

# Antenna

# YE0032AA 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](mailto: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
1.0	2020-10-22	Kenny YIN	Initial
1.1	2021-01-15	Kenny YIN	Updated the antenna image in Chapter 2.
1.2	2021-01-27	Kenny YIN	Added IP rating description.
1.3	2021-07-25	Kenny YIN	Updated the working temperature (Chapter 3).

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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 GHz & 5.8 GHz Wi-Fi dual-band
- High efficiency
- Excellent performance



### 3 Product Specifications

#### Passive Electrical Specifications

Frequency Range	2.4–2.5 GHz, 5.15–5.85 GHz
Input Impedance	50 $\Omega$
VSWR	2.4 GHz: $\leq 2.0$ , 5.8 GHz: $\leq 3.0$
Gain	$\leq 1.9$ dBi
Polarization Type	Linear

#### Mechanical Specifications

Antenna Size	50 mm $\times$ $\Phi$ 10 mm
Casing	ABS
Connector Type	SMA Male (center pin)
Working Temperature	-40 $^{\circ}$ C to +85 $^{\circ}$ C
Radome Color	Black
IP rating	IP65

## 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



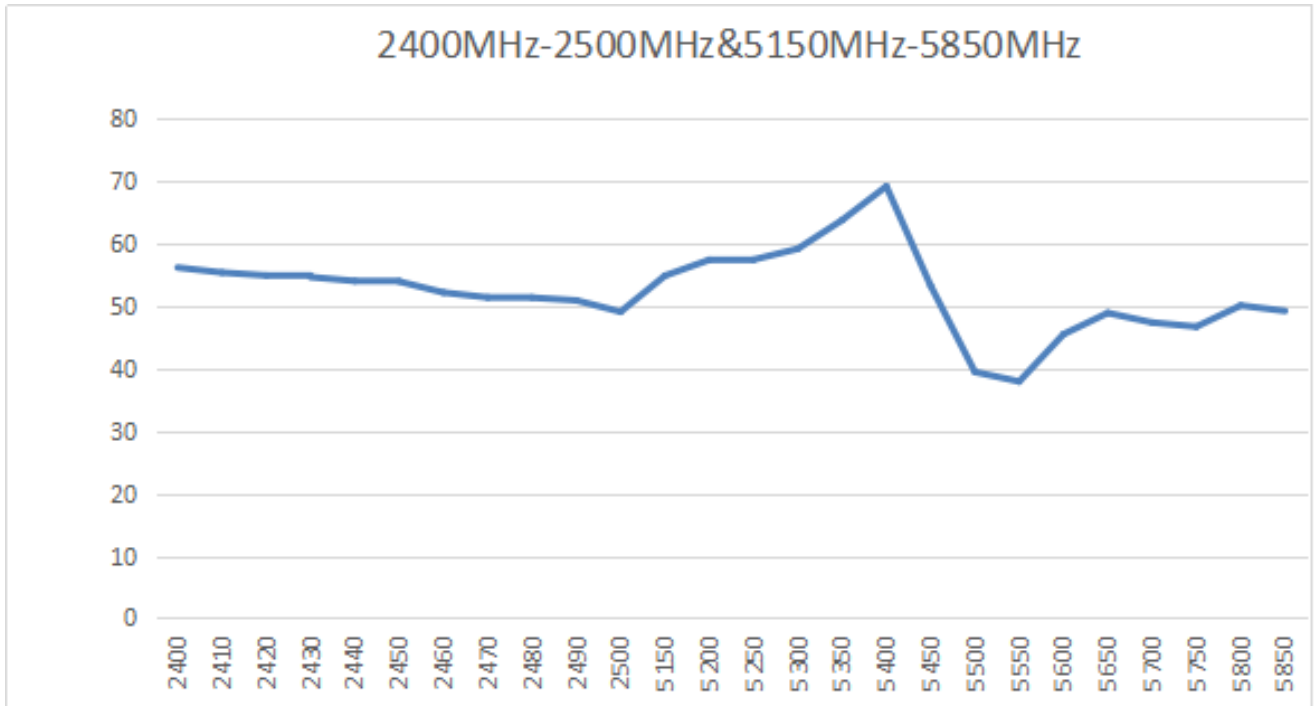


## 4.2. VSWR



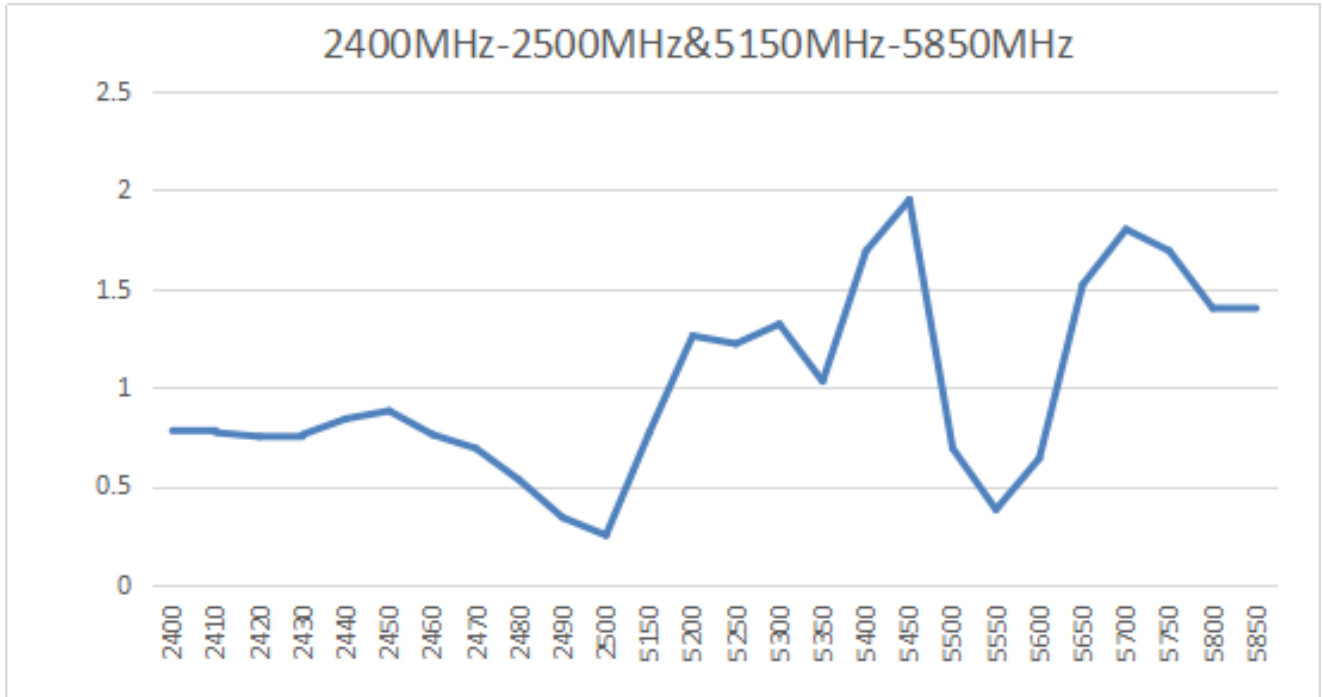
<b>Frequency (MHz)</b>	2400	2500	5150	5850
<b>VSWR</b>	1.43	1.75	2.88	2.24

