

# Antenna

# YE0038AA Datasheet

**Antenna Services**

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Date: 2024-06-03

Status: Preliminary



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# About the Document

## Revision History

| Version | Date       | Author   | Note                     |
|---------|------------|----------|--------------------------|
| -       | 2024-06-03 | Aria CHU | Creation of the document |
| 0.2     | 2020-06-03 | Aria CHU | First official release   |

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## 1 Product Description

The antenna is designed for superior performance, and can be widely used for wireless applications.

We provide comprehensive antenna design support such as simulation, testing and manufacturing for custom antenna solutions to meet your specific application needs.

## 2 Product Features

- Wi-Fi
- High efficiency
- Excellent performance

### 3 Product Specifications

#### Passive Electrical Specifications

|                   |                                                                |
|-------------------|----------------------------------------------------------------|
| Frequency Range   | 2.4–2.5 GHz, 5.15–5.85 GHz                                     |
| Input Impedence   | 50 $\Omega$                                                    |
| VSWR              | 2.4GHz: $\leq 2.0$ ,<br>5GHz: $\leq 2.8$                       |
| Peak Gain         | 2.4GHz: $\leq 0.73\text{dBi}$ ,<br>5GHz: $\leq 1.14\text{dBi}$ |
| Polarization Type | Linear                                                         |
| Antenna Type      | Dipole                                                         |

#### Mechanical Specifications

|                     |                       |
|---------------------|-----------------------|
| Antenna Size        | 195 mm x $\Phi$ 13 mm |
| Casing              | ABS                   |
| Connector Type      | SMA Male (Center Pin) |
| Working Temperature | -40 °C to +85 °C      |
| Radome Color        | Black                 |
| IP Rating           | IP55                  |

