Altai CX200 Outdoor 2x2 802.11ac Wave 2 AP
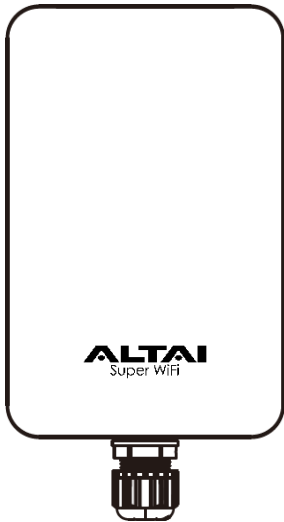
_____

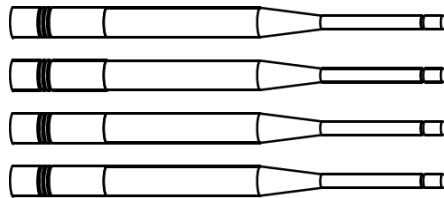# Quick Setup Guide

Version 1.1

1

Introduction

Thank you for purchasing the Altai CX200 product. This guide provides instructions to install the product and set it up as AP with minimal effort.
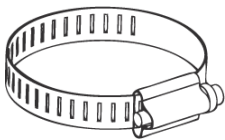
Package Contents
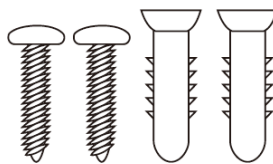
CX200 Main Unit

Detachable Antennae
- 2.4GHz Antenna   x 2
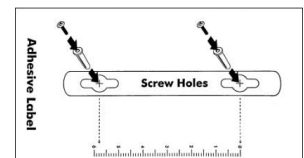- 5GHz Antenna   x 2

Quick Setup Guide

Pole Mount Hose Clamp

Wall Mount Kit
- Anchors   x 2
- Screws   x 2

Adhesive Label
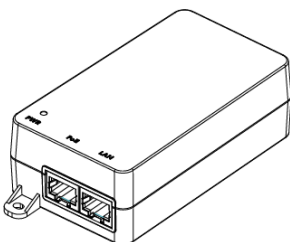
PoE Injector (Optional)

2

Hardware Overview

LED Indicator

Power	O Off	AP powered off
	☼ Flashing Red	AP booting up
	● Solid Red	AP boot up finished and ready for service
LAN (Ethernet)	O Off	LAN disconnected
	● Solid Green	LAN connected
	☼ Flashing Green	Data Transmitting/Receiving
2.4 GHz/5G WiFi Radios (AP/Station/ Repeater/Bridge)	O Off	Radio Disabled
	● Solid Green	1. **AP mode** on but with no client association; **OR** 2. **Station mode** on but not connected to remote AP; **OR** 3. **Repeater mode** on but not connected to remote AP; **OR** 4. **Bridge mode** on but not connected to remote peer
	☼ Flashing Green	Data transmitting/receiving

Ethernet Port and RF Antenna Port

5GHz Dipole Antenna

2.4GHz Dipole Antenna

NOTE: To ensure correct antenna connection, check the labels (2.4GHz/5GHz) printed on each antenna body and RF port for easy reference.

