



# Antenna Datasheet

**Product OC:** Y0DPW00A0AA

**Version:** 1.1

**Date:** 2024-12-18

**Product Name:** WIFI Adhesive FPC PIFA Antenna

**Key Features:**

Frequency Band: 2400–2500 MHz, 5150–5850 MHz

Dimensions: 31.28 mm × 18.67 mm

Efficiency: Up to 43%

ROHS and REACH Compliant

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# 1 Specification

**Test Condition: Assembled in test device**

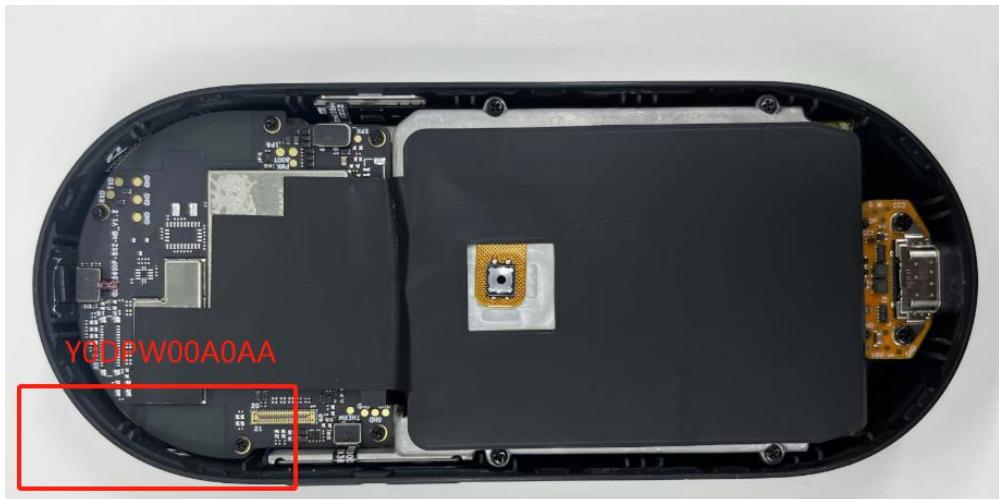
## 1.1. Electrical

| <b>Electrical</b>        |                              |
|--------------------------|------------------------------|
| <b>Frequency Range</b>   | 2400–2500 MHz, 5150–5850 MHz |
| <b>Impedance</b>         | 50 Ω                         |
| <b>Polarization</b>      | Linear                       |
| <b>Radiation Pattern</b> | Omni-directional             |
| <b>VSWR</b>              | ≤ 2.5                        |
| <b>Peak Gain</b>         | 2.4 dBi                      |

