

Quick Installation Guide

Industrial Compact LTE/ WLAN Router AP224

www.avcomm.cn

Overview

The LTE, WLAN router AP224-WLAN+LTE and Wireless LAN AP AP224-WLAN are designed for industrial and smart city applications. The AP224 router supports LTE to WLAN redundancy and LTE/WLAN auto offload to guarantee continuous connections. To safeguard cybersecurity, security features such as Firewall, OpenVPN, GRE tunnel are supported. The embedded MQTT and RESTful API enables instant public cloud integration such as AWS or Azure.

Model Name	Description
AP224-WLAN-LTE	Industrial Wireless IIoT Field Routing Gateway, 4FE, 802.11b/g/n WLAN, LTE-E, 2SIM(without antenna), 4-port 10/100M RJ45, 1 WLAN+3 LAN/4 LAN, Redundant 2xSIM
AP224-WLAN	Industrial Wireless IIoT Field Routing Gateway, 4FE, 802.11b/g/n WLAN(without antenna), 4-port 10/100M RJ45, 1 WLAN+3 LAN/4 LAN, Redundant 2xSIM
	*LTE-AU/LTE-U/LTE-CN or other region by request *GPS support by request *Also apply to AP224

Package Checklist

- 1 x Product Unit
- 1 x 2-pin Removable Terminal Connector
- 2 x LTE Antenna, Black + 2 x Wi Fi Antenna, White (by model)
- 1 x DIN rail kit
- 1 x Quick Installation Guide

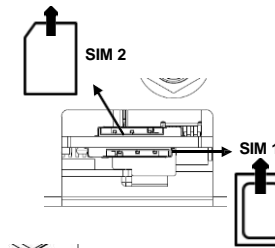
Optional Accessory (for detailed information please refer to the Datasheet)

Installation

SIM Card Slot

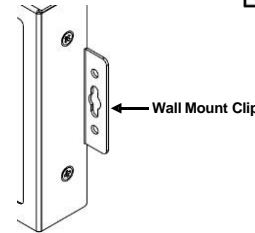


Warning: Be careful when install the SIM Card, wrong installation procedure will cause damage. Make sure the SIM Card is facing the correct position.



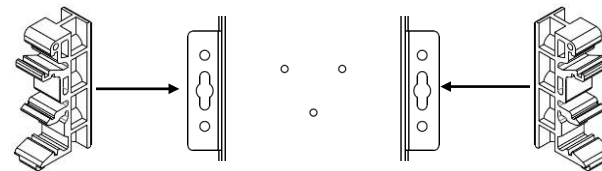
Wall mount

Two wall mounting plates are installed at the left and right side of the switch. Use the two hook holes at the corners of each wall mounting plate or the middle hole to hang the switch on the wall then screw tightly.



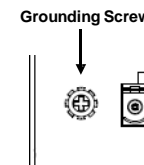
DIN Rail mount

For the DIN Rail mount, attach the DIN Rail Clip (DK-D2-2) to the two wall mount plates.



Grounding Screw

The grounding screw is located on the bottom side of the router. For avoiding system damage by noise or electric shock, establish a direct connection between the ground screw and the grounding surface prior to connecting devices.



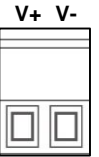
No support negative power structure install



Warning: If power positive connects with device ground, it will short the power system and damage the device..

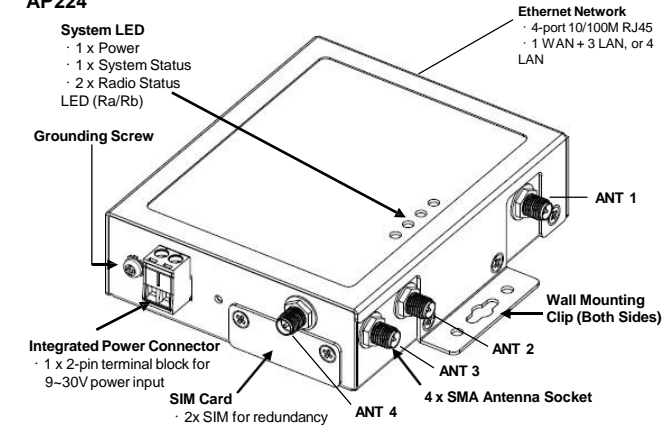
Wiring the Power Input (9~30V)

- 1) Insert the positive and negative wires into the V+ and V- contact on the terminal block connector.
- 2) Tighten screws when the wire is connected.
- 3) Connect the power wires to suitable DC Switching type power supply.

