

Antenna

YEWT004AA Datasheet

Antenna Services

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About the Document

Revision History

| Version | Date | Author | Note |
|---------|------------|------------------------|---|
| - | 2021-05-18 | Kenny YIN/ Aria CHU | Creation of the document |
| 1.0 | 2021-05-18 | Kenny YIN/ Aria CHU | First official release |
| 1.1 | 2021-07-25 | Kenny YIN/ Aria CHU | Updated working temperature (Chapter 3). |
| 1.2 | 2021-11-30 | Kenny YIN/ Aria CHU | Updated the product description in Chapter 1. |

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1 Product Description

Quectel Wi-Fi antenna covers 2.4 GHz, 5 GHz, and up to 7 GHz bands, fully satisfying customers' requirements for Wi-Fi 5, Wi-Fi 6, and Wi-Fi 6E. There are various antenna types, including built-in FPC antenna, ceramic patch antenna, and other external antennas of different shapes or sizes. The antenna performance meets the customers' demands for efficiency, gain, and radiation and ensures the superior experience of the customers' products in use.

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 6 2.4–2.5 GHz & 5.1–7.125 GHz
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications

| | |
|-------------------|------------------------------|
| Frequency Range | 2400–2500 MHz, 5100–7150 MHz |
| Input Impedance | 50 Ω |
| VSWR | ≤ 3.0 |
| Gain | ≤ 6.6 dBi |
| Polarization Type | Linear |

Mechanical Specifications

| | |
|---------------------|-----------------------|
| Antenna Size | 109 mm x Φ 10 mm |
| Casing | ABS |
| Connector Type | SMA Male (Center Pin) |
| Working Temperature | -40 °C to +85 °C |
| Radome Color | Black |
| IP Rating | IP55 |

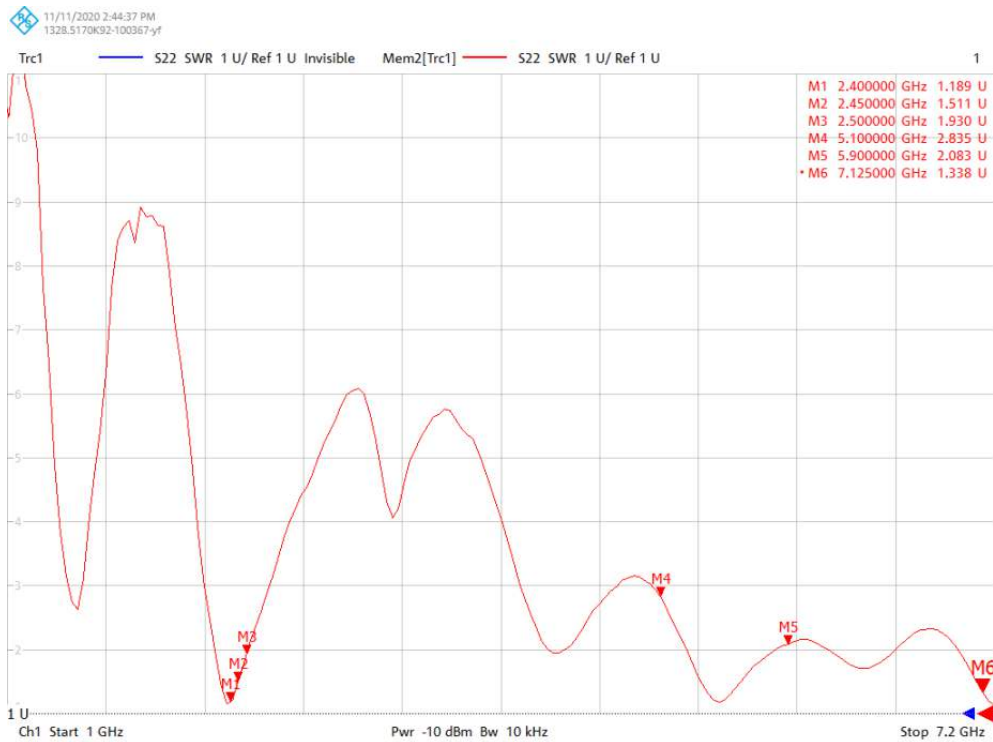
4 Overall Performance

4.1. Test Environment

- KEYSIGHT VNA Network Analyzer E5063A 100 kHz – 8.5 GHz
- RayZone® 2800 Chamber 5G (FR1) SISO/MIMO, 400 MHz – 8.0 GHz

