

**TP-LINK®**  

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**Installation Guide**

Wireless N Access Point

EAP110/EAP120/EAP220



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## About This Installation Guide

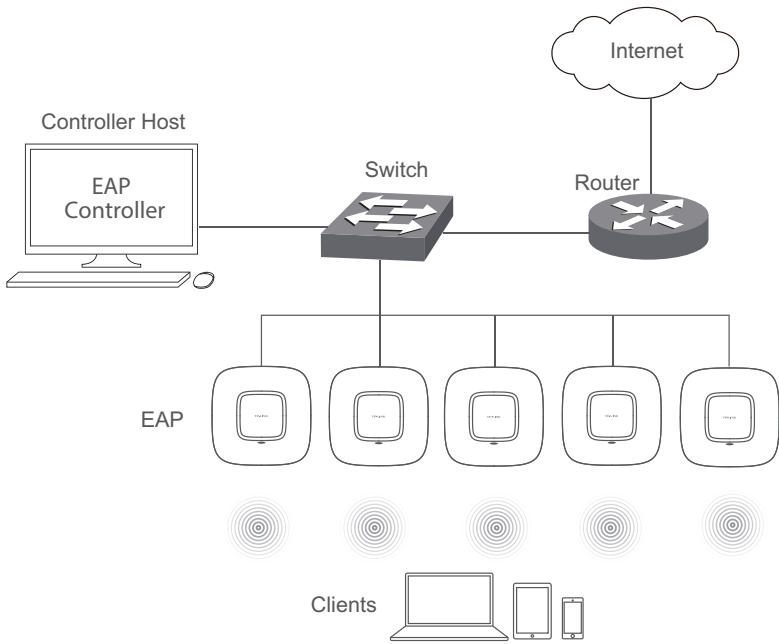
This guide is designed to familiarize you with the general layout of the EAP110, EAP120 and EAP220, describe how to perform the hardware installation, and how to configure the EAP Controller software in your network. Your EAP has more features and functionalities which can be found in the User Guide.

## Conventions

Unless otherwise noted, the EAP or the device mentioned in this guide stands for 300Mbps Wireless N Access Point EAP110, Wireless N Gigabit Access Point EAP120 and EAP220.

# Network Topology

A typical network topology for the EAP is shown below.



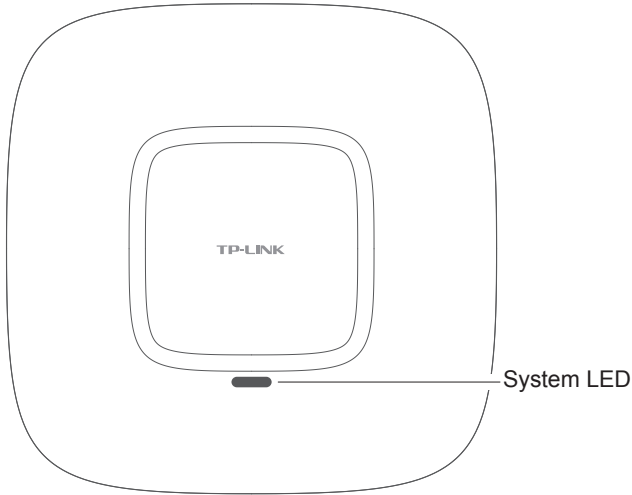
To deploy an EAP in your local network, a DHCP server is required to assign IP addresses to the EAP and clients. Typically, a router acts as the DHCP server. Ensure the EAPs are in the same subnet with the Controller Host in which the EAP Controller software is installed.

The EAP can be managed by the EAP Controller software, which is a management software specially designed for the TP-LINK EAP devices on a local wireless network, allowing you to centrally configure and monitor mass EAP devices using a web browser on your PC. The EAP can also work independently as a standalone device.

