



Antenna Datasheet

Product OC: YEVT001W7AM

Version: 1.0

Date: 2025-05-26

Status: Released

Product Name: V2X Terminal Mount Fiberglass Array External Antenna

Key Features:

Frequency Band: 5850–5925 MHz

Dimensions: Φ 25.5 mm \times 600 mm

Efficiency: Up to 65 %

RoHS and REACH Compliant

IP Rating: IP67

Overview

The YEVT001W7AM is a V2X fiberglass antenna measuring Φ 25.5 mm × 600 mm. This ultra-wide-band V2X antenna provides broad coverage from 5850–5925 MHz. The antenna is terminated with N type Male connectors. This low profile, terminal mount omni-directional antenna, ideal for applications where the antenna is required to be discrete, is easy to install with maximum durability assured thanks to its IP67 rated FRP enclosure. It is compatible with Quectel's RM520x Series modules.

The antenna is designed as Array type to work in free space. It is a perfect antenna product for customers that desire highest performance. This omni-directional antenna is ideally suited for microwave communication equipment, communication base station, radio and television system, weather radar, offering great performance with its high gain and efficiency.

Typical applications include:

- Microwave Communication Equipment
- Communication Base Station
- Radio and Television System
- Weather Radar

Quectel provides comprehensive antenna design support such as simulation, testing and manufacturing for custom antenna solutions to meet your specific application needs. We have regional R & D centers to offer quick response to meet your requirements. Please contact our sales & FAEs if you have any requests.

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1 Specification

Test Condition: Free Space

1.1. Electrical

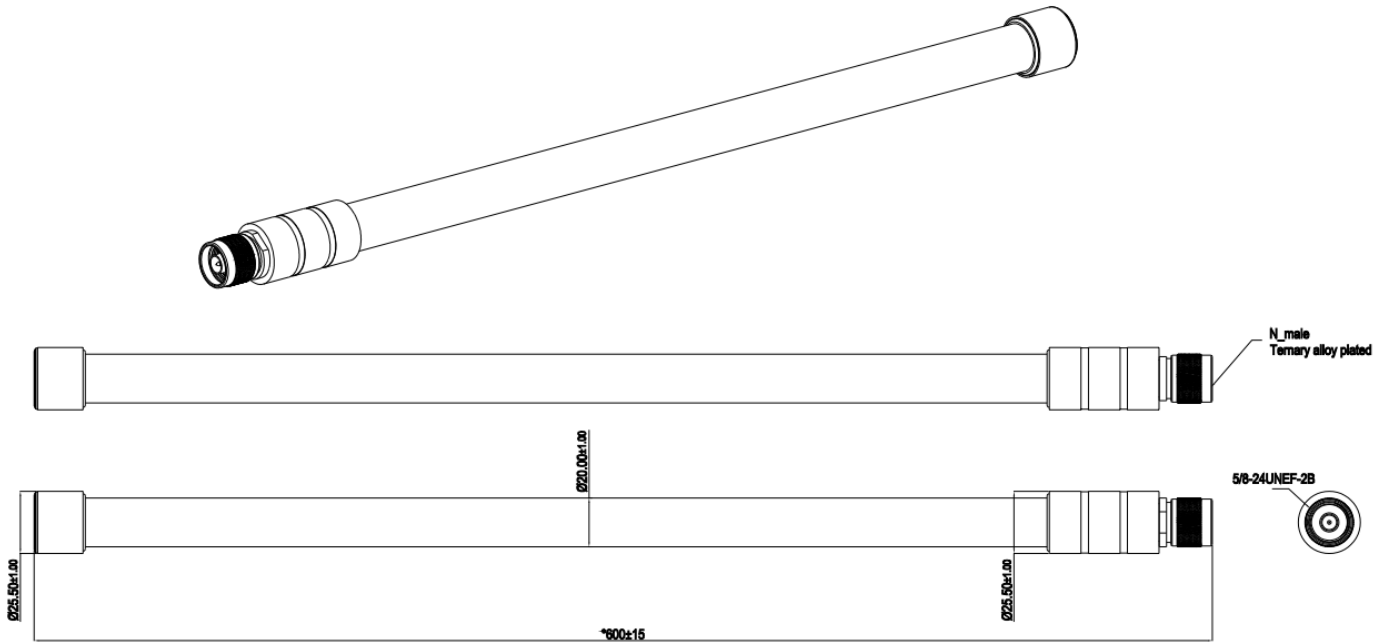
Electrical	
Frequency Range	5850–5925 MHz
Impedance	50 Ω
Polarization	Linear
Radiation Pattern	Omni-directional