5GHz Dipole Antenna

2.4GHz Dipole Antenna
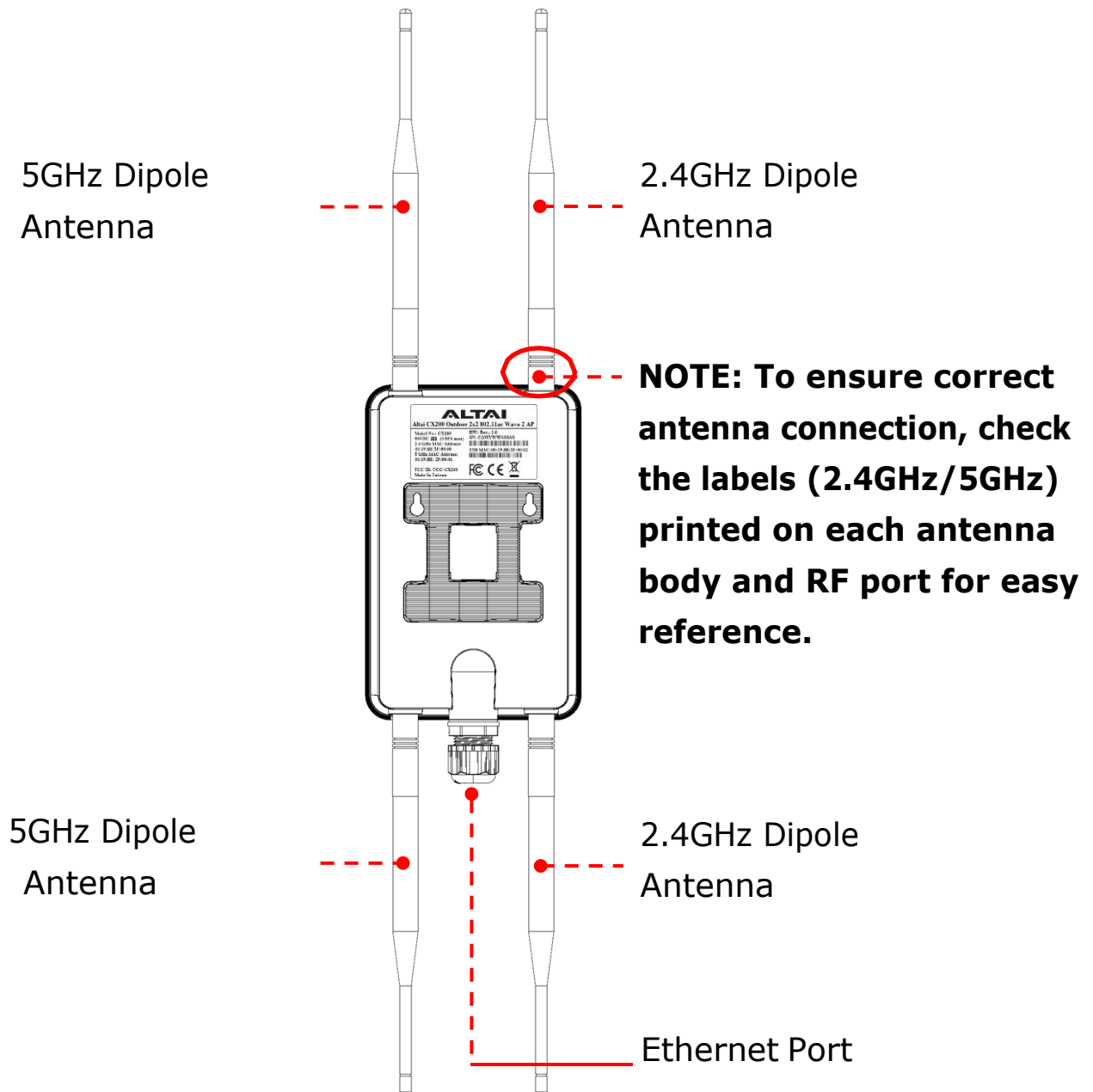
Ethernet Port

Ethernet Port:

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

RF Antenna Ports:

Used to attach 2.4G and 5G antennae for 2x2 MIMO WiFi access coverage or bridge connection.

Setup Preparation

- Wire stripping tool and crimping tool
- Screwdriver (Slot type and Phillips type)
- Drill and drill bits
- Computer with Web Browser: Google Chrome, Mozilla Firefox, or Microsoft Internet Explorer 8 (or above)
- Two Cat 5e/6 Ethernet cables
- 802.3af-compliant PoE switch
- AltaiCare account (Optional) for cloud AP management and user service

Ethernet Cable Feed-Through

Seal the RJ45 cable Connector with the provided cable gland.

1. Feed the end of the cable through the cap nut, sleeve holder, sealing sleeve as shown in the picture.

2. Crimp the Ethernet connector with the crimping tool.

3. Connect the cable to the Ethernet Port.

4. Tighten the cap nut.

RJ45 Connector

Sealing Sleeve

Sleeve Holder

Cap Nut

Mounting Options

Option 1: Pole Mount (For 1.5 to 2.5 inches of pole diameter)