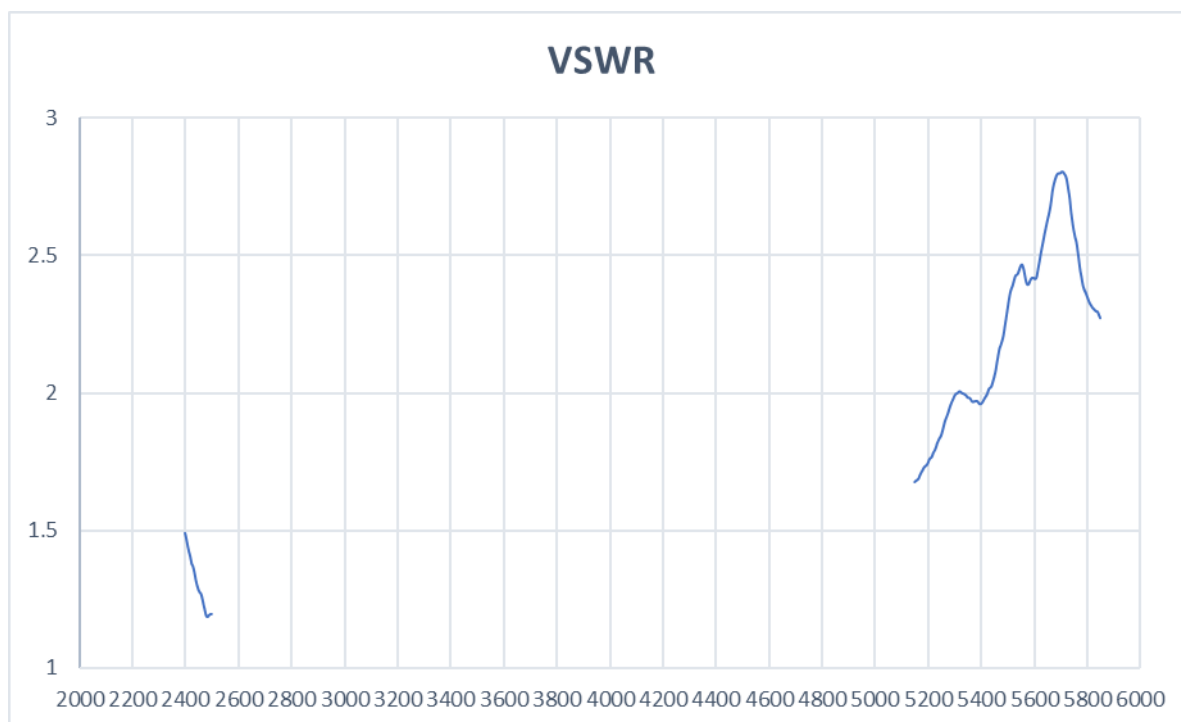
## 4 Overall Performance

### 4.1. Test Environment

- Network Analyzer: Keysight E5071C (Device number: QTB6331E; Calibration date: 2023-12-27; Due date:2025-06-26)
- Chamber: OTA RayZone 2800 GTS (Device number: QTA0709; Calibration date: 2023-07-14; Due date:2024-07-13)
- Testing Software: Libra
- Test Engineer: Aria CHU
- Manufacturer: Quectel Wireless Solutions (Changzhou) Co., Ltd.  
Address: No.8 Nanhu West Road, Wujin District, Changzhou City, Jiangsu Province, China

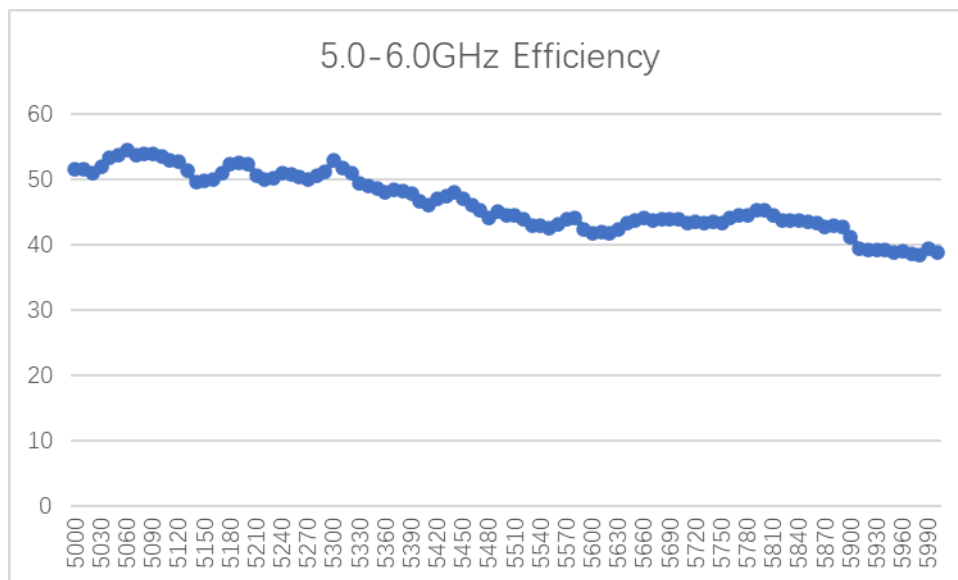
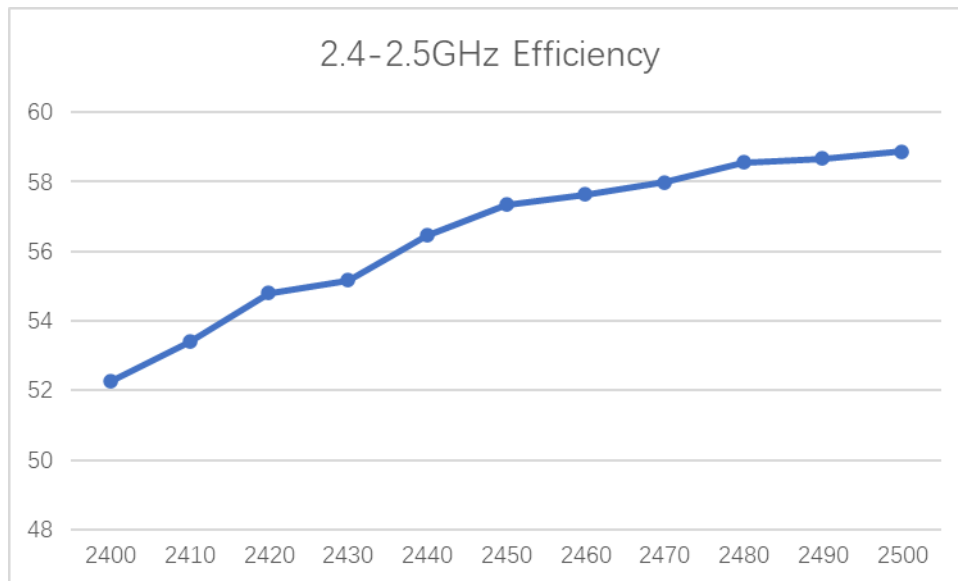
## 4.2. Data