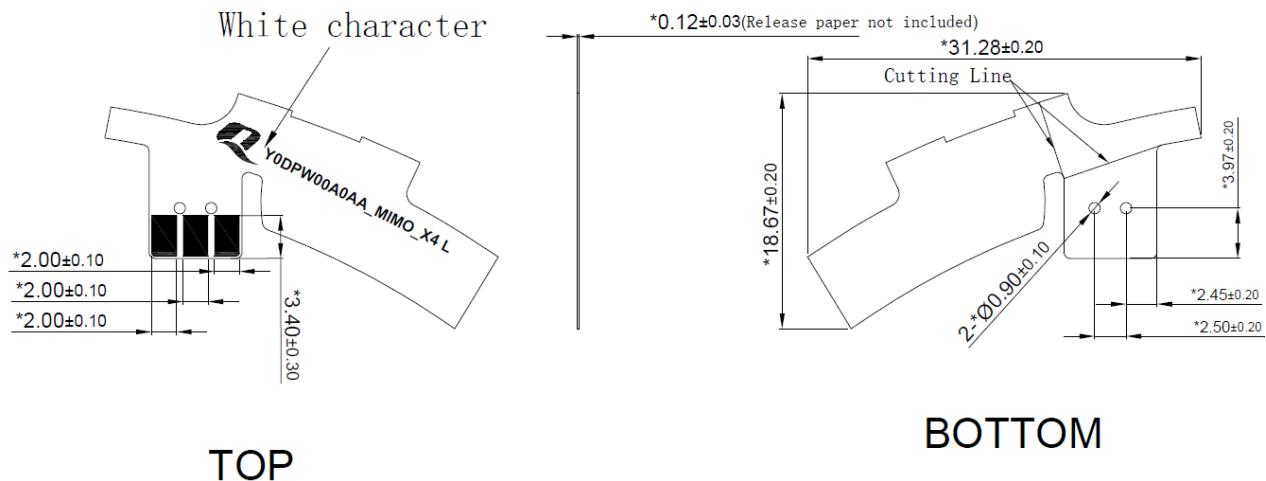
## 1.2. Mechanical & Environmental

| <b>Mechanical</b>                 |                     |
|-----------------------------------|---------------------|
| <b>Antenna Dimensions</b>         | 31.28 mm × 18.67 mm |
| <b>Material &amp; Color</b>       | FPC & Black         |
| <b>Weight</b>                     | Typ. 0.07 g         |
| <b>Mounting Type</b>              | Adhesive            |
| <b>Environmental</b>              |                     |
| <b>Operation Temperature</b>      | -40 °C to +85 °C    |
| <b>Storage Temperature</b>        | -40 °C to +85 °C    |
| <b>RoHS &amp; REACH Compliant</b> | Yes                 |

