



# ExtremeWireless™ WS- AP3825i & WS-AP3825e Installation Guide

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# Table of Contents

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|  |           |
|--|-----------|
| <b>Preface.....</b>                            | <b>4</b>  |
| Text Conventions.....                          | 4         |
| Providing Feedback to Us.....                  | 4         |
| Getting Help.....                              | 5         |
| Related Publications.....                      | 5         |
| <b>Chapter 1: About This Guide.....</b>        | <b>6</b>  |
| Who Should Use This Guide.....                 | 6         |
| How to Use This Guide.....                     | 6         |
| <b>Chapter 2: Introduction.....</b>            | <b>7</b>  |
| About the WS-AP3825i and WS-AP3825e.....       | 7         |
| WS-AP3825 Overview.....                        | 7         |
| Architectural Features.....                    | 12        |
| <b>Chapter 3: Installation.....</b>            | <b>14</b> |
| Unpacking the WS-AP3825.....                   | 14        |
| Accessories.....                               | 14        |
| Access Point Installation Procedures.....      | 14        |
| Configuring AP Channel Settings.....           | 25        |
| <b>Appendix A: Specifications.....</b>         | <b>30</b> |
| External Power Supplies.....                   | 30        |
| Internal Antenna Access Points.....            | 31        |
| External Antennas.....                         | 37        |
| <b>Appendix B: Regulatory Information.....</b> | <b>39</b> |
| ExtremeWireless WS-AP3825i and WS-AP3825e..... | 39        |

# Preface






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## Text Conventions

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The following tables list text conventions that are used throughout this guide.

**Table 1: Notice Icons**

| Icon   | Notice Type    | Alerts you to...   |
|--|----------------|--|
|   | General Notice | Helpful tips and notices for using the product.          |
|   | Note           | Important features or instructions.                      |
|   | Caution        | Risk of personal injury, system damage, or loss of data. |
|   | Warning        | Risk of severe personal injury.                          |
|  | New            | This command or section is new for this release.         |

**Table 2: Text Conventions**

| Convention                             | Description   |
|--|---|
| Screen displays                        | This typeface indicates command syntax, or represents information as it appears on the screen.  |
| The words <b>enter</b> and <b>type</b> | 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.”                                |
| <b>[Key]</b> names                     | Key names are written with brackets, such as <b>[Return]</b> or <b>[Esc]</b> . If you must press two or more keys simultaneously, the key names are linked with a plus sign (+). Example: Press <b>[Ctrl]+[Alt]+[Del]</b> |
| <i>Words in italicized type</i>        | 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.  |

## Providing Feedback to Us

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We are always striving to improve our documentation and help you work better, so we want to hear from you! We welcome all feedback but especially want to know about:

- Content errors or confusing or conflicting information.
- Ideas for improvements to our documentation so you can find the information you need faster.
- Broken links or usability issues.

If you would like to provide feedback to the Extreme Networks Information Development team about this document, please contact us using our short [online feedback form](#). You can also email us directly at [internalinfodev@extremenetworks.com](mailto:internalinfodev@extremenetworks.com).

## Getting Help

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

- **Global Technical Assistance Center (GTAC) for Immediate Support**
  - **Phone:** 1-800-998-2408 (toll-free in U.S. and Canada) or +1 408-579-2826. For the support phone number in your country, visit: [www.extremenetworks.com/support/contact](http://www.extremenetworks.com/support/contact)
  - **Email:** [support@extremenetworks.com](mailto:support@extremenetworks.com). To expedite your message, enter the product name or model number in the subject line.
- **GTAC Knowledge** — Get on-demand and tested resolutions from the GTAC Knowledgebase, or create a help case if you need more guidance.
- **The Hub** — A forum for Extreme customers to connect with one another, get questions answered, share ideas and feedback, and get problems solved. This community is monitored by Extreme Networks employees, but is not intended to replace specific guidance from GTAC.
- **Support Portal** — Manage cases, downloads, service contracts, product licensing, and training and certifications.

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

- Your Extreme Networks service contract number and/or serial numbers for all involved Extreme Networks products
- A description of the failure
- A description of any action(s) 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 Return Material Authorization (RMA) numbers

## Related Publications

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ExtremeWireless and ExtremeWireless AP documentation can be found on the Extreme Documentation page at: <http://documentation.extremenetworks.com>

The *ExtremeWireless User Guide* is recommended.

# 1 About This Guide

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## Who Should Use This Guide How to Use This Guide

The guide describes how to mount and connect cables to the ExtremeWireless™ AP3825 access point. In addition, this guide provides information on the product certifications and national approvals for the WS-AP3825 access point.



### Note

This guide does not provide information on configuration of the access points. For information on how to configure the access points, see the [ExtremeWireless User Guide](#).

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## Who Should Use This Guide

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### Warning



**Electrical Hazard:** Only qualified personnel should install or service this unit.

**Riesgo Electrico:** Nada mas personal capacitado debe de instalar o darle servicio a esta unida.

**Elektrischer Gefahrenhinweis:** Installationen oder Servicearbeiten sollten nur durch ausgebildetes und qualifiziertes Personal vorgenommen werden.

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## How to Use This Guide

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Read through this guide completely to familiarize yourself with its contents and to gain an understanding of the features and capabilities of the WS-AP3825 access point. A general working knowledge of data communications networks is helpful when setting up this product.

# 2 Introduction

## About the WS-AP3825i and WS-AP3825e WS-AP3825 Overview Architectural Features

### About the WS-AP3825i and WS-AP3825e

The WS-AP3825i and WS-AP3825e access points are a cost-effective solution for extending your wireless LAN around indoor locations. They interoperate fully with the Extreme Networks wireless LAN, including support for Extreme Networks wireless VoWLAN, branch office mode, availability, and mobility features.

The WS-AP3825i and WS-AP3825e are nearly identical in appearance and have the following features in common:

- Both operate in 802.11ac and 802.11n mode and also support 802.11a/802.11g and 802.11b standard legacy devices.
- Both support two MIMO 3x3 (up to three 802.11ac spatial streams).
- They provide two single-band radios for dual-band, concurrent operation, optimized for indoor antenna coverage:
  - 5 GHz (Radio 1) in any of the following modes: IEEE802.11ac, a/b/g and/or n
  - 2.4 GHz (Radio 2) in any of the following modes: IEEE802.11ac, a/b/g and/or n
- They are enclosed in a rectangular, compact case.
- Both models include two mounting brackets, and screws/anchors, for mounting them to walls and drop/suspended ceilings.
- They provide 40MHz Bandwidth at 2.4/5 GHz operation (Channel Bonding).
- They can be powered directly through the LAN using Power over Ethernet (PoE), or by an external 110/240V AC/DC adaptor.
- Both have dual Ethernet (LAN) ports for fault-tolerant network connection and failover.



#### Note

The WS-AP3825 comes in two models: the WS-AP3825i has six internal single-band antennas while the WS-AP3825e has six external RSMA connectors for connecting external antennas. Within this document, any reference to WSAP3825 applies to both models.

### WS-AP3825 Overview

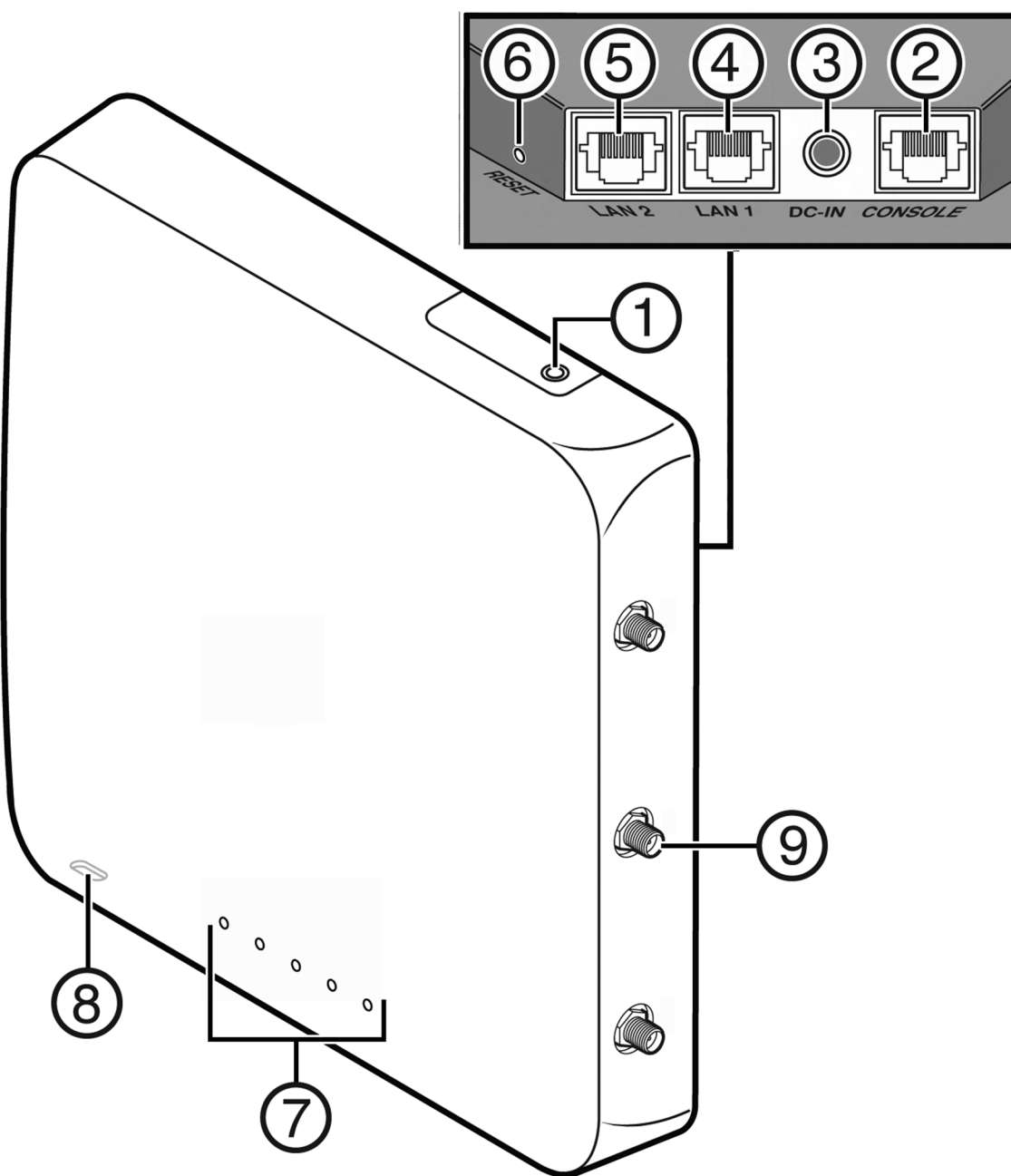
The WS-AP3825 access point is available in two models:

- WS-AP3825i contains six internal single-band antennas
- WS-AP3825e contains six external RSMA connectors for optional external antennas, for greater range and coverage versatility

Figure 1 shows the front view of the WS-AP3825i and Figure 2 on page 9 shows the front view of the WS-AP3825e. Both figures also show the location of the LAN ports, console port, external power supply connector, and reset switch.

Figure 3 on page 10 shows the back view of the WS-AP3825e. The back panel is the same for both models, but there are no external antenna RSMA connectors on the WS-AP3825i.