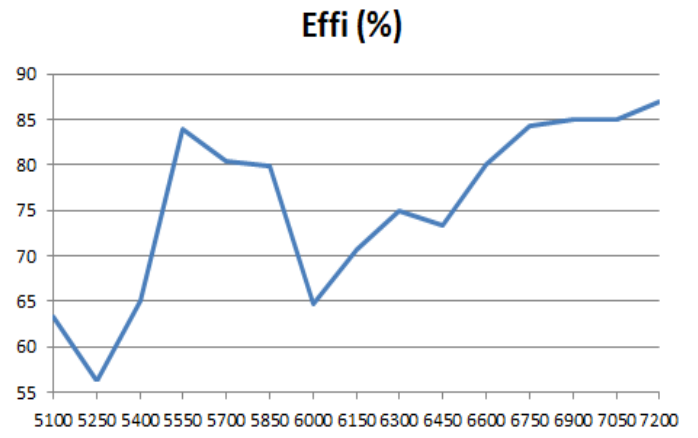
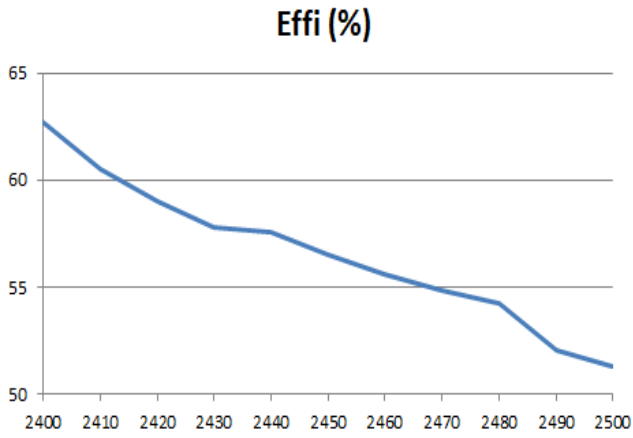


4.2. VSWR



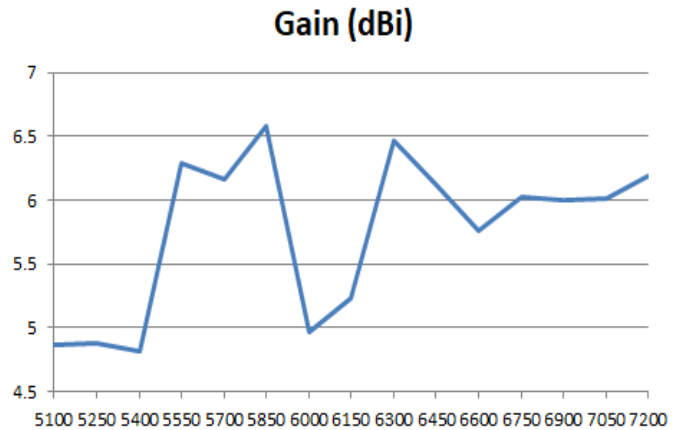
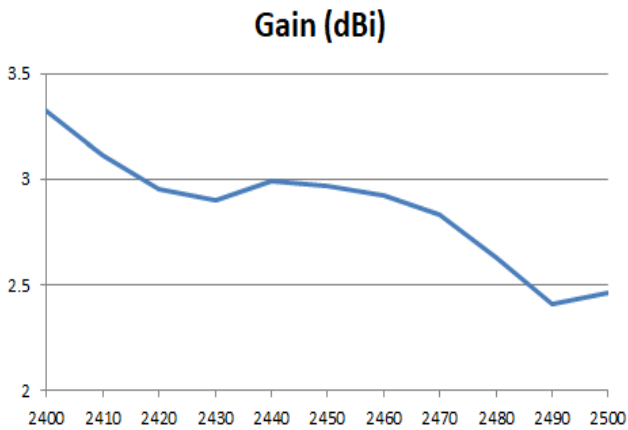
| | | | | | | |
|------------------------|------|------|------|------|------|------|
| Frequency (MHz) | 2400 | 2450 | 2500 | 5100 | 5900 | 7125 |
| VSWR | 1.2 | 1.5 | 1.9 | 2.8 | 2.1 | 1.3 |