### 1.3. Antenna Assembly



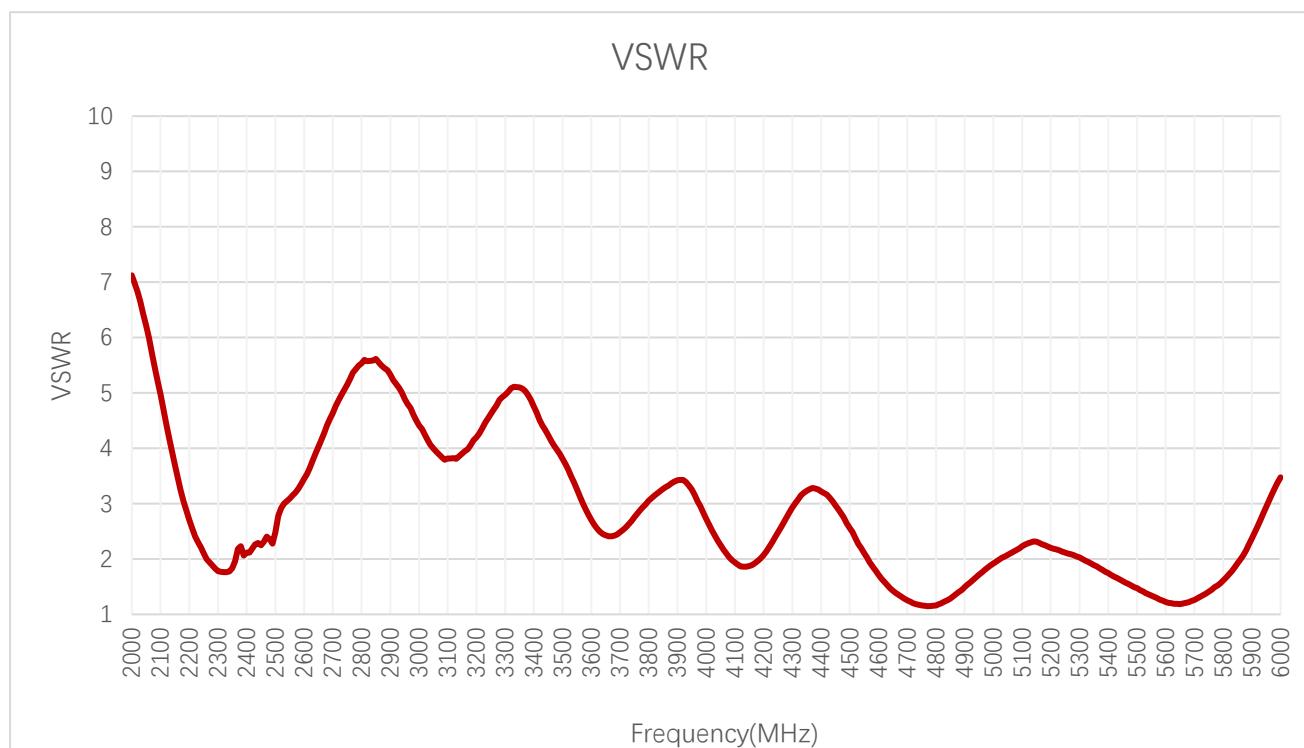
## 2 Drawing



# 3 Detailed Performance

## 3.1. S-Parameter Test

### 3.1.1. VSWR

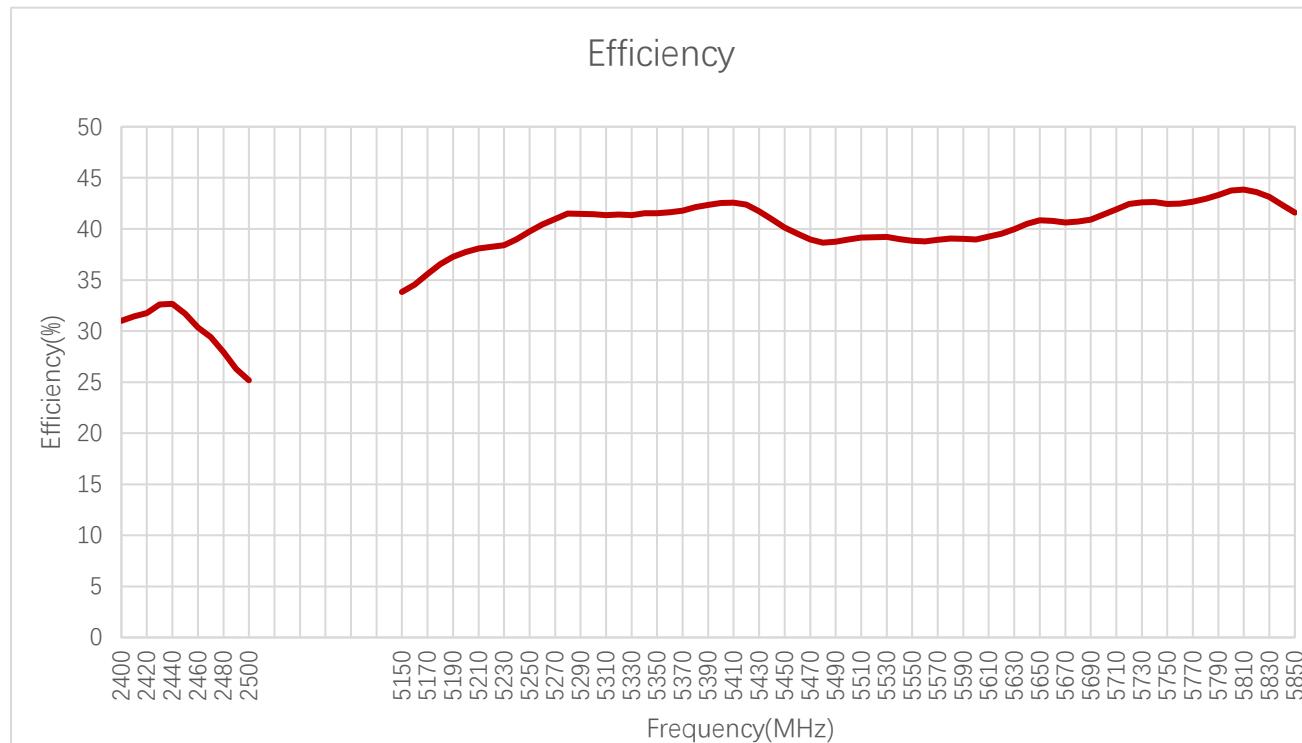


VSWR

| Frequency (MHz) | 2400 | 2450 | 2500 | 5150 | 5500 | 5850 | 5925 | 6325 | 6725 | 7125 |
|-----------------|------|------|------|------|------|------|------|------|------|------|
| VSWR            | 2.1  | 2.3  | 2.5  | 2.3  | 1.5  | 1.9  | -    | -    | -    | -    |

