

Overview of the WS-AP3801i

The WS-AP3801i is designed to extend your IdentifiFi Wireless LAN around indoor locations. The WS-AP3801i supports the 802.11ac wireless standards, with full backward compatibility with legacy 802.11a, 802.11b, 802.11g, and 802.11n devices. The WS-AP3801i interoperates fully with Wireless LANs, including support for VoWLAN, branch office mode, guest services, RTLS, availability, and mobility features.

WS-AP3801i models have the following features:

- Radios: 2 radios (2.4 GHz and 5 GHz)
- LEDs: 4 (see [Figure 2](#))
- Power: <12.95W; 802.3af (see [Table 1](#))
- Antennas:
 - 4 **internal** single band antenna assemblies
- Mounting brackets for 15/16" drop ceiling T-bar rail:
 - 1 protruded drop ceiling rail bracket
 - 1 flat drop ceiling rail bracket

[Figure 1](#) displays a front and back view of the WS-AP3801i.

Figure 1 Front & Back View of the AP3801i

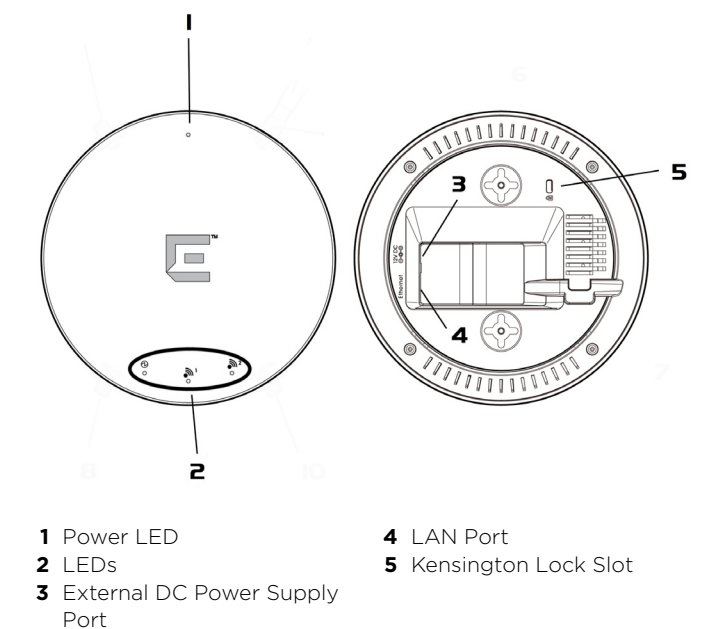


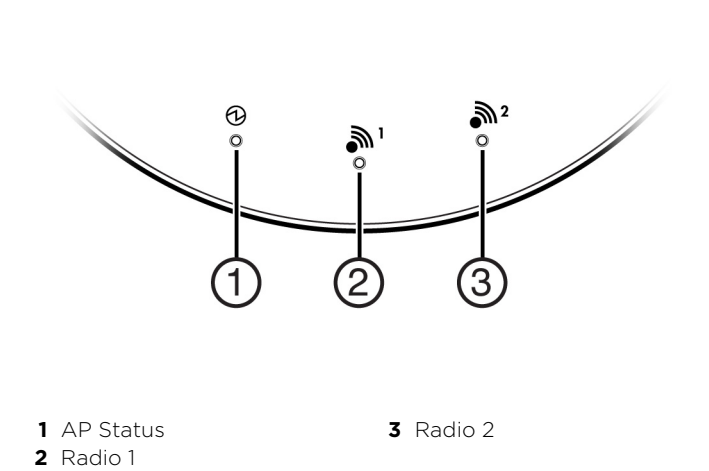
Table 1 shows ways to power the WS-AP3801i.

Table 1 Powering the WS-AP3801i

Power Source	Description
Power over Ethernet (PoE)	Power is provided through the RJ45 Ethernet port (LAN port) on the top of the WS-AP3801i. This is the preferred method of powering the AP on ceiling and high wall installations.
External 12V DC power (optional)	The WS-AP3801i can also be powered by an external DC power supply plugged into an AC supply source. Plug the supply's input jack into the DC-In port (callout 3 in Figure 1).

[Figure 2](#) shows the LEDs on the front of the WS-AP3801i.

Figure 2 LEDs on AP Front Face



Green LEDs mean ON. Amber LEDs mean OFF.

