

# Antenna

# YEWN005AA 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 offices. For more information, please visit:**

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# About the Document

## Revision History

Version	Date	Author	Note
-	2021-12-20	Kenny YIN /Jan GAO	Creation of the document
1.0	2021-12-20	Kenny YIN /Jan GAO	First official release

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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.

## 2 Product Features

- Wi-Fi 2400-2500MHz/5150-5850MHz
- High efficiency
- Excellent performance



### 3 Product Specifications

#### Passive Electrical Specifications

Frequency Range	2400-2500MHz;5150-5850MHz
Input Impedence	50 $\Omega$
VSWR	$\leq 2.0$
Gain	$\leq 4$ dBi
Polarization Type	Linear

#### Mechanical Specifications

Antenna Size	$\varnothing 13\text{mm} \times 195\text{mm}$
Casing	TPEE
Connector Type	SMA Male (center pin)
Working Temperature	-20 °C to +65 °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, 600 MHz – 8.5 GHz



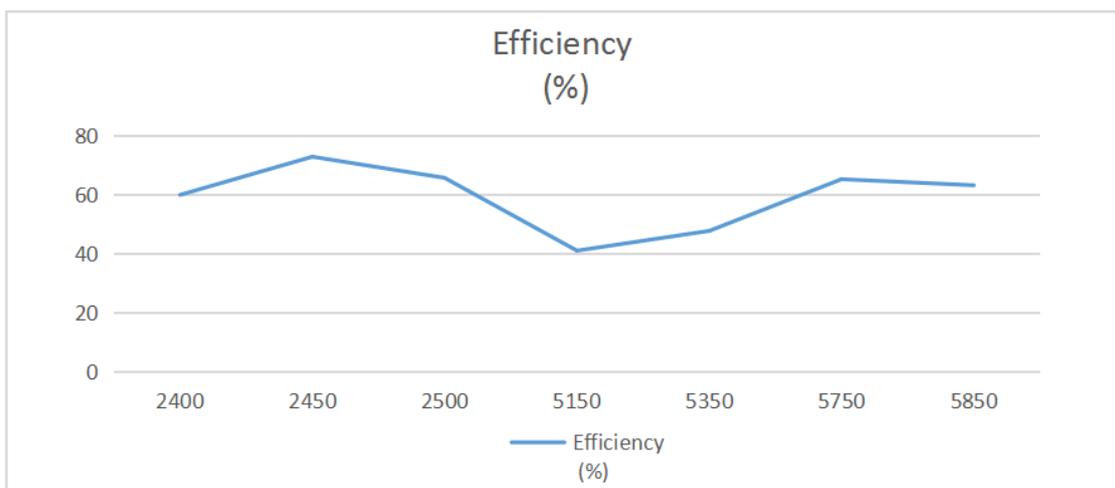
Other description:

### 4.2. VSWR



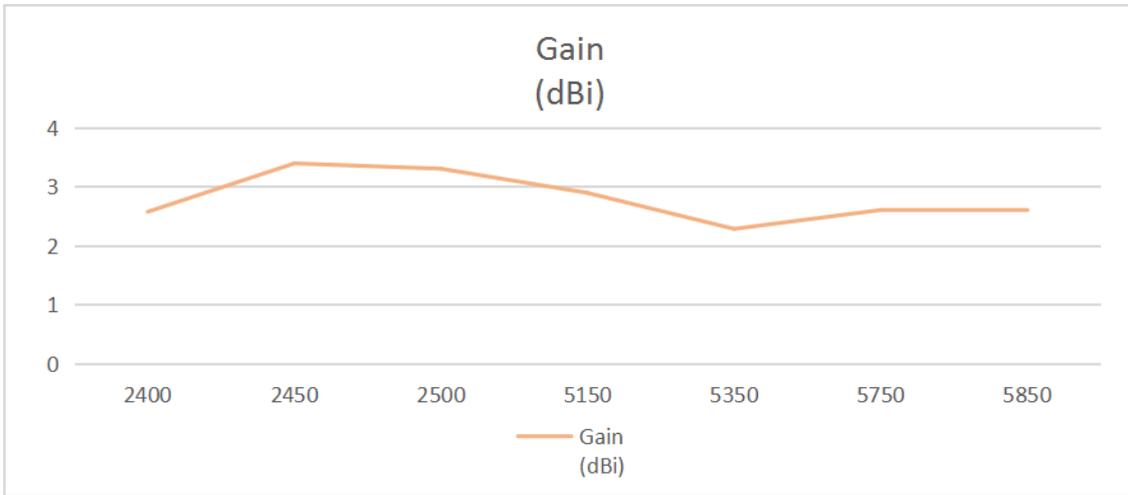
Frequency (MHz)	2400	2450	2500	5150	5350	5750	5850
VSWR	1.43	1.40	1.69	1.37	1.72	1.22	1.38