- VSWR



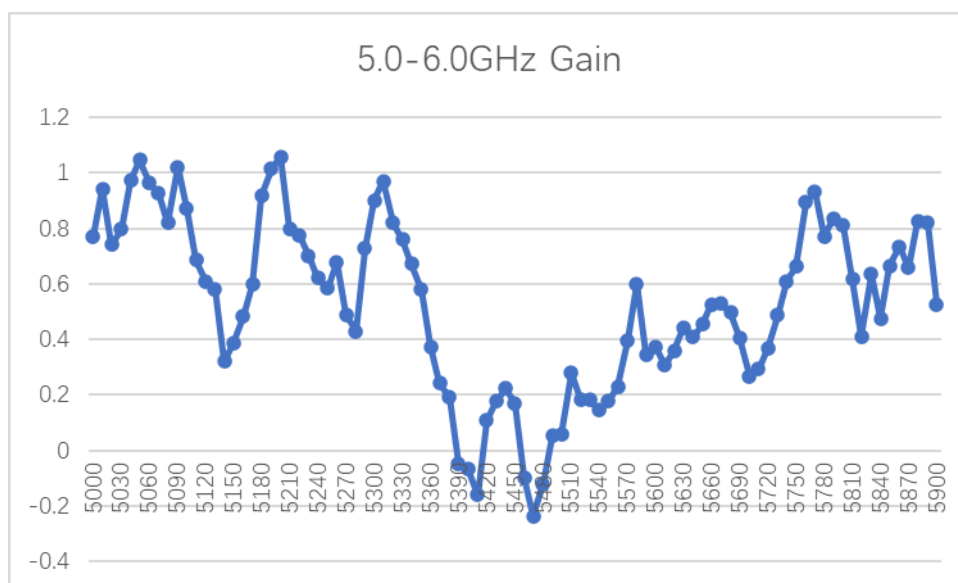
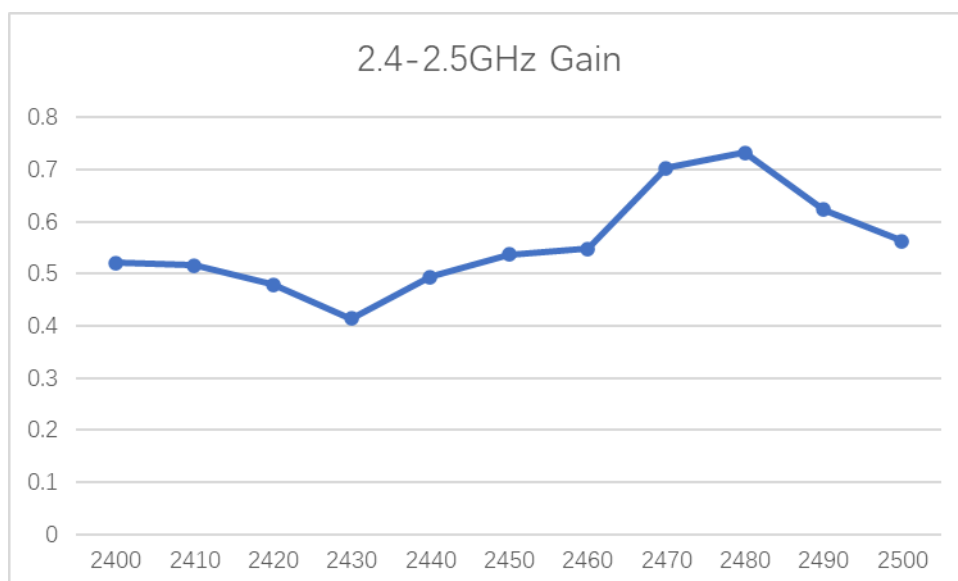
| Frequency (MHz) | 2400 | 2500 | 5150 | 5850 |
|-----------------|------|------|------|------|
| VSWR            | 1.49 | 1.19 | 1.67 | 2.27 |

