

Antenna Datasheet

Product OC: Y0CCA0CA0BA_X11

Version: 1.0

Date: 2025-06-20

Product Name: FPC ESL Antenna

Key Features:

Frequency Band: 2400–2500 MHz

Dimensions: 28.43 mm × 16.31 mm × 0.22 mm

Efficiency: Up to 29 %

RoHS Compliant

Note: Increase the antenna area and debug the matching

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1 Specification

Test Condition: Assembled in test device

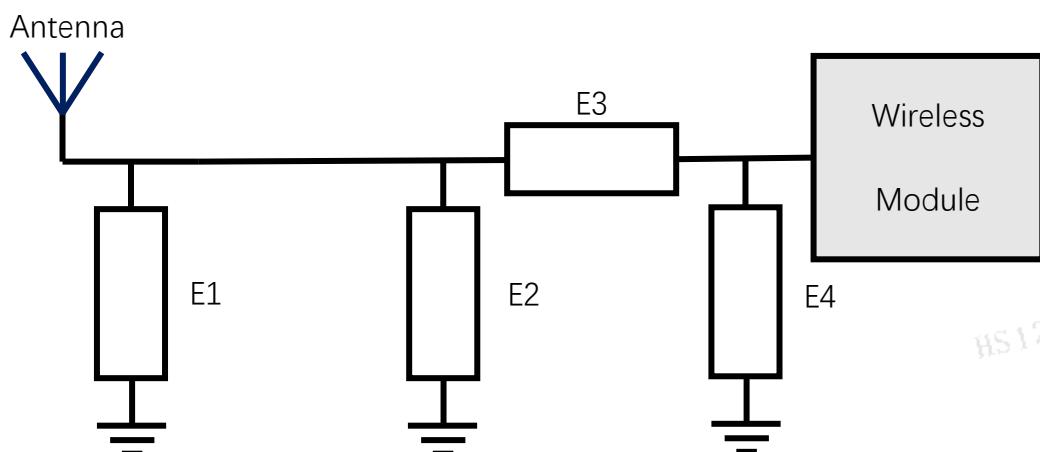
1.1. Electrical

Electrical	
Frequency Range	2400–2500 MHz
Impedance	50 Ω
Polarization	Linear
Radiation Pattern	Omni-directional
VSWR	≤ 1.8
Peak Gain	-1.1 dBi