1 Thread the open end of the hose clamp through the two slots of the mount base.

2 Determine where the AP is to be placed. Tighten the hose clamp to secure the base to the pole.

6
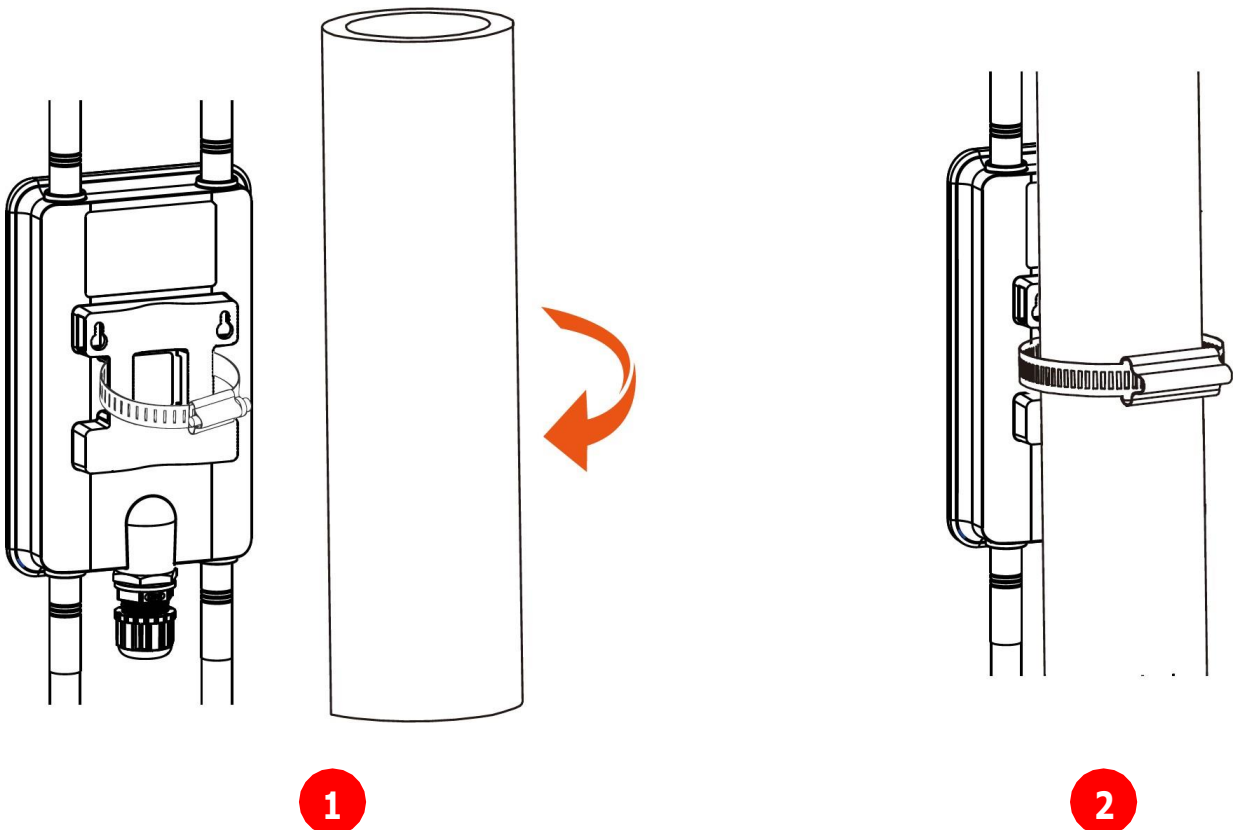
Option 2: Wall Mount

1 Determine where the AP is to be placed and use the adhesive label to mark location of the two mounting holes on the wall surface.

2 Use an appropriate drill bit to drill two holes, each with 1/3" (8.1mm) in diameter and 1" (26mm) deep, on the markings.

3 Remove the label. Drive the anchors into the holes and then the screws into the anchors.

4 Align the mounting slots with the screw heads and attach the AP to the wall in place.
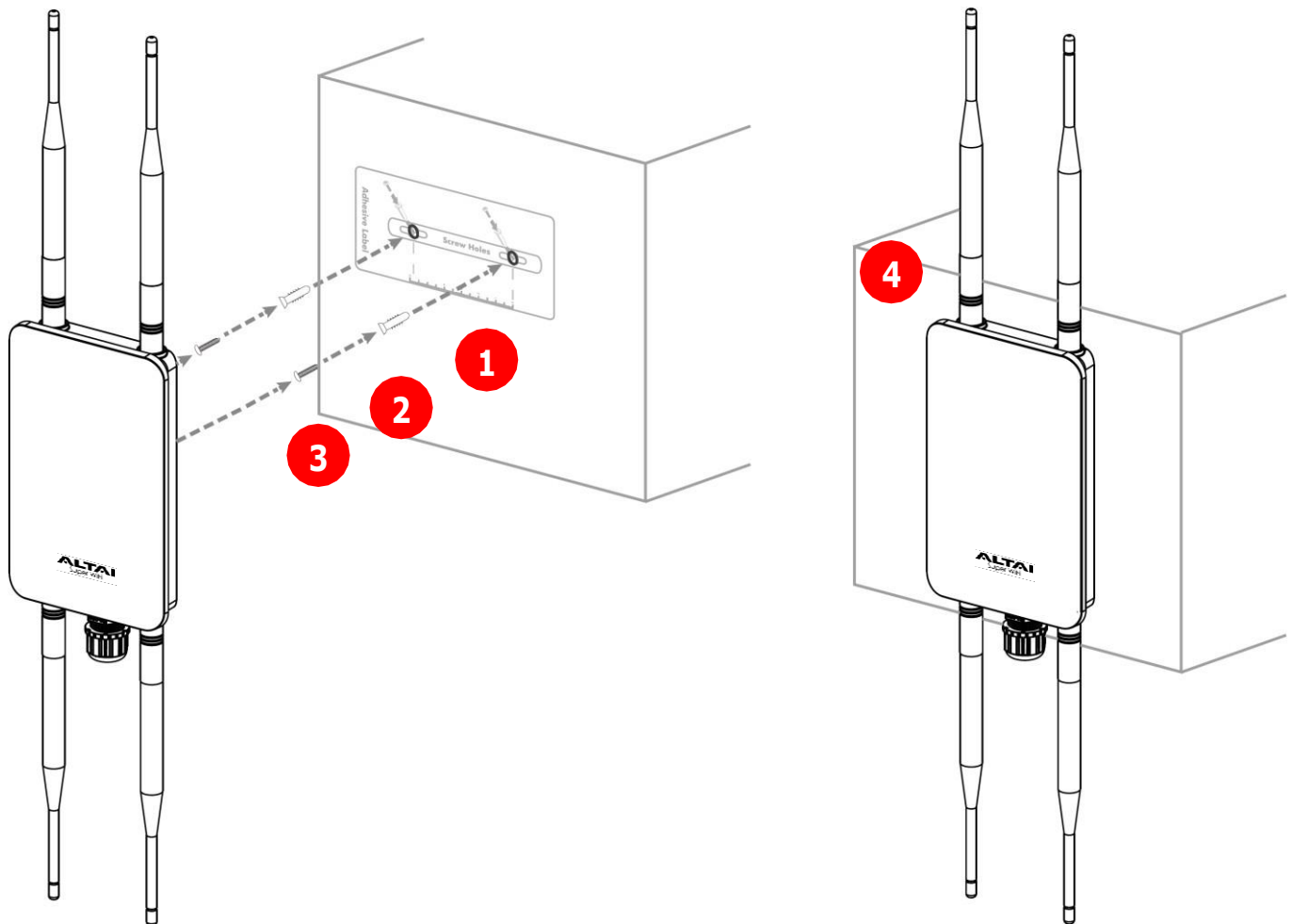
Power Options and Cable Connection Instructions