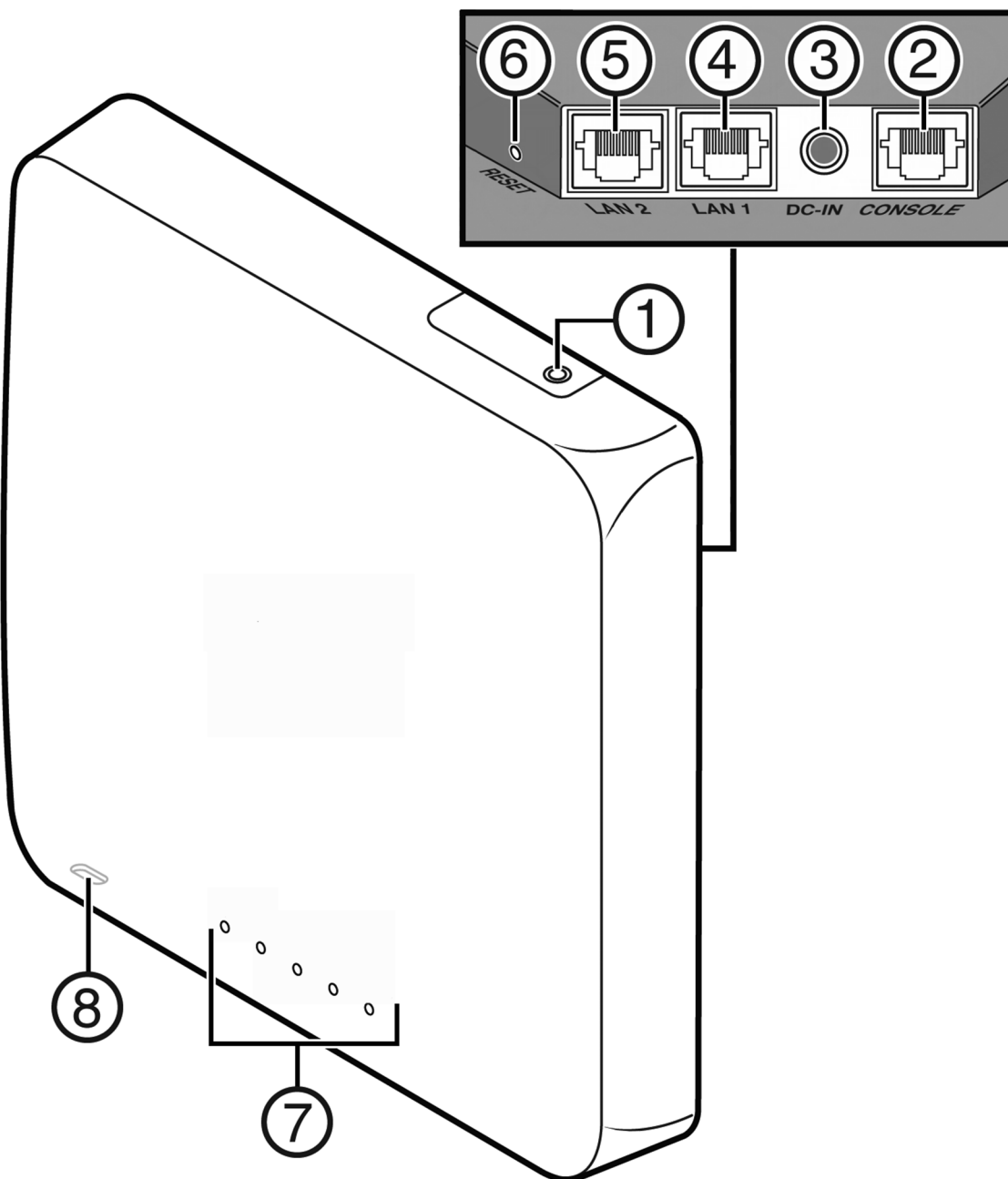
Figure 4 on page 11 illustrates the WS-AP3825 LEDs.



**Figure 1: Extreme Networks Wireless AP3825i Front View**



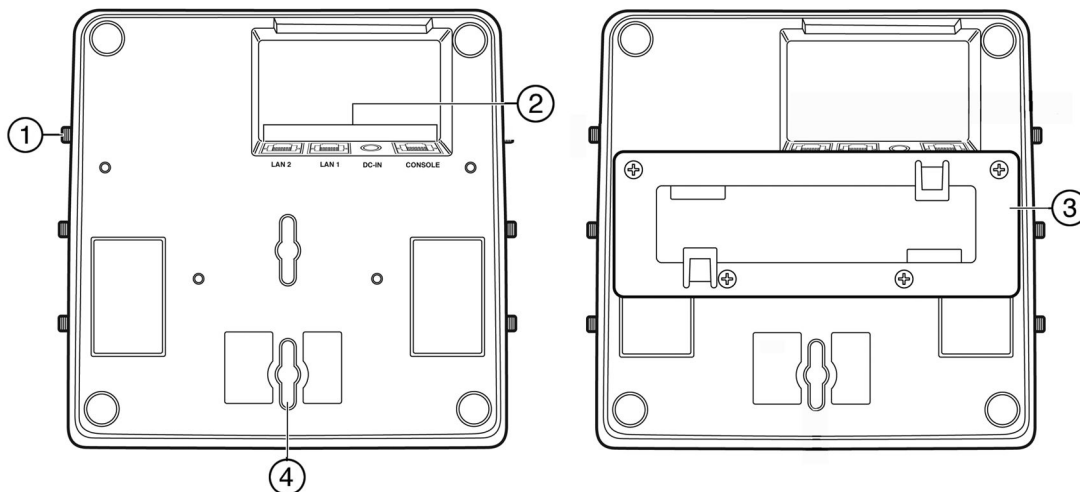
|   |                            |   |  |
|---|----------------------------|---|--|
| 1 | (not used)                 | 5 | LAN port 2   |
| 2 | Console port               | 6 | Reset switch   |
| 3 | External power supply port | 7 | LEDs (See <a href="#">Figure 4</a> on page 11 for details) |
| 4 | LAN port 1                 | 8 | (bottom) Slot for Kensington lock                          |



**Figure 2: Extreme Networks Wireless AP3825e Front View**

|   |              |   |  |
|---|--------------|---|--|
| 1 | (not used)   | 6 | Reset switch   |
| 2 | Console port | 7 | LEDs (See <a href="#">Figure 4</a> on page 11 for details) |

|   |                            |    |                                      |
|---|----------------------------|----|--------------------------------------|
| 3 | External power supply port | 8  | (bottom) Slot for Kensington lock    |
| 4 | LAN port 1                 | 9  | RSMA External antenna connectors (6) |
| 5 | LAN port 2                 | 10 |                                      |

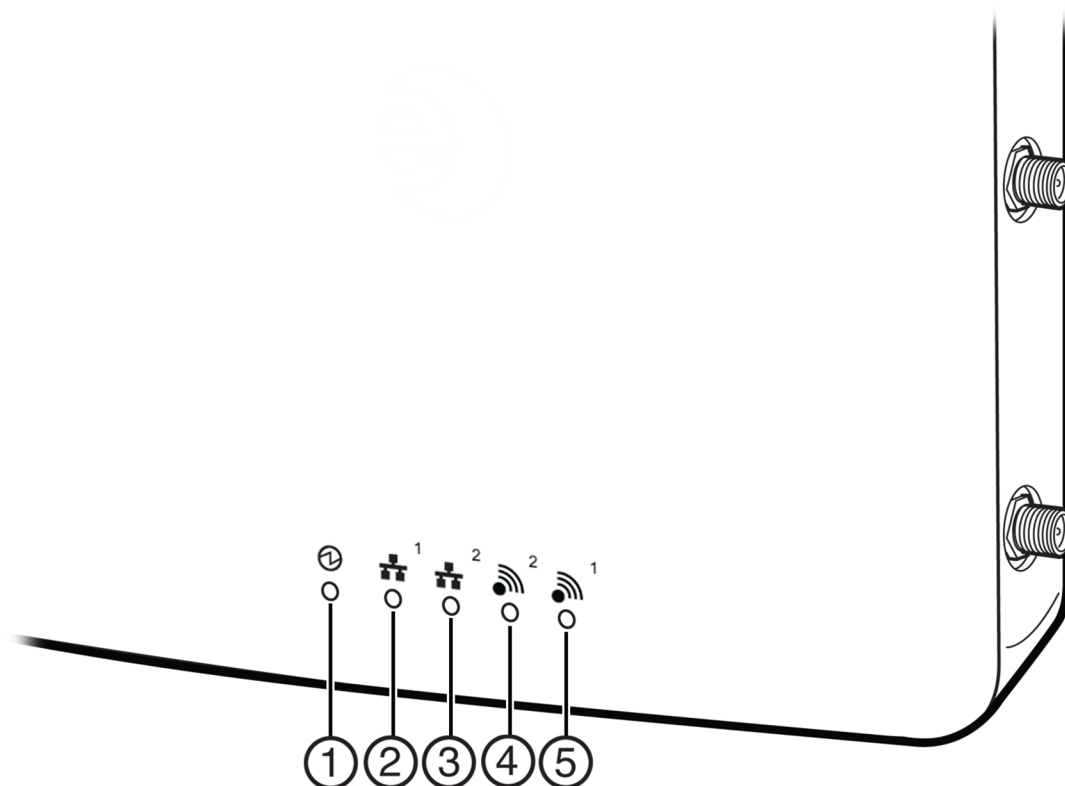


**Figure 3: WS-AP3825 Back View**

|   |   |   |               |
|---|---|---|---------------|
| 1 | RSMA antenna connectors (WS-AP3825e only) | 3 | Mount Bracket |
| 2 | Port Bay                                  | 4 | Mounting Slot |

## WS-AP3825 LED Indicators

Both models of the WS-AP3825 have four LED indicators, shown in [Figure 4](#) below. The LEDs provide status information, described in Table 1-1, on the current state of the WS-AP3825. For more information, see the [ExtremeWireless User Guide](#).



**Figure 4: WS-AP3825 LEDs (Front, lower right)**

|   |                               |   |                          |
|---|-------------------------------|---|--------------------------|
| 1 | AP status                     | 4 | Radio 2 status (2.4 GHz) |
| 2 | LAN 1 (Ethernet 1) link state | 5 | Radio 1 status (5 GHz)   |
| 3 | LAN 2 (Ethernet 2) link state |   |                          |

**Table 3: WS-AP3825 LED Indications**

| LED                           | Status         | Description  |
|-------------------------------|----------------|--|
| 1 (AP status)                 | On Green       | Indicates the WS-AP3825 is working normally.   |
|                               | Flashing Green | Indicates: <ul style="list-style-type: none"> <li>running a self test</li> <li>loading software program</li> </ul> |
|                               | On Amber       | Indicates a CPU/system failure.  |
| 2 (Ethernet link state) LAN 1 | On Green       | Indicates a valid 100Mbps Ethernet link.   |
|                               | On Amber       | Indicates a valid 1Gbps Ethernet link.   |
|                               | Off            | Indicates the link is down.  |

**Table 3: WS-AP3825 LED Indications (continued)**

| LED                           | Status   | Description                              |
|-------------------------------|----------|--|
| 3 (Ethernet link state) LAN 2 | On Green | Indicates a valid 100Mbps Ethernet link. |
|                               | On Amber | Indicates a valid 1Gbps Ethernet link.   |
|                               | Off      | Indicates the link is down.              |
| 4 (Radio 2 status)            | On Green | Indicates Radio 2 is enabled.            |
|                               | Off      | Indicates Radio 2 is not on.             |
| 5 (Radio 1 status)            | On Green | Indicates Radio 1 is enabled.            |
|                               | Off      | Indicates Radio 1 is not on.             |

## Architectural Features

### Console Port

The WS-AP3825 i and e models both include a single RJ45 console port (shown in [Figure 1](#) on page 8 and [Figure 2](#) on page 9) for debug purposes. This port enables connection of a console device to the AP through a serial cable. The console device can be a PC or workstation running a VT-100 terminal adapter emulator, or a VT-100 terminal.

### LAN Port

The WS-AP3825 has two 10/100/1000BaseT RJ45 LAN ports (see [Figure 1](#) on page 8) that can be attached directly to a 10/100/1000BaseT LAN segment. This segment must conform to the IEEE 802.3 or 802.3u specifications.

The APs appear as Ethernet nodes and perform a bridging function by moving packets from the wired LAN to remote workstations on the wireless infrastructure.

The LAN ports also support power over Ethernet (PoE) based on the IEEE 802.3af standard. Refer to [Installation](#) on page 14, for information on supplying power to the AP network port from a network device, such as a switch, that provides Power over Ethernet (PoE).

### Reset Switch

The WS-AP3825 provides a Reset Switch to reset or restore factory default configurations. Use a pen tip or a nail to press the switch button through the hole (located on the top side of the AP). If you hold down the button for less than 5 seconds, the AP performs a software interrupt, causing it to drop all connections and reset. If you hold the button down for 5 seconds or more, any configuration changes are removed, and the factory default configuration restores to the AP.

## Kensington Lock Slot

There is a slot for a Kensington lock on the bottom side of the AP. See Kensington lock documentation for instructions on use of the lock.

# 3 Installation

Unpacking the WS-AP3825  
Accessories  
Access Point Installation Procedures  
Configuring AP Channel Settings

## Unpacking the WS-AP3825

To unpack the access point:

- 1 Open the box and remove the packing material protecting the AP.
- 2 Verify that the carton contains the items listed below.

**Table 4: WS-AP3825 Package Contents**

| Quantity | Item                                     |
|----------|--|
| 1        | WS-AP3825                                |
| 2        | Mounting brackets with screws            |
| 2        | Wall mounting screws and plastic anchors |
| 1        | WS-AP3825 Quick Reference card           |

- 3 Perform a visual inspection of the AP for any signs of physical damage. Contact Extreme Networks if there are any signs of damage. Refer to [Getting Help](#) on page 5 for details.

