ExtremeWireless™ AP4020 Installation Guide

Setup, Maintenance, and Best Practices

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March 2025

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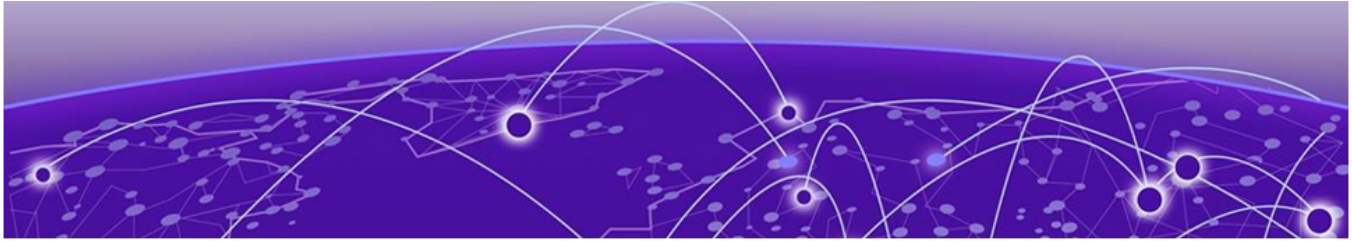

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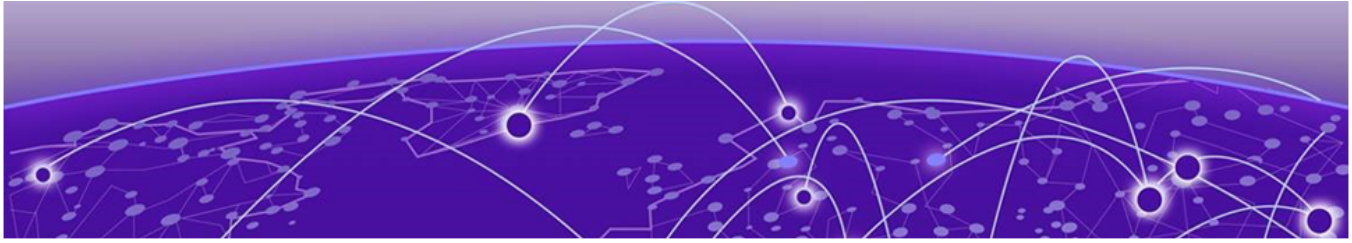

Abstract

The AP4020 Installation Guide by Extreme Networks, Inc., released in March 2025 introduces the ExtremeWireless™ AP4020, a Wi-Fi 7 (802.11be) universal indoor access point with a quad-radio design. This access point features three 2x2:2 radios for the 6 GHz, 5 GHz, and 2.4 GHz bands, a dedicated sensor, and dual IoT radios. It can operate in two modes: Mode 1 with 2.4 GHz, 5 GHz, and 6 GHz data radios and a sensor, and Mode 2 with 2.4 GHz, dual 5 GHz, and a sensor. The AP4020 is designed for flexible mounting options, including ceilings, walls, beams, and junction boxes. The guide also covers setup, maintenance, and best practices for installation.

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 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 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.

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Hardware and Software Compatibility for Extreme Networks products
Extreme Optics Compatibility
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- 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

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

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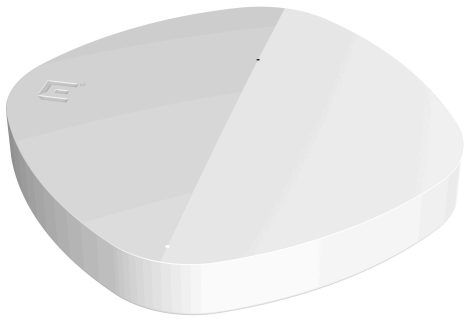
Provide as much detail as possible including the publication title, topic heading, and page number (if applicable), along with your comments and suggestions for improvement.

Overview



The AP4020 is an ExtremeCloud IQ managed, Wi-Fi 7 (802.11be) universal *indoor* access point (AP). It has a quad-radio design with three 2x2:2 radios for use across the 6 GHz, 5 GHz, and 2.4 GHz bands. It also features a dedicated sensor and dual IoT radios.

You can operate the AP in one of two modes:

- Mode 1: 2.4 GHz /5 GHz/6 GHz data radios and sensor
- Mode 2: 2.4 GHz, and dual 5 GHz, and sensor

It can be mounted to a ceiling, wall, beam or junction box. The AP4020 ships with the AH-ACC-BKT-AX-TB mounting bracket for use on flat t-bar ceiling grids and flat surfaces.

Purchase Information

Use the information below when you order your AP. The AP4020 is sold with the AH-ACC-BKT-AX-TB mounting bracket.

Table 4: Access point part number

Part number	Description
AP4020-WW	Indoor Quad Radio Wi-Fi 7 (2x2:2): 2.4GHz, 5GHz, 6GHz and dedicated sensor, Multi-Rate Port, internal antennas. T-Bar, Incl Mt (AH-ACC-BKT-AX-TB). Domain: World SKU
AP4020-WW-TAA	Indoor Quad Radio Wi-Fi 7 (2x2:2): 2.4GHz, 5GHz, 6GHz and dedicated sensor, Multi-Rate Port, internal antennas. T-Bar, Incl Mt (AH-ACC-BKT-AX-TB). Domain: World SKU TAA Compliant
AP4020-EG	Indoor Quad Radio Wi-Fi 7 (2x2:2): 2.4GHz, 5GHz, 6GHz and dedicated sensor, Multi-Rate Port, internal antennas. T-Bar, Incl Mt (AH-ACC-BKT-AX-TB). Domain: Egypt

Technical Specifications

The AP4020 supports both 802.3at PoE and 802.3bt PoE.

Note
802.3bt PoE is typically used with the 5W USB. 802.3af is not an operational power mode; it is typically used only during the onboarding stage.

For more information about the technical specifications, see the AP4020 Data Sheets found here.

Environmental Specifications

The following list shows the environmental operating conditions for the AP4020:

- Operating: 0°C to 50°C (32°F to 122°F)
- Storage: 0°C to 70°C (32°F to 158°F)
- Humidity: 0% to 95% (non-condensing)

Physical Specifications

The AP4020 has the following dimensions and weight:

- Dimensions: 238mm x 238mm x 38mm (9.37" x 9.37" x 1.50")
- Weight: 1.3 kg (2.9 lbs)

Antenna Specifications

The AP4020 has the following internal antennas:

- Two (2) dual band 2.4 GHz and 5 GHz
- Two (2) single band 5 GHz
- Two (2) single band 6 GHz
- One (1) 2 GHz/5 GHz/6 GHz sensor
- Three (3) IoT sensors

Note
The 2 GHz/5 GHz/6 GHz sensor is available in a future software release.

Antenna Specifications

The following list shows the Gain and Beam for the AP4020 internal antenna. Use this information when you plan your installation.

- Omni: 4dBi on 2.4GHz; 4dBi on 5GHz and 6GHz.
- Coverage: Symmetrical coverage

Radiation Patterns

Antenna radiation patterns are an important tool when you install your access point. Use this information to optimize your coverage, to reduce interference from other devices, and to ensure you comply with government regulations.

2.4 GHz Radiation Patterns

The following diagrams illustrate the radiation patterns for the AP4020 2GHz internal antenna.

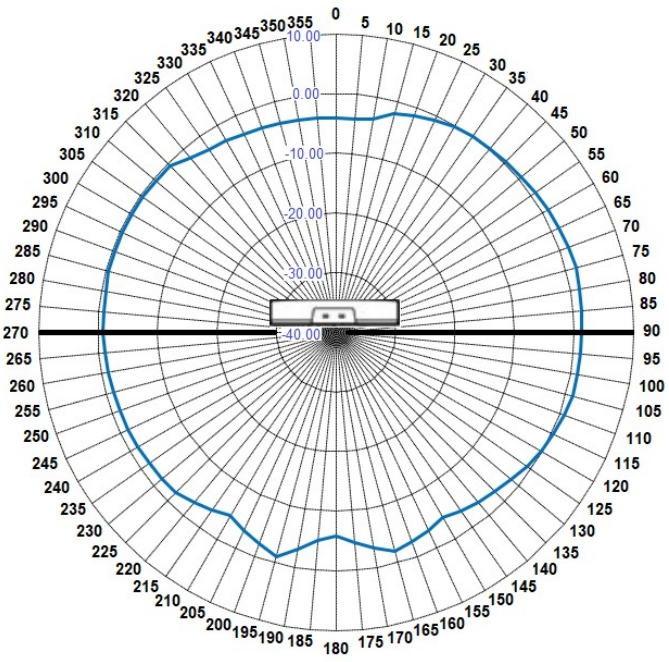


Figure 1: AP4020 2GHz - Vertical Radiation Pattern

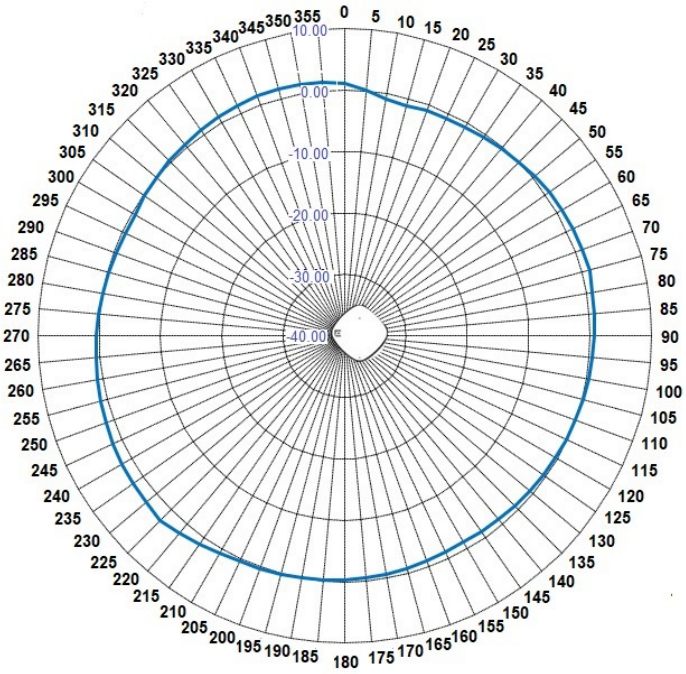


Figure 2: AP4020 2GHz - Horizontal Radiation Pattern

5 GHz Radiation Patterns

The following diagrams illustrate the radiation patterns for the AP4020 5 GHz internal antenna.