### 4.3. Efficiency



Frequency (MHz)	2400	2450	2500	5150	5350	5750	5850
Efficiency (%)	59.84	72.78	65.61	50.93	52.64	65.16	63.1

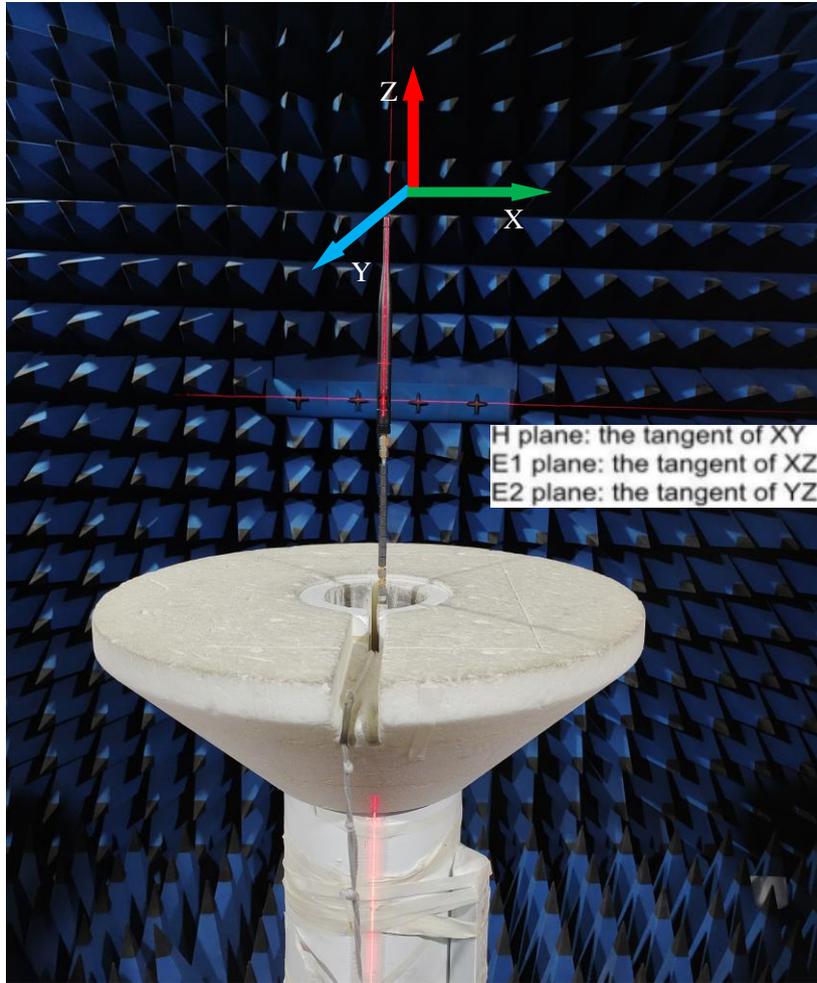
#### 4.4. Gain



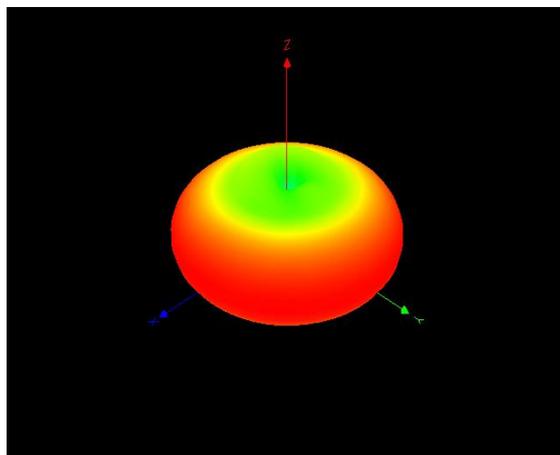
Frequency (MHz)	2400	2450	2500	5150	5350	5750	5850
Gain (dBi)	2.58	3.4	3.31	2.9	2.29	2.61	2.6

