



Altai VX200Dual-Band CPE/AP

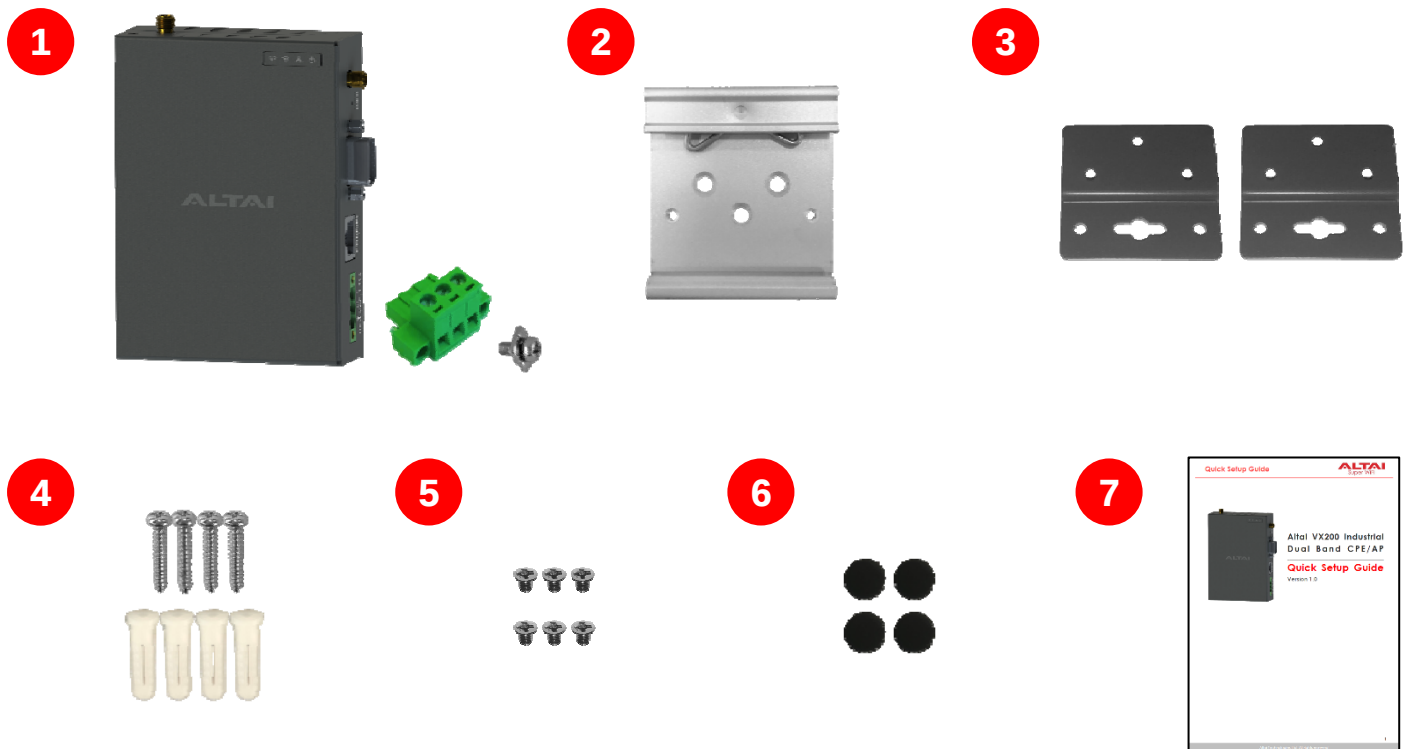
Quick Setup Guide

Version 1.1

Introduction

Thank you for purchasing the Altai VX200 product. This guide provides instructions to install the product and set it up as CPE (Station mode) with minimal effort.

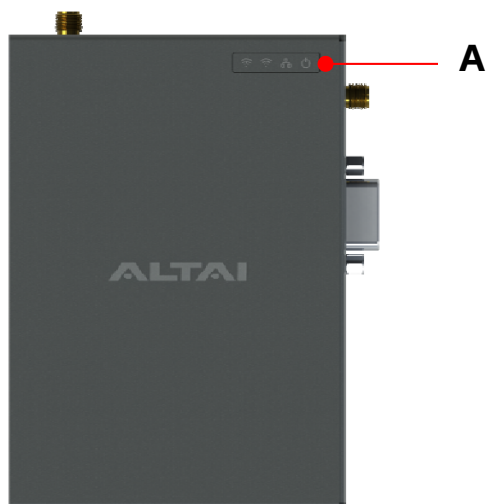
Package Contents



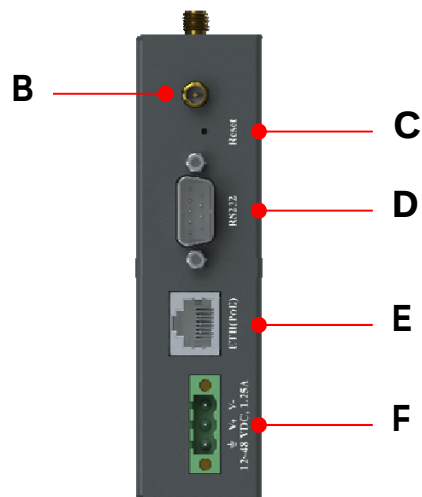
1	-	- VX200 Main Unit; - DC Terminal Block Connector (3-Contact); - Chassis Ground Screw (Phillips, 3 x 6mm, with Square Washer)	1 pc
2		35mm DIN-rail Mounting Kit	1 pc
3		Wall-mounting Plate	2 pcs
4		Wall Mount Anchor & Long Screw (Phillips, 3 x 19mm)	4 pcs
5		Short Screw (Phillips, 3 x 5mm) (For both DIN-rail Mount and Wall Mount)	6 pcs
6		Foot Pad (For Desk Mount)	4 pcs
7		Quick Setup Guide	1 pc