● Efficiency



| Frequency (MHz) | 2400  | 2500  | 5150  | 5850  |
|-----------------|-------|-------|-------|-------|
| Efficiency (%)  | 52.26 | 59.64 | 49.76 | 43.45 |

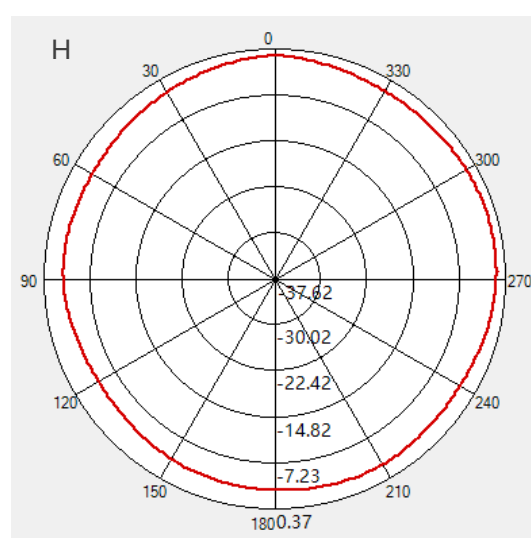
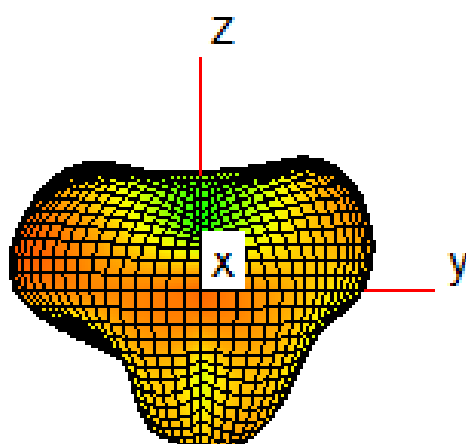
● Gain

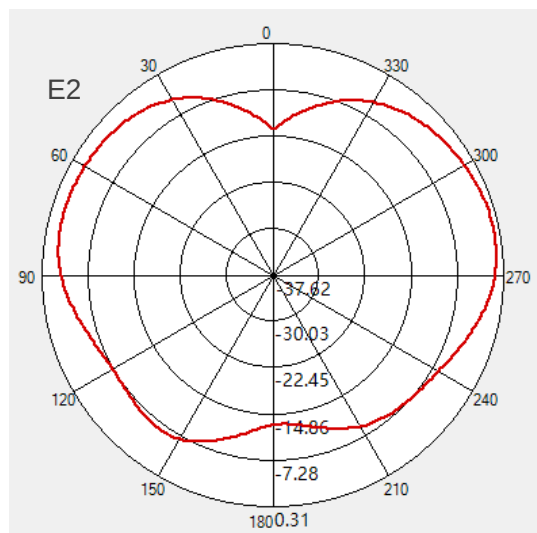
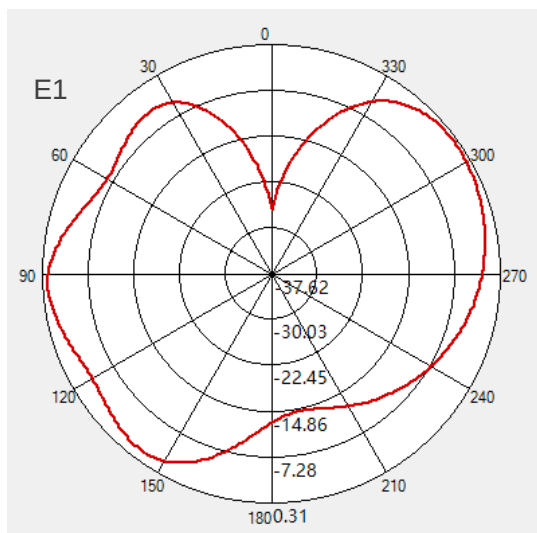