SPEC	Band	Band	V2X
		Freq. (MHz)	5850–5925
Max VSWR			1.8
Max Return Loss (dB)			-10.9
AVG Eff. (%)			62
AVG. AVG Gain (dB)			-2.1
Max Peak Gain (dBi)			7.1 (5870)

1.2. Mechanical & Environmental

Mechanical	
Antenna Dimensions	Φ 25.5 mm × 600 mm
Material & Color	FRP & White
Connector Type	N-MALE
Mounting Type	Terminal
Weight	Typ. 220 g
Environmental	
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C
Ingress Protection (IP) Rating	IP67 (After Installation)
RoHS and REACH Compliant	Yes

2 Drawing

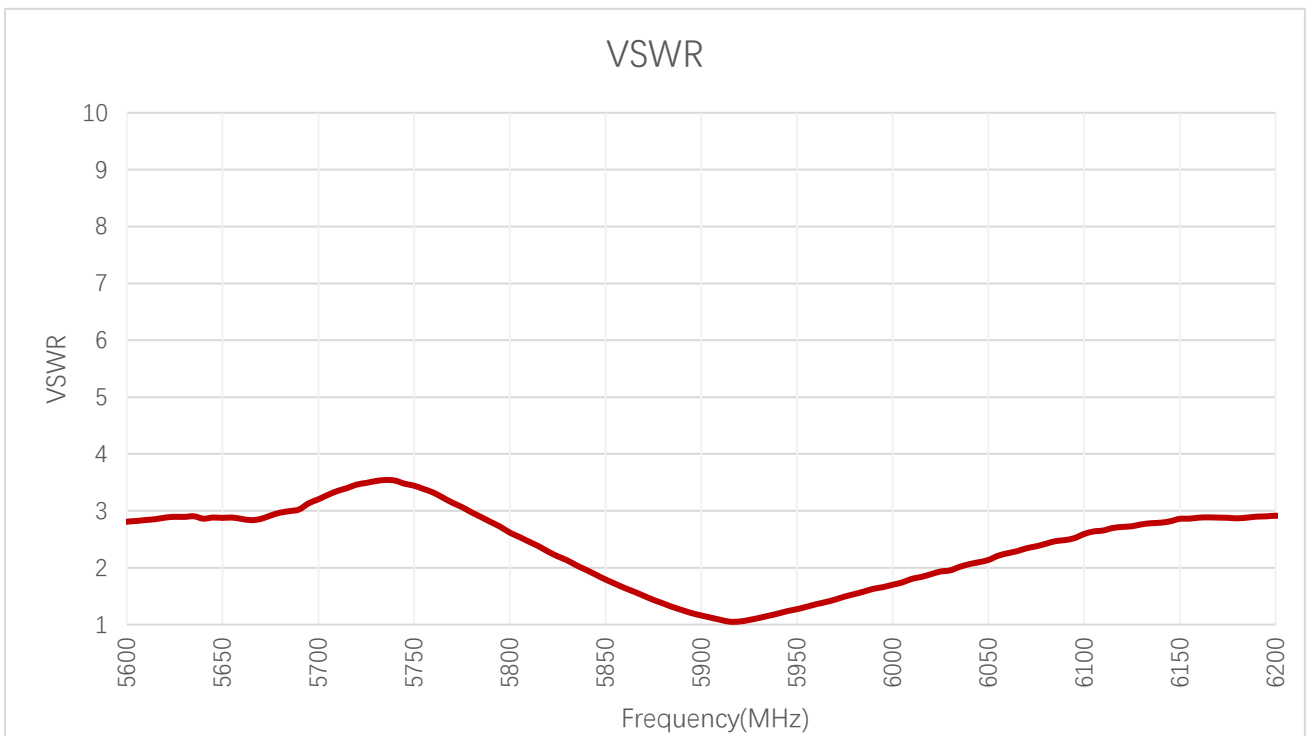


Unit: mm

3 Detailed Performance

3.1. S-Parameter Test

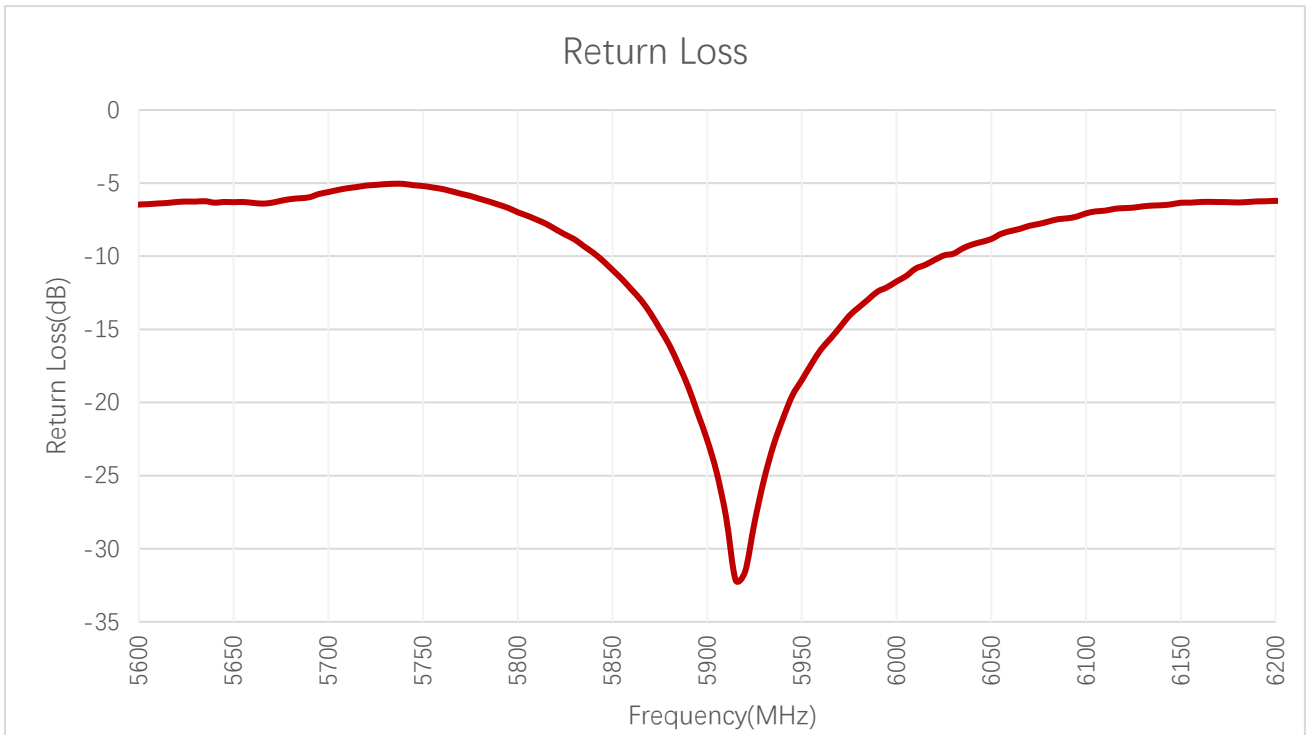
3.1.1. VSWR



VSWR

Frequency (MHz)	5850	5885	5925
VSWR	1.8	1.3	1.1

3.1.2. Return Loss



Return Loss (dB)

