Frequently Asked Questions about EAP Outdoor Products?

User Application Requirement Updated 08-03-2021 05:58:13 AM 46101

This Article Applies to:

1. Can EAP Outdoor devices be managed by EAP Controller?

Yes, both EAP Outdoor product and EAP Indoor product can be managed either by EAP controller or by Web GUI.

2. How to mount and install EAP Outdoor devices on a pole or on a wall?

EAP110-Outdoor_V1 has different hardware design as EAP110-Outdoor_V3 & EAP225-Outdoor_V1. You can refer to the QIG by visiting the website links below:

For EAP110-Outdoor V1:

https://static.tp-link.com/EAP110-Outdoor(EU)_V1_IG_1479275525987w.pdf

For EAP110-Outdoor V3 & EAP225-Outdoor V1:

https://static.tp-link.com/2017/201712/20171205/7106507814_EAP_IG.pdf

3. What is the theoretic approximately Maximum Coverage Area in Square Meters of EAP Outdoor devices?

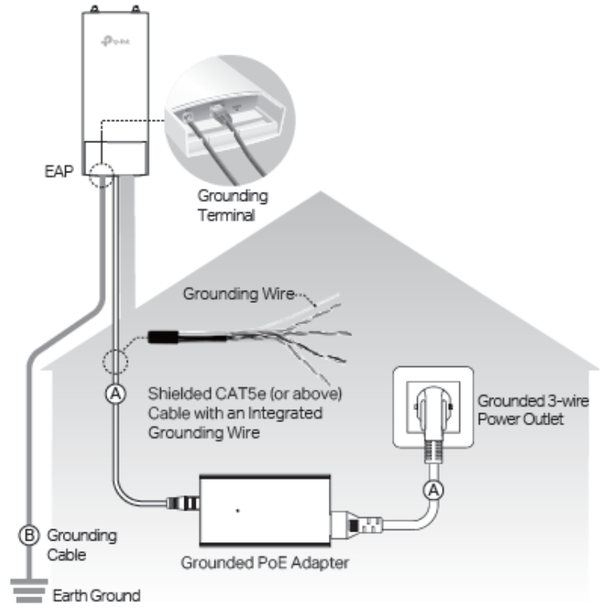
We conducted a survey based on a national park with EAP110-Outdoor, considering the maximum coverage area is the range that wireless throughput declined to 10Mbps, we have the conclusion that the maximum coverage area can be as long as 200m.

Note: This value is only for reference, the actual maximum coverage area depends on your local outdoor environment, obstacles and electromagnetic environment.

4. What should be noticed when we deploy outdoor Wi-Fi using EAP Outdoor devices?

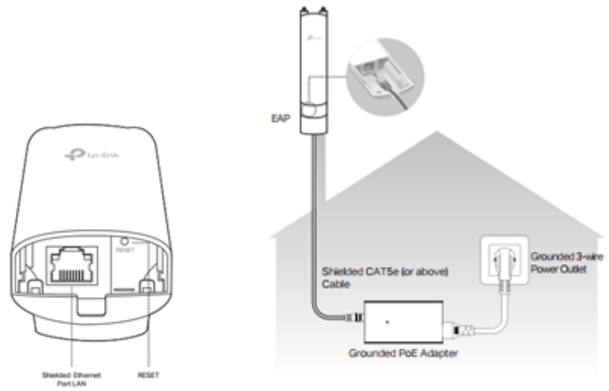
For EAP110-Outdoor V1:

For safety purpose, you can either ground your EAP110-Outdoor with grounding cable (in product package), or with shielded CAT5e (you need to buy it yourself) and three phase supply (with grounding wire) for grounding.



For EAP110-Outdoor V3 & EAP225-Outdoor V1:

For the latest hardware version of EAP outdoor devices (EAP110-Outdoor V3 and EAP225-Outdoor V1), the structure has been modified as shown below:



So for the latest hardware version, we suggest you use shielded CAT5e (you need to buy it yourself) and three phase supply (with grounding wire) for grounding. The grounding cable is not suitable for the latest hardware version since the grounding terminal has been deleted.

5. What is the recommended number of wireless clients for EAP Outdoor devices?

The recommended number of clients for a device is never a certain number, it depends on the network bandwidth occupied by application running on each of the clients. Here we provide a value for you for reference only (tested using apple devices in an interference free LAN):

We kept a record of the number of client devices and corresponding performance of the Access Point with so many devices connected. Two statuses, Smooth Play and Occasional Error, were defined here

to describe the performance of Access Point under test. The table below shows the device capacity for both statuses for EAP110-Outdoor and EAP225-Outdoor.

