ExtremeWireless™ AP3915e

Installation Guide

9035130-03
November 2018

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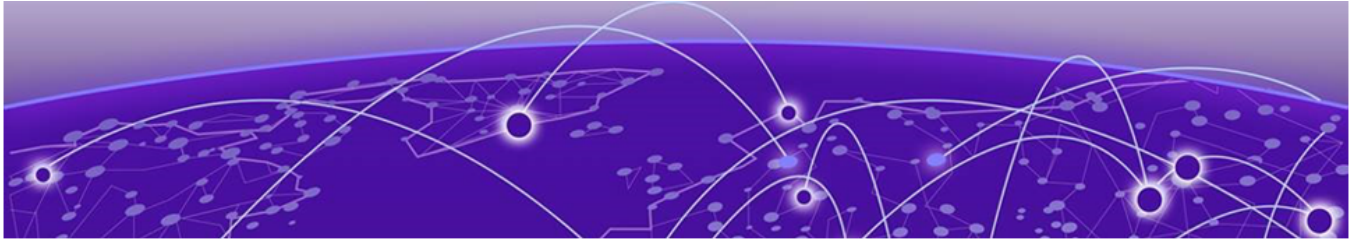

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Preface

Read the following topics to learn about:

- The meanings of text formats used in this document.
- Where you can find additional information and help.
- How to reach us with questions and comments.

Text Conventions

Unless otherwise noted, information in this document applies to all supported environments for the products in question. Exceptions, like command keywords associated with a specific software version, are identified in the text.

When a feature, function, or operation pertains to a specific hardware product, the product name is used. When features, functions, and operations are the same across an entire product family, such as Extreme Networks switches or SLX routers, the product is referred to as *the switch* or *the router*.

Table 1: Notes and warnings

Icon	Notice type	Alerts you to...
	Tip	Helpful tips and notices for using the product
	Note	Useful information or instructions
	Important	Important features or instructions
	Caution	Risk of personal injury, system damage, or loss of data
	Warning	Risk of severe personal injury

Table 2: Text

Convention	Description
`screen displays`	This typeface indicates command syntax, or represents information as it is displayed on the screen.
The words *enter* and *type*	When you see the word *enter* in this guide, you must type something, and then press the Return or Enter key. Do not press the Return or Enter key when an instruction simply says *type*.
Key names	Key names are written in boldface, for example **Ctrl** or **Esc**. If you must press two or more keys simultaneously, the key names are linked with a plus sign (+). Example: Press **Ctrl**+**Alt**+**Del**
Words in italicized type	Italics emphasize a point or denote new terms at the place where they are defined in the text. Italics are also used when referring to publication titles.
NEW!	New information. In a PDF, this is searchable text.

Table 3: Command syntax

Convention	Description
bold text	Bold text indicates command names, keywords, and command options.
italic text	Italic text indicates variable content.
`[ ]`	Syntax components displayed within square brackets are optional. Default responses to system prompts are enclosed in square brackets.
`{ x | y | z }`	A choice of required parameters is enclosed in curly brackets separated by vertical bars. You must select one of the options.
x | **y**	A vertical bar separates mutually exclusive elements.
< >	Nonprinting characters, such as passwords, are enclosed in angle brackets.
...	Repeat the previous element, for example, *member*[*member*...].
\	In command examples, the backslash indicates a “soft” line break. When a backslash separates two lines of a command input, enter the entire command at the prompt without the backslash.

Documentation and Training

Find Extreme Networks product information at the following locations:

Current Product Documentation
Release Notes
Hardware and Software Compatibility for Extreme Networks products
Extreme Optics Compatibility
Other Resources such as articles, white papers, and case studies

Open Source Declarations

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Training

Extreme Networks offers product training courses, both online and in person, as well as specialized certifications. For details, visit the Extreme Networks Training page.

Help and Support

If you require assistance, contact Extreme Networks using one of the following methods:

Extreme Portal

Search the GTAC (Global Technical Assistance Center) knowledge base; manage support cases and service contracts; download software; and obtain product licensing, training, and certifications.

The Hub

A forum for Extreme Networks customers to connect with one another, answer questions, and share ideas and feedback. This community is monitored by Extreme Networks employees, but is not intended to replace specific guidance from GTAC.

Call GTAC

For immediate support: (800) 998 2408 (toll-free in U.S. and Canada) or 1 (408) 579 2800. For the support phone number in your country, visit www.extremenetworks.com/support/contact.

Before contacting Extreme Networks for technical support, have the following information ready:

- Your Extreme Networks service contract number, or serial numbers for all involved Extreme Networks products
- A description of the failure
- A description of any actions already taken to resolve the problem
- A description of your network environment (such as layout, cable type, other relevant environmental information)
- Network load at the time of trouble (if known)
- The device history (for example, if you have returned the device before, or if this is a recurring problem)
- Any related RMA (Return Material Authorization) numbers

Subscribe to Product Announcements

You can subscribe to email notifications for product and software release announcements, Field Notices, and Vulnerability Notices.

1. Go to The Hub.
2. In the list of categories, expand the **Product Announcements** list.
3. Select a product for which you would like to receive notifications.
4. Select **Subscribe**.
5. To select additional products, return to the **Product Announcements** list and repeat steps 3 and 4.

You can modify your product selections or unsubscribe at any time.

Send Feedback

The User Enablement team at Extreme Networks has made every effort to ensure that this document is accurate, complete, and easy to use. We strive to improve our documentation to help you in your work, so we want to hear from you. We welcome all feedback, but we especially want to know about:

- Content errors, or confusing or conflicting information.
- Improvements that would help you find relevant information.
- Broken links or usability issues.

To send feedback, email us at documentation@extremenetworks.com.

Provide as much detail as possible including the publication title, topic heading, and page number (if applicable), along with your comments and suggestions for improvement.

Overview

The AP3915e is an 802.11AC Wave 2 Access Point featuring dual 2x2:2 radios. The all-metal design supports high operating temperatures, external antennas, and flexible mounting options for wall mount, ceiling mount, beam, and T-bar. The AP can be powered by 802.3af or by using a 12VDC wall brick power source.

The AP3915e comes with the following features:

- Two Radios (2.4GHz and 5GHz)
- One IoT/BLE Radio (2.4 GHz)
- RJ45 Console Port
- One RJ45, 10/100/1000 Ethernet Port (LAN1) with PoE
- LEDs: Four (see LED Indicators)
- One Reset button
- Power: PoE 802.3af; 12VDC power in connector
- Antenna Information: – Three external antennas (two dual-band antennas and one IoT/BLE antenna) – RSPMA mount style antenna connectors External USB 2.0 port with features to support a locking module Safety Hangar provision
- Enabled for ExtremeCloud™ support.

Features

The following features are present in AP3915e:

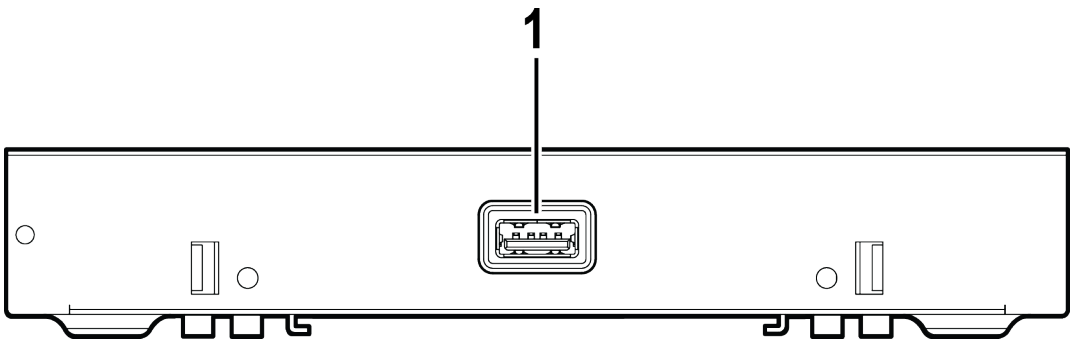


Figure 1: AP3915e Front View

Table 4: AP3915e Front View Feature

Item	Description
1	USB Port

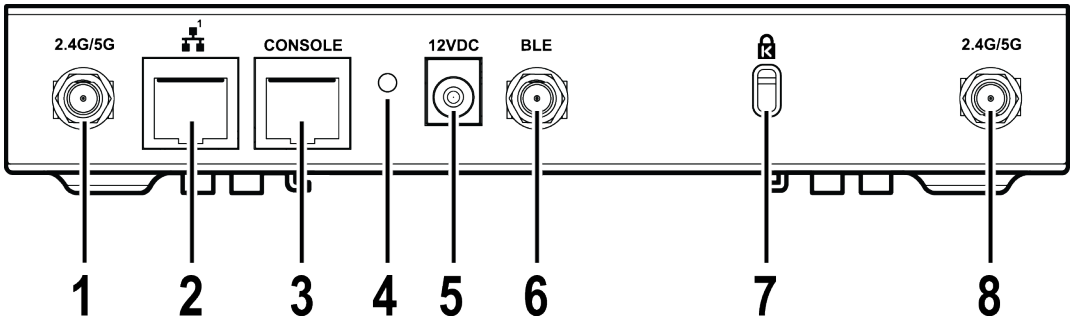


Figure 2: AP3915e Rear View

Table 5: AP3915e Rear View Feature

Item	Description
1 - 2.4G/5G	Radio
2 - GE1/PoE	Use this port to power on the AP.
3 - Console RJ45 Port	Console RJ45 Connector.
4 - Reset button	Use a tool to access this button to reset the AP settings.
5 - Optional 12V DC Power Supply	The AP can be powered on using this optional power supply.
6	IoT/BLE Antenna Connector.
7	Kensington Lock Slot.
8	2.4/5G Radio Antenna Connector.

