

Antenna

YF0027AA Datasheet

Antenna Services

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Quectel Wireless Solutions Co., Ltd.

Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai 200233, China

Tel: +86 21 5108 6236

Email: info@quectel.com

Or our local office. For more information, please visit:

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About the Document

Revision History

| Version | Date | Author | Note |
|---------|------------|-----------|--------------------------|
| - | 2021-04-01 | Kenny YIN | Creation of the document |
| 1.0 | 2021-04-01 | Kenny YIN | 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

- 2.4–7.15 GHz WiFi Tri-Band
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications

| | |
|-------------------|---|
| Frequency Range | 2400–2500 MHz; 5150–5850 MHz; 5925–7125 MHz |
| Input Impedance | 50 Ω |
| VSWR | ≤ 2.0 |
| Gain | ≤ 6.5 dBi |
| Polarization Type | Linear |

Mechanical Specifications

| | |
|---------------------|--------------------------------------|
| Antenna Size | 38 mm \times 7 mm |
| Casing | FPC |
| Connector Type | IPEX MHF I |
| Working Temperature | -40 $^{\circ}$ C to +85 $^{\circ}$ C |
| Radome Color | Black |

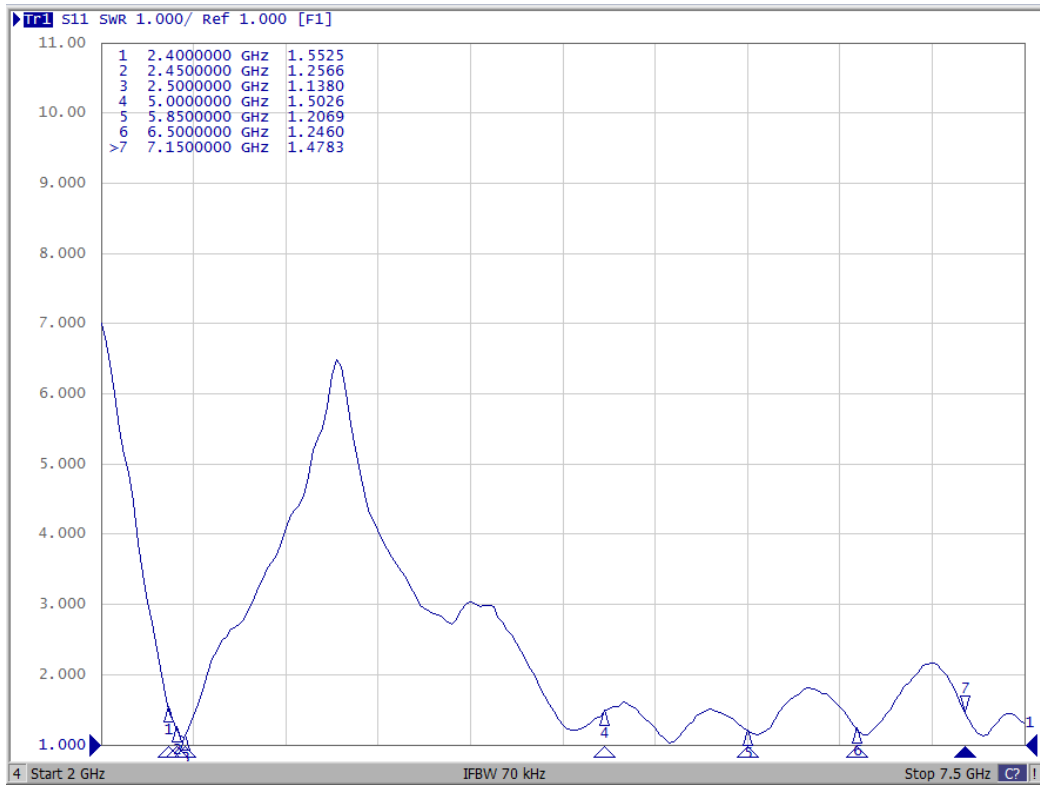
4 Overall Performance

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



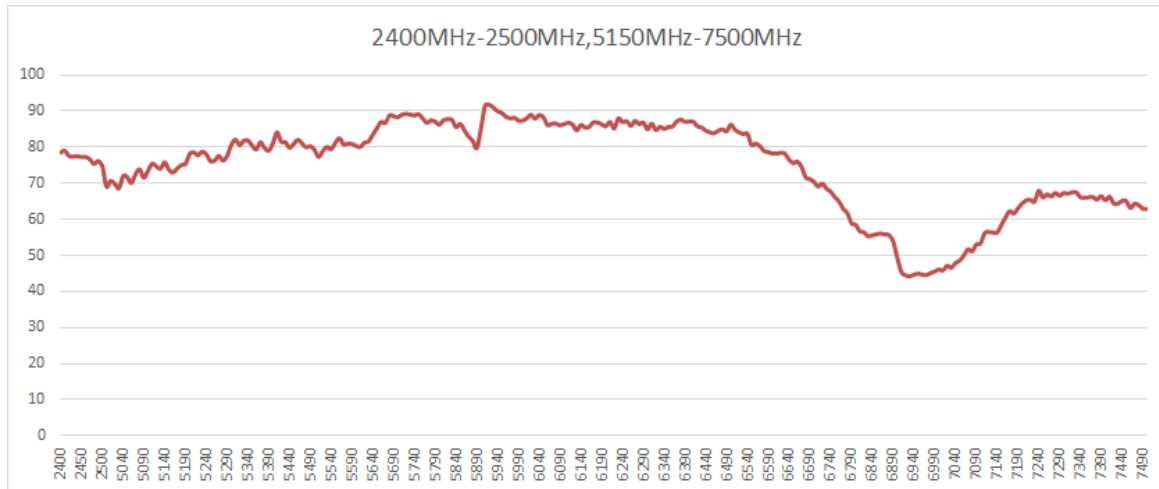
4.2. VSWR



| | | | | | | | |
|------------------------|------|------|------|------|------|------|------|
| Frequency (MHz) | 2400 | 2450 | 2500 | 5000 | 5850 | 6500 | 7150 |
| VSWR | 1.55 | 1.25 | 1.13 | 1.50 | 1.20 | 1.24 | 1.47 |

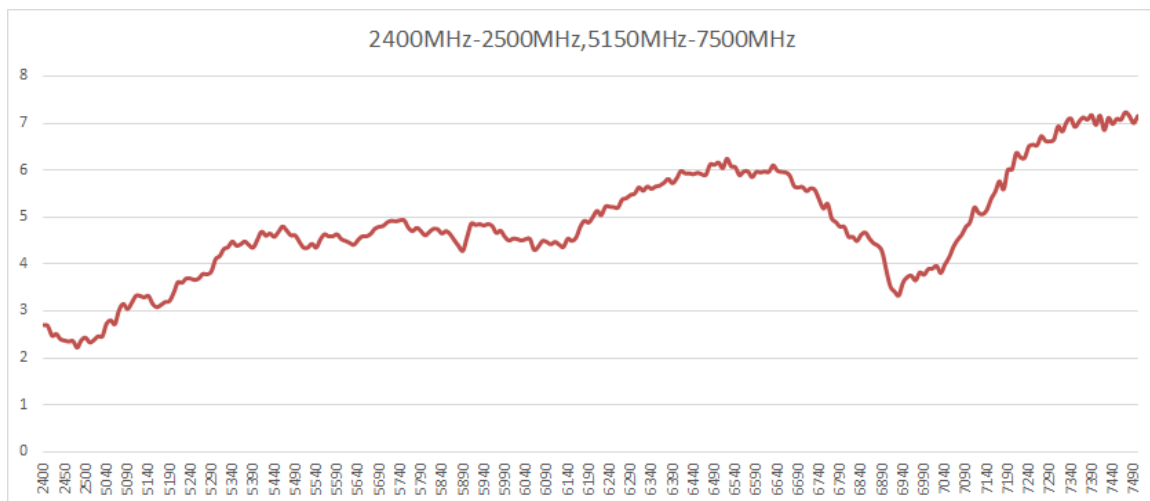
Note: test on 3mm ABS.