# Hardware Overview

## 1. LED

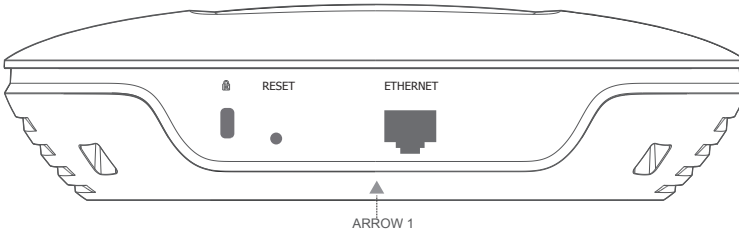
EAP110, EAP120 and EAP220 have the same LED status and corresponding indications.



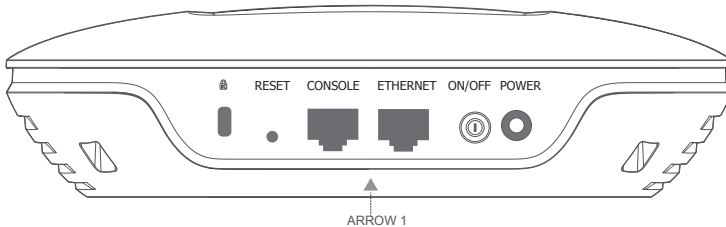
LED Status	Indication
Solid green	The device is working properly.
Flashing red	System errors. RAM, Flash, Ethernet, WLAN or firmware may be malfunctioning.
Flashing yellow	Firmware update is in progress. Do not disconnect or power off the device.
Double-flashing red, green, yellow	The device is being reset to its factory default settings.

## 2. Interface Panel

### ■ EAP110



### ■ EAP120/EAP220



Please note that EAP110 does not have the CONSOLE port, POWER port or ON/OFF button. The interface panel components of the EAP, from left to right, are described in the following list.

#### **Kensington Security Slot**

Secure the lock (not provided) into the security slot to prevent the device from being stolen.

#### **RESET**

With the device powered on, press and hold the RESET button for about 8 seconds until the LED flashes red, then release the button. The device will restore to factory default settings.

#### **CONSOLE**

This port is used to connect to the serial port of a computer or a terminal to check and monitor system information of EAP120/EAP220.

Note: CLI commands are not available in current software version. We will release a new version supporting CLI commands soon. Please pay close attention to our official website.

## ON/OFF

Press this button to turn on/off the EAP120/EAP220.

## POWER

The power port is used to connect the EAP120/EAP220 to an electrical wall outlet via power adapter. Please only use the provided power adapter. Refer to next chapter **4.Power Supply** to learn how to power the EAP120/EAP220 via power adapter.

## ARROW 1

This arrow is used to align with ARROW 2 on the mounting bracket to lock the EAP into place. Please refer to next chapter **2.Mounting Bracket** to locate ARROW 2.

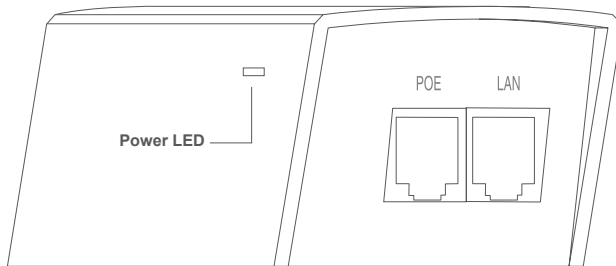
## ETHERNET

For EAP110, this port is used to connect to the POE port of the provided PoE adapter for both data transmission and power supply through Ethernet cabling.

For EAP120/EAP220, this port is used to connect to a router or a switch to transmit data or to a PSE (Power Sourcing Equipment), such as a PoE switch, for both data transmission and Power over Ethernet (PoE) through Ethernet cabling.

### ■ **Passive PoE Adapter**

The PoE adapter is **ONLY** provided with EAP110 for power supply. Refer to next chapter **4.Power Supply** to learn more about power supply for EAP110.



### **Power LED**

The Power LED indicates the status of the electric current: green (0-0.8A), red (0.8A-1A).

### **POE Port**

This port is used to connect to the ETHERNET port of EAP110.