LED Indicators

AP3915e Access Points have LED indicators on the front of the box. The LEDs provide the status of the access point indicating on, off,and network activity.

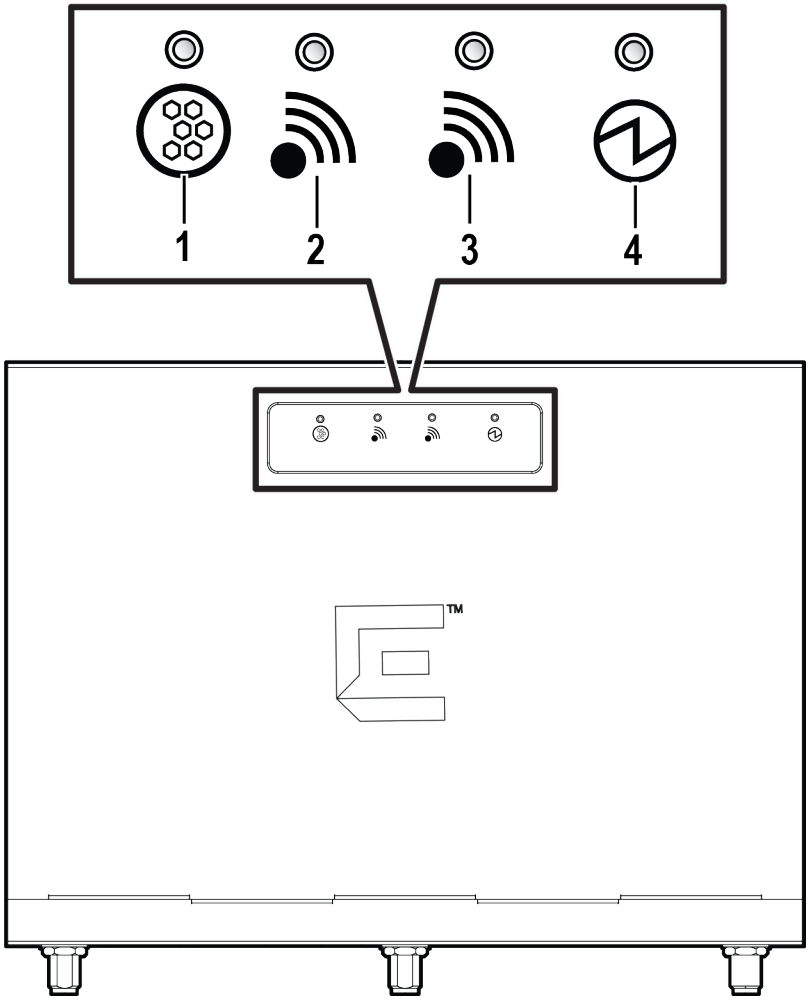


Figure 3: AP3915e Top View

Table 6: LED Indicators

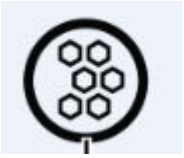
Item	Status	Description
1 (IoT Radio) 	Blue	Indicates IoT application is running.
2 (5 GHz radio) 	Green	Radio 1, 5GHz. Indicates radio is enabled.
3 (2.4 GHz radio) 	Green	Radio 2, 2.4GHz. Indicates radio is enabled.

Table 6: LED Indicators (continued)

Item	Status	Description
4 (Status  LED)	Green	Indicates AP is working normally.
	Amber	Indicates System Failure.

Installation Process

Follow this procedure to install AP3915e:

1. Verify the box contents.
2. Review the Safety Guidelines.
3. Read the Professional Installation Instructions.
4. Mount the AP to a flat ceiling, juction/gang box, or a suspended ceiling.

   Note
   An optional bracket P/N 30516 (WS-MBI-WALL04 wall mounting bracket) is sold separately. This bracket is used for mounting the AP on a flat ceiling, suspended or drop ceiling, or junction/gang box.

5. Connect the Power Supply to the AP3915e access point.

Verifying the Box Contents

Before you install the AP3915e access point, make sure that you have all the necessary parts.

1. Verify that the box contains the following items:

Table 7: AP3915e Box Contents

Items	Quantity
1	AP3915e Quick Reference Guide
1	ExtremeCloud™ Quick Start Card
1	WS-AP3915e-AP

Table 7: AP3915e Box Contents (continued)

Items	Quantity
1	Mounting Bracket for 802.11ac Indoor AP assembled onto the AP
2	Philips Pan-head wood screws
2	Screw-in anchors

2. Perform a visual inspection of the AP for any signs of physical damage. Contact if there are any signs of damage.

Note
Before mounting the AP3915e, read the Safety Guidelines.

Professional Installation Instructions

Installation Personnel

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.

Installation Location

The product shall be installed at a location where the radiating antenna can be kept 36 cm from nearby person in normal operation condition to meet regulatory RF exposure requirement.

External Antenna

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

Installation Procedure

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.

Instructions d'installation professionnelle

Installation

Ce produit est destine a un usage specifique et doit etre installe par un personnel qualifie maitrisant les radiofrequences et les regles s'y rapportant. L'installation et les reglages ne doivent pas etre modifies par l'utilisateur final.

Emplacement d'installation

En usage normal, afin de respecter les exigences reglementaires concernant l'exposition aux radiofrequences, ce produit doit etre installe de facon a respecter une distance de 36 cm entre l'antenne emettrice et les personnes.

Antenn Externe

Utiliser uniiquement les antennes approuvees par le fabricant. L'utilisation d'autres antennes peut conduire a un niveau de rayonnement essentiel ou non essentiel depassant les niveaux limites definis par FCC/IC, ce qui est interdit.

Procedure d'installation

Consulter le manuel d'utilisation.

Warning
Avertissement: Choisir avec soin la position d'installation et s'assurer que la puissance de sortie ne depasse pas les limites en vigueur. La violation de cette regle peut conduire a de serieuses penalites federales.

Mounting Brackets and Accessories Usage

Mounting Brackets Specifications

Mounting Bracket/ Accessory	Wall Install	Ceiling Install	Protrusion	Ceiling Width(s)	Notes
37201; Main Mounting Bracket	Yes	Yes	No	15/16"	This bracket comes attached to the access point. Installation methods: Wall mount or flush ceiling mount with single width.
KT-135628-01 Accessory; Requires #37201 bracket for mounting	Yes	Yes	Yes, 0.32" tall	15/16" and 9/16" flat T-bars	Wall mount or protruded ceiling mount.
WS-MBI-DCMTR01 (#30518); Bracket	No	Yes	Yes, 0.625" tall	9/16", 1.5", 15/16"	Protruded ceiling mount with varying widths.

Mounting Bracket/ Accessory	Wall Install	Ceiling Install	Protrusion	Ceiling Width(s)	Notes
WS-MBI-WALL04 (#30516); Bracket	Yes	Yes	No	15/16"	Wall mount or flush ceiling mount with single width.
#37210 Flat metal easy-attach adaptor; Requires #37201 bracket for mounting	Yes	Yes	No	15/16"	Wall mount or flush ceiling mount with single width or any solid surface.
WS-MBI-DCFLUSH (#37211); Bracket	No	Yes	Yes, 0.05"	9/16", 1.5", 15/16"	Protruded ceiling mount with varing widths.

Mounting to a Suspended/Drop ceiling

The AP3915e can be mounted to a suspended or drop ceiling directly using the main mounting bracket on the t-bar. If there is a ceiling tile protrusion, add the optional T-bar adaptor to the main mounting bracket prior to T-bar installation.

The AP can be mounted to a suspended/drop ceiling using:

1. #37201, Main Mounting Bracket to a Flat T-bar.
2. #37201, Main Mounting Bracket with adaptor KT-135628-01 to a Flat T-bar.
3. #37211, WS-MBI-DCFLUSH bracket to a Flat T-bar.
4. #30518, WS-MBI-DCMTR01.

Mounting the AP using the Main Mounting Bracket to a Flat T-bar

The AP can be mounted on a t-bar using the mian mounting bracket that is shipped with the unit.

Pre-Installation checklist:

- T-bar width must be 15/16” (24mm).
- T-bar bottom must be flat all the way across.
- T-bar minimum base thickness: N/A; must be structurally sound.