### 4.5. Radiation Pattern

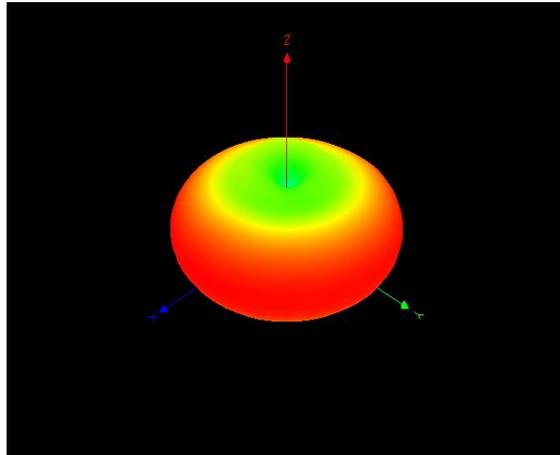
- Test condition: free space



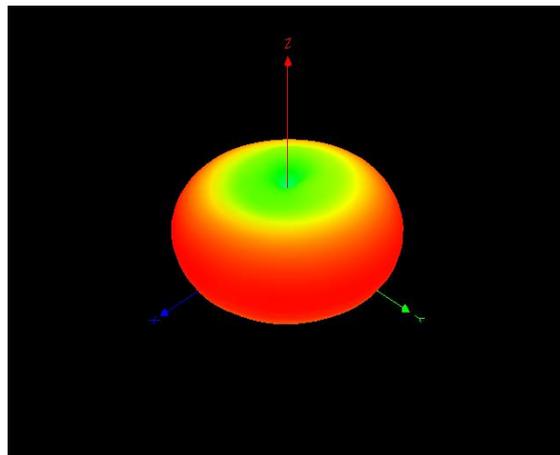
2400MHz



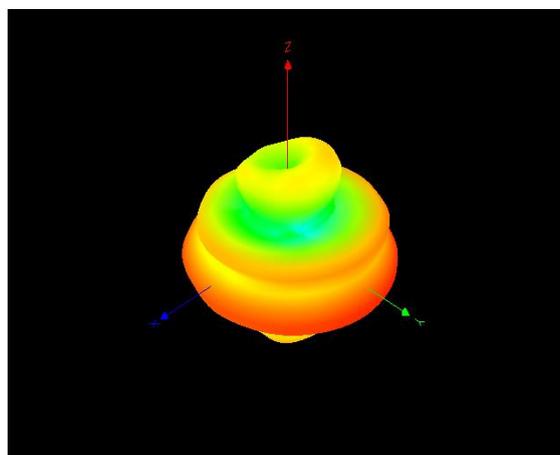
2450MHz



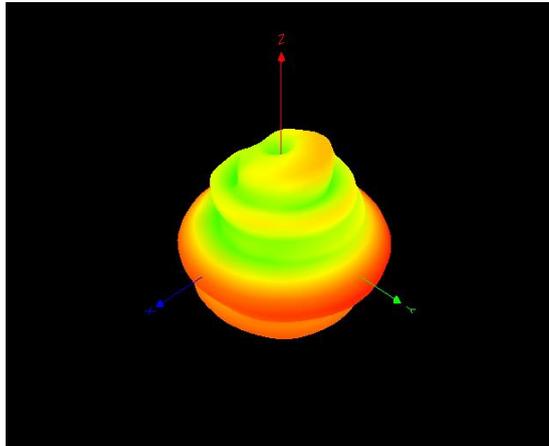
2500MHz



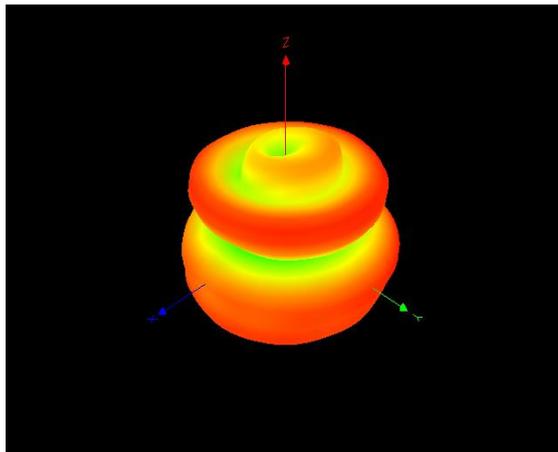