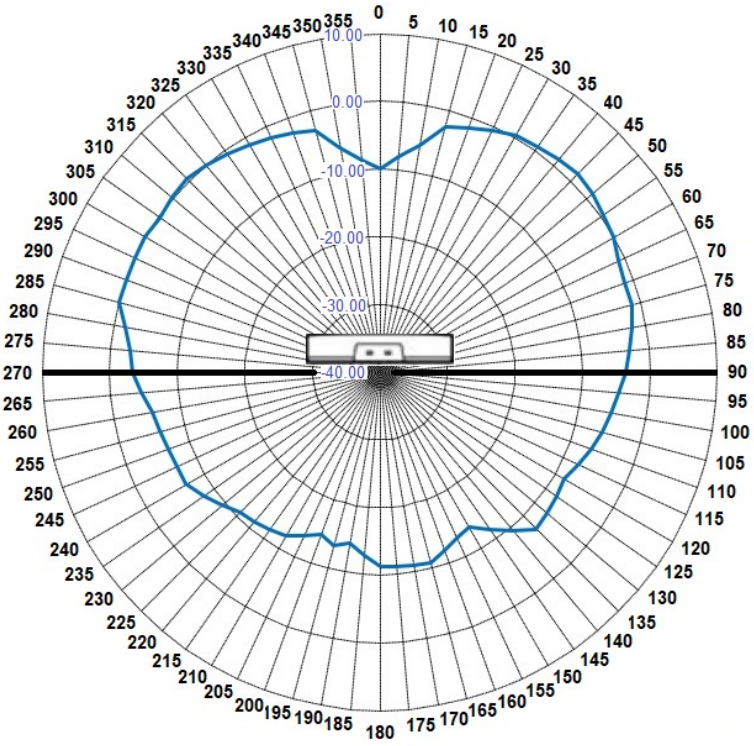


Figure 3: AP4020 5 GHz - Low Vertical Radiation Pattern

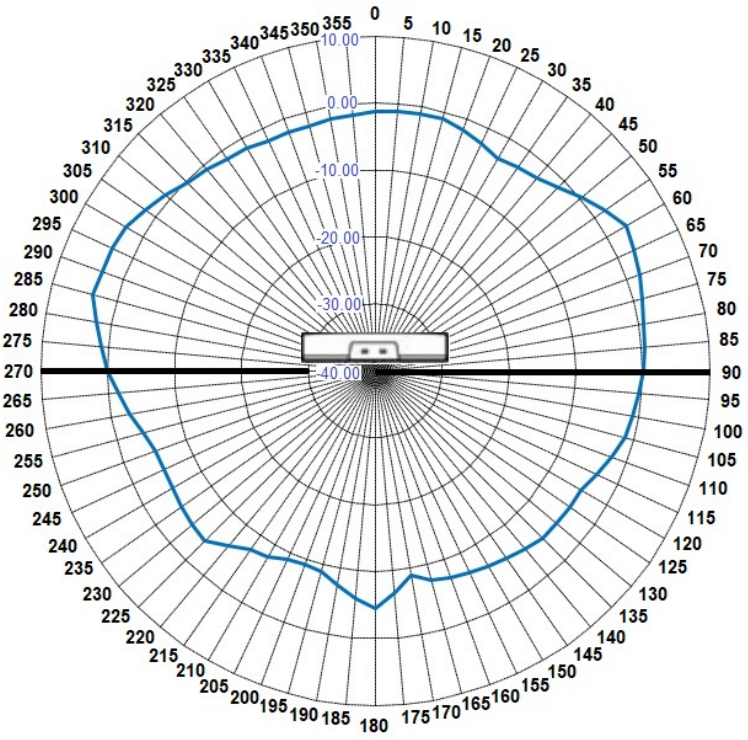


Figure 4: AP4020 5 GHz - Vertical Radiation Pattern

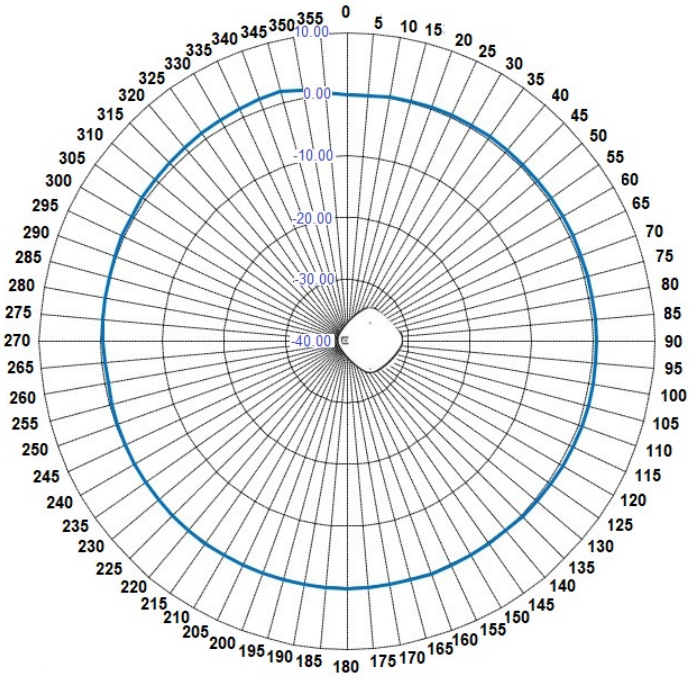


Figure 5: AP4020 5 GHz - Low Horizontal Radiation Pattern

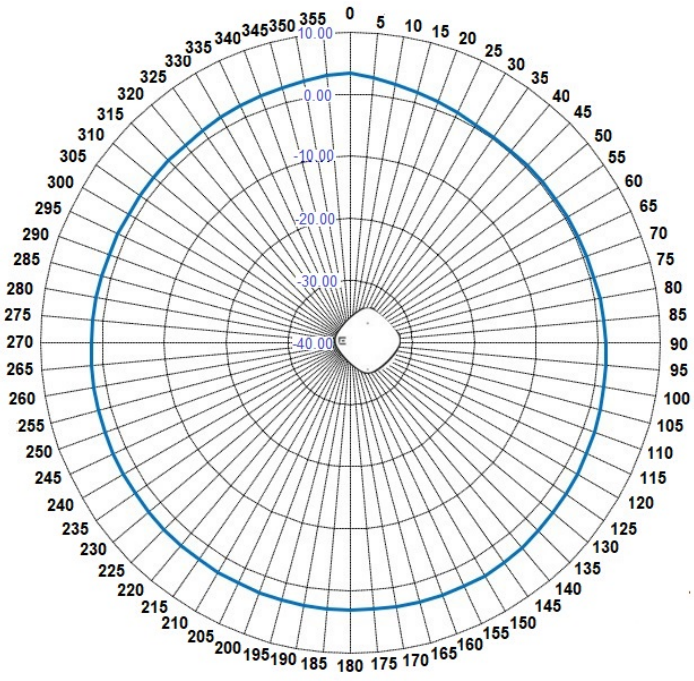


Figure 6: AP4020 5 GHz - Horizontal Radiation Pattern

6 GHz Radiation Patterns

The following diagrams illustrate the radiation patterns for the AP4020 6 GHz internal antenna.