Hardware Overview

Front View



Right Side View



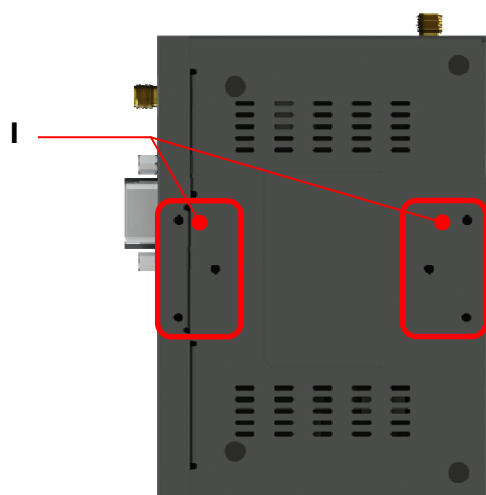
Top View



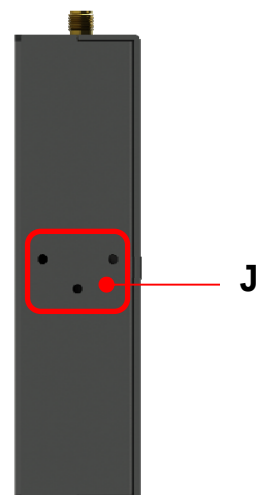
Bottom View



Back View



Left Side View



A: LED Panel

	Power	○ Off: No power
		⚡ Flashing: AP booting up
		● Steady: AP boot up finished and ready for service
	LAN (Ethernet)	○ Off: LAN (Ethernet) disconnected
		⚡ Flashing: Data transmitting/receiving
	2.4G/5G WiFi Radios (Station/Repeater/ AP/Bridge Mode)	○ Off: Radio disabled
		● Steady: 1. Station/Repeater Mode on but not connected to remote AP 2. AP Mode on but with no clients associated 3. Bridge Mode on but not connected to remote peer
		⚡ Flashing: 1. Station/Repeater Mode on and connected to remote AP 2. AP Mode on with clients associated 3. Bridge Mode on and connected to remote peer

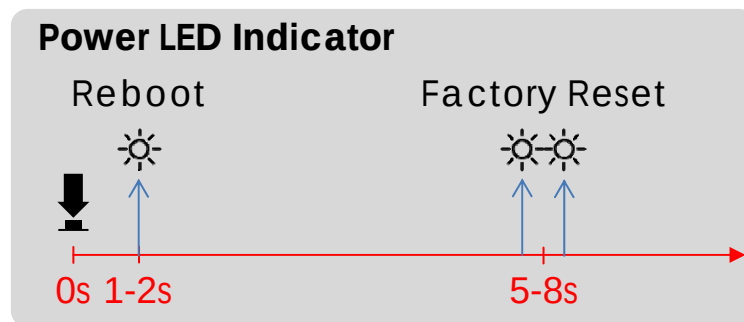
B: RP-SMA RF Port 1 (Female)

Used with Port 2 together to attach 2 x 2.4G/5G antennae (purchased separately) for 2x2 MIMO WiFi connection.

C: Reset Button

Serves two functions below.

- **Reboot:** Press and hold the Reset Button for 1-2 seconds until the power LED blinks once.
- **Factory Reset:** Press and hold the Reset Button for 5-8 seconds until the power LED blinks twice consecutively.



D: RS232 DB9 SerialPort (Male)

Used to connect with a peripheral RS-232 serial device so that you can access the serial device, via the VX200, from anywhere over TCP/IP network.

E: Ethernet Port (PoE In)

Used to connect to power source (see later section for Power Options) and provides 10/100/1000 Mbps network interface for LAN connection.

F: DC Terminal Block Receptor (3-Contact: Ground/+/-)

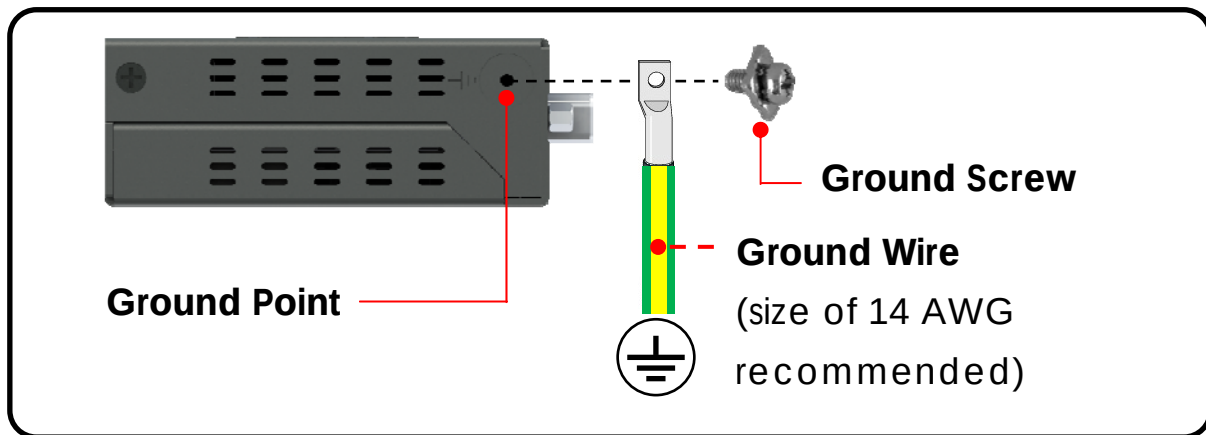
Used to connect to DC power source (see later section for Power Options).

