

# Antenna Datasheet

**Product OC:** Y0CCA0CA0AA\_X8

**Version:** 1.0

**Date:** 2025-06-26

**Product Name:** FPC WIFI Antenna

**Key Features:**

Frequency Band: 2400–2500 MHz, 5150–5850 MHz

Dimensions: 29.33 mm × 14.99 mm × 0.22 mm

Efficiency: Up to 48 %

RoHS Compliant

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# 1 Specification

**Test Condition: Assembled in test device**

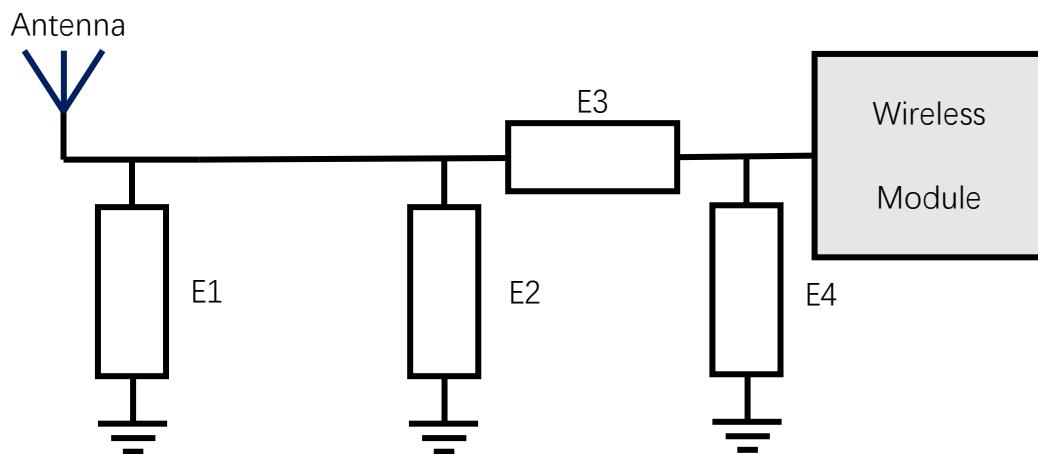
## 1.1. Electrical

<b>Electrical</b>	
<b>Frequency Range</b>	2400–2500 MHz, 5150–5850 MHz
<b>Impedance</b>	50 Ω
<b>Polarization</b>	Linear
<b>Radiation Pattern</b>	Omni-directional
<b>VSWR</b>	≤ 5.7
<b>Peak Gain</b>	1.4 dBi

## 1.2. Mechanical & Environmental

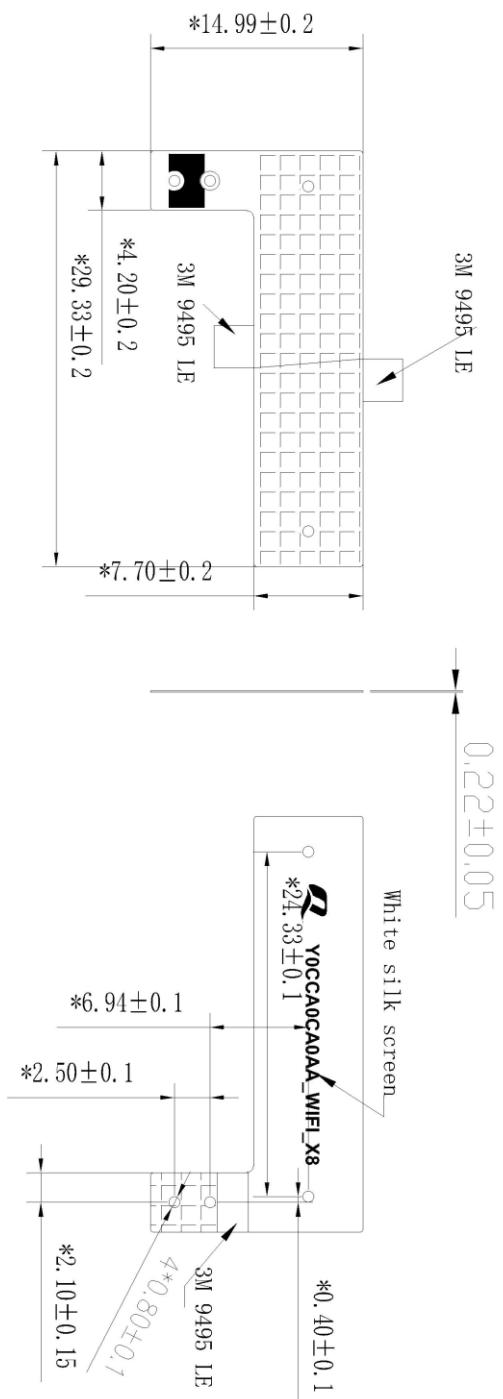
<b>Mechanical</b>	
<b>Antenna Dimensions</b>	29.33 mm × 14.99 mm × 0.22 mm
<b>Material &amp; Color</b>	FPC & Black
<b>Mounting Type</b>	Adhesive
<b>Weight</b>	/
<b>Environmental</b>	
<b>Operation Temperature</b>	-40 °C to +85 °C
<b>Storage Temperature</b>	-40 °C to +85 °C
<b>RoHS Compliant</b>	Yes