5150MHz



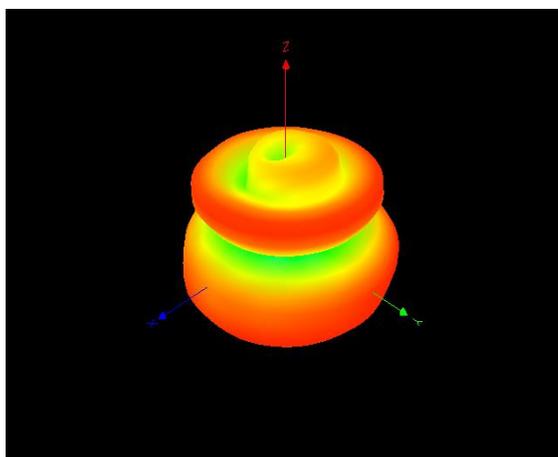
5350MHz



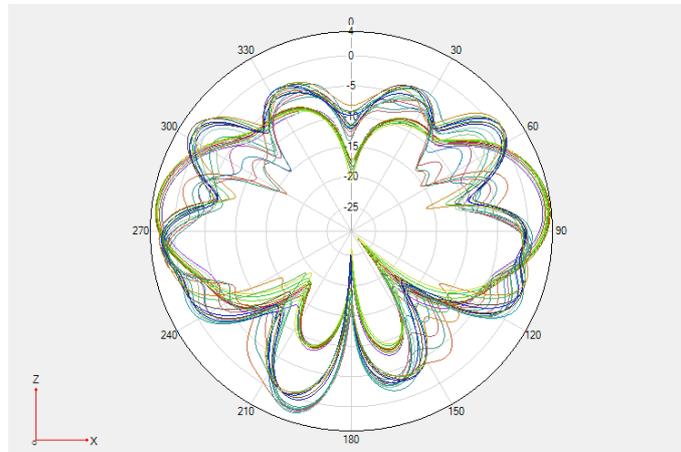
5750MHz



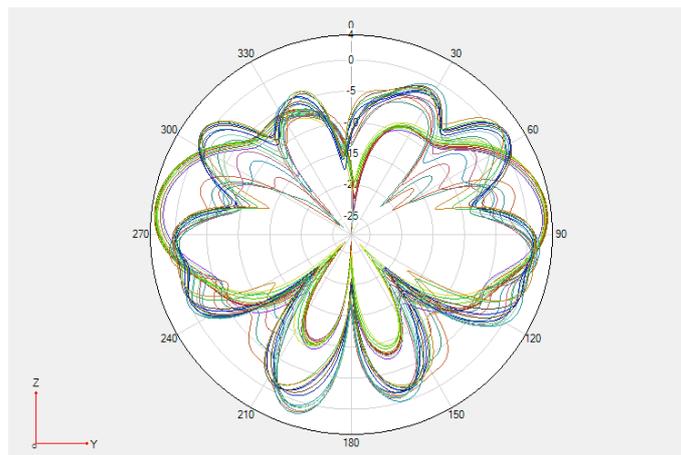
5850MHz



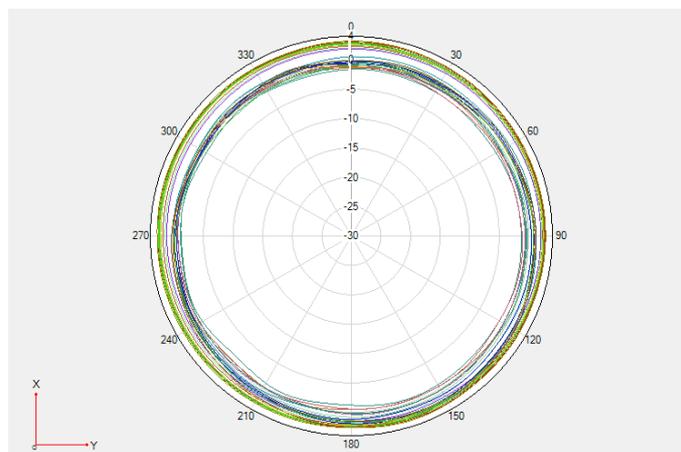
Phi 0 2D



Phi 90 2D



Theta 90 2D



## 5 Product Size

ROHS