1.2. Mechanical & Environmental

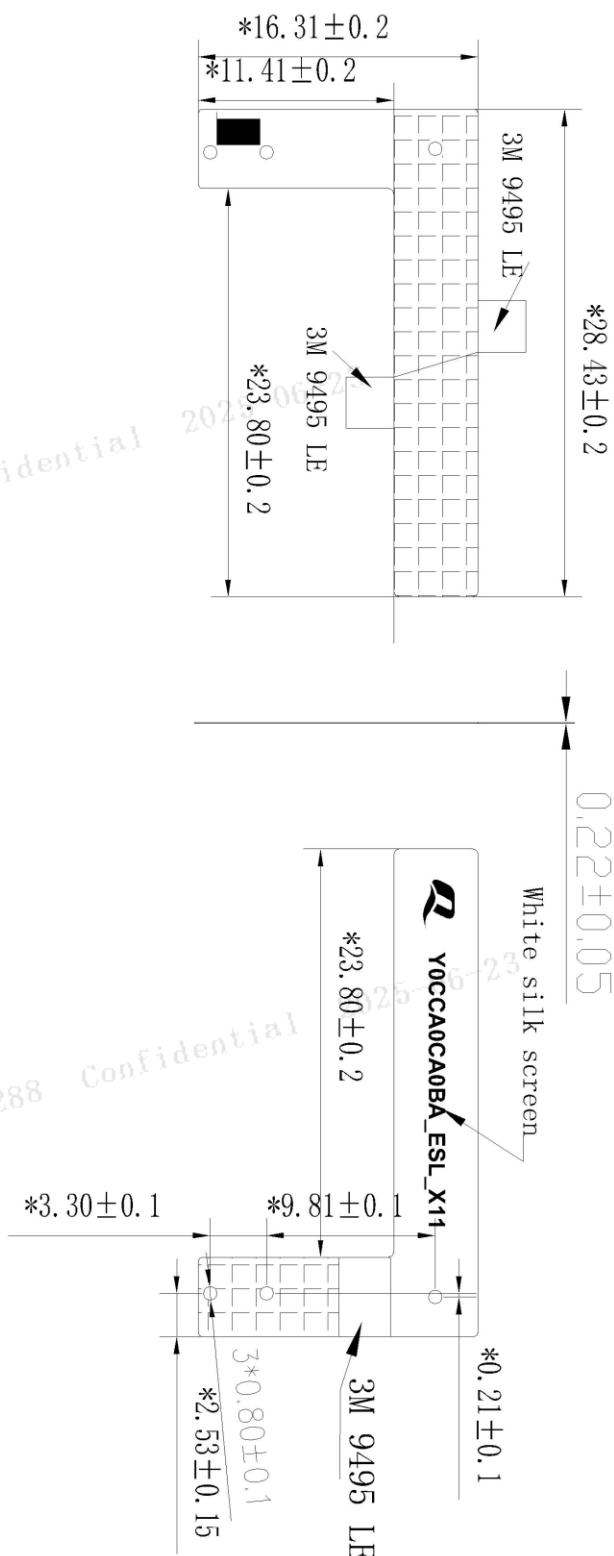
Mechanical	
Antenna Dimensions	28.43 mm × 16.31 mm × 0.22 mm
Material & Color	FPC & Black
Mounting Type	Adhesive
Weight	/
Environmental	
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C
RoHS Compliant	Yes