### **LAN Port**

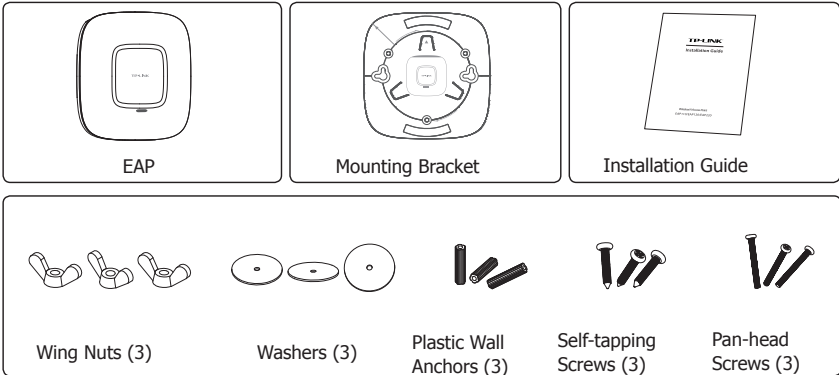
This port is used to connect to your LAN.

# Hardware Installation

The EAP can be wall-mounted or ceiling-mounted. Please suitably arrange your wire layout before mounting the EAP. We take EAP110 as example to explain the installation. EAP110 can be powered via the provided PoE adapter, while EAP120 and EAP220 can be powered via a PoE switch or the provided power adapter.

## 1. Installation Requirements

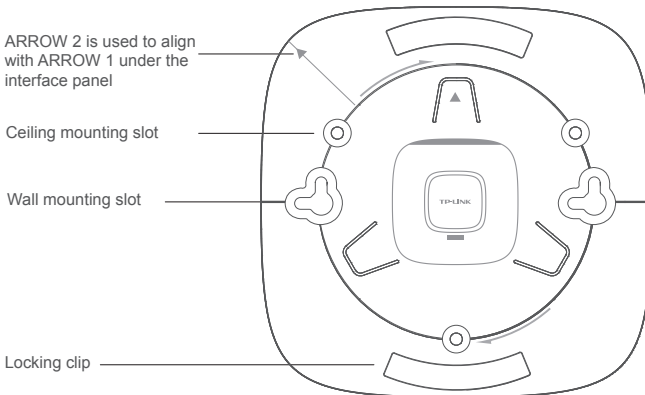
Before installation, check the package contents for the following items:



Other installation equipments may require, including a pencil, ruler, drill, drill bit, screwdriver and a ladder.

## 2. Mounting Bracket

The following figure describes the layout of the mounting bracket.





### 3. Installation

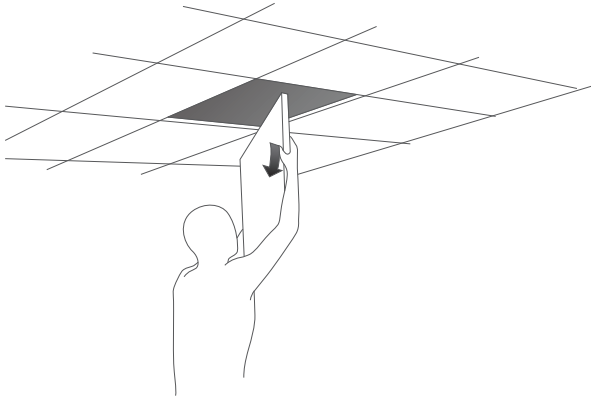
#### ■ Ceiling Mounting



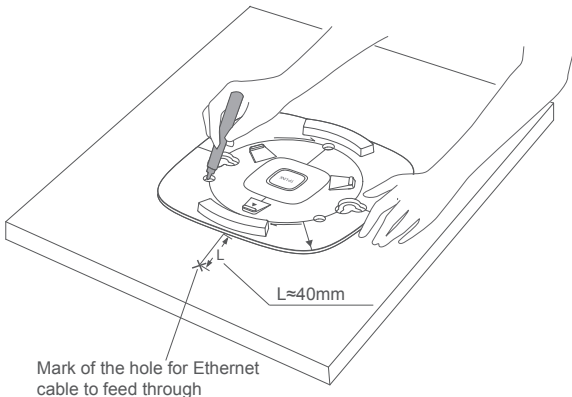
**Note:**

- Make sure the thickness of the ceiling is less than 18mm and the ceiling can bear at least five kilograms.
- It is NOT recommended to mount the EAP on a low-strength material, such as gypsum ceiling panel. If no other choice is available, make sure you add a piece of strong material under the wing nuts to ensure the EAP is mounted solidly.