You can follow one of the options below for CX200 configuration as described in the following sections.

Option 1: 802.3at-Compliant PoE switch

1. Connect the CX200 Ethernet port to an 802.3af-compliant PoE switch with an Ethernet Cable.
2. Connect a computer to the switch.
3. Make sure the Power LED turns into a solid light for AP configuration.

802.3af – Compliant PoE Switch
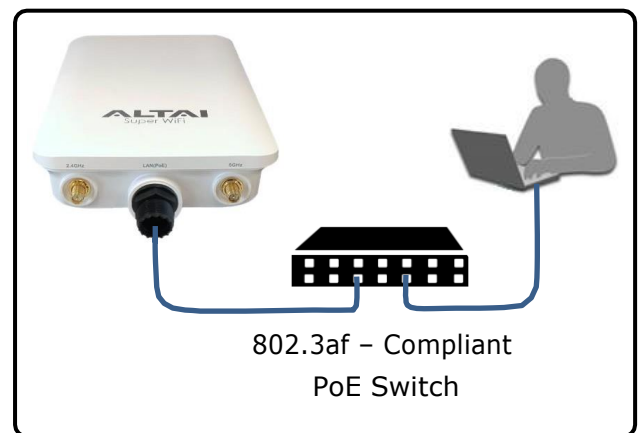
## Option 2: PoE Injector (Purchased separately)

1. Connect the PoE injector ports as described below via Ethernet Cables.
   - **PoE Port**: Go to CX200
   - **LAN Port**: Go to a computer
2. Connect the PoE Injector to AC power socket using a power cord.
3. Make sure the Power LED turns into a solid light for AP configuration.


PoE   LAN

PoE Injector

8
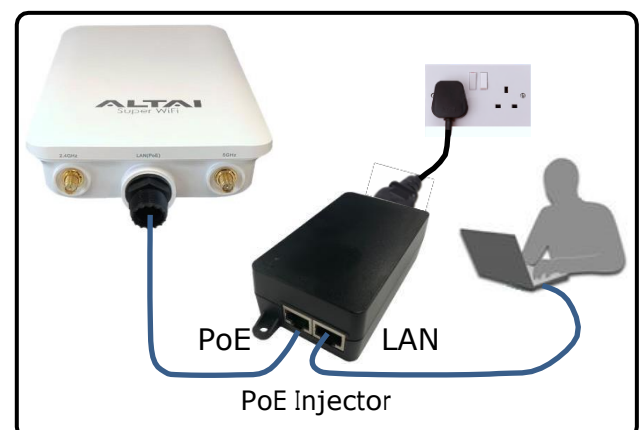
1. Change TCP/IP Setting on Your Computer