Frequency (MHz)	5850	5885	5925
Return Loss (dB)	-10.9	-17.4	-28.2

3.2. Radiation Performance Test

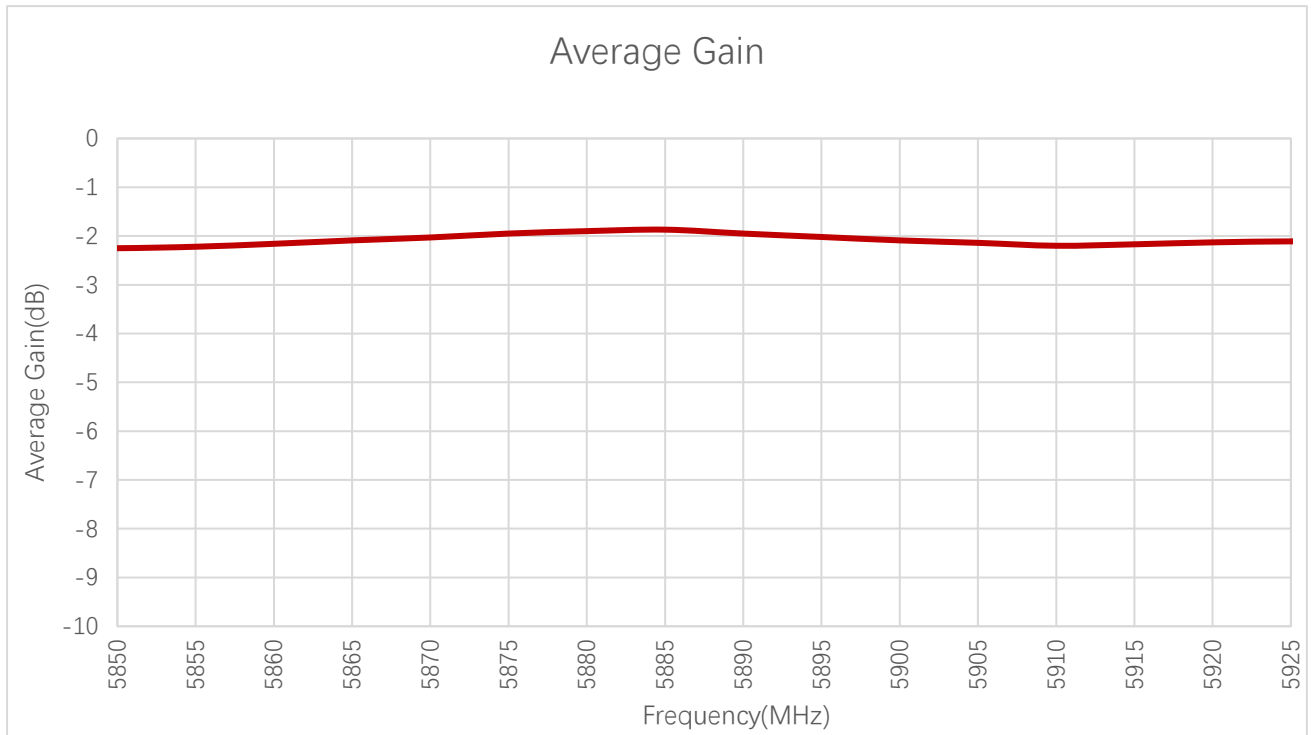
3.2.1. Efficiency



Efficiency (%)