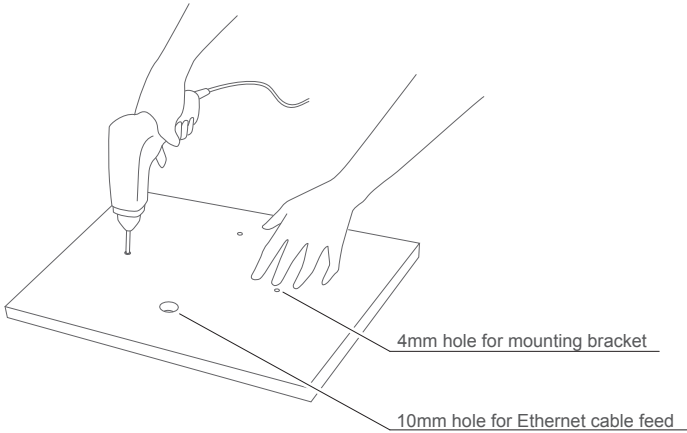
1. Remove the ceiling tile.



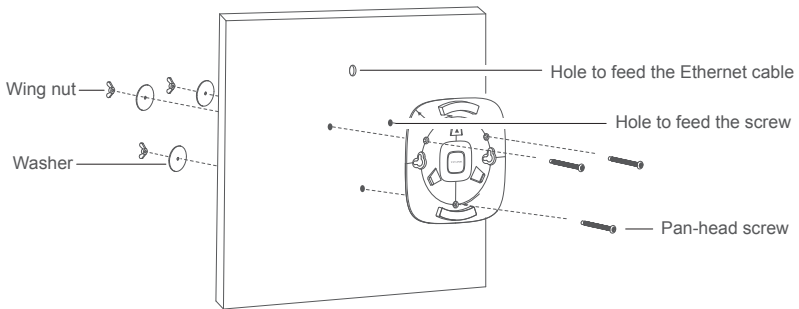
2. Place the mounting bracket in the center of the ceiling tile. Mark the positions of the three mounting slots and a hole for the Ethernet cable to feed through.



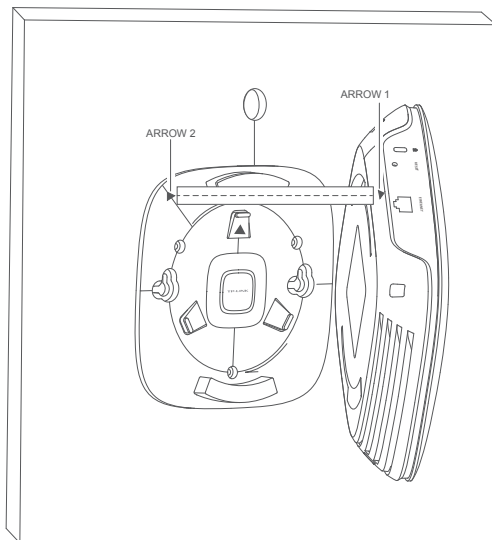
- Use a drill with the appropriate size drill bit to drill three 4mm holes for the pan-head screws, and drill a 10mm hole for the Ethernet cable to feed through.