## Accessories

The following accessories are available for the ExtremeWireless WS-AP3825. For ordering information, contact your Extreme Networks sales representative.

- 12V DC power supply (see [External Power Supplies](#) on page 30)
- External antennas (WS-AP3825e models only; See [External Antennas](#) on page 37)

## Access Point Installation Procedures

### Warning



**Electrical Hazard:** Only qualified personnel should install or service this unit.

**Riesgo Electrico:** Nada mas personal capacitado debe de instalar o darle servicio a esta unida.

**Elektrischer Gefahrenhinweis:** Installationen oder Servicearbeiten sollten nur durch ausgebildetes und qualifiziertes Personal vorgenommen werden.

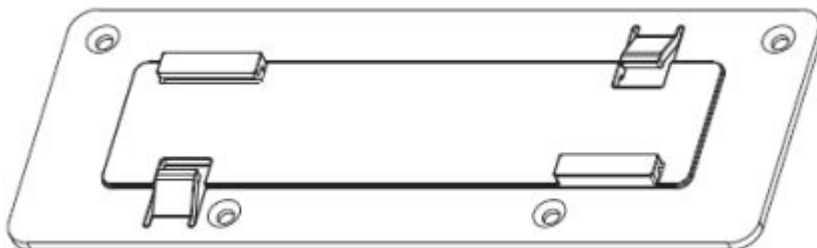
These procedures describe how to attach the WS-AP3825 to a drop ceiling (flat or protruded), and how to mount the AP to a wall.

## Mounting the WS-AP3825 to a Drop Ceiling

To mount the AP to a drop ceiling, use one of the mounting brackets provided with the AP. There are brackets for flat drop ceilings and protruded drop ceilings.

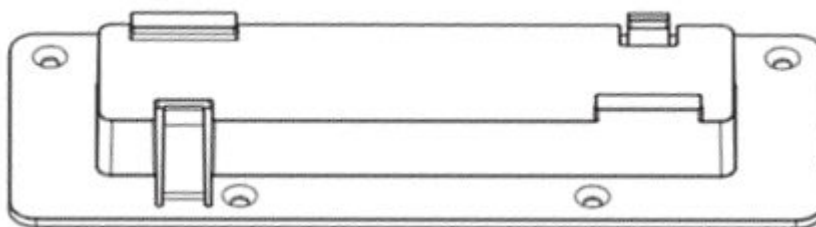
- Flat Drop Ceiling Bracket

Flat drop ceilings are those in which the ceiling tiles rest flat (or nearly so) on their supporting T-bar rails. The flat drop ceiling bracket has a low flat profile, to mount the AP close against the T-bar rail.



- Protruded Drop Ceiling Bracket

Protruded drop ceilings are those in which the ceiling tiles protrude well beyond the T-bar rails on which they rest. The protruded drop ceiling bracket has an extended mount plate, allowing the AP to hang below the protruded ceiling tiles.



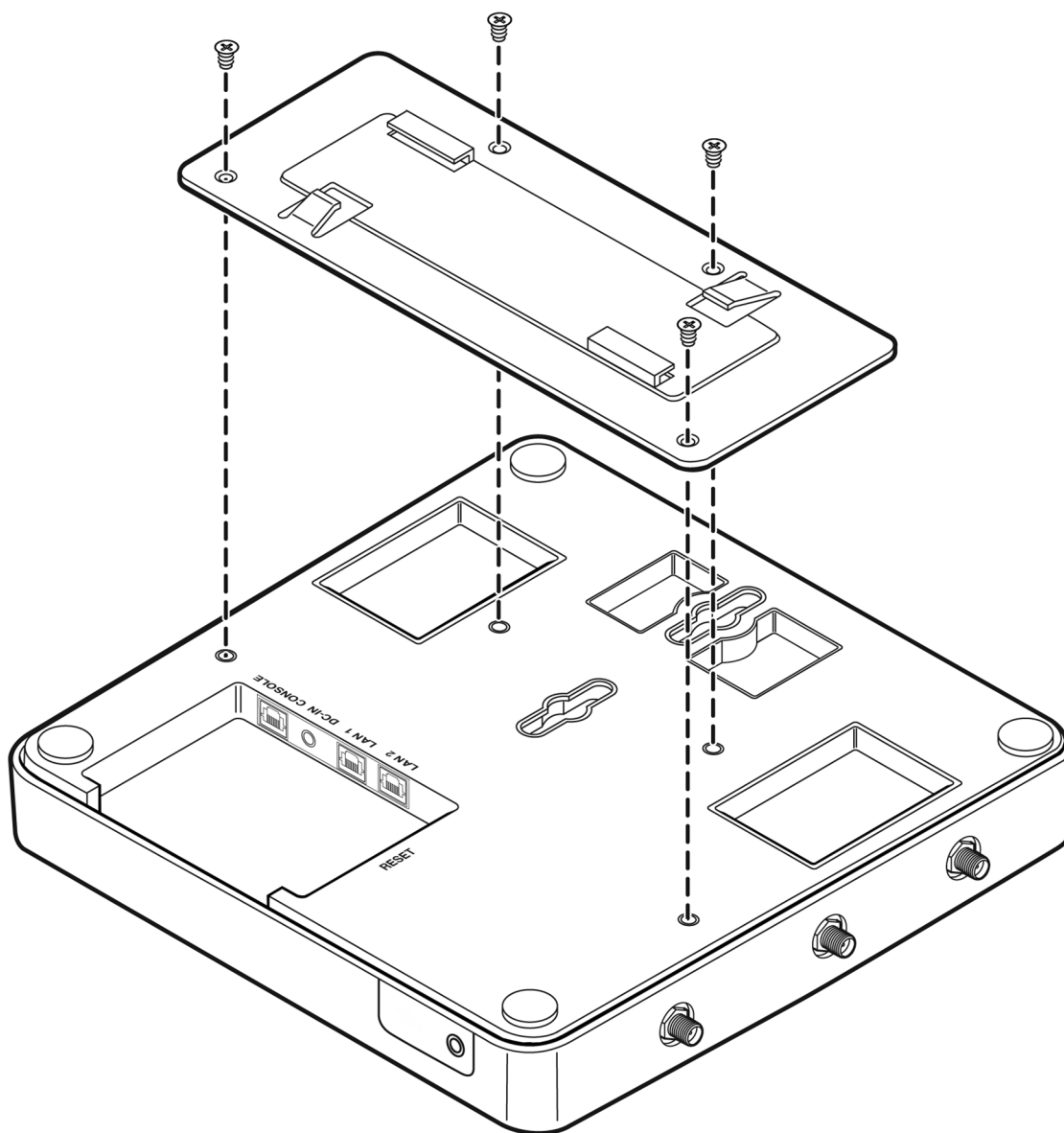
### Note



We recommend that the first time you mount an AP3825 to a drop ceiling T-bar rail, you try mounting the bracket to a rail before attaching it to the back of an AP and mounting the AP to the rail. This way you can get the “feel” of the tilt and twist motion described in step 3 on page 17 in the procedure below, to make the bracket tabs clear the rail and slide over the rail lip on both sides.

To attach the WS-AP3825 to a drop ceiling:

- 1 Attach the T-bar rail mount bracket to the back of the AP by placing the bracket against the AP back, aligned as shown in [Figure 5](#), with the bracket's countersink screw holes matched up with the screw holes on the AP. Screw the provided screws into the mounting bracket and AP as shown in [Figure 5](#).

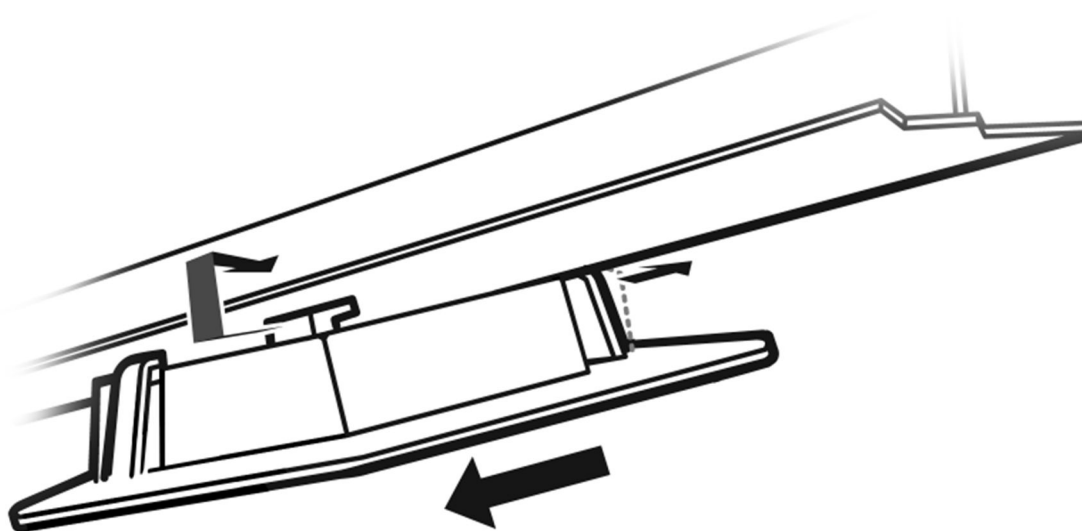


**Figure 5: Attaching a Mount Bracket to the AP back**

- 2 Remove the ceiling panels around the drop ceiling T-bar rails where you intend to mount the AP. Verify that the Ethernet cable that will connect to the AP can reach the AP at the point where you plan to mount it.

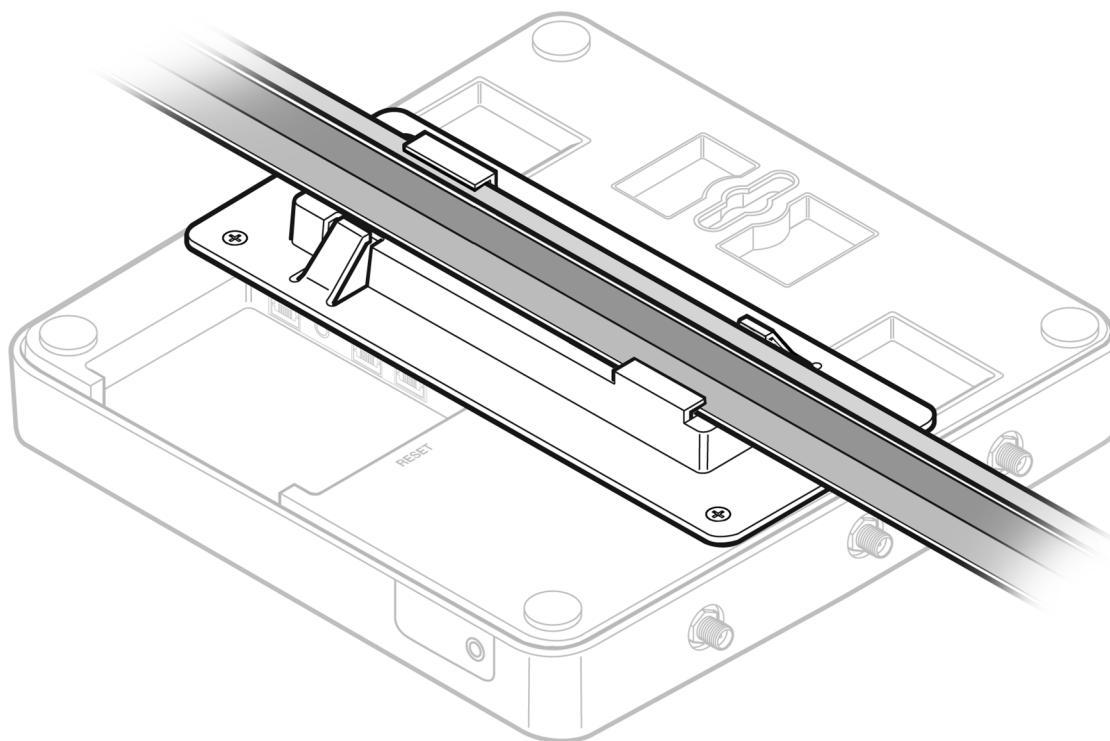


- 3 Hold the AP with the bracket against the flat side of the T-bar rail and (nearly) parallel to it. The clamping tabs fit over the rail easily if you slide one bracket tab over the lip of the rail, at a very slight angle to the rail, and then press the AP up against the rail (so that the opposite clamping tab clears the rail) and twist it so that the opposite clamping tab slides over the opposite rail lip as shown in [Figure 6](#). There are flex tabs immediately opposite each bracket tab, that flex out (away from the rail) to stabilize the bracket against the rail while you pivot the AP and bracket to clear the rail.