4.3. Efficiency



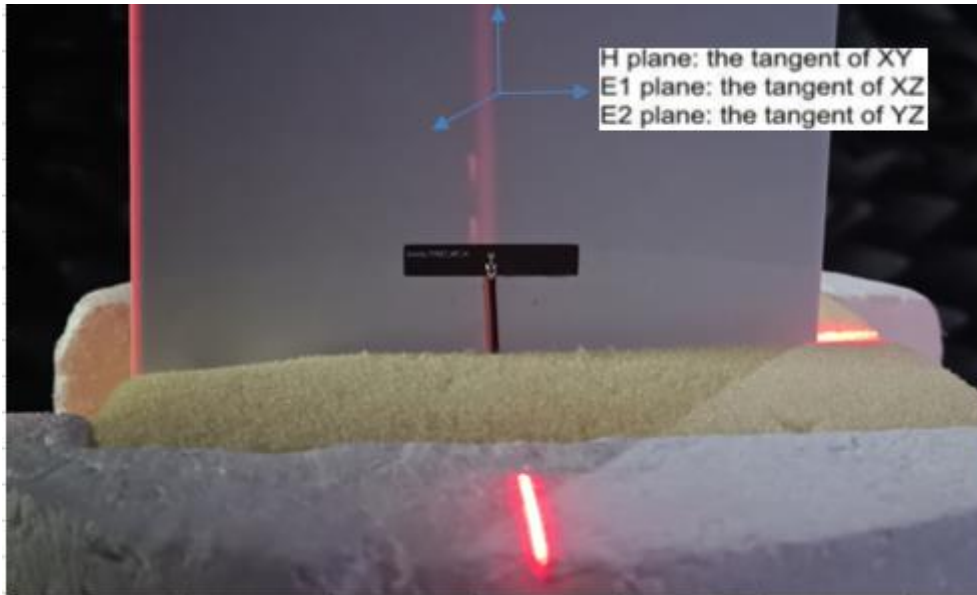
| Frequency (MHz) | 2400 | 2450 | 2500 | 5000 | 5850 | 6500 | 7150 |
|-----------------|------|------|------|------|------|------|------|
| Efficiency (%) | 78 | 77 | 75 | 69 | 86 | 86 | 58 |

4.4. Gain

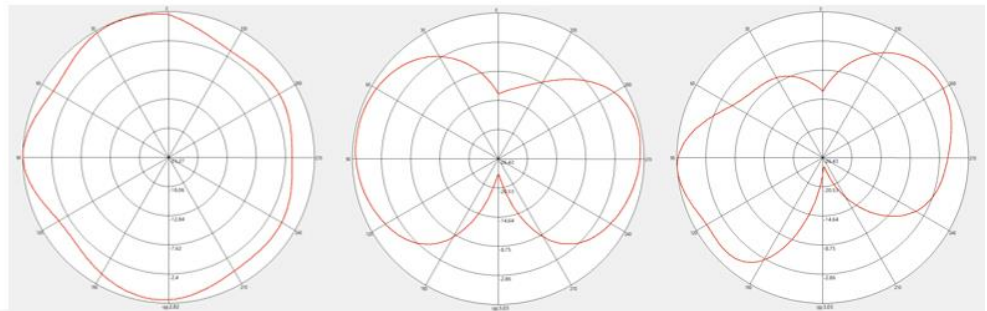
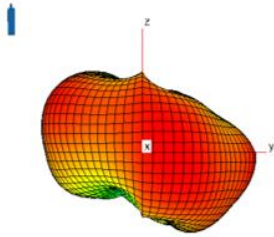


| Frequency (MHz) | 2400 | 2450 | 2500 | 5000 | 5850 | 6500 | 7150 |
|-----------------|------|------|------|------|------|------|------|
| Gain (dBi) | 2.7 | 2.4 | 2.4 | 2.3 | 4.7 | 6.1 | 5.4 |

