# Waterproof 4G Wireless Router

## USR-AP510

## Introduction

The AP510 is a high-speed waterproof 4G wireless router featuring global cellular band. It supports dual Ethernet ports (including standard 48V PoE IN), Qualcomm WiFi (AP/STA/Bridge modes), and a built-in eSIM (eliminating the need for a physical SIM card for customers), providing customers with high-speed and reliable connectivity.

Housed in an IP65 waterproof enclosure, it withstands high temperatures up to 75°C and low temperatures down to -40°C, making it particularly suitable for providing wired and wireless networks in outdoor areas where running cables is inconvenient. Applicable scenarios include: scenic area monitoring, construction site monitoring, orchard monitoring, farm monitoring, reservoir monitoring, community monitoring, rural household monitoring, mountainous area monitoring, and other challenging monitoring environments where network deployment is difficult.

# Product Features

## ■ Stable and Reliable

- Qualcomm chip to ensure the performance and stability.
- IP65 rated, wide operating temperature range (-40℃ to 75℃), suitable for outdoor scenarios.
- Optional installations: poll and wall mounting
- Dual power supply redundancy: standard 48V PoE IN / DC 9-36V with reverse polarity protection
- Built-in hardware watchdog which can provide self-diagnostics and self-recovery to ensure system stability.

## ■ Uninterrupted Network Access

- Supports 2G/3G/4G network all over the world ,supports APN/VPDN sim card.
- Failover between 4G, WAN and WiFi, ensures automatic switch to alternative backup connection,effectively ensuring
- Equipped with strong Wi-Fi capability,802.11 a/b/g/n,2.4G Wi-Fi,2*2 MIMO, up to 300Mbps,Support AP/STA/repeater mode
- VPN tunnel detection: maintains stable connection of the VPN tunnel, ensuring continuous transmission.
- Multi-layer link detection mechanism, automatic redial and recovery.

## ■ Powerful Functionality

- Supports remote monitoring, upgrade and parameter configuration, remote access to the built-in web pages.
- Supports IPsec VPN, PPTP,L2TP, OPENVPN,GRE etc., ensuring secure data transmission.
- Supports firewall, NAT,DMZ,black and white list of access control.
- Supports DDNS,PPPOE,DHCP,Static IP.
- Supports firewall functions including NAT, access control, DDoS defense, IP-MAC binding, etc., protecting the network against external attacks.
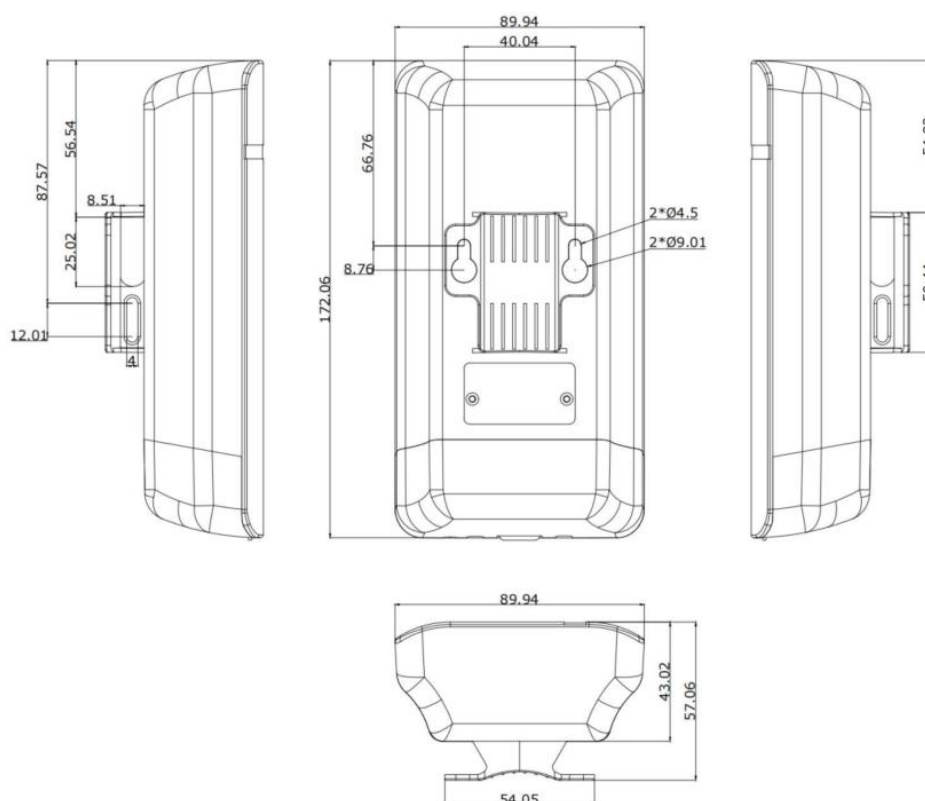- Support SNMP,VLAN

# Dimensions

Unit: mm

Figure 1    **Dimension of AP510**

# Specifications

| Catalog | Parameters | Value |
|---|---|---|
| Cellular | Band(China, India) | LTE FDD: B1/3/5/8<br>LTE TDD: B34/38/39/40/41<br>WCDMA: B1/5/8<br>GSM: 900/1800MHz |
| | Band(global) | TDD-LTE:Band 34/38/39/40/41<br>FDD-LTE: Band 1/2/3/4/5/7/8/12/13/18/19/20/25/26/28/66<br>WCDMA:B1/2/4/5/6/8/19<br>GSM/GPRS/EDGE: B2/3/5/8 |
| | Antenna | Built-in full bidirectional antenna |
| | SIM slot | 1 x Nano-SIM |
| Ethernet Interface | WAN | 1 x WAN port (can be configured to LAN) 10/100 Mbps, compliance with IEEE 802.3, supports auto MDI/MDIX |
| | LAN | 1 x LAN port, 10/100 Mbps, compliance with IEEE 802.3, IEEE 802.3u standards, supports auto MDI/MDIX, |
| WiFi | Standards & Frequency | IEEE 802.11b/g/n, 2.4GHz |
| | Mode | AP/STA/Repeater |
| | Data speed | 300Mbps |
| | Antenna | Built-in full bidirectional antenna |

| | Transmission distance | 50 meters by line of sight.Actual transmission distance depends on environment of the site. |
|---|---|---|
| | MIMO | 2 x 2 |
| | WiFi users | 8 |
| Power Supply | Adaptor | DC 12V/1A |
| | Connector | DC Power Jack Barrel Type Female 5.5*2.1mm Round socket or 2 PIN industrial terminal block, reverse polarity protection |
| | Input voltage | DC 9-36V |
| | Power consumption | 12V@300mA |
| Physical Characteristics | Casing material | IP65 rated, ABS material |
| | Dimensions | 172.06*89.94*57.06mm |
| | Installation | Poll mounting and wall mounting |
| | EMC | Static IEC61000-4-2, level 2<br>Pulsed Electric Field IEC61000-4-4, level 2<br>Surge IEC61000-4-5, level 2 |
| | Operating Temperature | -40℃ to +70℃ |
| | Storage Temperature | -40℃ to +85℃ (non-condensing) |
| | Operating Humidity | 5%–95% (non-condensing) |
| Others | Indicators | POWER、WIFI、NET、SIG、WAN/LAN1、LAN2 |
| | Reload button | Long press 5-15s to reset to factory settings |

# Purchase & Support

## ■ For more information, please visit our websites:

- Official website: **https://pusr.com**

- Official shop: **https://shop.usriot.com**

- Technical support: **http://h.usriot.com/**

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