**Figure 6: Mounting the Bracket to the Ceiling Rail**

- 4 When the bracket is aligned with the rail again, both clamping tabs are positioned on the T-bar rail lips. [Figure 7](#) shows a mounting bracket, with an AP attached, firmly mounted on a drop-ceiling T-bar rail. Tap the AP to verify it is stable and won't fall off.



**Figure 7: AP and Mounting Bracket Seated on T-bar Rail**

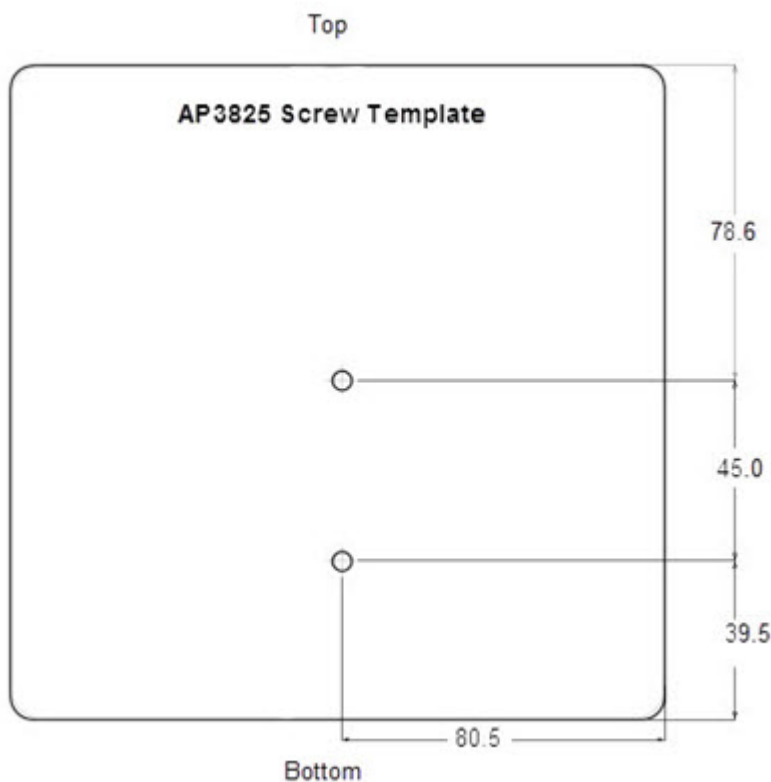
- 5 Make a hole through the ceiling panel closest to the connector bay on the AP. Then run the Ethernet cable through the hole and into a LAN port (RJ45 Ethernet port) in the connector bay.
- 6 Replace the displaced ceiling panels.

## Mounting the WS-AP3825 to a Wall or Solid Ceiling

Screws for attaching the AP to a wall or solid ceiling are supplied with the product. Use the following procedure to mount the AP3825 to a flat wall.

- 1 Determine the spot 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.

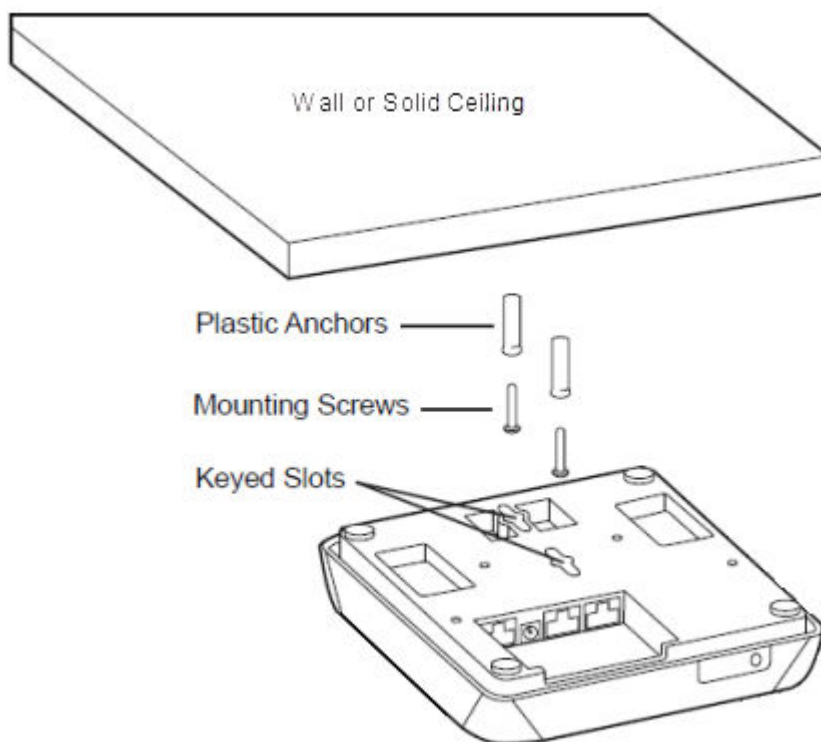
- 2 Drill two holes in the wall to match the center of the two keyhole slots in the back of the AP. The location of the holes is depicted in [Figure 8](#) (measurements are in millimeters). For a tight fit, the holes should be slightly smaller than the diameter of the provided plastic anchors.



**Figure 8: Drilling Template for Wall Mounting**

- 3 Tap the plastic anchors into the holes with a hammer until they are flush with the wall, and screw the provided mounting screws into the anchors, with the head protruding 1/16" from the anchor.

- 4 Place the back of the AP against the wall with the protruding mounting screw heads fitting through the keyhole slots on the back of the AP, and slide the AP down until the AP rests on the mounting screw heads. [Figure 9](#) shows an exploded view of this mounting method.

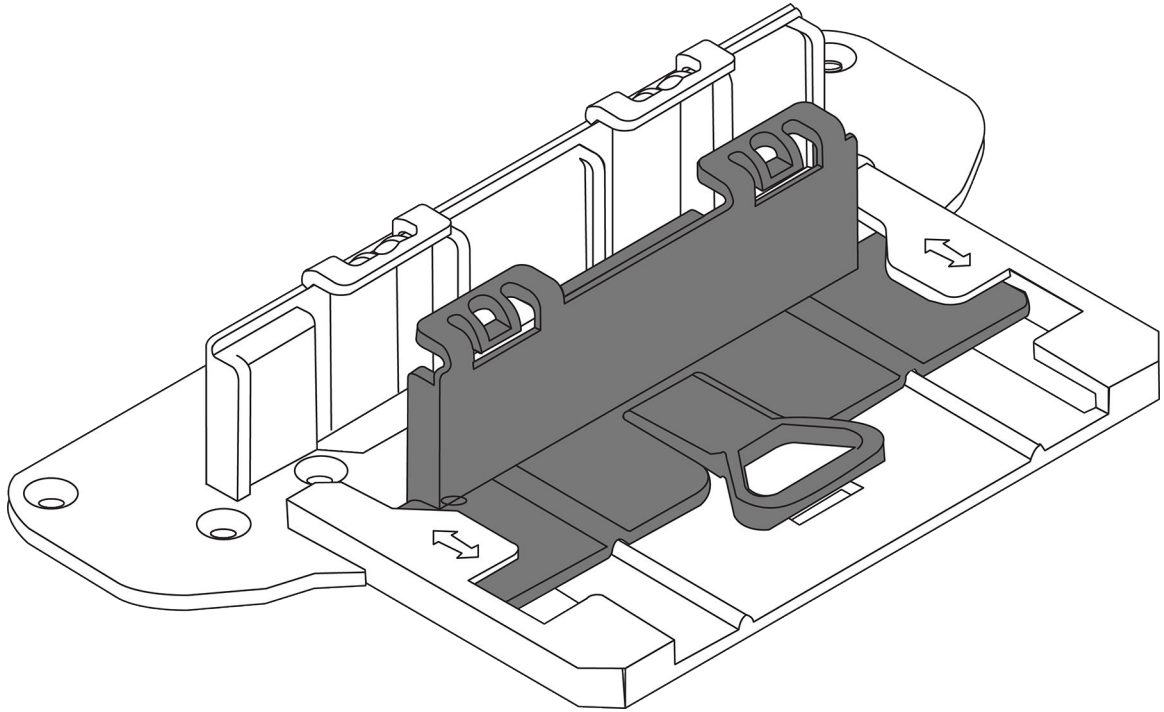


**Figure 9: Mounting the WS-AP3825 to a Flat Wall or Solid Ceiling**

- 5 Plug the Ethernet cable into the RJ-45 port (and plug the power cord into the power port, if applicable) on the back of the AP.

### WS-MBI-DCU01 Mounting Bracket for Drop Ceiling

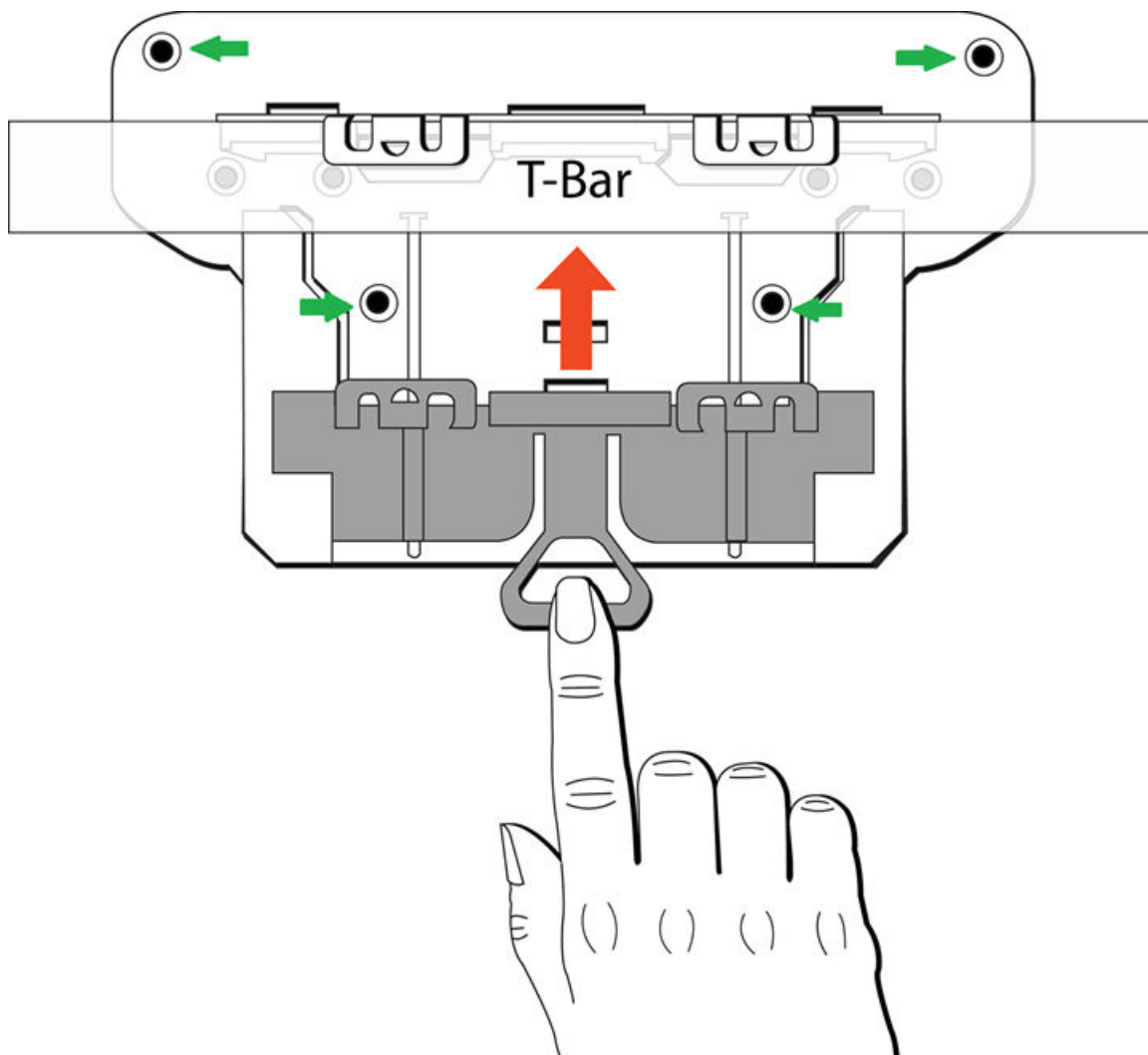
The optional WS-MBI-DCU01 mounting bracket fits 9/16", 14MM, 15/16", 24MM, 1.5", and 38MM wide drop ceiling rails. This bracket uses four M3 flat head screws to attach it to the AP3825.