G: RP-SMA RF Port 2 (Female)

Used with Port 1 together to attach 2 x 2.4G/5G antennae (purchased separately) for 2x2 MIMO WiFi connection.

H: Ground Point

Used for AP chassis grounding. Use size 14 AWG of ground wire (not included) and attach it to the chassis with the provided ground screw. Connect the other end of ground wire to a reliable earth ground point at site.



I: Screw Holes for Wall Mount

See later section for Installation Options.

J: Screw Holes for DIN-rail Mount

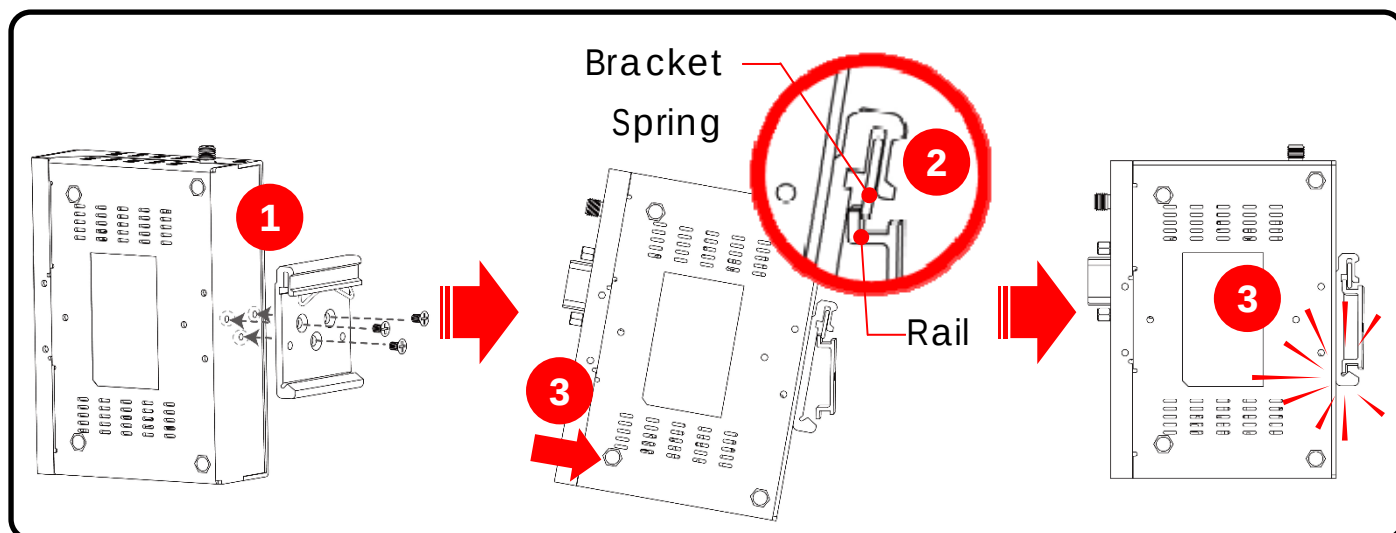
See later section for Installation Options.

Setup Requirements and Preparation

- A computer with web browser: Google Chrome, Mozilla Firefox, or Microsoft Internet Explorer 8 (or above)
- Two Cat 5e/6 Ethernet cables
- A ground wire (AWG: 14) for chassis grounding
- Three wires (AWG: 12 – 24) for DC power; Or alternatively an 802.3af/at-compliant PoE switch to power up VX200
- Two 2.4G/5G external antennae (not provided)
- Screw drivers (Phillips, and flat-blade) and a drill

Installation Option 1: DIN-Rail Mount (For 35mm Rail)

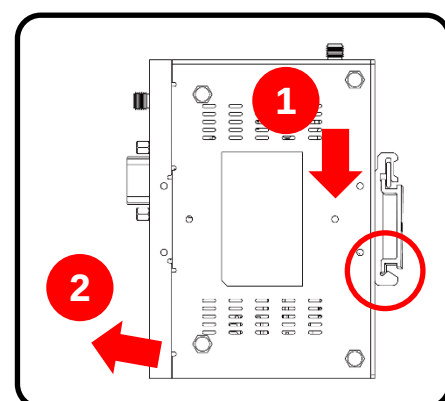
To mount the VX200 unit on the rail, follow the steps below.



1. Drive the short screws to attach the DIN-rail mounting bracket to the back of the unit.
2. Insert the upper bracket lip into the DIN rail. Make sure the rail lies between the bracket body and the spring.
3. Press the unit towards the rail until it snaps into place.