4.3. Efficiency



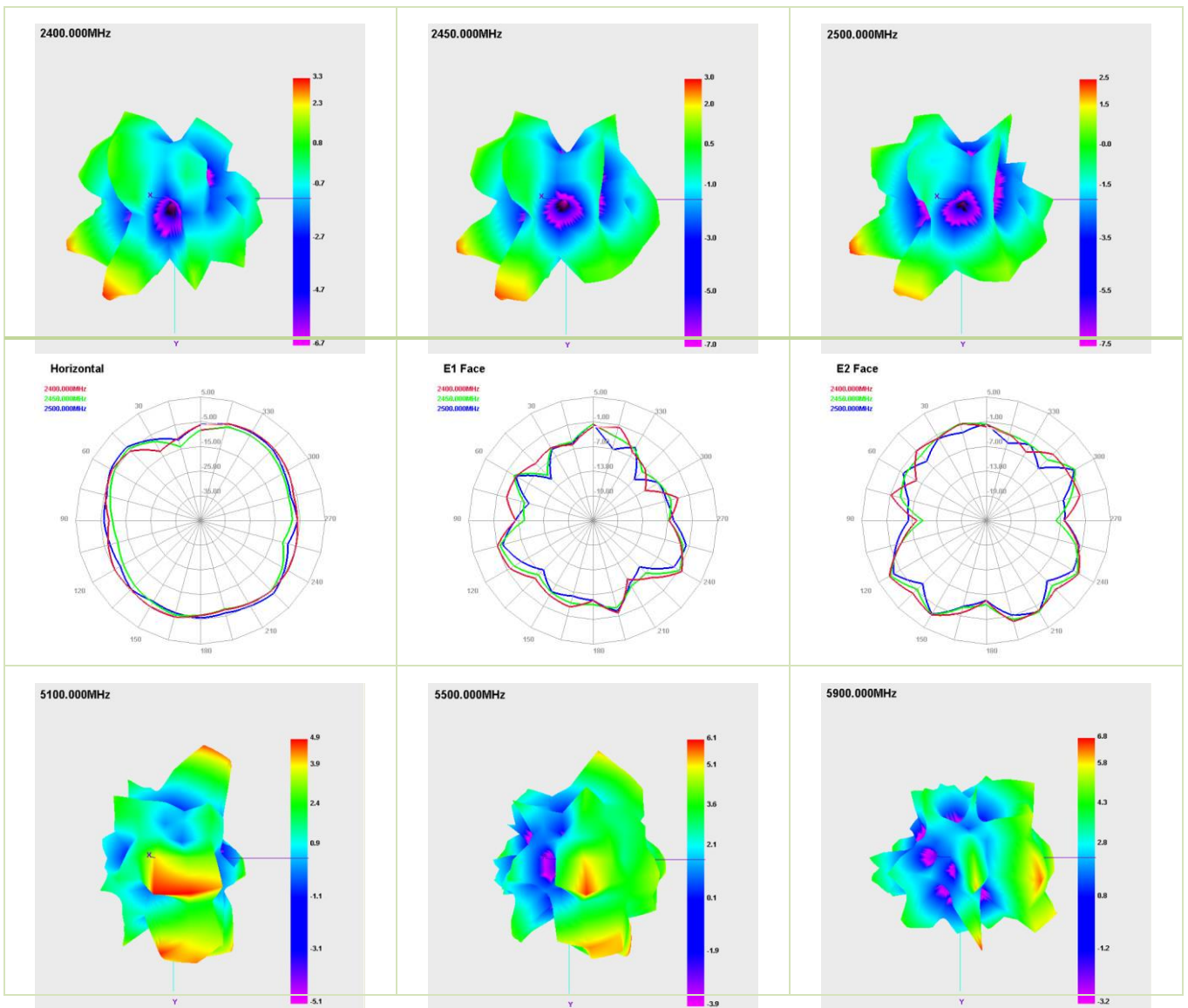
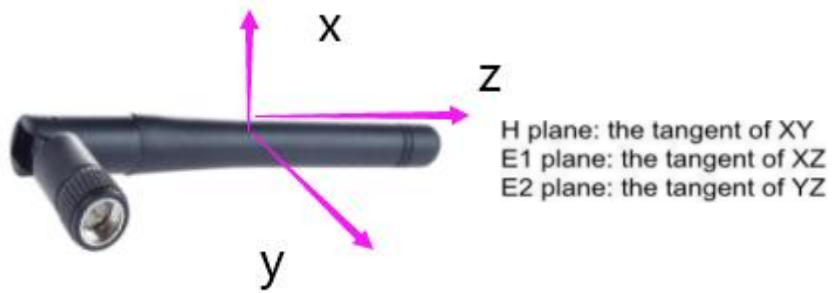
| | | | | | | |
|------------------------|------|------|------|------|------|------|
| Frequency (MHz) | 2400 | 2450 | 2500 | 5100 | 5900 | 7125 |
| Efficiency (%) | 62.7 | 56.5 | 51.3 | 63.3 | 79.5 | 85.0 |