### 4.3. Efficiency



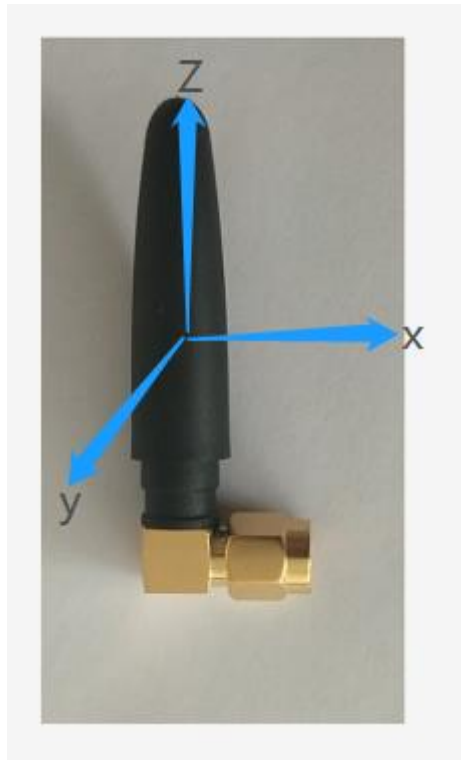
<b>Frequency (MHz)</b>	2400	2450	2500	5150	5550	5850
<b>Eff. (%)</b>	56.14	53.9	49.06	54.83	37.89	49.19