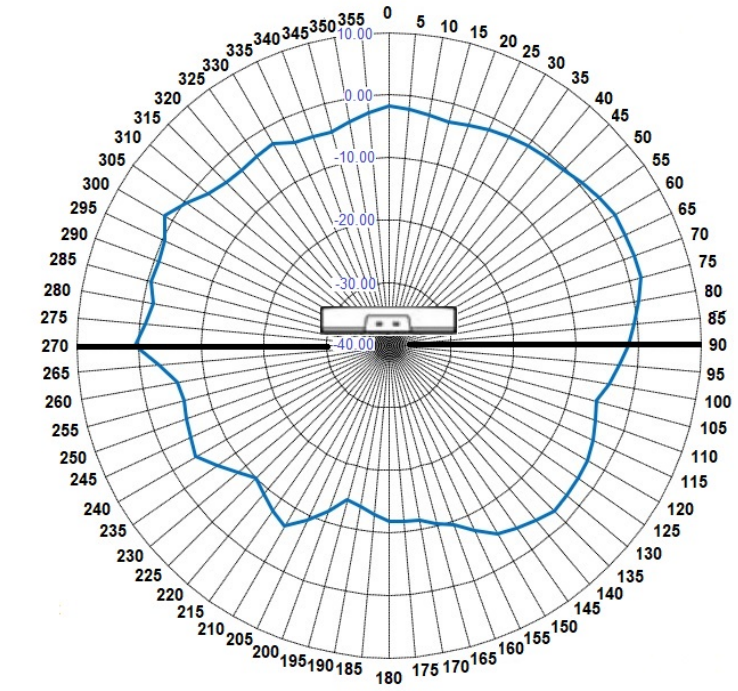


Figure 7: AP4020 6 GHz - Vertical Radiation Pattern

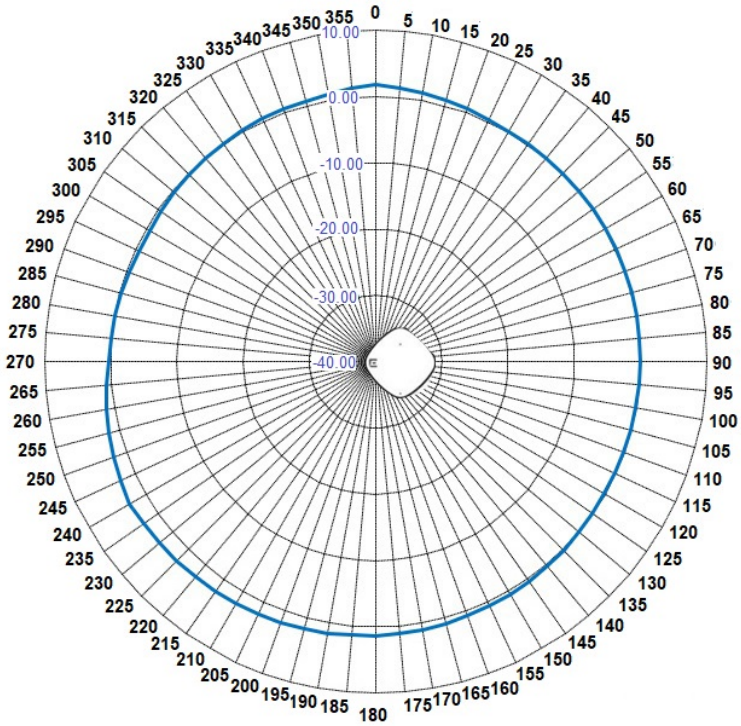


Figure 8: AP4020 6 GHz - Horizontal Radiation Pattern

BLE Radio 1 Radiation Patterns

The following diagrams illustrate the radiation patterns for the AP4020 BLE radio 1.

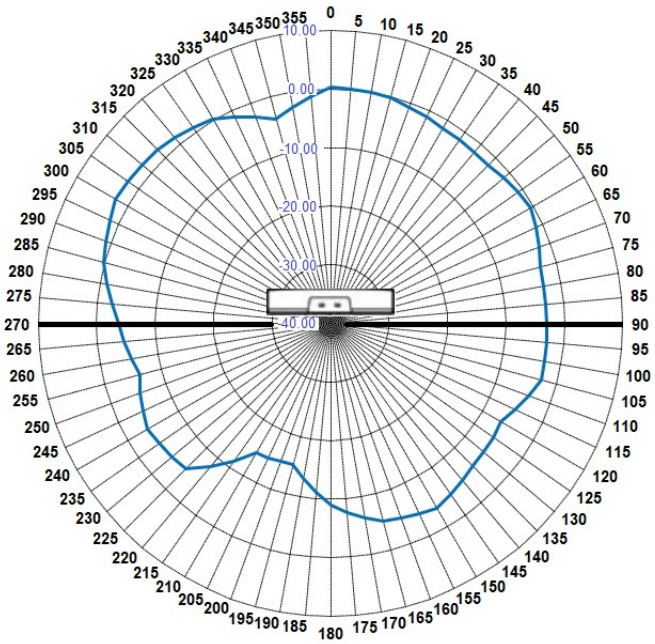


Figure 9: AP4020 BLE Radio 1 - Vertical Radiation Pattern

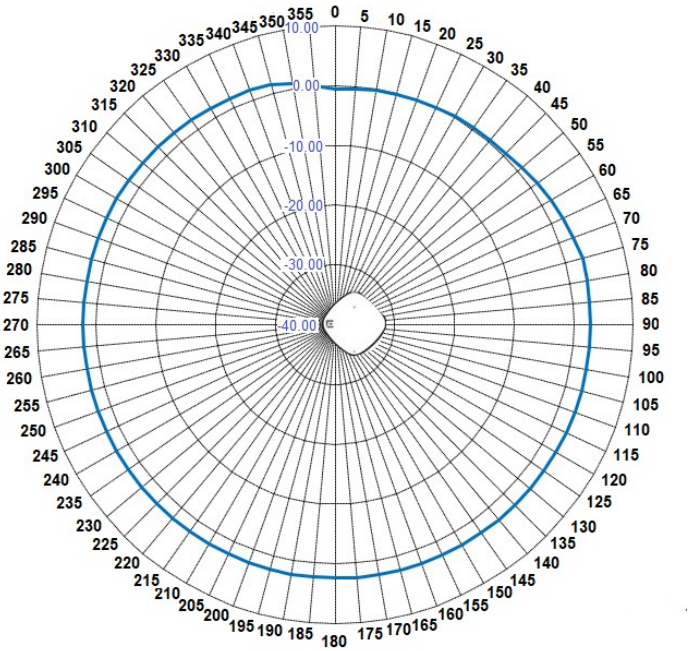


Figure 10: AP4020 BLE Radio 1 - Horizontal Radiation Pattern

BLE Radio 2 Radiation Patterns

The following diagrams illustrate the radiation patterns for the AP4020 BLE radio 1.

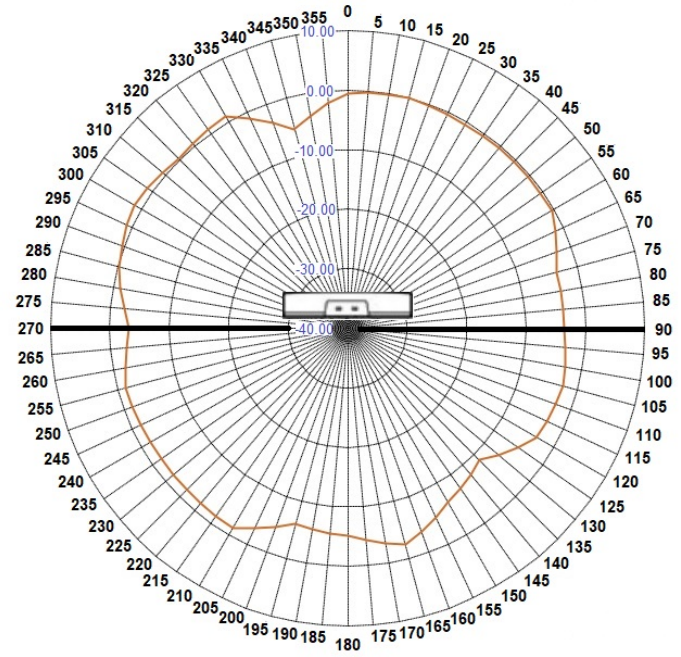


Figure 11: AP4020 BLE Radio 2 - Vertical Radiation Pattern

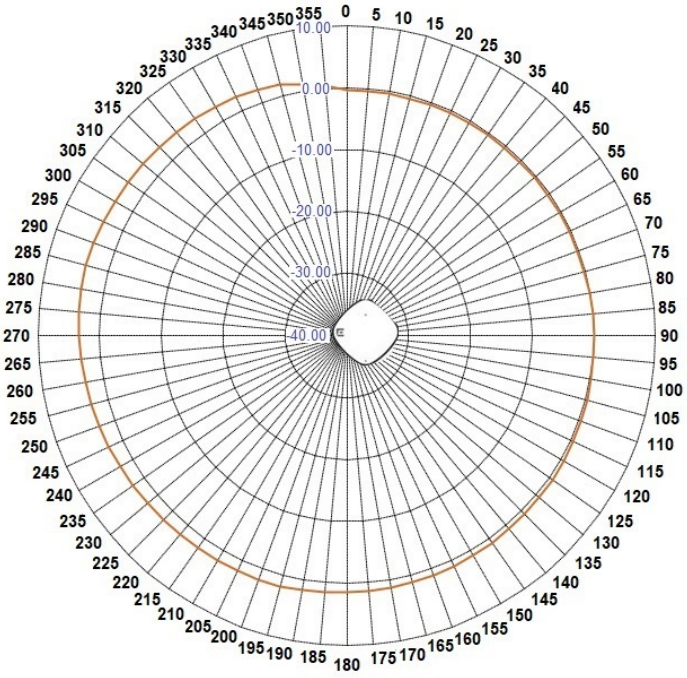


Figure 12: AP4020 BLE Radio 2 - Horizontal Radiation Pattern

Sensor Radiation Patterns

The following diagrams illustrate the radiation patterns for the AP4020 sensor.