For detailed installation information about the WS-AP3801i, see the *Extreme Networks IdentifiFi Wireless AP3805 Installation Guide*.

Mounting and Connecting the AP

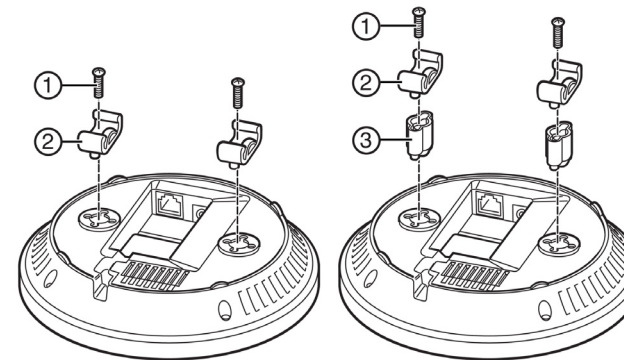
Electrical Hazard: Only qualified personnel should perform installation procedures.

A wall mount bracket is included for quick and easy mounting of the WS-AP3801i to a wall. Additionally, a ceiling mounting kit is provided for mounting the AP to a drop ceiling. Use these instructions as guidelines for mounting and connecting the WS-AP3801i easily and safely.

Mounting on a Drop Ceiling

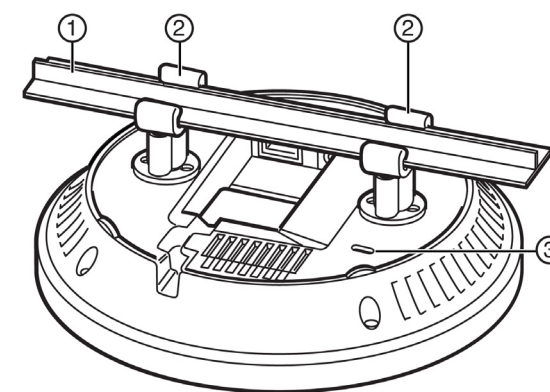
[Figure 3](#) and [Figure 4](#) shows the T-rail connector being mounted to the AP3801i.

Figure 3 Attaching the T-Rail Connector to the AP



- 1 Attach the T-rail connectors (see [Figure 3](#), Item 2) to the bottom cover of the AP using the provided short screws (see [Figure 3](#), Item 1). Two sizes of T-rail connectors are included in the mounting hardware kit: 15/16 in (2.38 cm) and 9/16 in (1.43 cm).
- 2 If extra space is required to accommodate drop ceiling tiles, use the provided spacers and long screws (see [Figure 3](#), Items 1 and 3).
- 3 Remove the ceiling panels around the drop ceiling T-bar rails where you intend to mount the AP.
- 4 Line up the connected T-rail connectors (see [Figure 4](#), Item 2) with an appropriately sized rail (see [Figure 4](#), Item 1), and press the AP onto the rail until it snaps into place as shown in [Figure 4](#). Verify that the Ethernet cable that will connect to the AP can reach the AP at the point where you plan to mount it.
- 5 With both bracket tabs over the T-bar rail lips, tap the AP to verify it is stable and won't fall off. [Figure 4](#) illustrates the AP and bracket mounted on a T-bar rail.

Figure 4 WS-AP3801i Mounted on Drop Ceiling T-bar Rail

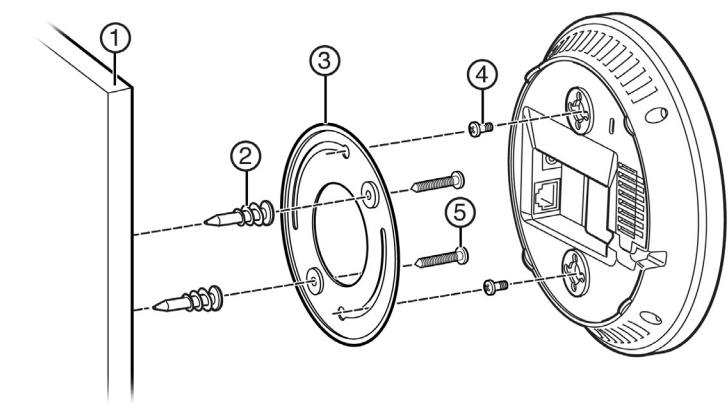


- 6 Make a hole through the ceiling panel closest to the power slot on the AP. Run the Ethernet cable through the hole and into an RJ45 LAN port in the recessed connector bay.
- 7 Replace the displaced ceiling panels.