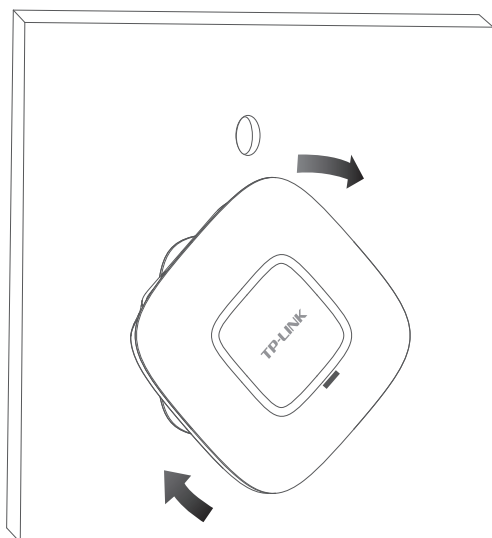
- Secure the mounting bracket to the ceiling tile using the pan-head screws, washers and wing nuts, as shown below.



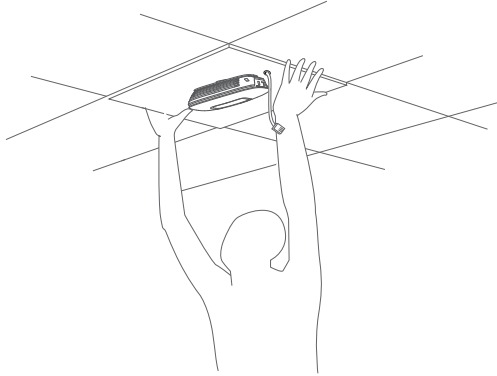
5. Attach the EAP to the mounting bracket by aligning ARROW 1 with ARROW 2, as shown below.



6. Turn the EAP clockwise until it locks into place.



7. Feed the Ethernet cable through the hole and set the ceiling tile back into place.

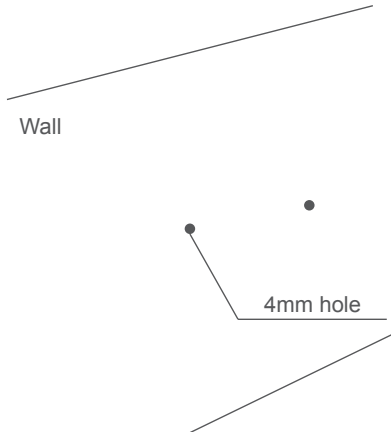


8. Connect the Ethernet cable to the ETHERNET port.

## ■ Wall Mounting

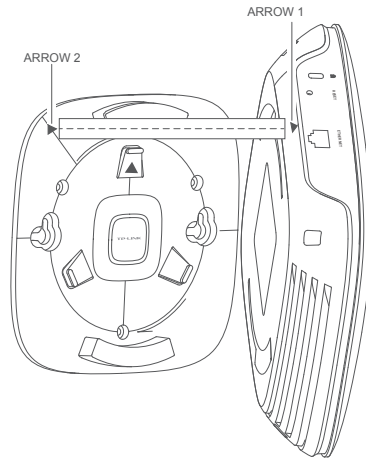
There are two wall-mounting slots on the back of the mounting bracket. To mount the EAP on a wall, please follow the steps below.

1. Make two small pencil marks on the wall. Make sure the two marks are level and should be 98.6mm apart.
2. Use a drill with the appropriate size drill bit to drill two 4mm holes through the center of your marks.



3. Insert the plastic wall anchors into the 4mm holes and drive the self-tapping screws into the anchors.

4. Attach the EAP to the mounting bracket by aligning ARROW 1 with ARROW 2.



5. Turn the EAP clockwise until it locks into place.

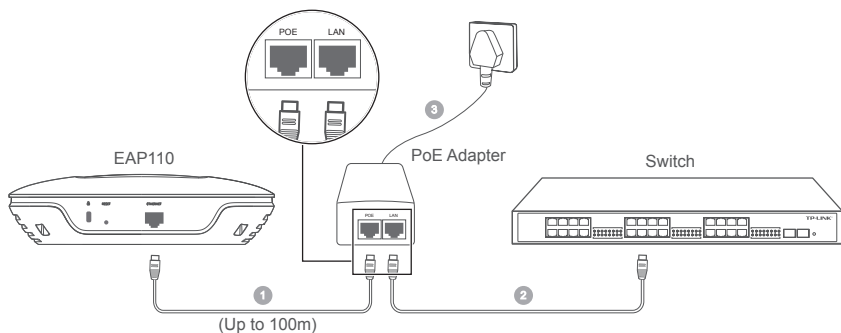


6. Hang the EAP on the screws. Make sure the EAP is firmly seated against the wall.
7. Connect the Ethernet cable to the ETHERNET port on the EAP.