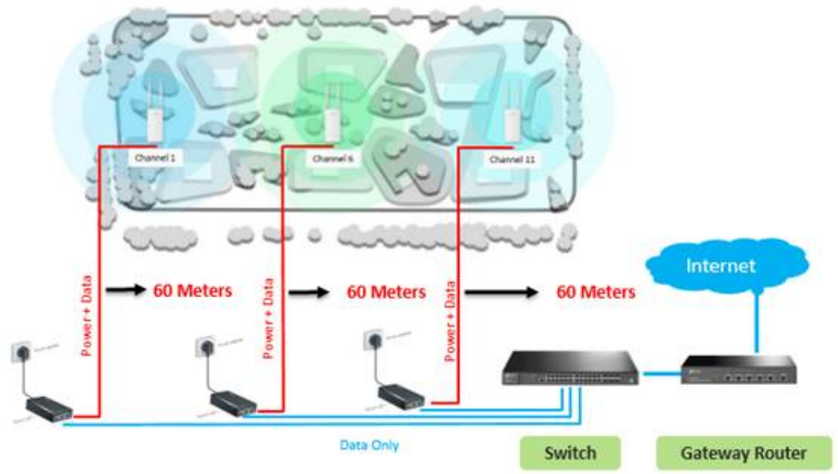
Testing using 720HD video stream	Number of apple clients
Smooth Play	25
Occasional Error	30

6. What is the recommended application scenario for EAP Outdoor devices?

There is no fixed scenario, which can be very flexible. If you have a farm/zoo/events, etc, any environment in the open air, TP-Link EAP Outdoor product will be your best and reliable Wi-Fi Solution.

7. What is the theoretical approximate passive PoE cable length if I use the passive PoE adapter to power EAP Outdoor devices?

The approximate cable length used for passive PoE adapter can be as long as 60 meters theoretically.



Note: Bad quality of Ethernet cable may shorten the valid length less than 60 meters, which may also cause power problem, so we suggest install Cat5e cable or above with better quality to avoid dispute with our product quality.

8. What are the main differences between EAP110-Outdoor and EAP225-Outdoor?

EAP110-Outdoor is a 2.4GHz single band outdoor device while EAP225-Outdoor support both 2.4GHz and 5GHz.

EAP225-Outdoor has much higher wireless speed compared with EAP110-Outdoor, the EAP225-Outdoor supports 300Mbps wireless speed for 2.4GHz and 867Mbps wireless speed for 5GHz.

What's more, the latest version of EAP110-Outdoor and EAP225-Outdoor has adopted a new designing style compared with EAP110-Outdoor_V1.

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[General] Omada

[General] Omada Compatibility List

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Common questions about TP-Link EAP device when it's used in home network

Q&A of functional explanation or specification parameters

Updated 09-17-2020 01:59:05 AM 30994

This Article Applies to:

Configuration on EAP Device

1. **Can I attach the EAP directly to my modem or do I need a router?**

The EAP is NOT a Wi-Fi Router. We cannot use the EAP as a Router by attaching it directly to a modem for sharing the Internet. If there is no router in your network, you may still need to get a router.

2. **Can I connect EAP to another non-TP-Link router?**

Yes you can. The EAP is an access point, it can be connected to any router to improve the wireless coverage.

3. **Can I connect the EAP with Deco?**

If your purpose is connecting the EAP to the Deco unit via Ethernet cable to provide wider wireless coverage, the answer would be YES. But if your purpose is connecting the EAP wirelessly to the Deco without cable, the answer would be NO.

4. **Can EAP Mesh work with Deco Mesh?**

No, EAP can NOT work with Deco products to build a Mesh network since the Mesh mechanism between EAP and Deco products is different.

5. **Can I use the EAP to create a seamlessly roaming network with my router?**

We have some certain EAPs that support 802.11k/V fast roaming feature, which can cooperate with the wireless clients to build a seamless roaming network. If you are interested, please read this FAQ to check more detail. https://www.tp-link.com/support/faq/2097/

6. **Can I use the EAP to bridge my existing network?**

The EAP is an access point, it can only be used to bridge the existing network by Ethernet cable, but NOT to wirelessly bridge the existing network.

7. **Do I need to install the Controller software or purchase a hardware Controller to set up my EAP?**

Generally speaking, you can simply configure each EAP individually for basic functionality without installing or purchasing the Omada Controller. But if you need to configure the network with some advanced features such as Mesh, Reboot Schedule, Fast Roaming, and so on. Omada Controller will be required. For more advanced features that require Omada Controller, please read this FAQ:

https://www.tp-link.com/support/faq/2051/

Troubleshooting on EAP Device

8. **What can I do if I cannot get internet access after connected to the EAP's SSID?**

The EAP is usually plug-and-play, if you get no internet access from the EAP, please firstly confirm the main Router is working fine. Then check the points below and see if it helps:

1. Ensure the EAP is hardwired to the router via an Ethernet LAN cable, use a standard CAT5 above cable for the connection. Usually, we can see a corresponding LED light up on the Router.
2. Test the EAP's SSID with other wireless clients, eliminate the issue is from a specific client.
3. Check the IP info on the wireless clients. To access the Internet, the clients need to get Default Gateway (Router) and DNS Server from your network through the EAP.