**Figure 10: Mounting Bracket: WS-MBI-DCU01**

To install the mounting bracket:

- 1 Attach the WS-MBI-DCU01 to the AP using the screws provided. If needed, pull the handle and slide the top piece to access the additional screw holes that are underneath the handle. The four screw holes are indicated by the green arrows in the following figure:

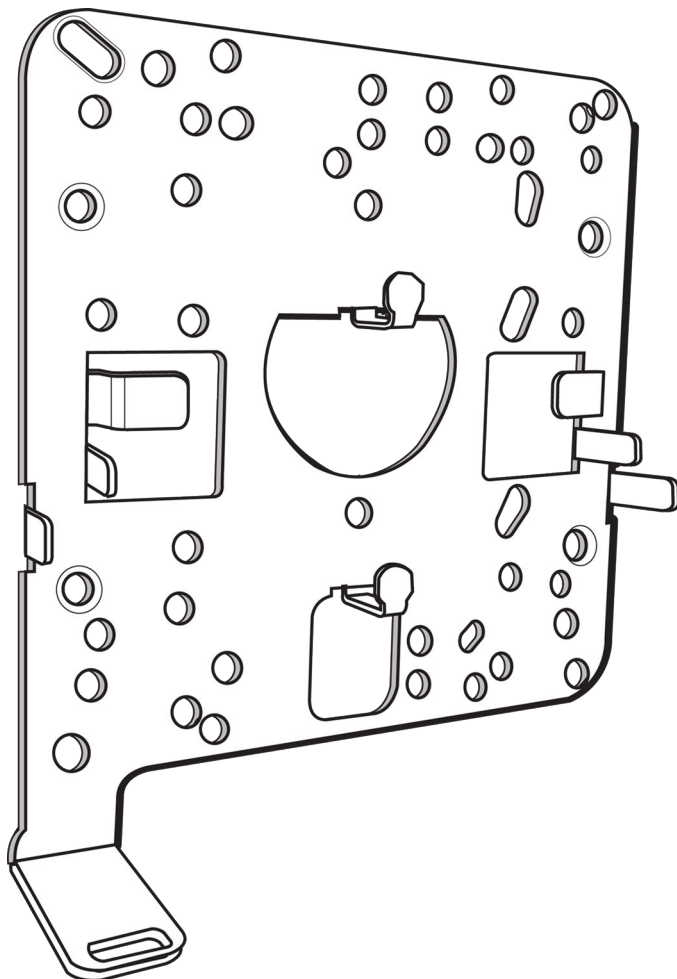


**Figure 11: Sliding Handle and Screw Holes**

- 2 Move the ceiling tile away from the T-bar.
- 3 Raise the locking bracket handle slightly and open the space between clips so that the space is wider than the T-bar.
- 4 Put the stationary side of the bracket hooks on the T-bar.
- 5 Putting your hand over the T-bar, grab the two vertical parts of the WS-MBI-DCU01 and squeeze them together until all four clips are holding onto the T-bar securely and the locking tab engages.
- 6 Gently rock the AP to verify that it is stable and will not fall off of the T-bar.
- 7 Cut holes in the ceiling tile as needed, and then thread the cables through the ceiling tile if necessary. Attach the cables and start the AP.
- 8 Put the ceiling tiles back in place.

## WS-MBI-WALL-01 Mounting Bracket on Junction/Gang Box

The WS-MBI-WALL-01 can be mounted on a junction/gang box, wall, or a solid ceiling. When mounting on a solid ceiling, it is required that you use a Kensington lock or an equivalent lock.



**Figure 12: WS-MBI-WALL-01 Bracket**

To mount the WS-MBI-WALL-01 bracket on a junction or gang box:

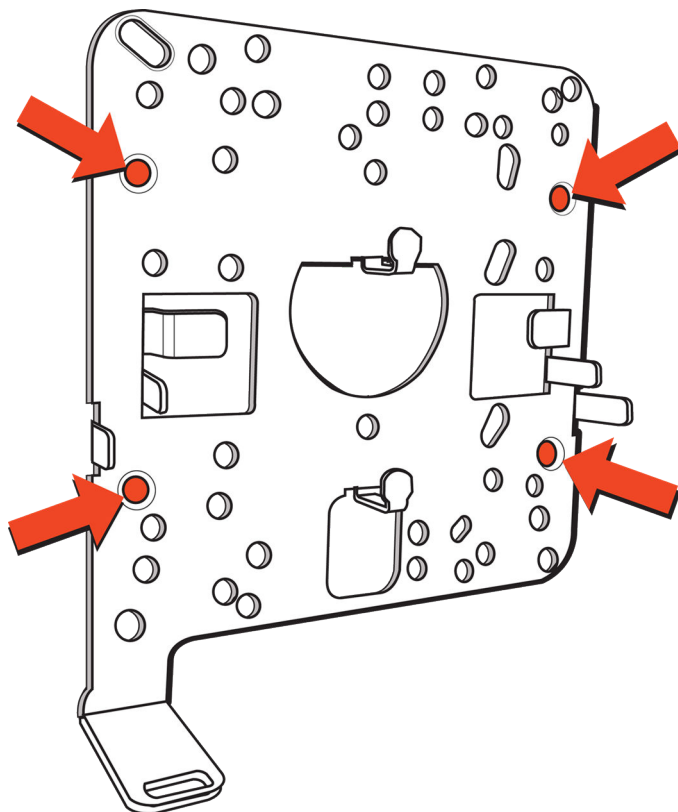
- 1 Put the center of the bracket as close as possible to the center of the box. Find two bracket holes that line up with the box screw holes. The bracket holes that you select should be on opposite sides of the center hole.
- 2 Feed the LAN cable(s) from the box going through the semi-circular center hole of the bracket.
- 3 Using the provided screw hardware, attach the bracket to the box using the two holes you identified previously. Tighten the screws to a torque of 9.0 inch-lbs.
- 4 Attach the LAN cable(s) to the AP and push the remaining cable length(s) back into the box.
- 5 Align the AP3825 mounting holes onto the two mounting circles and slide it down.
- 6 (Required for ceiling installations) Attach a Kensington lock (or its equivalent) through the lower left tab and into the AP.

## WS-MBI-WALL-01 Mounting Bracket on Wall or Solid Ceiling

The WS-MBI-WALL-01 can be mounted on a junction/gang box, wall, or a solid ceiling. When mounting on a solid ceiling, it is required that you use a Kensington lock or an equivalent lock.

To mount the WS-MBI-WALL-01 bracket on a wall or solid ceiling:

1



**Figure 13: Beveled Holes for Wall or Solid Ceiling Mounting (WS-MBI-WALL-01)**

- 2 Mark the centers of the four beveled hole locations. Drill those locations and insert screw anchors if the wall is made of drywall, plaster, or plaster-board.
- 3 Attach the bracket with four screws in the anchors. Tighten the screws to 9.0 inch-lbs.
- 4 Attach the LAN cable(s) to the AP and place the remaining cable length(s) back as desired.
- 5 Align the AP3825 mounting holes onto the two mounting circles and slide it down.
- 6 Attach a Kensington lock (or an equivalent lock) through the lower left tab and into the AP, if desired, to prevent easy removal or minimize AP movement. This step is **required** for mounting on a ceiling, and optional for wall mounting.

## LAN/Console Connections



### Note

Lan/Console connectors with shrouds will not fit into the ports. An optional jumper cable may be used or the shroud removed.



The WS-AP3825 has both a LAN and a Console port. Refer to Figure 1-1 on page 1-2 for the location of these ports.

During administration and maintenance through the LAN or Console, the AP must have a power connection through either an Ethernet PoE cable or a DC power supply.

## Power Connections

The AP can be powered in one of the following ways:

- Power over Ethernet (PoE)

Power is provided through the RJ45 Ethernet port (LAN port) on the top of the AP. This is the preferred method of powering the AP on ceiling and high wall installations.

- Power by external power supply

Where a PoE-capable Ethernet connection is unavailable or impractical, an external 12V DC power supply may be ordered separately to power the AP from a standard AC wall outlet.

## Connecting an External DC Power Supply to the WS-AP3825

There are no wall mounts for the 12V DC power supplies. To connect a power supply to the AP for everyday operation, mount the AP and plug the power supply in to the DC-IN port (callout 3 in [Figure 1](#) on page 8 and [Figure 2](#) on page 9). If you have taken the AP off its mount for configuration and maintenance, you will still need to get power to it during the maintenance from a DC power supply or PoE LAN connector.

## Configuring AP Channel Settings

The WS-AP3825e must be installed by a professional installer. Before starting the installation, the installer needs to determine/configure the following:

- [Determine the Antenna Model](#) on page 25
- [Configuring Radio RF Port](#) on page 26
- [Configuring Radio Channel](#) on page 27
- [Configuring Radio Transmit \(Tx\) Power](#) on page 29

## Determine the Antenna Model

The professional installer needs to determine antenna models and the number of antenna ports for that model. The number of ports can be determined from visual inspection of the antenna or from the antenna model name as follows:

- If the antenna model name contains a T or X (for example PRO-AO-xTxxxxx or AO-xXxxxxx), it is a triple port antenna.
- If the antenna model name contains a D (for example PRO-AO-xDxxxxx), it is a dual port antenna.
- If the antenna model name contains an S (for example PRO-AO-xSxxxxx), it is a single port antenna.

## Configuring Radio RF Port

The professional installer configures Radio RF ports where antenna ports will be connected.



### Note

All professional antenna model names are prefixed with PRO.

To configure Radio RF Ports through the ExtremeWireless Assistant:

- 1 Log into the Wireless Assistant.
- 2 From the top menu, click **AP**.  
The **Wireless AP** screen is displayed.
- 3 Click the **APs** button in the left pane, then in the Wireless AP list, select the Wireless AP whose properties you want to modify.

The **AP Properties** tab displays Wireless AP information.

| AP Properties  | WLAN Assignment   | Radio 1 | Radio 2 | Static Configuration | 802.1x |
|--|---|---------|---------|----------------------|--------|
| Serial #:  | 1303005659480000  |         |         |                      |        |
| Host Name:   | 1303005659480000  |         |         |                      |        |
| Name:  | CS110 - ap3<br><small><sup>1</sup> Change of name will cause interruption of service if DHCP is enabled</small> |         |         |                      |        |
| Location:  | <input type="text"/>  |         |         |                      |        |
| Zone:  | <input type="text"/>  |         |         |                      |        |
| Description:   | <input type="text"/>  |         |         |                      |        |
| Topology:  | esa0  |         |         |                      |        |
| AP Environment:  | Indoor<br><small><sup>2</sup> Change of Environment will cause interruption of service</small>                  |         |         |                      |        |
| Hardware Version:  | Wireless External   |         |         |                      |        |
| Application Version:   | 09.01.01.0228   |         |         |                      |        |
| Status:  | Approved  |         |         |                      |        |
| Active Clients:  | 0   |         |         |                      |        |
| Role:  | Traffic forwarder (AP)  |         |         |                      |        |
| Country:   | United States<br><small><sup>3</sup> Change of Country may cause AP to reboot.</small>                          |         |         |                      |        |
| <input type="button" value="Professional install"/> <input type="button" value="Advanced..."/> |   |         |         |                      |        |

- 4 Click **Professional Install**.

The Professional Install Dialog displays.

**Professional install** [?] [X]

Radio 1 Left Antenna Type<sup>4</sup>: PRO-AI-DT04360 AG 3/4dBi Omni 3f ▼

Radio 1 Middle Antenna Type<sup>4</sup>: PRO-AI-DT04360 AG 3/4dBi Omni 3f ▼

Radio 1 Right Antenna Type<sup>4</sup>: PRO-AI-DT04360 AG 3/4dBi Omni 3f ▼

Radio 2 Left Antenna Type<sup>4</sup>: PRO-AI-DT04360 AG 3/4dBi Omni 3f ▼

Radio 2 Middle Antenna Type<sup>4</sup>: PRO-AI-DT04360 AG 3/4dBi Omni 3f ▼

Radio 2 Right Antenna Type<sup>4</sup>: PRO-AI-DT04360 AG 3/4dBi Omni 3f ▼

<sup>4</sup> Change of Antenna Type may cause AP to reboot.

Radio1 Attenuation: NOT CONFIGURED ▼

Radio2 Attenuation: NOT CONFIGURED ▼

Close

- 5 Modify the **Radio Antenna Type** as follows:
  - If attaching triple port antennas, all three RF port should be configured with the same antenna type.
  - If attaching dual port antennas, two of the radio RF ports should be configured with the same antenna type and the third (non-active port) should be configured to None.
  - If attaching single port antennas, radio ports where antenna should be connected has to be set to the antenna type and non-active port should be set to None.
- 6 Modify **Radio Attenuation** as follows:
  - Add any attenuation (dBm non-negative) due to cable loss or attenuator added to the line between AP port and the antenna.
  - Same attenuator loss is assumed and is required for all three ports of the radio except when one or more port is not connected to the antenna and is properly terminated as describe in next step.
  - Professional installer is responsible for accurately configuring port Attenuation. In no case, port attenuation should be configured higher than actual attenuation between the AP port and the antenna.
- 7 Install a terminator (rf 50 Ohm) on all ports where an antenna is not connected.

