

# Antenna

# YBL01A9BA Datasheet

## Antenna Services

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# About the Document

## Revision History

Version	Date	Author	Note
-	2022-04-02	James Xue/ Jason Long	Creation of the document
1.0	2022-04-02	James Xue/ Jason Long	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 2.4G&5.8G
- High efficiency
- Excellent performance



### 3 Product Specifications

#### Passive Electrical Specifications

Frequency Range	2400–2500 MHz&5150–5850 MHz
Input Impedence	50 Ω
VSWR	≤ 3
Gain	≤ 5.5 dBi
Polarization Type	Linear

#### Detailed Passive Electrical Specifications

Frequency Range (MHz)	2400–2500	5150–5850
VSWR (Max.)	2.54	2.2
Average Efficiency (%)	67.6	71.9
Max. Peak Gain (dBi)	2.84	5.31

#### Mechanical Specifications

Antenna Size(mm)	33.3×16.3
Casing	PCB
Connector Type	RF 1
Working Temperature	-40 °C to +80 °C
Radome Color	Green
Mounting Type	Adhesive
Weight	1.7 g

## 4 Overall Performance

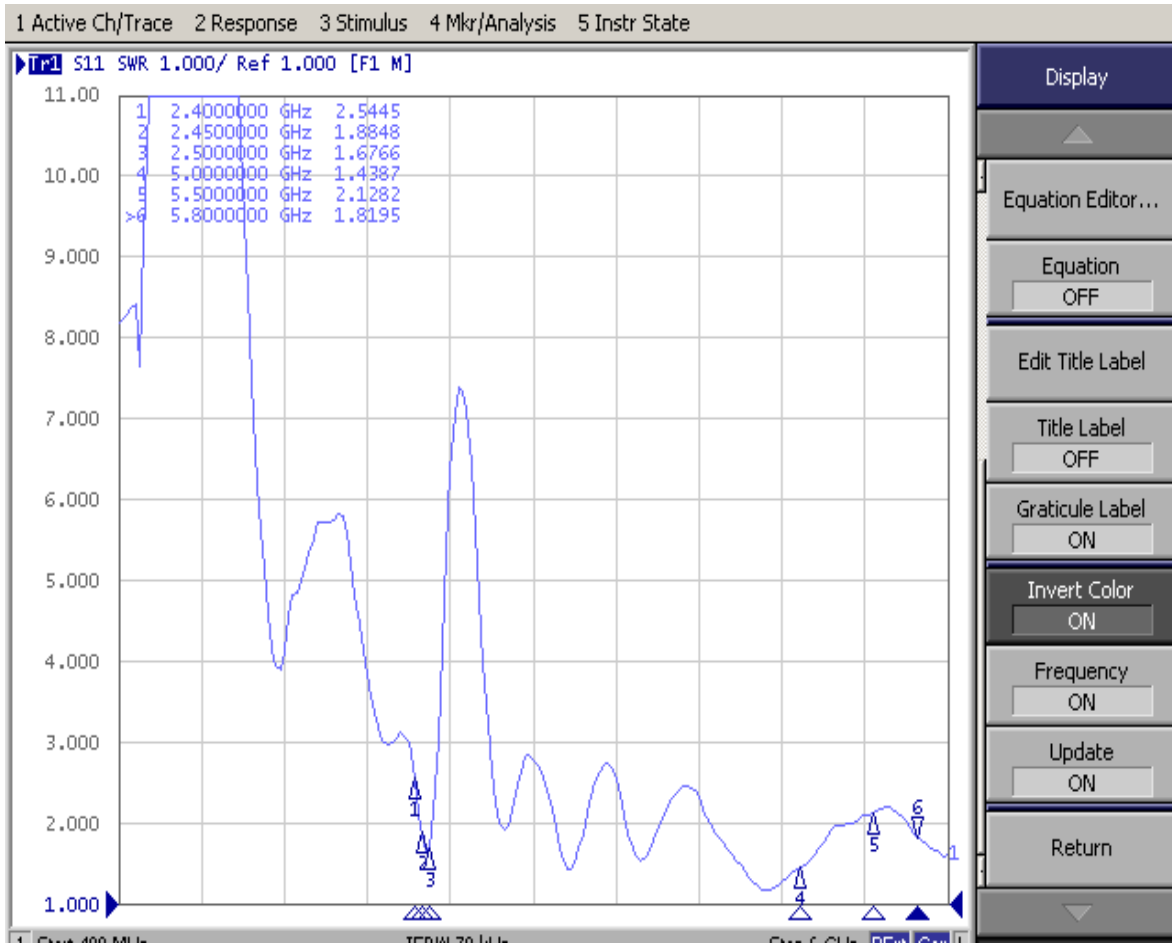
### 4.1. Test Environment

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



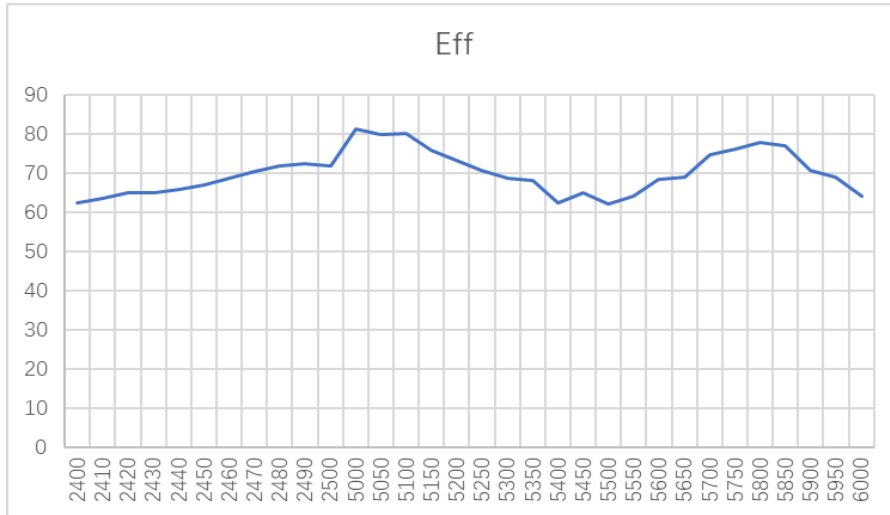


## 4.2. VSWR



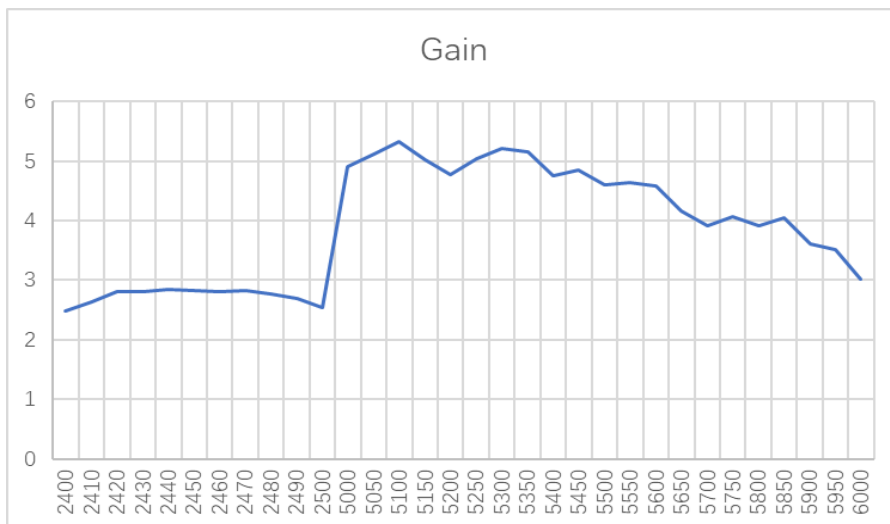
Frequency (MHz)	2400	2500	5000	5850
VSWR	2.54	1.67	1.43	1.81

### 4.3. Efficiency



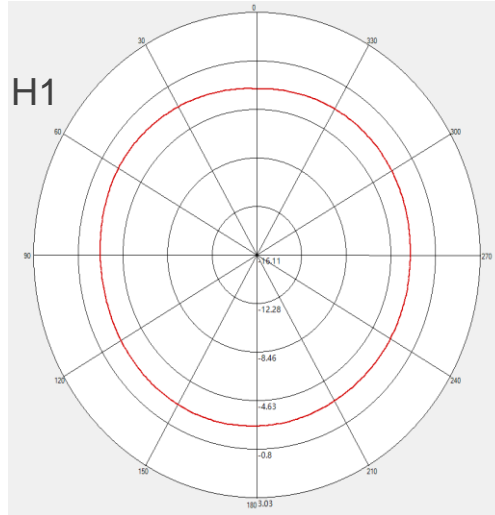
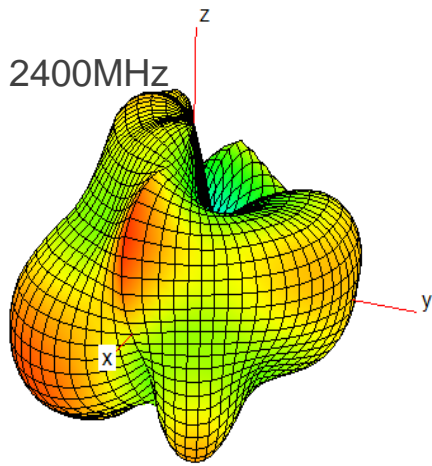
<b>Frequency (MHz)</b>	2400	2500	5000	5850
<b>Efficiency (%)</b>	62.4	71.9	81.3	76.9