## 3.2. Radiation Performance Test

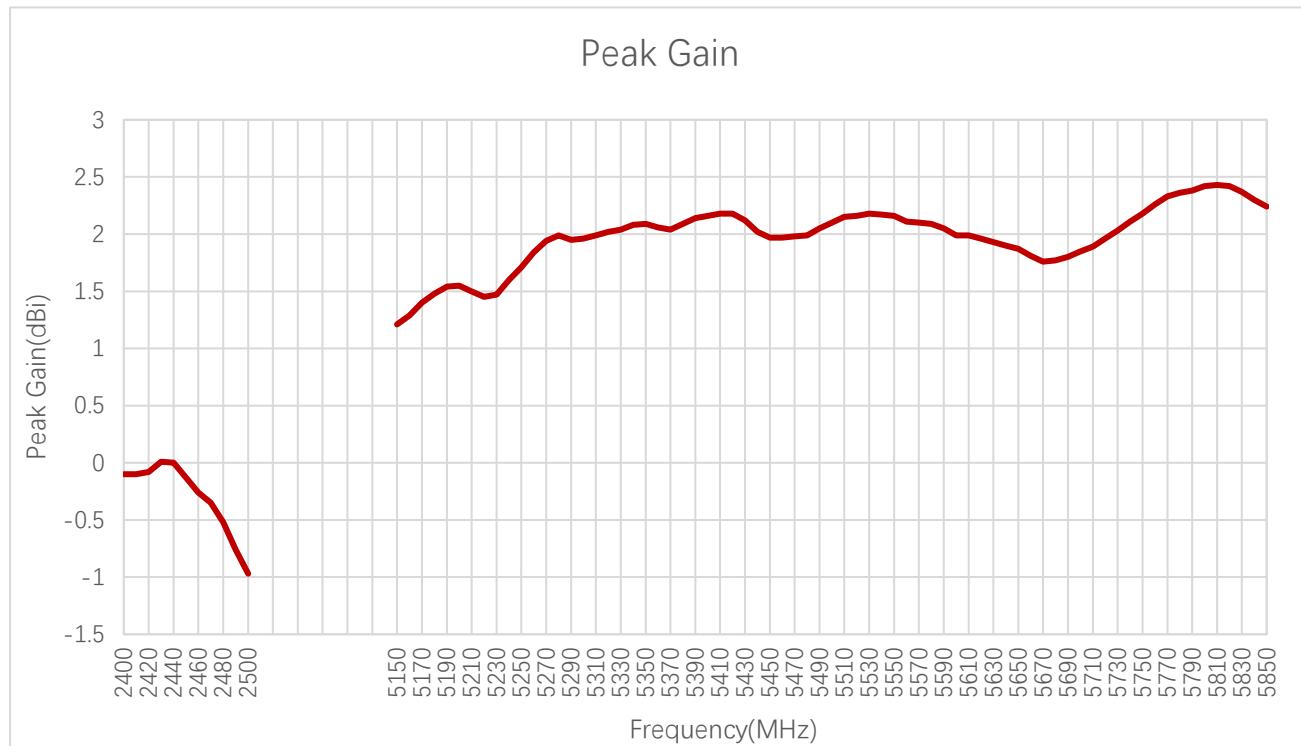
### 3.2.1. Efficiency



Efficiency (%)

| Frequency (MHz) | 2400 | 2450 | 2500 | 5150 | 5500 | 5850 | 5925 | 6325 | 6725 | 7125 |
|-----------------|------|------|------|------|------|------|------|------|------|------|
| Efficiency (%)  | 31.0 | 31.7 | 25.2 | 33.8 | 39.0 | 41.6 | -    | -    | -    | -    |