- T-bar maximum base thickness: 0.055”.
- Ceiling Tile must be flat all the way across.

1. Remove the ceiling tiles, push and rotate the main mounting bracket onto the T-bar in such a way that the center angled locking tabs of the main bracket gets attached to the T-bar.

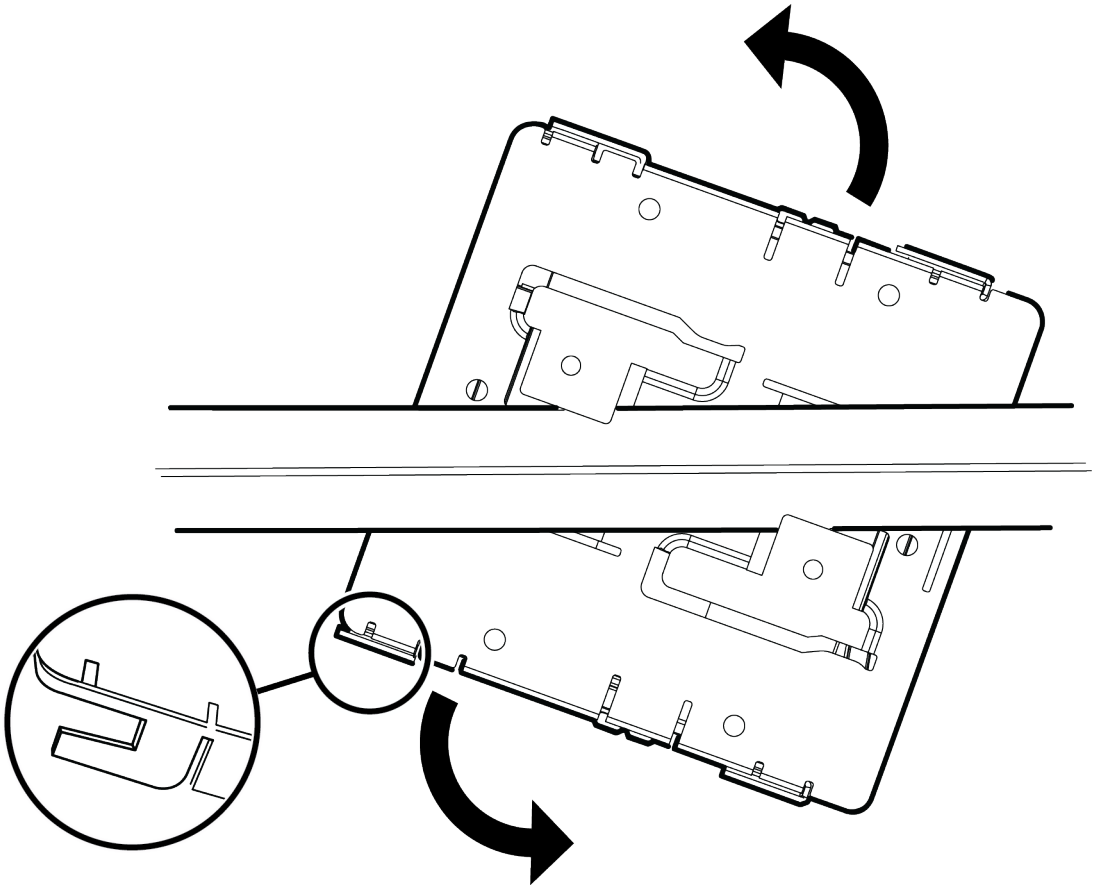


Figure 4: Attaching the main mounting bracket to a T-bar

2. Hold the AP and rock it back and forth to ensure it is securely mounted.
3. Replace the tiles.
4. Attach the Ethernet cable’s RJ45 connector to the LAN1/GE1 port.

Mounting the AP using the Main Mounting Bracket and KT-135628-01 Adaptor to a Flat T-bar

Mounting the AP to a suspended or drop ceiling requires the optional adaptor (Universal Mounting Kit for WLAN APs; # KT- 135628-01). The adaptor requires a flat t-bar and fits a ceiling tile with up to a 0.35” protrusion from the bar.

Pre-Installation checklist:

- T-bar width can be either 9/16” (15mm) or 15/16” (24mm).
- T-bar bottom must be flat all the way across.

- T-bar minimum base thickness: N/A; must be structurally sound.
- T-bar maximum base thickness: 0.055”. Due to manufacturing variation some adaptors may be able to accommodate up to 0.060”.
- Ceiling tile may protrude up to 0.3" below the T-bar.

1. Attach the T-bar adaptor by lining up the small bends on the adaptor with the long raised parts on the main bracket, pull up on the adaptor’s locking pin, and twist. Make sure the locking pin goes into the locking pin hole on the main bracket and locks in place.

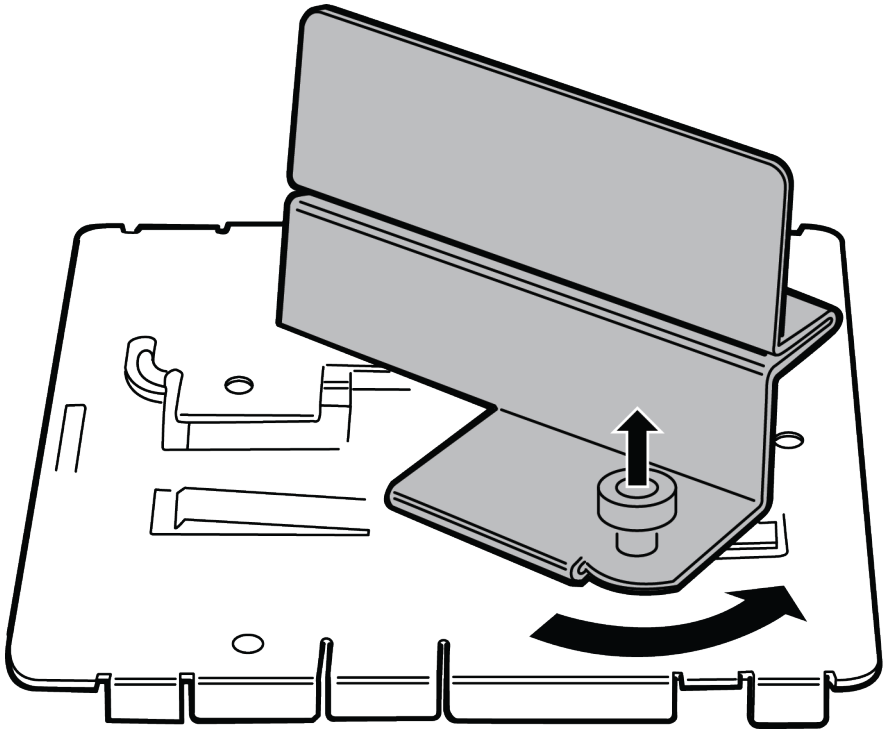


Figure 5: Attaching the adapter to the main bracket

2. Slide the T-bar holder onto the T-bar and replace the tiles to hold the adaptor onto the T-bar.
3. Hold the AP and rock it back and forth to ensure that it is securely mounted.
4. Attach the Ethernet cable’s RJ45 connector to the LAN1/GE1 port.

Mounting the AP using the WS-MBI-DCFLUSH Bracket to a Flat T-bar

The optional WS-MBI-DCFLUSH (#37211) bracket can also be used for T-bar installations without the mounting bracket.

Pre-Installation checklist:

- T-bar width must be 9/16” (15mm), 15/16” (24mm), 1.5” (38mm).
- T-bar bottom must be flat all the way across.
- T-bar minimum base thickness: N/A; must be structurally sound.
- T-bar maximum base thickness is 0.080” (2mm).

- Ceiling tile must be flat all the way across.
- Maximum ceiling tile protrusion allowed is 0.015” (0.38mm).

