

Installing the ExtremeWireless Indoor AP3912i Access Point

Overview of the AP3912i

The AP3912i is a wall plate 11ac Wave 2 AP that lets you extend your Wireless LAN and deploy local Wifi while still providing extension for wired clients from the same Ethernet jack. This fully-featured access point plugs into existing Ethernet cabled wall plates. The AP provides application visibility and control and policy support over three radios and three wired LAN ports. Wireless and wired traffic can be assigned application-level policy right at the access point. The AP3912i provides flow based data handling for the wireless and wired connections in a single plug and play package. There is minimal or no impact to the existing infrastructure. The pass-through port can be used to directly expose an additional switch port from the same jack. The PSE port provides PoE (802.3af) which allows to directly power devices such as iPhones and IP cameras. The AP3912i is designed with four single-band internal antennas for indoor use only.

Note: The AP3912i requires a minimum base firmware of 10.21.01.

The AP3912i model has the following specifications:

- Primarily designed to support wall, single and dual-gang box installation.
- Radios: Two concurrent WiFi radios (2.4 GHz and 5 GHz) and one additional radio that can operate as Bluetooth or 802.15.4.
- LEDs: 6 (Figure 2)
- Power: 802.3at (PoE+) compliant for full functionality. 802.3af is supported with reduced functionality.
- The AP3912i supports the 802.11ac and 802.11n wireless standards, with full backward compatibility with legacy 802.11abg.
- The AP3912i interoperates fully with Wireless LAN, including support for VoWLAN, branch office mode, guest services, RTLS, availability, and mobility.
- Enabled for ExtremeCloud support.

For detailed installation information about the AP3912i, see the *ExtremeWireless AP3912i Installation Guide*.

Uplink and Power Connections

The AP3912i uses Power over Ethernet (PoE) as follows:

Table 1 Power Sources

Power Source	Description
LAN 1 - uplink PoE port	LAN 1 may be connected using an 802.3at or 802.3af switch port
PoE 802.3at	Power is enabled on the PSE Client port and the PSE LED is green.
PoE 802.3af	Power is disabled on the PSE Client port and the LED is off (not green).

The AP has three client ports (P1, P2 and P3/PSE). These client ports let users connect wired clients, such as laptops and printers, to the network. The PSE power of P3 is enabled only if LAN 1 is powered using 802.3at.

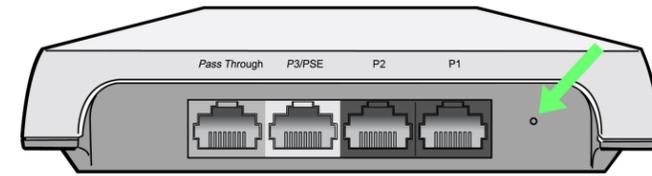
When the PSE is enabled, 802.3af PoE devices, such as IP cameras, can be powered from P3.

The pass-through port (blue connector) in Figure 1 and Figure 4 allow direct connection to a second switch port.

The Reset button (Figure 1) is to the right of the power connections.

Note: LAN connectors with shrouds will not fit into the ports. Remove the shroud or use an optional jumper cable.

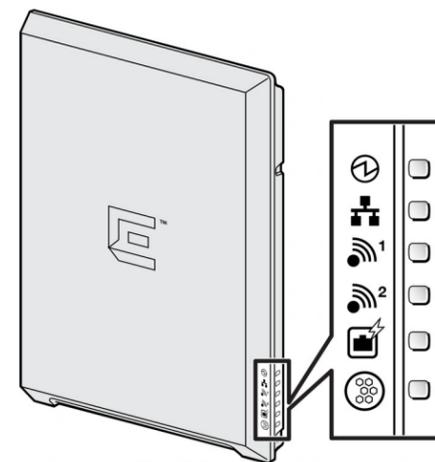
Figure 1 Power Connections and Reset Button



LEDs

LEDs are located on one side of the AP.

