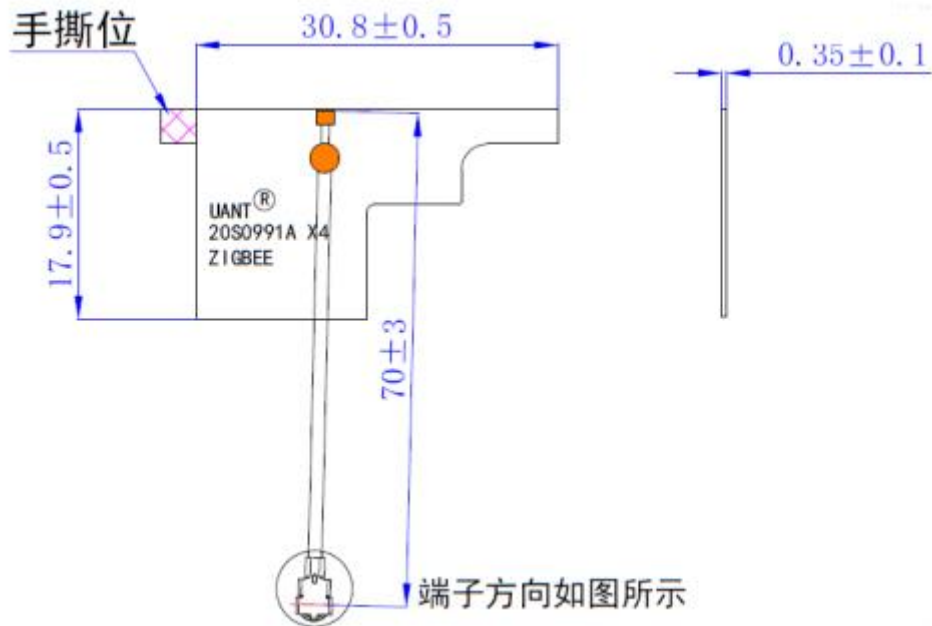
### 2.2 Test Equipment

|                      |                                                                                                |
|----------------------|------------------------------------------------------------------------------------------------|
| Test System          | TEM 24 Multi-probe Microwave Chamber                                                           |
| Test Instrument      | Agilent E5071B                                                                                 |
| Calibration Validity | 2025-08-19                                                                                     |
| Test Software        | Passive Test  |
| Software Version     | V2.7.0                                                                                         |