1. Remove the ceiling panels around the drop ceiling T-bar rail.

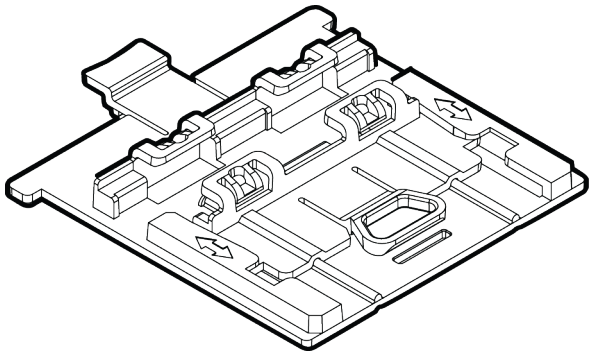


Figure 6: WS-MBI-DCFLUSH Bracket

2. Open the movable sliding part of the T-bar to give the stationary and slider T-bar more space.

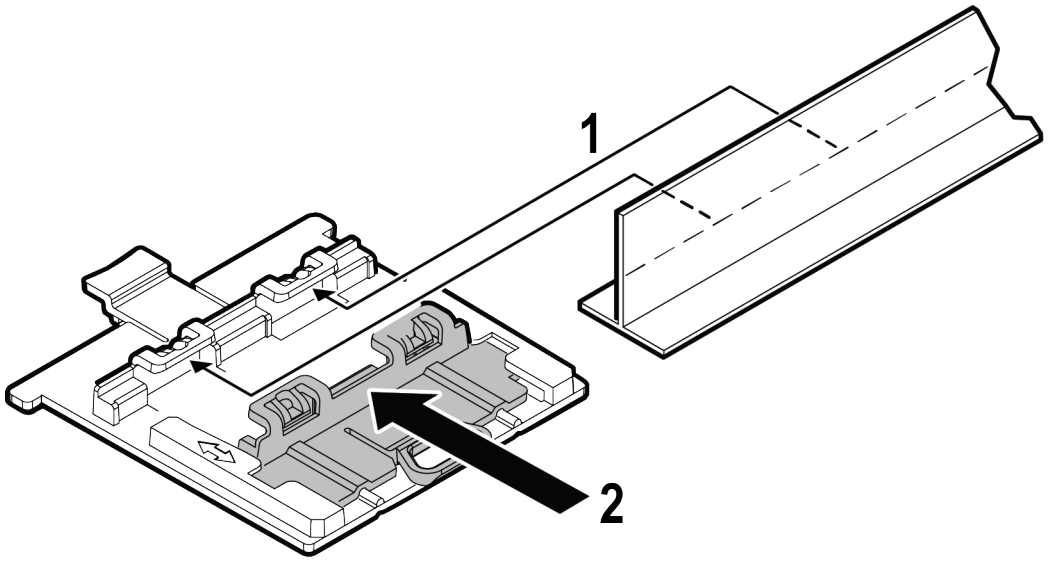


Figure 7: Installing the WS-MBI-DCFLUSH bracket

3. Hook the stationary end of the T-bar bracket onto the T-bar
4. Tilt the T-bar up slightly in such a way that you are holding the stationary and movable sides of the bracket. 4 Squeeze the bracket parts together until you hear the T-bar locking tab click into place.

5. Slide the T-bar ceiling mount bracket base into the back of the access point. The locking tab fits into a groove in the outside of the AP.

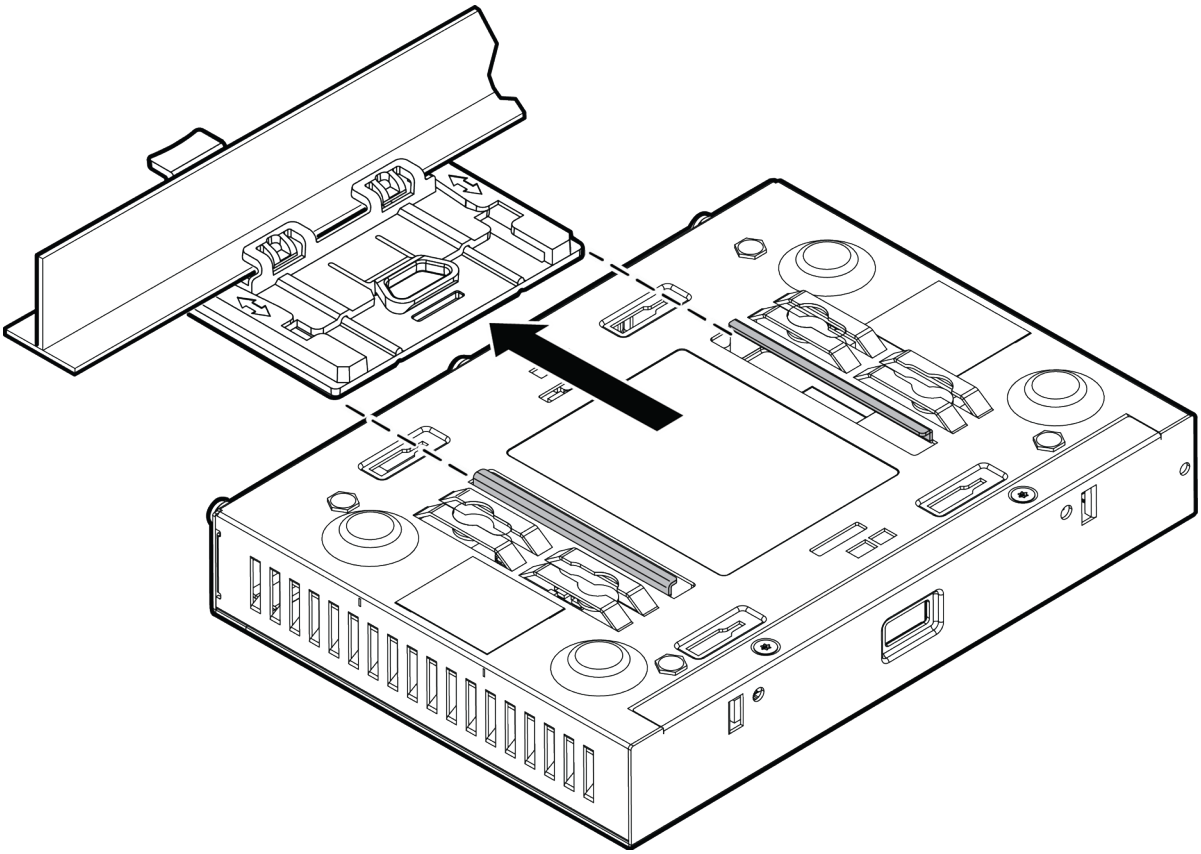


Figure 8: Attaching the AP3915e unit onto the WS-MBI-DCFLUSH bracket

6. Hold the AP and rock it back and forth to ensure that it is securely mounted.
7. Attach the Ethernet cable's RJ45 connector to the LAN1/GE1 port and place the ceiling tile back in place.

Mounting the AP using the WS-MBI-DCMTR01 Bracket

The optional WS-MBI-DCMTR01 (#30518) bracket can also be used for T-bar installations without the mounting bracket.

Pre-Installation checklist:

- T-bar width must be 9/16" (15mm), 15/16" (24mm), 1.5" (38mm).
- T-bar minimum base thickness: N/A; must be structurally sound.
- T-bar maximum base thickness is 0.118" (3mm).
- T-bar can have a maximum protrusion of 0.625" (15.8mm).
- Maximum protrusion of the ceiling tile can be 0.625" (15.8mm).

1. Remove the ceiling panels around the drop ceiling T-bar rail.
2. Open the movable sliding part of the T-bar to give the stationary and slider T-bar more space.

3. Hook the stationary end of the T-bar bracket onto the T-bar.
4. Tilt the T-bar up slightly in such a way that you are holding the stationary and movable sides of the bracket. 4 Squeeze the bracket parts together until you hear the T-bar locking tab click into place.
5. Slide the T-bar ceiling mount bracket base into the back of the access point. The locking tab fits into a groove in the outside of the AP.