Mounting on a Wall or Solid Flat Ceiling

[Figure 5](#) shows the AP3801i being mounted to a wall or solid ceiling.

Figure 5 Mounting the WS-AP3801i to a Flat Wall or Solid Ceiling



- 1 Determine the spot on the wall where the AP is to be mounted, preferably high up on the wall (near the ceiling for maximum radio wave dispersion) but in reach of the Ethernet cable and a wall power outlet if you are not able to use Power over Ethernet.
- 2 Drill two holes in the wall (see [Figure](#), Item 1) to match the center of the two keyhole slots in the back of the AP bracket (see [Figure](#), Item 3). For a tight fit, the holes should be slightly smaller than the diameter of the provided plastic anchors.
- 3 Screw the anchors (see [Figure](#), Item 2) into the holes until they are flush with the wall, and screw the provided mounting screws (see [Figure](#), Item 5) into the anchors.
- 4 Screw the AP mounting screws (see [Figure](#), Item 4) into the bottom of the AP.
- 5 Mount the AP on the mounting bracket by aligning the mounting screw with the slots in the bracket and rotating the unit clockwise about 90 degrees to secure it in place. [Figure](#) shows an exploded view of this mounting method.

Connecting a Power Supply to the WS-AP3801i

If you need to power the WS-AP3801i with an external 12V DC power supply, you can plug the power cord into the power connector (see [Figure 1](#), Item 6) on the back of the AP. There is no wall mount for the 12V DC power supply. When the device is powered on, the power LED on the front face of the AP is lit. Refer to the *Extreme Networks IdentifiFi Wireless AP3805 Installation Guide* for information about optional power supplies.

LAN Connection

The WS-AP3801i has one LAN (Ethernet) port (see [Figure 1](#), Item 7). During administration and maintenance through the LAN, the AP must still have a power connection through either an Ethernet PoE cable or a DC power supply.

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

Notice

Copyright © 2014 Extreme Networks, Inc. All Rights Reserved.

Legal Notices

Extreme Networks, Inc., on behalf of or through its wholly-owned subsidiary, Enterasys Networks, Inc., reserves the right to make changes in specifications and other information contained in this document and its website without prior notice. The reader should in all cases consult representatives of Extreme Networks to determine whether any such changes have been made.

The hardware, firmware, software or any specifications described or referred to in this document are subject to change without notice.

Trademarks

Extreme Networks and the Extreme Networks logo are trademarks or registered trademarks of Extreme Networks, Inc. in the United States and/or other countries.

All other names (including any product names) mentioned in this document are the property of their respective owners and may be trademarks or registered trademarks of their respective companies/owners.

For additional information on Extreme Networks trademarks, please see: www.extremenetworks.com/company/legal/trademarks/

Support

For product support, including documentation, visit: www.extremenetworks.com/support/

Contact


Extreme Networks, Inc.
145 Rio Robles
San Jose, CA 19534
Tel: +1 408-579-2800
Toll-free: +1 888-257-3000

Regulatory and Compliance Information

Safety Guidelines

This section contains notices that are intended to protect your personal safety and prevent damage to the equipment.

Qualified Personnel:


 **Electrical Hazard:** Only qualified personnel should perform installation procedures. Within the context of the safety notes in this documentation, qualified persons are defined as persons who are authorized to commission, ground and label devices, systems, and circuits in accordance with established safety practices and standards. A qualified person understands the requirements and risks involved with installing outdoor electrical equipment in accordance with national codes.

RF Safety Distance

The antennas used for this transmitter must be installed to provide a separation distance of at least 22 cm from all persons and must not be co-located or operating in conjunction with another antenna or transmitter.

Federal Communications Commission (FCC) Notice

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.

 **Warning:** 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.

Industry Canada Notice

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations for the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la class B prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

产品说明书附件 Supplement to Product Instructions


部件名称 (Parts)	有毒有害物质或元素 (Hazardous Substance)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr ⁶⁺)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
金属部件 (Metal Parts)	×	○	○	○	○	○
电路模块 (Circuit Modules)	×	○	○	○	○	○
电缆及电缆组件 (Cables & Cable Assemblies)	×	○	○	○	○	○
塑料和聚合物部件 (Plastic and Polymeric parts)	○	○	○	○	○	○
电路开关 (Circuit Breakers)	○	○	○	○	○	○

○: 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 标准规定的限量要求以下。
Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T 11363-2006 standard.