| Frequency (MHz) | 2400-2483.5 | 5150-5250MHz | 5250-5350MHz | 5470-5725MHz | 5725-5850MHz |
|-----------------|-------------|--------------|--------------|--------------|--------------|
| Peak Gain (dBi) | 0.73        | 1.14         | 1.00         | 0.60         | 0.95         |

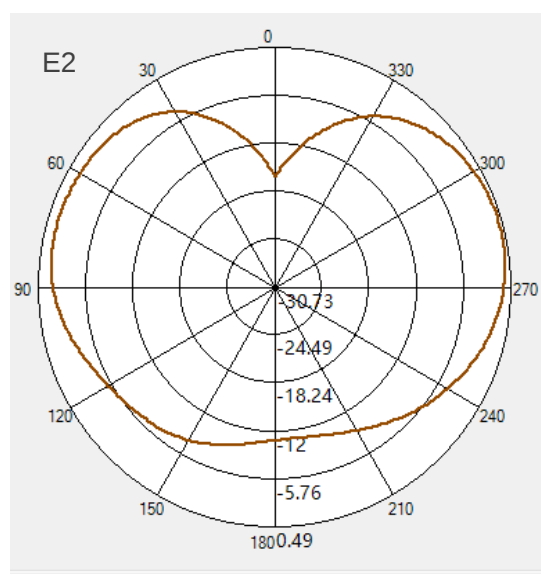
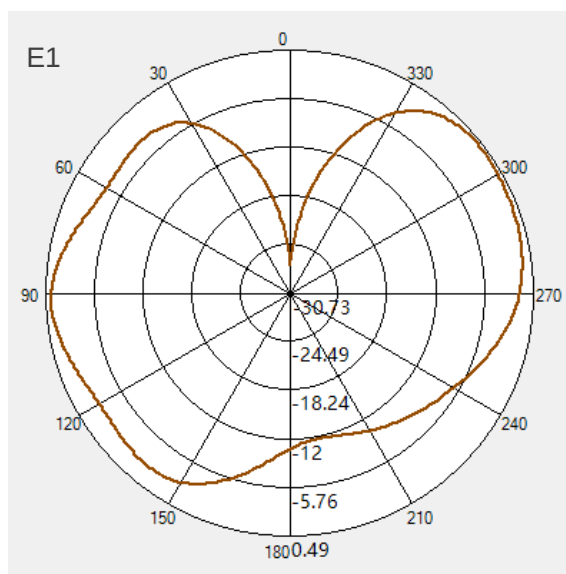
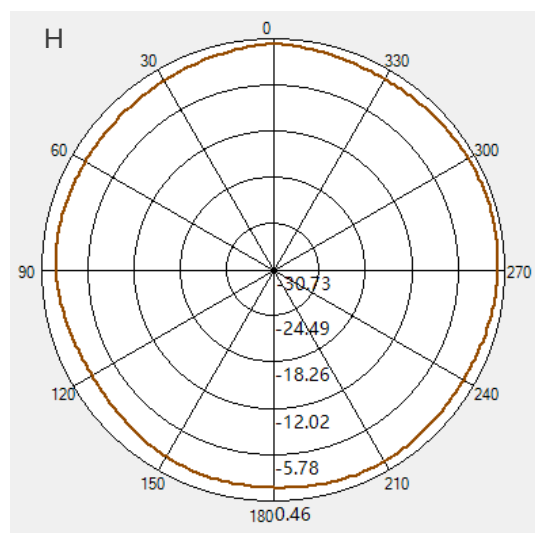
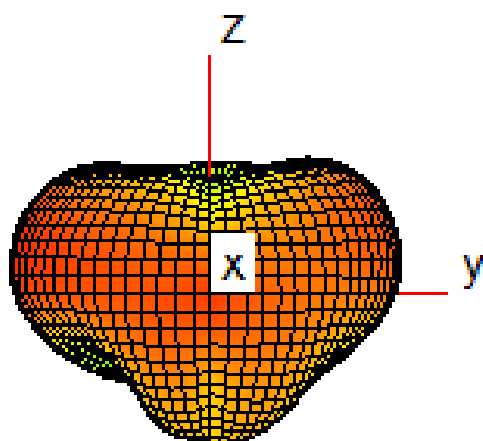
### 4.3. Radiation Pattern