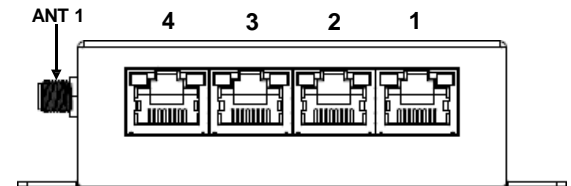


Appearance

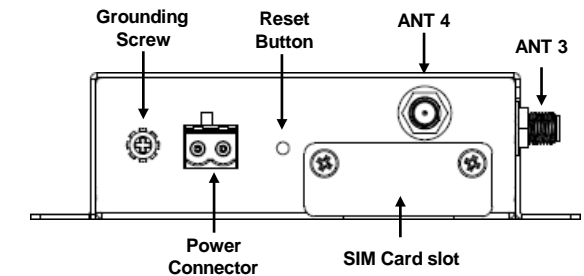
AP224



Top Panel



Bottom Panel



• LED Indication

PWR	○
SYS	○
Ra	○
Rb	○
ANT 2	—

LED	Status	Description
PWR	Green On	DC-IN Power is On
	Off	No Power in DC-IN
System LED	Green On	Ready
	Green Blinking	Firmware Updating
	Off	Not Ready
Ethernet Port LED (Port 1~4)	Green On	Links established
	Green Blinking	Packets transmitting/receiving
	Green Off	Link is inactive

Radio LED

Radio	Status
Ra	4G/NBLoT Connection: Green On
	2/3G connection: Green Blinking
	Disconnected: Off
Rb	AP mode: Green On
	Station mode connected: Green Blinking
	Station mode/radio disable: Off

• Antenna

The device supports up to 4 antennas sockets. The device supports up to 4 antennas sockets. AVCOMM provides the optional accessories, where the antenna color is black for the LTE and white is for the WIFI.

	AP224-WLAN-LTE
ANT 1	WIFI 1
ANT 2	LTE-Main
ANT 3	WIFI 2
ANT 4	LTE-Diversity

• Safety Precautions

- Turn off DC power input source before connecting the DC Power supply module to the terminal block connectors. Do not turn-on the source of DC power module and make sure all connections were well established, then power on the DC source to powering the device.
- Do make sure that models connect to the corresponding supply voltage. The device is to be supplied by Limited Power Supply.
- The router is designed for Industrial IoT, ITS, wayside surveillance application.
- Never install or work on/with the equipment or the cabling during the period of its lightning activity.

• Management

This device supports both in-band and out-of-band network management. The user can either configure the device through the user-friendly Web/HTTPS management or remotely manage the device through the network Telnet/SSH.

1. Preparation for **Web management**: First, verify that device is properly installed in the network and that every PC of this network can access the router through the web browser (Google Chrome, Internet Explorer, Mozilla Firefox).
 - Type http://IP_address in your browser (the default IP address is <http://192.168.10.1>)
 - Key in the username and password in login screen. The default username and password is **admin**.
 - After you click Login, a page that request to change the password will appear. Then you can enter the new password. Click Submit to apply the changes. After you change the password, the welcome page of the web-based management interface will appear.
 - On the left side you can see the list of software features, on the right side – available settings.
- ◆ To link with the device, please make sure that the IP Address of the PC is located in the same subnet (**192.168.10.x**).
2. Preparation for **Telnet/SSH management**: You can connect to the device by Telnet and the command lines. Below are the steps to open Telnet connection to the router.
 - Start -> Open Command prompt ->Enter
 - Type the Telnet 192.168.10.1 (or the IP address of the router). And then press Enter.

SSH (Secure Shell)

The device also supports SSH console. You can remotely connect to the router to access command line interface. The SSH connection can secure all the configuration commands you sent to the switch.

SSH is a client/server architecture while the Router is the SSH server. When you want to make SSH connection with the switch, you should download the SSH client tool first.

SSH Client

There are many free, sharewares, trials or charged SSH clients you can find on the internet.

- ◆ **For further feature configurations, please refer to User Manual.**

• Support

At AVCOMM, you can use the online service forms to **request the support**. The submitted forms are stored in server for AVCOMM team member to assign tasks and monitor the status of your service. Please feel free to write to sales@n-tron.com.cn if you encounter any problems.

• Warranty

5-year Global warranties are available for AVCOMM products assuring our customers that the products shall remain free from defects in workmanship or materials and conform in all material respects to AVCOMM specifications, or Purchaser's supplied and accepted specifications. The warranty is limited to the repair and/or replacement, at AVCOMM' sole discretion, of the defective product during its warranty period. The customer must obtain a **Return Merchandise Authorization (RMA)** approval code prior to returning the defective Product to AVCOMM for service. The customer agrees to prepay shipping charges, to use the original shipping container or equivalent, and to ensure the Product or assume the risk of loss or damage in transit. Repaired or replaced products are warranted for ninety (90) days from the date of repair or replacement, or for the remainder of the original product's warranty period, whichever is longer.

• Disclaimer

AVCOMM reserves the right to make changes to this QIG or to the product hardware at any time without notice. It is the user's responsibility to determine whether there have been any such updates or amendments herein.

Defects, malfunctions, or failures of the warranted Product(s) caused by damage resulting from unforeseeable incidents (such as lightings, floods, fire, etc.), environmental and atmospheric disturbances, other external forces such as power line disturbances and surge, host computer malfunction and virus, incorrect power input, or incorrect cabling, incorrect grounding and damages caused by misuse, abuse and unauthorized alteration or repair are not warranted.