×: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006 标准规定的限量要求。
Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T 11363-2006 standard.

对销售之日的所售产品, 本表显示。
极进供应链的电子产品信息可能包含这些物质。注意: 在所售产品中可能会也可能不会含有所有所列的部件。
This table shows where these substances may be found in the supply chain of Extreme's electronic information products, as of the date of sale of the enclosed product. Note that some of the component types listed above may or may not be a part of the enclosed product.

除非另外特别的标注, 此标志为针对所涉及产品的环保使用期标志。某些零部件会有一个不同的环保使用期(例如, 电池单元模块)贴在其产品上。
此环保使用期限只适用于产品是在产品手册中所规定的条件下工作。
The Environmentally Friendly Use Period (EFUP) for all enclosed products and their parts are per the symbol shown here, unless otherwise marked. Certain parts may have a different EFUP (for example, battery modules) and so are marked to reflect such. The Environmentally Friendly Use Period is valid only when the product is operated under the conditions defined in the product manual.



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

English	Hereby, Extreme Networks, declares that this Radio LAN device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Finnish	Valmistaja Extreme Networks vakuuttaa täten että Radio LAN device tyypinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Dutch	Hierbij verklaart Extreme Networks dat het toestel Radio LAN device in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG. Bij deze verklaart Extreme Networks dat deze Radio LAN device voldoet aan de essentiële eisen en aan de overige relevante bepalingen van Richtlijn 1999/5/EC.
French	Par la présente Extreme Networks déclare que l'appareil Radio LAN device est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE. Par la présente, Extreme Networks déclare que ce Radio LAN device est conforme aux exigences essentielles et aux autres dispositions de la directive 1999/5/CE qui lui sont applicables.
Swedish	Härmed intygar Extreme Networks att denna Radio LAN device står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
Danish	Undertegnede Extreme Networks erklærer herved, at følgende udstyr Radio LAN device overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
German	Hiermit erkläre Extreme Networks die Übereinstimmung des "WLAN Wireless Controller bzw. Access Points" mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 1999/5/EG.
Greek	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Extreme Networks ΔΗΛΩΝΕΙ ΟΤΙ Radio LAN device ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.
Icelandic	Extreme Networks lýsir her með yfir að thessi bunadur, Radio LAN device, uppfyllir allar grunnkröfur, sem gerðar eru í R&TTE tilskipun ESB nr 1999/5/EC.
Italian	Con la presente Extreme Networks dichiara che questo Radio LAN device è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Spanish	Por medio de la presente Extreme Networks declara que el Radio LAN device cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
Portuguese	Extreme Networks declara que este Radio LAN device está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Malti	Hawnhekk, Extreme Networks, jiddikjara li dan Radio LAN device jikkonforma mal-htigijiet essenzjali u ma provvedimenti oħrajn rilevanti li hemm fid-Direttiva 1999/5/EC.

Extreme Networks Wireless Access Points

Quick Reference

WS-AP3801i

Federal Communication Commission Interference Statement

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.

IMPORTANT NOTE:

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.

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

Country Code selection feature to be disabled for products marketed to the US/CANADA

“Operation of this device is restricted to indoor use only”

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 20 cm 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.

Industry Canada statement:

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et*
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

Caution:

- (i) 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;

Avertissement:

- (i) 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;

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.

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 20 cm de distance entre la source de rayonnement et votre corps.

This radio transmitter (IC: 4141B-4200) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio (IC: 4141B-4200) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

EUT	Model	Type	Connector	2.4G	5.15~5.25GHz	5.725~5.85GHz
For WS-AP3805i	Ant 1: 5718A0075300	PIFA	I-Pex	3.52	na	na
	Ant 2: 5718A0074300	PIFA	I-Pex	3.16	na	na
	Ant 3: 5718A0077300	PIFA	I-Pex	na	5.4	5.23
	Ant 4: 5718A0076300	PIFA	I-Pex	na	4.08	5.68
For WS-AP3805e	2.4G Ant: 7102A0300000	Dipole	R SMA	4.42	na	na
	5G Ant: 7102A0301000	Dipole	R SMA	na	3.18	2.95
For WS-AP3805e	WS-AI-DQ04360	Directional Panel	RPSMA Plug	4	7	7
For WS-AP3805e	WS-AI-DD05120	Directional Panel	RPSMA Plug	5	5	5