### 3.2.2. Peak Gain

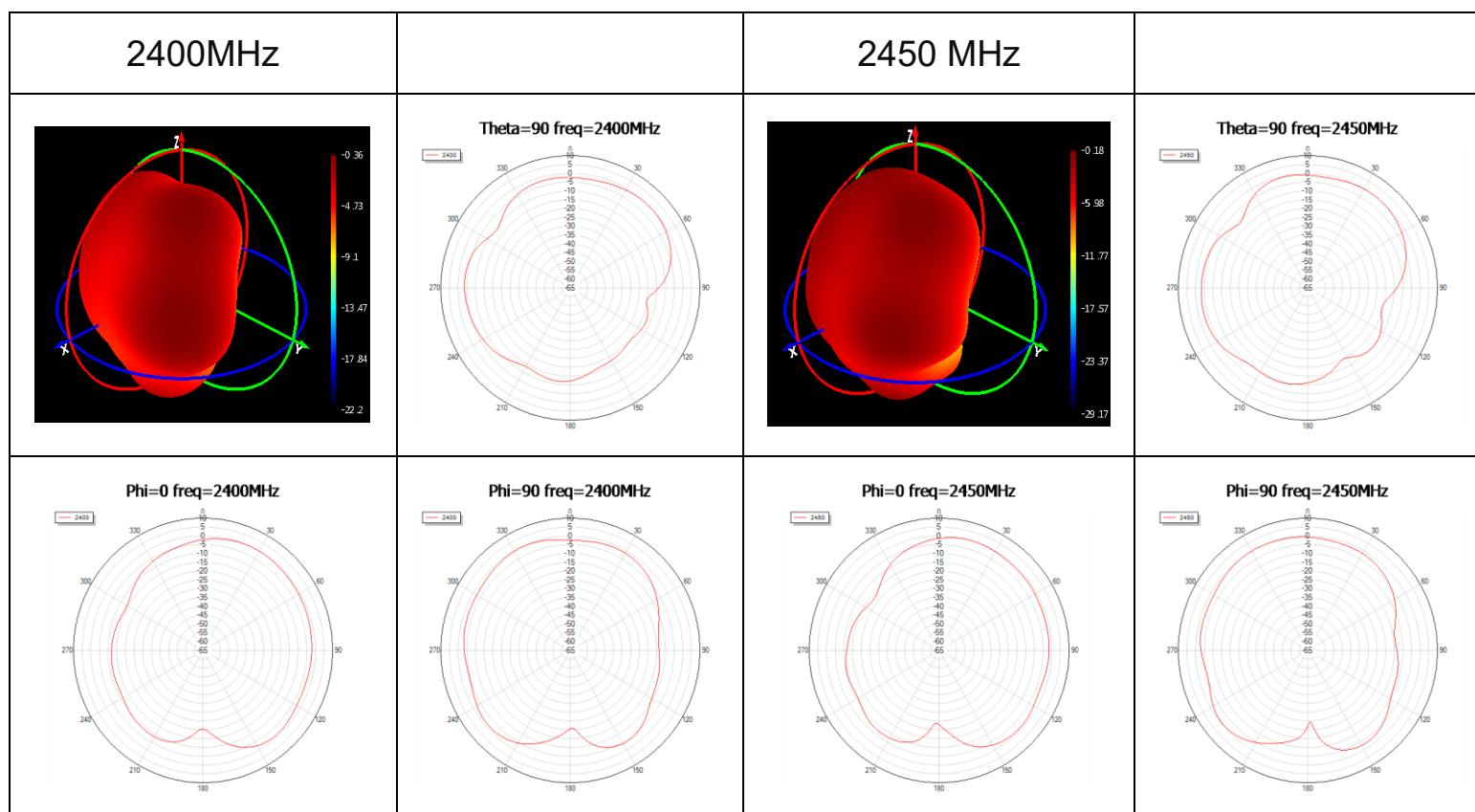
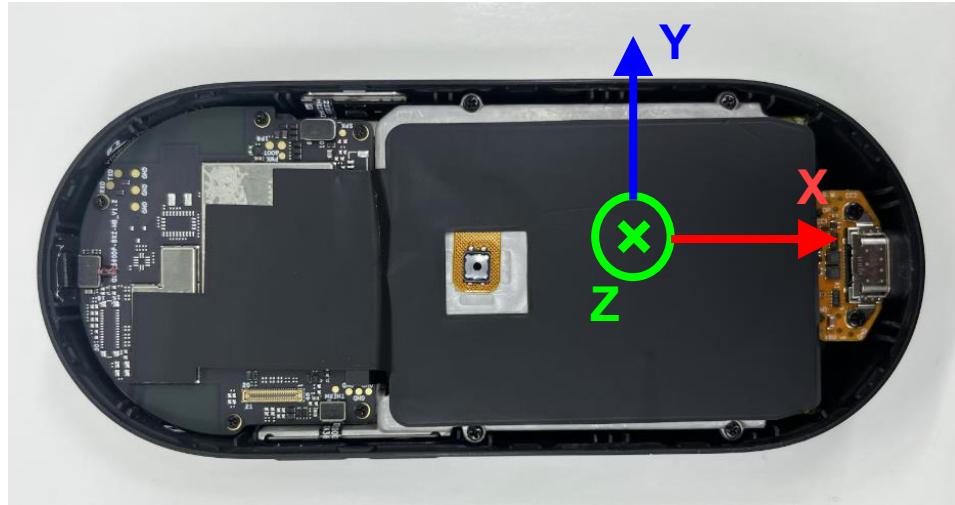