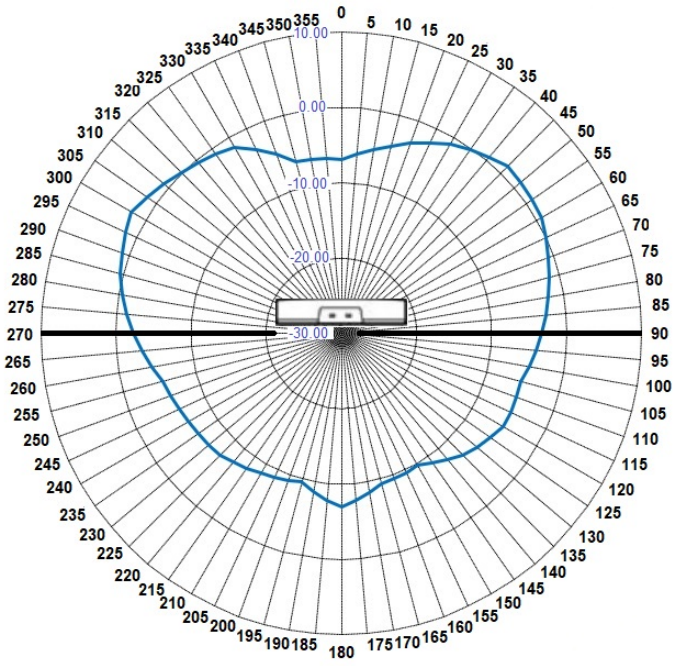


Figure 13: AP4020 2GHz Sensor - Vertical Radiation Pattern

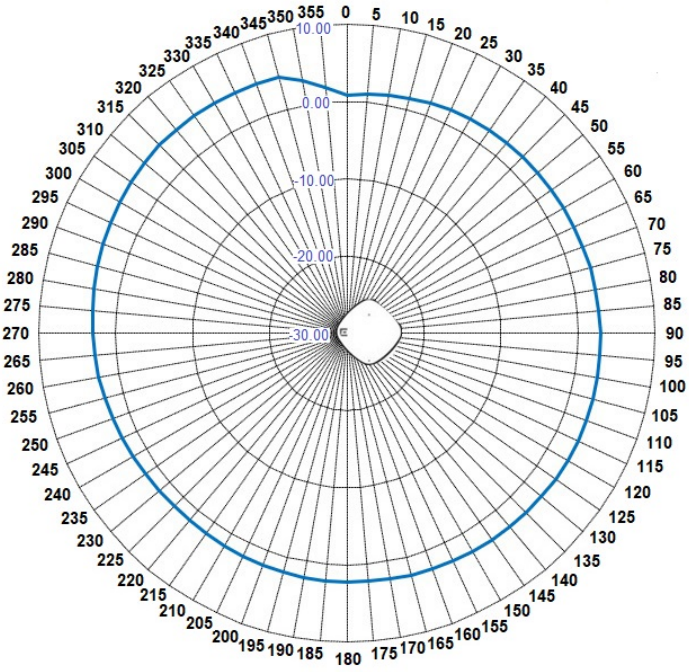


Figure 14: AP4020 2GHz Sensor - Horizontal Radiation Pattern

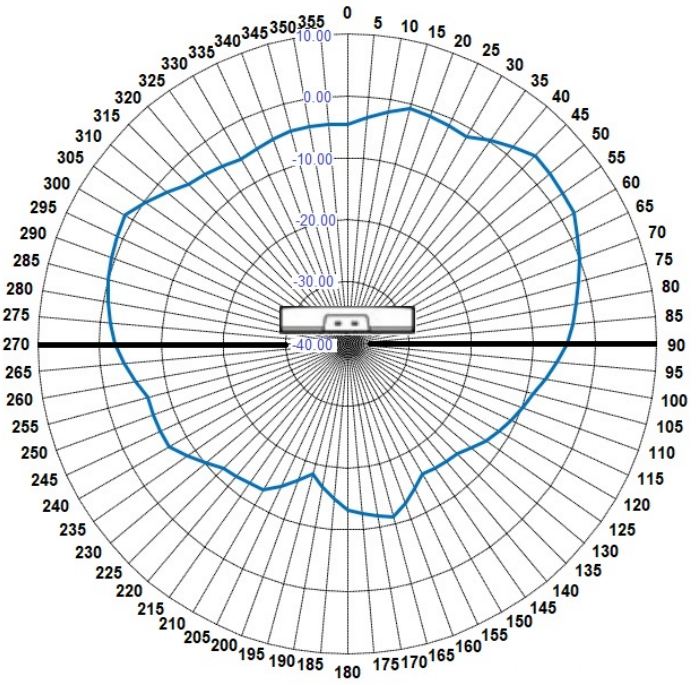


Figure 15: AP4020 5GHz Sensor - Vertical Radiation Pattern

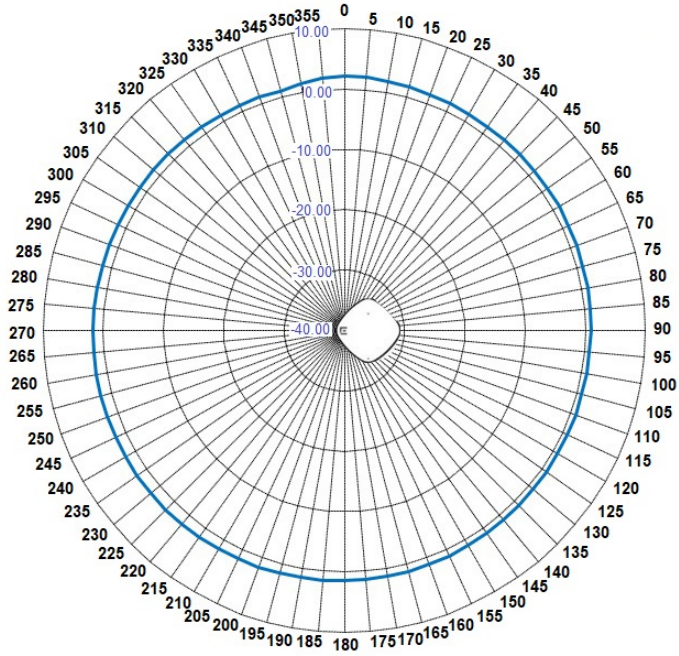


Figure 16: AP4020 5GHz Sensor - Horizontal Radiation Pattern

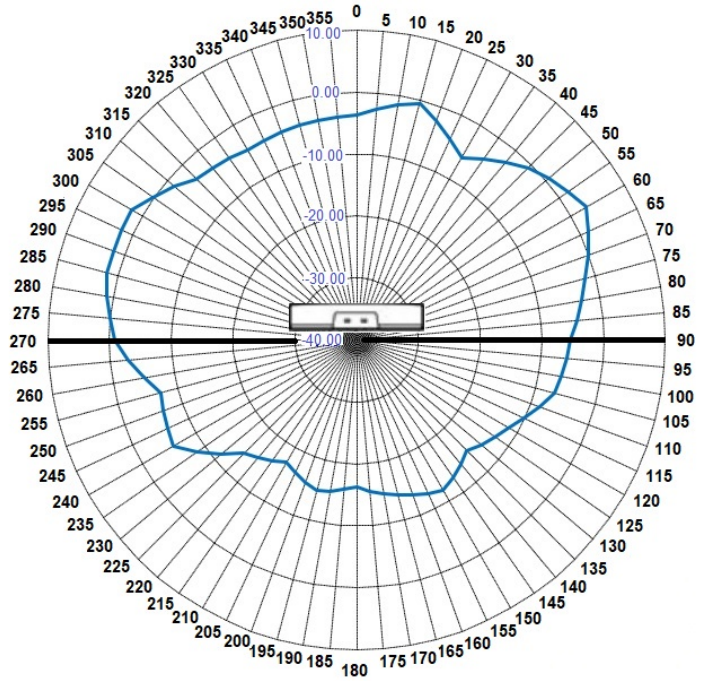


Figure 17: AP4020 6 GHz Sensor - Vertical Radiation Pattern

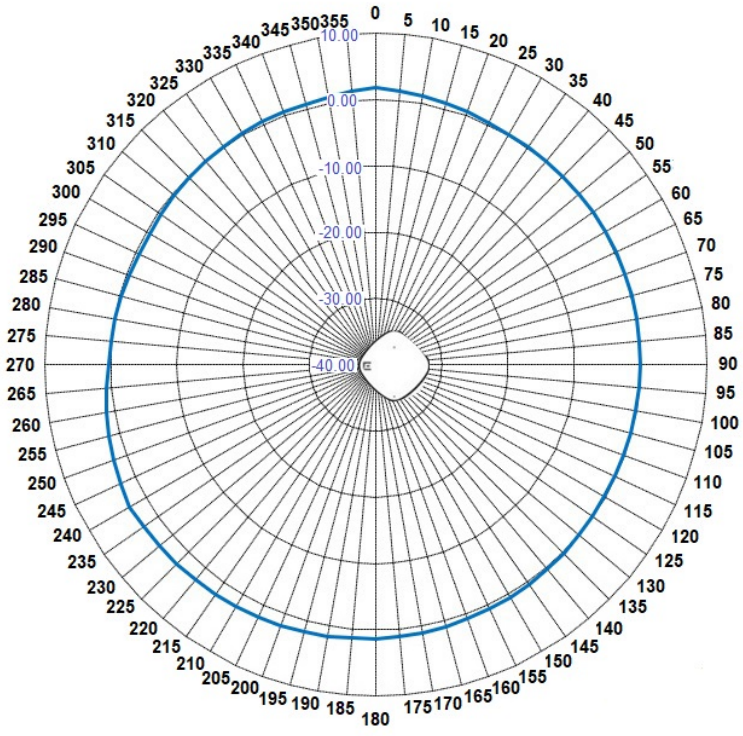


Figure 18: AP4020 6 GHz Sensor - Horizontal Radiation Pattern

Ports, Connectors, and Hardware Features

The AP4020 has the following ports, connectors, and hardware features:

- One console port.
- One 12-volt DC connector.
- One Kensington security slot.
- USB 2.0: Type A, 5V/500mA with PoE 802.3at. (802.3bt PoE is typically used with the 5W USB)
- Two Ethernet ports with RJ45 connectors:
  - Eth0: 100/1000/2500/5000Mbps auto-sensing link speed Ethernet port, PoE PD.
  - Eth1: 100/1000/2500Mbps auto-sensing link speed Ethernet port, PoE PD.
  - 802.3az Energy-Efficient Ethernet (EEE).

Hardware Ports - Front

The following table and graphic show the available ports on the front of the AP.