1.3. Matching Circuit



	E1	E2	E3	E4
Default Matching	6.2nH	DNI	0 Ω	DNI
Tolerance	±5 %	N/A	N/A	N/A

2 Drawing



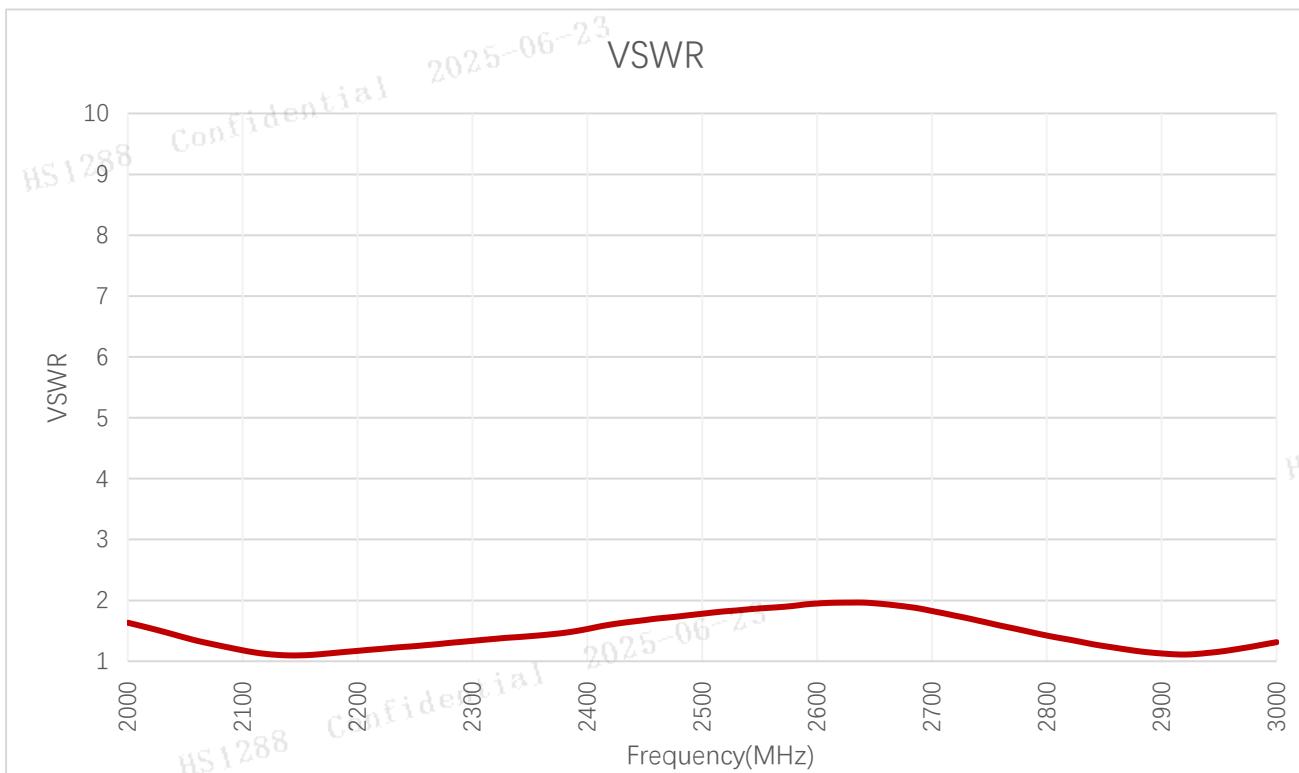
3 Detailed Performance

- 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