## Configuring Radio Channel

- 1 Click the **APs** button in the left pane, then in the Wireless AP list, select the Wireless AP whose properties you want to modify.  
The **AP Properties** tab displays Wireless AP information.
- 2 Click the **Radio 1** tab.

- Configure the desired **Radio Mode**, and **Channel Width**.

| AP Properties               | WLAN Assignment | Radio 1  | Radio 2 | Static Configuration | 802.1x |
|-----------------------------|-----------------|--|---------|----------------------|--------|
| <b>Base Settings</b>        |                 | <b>BSS Info</b><br>20:B3:99:70:DD:48 CNL-218-0<br>20:B3:99:70:DD:49 CNL-218-0<br>20:B3:99:70:DD:4A CNL-218-0<br>20:B3:99:70:DD:4B CNL-218-0<br>< >   |         |                      |        |
|                             |                 | Admin Mode: On<br>Radio Mode: a/n<br>Channel Width: 40MHz  |         |                      |        |
| <b>Basic Radio Settings</b> |                 | RF Domain: MyDomain<br>Current Channel <sup>1</sup> : None<br>Last Requested Channel: 157: ([5785],5805)<br>Request New Channel: Auto<br>Auto Tx Power Ctrl (ATPC): <input checked="" type="checkbox"/><br>Current Tx Power Level: Off<br>Max Tx Power: 10 dBm<br>Min Tx Power <sup>2</sup> : 5 dBm<br>Auto Tx Power Ctrl Adjust: 0 dB<br>Channel Plan: All Non-DFS-Channels<br>View<br>Antenna Selection: Left/Middle/Right |         |                      |        |
|                             |                 | <sup>1</sup> AP may take up to 90 seconds to report the current channel<br><sup>2</sup> Minimum power level is subject to the regulatory compliance requirement for the selected country<br>Advanced...  |         |                      |        |

- From the **Request a New Channel** drop-down menu, select a channel according to the site channel plan.
- Request the AP to auto select the channel from the channel list set in the **Channel Plan** setting.

| AP Properties               | WLAN Assignment | Radio 1   | Radio 2 | Static Configuration | 802.1x |
|-----------------------------|-----------------|---|---------|----------------------|--------|
| <b>Base Settings</b>        |                 | <b>BSS Info</b><br>20:B3:99:70:DD:48 CNL-218-0<br>20:B3:99:70:DD:49 CNL-218-0<br>20:B3:99:70:DD:4A CNL-218-0<br>20:B3:99:70:DD:4B CNL-218-0<br>< >  |         |                      |        |
|                             |                 | Admin Mode: On<br>Radio Mode: a/n<br>Channel Width: 40MHz   |         |                      |        |
| <b>Basic Radio Settings</b> |                 | RF Domain: MyDomain<br>Current Channel <sup>1</sup> : None<br>Last Requested Channel: 157: ([5785],5805)<br>Request New Channel: Auto<br>Auto Tx Power Ctrl (ATPC): <input type="checkbox"/><br>Current Tx Power Level: Off<br>Max Tx Power: 10 dBm<br>Channel Plan: All Non-DFS-Channels<br>View<br>Antenna Selection: Left/Middle/Right |         |                      |        |
|                             |                 | <sup>1</sup> AP may take up to 90 seconds to report the current channel<br>Advanced...  |         |                      |        |

- Repeat the process for **Radio 2**.

## Configuring Radio Transmit (Tx) Power

Based on the configured mode, channel, channel plan, and channel width for the specific antenna, the professional installer must enter the corresponding Transmit Power (Tx Power) for the desired Radio using the ExtremeWireless Assistant.

- 1 Log into the Wireless Assistant.
- 2 From the top menu, click **AP**.  
The **Wireless AP** screen displays.
- 3 Click the **AP** button in the left pane, then in the Wireless AP list, select the Wireless AP whose properties you want to modify.

The **AP Properties** tab displays Wireless AP information.

- 4 Click the **Radio 1** tab.

**Max Tx Power** is automatically determined based on regulatory domain/country, antenna selected, line attenuation configured, channel, and certification testing.

| AP Properties               | WLAN Assignment | Radio 1  | Radio 2 | Static Configuration | 802.1x |
|-----------------------------|-----------------|--|---------|----------------------|--------|
| <b>Base Settings</b>        |                 | BSS Info<br>20:B3:99:70:DD:48 CNL-218-0<br>20:B3:99:70:DD:49 CNL-218-0<br>20:B3:99:70:DD:4A CNL-218-0<br>20:B3:99:70:DD:4B CNL-218-0<br>< >  |         |                      |        |
|                             |                 | Admin Mode: On<br>Radio Mode: a/n<br>Channel Width: 40MHz  |         |                      |        |
| <b>Basic Radio Settings</b> |                 | RF Domain: MyDomain<br>Current Channel <sup>1</sup> : None<br>Last Requested Channel: 157: ([5785],5805)<br>Request New Channel: Auto<br>Auto Tx Power Ctrl (ATPC): <input type="checkbox"/><br>Current Tx Power Level: Off<br><b>Max Tx Power: 10 dBm</b><br>Channel Plan: All Non-DFS-Channels<br>View<br>Antenna Selection: Left/Middle/Right |         |                      |        |
|                             |                 | <sup>1</sup> AP may take up to 90 seconds to report the current channel  |         |                      |        |
|                             |                 | Advanced...  |         |                      |        |

- 5 Professional installer is responsible for accurately configuring port Attenuation. In no case, port attenuation should be configured higher than actual attenuation between the AP port and the antenna.
- 6 Repeat the process for **Radio 2**.

# A Specifications

## External Power Supplies Internal Antenna Access Points External Antennas

This appendix lists the specifications for the WS-AP3825i and WS-AP3825e access points and an external 12V DC power supply.

**Table 5: Specifications for the WS-AP3825i and WS-AP3825e**

| Item                                | Specification   |
|-------------------------------------|---|
| Enclosure material                  | Metal base, plastic housing   |
| Power source                        | 802.3af compliant PoE PD,<br>12V DC input   |
| Power consumption                   | < 12.94W (Max.)   |
| Outside dimensions (max) WS-AP3825e | Length: 190.5mm (7.5")<br>Width: 145mm to 180.0mm (7.5" to 7.09")<br>Thickness (not including mounting bracket): 29mm (1.13") to 38mm (1.5"). |
| Antenna (WS-AP3825i only)           | 6x internal antennas, single band   |
| Uplink Interface                    | GbE Ethernet x1 with PoE  |
| RoHS compliant                      | Yes   |
| Radio Configuration                 | IEEE 802.11ac, a/b/g/n<br>2.4/5 GHz single-band,<br>Dual-radio, 3x3:3 MIMO  |
| Operating temperature               | 32°F to 122°F (0°C to +50°C)  |

## External Power Supplies

WS-AP3825 APs may be powered by IEEE 802.3af compliant PoE cables connected to the Ethernet ports in the connector bay. This is usually the preferred method of powering for users that plan to mount the devices on ceilings or high up on walls. You can also power these APs with optional external power supplies.

**Table 6: Universal Specifications for an External Power Supply**

| Item               | Specification   |
|--------------------|-----------------|
| Enclosure material | Plastic housing |
| AC Input           | 100-240V        |
| DC output          | 12V             |

**Table 6: Universal Specifications for an External Power Supply (continued)**

| Item                 | Specification |
|----------------------|---------------|
| Output current (max) | 2A            |
| Output power (max)   | 24W           |

Table 7 lists recommended power supplies for the WS-AP3825, by country:

**Table 7: Recommended DC Power Supplies for WS-AP3825**

| Country   | Extreme Networks Part Number |
|-----------|------------------------------|
| Australia | WS-PS3X12-AU                 |
| Brazil    | WS-PS3X12-BR                 |
| China     | WS-PS3X12-CN                 |
| EU        | WS-PS3X12-EU                 |
| UK        | WS-PS3X12-UK                 |
| US        | WS-PS3X12-NAM                |

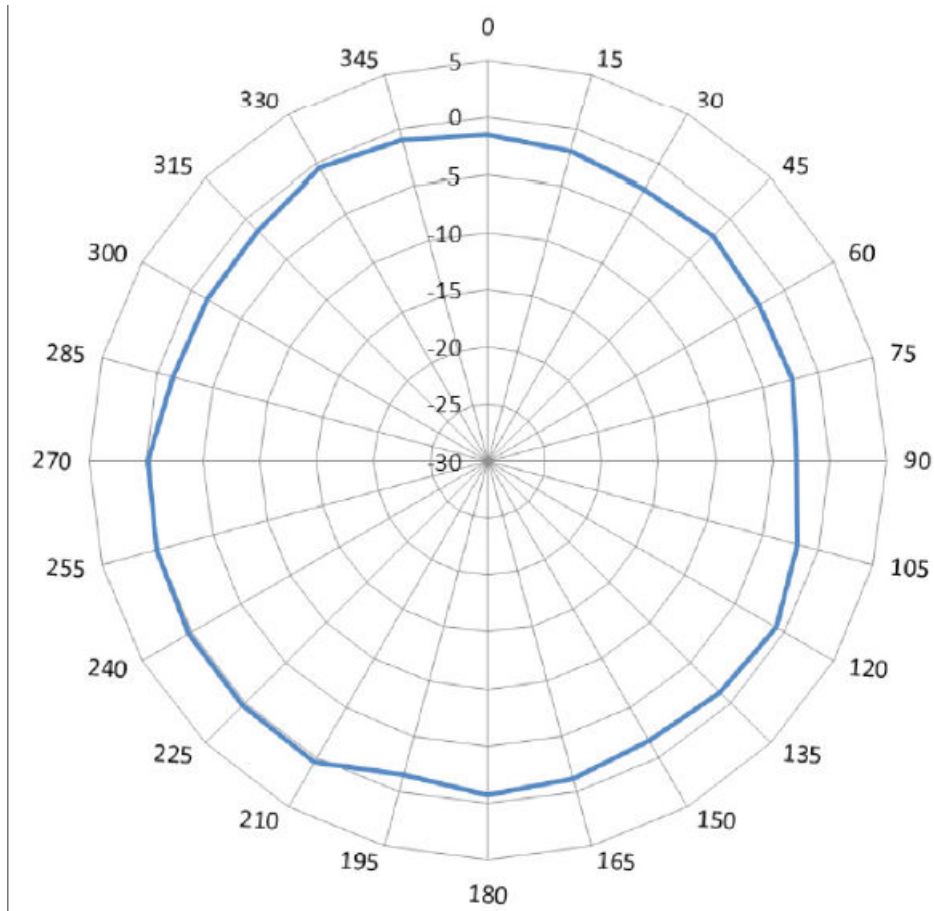
## Internal Antenna Access Points

The WS-AP3825i is an indoor access with six integrated internal antennas. The following specifications are for the internal antennas:

**Table 8: WS-AP3825i Internal Antennas**

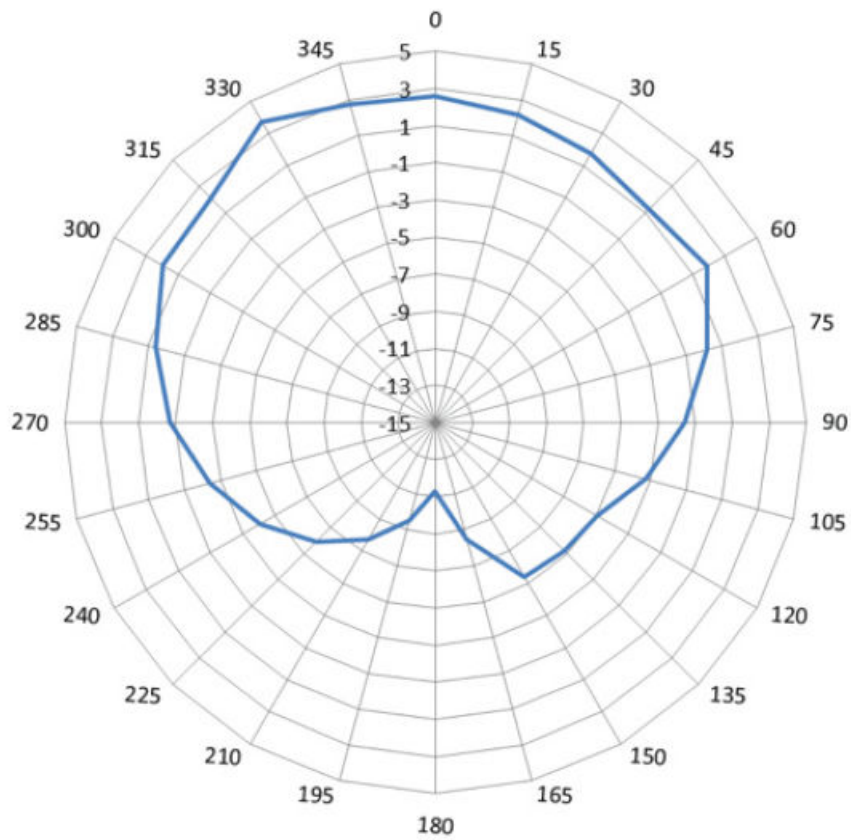
| Model Type | Application | Description       | Gain (dBi) | Frequency (GHz) | Connector |
|------------|-------------|-------------------|------------|-----------------|-----------|
| WS-AP3825i | Indoor      | MIMO, Single-band | 5 dBi      | 2.4             | None      |
|            |             |                   | 6 dB       | 5               | None      |

The following radiation patterns apply to the antennas in the WS-AP3825i only. In these diagrams, 0 degree is AP's front and +/- 180 degree is AP's back.