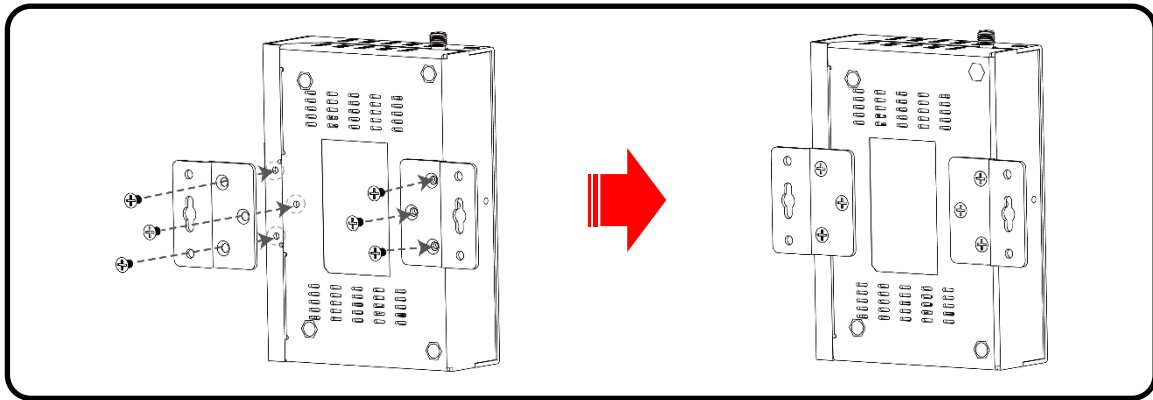
To remove the VX200 unit from the rail, follow the steps below.

1. Press the unit down so that the lower bracket lip slightly detaches from the rail.
2. Pull the unit out to remove it from the rail.