Figure 2 LEDs on Side of AP



 Status	 Radio 2 (2.4 GHz)
 LAN 1 (Ethernet 1)	 PSE Client Port
 Radio 1 (5 GHz)	 IoT (BLE or 802.15.4)

Verifying the AP3912i Box Contents

Verify the contents of the box as listed in the following table:

Table 2 Contents of the AP3912i Box

Quantity	Item
1	AP3912i Quick Reference
1	ExtremeCloud Quick Start Card
1	WS-AP3912i AP
1	Wall plate bracket (includes Security Torx captive screw)
The following hardware is included:	
2	Screw-in wall anchors
2	Pan-head machine screws
2	Flat-head wood screws
1	Security Torx key (size T10)

Note: Before mounting the AP3912i, read the Safety Guidelines section.

Mounting and Connecting the AP3912i

Use these instructions as guidelines for mounting and connecting the AP3912i easily and safely.

Attach the AP3912i to an indoor wall or junction/gang box. The wall plate bracket is included with the AP box contents.

The AP mounting bracket is designed for single and dual-gang box configurations. For wider installations, you can either adapt the existing bracket or opt to wall-mount the AP.

Figure 3 Mounting Bracket

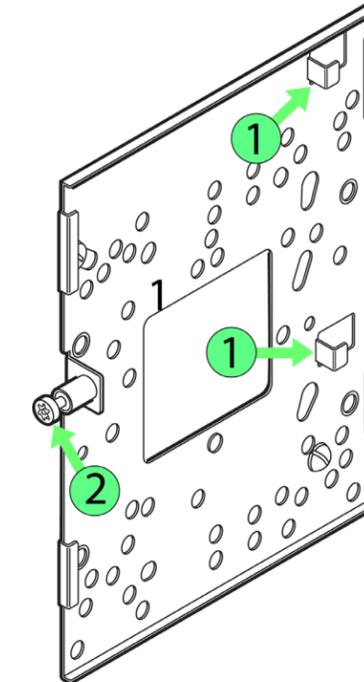


Table 3

Number	Description
1	AP mounting tabs
2	Security Torx captive screw

Mounting the AP3912i to a Wall

- 1 Using the mounting bracket (Figure 3) as a guide, choose a location where it is feasible to place the AP's center. The location must allow the LAN cables to come out of the wall within the large rectangular hole. Place the bracket against the wall. (The captive screw will be used to lock the AP in place.) Decide which two holes to use to mount the bracket. We recommend that the two holes be on opposite sides of the large center opening.
- 2 Mark the two hole centers.
- 3 For drywall/plasterboard walls, drill two holes using a drill bit of 1/4" or 6mm diameter.
- 4 For drywall/plasterboard walls, screw the plastic anchors into the holes.
- 5 Attach the wall plate bracket using the two wood screws. Torque the screw to 9.0 in-lbs.
- 6 Connect the LAN cable from the wall and attach the AP to the mounting bracket, as described below.

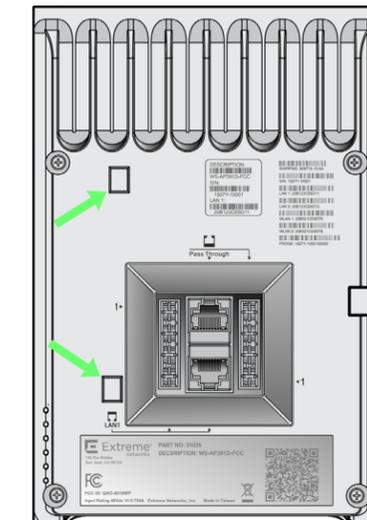
Mounting to a Junction/Gang Box

- 1 Place the bracket over the junction box with the captive screw on the left side (Figure 3) and the large, flat plate

against the wall. The bracket should be attached to a vertical surface.

- 2 Align two of the bracket holes with two of the box's holes. Use bracket holes that are closest to the center of the bracket. Make sure that the entire box is covered by the bracket.
- 3 Using the two pan head machine screws, attach the bracket to the box using the aligned holes. Torque the screws to 12.0 in-lbs.
- 4 Connect the power through the bracket to the AP, and attach the AP to the mounting bracket, as described below.

Figure 4 Back View



Connecting the AP to the Network

Connect the building LAN 1 wire (either PoE+ at or PoE af) to the black RJ-45 connector using short patch cables. Alternatively, connect using the associated punch-down block. The connector and punch-down block are located on the rear of the AP.