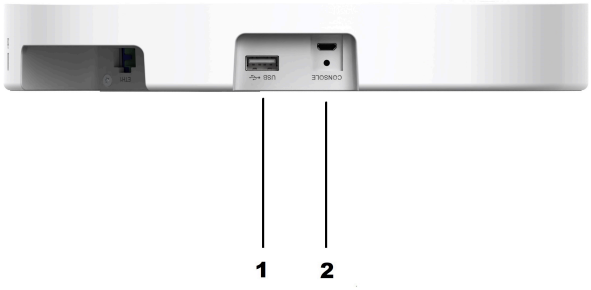


Figure 19: Front Ports and Connectors

Table 5: AP4020 Front Ports and Connections

Item	Port	Description
1	2.0 USB type A	Used with a thumb drive or other external device.
2	Console port	Micro USB console port for a serial connection between your management system and the access point. Use the port when you troubleshoot the AP. **Tip:** The best practice is to use the Extreme Networks micro USB cable (ACC-WIFI-MICRO-USB). When you connect to the device, the management station must have a VT100 emulation program, such as the terminal emulator TeraTerm Pro or Hilgraeve HyperTerminal. Set your baud rate to 115200. **Note:** The console port can only be used with the Extreme Networks console cable. You could damage the AP if you use another cable.

Hardware Ports - Rear

The following table and graphic show the available ports on the rear of the AP.

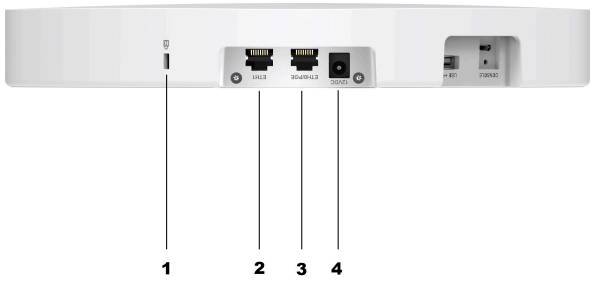


Figure 20: Rear Ports and Connectors

Table 6: AP4020 Rear Ports and Connections

Item	Description	Use
1	Kensington security slot	A security feature that prevents someone from removing the AP. This is an optional task
2	ETH1 port	Ethernet port.
3	ETH0/PoE port	Ethernet port.
4	12VDC	12-volts of direct current.

LED Descriptions

The LED status light shows the AP's operating status. A solid white means that the AP is working normally. A solid or blinking amber indicates an issue.

The following table shows the LED states based on your firmware platform

Table 7: ExtremeCloud IQ LED Activity

Status	Activity
Dark	Power is off.
Solid white	The device power is on and the AP is ready to use. The device has successfully established a Control And Provisioning of Wireless Access Points (CAPWAP) connection to ExtremeCloud IQ and is operating normally.
Solid amber	The power is on and the AP is in boot up mode, or is running without a CAPWAP connection.
Fast-blinking amber	The IQ Engine firmware is updating.

Table 8: ExtremeCloud IQ Controller LED Activity

Status	Activity
Dark	Power is off or the AP is taken over by the controller. Configuration pushes down to AP from controller to turn off the LED.
Solid white	The AP is starting up or is already taken over by the controller.

Table 8: ExtremeCloud IQ Controller LED Activity (continued)

Status	Activity
Slow-blinking white	The AP is being taken over by the controller or has failed to be taken over by the controller.
Flashing fading white	Configuration pushes down to AP from controller helping the user locate the AP by sight.
Solid amber	A firmware upgrade is occurring.
Fast-blinking amber	The AP is acquiring the DHCP IP.

Radios

The AP4020 has a quad-radio design with three 2x2:2 radios (6 GHz, 5 GHz, and 2.4 GHz bands), a dedicated sensor and dual IoT radios.

Operational Modes:

- Mode 1: 2.4 GHz /5 GHz/6 GHz data radios and sensor
- Mode 2: 2.4 GHz, and dual 5 GHz, and sensor

Note
The sensor is available in a future software release.

Max Users:

- SSID per Radio/Total:16/48
- Users per Radio/total: 512/16

Power Profile

The following tables show the AP4020 power profiles for the radio modes. Use this information to plan for power consumption as you deploy your APs.

Note
The sensor is available in a future software release.

Table 9: AP4020 Available Radio Modes

Mode	Radio-1	Radio-2	Radio-3	Sensor Radio	Operational Mode
1	2.4G (17 dBm 2x2)	5G (18dBm 2x2)	6G (18dBm 2x2)	1x1 Dedicated Sensor	Quad Rado: 3 data radio and Sensor
2	2.4G (17 Bm 2x2)	5G-High (18 dBm 2x2)	5G- Low (18 dBm 2x2)	1x1 Dedicated Sensor	Quad Radio: Dual 5 GHz and sensor

Table 10: AP4020 Power Profile

AP4020	Radio-1	Radio-2	Radio-3	Sensor Radio	USB
802.3at	2.4G (17 dBm)	5G-Full (18 dBm)	6G-Full (18 dBm)	1x1 Sensor	2.5W
802.3at	2.4G (17 dBm)	5G-High (18 dBm)	5G-Low (18 dBm)	1x1 Sensor	2.5W
802.3bt	2.4G (17 dBm)	5G-Full (18 dBm)	6G-Full (18 dBm)	1x1 Sensor	5W
802.3bt	2.4G (17 dBm)	5G-High (18 dBm)	5G-Low (18 dBm)	1x1 Sensor	5W

Power Options

The AP4020 supports the following power options:

- Power Draw: 802.3at PoE - Typical 21W with USB 2.5W; Max: 25.5W 2.5W USB
- Power Draw: 802.3bt PoE - Max: 28W with 5W USB
- 12V DC/3A. DC power has priority when both DC and PoE power sources are available
- PoE Failover

Enclosure

The AP4020 has a plastic top with an aluminum bottom. For cleaning guidelines, see Cleaning Guidelines.

Security

The AP4020 supports Wi-Fi Alliance WPA3 security certifications. Use Extreme Fabric Attach for provisioning and deployment to a Fabric Connect-enabled switch.

The access point also supports the following security features:

- A L2-L7 DPI firewall
- Tri-frequency security
- Private Pre-Shared Key (PPSK) for Cloud deployment
- Location analytics sensor

You can physically secure and lock the access point with the Kensington security slot.

Accessories

The AP4020 comes with the AH-ACC-BKT-AX-TB mounting bracket that can be used to mount the access point on flat t-bar ceiling grids and flat surfaces, such as Prelude ceilings (15/16 in. ceiling grid), Suprafine ceilings (flat bottomed 9/16 in. ceiling grid), and walls. The ceiling tile sides must be flat without a step on the edges.

Mounting Accessories

The following table lists the supported mounting accessories. For more information, see the Wi-Fi6 11ax Accessories Installation Guide.

Table 11: Supported Mounting Accessories

Item	Description
AH-ACC-BKT-AX-TB	Mounting bracket that can be used to mount the access point on flat surfaces such as Prelude ceilings (15/16 in. ceiling grid), Suprafine ceilings (flat bottomed 9/16 in. ceiling grid), and walls. **Note:** AH-ACC-BKT-AX-TB is included with the access point.
AH-ACC-BKT-AX-IL	Mounting bracket for Interlude ceilings (9/16 in. wide T-bar with center protrusion and has less than 1/4 inch between the wall and the access point).
AH-ACC-BKT-AX-SL	Mounting bracket for Silhouette ceilings (ceiling grid with 1/8 in. or 1/4 in. bottom opening).
AH-ACC-BKT-AX-WL	Mounting bracket for direct-to-wall installations when a 1.25 in. of space is desired between the wall and the access point.
ACC-BKT-TB-NF	Mounting bracket for 15/16 in. wide T-bars with sculpted ceiling tiles.
AH-ACC-BKT-916-KIT	Mounting bracket for 9/16 in. wide T-bars with sculpted ceiling tiles.
ACC-BKT-AX-BEAM	Mounting bracket for beam mounting.
ACC-BKT-AX-JB	Mounting bracket for junction box or wall mounting.

Table 11: Supported Mounting Accessories (continued)

Item	Description
ACC-BKT-AX-WNGADAPT	Adapter bracket for Cloud AP to WiNG Mounting Plate (#37201). Ships in a pack of 10.
ACC-BKT-AX-TBW	Mounting bracket for 1.5 in wide extruded T-Bars with flat ceiling tiles.

Power Accessories

You can power the access point through the ETH0 RJ45 Ethernet port. But if you need to power the AP with an external power supply, you can purchase a 12V DC power supply.

For more information, see the 802.11ax and Cloud Access Points Accessories Guide.

Table 12: Power Accessories

Part number	Description
37219	PWR 12V DC, 3A, 2.5mm x 5.5mm connector

Other Accessories

The following table shows the additional accessories available for your access point.

For more information, see the 802.11ax and Cloud Access Points Accessories Guide.

Table 13: Other Supported Accessories

Part number	Description
ACC-WIFI-MICRO-USB	Extreme Networks micro USB cable. **Note:** The console port can only be used with the Extreme Networks console cable. You could damage the AP if you use another cable. **Note:** When you connect to the Micro USB console port, the management station from which you connect to the device must have a VT100 emulation program, such as TeraTerm Pro (a free terminal emulator) or Hilgraeve HyperTerminal (provided with Windows operating systems from XP forward).

MAC Address

The media access control address (MAC address) is located on the bottom of the access point. You can record the address for your company's records by scanning the code.

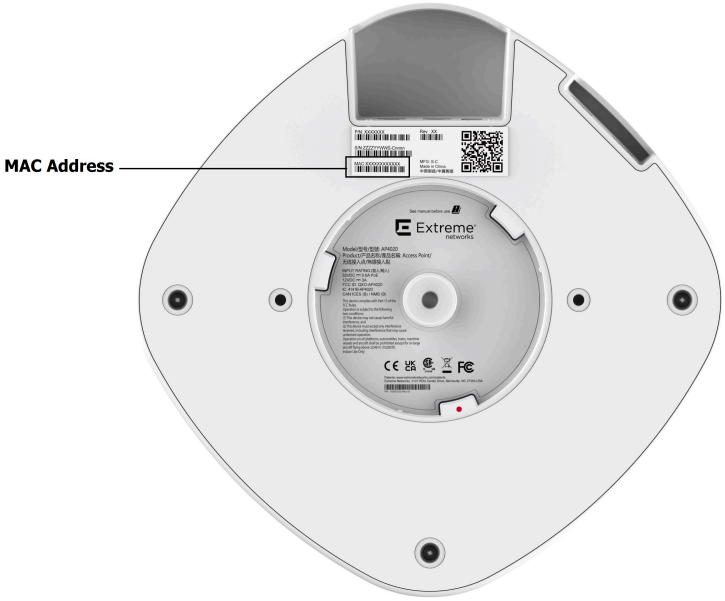


Figure 21: MAC Address Location

Micro USB Console

Use the console port to make a serial connection between your management system and the access point. You can order a micro USB console adapter for your access point using the part number ACC-WIFI-MICRO-USB.