## 4. Power Supply

### ■ EAP110

The EAP110 can be powered with the provided PoE adapter.

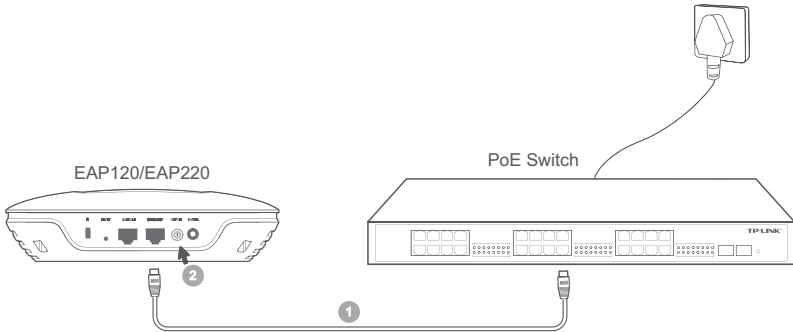


1. Connect the ETHERNET port of EAP110 to the POE port of the PoE adapter through an Ethernet cable. The cable length can be up to 100 meters.
2. Connect the Ethernet cable from the switch to the LAN port of the PoE adapter.
3. Plug the female connector of the power cord into the PoE adapter, and the male connector to a power outlet.

## ■ EAP120/EAP220

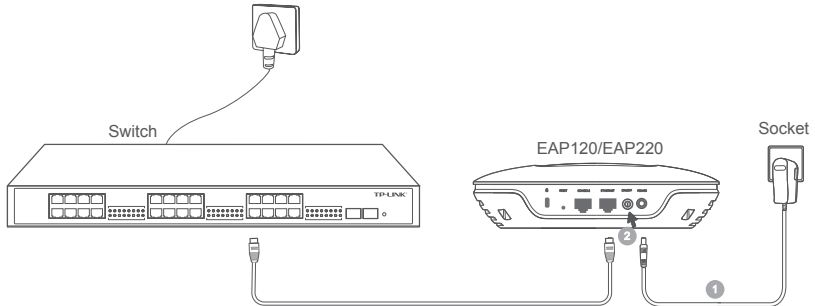
EAP120/EAP220 can be powered via a PSE device (such as a PoE switch) or a power adapter.

### Via PoE Switch



1. Connect the Ethernet cable from the PoE switch to the ETHERNET port of EAP120/EAP220.
2. Press the ON/OFF button on the interface panel of EAP120/EAP220.

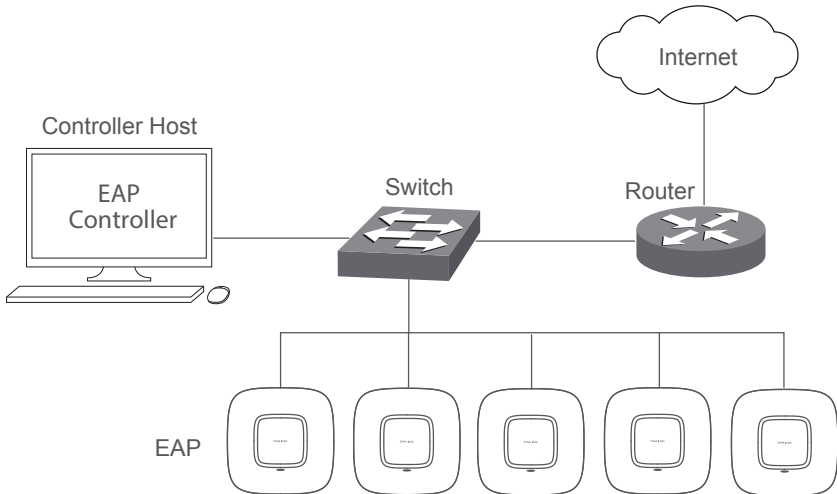
### Via Power Adapter



1. Plug one end of the provided power adapter into the power port of EAP120/EAP220, and the other end to a standard electrical wall socket.
2. Press the ON/OFF button on the interface panel of EAP120/EAP220.