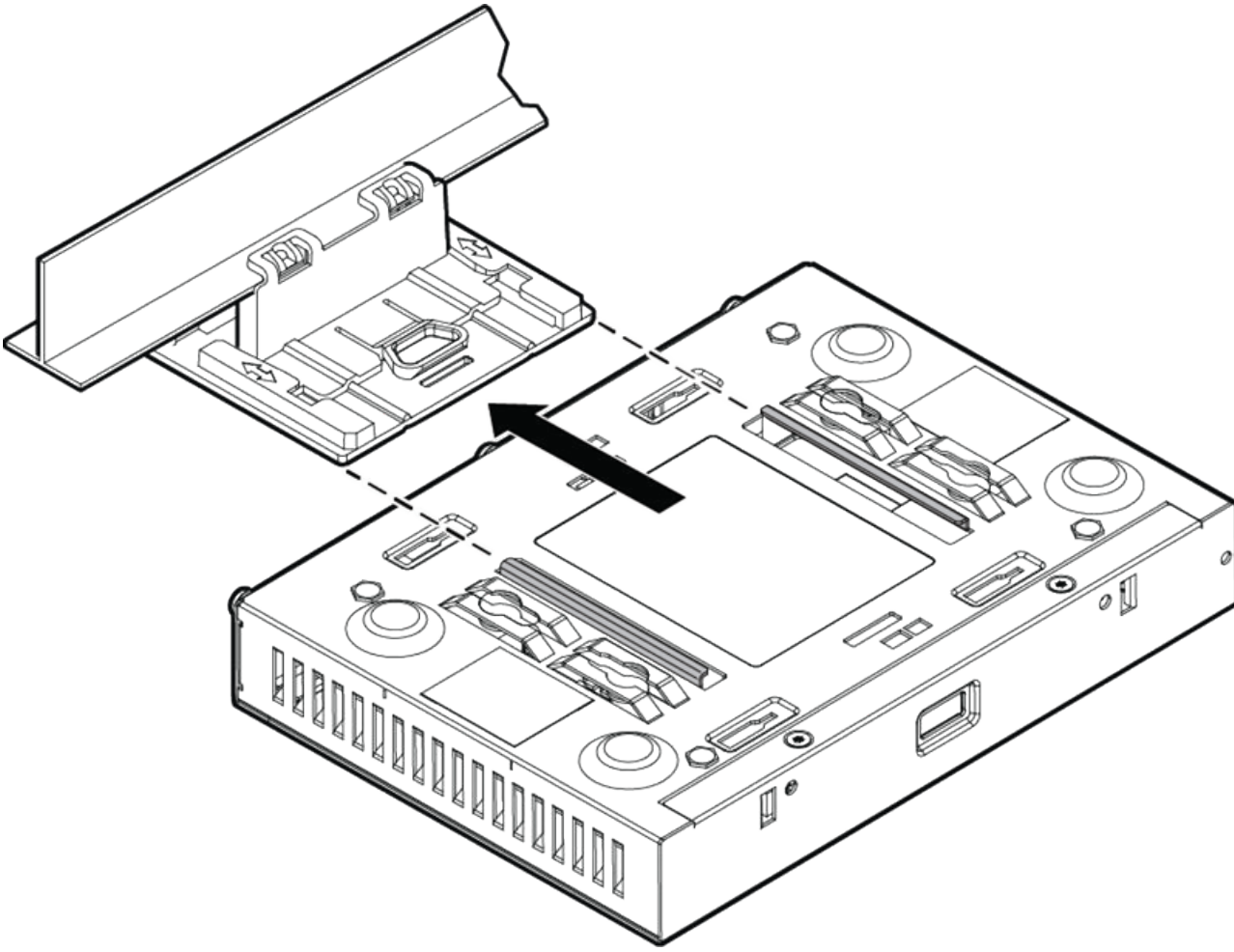


Figure 9: Mounting the AP3915e unit onto a WS-MBI-DCMTR01 Bracket

6. Hold the AP and rock it back and forth to ensure that it is securely mounted.
7. Attach the Ethernet cable's RJ45 connector to the LAN1/GE1 port and place the ceiling tile back in place.

Mounting to a Wood Wall/Solid Flat Ceiling

Mount the AP3915e to a solid surface to configure the AP.

1. #37201, Main mounting bracket that ships with the unit.
2. #30516, WS-MBI-WALL04 bracket, two Philips pan-head screws, and screw-in anchors, which must be purchased separately.

3. #37201, Main bracket with #37210, Flat Metal-Easy Attach Adaptor.
4. Philps pan-head screws directly onto the wall (not recommended).

Note
The recommended method of installation is using the Main Bracket.

Pre-installation checklist:

- The mounting surface, item, and hardware must be able to support the AP in all environmental conditions.
- The mounting surface should be flat.

Mounting the AP to a wall using the Main Mounting bracket

The main mounting bracket (#37201) ships with the AP and can be used to mount the AP onto a wall. This is the recommended method of installation for a wall mounting procedure.

1. Remove the mounting bracket attached to the back of the AP.
2. Use the mounting bracket as a template and mark the hole centers on the wall.

Note
The four feet of the bracket must be horizontal and pointing to the right. The flat part of the large surface must be touching the wall.

3. Drill two holes 83mm (3.270”) apart from each other on the wall where you want to mount the AP.
4. Insert the screws through the bracket and into the holes. Use the screw-in anchors if needed.
5. Insert the Ethernet cable’s RJ45 connector into the LAN1/GE1 port.
6. Slide the AP onto the bracket’s four feet. Ensure that the AP is secured in place and tightened.

Mounting the AP to a wall using the WS-MBI-WALL04 bracket

Mounting the AP to a flat ceiling requires the WS-MBIWALL04 (#30516) bracket, two Philips Pan-head screws, and two screw-in anchors. They must be purchases separately.

1. Install the WS-MBI-WALL04 bracket onto a wall/ceiling with two screws and anchors and ensure that the locking tab is on the top side.

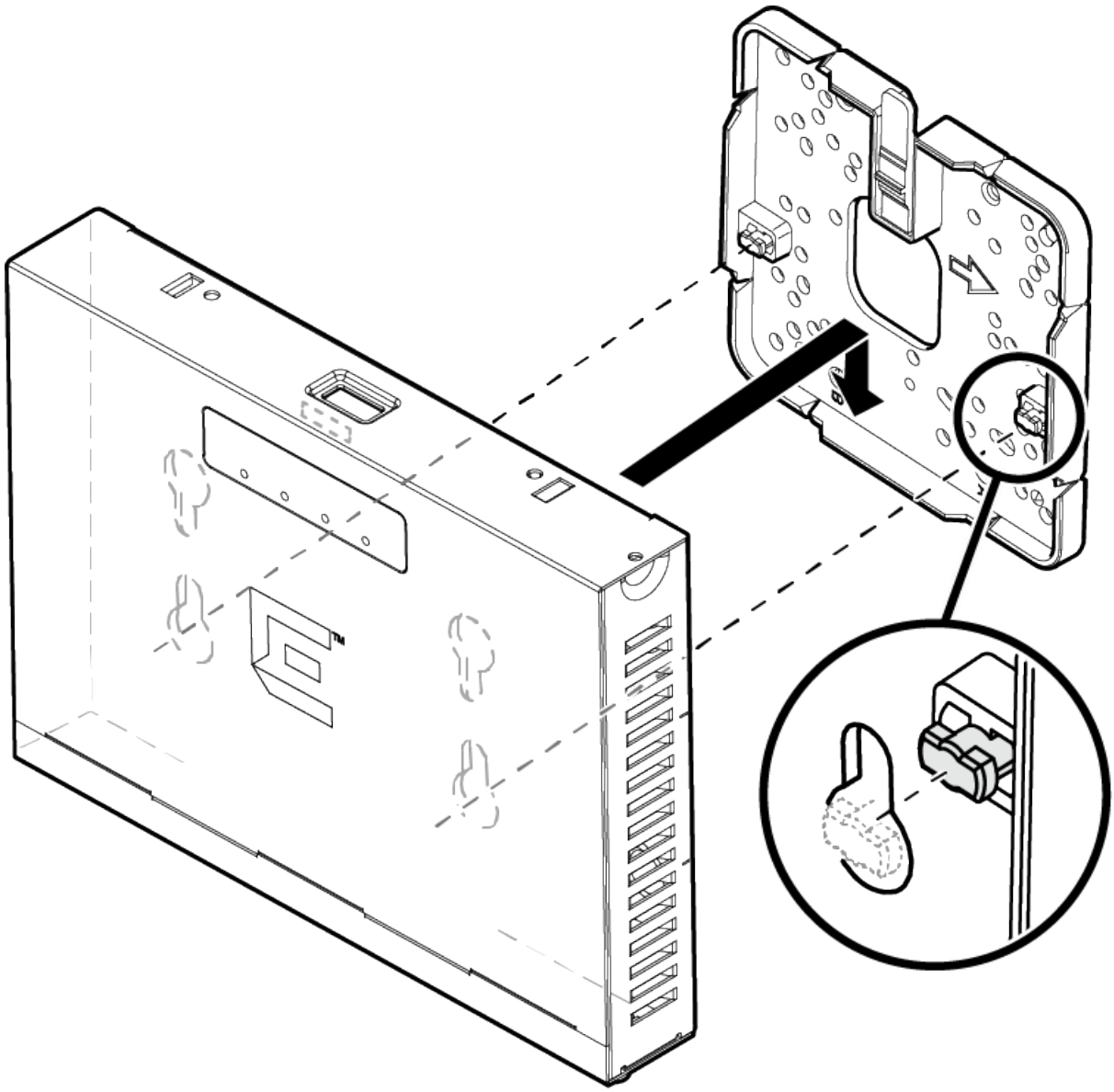


Figure 10: Mounting the AP using the WS-MBI-WALL04 Bracket

- Use the WS-MBI-WALL04 as a template and mark the holes to be used to mount the AP. It is recommended to use the holes marked "A" or "B".

- Drill the holes and attach the bracket using the screws and screw-in anchors.

Note
When using the "A" or "B" holes, if the holes are not near the corners of the bracket, you can break off the corner to decrease the bracket's visibility once the AP is installed.