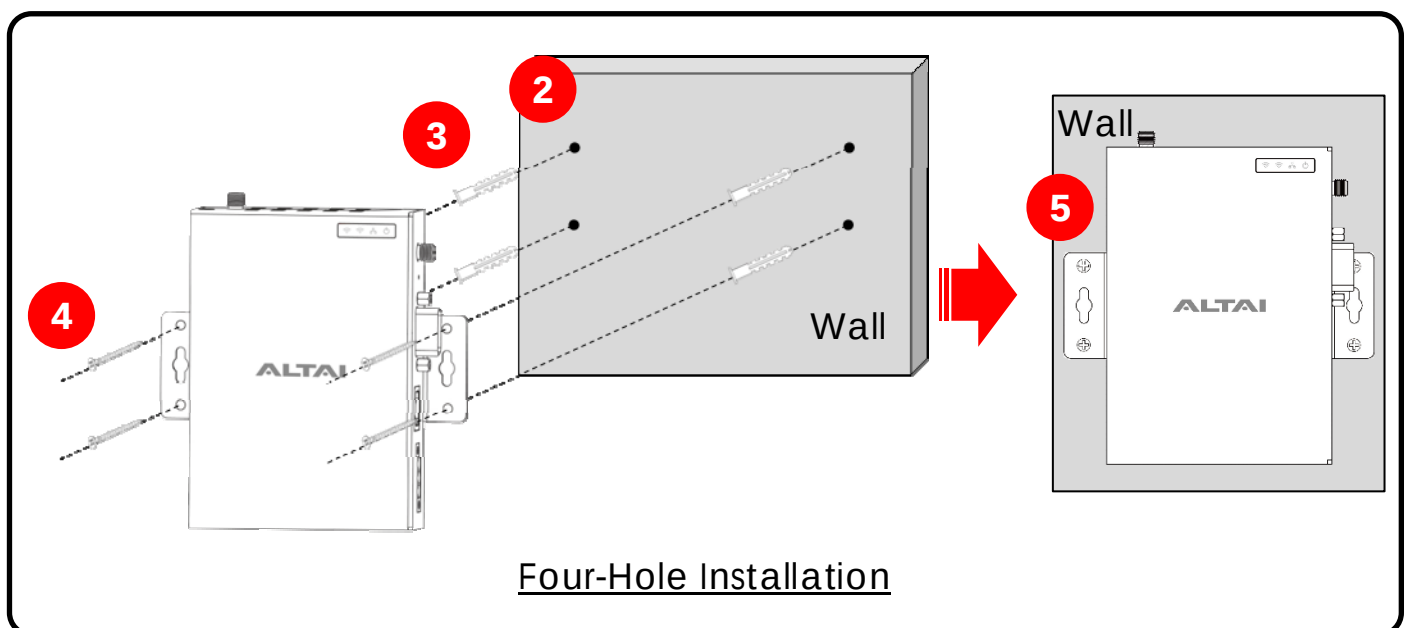


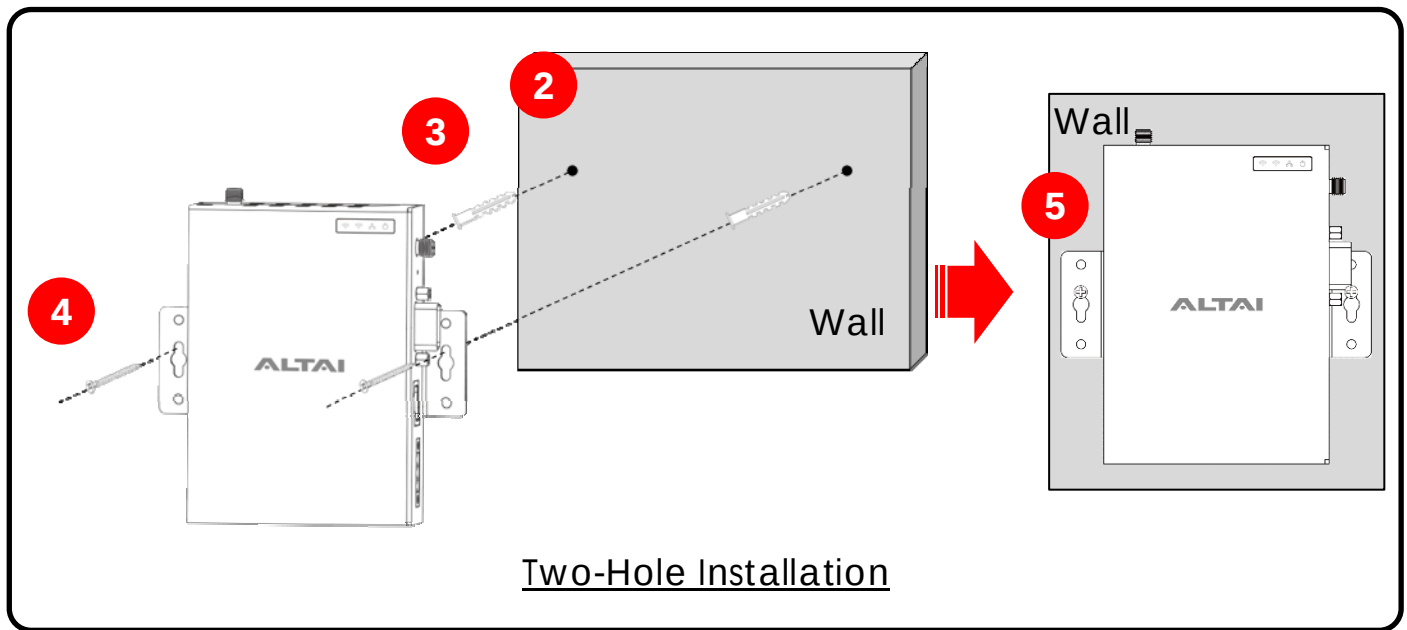
Installation Option 2: Wall Mount

1. Drive the short screws to attach the two wall mounting plates to the unit.



2. Determine where the device is to be placed and mark location of the mounting holes on a wall surface. Use an appropriate drill bit to drill the holes, each with 1/3" (8.1mm) in diameter and 1" (26mm) deep, on the markings.
3. Insert the anchors into the holes.
4. Insert the long screws through the mounting plates into the anchors.
5. Tighten the screws to secure the unit in place.





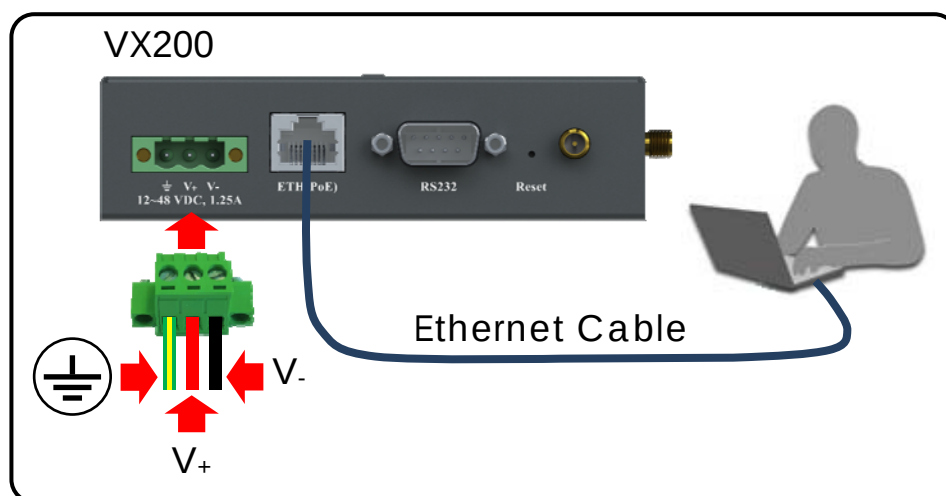
Power Options and Cable Connection Instructions

Follow one of the options below to power up VX200 for configuration.