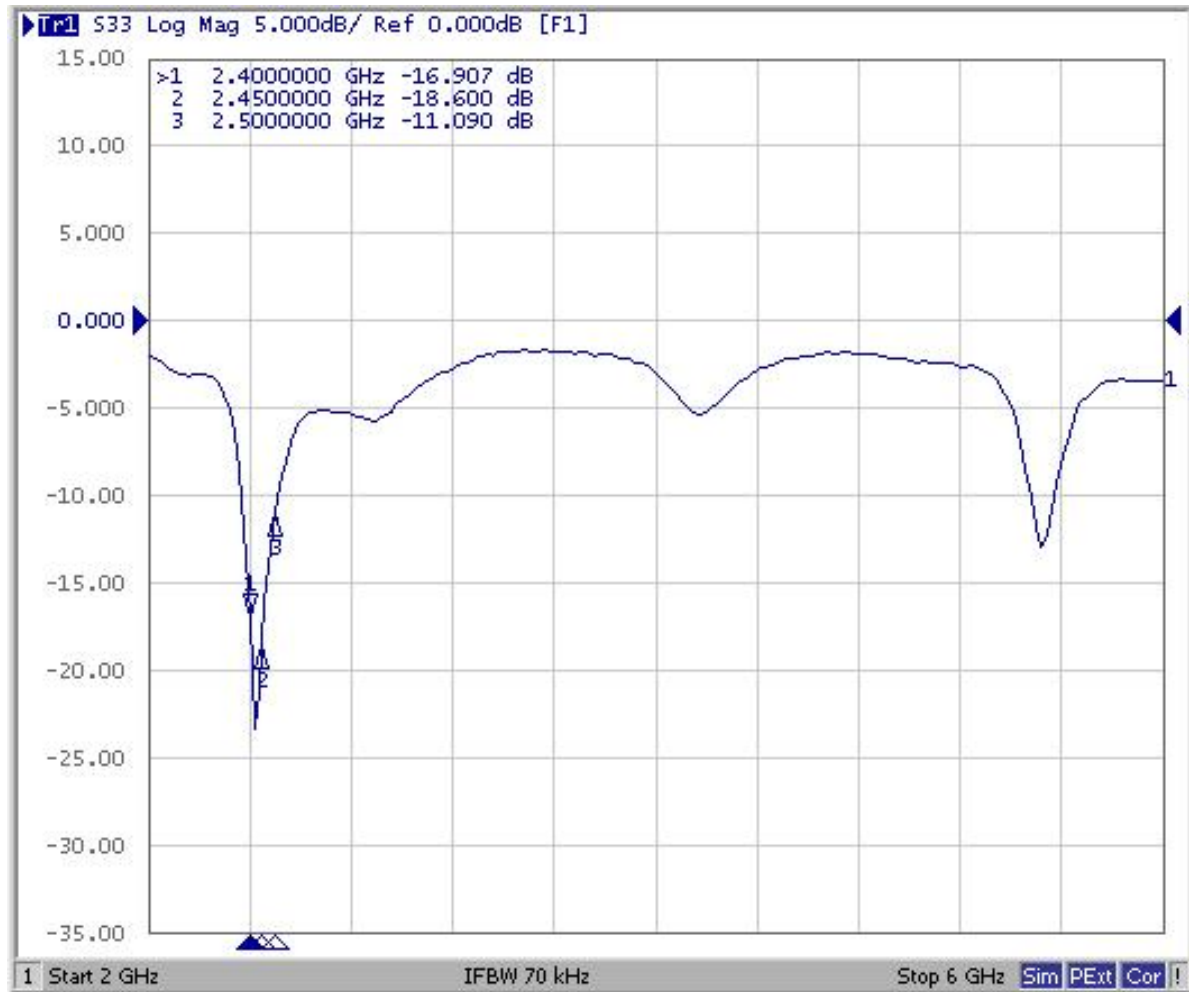
### 2.3 Test Principle



### 3. Mechanical Specification



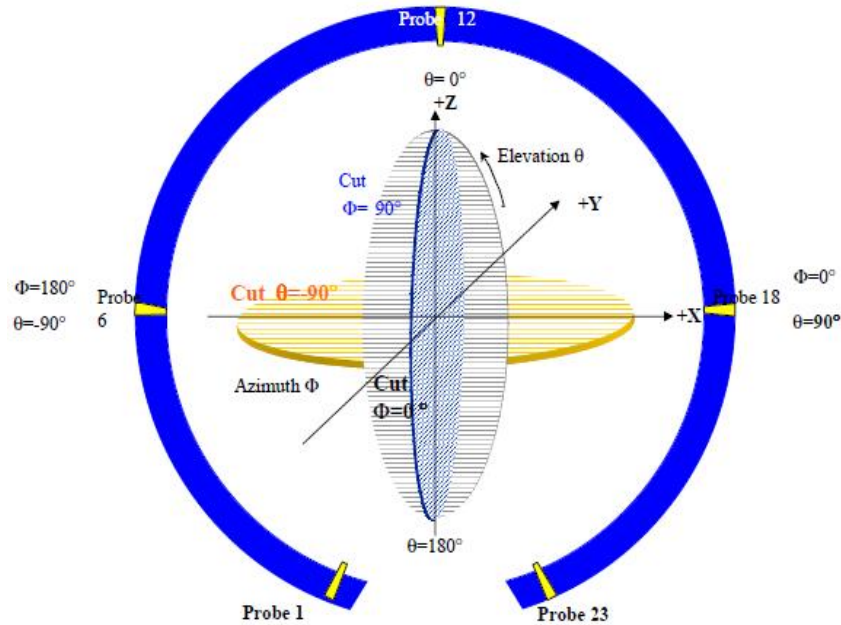
### 3.2: Darkroom 2D、3DRaditation Pattern

