



# Antenna Datasheet

**Product OC:** YEMG496KPAM

**Version:** 1.1

**Date:** 2026-04-22

**Status:** Released

**Product Name:** 5G 4in1 Wall & Pole Mount Combo Directional Antenna

**Key Features:**

Frequency Band: 617–4200 MHz

Dimensions: 590 mm × 419 mm × 143 mm

RoHS and REACH Compliant

# Overview

The Quectel YEMG496KPAM is a versatile 4 × 4 MIMO directional antenna designed to deliver robust performance across an exceptionally wide frequency range from 617 MHz to 4200 MHz. This comprehensive coverage supports a multitude of wireless technologies, including LTE, 5G, IoT, and public safety bands, making it an ideal solution for applications requiring reliable, high-capacity connectivity. With its compact form factor (590 mm × 419 mm × 143 mm), the antenna is perfectly suited for both wall and pole mounting in space-constrained environments.

Engineered for high-efficiency MIMO operation, the antenna features  $\pm 45^\circ$  polarization and maintains a stable average gain of 7.3 to 8.2 dBi across all supported bands. Its directional beam pattern, with horizontal beamwidths from  $58^\circ$  to  $82^\circ$ , provides focused coverage, while key electrical specifications such as strong port isolation (22 dB) and excellent PIM performance (-153 dBc) ensure high signal integrity and minimal interference. The robust grey UPVC housing ensures durability for both indoor and outdoor use, with an operational temperature range of -30 °C to +60 °C. As a RoHS and REACH compliant solution from Quectel, the YEMG496KPAM offers the flexibility, performance, and reliability needed for modern multi-band, high-data-rate wireless deployments.