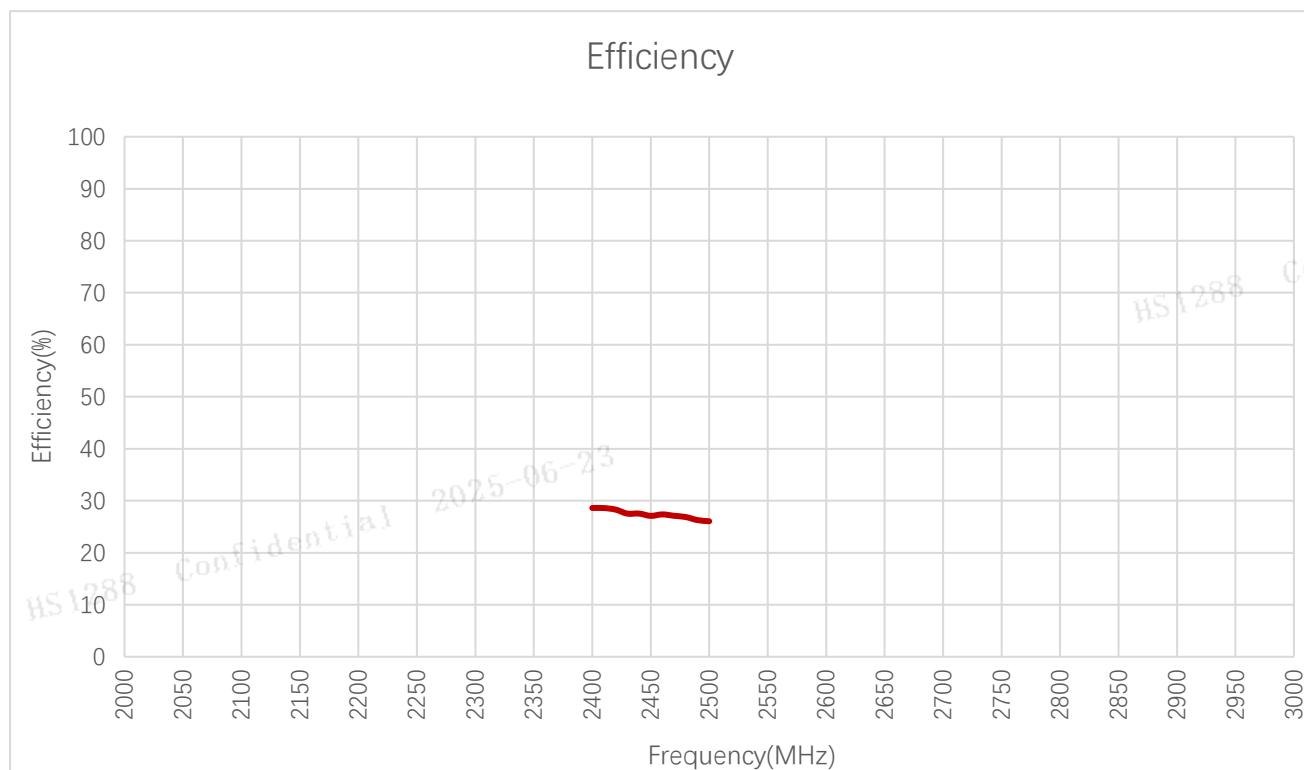


VSWR

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
VSWR	1.5	1.7	1.8	-	-	-	-	-	-	-

3.2. Radiation Performance Test

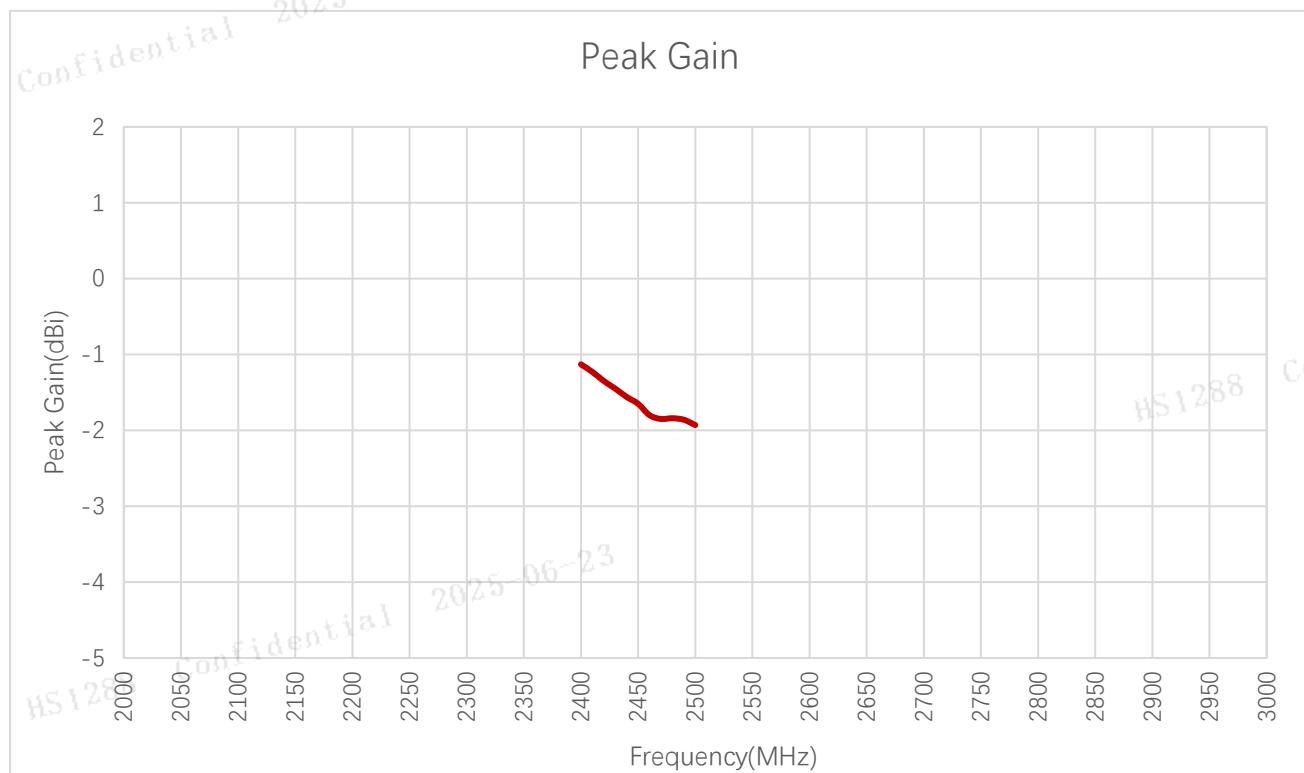
3.2.1. Efficiency



Efficiency (%)