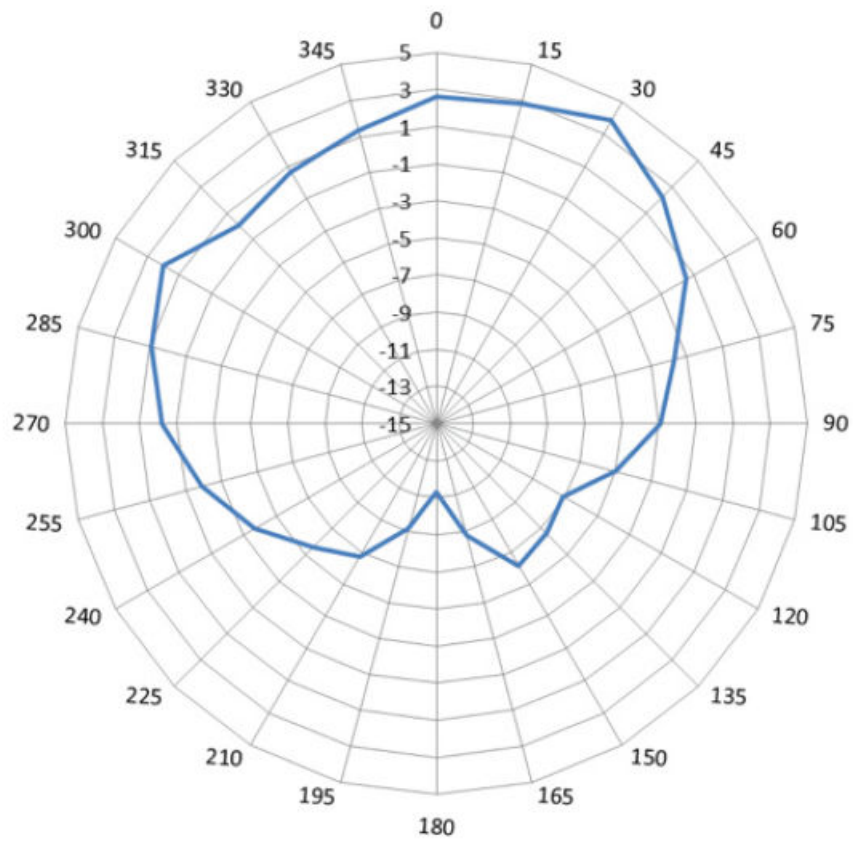


**Figure 14: Horizontal Radiation Pattern 2.4 GHz**

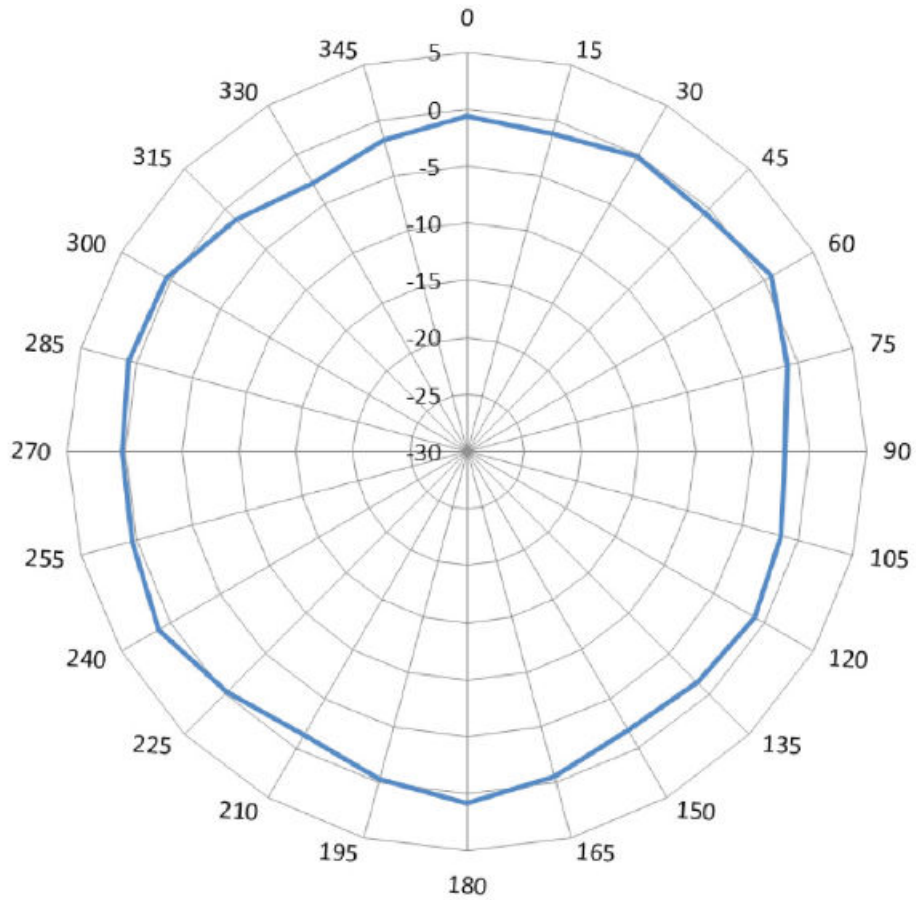




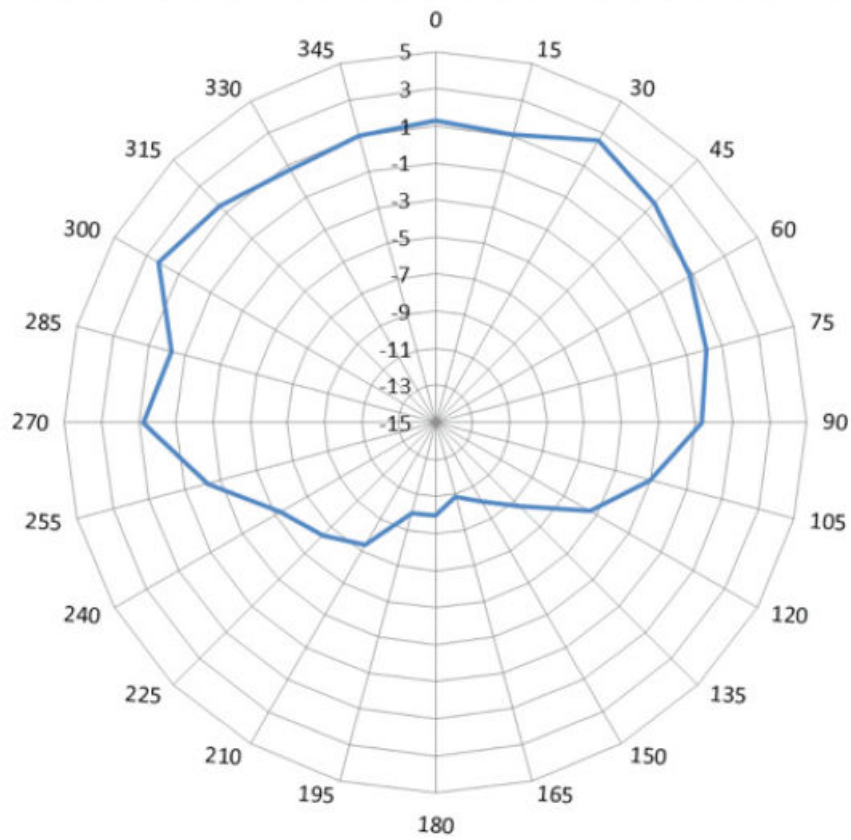
**Figure 15: Vertical XZ Radiation Pattern 2.4 GHz**



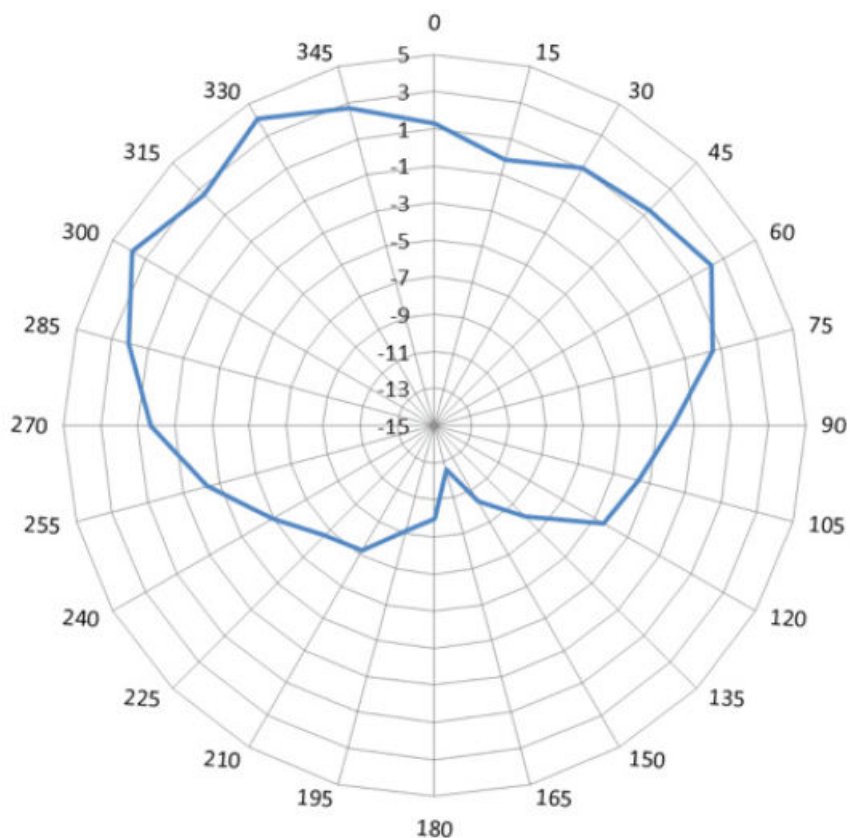
**Figure 16: Vertical YZ Radiation Pattern 2.4 GHz**



**Figure 17: Horizontal Radiation Pattern 5 GHz**



**Figure 18: Vertical XZ Radiation Pattern 5 GHz**



**Figure 19: Vertical YZ Radiation Pattern 5 GHz**

## External Antennas

Table 9 lists the certified external antennas for WS-AP3825e. For more detailed specifications and radiation pattern diagrams, see the [ExtremeWireless External Antenna Site Preparation and Installation Guide](#).

**Table 9: Certified External Antennas for WS-AP3825e**

| Model         | Application | Description                | Gain (dBi)        | Frequency (GHz)         | Connector Type |
|---------------|-------------|----------------------------|-------------------|-------------------------|----------------|
| WS-ANT-2DIP-3 | Indoor      | MIMO; Single-band          | 3 dBi             | 2.4                     | 3xRSMA         |
| WS-ANT-5DIP-3 | Indoor      | MIMO; Single-band          | 3 dBi             | 5.0                     | 3xRSMA         |
| WS-AI-DX02360 | Indoor      | MIMO; Dual-band            | 2 dBi             | 2.4-2.5,<br>5.15-5.85   | RSMA           |
| WS-AI-DT05120 | Indoor      | MIMO; Sector;<br>Dual-band | 5 dBi x 3,<br>2:1 | 2.3 – 2.7,<br>4.9 – 6.1 | RSMA           |

**Table 9: Certified External Antennas for WS-AP3825e (continued)**

| Model         | Application | Description                | Gain (dBi)         | Frequency (GHz)         | Connector Type |
|---------------|-------------|----------------------------|--------------------|-------------------------|----------------|
| WS-AI-DX10055 | Indoor      | MIMO; Sector,<br>Dualband  | 10 dBi<br>6 dBi    | 2.4 – 2.5,<br>5.1 – 5.9 | RSMA           |
| WS-AI-DX07025 | Indoor      | MIMO; Sector;<br>Dual-band | 6.5 dBi<br>5.5 dBi | 2.4 – 2.5,<br>5.1 – 5.9 | RSMA           |

# B Regulatory Information

## ExtremeWireless WS-AP3825i and WS-AP3825e



### Warning

Warnings identify essential information. Ignoring a warning can lead to problems with the application.