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

## 1.1. Electrical

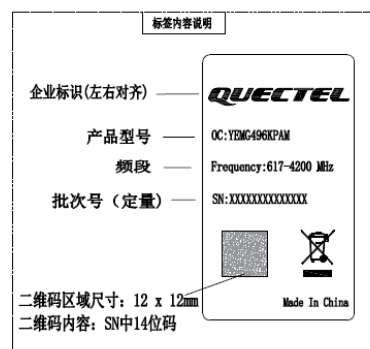
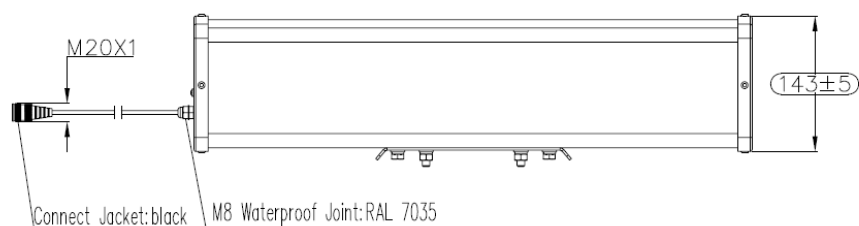
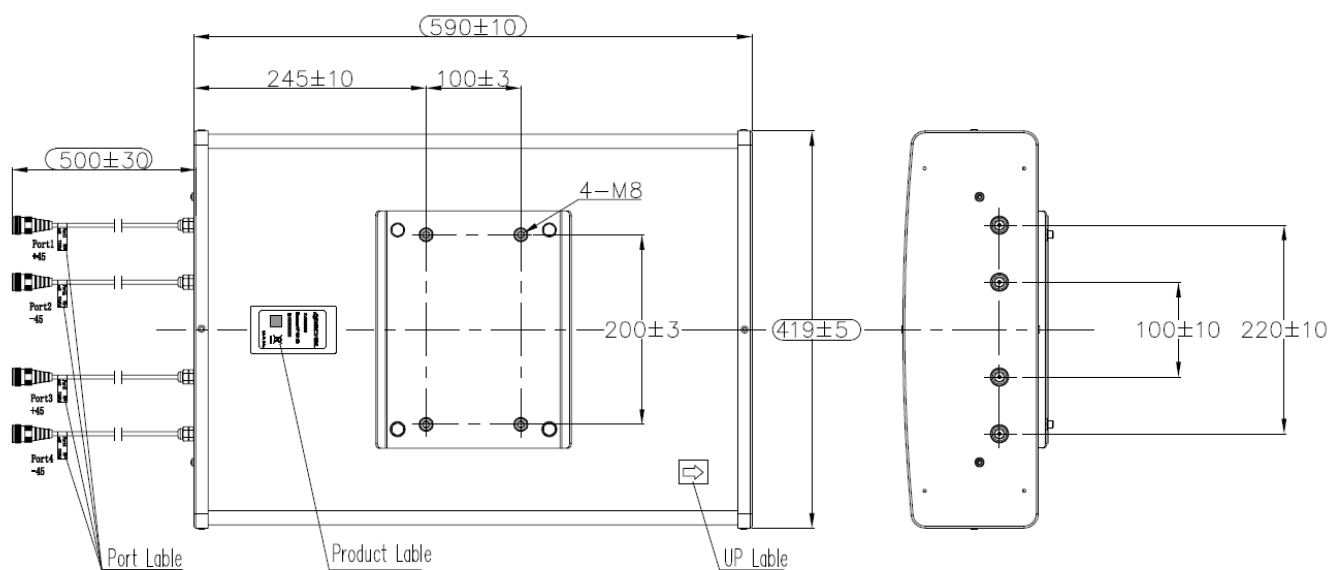
| Electrical                     |                                        |         |           |           |           |
|--------------------------------|----------------------------------------|---------|-----------|-----------|-----------|
| Frequency Band (MHz)           | 617–800                                | 800–960 | 1695–2180 | 2181–2700 | 3300–4200 |
| Horizontal beamwidth (degrees) | 82                                     | 76      | 65        | 60        | 58        |
| Vertical beamwidth (degrees)   | 78                                     | 68      | 56        | 51        | 50        |
| Gain, Ave. (dBi)               | 7.3                                    | 7.5     | 7.6       | 8.2       | 7.3       |
| Isolation (dB)                 | 22                                     |         |           |           |           |
| F/B Ratio (dB)                 | 20                                     |         | 16        |           | 15        |
| VSWR                           | 1.5 (typical) / 1.7 (worst case)       |         |           |           |           |
| Maxim Input Power (W)          | 200                                    |         | 150       |           | 100       |
| 3rdPIM, @ 2*20 W (dBc)         | -153, tested at 900, 1800 and 3500 MHz |         |           |           |           |
| Impedance (Ω)                  | 50                                     |         |           |           |           |
| Polarization                   | ± 45°                                  |         |           |           |           |

## 1.2. Mechanical & Environmental

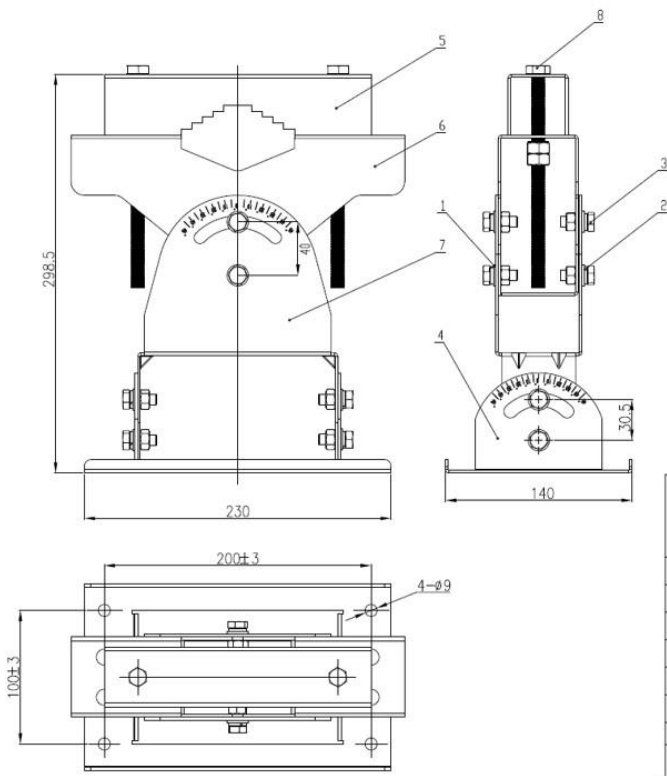
| Mechanical                     |                          |
|--------------------------------|--------------------------|
| Antenna Dimensions             | 590 mm × 419 mm × 143 mm |
| Material & Color               | UPVC & Grey              |
| Connector Type                 | 4.3-10 (f)               |
| Maximum Wind-loading           | 216 km/h                 |
| Net weight                     | 6 kg                     |
| Mounting Type                  | Wall / Pole mount        |
| Environmental                  |                          |
| Operation Temperature          | -30 °C to +60 °C         |
| Storage Temperature            | -30 °C to +60 °C         |
| Ingress Protection (IP) Rating | Indoor and Outdoor       |
| RoHS & REACH Compliant         | Yes                      |