The console port is located next to the USB port. For more information, see Hardware Ports - Front.

Note
When you connect to the Micro USB console port, the management station from which you connect to the device must have a VT100 emulation program, such as TeraTerm Pro (a free terminal emulator) or Hilgraeve HyperTerminal (provided with Windows operating systems from XP forward).

Note
The console port can only be used with the Extreme Networks console cable. You could damage the AP if you use another cable.

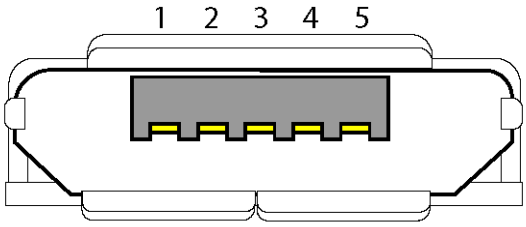


Figure 22: Micro-B model Console Port Pin Information

Table 14: Micro-B USB Pin Information

Pin number	Pin name and description
1	NC
2	R×D (input to access point)
3	T×D (output to terminal)
4	Signal (GND)
5	Signal (GND)

Cleaning Guidelines

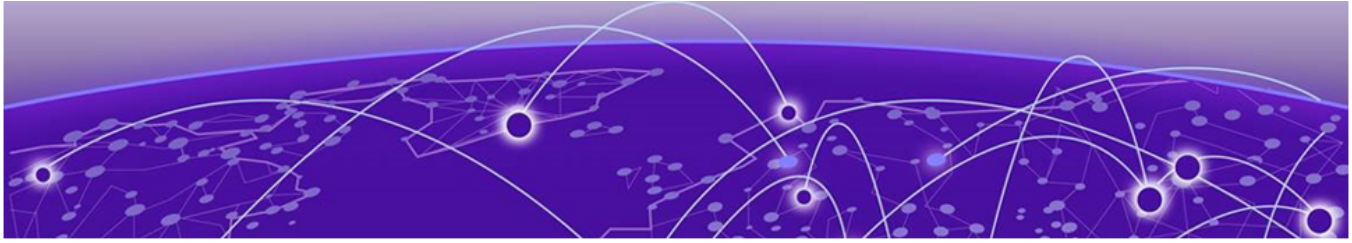
You can clean your AP with the following solutions:

- Hydrogen peroxide (a 3% solution)
- Chlorine bleach
- Sodium hypochlorite (a 0.05% solution)
- Ethyl alcohol (a 75% solution)
- Isopropyl alcohol (a 75% solution)
- White vinegar
- Sporicidal (peracetic acid; a 0.5% solution)
- Water
- Baking soda (a 3:1 solution)
- Non-abrasive soap

Note

Do not wash or immerse the AP in a liquid as you will damage the device and void the warranty. Instead, wipe the plastic housing - also called the radome - with a damp cloth avoiding the ports and connectors.

Do not power wash the AP.



Installation

The AP4020 is an indoor access point that can be installed on a ceiling rail, on non-standard ceilings, and on a wall. For more information about selecting the right access point bracket and accessory for your installation needs, see the *Extreme Networks 11.ax Access Points Accessories Guide*.

Installation Workflow

Access points are automatically added to your network when the DHCP and DNS prerequisites have been met. But you can save time and configure the AP before you

install it with the pre-provision mode. You can revert the AP to production mode when you are ready for deployment.

Note
Confirm that Domain Name System (DNS), Network Time Protocol (NTP), and the firewall ports are configured and available before deployment. Create a firewall rule to allow outbound traffic from Extreme Networks devices. For more information about firewalls, see Firewall Configuration Guides.

You should configure the DHCP options on your DHCP server to assign an allowed NTP server to Extreme Networks devices. Both DNS and NTP are critical for country and region detection and certificate validation.

For more information on deployment, see the Knowledge Base article How to deploy a new Access Point or replace a faulty Access Point to your ExtremeCloud IQ Controller. AP deployment is also documented in ExtremeCloud IQ Controller documentation and the IQ Engine documentation.

Use the information in the following table to help you install your access point.

Table 15: Installation Work flow

Steps	Action	Purpose
1	Verify the box contents.	Confirm that your AP and accessories arrived complete and undamaged.
2	Install the access point to one of the following: • Wall or flat ceiling • Wall with AH-ACC-BKT-AX-WL Bracket • Standard ceiling • Nonstandard Ceiling or Wall • Wall with AH-ACC-BKT-AX-WL • Silhouette ceiling • Interlude ceiling • 15/16-inch T-bar • Junction Box • Beam	Install the AP on a ceiling or wall, and connect the network cable. If you use Power over Ethernet (PoE), then the AP powers up. The AP begins a discovery process to determine its own IP address and the IP address of the controller. When the discovery process is successful, the AP registers with the controller. For more information, see the following articles: • Access points failing the Wireless Controller discovery process • How to Onboard, Switch, and Troubleshoot the Universal AP modes between IQE (ExtremeCloud IQ Engine) and WiNG modes?
3	(Optional) Connect to a power supply.	Connect to an external 12-volt DC power supply if you are not using Power over Ethernet (PoE). **Note:** Your Extreme AP must be grounded so it can be used safely. Consider this requirement when you plan your deployment.

Table 15: Installation Work flow (continued)

Steps	Action	Purpose
4	Connect the AP to your network.	Connect the AP to your network using a network cable and one of the Ethernet ports. Login to ExtremeCloud IQ Controller and set the operating system (OS) and region. See the "Onboarding Universal APs — ExtremeCloud IQ" section of the ExtremeCloud IQ Controller Deployment Guide. **Note:** Universal APs are configured for cloud management by default. If you want to manage these APs locally, you must specify Local Management when onboarding the APs in ExtremeCloud IQ.
5	(Optional) Onboard the AP with the ExtremeCloud IQ Mobile Onboarding application.	Scan the QR code or bar code on the back of the device and begin the onboarding process.
6	Confirm that the LED is white.	A white LED indicates that your AP has powered up and registered with the Cloud. An amber light indicates a technical issue that requires a resolution. See the Led Descriptions section in the "Overview" chapter for an explanation of the LED states.
7	(Optional) Lock the access point.	Secure the AP and prevent someone from removing it.

Pre-Installation Tasks

Extreme Networks access points have been designed for a quick and easy deployment. But you can make the process even easier with a little preparation.

Site Survey

Before you install your AP, do a site survey and coverage map so you have identified and addressed any potential issues. Here are a few issues that you should consider before you install the AP.

Ask yourself the following questions:

- What is the WLAN's purpose?
- What applications will be used over the WLAN?
- Who will use the WLAN?
- What devices will be connecting to the WLAN?
- Are there any mounting or aesthetic restrictions?

Consider the following items as you plan your deployment:

- Capacity and coverage requirements.
- Existing issues such as RF interference and dead zones

- Existing networks or devices that can interfere with your network. There could be interference from floors above and below, or from outside sources such as nearby office buildings.
- Antenna radiation patterns. Consider the patterns as you decide where to place your APs, their orientation, and their configuration.

For more information on site surveys, see the Knowledge Base article What is Wireless Site Survey and why is it important?

Other

Perform the following tasks:

- If you plan to use Power over Ethernet (PoE) then confirm that it meets the AP's requirements. See Power Profile.
- Document the switch and ports used by the AP with LLDP protocol.
- Confirm cables meet or exceed the required specifications.
- Check that the AP power ups correctly.

Box Contents

Your Extreme Networks AP ships with everything that you need for a basic installation. All optional brackets and accessories are sold separately.

Confirm that you have received the following items before you install your device.

Table 16: Hardware

Quantity	Item
1	Extreme AP4020 access point
1	Regulatory document for your access point
1	AH-ACC-BKT-AX-TB mounting bracket
2	Phillips pan head wood screws
2	Phillips head plastic screw-in anchors

Position the Access Point before Installation

About This Task

Use the red dot on the back of the access point and the bracket to help you with installation.

Procedure

Line up the red dot on the access point and the bracket for ease of installation.

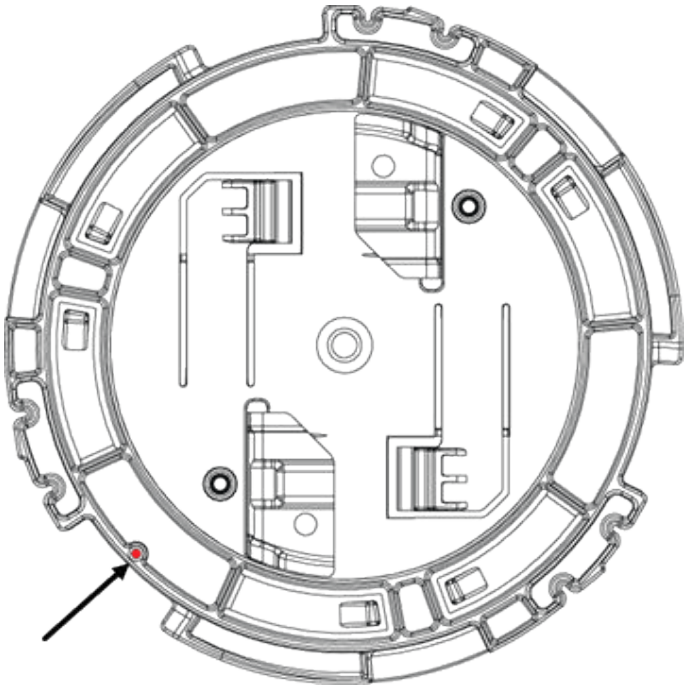


Figure 23: AH-ACC-BKT-AX-TB bracket red dot

Install the Access Point on a Wall or a Flat Ceiling

Before You Begin

Confirm that you have the following items:

- The access point
- One (1) AH-ACC-BKT-AX-TB mounting bracket. The bracket is used for flat surface wall or solid ceiling installation.
- Two (2) M3.5 pan head wood screws and two screw-in anchors.