Frequency (MHz)	5850	5885	5925
Efficiency (%)	59.5	65.1	61.6

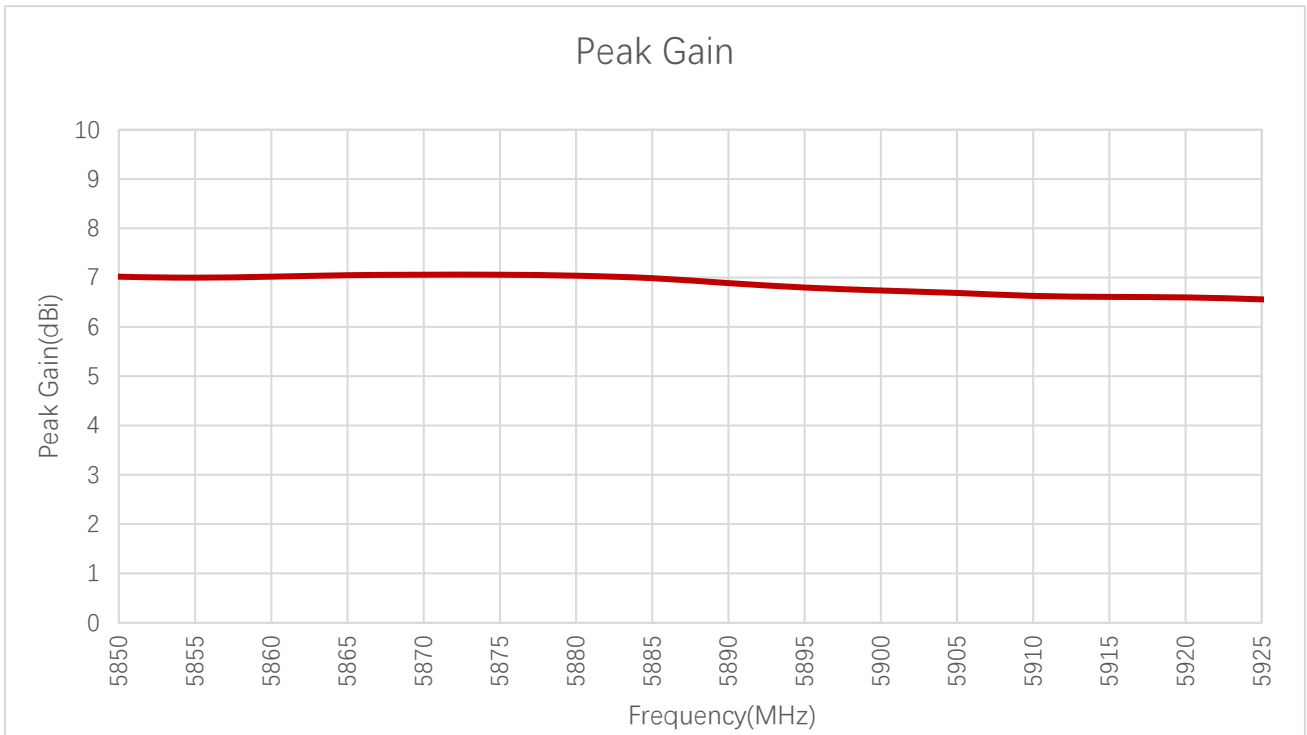
3.2.2. Average Gain



Average Gain (dB)