### 1.3. Matching Circuit



	E1	E2	E3	E4
<b>Default Matching</b>	DNI	DNI	0 Ω	DNI
<b>Tolerance</b>	N/A	N/A	N/A	N/A

## 2 Drawing



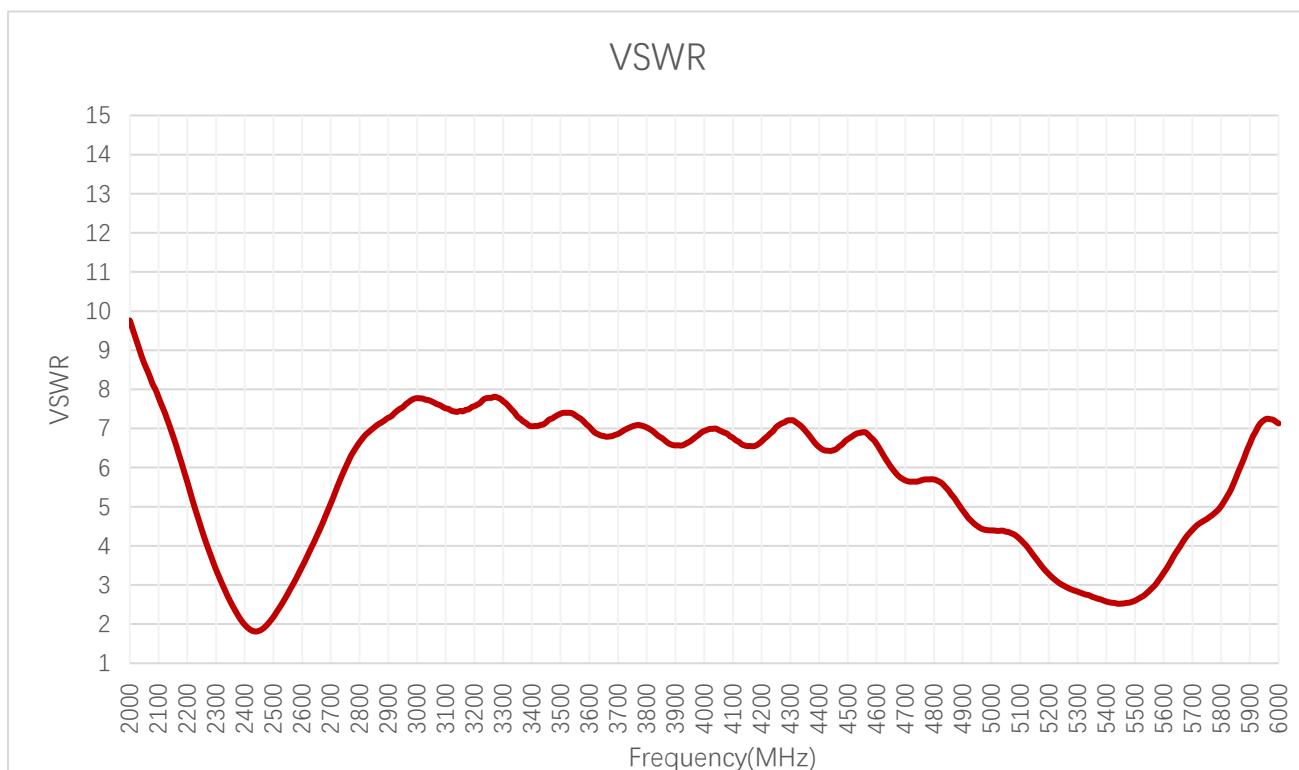
# 3 Detailed Performance

- Manufacturer: Quectel Wireless Solutions (Changzhou) Co., Ltd.