About This Task

Follow these steps when you install the access point on a wall or solid ceiling.

Procedure

1. Mark and drill two mounting holes.

   Use the AH-ACC-BKT-AX-TB mounting bracket as a template.
2. Attach the bracket to the wall.

   Use the two M3.5 pan head screws. Use push-in anchors or screw-in anchors for drywall or plastic board installations.
3. Attach the access point to the bracket.

   Align the red dots on the bracket and the access point base.
4. Press and rotate the AP one-sixth turn clockwise.

   The AP clicks into place on the bracket.

5. Attach the network cable and power-up the AP.
   If you use Power over Ethernet (PoE) then attach the network cable to the ETH0 port. If you use Power Sourcing Equipment (PSE), then connect the power supply and attach the network cable to the ETH0 port.

Install the Access Point to a Wall with AH-ACC-BKT-AX-WL

Before You Begin

You need the following items:

- AP4020
- One (1) AH-ACC-BKT-ASM wall accessory, purchased separately.
- Four (4) shoulder M5 bolts.
- Four (4) M5 mount screws and screw-in anchors, provided by the installer.

About This Task

Use the AH-ACC-BKT-AX-WL bracket when you need a 1.25 inch space between the wall and the access point. If you want less space, use the AH-ACC-BKT-AX-TB that comes with the AP.

Procedure

1. Using the -WL bracket as a template, mark and drill mounting holes on the wall.
2. Bring the LAN cable from the wall through the bracket hole.
   Align the cable before attaching the bracket to the wall.

   Note
   A standard Ethernet cable can be used if you do not mind the cable being visible. To hide the Ethernet cable, a flat cable and a cable cap are required.

3. Attach the wall bracket to the wall using three M3.5 screws and three screw-in anchors.
4. Align the access point red dot against the three red dots on the -WL bracket.
5. Press and rotate the access point clockwise about one-sixth turn until it locks into place on the bracket.
6. Attach the network cable.

Install the Access Point on a Standard Flat Ceiling Rail with Sculpted Ceiling Tiles

Before You Begin

You need the following items:

- One access point
- One AH-ACC-BKT-AX-SL bracket

About This Task

You can mount the access point to a ceiling grid with 1/8 in. or 1/4 in. bottom opening.

Silhouette is an Armstrong Ceiling Solutions name.

Procedure

1. Remove the ceiling tiles.
2. Place the bracket on the ceiling rail in such a way that the accessory metal hinges are almost perpendicular to the sides of the ceiling rail with the ceiling rail over the center hole.
3. Lightly push onto to the ceiling rail and rotate the accessory clockwise until the hinges hook over the edge of the rail and the white tabs click in place.

Note
There are two white tabs in the back of the bracket that holds on to the ceiling rail. Use your finger to pull and unhook one side of the white tab if you want to remove the accessory from the ceiling rail.Gently rotate the bracket counterclockwise and if there is resistance, the other white tab in the back of the accessory must also be released.

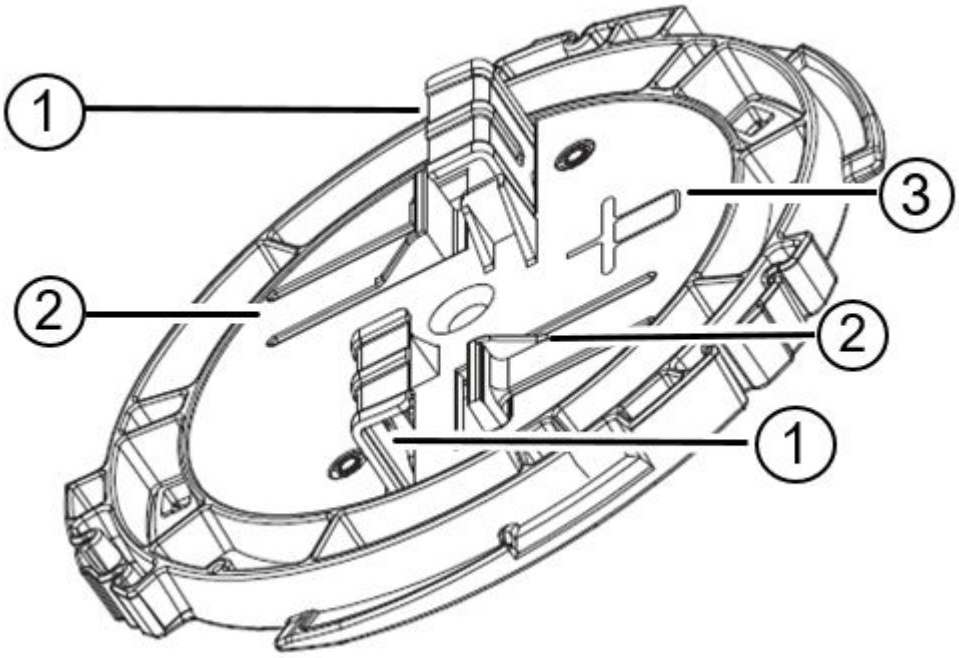


Figure 24: AH-ACC-BKT-AX-SL Accessory Bracke

Call out	Description
1	Metal hinges on the AH-ACC-BKT-AX-SL bracket.
2	White tabs on the AH-ACC-BKT-AX-SL bracket.
3	Drawing of 1/8 in. or 1/4 in. ceiling grid, for your reference.

4. Align the red dot on the back of the access point against the accessory bracket red dot.

Note
The accessory has a circular tip that fits into the circular depression on the back of the access point.

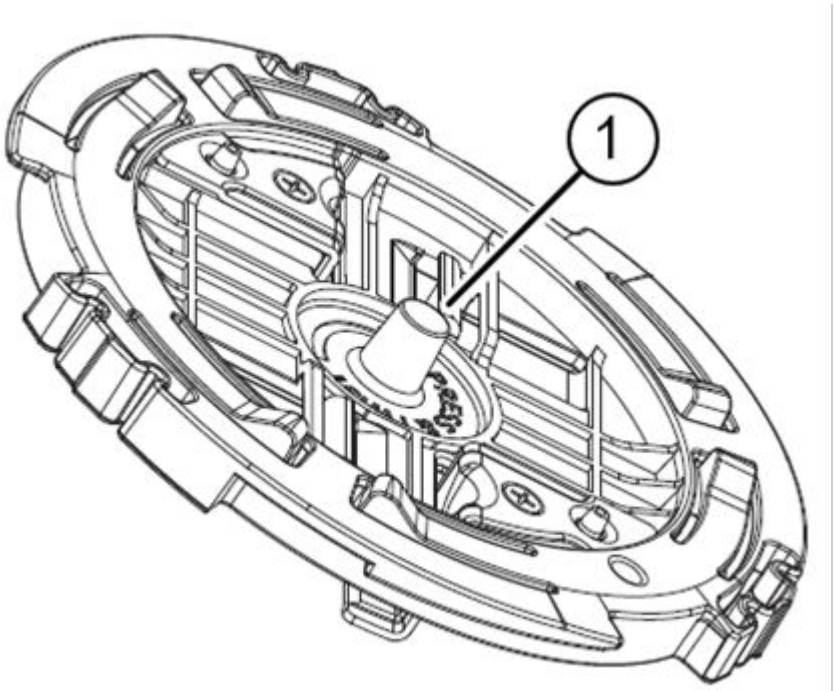


Figure 25: AH-ACC-BKT-AX-SL Accessory Bracket Circular Tip

Call out	Description
1	AH-ACC-BKT-AX-SL bracket circular tip

5. Press and rotate the access point clockwise until it locks into place on the accessory.
6. Connect the network cable.
7. Replace the ceiling tiles.

Install the Access Point on a Silhouette Ceiling

Before You Begin

You need the following items:

- One access point
- One AH-ACC-BKT-AX-SL bracket

About This Task

You can mount the access point to a ceiling grid with 1/8 in. or 1/4 in. bottom opening.

Silhouette is an Armstrong Ceiling Solutions name.

Procedure

1. Remove the ceiling tiles.
2. Place the bracket on the ceiling rail in such a way that the accessory metal hinges are almost perpendicular to the sides of the ceiling rail with the ceiling rail over the center hole.
3. Lightly push onto to the ceiling rail and rotate the accessory clockwise until the hinges hook over the edge of the rail and the white tabs click in place.

Note
There are two white tabs in the back of the bracket that holds on to the ceiling rail. Use your finger to pull and unhook one side of the white tab if you want to remove the accessory from the ceiling rail.Gently rotate the bracket counterclockwise and if there is resistance, the other white tab in the back of the accessory must also be released.