Frequency (MHz)	5850	5885	5925
Average Gain (dB)	-2.3	-1.9	-2.1

3.2.3. Peak Gain

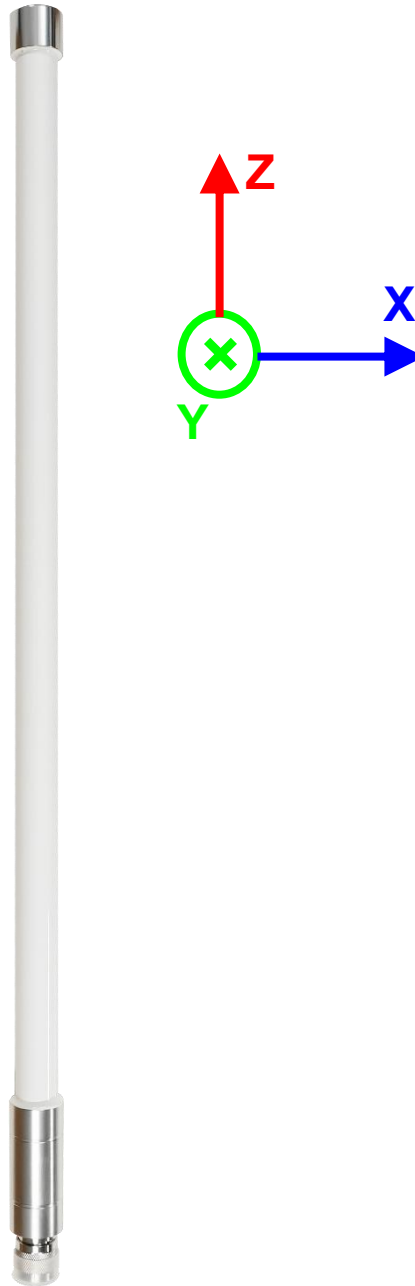


Peak Gain (dBi)

Frequency (MHz)	5850	5885	5925
Peak Gain (dBi)	7.0	7.0	6.6

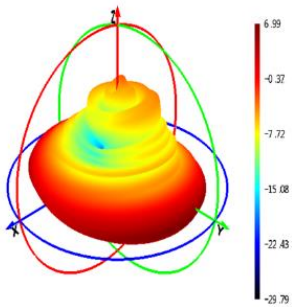
3.2.4. 3D & 2D Radiation Pattern

- Test Condition: Free Space
- Test Chamber: HF-S-1

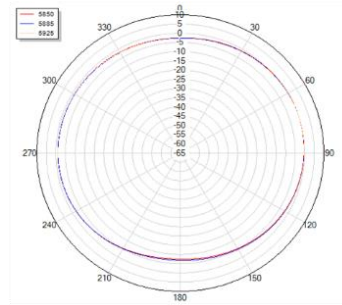


● **V2X**

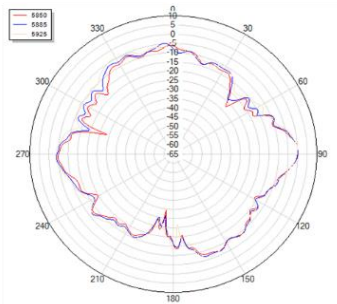
5885 MHz



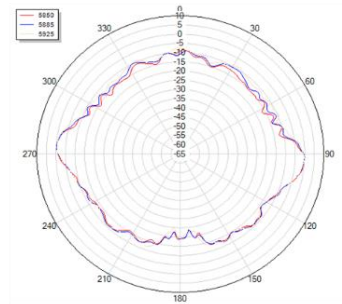
Theta=90



Phi=0

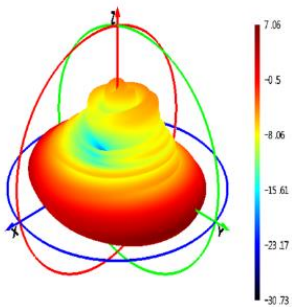


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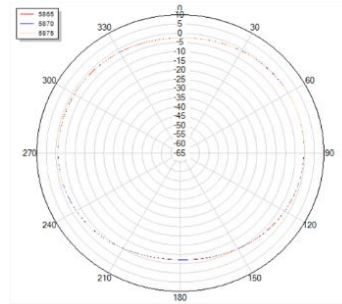