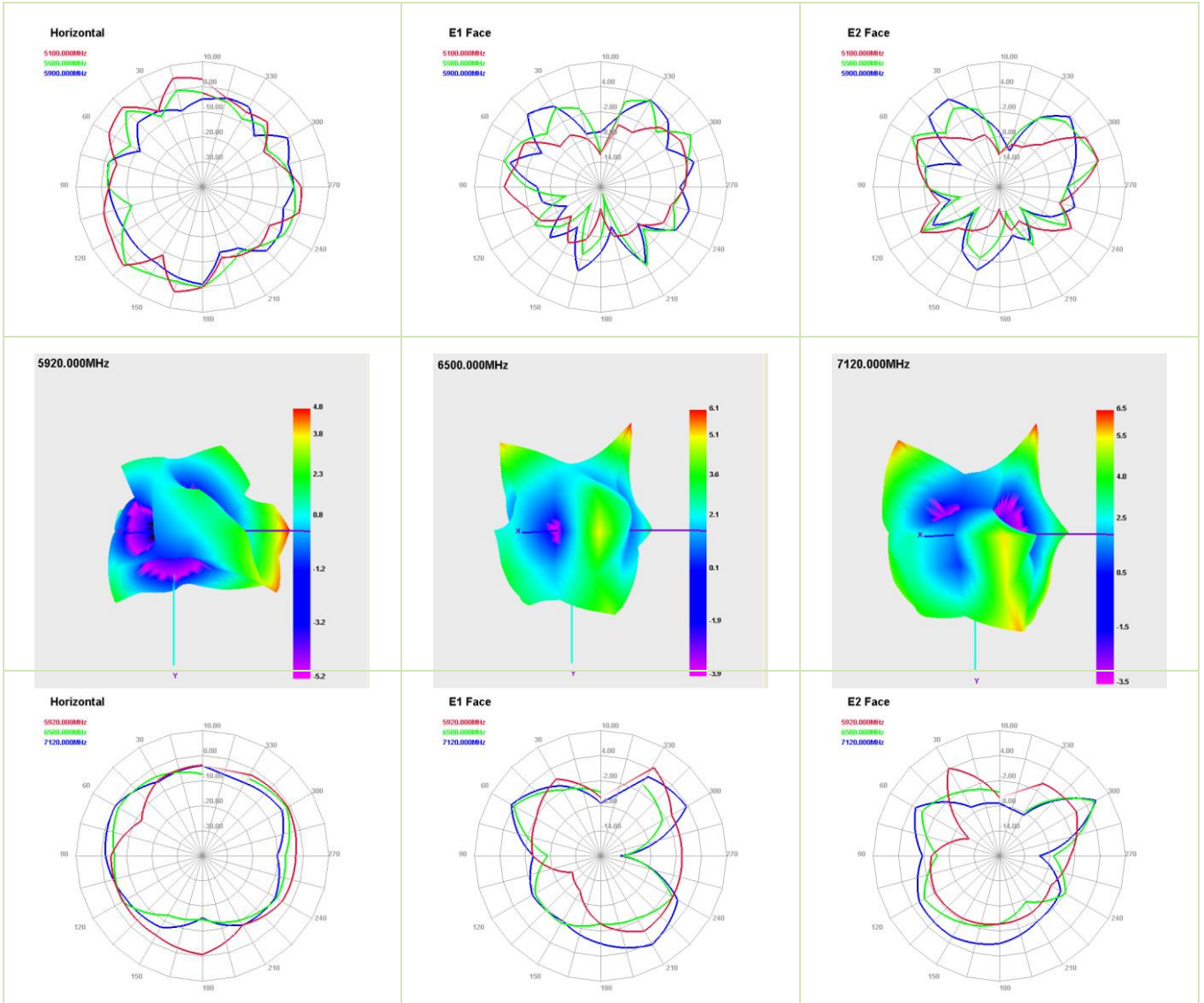
4.4. Gain



| | | | | | | |
|------------------------|------|------|------|------|------|------|
| Frequency (MHz) | 2400 | 2450 | 2500 | 5100 | 5900 | 7125 |
| Gain (dBi) | 3.3 | 3.0 | 3.5 | 4.9 | 6.6 | 6.5 |

4.5. Radiation Pattern





5 Product Size