## 2 Drawing

### Finished product drawings



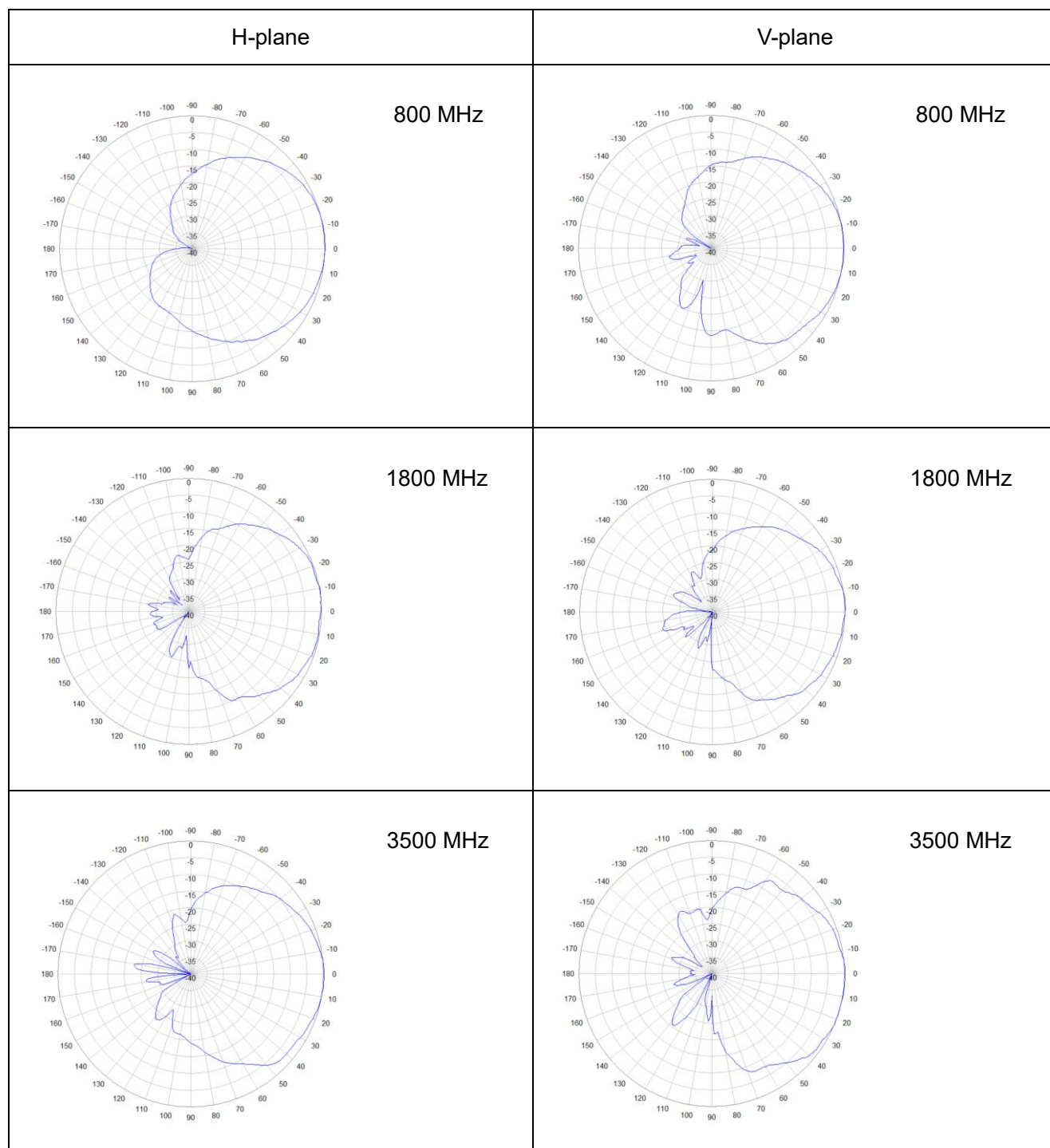
Bracket drawings



|    |            |                  |    |     |    |
|----|------------|------------------|----|-----|----|
| 8  | J-WJLS0007 | M10X160-Bolt     | 2  | 304 |    |
|    | J-WJPD0007 | M10-Washer       | 2  | 304 |    |
|    | J-WJLM0007 | M10 Nut          | 4  | 304 |    |
| 7  | J-BJZJ0040 | Bracket-2        | 1  | 304 |    |
| 6  | J-BJZJ0041 | Bracket-3        | 1  | 304 |    |
| 5  | J-BJZJ0042 | Bracket-4        | 1  | 304 |    |
| 4  | J-BJZJ0039 | Bracket-1        | 1  | 304 |    |
| 3  | J-WJLS0006 | M8X20 Bolt       | 8  | 304 |    |
| 2  | J-WJTD0003 | M8 Spring Washer | 8  | 304 |    |
| 1  | J-WJPD0003 | M8 Washer        | 8  | 304 |    |
| 序号 | 代号         | 名称               | 数量 | 材料  | 备注 |

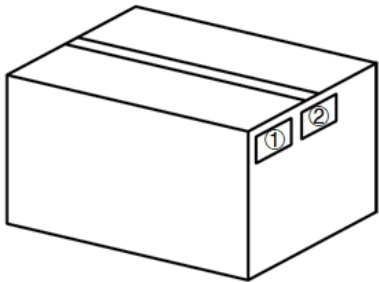
# 3 Detailed Performance

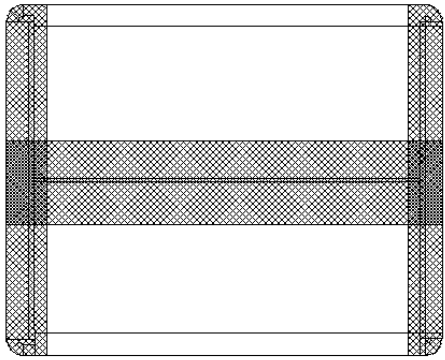
## 2D Radiation Pattern





## 4 Packaging

| Step | Packaging Picture / 2D Picture                                                      | Description                                                                                                                                                                                                                                                            |
|------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    |    | Product drawing                                                                                                                                                                                                                                                        |
| 2    |   | <p>Use foam to protect antenna products.<br/>(1 Antenna / Carton Box)</p> <p>Estimated quantity<br/>Products that cannot fill the entire carton box are packed in a suitable size carton box.</p> <p><u>Carton Size:</u><br/><u>L × W × H = 885 × 480 × 240 mm</u></p> |
| 3    |  | <p><b>Position for Attaching Labels</b></p> <p>① Carton Label<br/>② Quality Label</p>                                                                                                                                                                                  |

|      |                                                                                                                                                                     |                                                            |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| 4    |                                                                                    | <p><b>Sealing Cartons</b><br/>H-shaped sealing cartons</p> |
| Note | <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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## Revision History

| Version | Date       | Author                                             | Note                             |
|---------|------------|----------------------------------------------------|----------------------------------|
| -       | 2026-01-15 | Ryder Zhang/<br>Mike Guo/<br>Riva Ren/<br>Aria Chu | Creation of the document         |
| 1.0     | 2026-01-15 | Ryder Zhang/<br>Mike Guo/<br>Riva Ren/<br>Aria Chu | First official release           |
| 1.1     | 2026-04-22 | Mike Guo                                           | Updated the drawing (Chapter 2). |



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