#### 4.4. Gain

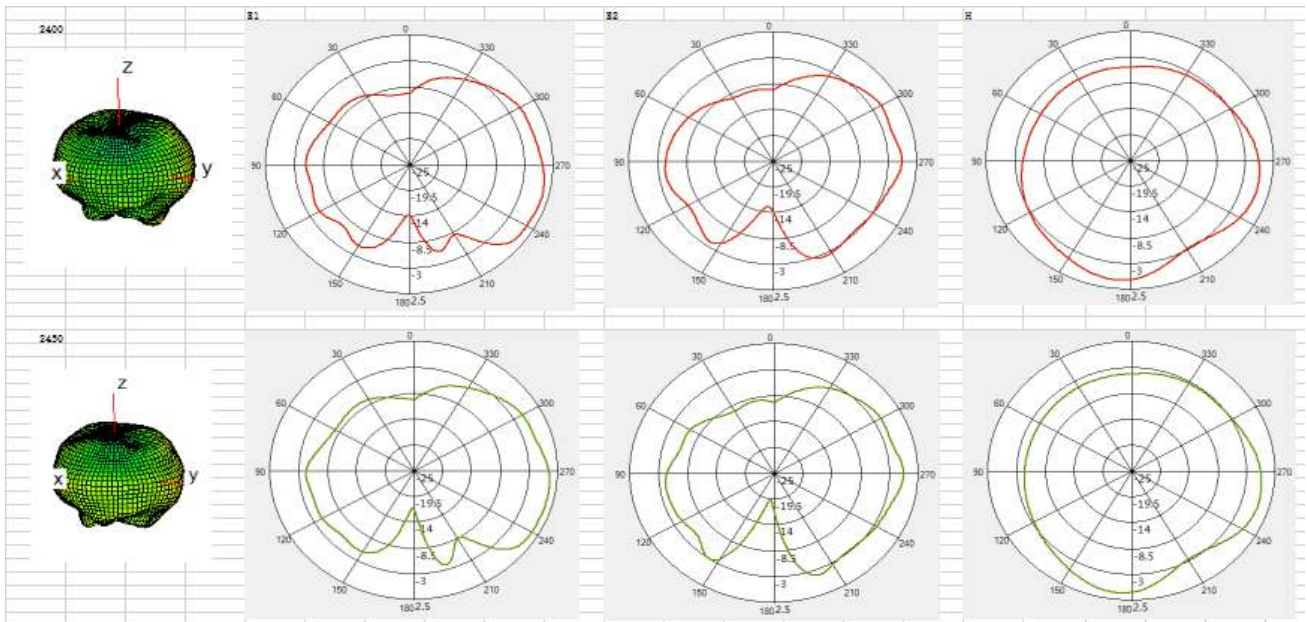


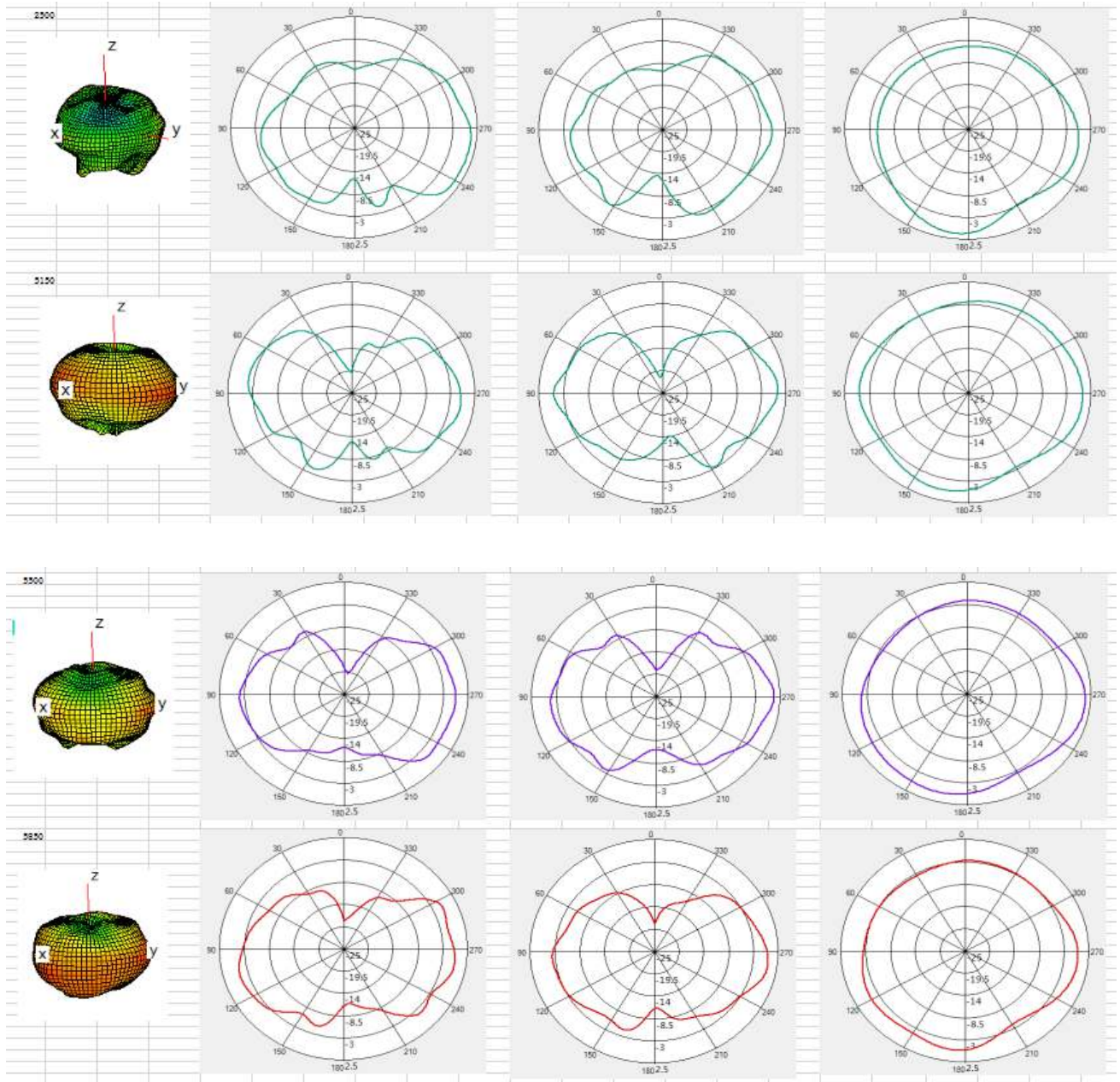
<b>Frequency (MHz)</b>	2400	2450	2500	5150	5550	5850
<b>Gain (dBi)</b>	0.78	0.88	0.25	0.77	0.38	1.4

### 4.5. Radiation Pattern



H plane: the tangent of XY  
E1 plane: the tangent of XZ  
E2 plane: the tangent of YZ





### 5 Product Size