2400 MHz

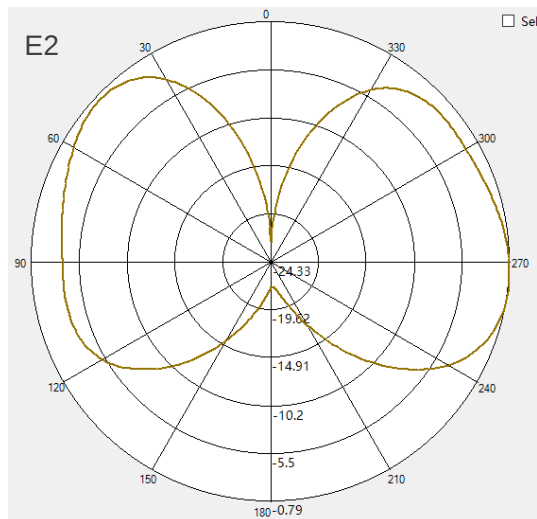
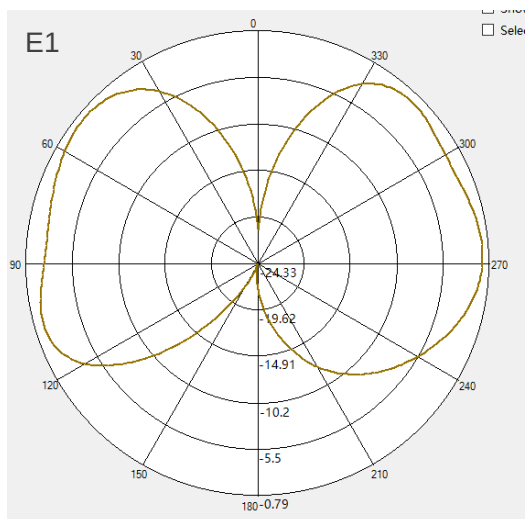
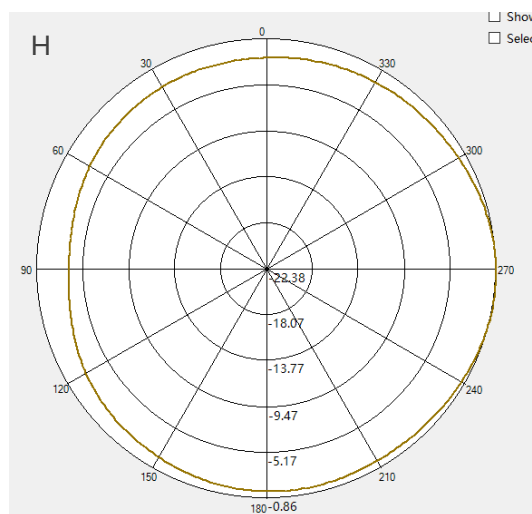
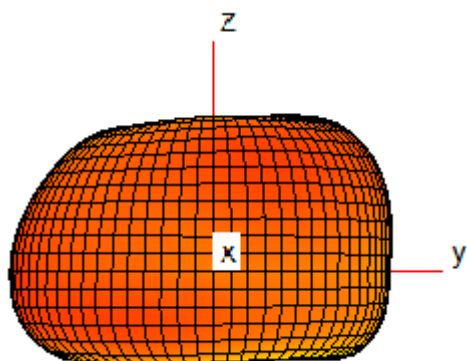