Address: No.8 Nanhу West Road, Wujin District, Changzhou City, Jiangsu Province, China

## 3.1. S-Parameter Test

### 3.1.1. VSWR

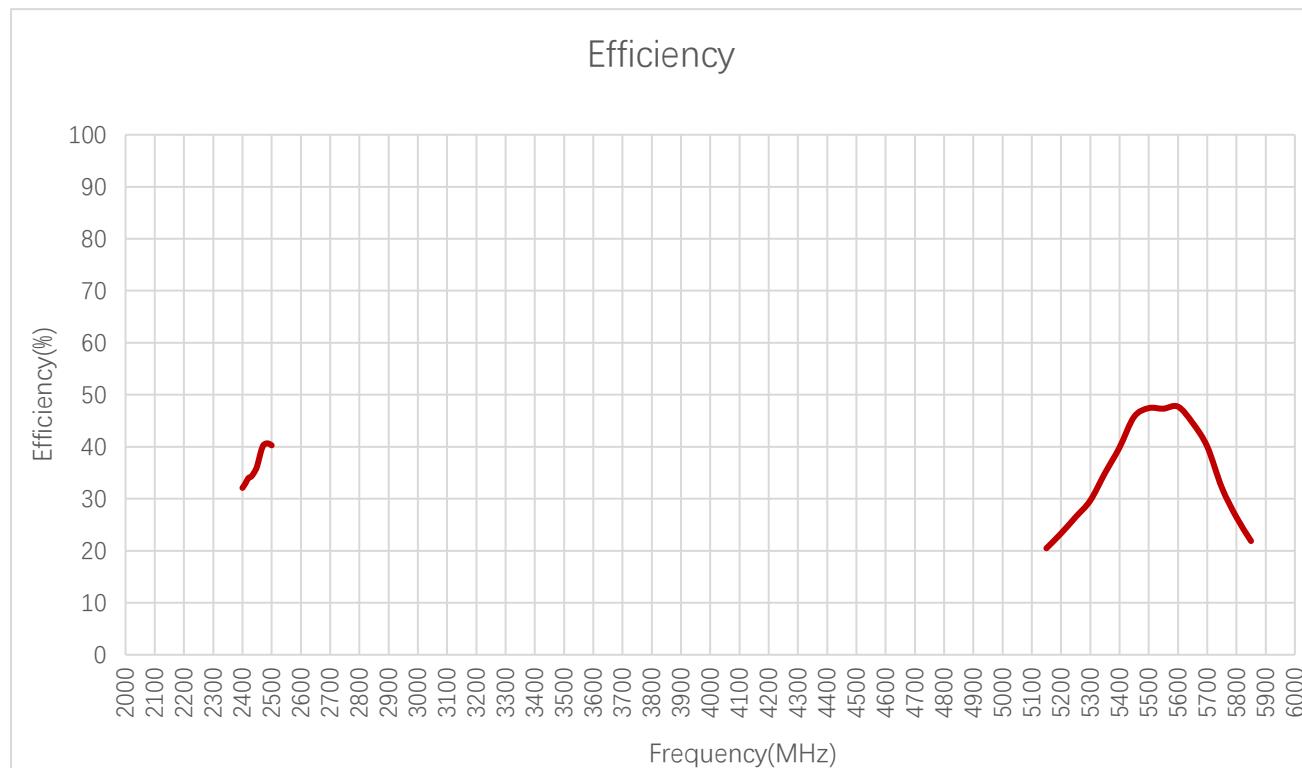


VSWR

Frequency (MHz)	2400	2450	2500	5150	5250	5300	5350	5500	5850	
VSWR	2.0	1.8	2.2	3.7	3.0	2.8	2.7	2.6	5.7	-