For <u>Windows 7/8/10</u> users,

1. Go to **Control Panel**, click **Network and Sharing Center** and then choose the adapter that you want to connect to CX200 unit. In this example, adapter "**Local Area Connection**" is in connection with CX200. Click it and then click **Properties**.
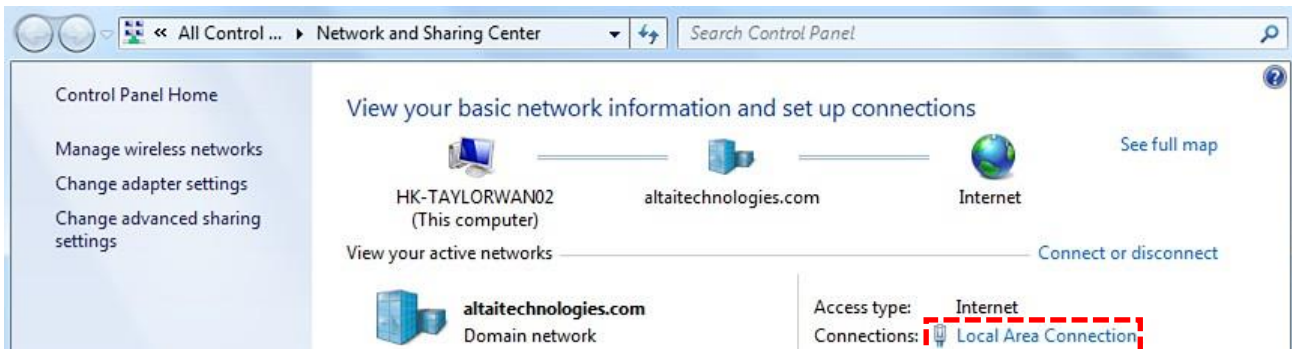
2. Under the **Networking** tab, click **Internet Protocol Version 4 (TCP/IPv4)** in the list box "**This connection uses the following items**", and then click **Properties**.