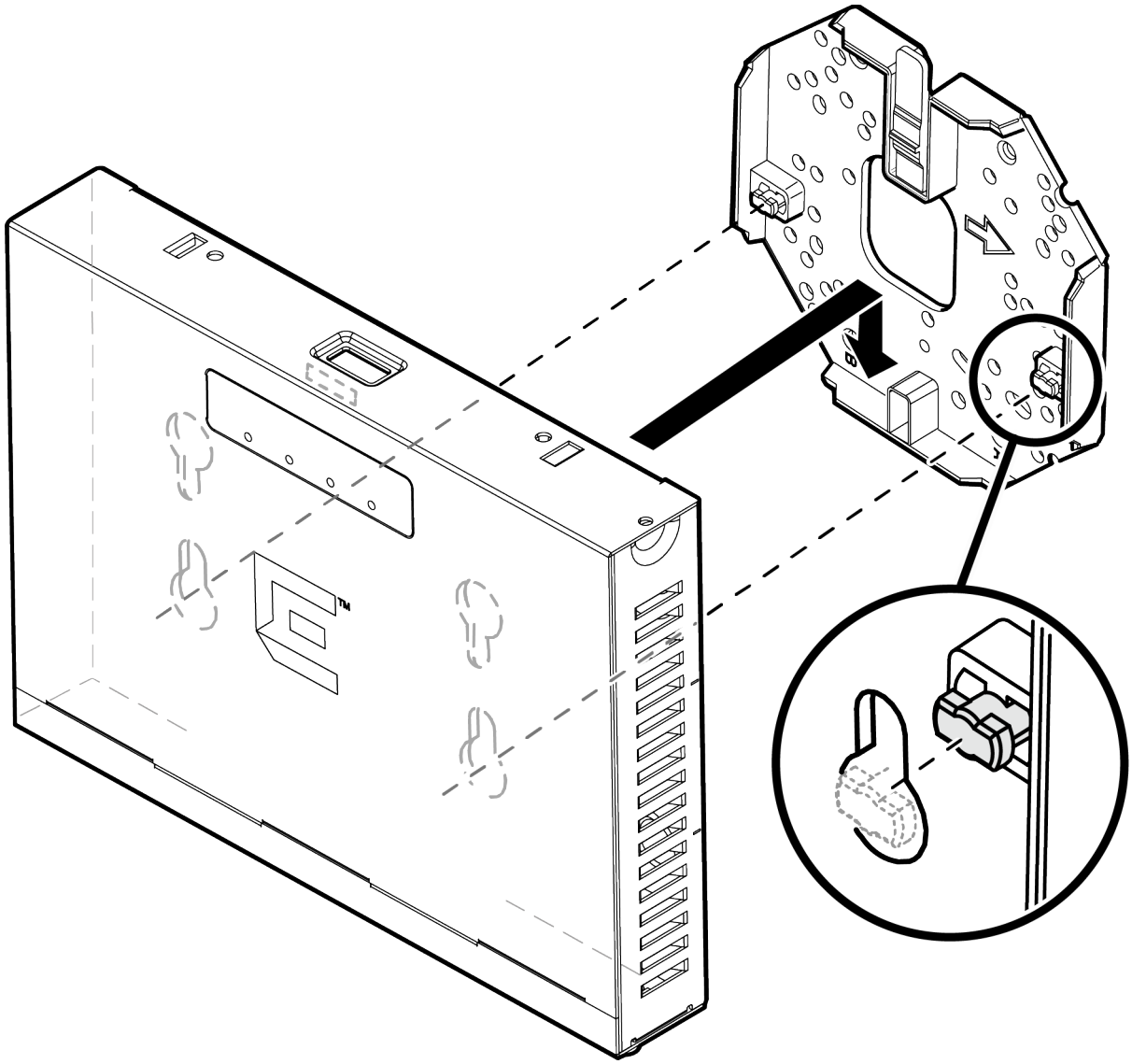


Figure 11: Mounting the AP using the WS-MBI-WALL04 Bracket (when bracket corners are broken off)

2. Connect the LAN/Ethernet cable to the AP.
3. Slide the AP onto the keyhole posts in the bracket, push down, and lock it into place.

Mounting the AP onto a wall using the Main Bracket and the Flat Metal Easy-Attach adaptor

The AP can also be mounted onto a wall or solid ceiling by attaching a flat metal easy-attach adaptor to the mian mounting bracket. The flat metal easy-attach adaptor (#37210) must be purchased separately.

1. Attach the flat metal indoor bracket to the main bracket. Keep the bracket to the center of the main bracket, push and rotate it.

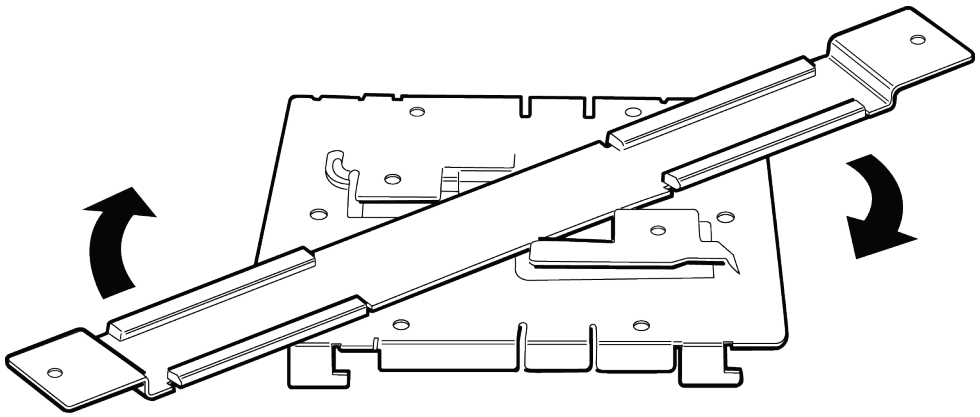


Figure 12: Attaching the optional Flat Metal Indoor Adaptor to the main mounting bracket

2. Hold the AP to the surface to which it needs to be attached and use the optional bracket's end holes as a template to mark the attachment holes.
3. Drill two holes on the wall where you want to mount the AP.
4. Connect the LAN/Ethernet cable to the back of the AP.
5. Hold the AP, insert and tighten the 2 screws until you lock it into place.

Note
The "E" logo must be in the right orientation before tightening the screws.

Mounting to a wall using the Philips Pan-head screws

You can mount the AP3915e access point directly onto a dry/solid wall using the Philips Pan-Head screws. This is an optional installation method and not the preferred mode of installation.

Warning
This option can be used to mount only on a wall where there is gravity to hold the screws and AP in place.

Caution
If the AP is mounted on a ceiling, it will fall off the screw heads.

1. Drill two holes 104 mm (4.100") apart from each other on the wall where you want to mount the AP.

2. Insert the screws into the holes and use the screw-in anchors if needed.

Note
Leave 1/8” gap between the screw head and the wall.

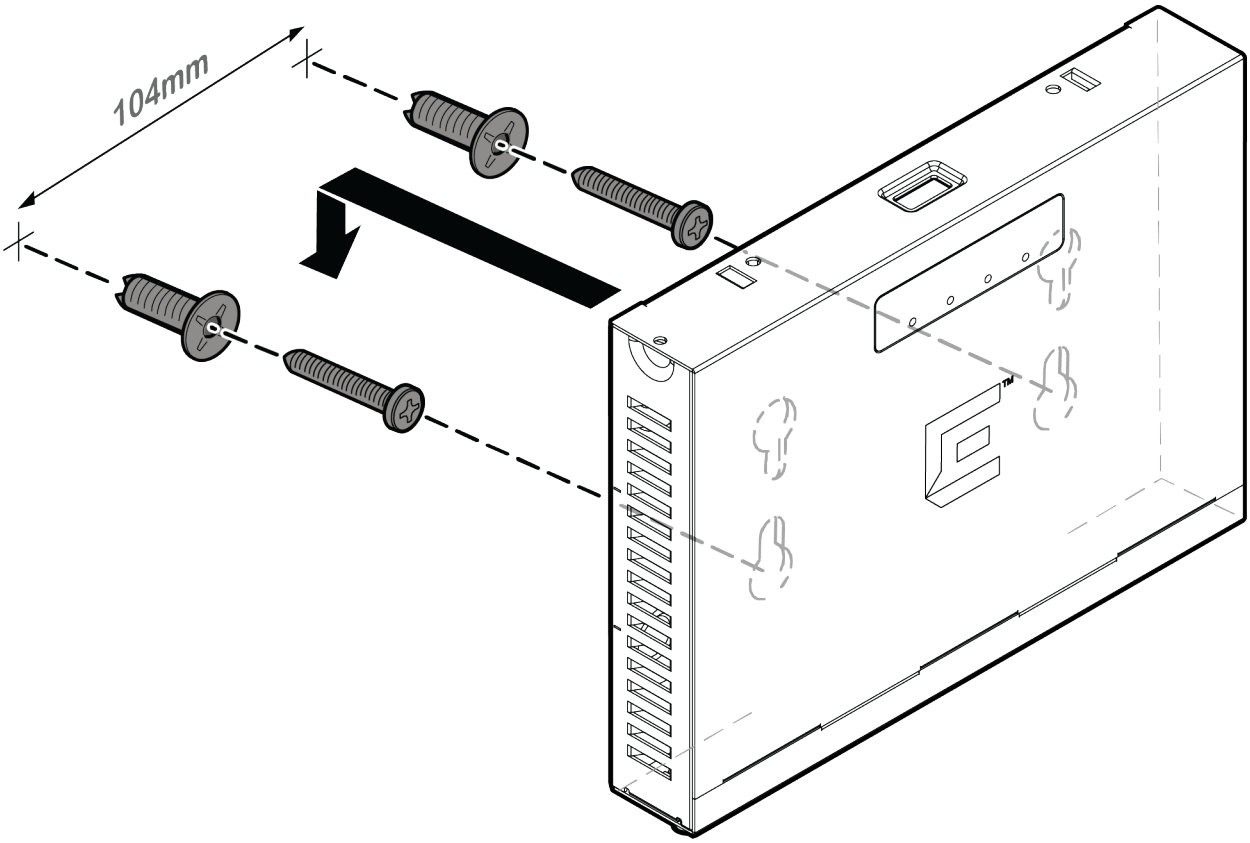


Figure 13: Mounting the AP directly on a dry/wood wall using the Philips Pan-Head screws

3. Insert the Ethernet cable’s RJ45 connector into the LAN1/GE1 port.
4. Align the AP against the screw heads and slide it down. Ensure that the AP is secured in place and tightened. If the AP is loose, unmount the AP and decrease the distance between the screw head and the wall. Remount the AP.