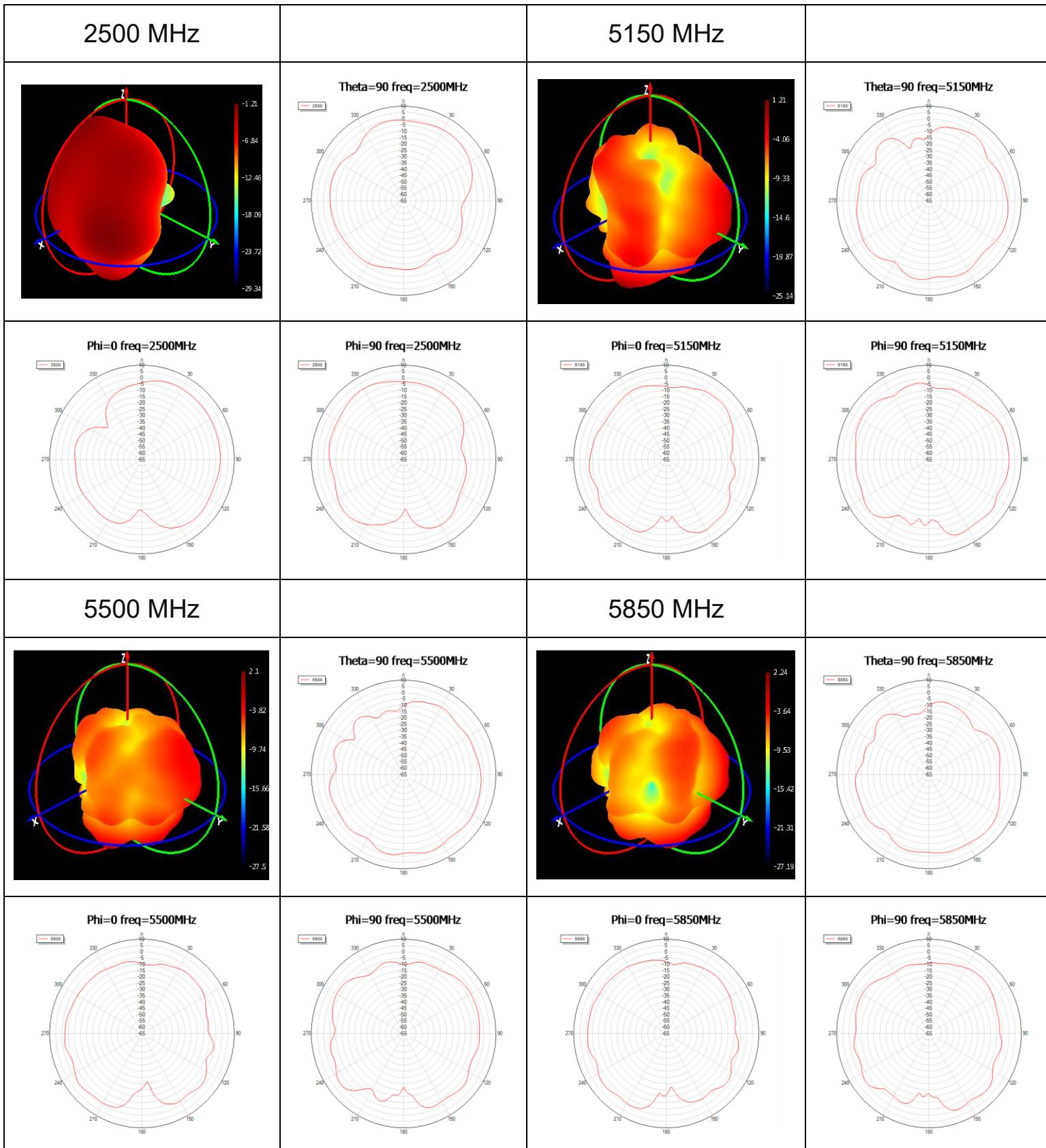
Peak Gain (dBi)

| Frequency (MHz) | 2400 | 2450 | 2500 | 5150 | 5500 | 5850 | 5925 | 6325 | 6725 | 7125 |
|-----------------|------|------|------|------|------|------|------|------|------|------|
| Peak Gain (dBi) | -0.1 | -0.1 | -1.0 | 1.2  | 2.1  | 2.2  | -    | -    | -    | -    |