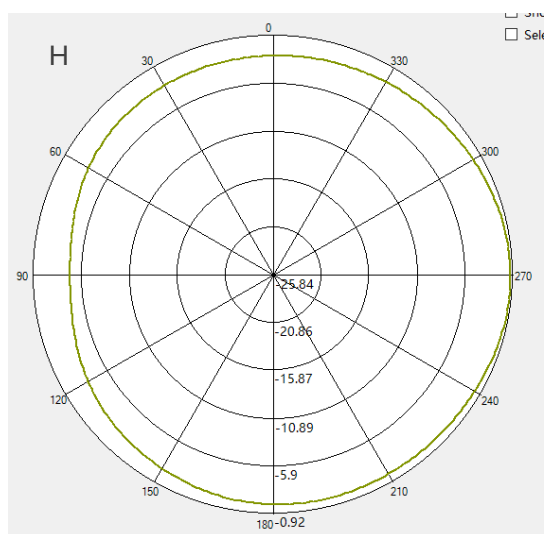
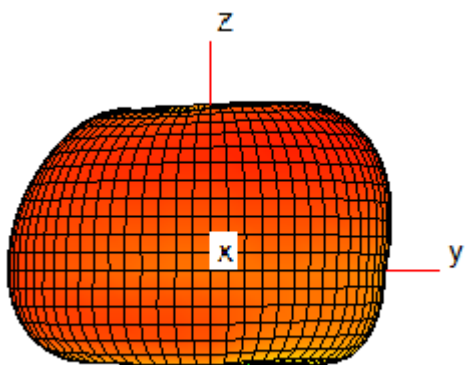
2500 MHz

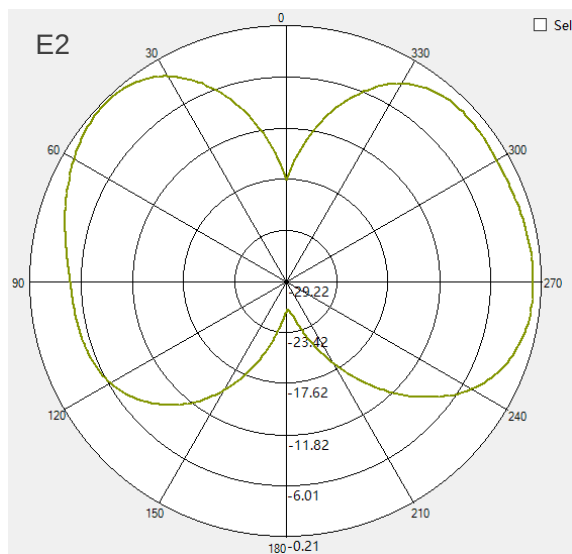
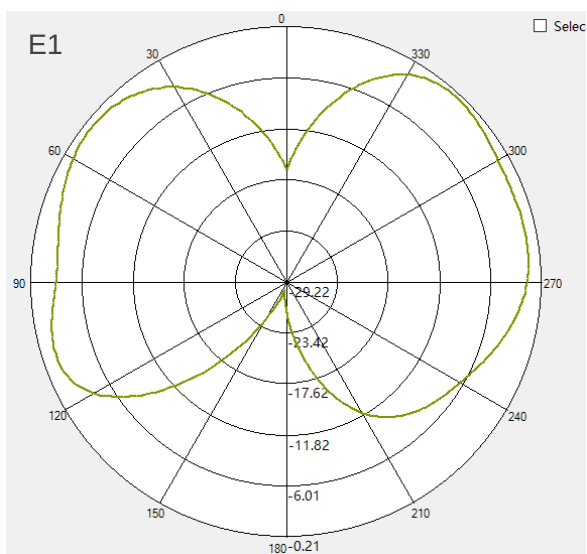