## 3.2. Radiation Performance Test

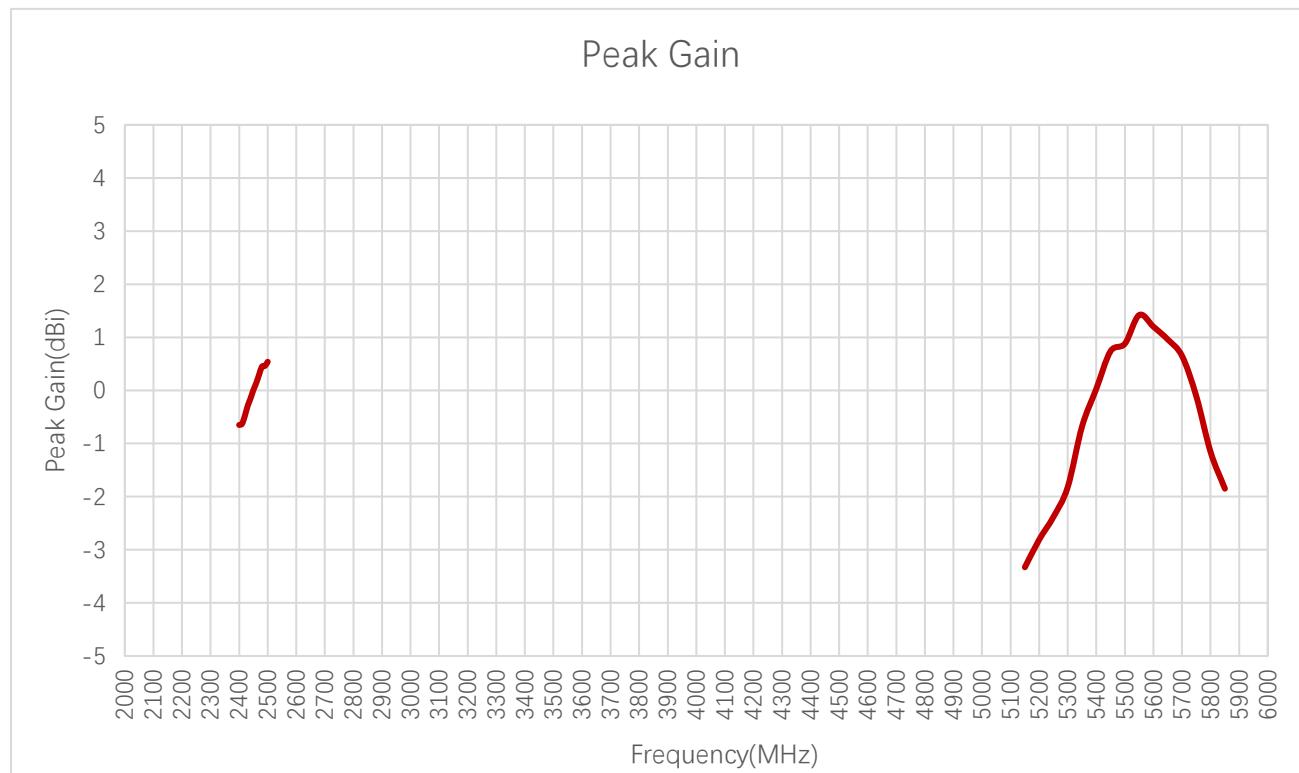
### 3.2.1. Efficiency



Efficiency (%)

Frequency (MHz)	2400	2450	2500	5150	5250	5300	5350	5500	5850	
Efficiency (%)	32.1	36.2	40.3	20.5	26.5	29.7	34.9	47.4	21.9	-