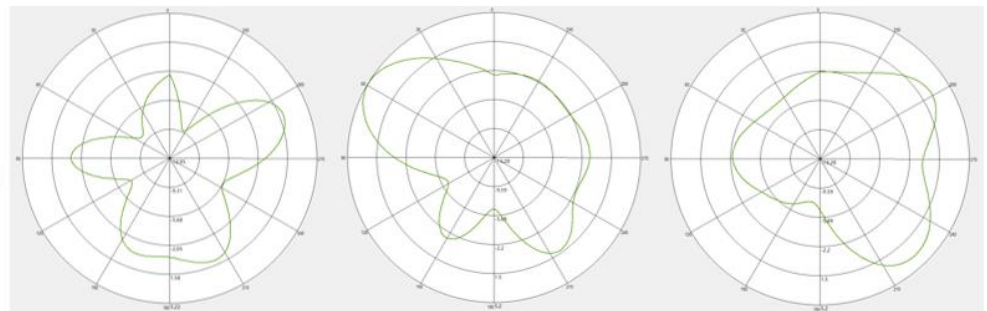
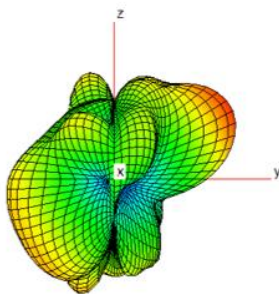
4.5. Radiation Patterns



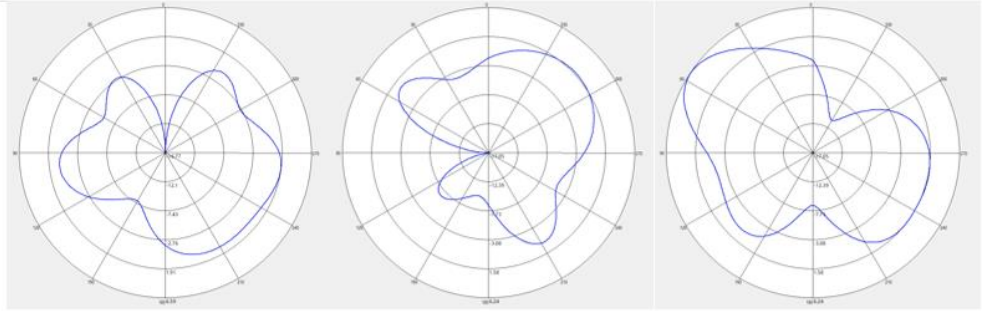
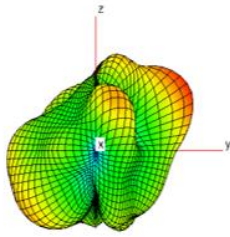
2450MHz



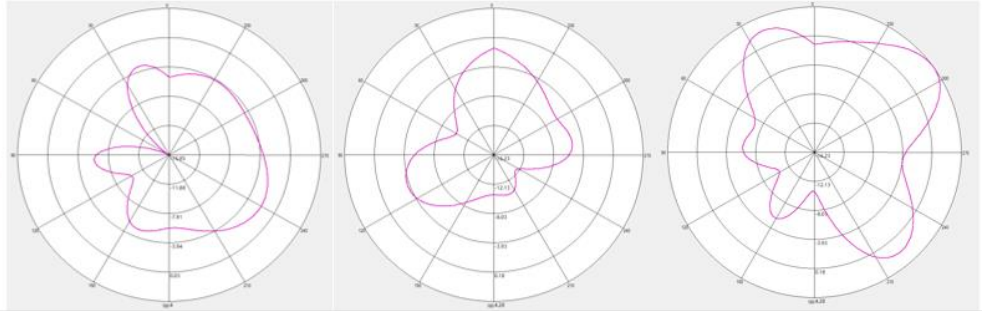
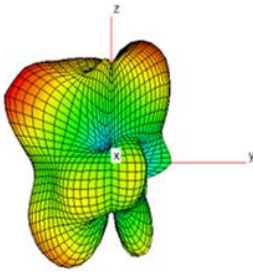
5500MHz



6500MHz



7000MHz



5 Product Size