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
Efficiency (%)	28.6	27.1	26.1	-	-	-	-	-	-	-

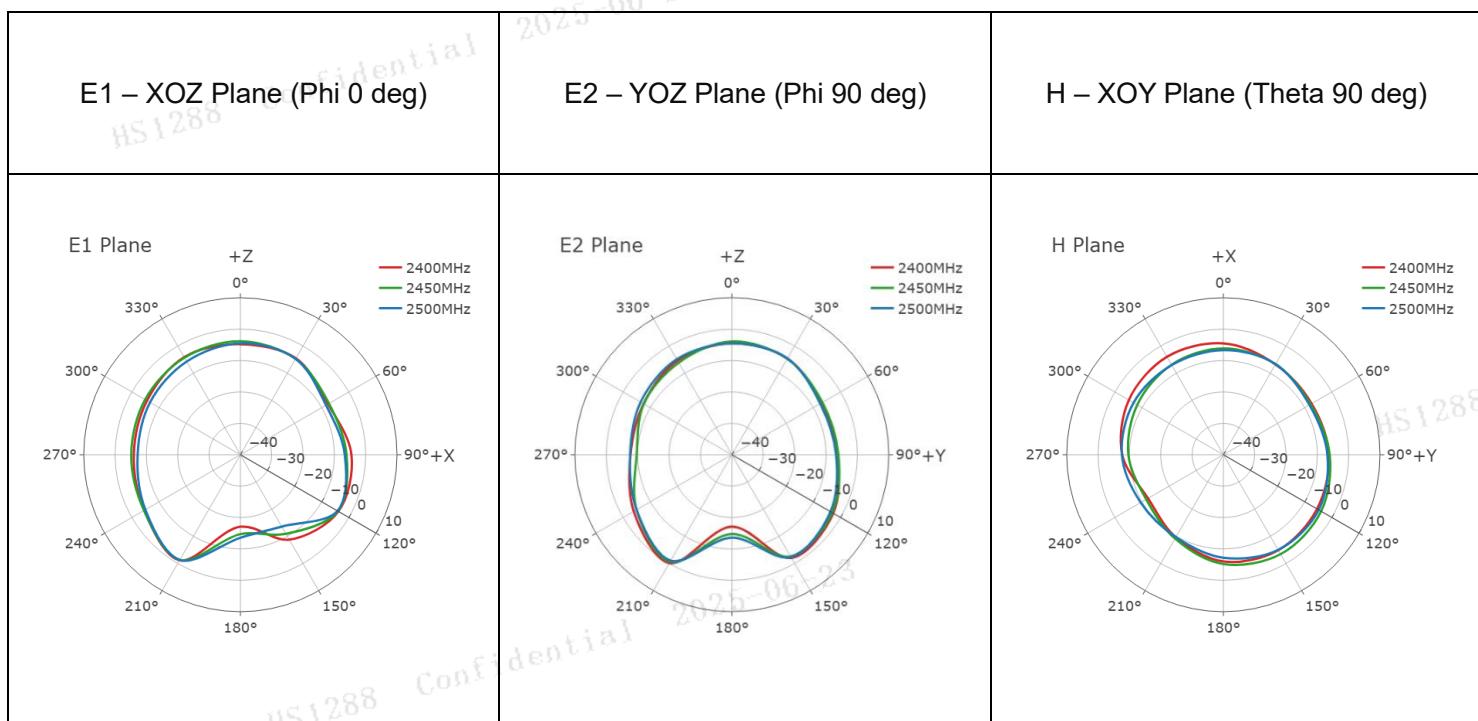
3.2.2. Peak Gain



Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
Peak Gain (dBi)	-1.1	-1.7	-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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Or our local offices. For more information, please visit:

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Revision History

Version	Date	Author	Note
-	2025-06-20	Edison LIU/ Joye WANG/ Aria CHU	Creation of the document
1.0	2025-06-20	Edison LIU/ Joye WANG/ Aria CHU	First official release

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