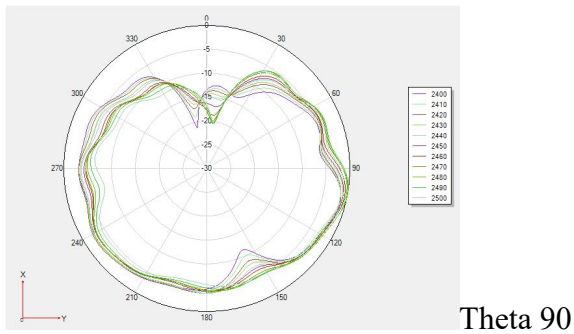
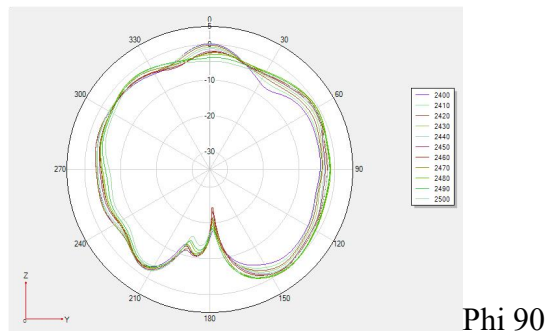
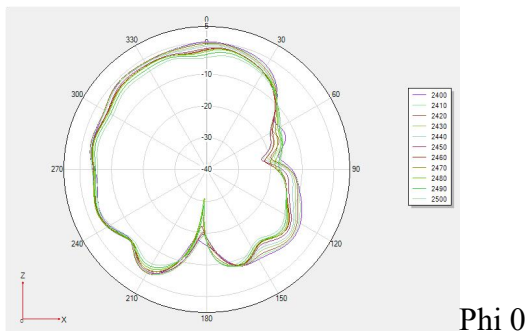
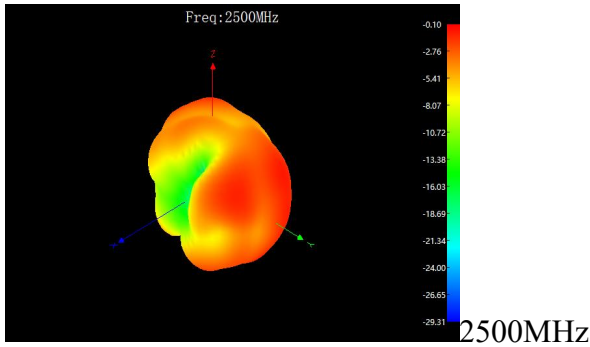
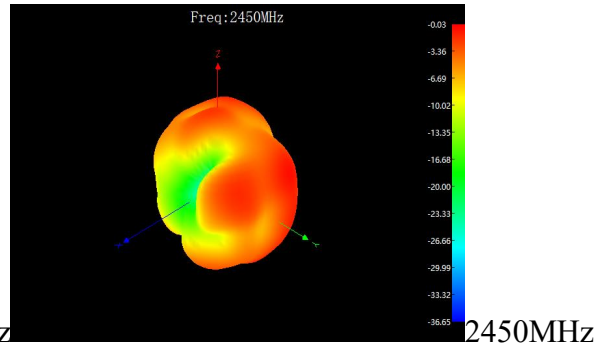
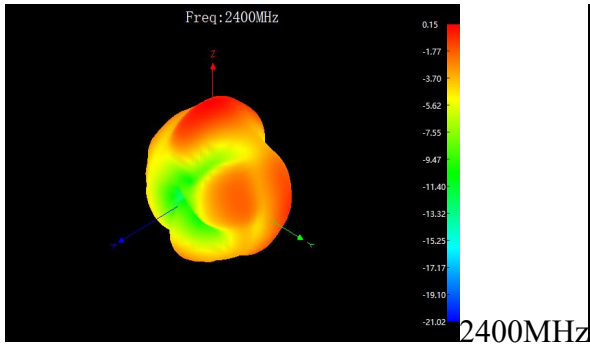


### 3.2.1 Efficiency and gain

| Frequency / MHz | Efficiency / dB | Efficiency / % | Gain/ dBi |
|-----------------|-----------------|----------------|-----------|
| 2400            | -4.54           | 35.16          | 0.15      |
| 2410            | -4.4            | 36.31          | -0.02     |
| 2420            | -4.24           | 37.67          | -0.17     |
| 2430            | -4.19           | 38.11          | -0.3      |
| 2440            | -4.21           | 37.93          | -0.15     |
| 2450            | -4.39           | 36.39          | -0.03     |
| 2460            | -4.33           | 36.9           | 0.09      |
| 2470            | -4.03           | 39.54          | 0.7       |
| 2480            | -4              | 39.81          | 0.64      |
| 2490            | -4.3            | 37.15          | 0.46      |
| 2500            | -4.79           | 33.19          | -0.1      |

### 3.2.2.1 Darkroom 2D、3D Raditation Pattern







#### 4:Antenna position