-DC input: 12~48VDC $\approx$ 1.25A

- PoE input: 54VDC, 0.6A

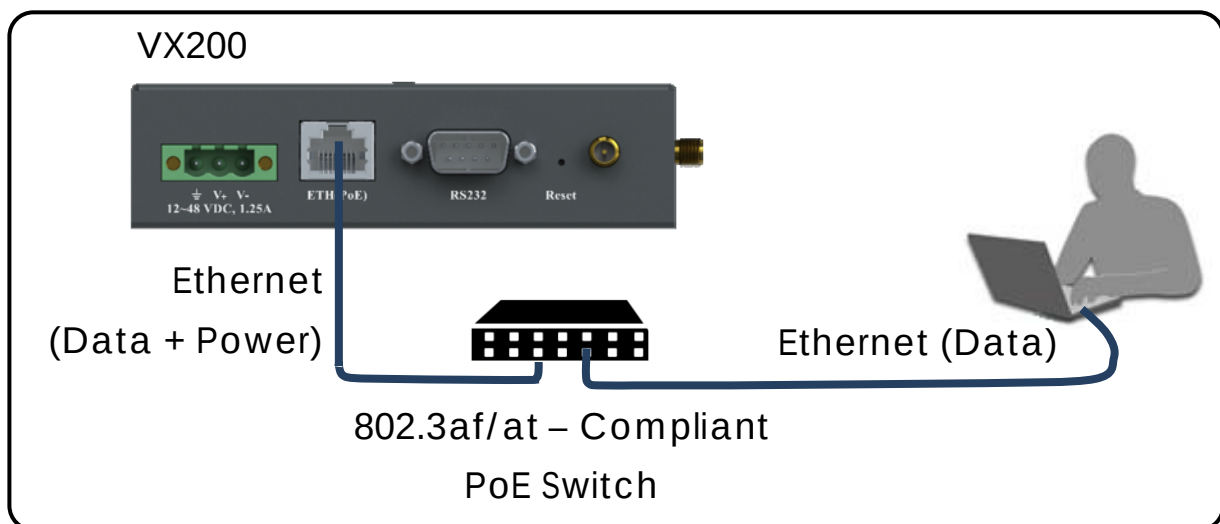
Option 1: 12-48 VDC Power



1. Insert Ground/DC positive/DC negative wires (recommended AWG range: 12 - 24) into the terminal block. Use a small flat-blade screwdriver to tighten the wire-clamp screws so as to prevent the wires from loosening.

2. Insert the terminal block into the receptor. Use the flat-blade screwdriver to lock the terminal block to the VX200 main unit in place.
3. Connect the ground wire to a reliable earth ground point at site, and the other two wires: DC positive/DC negative to a power source.
4. Connect a computer to the VX200 Eth (PoE) port with an Ethernet cable.
5. Turn on the power source. When the Power LED light is up and becomes steady, the unit should be ready for configuration.

Option 2: 802.3af/at-Compliant PoE Switch

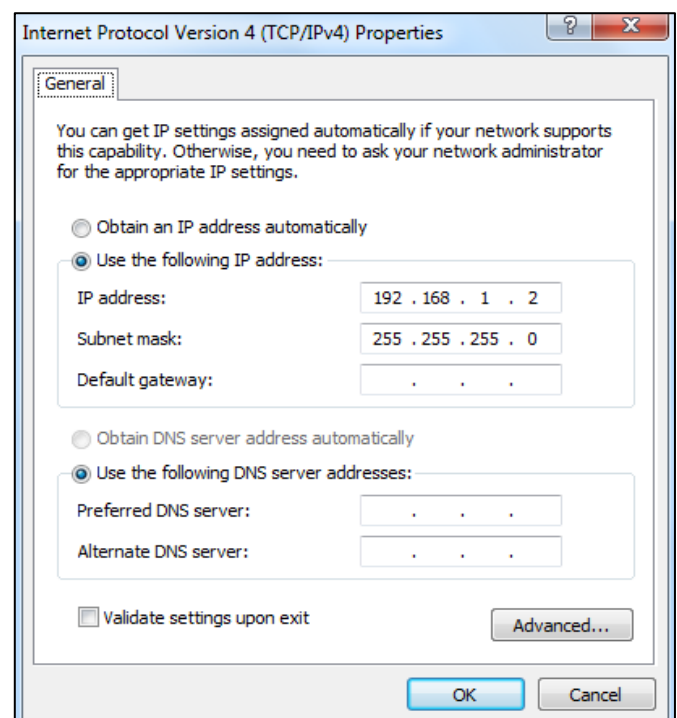
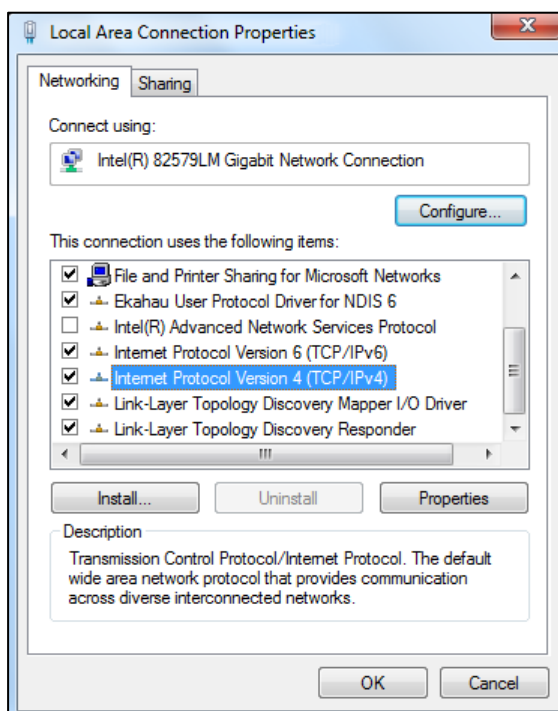


1. Connect VX200 Eth(PoE) port to an 802.3af/at PoE Switch with an Ethernet cable.
2. Connect a computer to the switch with another Ethernet cable.
3. When the Power LED light is up and becomes steady, the unit should be ready for configuration.