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/IPv4) Properties** dialog box and click **OK** again to close the **Local Area Connection Properties** dialog box.
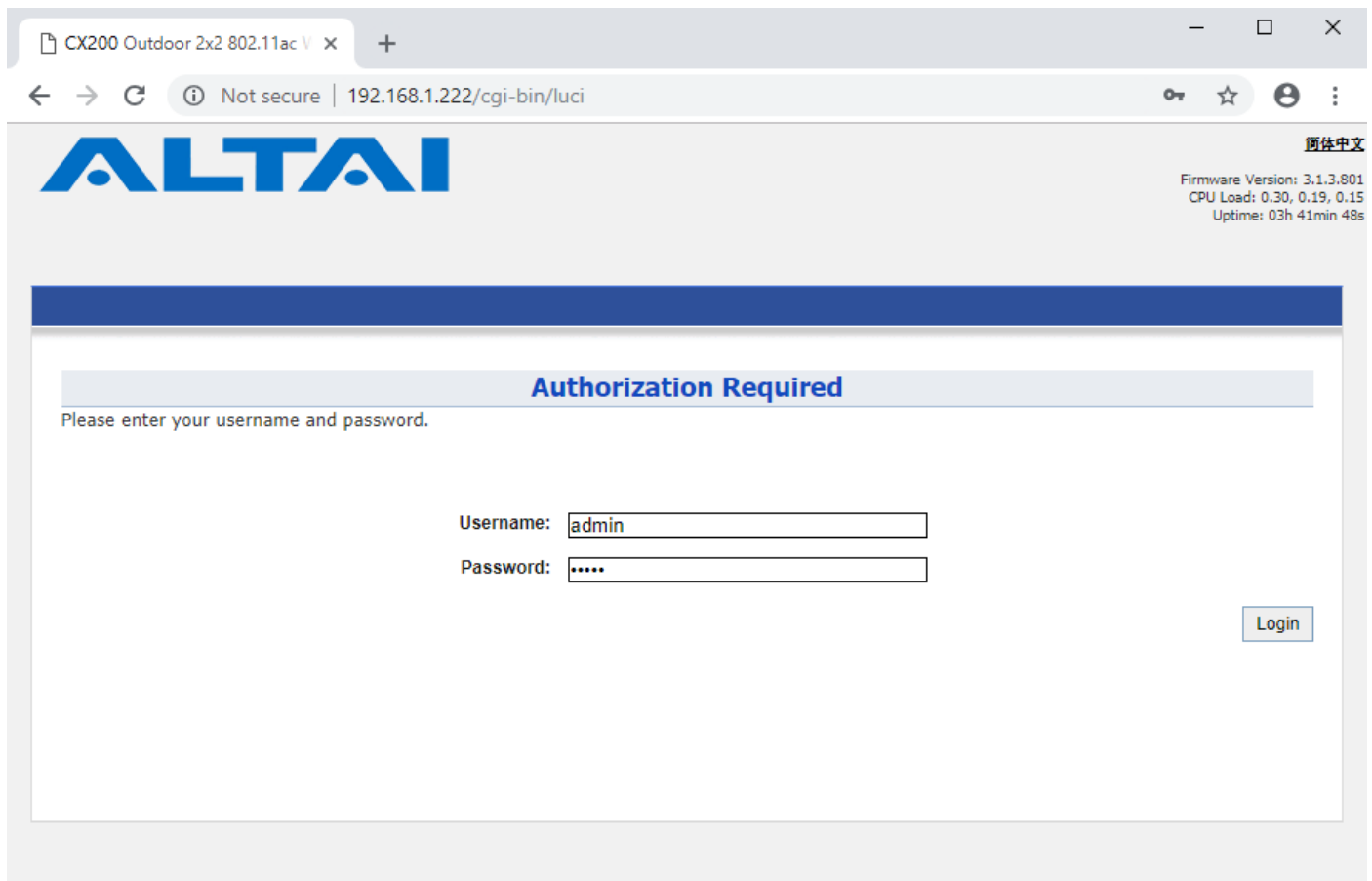
9
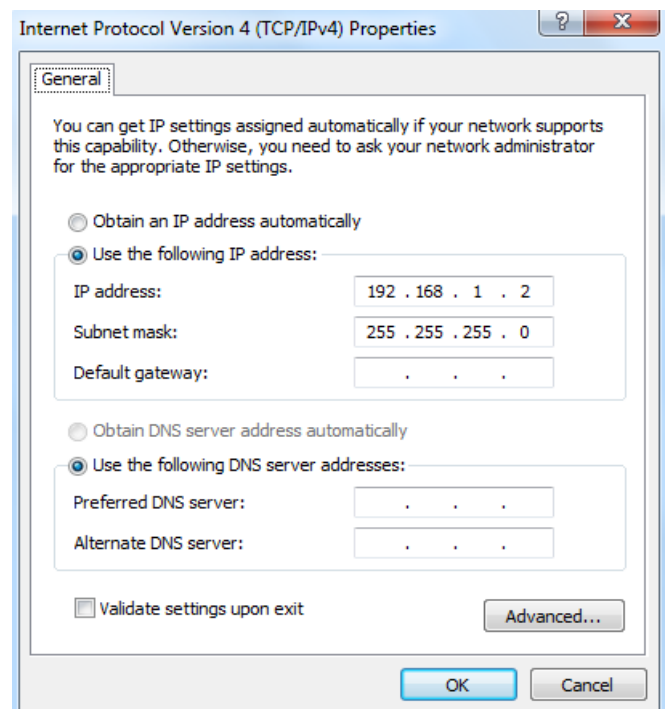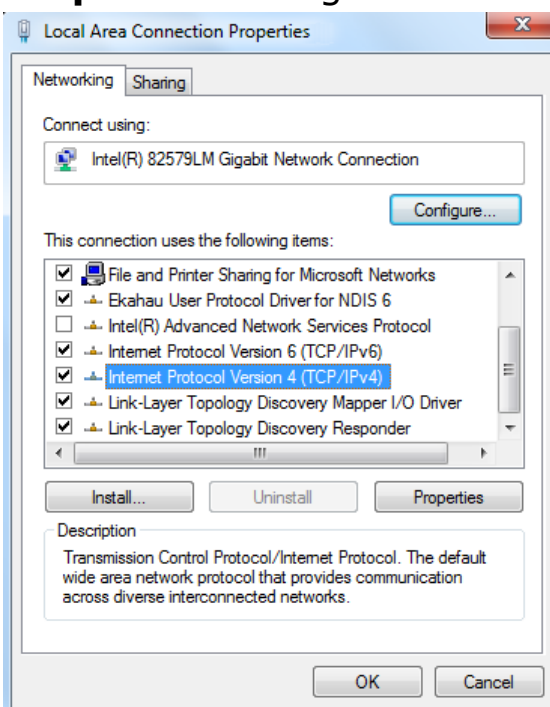
2. Access to Web Interface