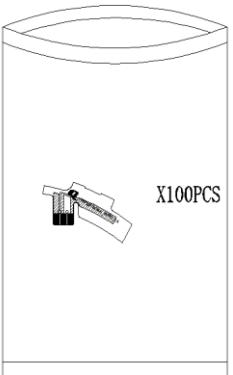
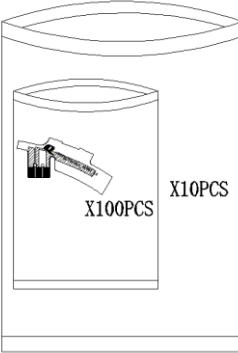
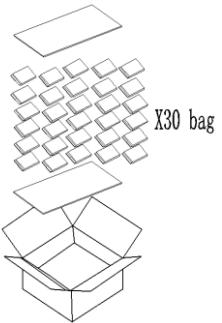
### 3.2.3. 2D Radiation Pattern

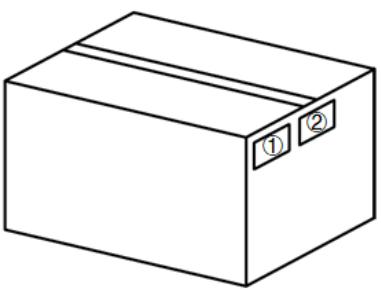
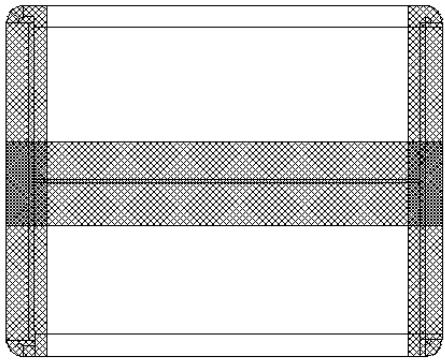
- Test Condition: Assembled in test device
- Test Chamber: HF-S-1





## 4 Packaging

| Step | Packaging Picture / 2D Picture  | Description  |
|------|---|--|
| 1    |  X100PCS  | 100 pcs antenna products in a small PE bag<br>(100 PCS Antennas / PE Bag)  |
| 2    |  X100PCS | 1000 pcs antenna products in a big PE bag<br>(1000 PCS Antennas / PE Bag)  |
| 3    |  X30 bag | 30 PE Bags / Carton Box<br>(30000 PCS Antennas / Carton Box)<br>Estimated quantity<br>Products that cannot fill the entire carton box are packed in a suitable size carton box.<br><u>Carton Size:</u><br><u><math>L \times W \times H = 370 \times 370 \times 295 \text{ mm}</math></u> |

|      |  |   |
|------|--|---|
| 4    |   | <b>Position for Attaching Labels</b><br>① Carton Label<br>② Quality Label |
| 5    |   | <b>Sealing Cartons</b><br>H-shaped sealing cartons                        |
| Note | The initial packaging method described above is for reference only, and the final actual packaging method shall be subject to the actual shipping packaging. |   |

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# Revision History

| Version | Date       | Author  | Note   |
|---------|------------|---|--|
| -       | 2024-07-01 | Edison LIU/<br>Blake XIANG/<br>David LIU/<br>Aria LIU | Creation of the document   |
| 1.0     | 2024-07-01 | Edison LIU/<br>Blake XIANG/<br>David LIU/<br>Aria LIU | First official release   |
| 1.1     | 2024-12-18 | Blake XINAG/<br>Edison LIU/<br>Aria CHU               | <ol style="list-style-type: none"><li>1. Updated the drawing (Chapter 2) and cover photos</li><li>2. Updated Antenna Assembly (Chapter 1.3)</li><li>3. Add chapter 3.2.3 and REACH Compliant</li></ol> |



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