1. Change TCP/IP Setting on Your Computer

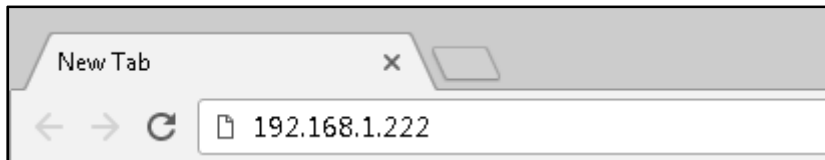
For Windows 7/Windows 10 users,

1. Go to **Control Panel**, click **Network and Sharing Center** and then choose the Ethernet adapter that is in connection with the VX200 unit. Click it and then click  **Properties**.
2. Under the **Networking** tab, select **Internet Protocol Version 4 (TCP/IPv4)** in the list box “**This connection uses the following items**”, and then click **Properties**.
3. Type in the following IP address and Subnet mask:
 - IP address: 192.168.1.2
 - Subnet mask: 255.255.255.0
4. Click **OK** to close the **Internet Protocol Version 4 (TCP/IP) Properties** dialog box and click **OK** again to close the adapter **Properties** dialog box.



2. Access to Web Interface

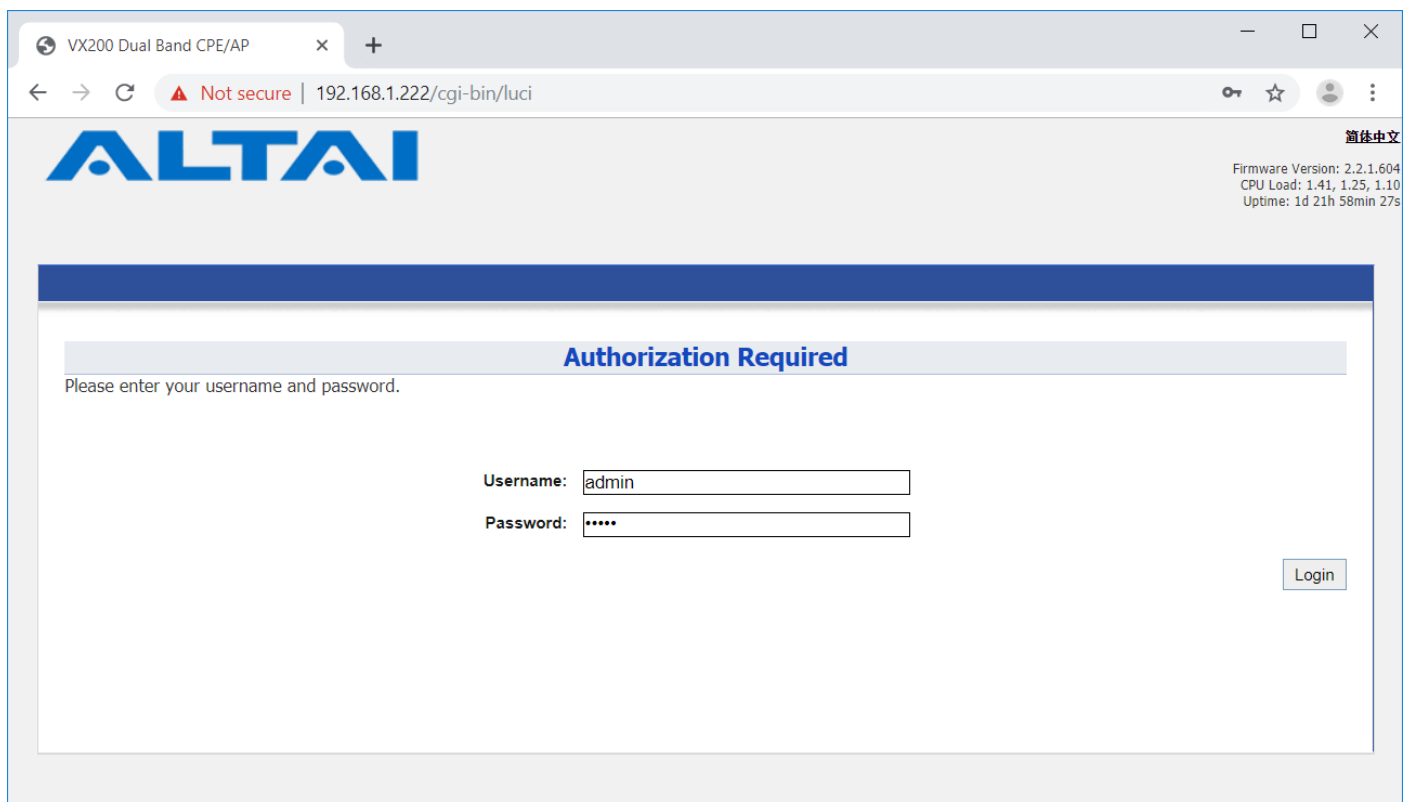
1. Open a web browser. Type **192.168.1.222** in the address bar and then hit **Enter**.