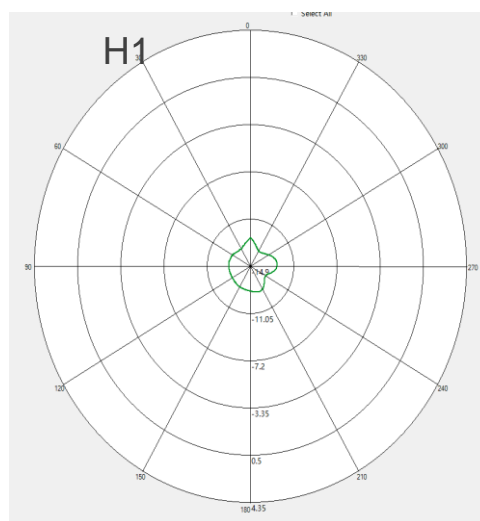
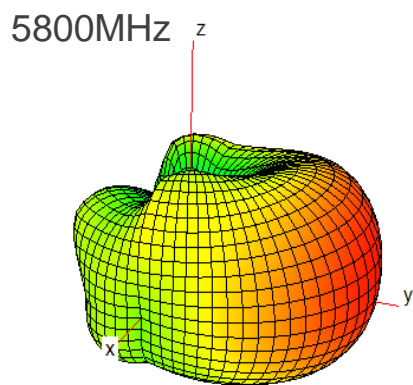
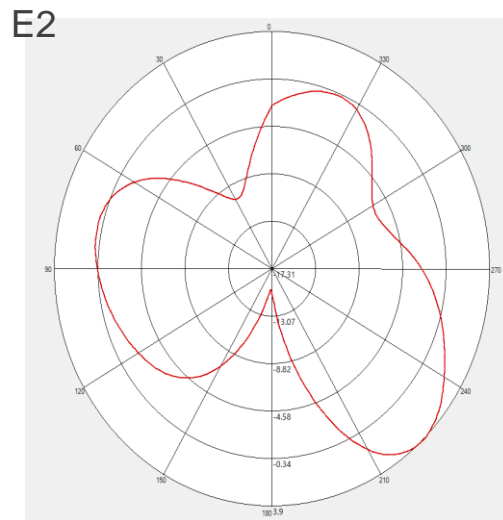
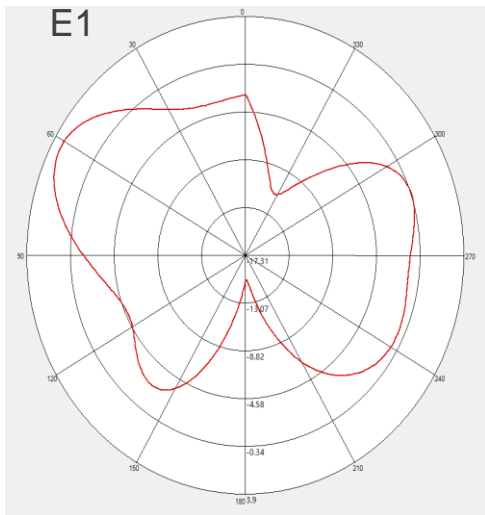
### 4.4. Gain

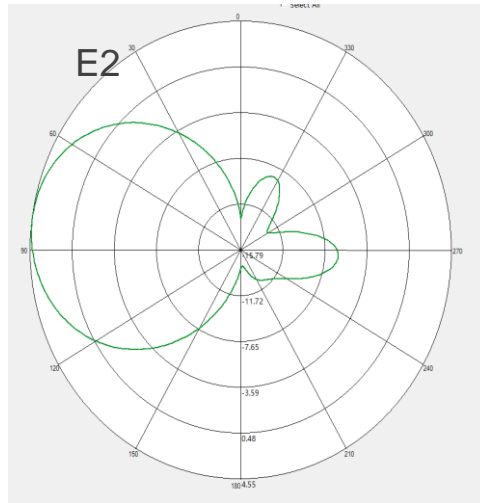
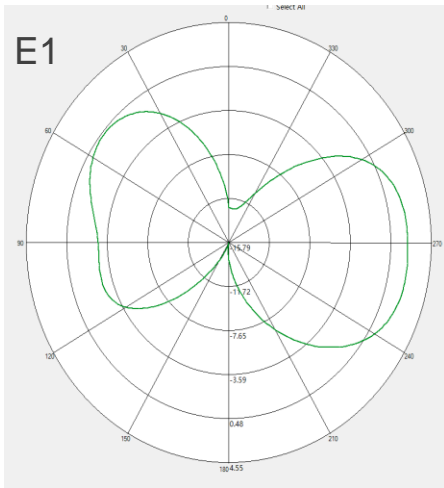


<b>Frequency (MHz)</b>	2400	2500	5000	5850
<b>Gain (dBi)</b>	2.48	2.54	4.89	4.04

### 4.5. Radiation Pattern







## 5 Product Size

ROHS