Mounting to a Junction/Gang box

Mounting the AP3915e to a junction/gang box requires a WS-MBI-WALL04 bracket, which must be purchased separately.

1. Remove the screws from the junction/gang box.

2. Line up the bracket holes on the junction/gang box and ensure that they align. If the holes do not align, drill new holes.

   Note
   When you line up the holes, the locking tab on the bracket must be pointing up and the junction/gang box must be fully covered by the bracket. The bracket must be square to the rest of the room walls and the two holes that are being used must be on the opposite sides of large center hole on the bracket.

3. Using the holes aligned together or the new ones drilled, attach the bracket to the junction/gang box using the screws removed from the box earlier.
4. Connect the LAN/Ethernet cable to the AP.
5. Attach the AP to the bracket.

Mounting the AP to a Beam

The AP3915e access point can be mounted onto a beam using a beam clip accessory (BRKT-000147A-01) to the main mounting bracket.

Pre-installation checklist:

- The beam must be able to support the AP in all environmental conditions.
- The beam should be flat.

Before attaching the AP onto a beam, verify that:

- Beam attachment area is at least 0.5” (12.7mm) wide and as long as the AP’s largest dimension.
- Beam mounting surface is less than 0.650” (16.5mm) thick.

To attach an AP to a beam, attach a beam clip (Accessory BRKT-000147A-01) to the main mounting bracket:

1. Attach the adapter to the mounting bracket by using a twisting motion.

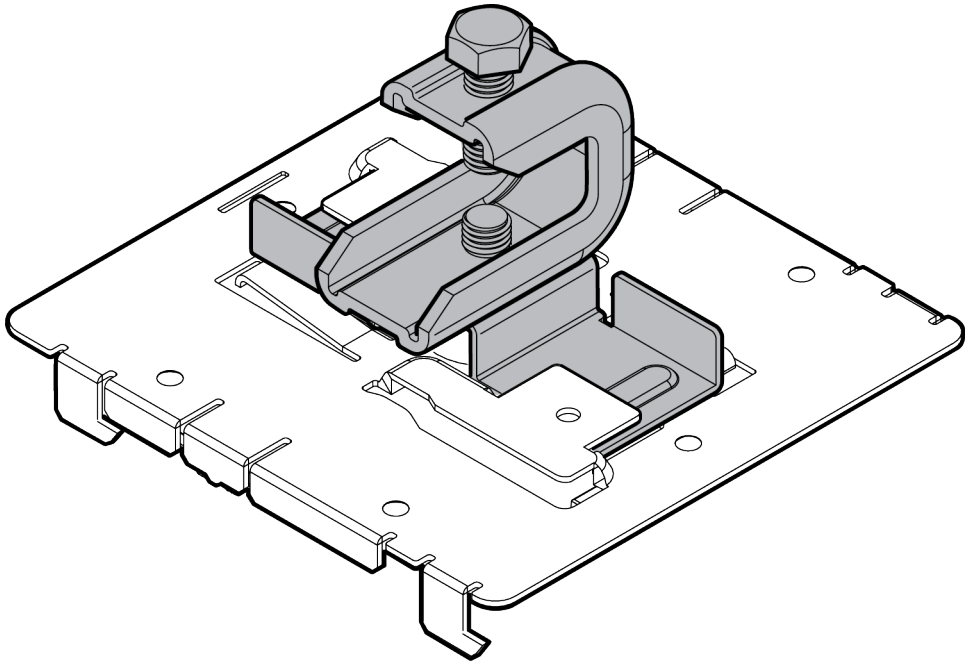


Figure 14: Attaching the beam clip to the main mounting bracket

2. Attach the mounting bracket to the AP.
3. Place the adapter on a beam in such a way that there is enough space between the screw and clamp to be tightened.

4. Use the screw and clamp on the top of the adapter to secure the AP in place on the beam.

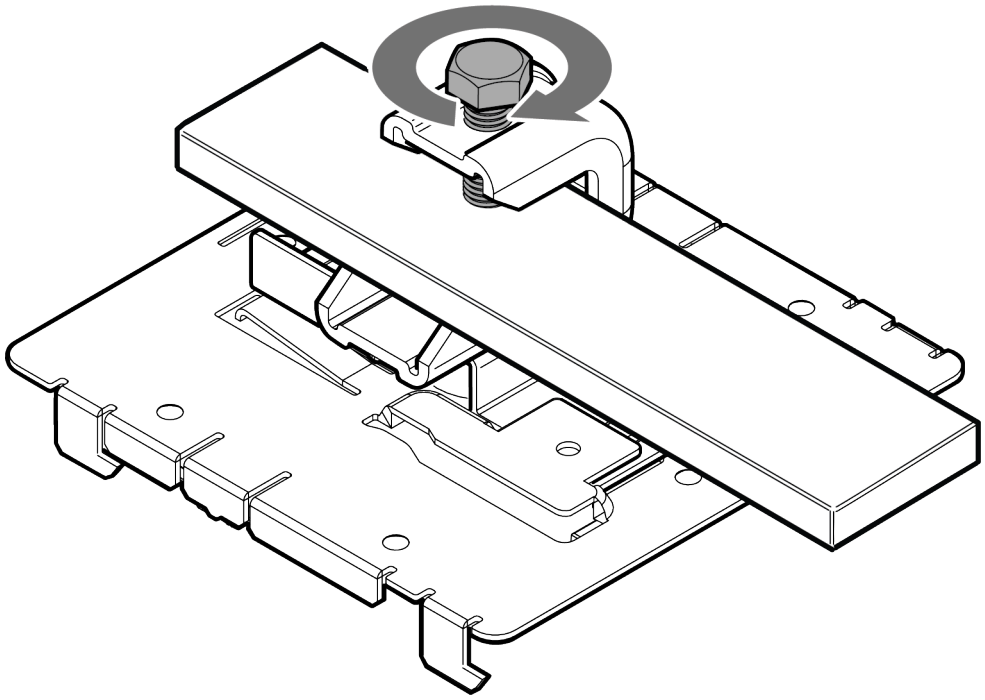


Figure 15: Attaching the beam clamp on a beam

5. Insert the Ethernet plug into the AP.

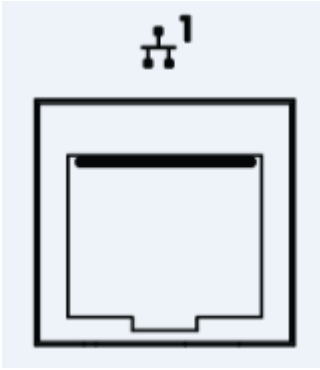
Connecting the Power Supply

You can connect the power supply to the AP using the PoE option or the optional 12V DC power supply.

1. Power is provided through the RJ45 Ethernet port (GE1 port) of AP3915e. This is the preferred method of powering the AP on ceiling and high wall installations.
2. The AP3915e can also be powered by an external DC power supply. It is plugged into an AC source.

Note
There is no wall mount option for the 12V DC power supply option.

Table 8: AP3915e Power Supply Options

AP3915i Port	Function
	RJ45 Ethernet/GE1 Port
	Optional 12V DC Power Supply

When the device is powered on, the power LED on the front face of the AP is lit.

Operational Description of Antenna Configuration and RF Output Power Setting

Per KDB 353028 D01 Antennas Part 15 Transmitters v01 requirement, Applications must contain an exhibit listing each antenna, the antenna gain, antenna type, and antenna manufacturer/vendor and output power that can be used for the device, that the information listed below is correct and represent the product in consideration under this filing.