2. Login page will come up and you are required to enter username and password. By default, the credentials are:

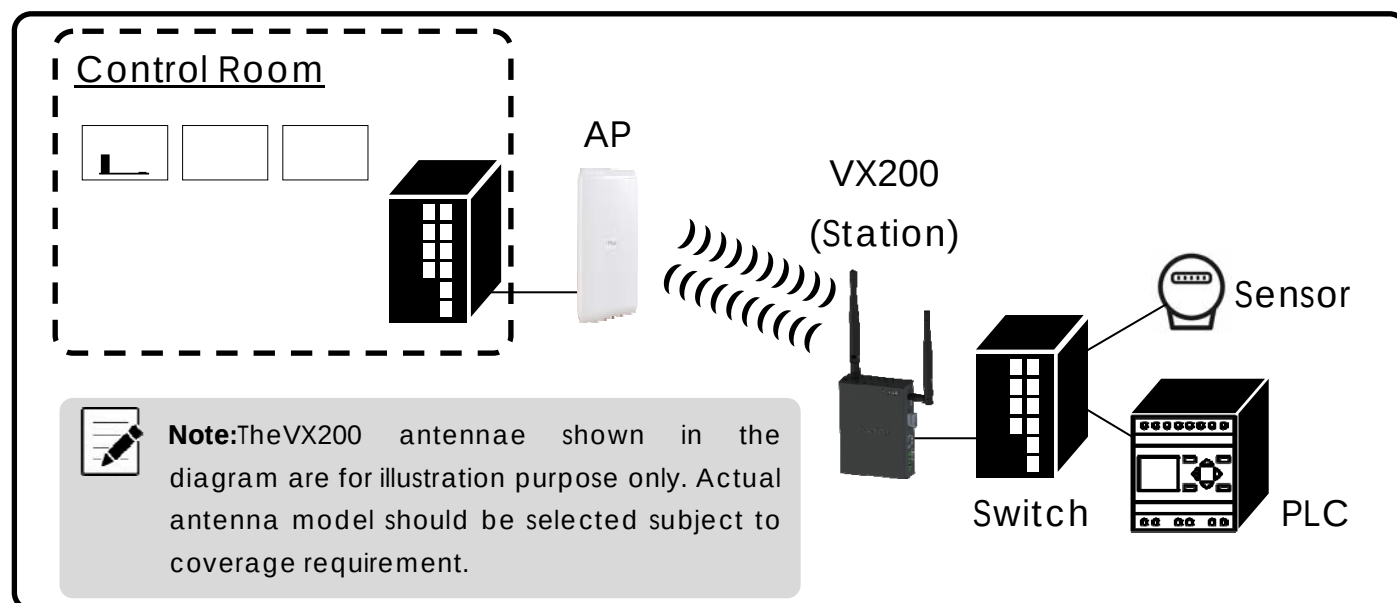
- **Username:** admin
- **Password:** admin

3. Click Login.



3. Configure Station (CPE) Mode (2.4G/5G)

Network Scenario



Go to **Configuration>Wireless>Radio0(2.4G)/Radio1(5G)>General**. Below screenshots show an example for 5G radio configuration only. Same procedures can be applied to 2.4G radio configuration.

1. Check the box to **Enable Radio**. Select **Station** for the **Radio Mode** field. Then click **Submit** button.

The screenshot shows the 'Radio1(5G) Setting' page in a web interface. The page has tabs for 'General', 'Station', and 'Advanced'. The 'General' tab is selected. The 'Enable Radio' checkbox is checked. The 'Radio Mode' dropdown menu is set to 'Station'. The 'Country(Region) Code' dropdown menu is set to 'HONG KONG'. The 'Transmit Power' dropdown menu is set to '23'. A note below the transmit power dropdown states: 'The effective Tx Power may be different, depends on the selected Channel.' A 'Submit' button is located at the bottom right of the page.

2. Click **Station** tab. Enter the **RemoteSSID** that you want to connect to. Then click **Submit** button.

WLAN ID	Remote SSID	Auth Mode	WLAN Uplink Control	WLAN Downlink Control	Detail
0	Connect Everything	open	0	0	More...

[Submit](#)

- Configure security for WLAN connection. Click the hyperlink of Auth Mode, which is “open” in the above screenshot and you will be directed to the **WLAN Security** page. In this example, the WLAN that the VX200 connects to is WPA2-Personal protected, so passphrase is required. If you are not sure about the authentication mode that the WLAN is using, contact your network administrator. Once the setting is done, click [Submit](#) button.

WLAN General	WLAN Security	QoS	Bandwidth Control
Authentication Mode: WPA2 Personal Cipher Mode: AES Pass Phrase: altaitps ☒ Show Length:8-63(ASCII Characters); Length:64(HEX Characters)			
Back to Station List			Submit

- Click **Save & Apply** at the top right corner to have all changes take effect.
- To view connection status, go to **Status > Radio0(2.4G)/Radio1(5G)> Connection Info**. If the connection is successful, it should show “Connected” under the AP Info table.

Connection Info									
STA Info									
MAC Address	Auth Mode	Unicast Cipher	Multicast Cipher	State					
00:d0:41:e0:54:33	wpa2-psk	aes+tkip	tkip	Enabled					
AP Info									
MAC Address	SSID	SNR (dB)	RSSI (dBm)	Channel	Max DataRate (Mbps)	Throughput	Data Rate	Connected Status	
12:19:be:a3:09:23	Connect Everything	55	-58	5745MHz(Channel 149)	173	Tx: 2.0Kbps Rx: 0.0Kbps	Tx: 144.0Mbps Rx: 104.0Mbps	Connected	

Federal Communication Commission Interference Statement (FCC) – USA

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

European Conformity (CE) –EU

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.



Warning

VX200 may require professional installation depending on the deployment scenario.

Only use the optional power adaptor available for VX200. Using a different power adaptor might damage the device.

The metal chassis of the equipment may be hot. Pay special attention or use special protection before handling this equipment.

Operations in the 5.15-5.25 GHz band are restricted to indoor usage only.

Disclaimer

Hereby, Altai Technologies Limited declares that the radio equipment type VX200 is in compliance with Directive 2014/53/EU. The full test of the EU declaration of conformity is available at the following internet address: www.altatechnologies.com.

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