### 3.2.2. Peak Gain

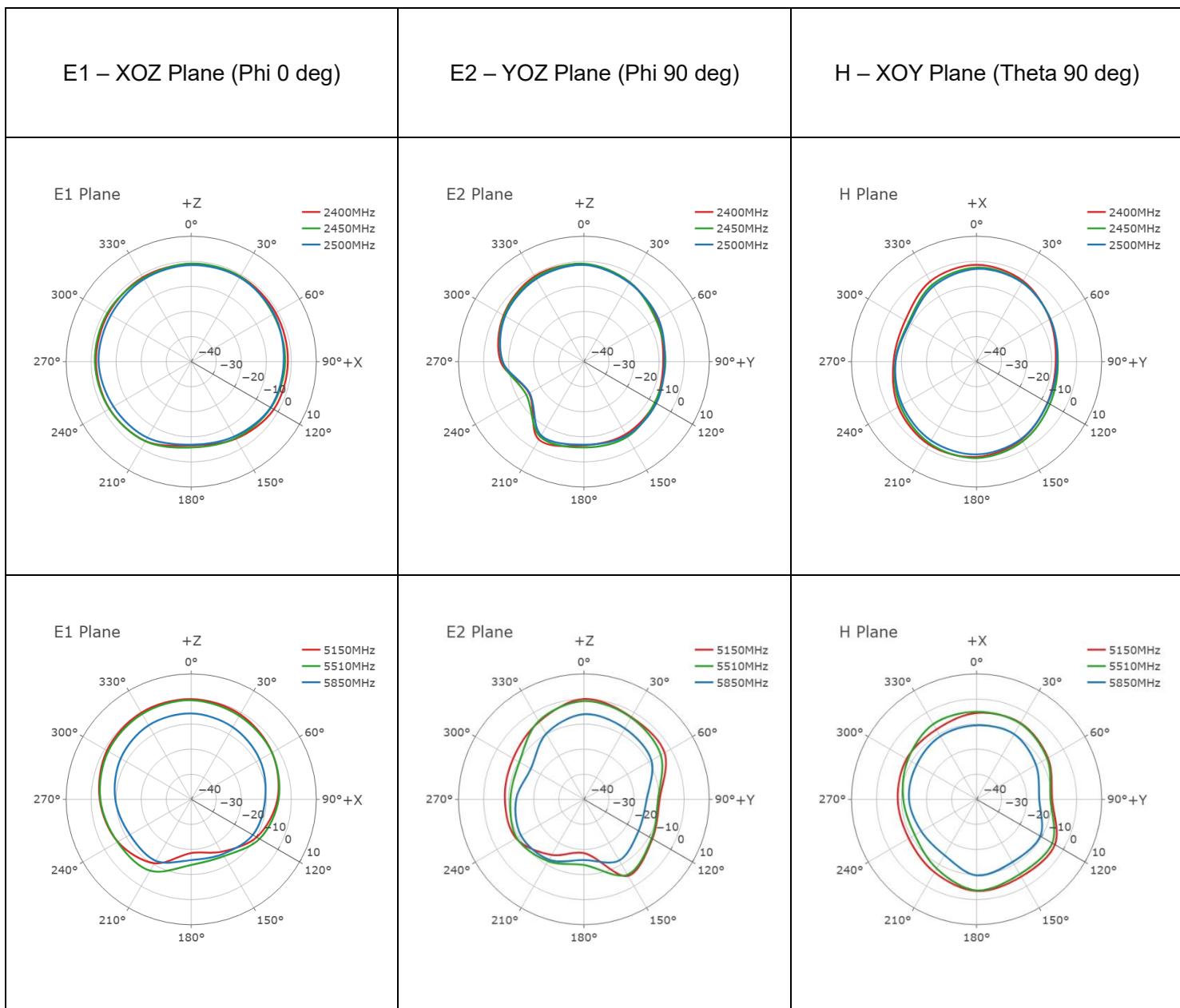


Peak Gain (dBi)

Frequency (MHz)	2400	2450	2500	5150	5250	5300	5350	5500	5850	
Peak Gain (dBi)	-0.7	0.0	0.5	-3.3	-2.4	-1.8	-0.7	0.9	-1.9	-

### 3.2.3. 2D Radiation Pattern

- Test Condition: Assembled in test device
- Test Chamber: HF-G-1



# Contact Us

**At Quectel, our aim is to provide timely and comprehensive services to our customers. If you require any assistance, please contact our headquarters:**

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# Revision History

Version	Date	Author	Note
-	2025-06-26	Edison LIU/ Joye WANG/ Aria CHU	Creation of the document
1.0	2025-06-26	Edison LIU/ Joye WANG/ Aria CHU	First official release



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