No.	Function	Type	Model	Gain (dBi)		Connector	Limit of MAX. Output Power(mW)				
				2.4GHz Band	5GHz Band		2.4GHz	5GHz U-NII-1	5GHz U-NII-3	BT-LE	Zigbee
1	WLAN	Dipole	ML-2452-APA2-01	3.17	4.85	RP-SMA Male	347.575	355.022	382.663	---	---
2	WLAN	Dipole	ML-2452-APA2-02	3	5	RP-SMA Male	347.575	355.022	382.663	---	---
3	WLAN	Dipole	ML-2452-HPA5-036	3	5	RP-SMA Male	347.575	355.022	382.663	---	---
4	WLAN	Dipole	ML-2452-HPAG4A6-01	4	7.3	N Male	337.824	374.495	371.702	---	---
5	WLAN	Dipole	ML-2452-HPA6M4-S36	6.0	6.0	RP-SMA	337.824	374.495	371.702	---	---
6	WLAN	Panel	ML-2452-PNL9M3-036	11.0	10.7	RP-SMA Male	305.978	320.793	335.324	---	---
7	WLAN	Panel	ML-2452-PNL6M3-N36	6	6	N Male	330.856	245.252	333.341	---	---
8	WLAN	Panel	ML-2452-PNA5-01R	5.5	6	N Male	330.856	245.252	333.341	---	---
9	WLAN & BT LE & Zigbee	Panel	ML-2452-PNA7-01R	7.8	10.7	N Male	330.856	245.252	333.341	1.259	1.622
10	WLAN	Patch	ML-2452-PTA2M2-036	4	5	RP-SMA Male	360.481	374.632	382.259	---	---
11	WLAN	Patch	ML-2452-PTA4M4-036	5	6.6	RP-SMA Male	360.481	374.632	382.259	---	---
12	BT LE & Zigbee	Omni	ML-2499-HPA8-01	8	-	Fixed N-Male Std polarity	---	---	---	1.259	1.622

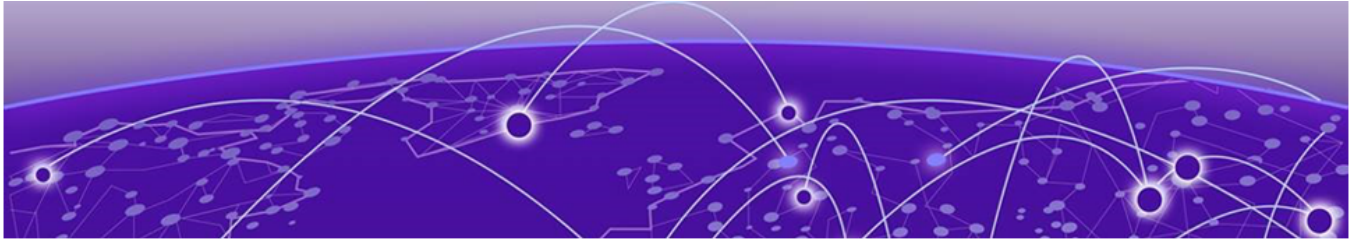
Figure 16: Antenna Configuration and RF Output Power Setting

Specifications

This section lists the specifications for the ExtremeWireless™ Indoor Access Point AP3915e.

Table 9: Specifications for the AP3915e

Item	Specification
AP Part Number: 31031	WS-AP3915e-FCC
AP Part Number: 31032	WS-AP3915e-ROW
Enclosure material	AP enclosure is metal only.
Power source	Power is provided by Power-over-Ethernet 802.3af. Optional 12VDC Power Supply.
Antenna	Two external dual-band antennas and one antenna that can operate as Bluetooth (BLE).
Uplink interface	One 10/100/1000 Ethernet port with PoE.
Radio configuration	Radio 1: 5GHz Radio 2: 2.4GHz
Operating temperature	-20°C to 55°C ambient temperature anywhere.
	-20°C to 60°C ambient temperature near sea level.
Non-operating transportation/storage	-40°C to 70°C (-58°F to 158°F)
Altitude (feet)	13,000 feet
Relative humidity (% RH)	0% to 95% (non-condensing)
ExtremeCloud™ enabled	Yes



Regulatory and Compliance Information

Learn about safety guidelines, compliance notices, and regulatory information pertaining to various countries in which the device can be used.

Safety Guidelines

The following safety guidelines are intended to protect your personal safety and prevent damage to the equipment.

Important
Only qualified personnel must perform installation procedures. Within the context of the safety notes in this documentation, qualified persons are defined as persons who are authorized to commission grounding, 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.

FCC Declaration of Conformity Statement

Warning
This device is restricted for indoor use.

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:

- This device may not cause harmful interference .
- 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: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 23 cm between the radiator and your body.

Industry Canada Notice

This device complies with ISED's licence-exempt RSSs. 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.

Le présent appareil est conforme aux CNR d' ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée 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. The maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate.
3. Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

Caution
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. le gain maximal d'antenne permis (pour les dispositifs utilisant la bande de 5725 à 5 850 MHz) doit être conforme à la limite de la p.i.r.e. spécifiée pour l'exploitation point à point et l'exploitation non point à point, selon le cas.
3. 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 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LANEL.

Warning
IC Radiation Exposure Statement: This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 36cm between the radiator & your body.

Warning
Déclaration d'exposition aux radiations: Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 36cm de distance entre la source de rayonnement et votre corps.

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 Polybrominate diphenyl ether (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。

電磁波曝露量MPE標準值1mW/cm^2，本產品使用時建議應距離人體 31 cm

1. 使用此產品時應避免影響附近雷達系統之操作。
2. 高增益指向性天線只得應用於固定式點對點系統。

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 user's responsibility to utilize the available collection system to ensure WEEE is properly treated.

For information about the available collection system, please contact Extreme Environmental Compliance at Green@extremenetworks.com.

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.

Detachable Antenna Usage

No.	Function	Antenna Type	Model	Gain (dBi)		Connector
				2.4GHz Band	5GHz Band	
1	WLAN	Dipole	ML-2452-APA2-01	3.17	4.85	RP-SMA Male
2	WLAN	Dipole	ML-2452-APA2-02	3	5	RP-SMA Male
3	WLAN	Dipole	ML-2452-HPA5-036	3	5	RP-SMA Male
4	WLAN	Dipole	ML-2452-HPAG4A6-01	4	7.3	N Male
5	WLAN	Dipole	ML-2452-HPA6M4-S36	6.0	6.0	RP-SMA
6	WLAN	Panel	ML-2452-PNL9M3-036	11.0	10.7	RP-SMA Male
7	WLAN	Panel	ML-2452-PNL6M3-N36	6	6	N Male
8	WLAN	Panel	ML-2452-PNA5-01R	5.5	6	N Male
9	WLAN & BT LE & Zigbee	Panel	ML-2452-PNA7-01R	7.8	10.7	N Male
10	WLAN	Patch	ML-2452-PTA2M2-036	4	5	RP-SMA Male
11	WLAN	Patch	ML-2452-PTA4M4-036	5	6.6	RP-SMA Male
12	BT LE & Zigbee	Omni	ML-2499-HPA8-01	8	-	Fixed N-Male Std polarity

Figure 17: Detachable Antenna Approved Antenna(s) list

Declaration of Conformity in Languages of the European Community

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.

English

Hereby, Extreme Networks, Inc. declares that the radio equipment type Wireless LAN Access Point is in compliance with Directive 1999/5/EC.

Finnish

Valmistaja Extreme Networks vakuuttaa täten että Radio LAN device tyyppinen 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 erklärt 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 lysir her med yfir að thessi bunadur, Radio LAN device, uppfyllir allar grunnkrofur, sem gerdar eru i 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 ohrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.

New Member States Requirements of Declaration of Conformity

Estonian

Käesolevaga kinnitab Extreme Networks seadme Radio LAN device vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.

Hungarian

Alulírott, Extreme Networks nyilatkozom, hogy a Radio LAN device megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak.

Slovak

Extreme Networks týmto vyhlasuje, že Radio LAN device spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.

Czech

Extreme Networks tímto prohlašuje, že tento Radio LAN device je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES."

Slovenian

Šiuo Extreme Networks deklaruoja, kad šis Radio LAN device atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.

Latvian

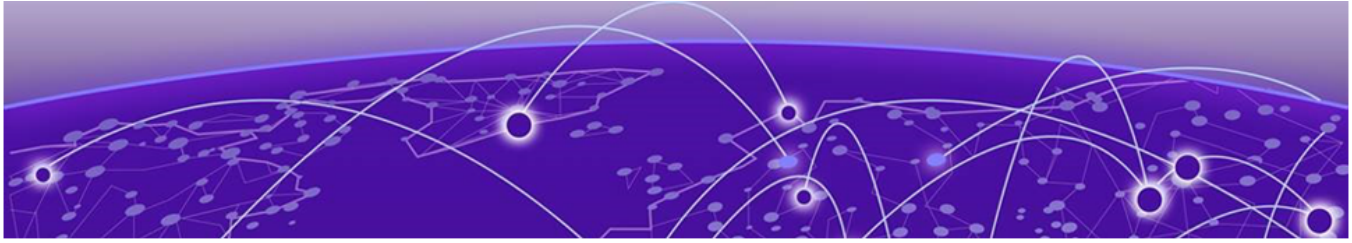
Ar šo Extreme Networks deklarē, ka Radio LAN device atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem

Lithuanian

Extreme Networks deklaruoja, kad Radio LAN device atitinka 1999/5/EC Direktyvos esminius reikalavimus ir kitas nuostatas".

Polish

Niniejszym, Extreme Networks, deklaruję, że Radio LAN device spełnia wymagania zasadnicze oraz stosowne postanowienia zawarte Dyrektywie 1999/5/EC.



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