This appendix provides regulatory information for the Extreme Networks Wireless WS-AP3825i and WS-AP3825e access points.



### Note

Throughout this appendix, the term ExtremeWireless AP3825 refers to the AP models WS-AP3825i, and WS-AP3825e. Specific AP models are identified in this appendix only where it is necessary to do so.



### Warning

Changes or modifications made to the ExtremeWireless AP3825 which are not expressly approved by Extreme Networks could void the user's authority to operate the equipment. Only authorized Extreme Networks service personnel are permitted to service the system. Procedures that should be performed only by Extreme Networks personnel are clearly identified in this guide.

## ExtremeWireless WS-AP3825i and WS-AP3825e

The following regulatory information applies to the ExtremeWireless access points WS-AP3825i and WS-AP3825e.

### United States

#### *FCC Declaration of Conformity Statement*

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 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 when the equipment is operated in a residential and business environment. This equipment generates, uses, and radiates radio frequency energy, and if not installed and used in accordance with instructions, may cause harmful interference. However, there is no guarantee that interference will not occur. If this equipment does cause harmful interference, which can be determined

by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the transmitting antenna.
- Increase the separation between the equipment or devices.
- Connect the equipment to an outlet other than the receiver's.
- Consult a dealer or an experienced radio/TV technician for suggestions.

### *USA Conformance Standards*

This equipment meets the following conformance standards:

#### **Safety**

- UL 60950-1

#### **EMC**

- FCC CFR 47 Part 15, Class B

#### **Radio transceiver**

- CFR 47 Part 15.247, Subpart C
- CFR 47 Part 15.407, Subpart E

#### **Other**

- IEEE 802.11a (5 GHz)
- IEEE 802.11b/g (2.4 GHz)
- IEEE 802.11n
- IEEE 802.3at (PoE)
- IEEE 802.3af (PoE)

---

#### **Warning**

The ExtremeWireless AP3825 must be installed and used in strict accordance with the manufacturer's instructions as described in this guide and related documentation for the device to which the ExtremeWireless AP3825 is connected. Any other installation or use of the product violates FCC Part 15 regulations.



This Part 15 radio device operates on a non-interference basis with other devices operating at the same frequency when using the antennas provided or other Extreme Networks-certified antennas. Any changes or modifications to the product not expressly approved by Extreme Networks could void the user's authority to operate this device.

For the product available in the USA market, only channels 1 to 11 can be operated. Selection of other channels in the 2.4 GHz band is not possible.

---

### *FCC RF Radiation Exposure Statement*

The ExtremeWireless AP3825 complies with FCC RF radiated exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This device has been tested and has demonstrated compliance when simultaneously operated in the 2.4 GHz and 5 GHz frequency ranges. This device must not be co-located or operated in conjunction with any other antenna or transmitter.



The radiated output power of the ExtremeWireless AP3825 is below the FCC radio frequency exposure limits as specified in “Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields” (OET Bulletin 65, Supplement C). This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body or other colocated operating antennas.

## Canada

### *Industry Canada Compliance Statement*

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled “Digital Apparatus,” ICES-003 of Industry Canada.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: “Appareils Numériques,” NMB-003 édictée par le Industrie Canada.

This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.
- This Class B digital apparatus complies with Canadian ICES-003.
- Operation in the 5150-5250 MHz band is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems.
- Users are advised that high power radars are allocated as primary users (meaning they have priority) and can cause interference in the 5250-5350 MHz and 5470-5850 MHz bands of LELAN devices.
- For the product available in the Canadian market, only channels 1 to 11 can be operated. Selection of other channels in the 2.4 GHz band is not possible.
- Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux conditions suivantes:

- Le dispositif ne doit pas produire de brouillage préjudiciable.
- Ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.
- Ce dispositif est conforme à la norme NMB-003 édictée par le Industrie Canada.
- Les dispositifs fonctionnant dans la bande 5 150-5 250 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.
- 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

5470-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

- Pour le produit disponible sur le marché canadien, seuls les canaux 1 à 11 peuvent être utilisés. Il est impossible de sélectionner d'autres canaux dans la bande de 2.4 GHz.
- Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain B-4 ExtremeWireless WS-AP3825i and WS-AP3825e de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

### *Canada Conformance Standards*

This equipment meets the following conformance standards:

#### **Safety**

- C22.2 No.60950-1-03

#### **EMC**

- ICES-003, Class B

#### **Radio transceiver**

- RSS-210 (2.4 GHz and 5 GHz)

#### **Other**

- IEEE 802.11a (5 GHz)
- IEEE 802.11b/g (2.4 GHz)
- IEEE 802.11n
- IEEE 802.3at (PoE)
- IEEE 802.3af (PoE)

#### **RF Safety Distance**

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.

Les antennes de ce transmetteur doivent être installées à une distance d'au moins 20 cm de toute personne et ne doivent pas être en placées à proximité immédiate ou utilisées conjointement avec une autre antenne ou un autre transmetteur.

## **European Community**

The ExtremeWireless AP3825 is designed for use in the European Union and other countries with similar regulatory restrictions where the end user or installer is allowed to configure the ExtremeWireless AP3825 for operation by entry of a country code relative to a specific country. After the country code is selected, the ExtremeWireless AP3825 uses the proper frequencies and power outputs for that country code.

The ExtremeWireless AP3825 is intended for indoor use and must be installed in a proper indoor location. Contact local Authority for procedure to follow and regulatory information. For more details on legal combinations of frequencies, power levels and antennas, contact Extreme Networks.

Declaration of Conformity with R&TTE Directive of the European Union 1999/5/EC

The following symbol indicates compliance with the Essential Requirements of the R&TTE Directive of the European Union (1999/5/EC).



*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 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.<br><br>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.<br><br>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 erklährt 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   | <b>ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Extreme Networks ΔΗΛΩΝΕΙ ΟΤΙ Radio LAN device ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ</b>   |

|            |  |
|------------|--|
|            | <b>ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.</b>   |
| 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-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. |
| Hungary    | Alulírott, Extreme Networks nyilatkozom, hogy a Radio LAN device megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.                      |
| 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, deklaruje, że Radio LAN device spełnia wymagania zasadnicze oraz stosowne postanowienia zawarte Dyrektywie 1999/5/EC.                               |

*European Conformance Standards*

This equipment meets the following conformance standards:

**Safety**

- 2006/95/EC Low Voltage Directive (LVD)
- IEC/EN 60950-1 + National Deviations

**EMC (Emissions / Immunity)**

- 2004/108/EC EMC Directive
- EN 55011/CISPR 11, Class B, Group 1 ISM
- EN 55022/CISPR 22, Class B
- EN 55024/CISPR 24, includes IEC/EN 61000-4-2,3,4,5,6,11
- EN 61000-3-2 and -3-3 (Harmonics and Flicker)
- EN 60601-1-2 (EMC immunity for medical equipment)
- EN 50385 (EMF)
- ETSI/EN 301 489-1 & -17

**Radio transceiver**

- R&TTE Directive 1999/5/EC
- ETSI/EN 300 328 (2.4 GHz)
- ETSI/EN 301 893 (5 GHz)

**Other**

- IEEE 802.11a (5 GHz)
- IEEE 802.11b/g (2.4 GHz)
- IEEE 802.11n
- IEEE 802.3at (PoE)
- IEEE 802.3af (PoE)

**RoHS**

- European Directive 2002/95/EC

*Conditions of use in the European Community*

Some EU countries allow outdoor operation with limitations and restrictions, which are described in this section. It is the responsibility of the end user to ensure operation in accordance with these rules, frequencies, and transmitter power output. The ExtremeWireless AP3825 must not be operated until configured for the customer's geographic location.

**Caution**

The user or installer is responsible to ensure that the ExtremeWireless AP3825 is operated according to channel limitations, indoor / outdoor restrictions, license requirements, and within power level limits for the current country of operation. A configuration utility has been provided with the Wireless AP to allow the end user to check the configuration and make necessary configuration changes to ensure proper operation in accordance with the spectrum usage rules for compliance with the European R&TTE directive 1999/5/EC.

**Caution**

Please follow the instructions in this user guide to configure the ExtremeWireless AP3825.

- Each Wireless AP is configured with a default group of settings. There is the ability to change these settings. The user or installer is responsible to ensure that each ExtremeWireless AP3825 is configured properly.
- The software within the Wireless AP automatically limits the allowable channels and output power determined by the selected country code. Selecting the incorrect country of operation or misidentifying the antenna being used, may result in illegal operation and may cause harmful interference to other systems.
- This device employs a radar detection feature required for European Community operation in the 5 GHz band. This feature is automatically enabled when the country of operation is correctly configured for any European Community country. The presence of nearby radar operation may result in temporary interruption of operation of this device. The radar detection feature will automatically restart operation on a channel free of radar.
- The 5150- 5350 MHz band, channels 36, 40, 44, 48, 52, 56, 60, or 64, are restricted to indoor use only.
- The 2.4 GHz band, channels 1 - 13, may be used for indoor use but there may be some channel restrictions.

*European Spectrum Usage Rules*

The AP configured with approved internal antennas can be used for indoor transmissions throughout the European community as displayed in [the following table](#). Some restrictions apply in France, Greece, and Italy.

**Table 10: European Spectrum Usage Rules**

| Country    | 5.15-5.25 (GHz)<br>Channels:<br>36,40,44,48 | 5.25-5.35 (GHz)<br>Channels:<br>52,56,60,64 | 5.47-5.725 (GHz)<br>Channels:<br>100,104,108,112,116,<br>132,136,140 | 2.4-2.4835 (GHz)<br>Channels: 1 to 13<br>(Except Where<br>Noted) |
|------------|---|---|--|--|
| Austria    | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Belgium    | Indoor only                                 | Indoor only                                 | Indoor or outdoor*   | Indoor or outdoor  |
| Bulgaria   | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Croatia    | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Cyprus     | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Czech Rep. | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Denmark    | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Estonia    | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Finland    | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| France     | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Germany    | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Greece     | Indoor only                                 | Indoor only                                 | Indoor (Outdoor w/<br>License)                                       | Indoor (Outdoor w/<br>license)                                   |

**Table 10: European Spectrum Usage Rules (continued)**

| Country       | 5.15-5.25 (GHz)<br>Channels:<br>36,40,44,48 | 5.25-5.35 (GHz)<br>Channels:<br>52,56,60,64 | 5.47-5.725 (GHz)<br>Channels:<br>100,104,108,112,116,<br>132,136,140 | 2.4-2.4835 (GHz)<br>Channels: 1 to 13<br>(Except Where<br>Noted) |
|---------------|---|---|--|--|
| Hungary       | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Iceland       | Indoor only                                 | Indoor only                                 |  | Indoor or outdoor  |
| Ireland       | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Italy         | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor (Outdoor w/<br>license)                                   |
| Latvia        | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Liechtenstein | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Lithuania     | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Luxembourg    | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Malta         | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Netherlands   | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Norway        | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Poland        | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Portugal      | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Romania       | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Slovak Rep.   | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Slovenia      | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Spain         | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Sweden        | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Switzerland   | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| Turkey        | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |
| U.K           | Indoor only                                 | Indoor only                                 | Indoor or outdoor  | Indoor or outdoor  |

## Certifications of Other Countries

The ExtremeWireless AP3825 has been certified for use in various other countries. Once the correct country code is selected, the Wireless AP automatically uses the proper frequencies and power outputs for that country code.

It is the responsibility of the end user to select the proper country code for the country within which the device will be operated, or run the risk violating local laws and regulations.

### *Other Country Specific Compliance Standards, Approvals and Declarations*

- IEC 60950-1 CB Scheme + National Deviations
- AS/NZS 60950.1 (Safety)

- AS/NZS 3548 (Emissions via EU standards – ACMA)
- AS/NZS 4288 (Radio via EU standards)
- EN 300 328 (2.4 GHz)
- EN 301 893 (5 GHz)
- EN 301 489-1 & -17 (RLAN)
- IEEE 802.11a (5 GHz)
- IEEE 802.11b/g (2.4 GHz)
- IEEE 802.11n
- IEEE 802.3at (PoE)
- IEEE 802.3af (PoE)

#### *RF Safety Distance*

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.