   How to find IP address of your computer, How to find IP address of a mobile device
4. Unplug the EAP, and connect a PC instead to the Router with the same Ethernet cable, check the IP info obtained on the PC and confirm it can get internet access.
5. Reset the EAP: with the EAP powered on, use a pin to press and hold the reset hole for about 8 seconds until the LED flashes green-red-yellow to factory default settings.
6. Repeat step 1)-4) if you still get no Internet access from the EAP.

If it still doesn't work, contact TP-Link support with the above results for further assistance.

9. **What can I do if my EAP cannot be powered on?**

1) Please check the power supply supported by your EAP, ensure you are using the correct power supply to power up the EAP. Here is a summary guide for your reference.

PoE Guide to TP-Link Access Points

Note: If your EAP is not listed in the guide above, you may search the full model number from TP-Link official website to get the details.

2) If your EAP comes with a passive PoE adapter, connect the EAP to the **PoE port** of the passive PoE adapter, and the PoE adapter into a power outlet, there will be a green LED lit up on the adapter.

3) Change a different cable and another power outlet.

If it still doesn't work, contact TP-Link support with the EAP device info for further assistance.

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How to optimize wireless performance of EAP products

Troubleshooting Updated 07-01-2019 07:30:17 AM 61555

This Article Applies to:

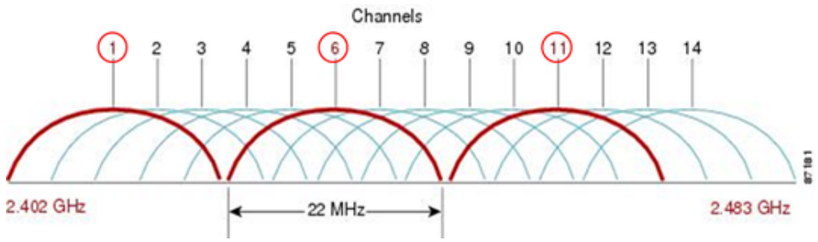
Wireless connection is susceptible to environment interference, it may cause the unstable connection or SSID disappearance. Especially for 2.4G radio, it would be influenced by many interference from other wireless devices in our environment like Bluetooth devices (i.e. wireless speakers, mouse), Microwave oven and USB Interface.

In this situation, we need to do some wireless optimization for EAP products to reduce the disturbance.

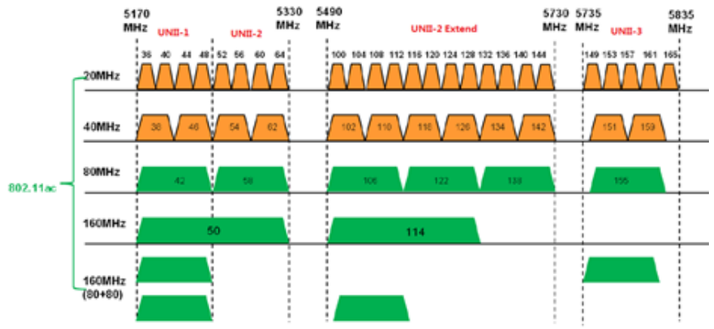
1. Channel and Channel Width Optimization

802.11 n/ac protocols support to bind two or more channels together to increase network bandwidth. Although the channel binding technology can improve the bandwidth, the wider channel also means more frequency resources are occupied and it may increase the wireless interference.

1) For **2.4GHz radio**, we can use 14 channels (EU version supports 1-13 channels, US version supports 1-11 channels), but there are only 3 non-overlapping channels in fact. We recommend to use channel 1,6,11 when deploying 2.4GHz network (with 20MHz Channel Width).



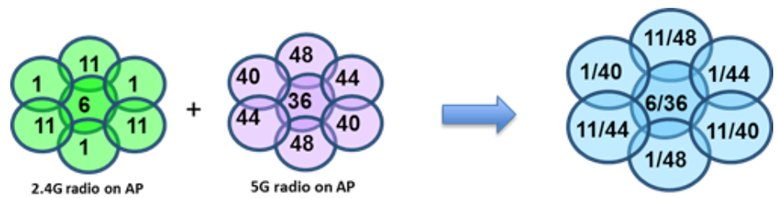
2) For **5GHz radio**, it has more channel resources which are all non-overlapping (with 20MHz channel width). We recommend to use different channels when deploying 5G network (with 20MHz Channel Width).



A suitable solution to reduce the interference is that:

For 2.4G radio, use 1/6/11 channels alternately with 20MHz channel width (HT20).

For 5G radio, use different channels alternately with 20MHz channel width (HT20).



2.4G radio on AP

5G radio on AP

Channel Optimization

2. Transmit power Optimization

TP-Link EAP series allow customer to select different level Tx Power: Low, Medium, High, and Custom. A larger Tx power is not always better, because larger Tx power also means more interference to the adjacent APs.

In the actual wireless environment, if the distance between adjacent AP is much close(less than 15 meters), it's recommended to decrease the Tx power for reducing the wireless interference. **For example, if the Tx power is 25dBm, we can decrease it to 22dBm first for checking. If the wireless connection is still not stable, we can decrease the Tx power again.**