Additionally, you can connect the pass-through cable to the blue connector (top) on the back of the AP.

If you are using the punch-down block, use a punch down tool with a 110 blade. For information about pin colors, see the *ExtremeWireless AP3912i Installation Guide*

Caution: Make sure that the wires are punched down professionally. Otherwise the LAN 1 link speed will be dropped to 100 Mbps, instead of 1000 Mbps.

Mounting the AP to the Bracket

- 1 Line up the AP holes (see the arrows in Figure 4) on the rear with the two "L" shaped angled tabs near the right side of the bracket (Figure 3, item #1).
- 2 Slide the AP approximately 1/4" to the left on the two bracket tabs.
- 3 Attach and tighten the security torx screw (Figure 3) to the AP so that the AP is attached to the bracket. Torque the screw to 7.0 in-lbs.

Notice

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Regulatory and Compliance Information

Federal Communications Commission (FCC) Notice:

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.



Warning: 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.



Warning: FCC Radiation Exposure Statement: The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with another antenna or transmitter.

Industry Canada Notice:

This device complies with RSS-247 of the Industry Canada 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.

Ce dispositif est conforme à la norme CNR-247 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Caution:

- 1 The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
- 2 High-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

Avertissement:

- 1 Les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;
- 2 De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

For Mobile Device Usage



Warning: Radiation Exposure Statement: This equipment complies with IC 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.



Warning: Déclaration d'exposition aux radiations: Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20cm de distance entre la source de rayonnement et votre corps.

Safety Guidelines

This section contains notices that you must adhere to ensure your personal safety and to prevent any damage to the equipment.



Caution: The unit and all interconnected equipment must be installed indoors within the same building, including all PoE-powered network connections as described by Environment A of the IEEE 802.3af standard.

European Waste Electrical and Electronic Equipment (WEEE) Notice



In accordance with Directive 2012/19/EU of the European Parliament on waste electrical and electronic equipment (WEEE):

- 1 The symbol above indicates that separate collection of electrical and electronic equipment is required.
- 2 When this product has reached the end of its serviceable life, it cannot be disposed of as unsorted municipal waste. It must be collected and treated separately.
- 3 It has been determined by the European Parliament that there are potential negative effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment.
- 4 It is the users' responsibility to utilize the available collection system to ensure WEEE is properly treated. For information about the available collection system, please contact Extreme Customer Support at 353 61 705500 (Ireland).

Hazardous Substances

This product complies with the requirements of Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Declaration of Conformity in Languages of the European Community

Hereby, Extreme Networks, Inc. declares that the radio equipment type Wireless LAN Access Point is in compliance with Directive 1999/5/EC. The full text of the EU declaration of conformity is available at the following Internet address:

<http://www.extremenetworks.com/>



Note: Changes or modifications made to this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

單元 Unit	限用物質及其化學符號 Restricted substances and its chemical symbols					
	鉛Lead (Pb)	汞Mercury (Hg)	鎘Cadmium (Cd)	六價鉻 Hexavalent chromium (Cr ⁶⁺)	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)
金屬零件 (Metal Parts)	○	○	○	○	○	○
電路模組 (Circuit Modules)	-	○	○	○	○	○
電纜及電纜組件 (Cables & Cable Assemblies)	○	○	○	○	○	○
塑料和聚合物零件 (Plastic and Polymeric parts)	○	○	○	○	○	○

備考1. “超出0.1 wt %”及“超出0.01 wt %”係指限用物質之百分比含量超出百分比含量基準值。
Note 1: “Exceeding 0.1 wt %” and “exceeding 0.01 wt %” indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.

備考2. “○”係指該項限用物質之百分比含量未超出百分比含量基準值。
Note 2: “○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

備考3. “-”係指該項限用物質為排除項目。
Note 3: The “-” indicates that the restricted substance corresponds to the exemption.

NCC Statement

低功率電波輻射性電機管理辦法

第十二條 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

在 5.25-5.35 赫茲頻帶內操作之無線資訊傳輸設備，限於室內使用。

電磁波曝露量 MPE 標準值 1mW/cm²，送測產品實測值為 0.315 mW/cm²