1. Open a web browser. Type **192.168.1.222** in the address bar and then hit **Enter**.
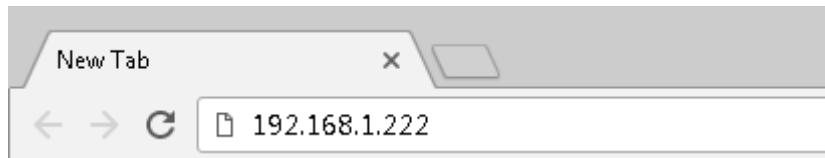
2. Login page will come up and you are required to enter username and password. By default, the credentials are:
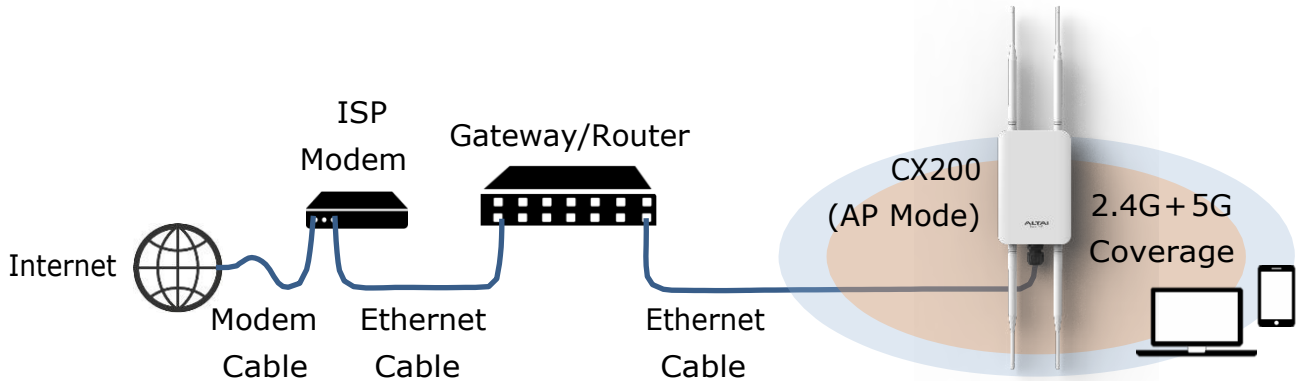   - **Username**: admin
   - **Password**: admin

3. Click Login.

3. Configure AP Mode (2.4G/5G)

Network Scenario

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

1. Make sure the box of **Enable Radio** is checked. Select **AP mode** for the field of **Radio Mode**. Then click **Submit**.

2. Click **WLAN** and click **More...** in **Detail** of WLAN 0 to go to another page for SSID and security configuration.

3. Make sure **WLAN** is enabled by checking the box. Type in **SSID** to name the wireless network you want to broadcast and then click **Submit**.

4. Click the tab **WLAN Security**. Select **WPA2-PSK** from the drop down menu of **Authentication Mode** and select **AES** for **Cipher Mode**. Type in a password within 8~64 characters or numbers in **Pass Phrase** and click **Submit**.

5. Click **Save & Apply** at the top right corner to have all changes take effect.

6. Hook up the CX200 as shown in Network Scenario. The SSID should now be broadcast from CX200 and can be seen in the computer for wireless connection.
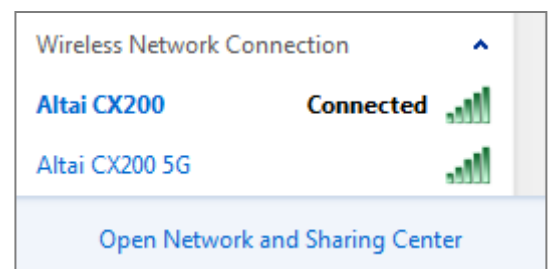
4. Connect with Cloud-Based Controller – AltaiCare

Network Scenario:
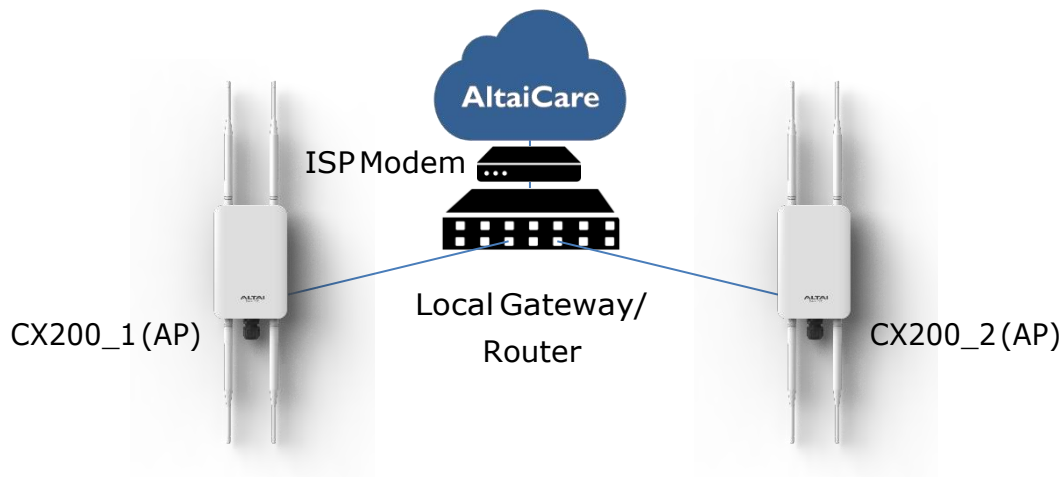
1. You can manage your CX200 and set up hotspot service for the subscribers with AltaiCare, which is a cloud-based system.