# Software Configuration

The following content will guide you to quickly set up a wireless network connection with mass EAPs, and log in to the EAP Controller management interface to manage the EAPs.



## Step 1: EAP Controller Installation

Follow the step-by-step instructions to complete the EAP Controller installation on the Controller Host.

Note: The EAP Controller application file can be found on the resource CD or downloaded from our website <http://www.tp-link.com/en>. Refer to the EAP Controller User Guide to learn how to perform the installation.

## Step 2: Configuring the Controller Software

Launch the EAP Controller and finish the configuration wizard to create a primary wireless network.

## Step 3: More Configurations

After the primary network is created, a login screen will appear. Enter the admin name and password you created and click **Sign In**. You will be directed to the management interface in which you can perform more advanced configurations. Refer to the EAP Controller User Guide to learn more advanced configurations .



# Q&A

**Q1. What is the maximum cable length between the EAP110 and the provided PoE adapter?**

100 meters. The quality of the Ethernet cable may influence the reception of the power supply.

**Q2. Could the EAP work as a standalone device if it had been adopted by the EAP Controller?**

No. By default, the EAP works as a standalone device. It will function as a Managed AP once adopted by the EAP Controller. You can *Forget* this AP on the Controller management interface to turn it back as a standalone device.

**Q3. Can I manage the EAP devices on a host without the EAP Controller server?**

Yes. Keep the EAP Controller software running on the Controller Host, sign in to the EAP Controller using **https://x.x.x.x:8043/login** in which x.x.x.x is the IP address of the Controller Host and 8043 is the default port number for the server.

For example, the IP address of Controller Host is 192.168.0.100, you can enter **https://192.168.0.100:8043/login** on other hosts in the same LAN to reach the login page of the EAP Controller.

# Specifications

<b>HARDWARE FEATURES</b>			
<b>Model</b>	<b>EAP110</b>	<b>EAP120</b>	<b>EAP220</b>
Interface	Kensington lock slot RESET button		
	ETHERNET: 10/100Mbps Ethernet port (RJ-45)	ETHERNET: 10/100/1000Mbps Ethernet port (RJ-45) CONSOLE port (RJ-45) ON/OFF button Power connector (DC-2)	
Power Supply	24V/1A passive PoE adapter (included)	PoE(802.3af-compliant, 36-57VDC, 0.2A Max) or external 12VDC/1A power supply	PoE (802.3af-compliant, 36-57VDC, 0.4A Max) or external 12VDC/1.5A power supply
Maximum Power Consumption	7.7W	4.4W	9.6W
Antenna	2*3dBi embedded	2*4dBi embedded	4*4dBi embedded
Mounting	Ceiling/Wall mounting (kits included)		
Certification	CE, FCC, RoHS		
Operating Temperature	0°C~40°C (32°F~104°F)		
Operating Humidity	10%~90% non-condensing		
<b>WIRELESS FEATURES</b>			
Wireless Frequency	2.4GHz		2.4GHz & 5GHz
Wi-Fi Standard	IEEE 802.11b/g/n		IEEE 802.11a/b/g/n
Maximum Data Rate	Up to 300Mbps		Up to 600Mbps
Max RF Transmission Power <sup>(1)</sup>	23dBm		2.4GHz:23dBm 5GHz:20dBm
Multiple SSIDs	Up to eight per radio		
Captive Portal Authentication	Support		
Wireless Security	WEP WPA/WPA2-PSK WPA/WPA2-Enterprise		



Maximum transmission power may vary in different countries or regions.





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