5180 MHz

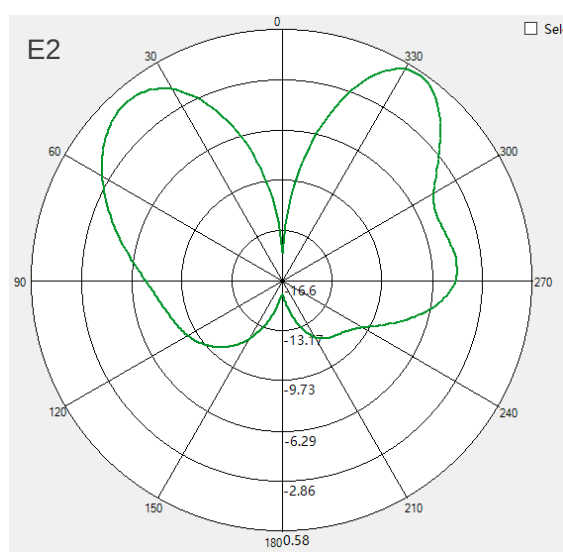
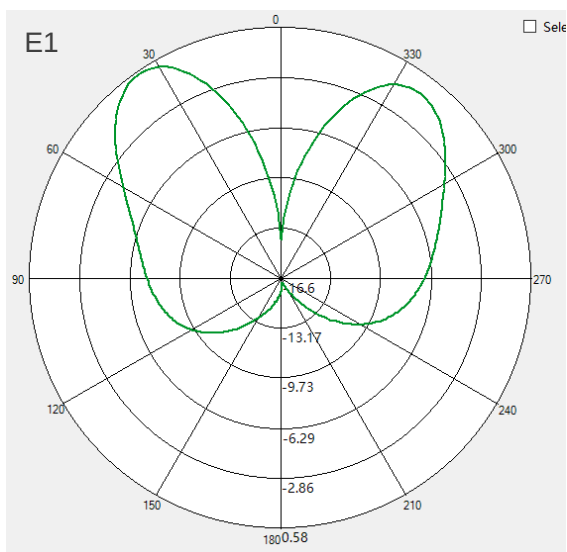
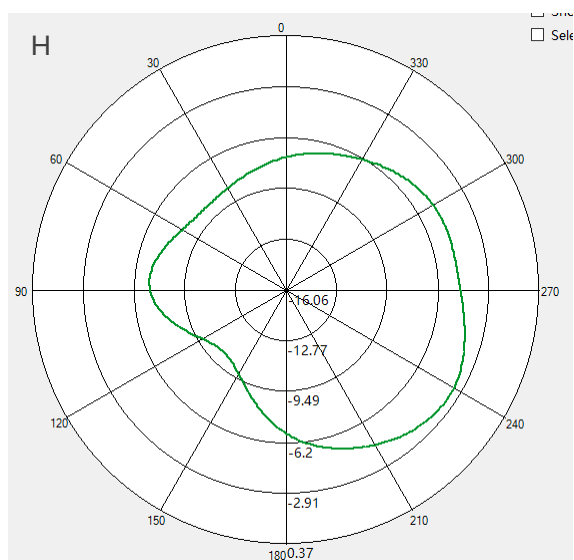
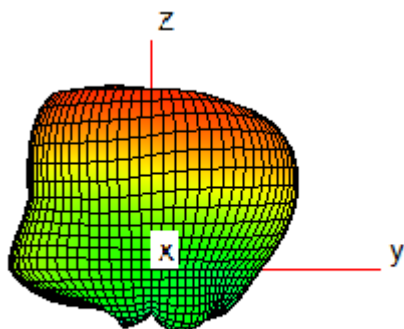


5300 MHz





**5725 MHz**



5750 MHz