2. Go to **Configuration** > **Network** > **General**. Select **Switch Mode** for **Network Setting** and make sure the CX200 can reach Internet and communicate with AltaiCare by inputting **valid** IP settings either via DHCP or with Static IP configuration. Google Public DNS Server can be considered, e.g. 8.8.8.8 or 8.8.4.4 if you are not sure about the ISP DNS's Server IP.

3. Click **Remote Mgmt** and check the box of **Enable Remote Management**. Select AltaiCare as **Management Type** and Cloud as **Connection Type**.
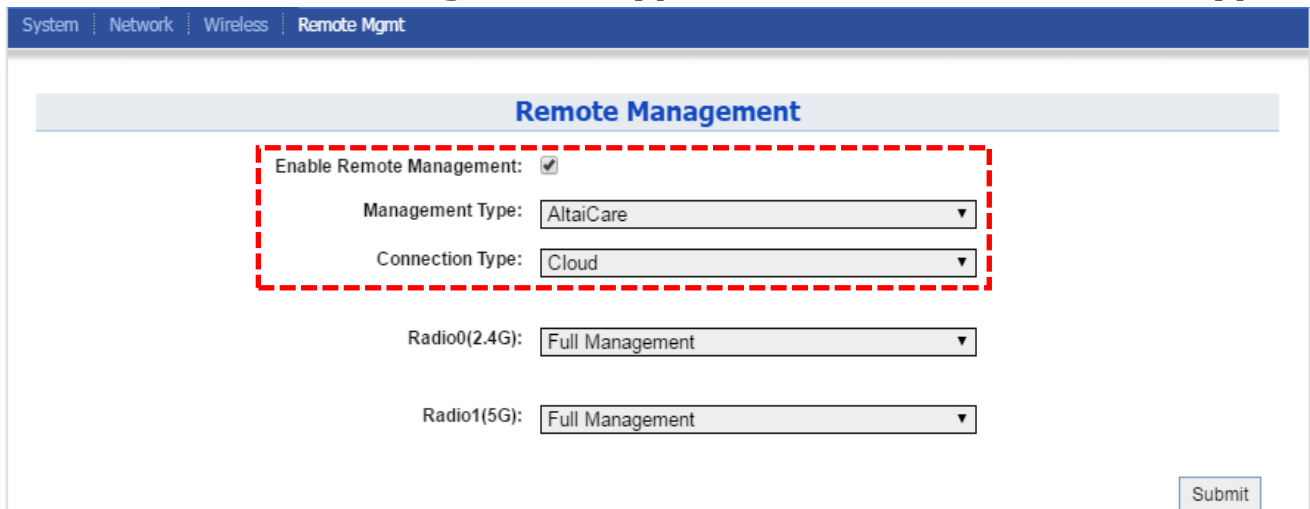
4. Select **Full Management** if the device is running in **AP Mode**. For **Station Mode**, **Bridge Mode** and **Repeater Mode**, select **Monitor Mode** instead.

5. Click **Submit** and then **Save & Apply** at the top right corner to make all the changes take effect.

6. Follow AltaiCare Quick Start Guide and register the CX200 in the system for AP management and user service and admission control.

7. CX200 will appear as online in AltaiCare AP list if the connection is successful.

Federal Communication Commission Interference Statement (FCC) – USA

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

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.

Professional installation instruction

1. Installation personal

This product is designed for specific application and needs to be installed by a qualified personal who has RF and related rule knowledge. The general user shall not attempt to install or change the setting.

2. Installation location

The product shall be installed at a location where the radiating antenna can be kept 20cm from nearby person in normal operation condition to meet regulatory RF exposure requirement.

3. External antenna

Use only the antennas which have been approved by the applicant. The non-approved antenna(s) may produce unwanted spurious or excessive RF transmitting power which may lead to the violation of FCC limit and is prohibited.

4. Installation procedure

Please refer to user's manual for the detail.

5. Warning

Please carefully select the installation position and make sure that the final output power does not exceed the limit set force in relevant rules. The violation of the rule could lead to serious federal penalty.

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.

$$C \, \epsilon$$

16

Warning

Only use the power adaptor supplied with CX200. Using a different power adaptor might damage the device.

Disclaimer

All specifications are subject to change without prior notice. Altai Technologies assumes no responsibilities for any inaccuracies in this document or for any obligation to update information in this document. This document is provided for information purposes only. Altai Technologies reserves the right to change, modify, transfer, or otherwise revise this publication without notice.

Copyright © 2018 Altai Technologies Limited

ALL RIGHTS RESERVED.

Altai Technologies Limited

Unit 209, 2/F, Lakeside 2,
10 Science Park West Avenue,
Hong Kong Science Park,
Shatin, New Territories,
Hong Kong

Telephone: +852 3758 6000

Fax: +852 2607 4021

Web: www.altaitechnologies.com

Customer Support Centre:

Email: support@altaitechnologies.com