● **Max Peak Gain**

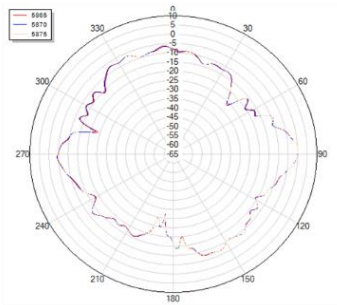
5870 MHz



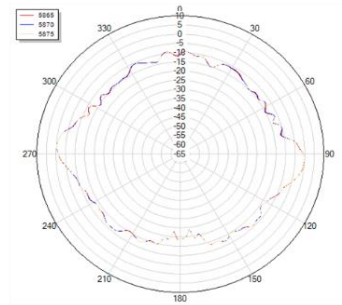
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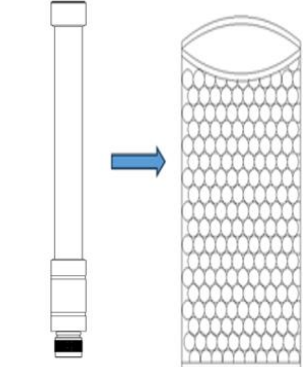
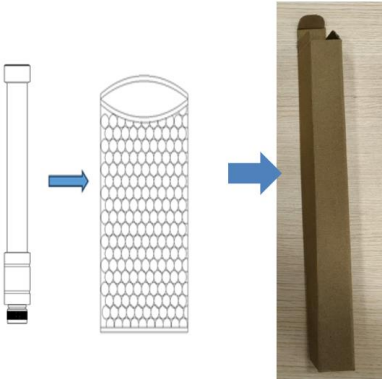

Phi=0

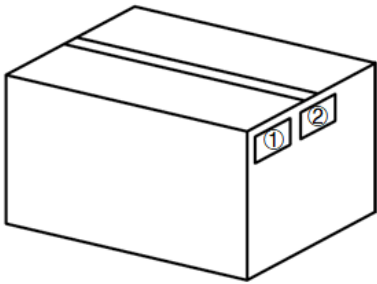
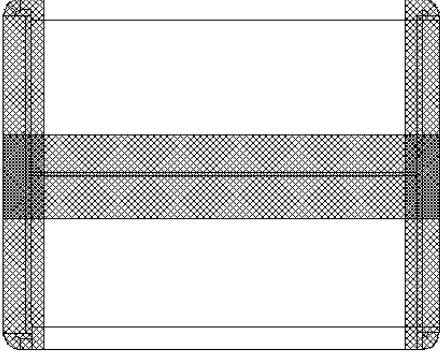


Phi=90



4 Packaging

Step	Packaging picture / 2D picture	Description
1	 <p>The diagram shows a vertical antenna product on the left. A blue arrow points to a bubble bag on the right, which is partially filled with bubbles and has a circular opening at the top.</p>	<p>1 pc antenna product in a bubble bag. (1 PC Antenna / Bubble Bag)</p>
2	 <p>The diagram shows the antenna product on the left, a bubble bag in the middle, and a brown cardboard inner box on the right. Blue arrows indicate the flow from the antenna to the bubble bag, and then from the bubble bag to the inner box.</p>	<p>1 pc antenna product in an inner box. (1 PC Antenna / Inner Box)</p>
3	 <p>The photograph shows the interior of a large cardboard carton box. It is filled with several vertical, rectangular inner boxes, arranged in a row.</p>	<p>20 pcs inner boxes in a carton box. (20 PCS Antennas / Carton Box) Estimated quantity Products that cannot fill the entire carton box are packed in a suitable size carton box. <u>Carton Size:</u> <u>L × W × H = 640 × 480 × 125 mm</u></p>

<p>4</p>		<p>Position for Attaching Labels</p> <ul style="list-style-type: none"> ① Carton Label ② Quality Label
<p>5</p>		<p>Sealing Cartons H-shaped sealing cartons</p>
<p>Note</p>	<p>The initial packaging method described above is for reference only, and the final actual packaging method shall be subject to the actual shipping packaging.</p>	

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
-	2025-05-26	Christopher YAO/ Lance SUN/ Riva REN/ Rainey LIAO	Creation of the document
1.0	2025-05-26	Christopher YAO/ Lance SUN/ Riva REN/ Rainey LIAO	First official release



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