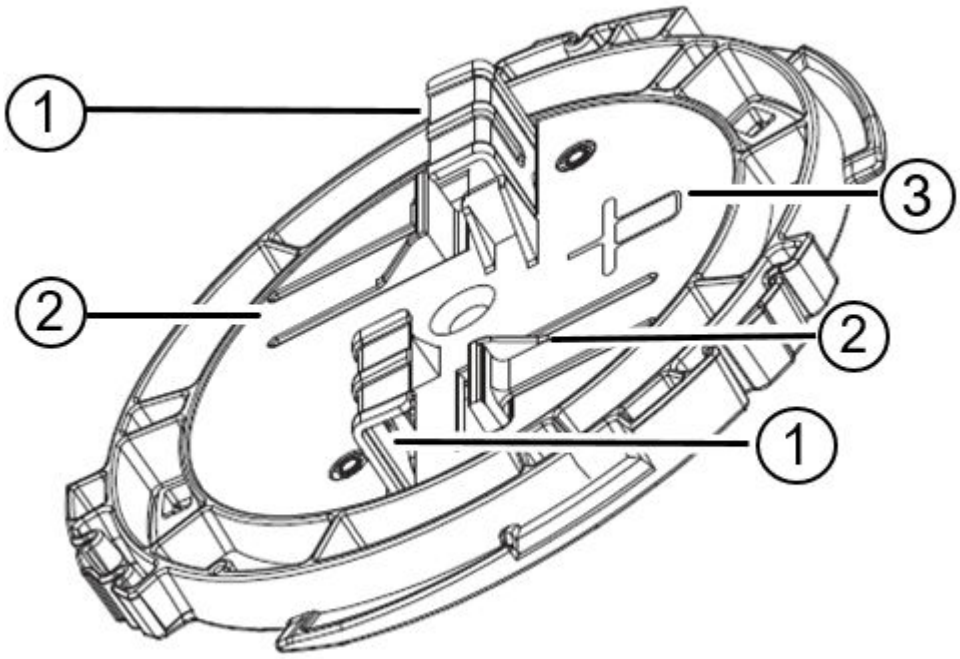


Figure 26: AH-ACC-BKT-AX-SL Accessory Bracke

Call out	Description
1	Metal hinges on the AH-ACC-BKT-AX-SL bracket.
2	White tabs on the AH-ACC-BKT-AX-SL bracket.
3	Drawing of 1/8 in. or 1/4 in. ceiling grid, for your reference.

4. Align the red dot on the back of the access point against the accessory bracket red dot.

Note
The accessory has a circular tip that fits into the circular depression on the back of the access point.

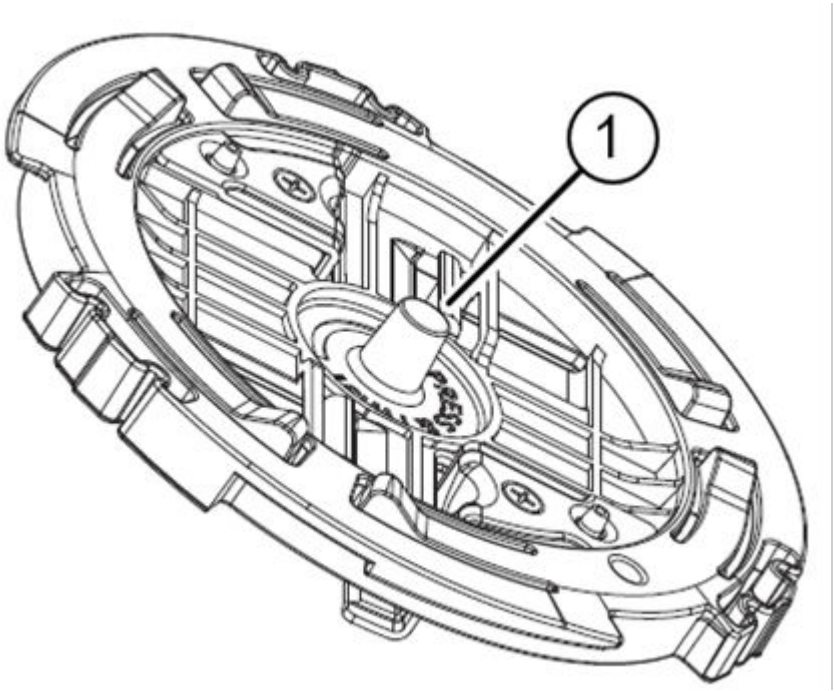


Figure 27: AH-ACC-BKT-AX-SL Accessory Bracket Circular Tip

Call out	Description
1	AH-ACC-BKT-AX-SL bracket circular tip

5. Press and rotate the access point clockwise until it locks into place on the accessory.
6. Connect the network cable.
7. Replace the ceiling tiles.

Install the Access Point to a 9/16-inch T-bar Ceiling

Before You Begin

You need the following items:

- One access point
- One AH-ACC-BKT-AX-TB accessory bracket if the t-bar bottom is flat
- One AH-ACC-BKT-AX-IL accessory bracket if there is a protrusion in the center of the t-bar bottom

About This Task

You can mount the access point to a ceiling that has a 9/16 in. wide T-bar.

Procedure

1. Remove the ceiling tiles.
2. Place the bracket on the ceiling rail in such a way that the accessory center is over the protrusion and the metal hinges are between perpendicular and about one-eighth of a turn from the sides of the ceiling rail.
3. Push up gently and rotate the bracket clockwise until the hinges hook over the edge of the rail and the white tabs click in place.

Note
Gently rotate the bracket counterclockwise and if there is resistance, the other white tab in the back of the accessory must also be released.

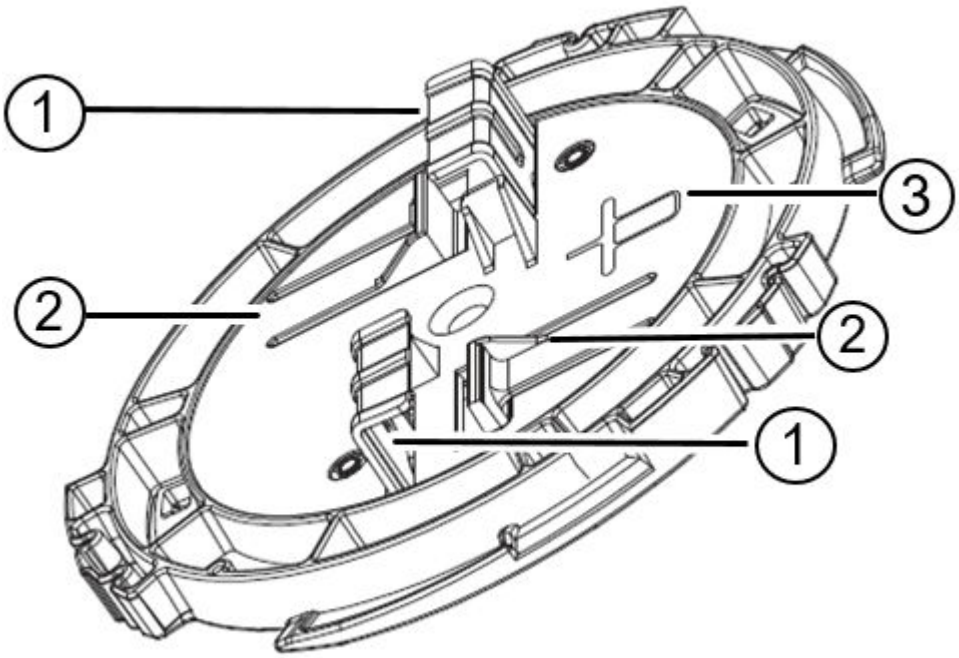


Figure 28: AH-ACC-BKT-AX-IL accessory bracket

Call out	Description
1	Metal hinges on the AH-ACC-BKT-AX-IL bracket.
2	White tabs on the AH-ACC-BKT-AX-IL bracket.
3	Drawing of 9/16 in. ceiling grid, for your reference.

4. Align the red dot on the back of the access point against the accessory red dot.

Note
The bracket has a circular tip that fits into the circular depression on the back of the access point.

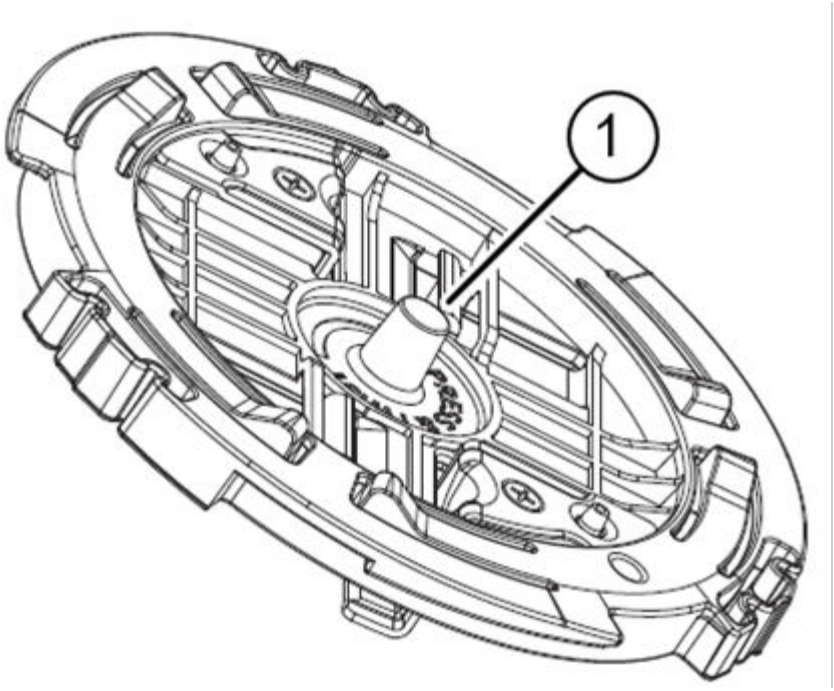


Figure 29: AH-ACC-BKT-AX-IL accessory bracket circular tip

Call out	Description
1	AH-ACC-BKT-AX-IL bracket circular tip

5. Press and rotate the access point clockwise about one-sixth of a turn until it locks into place on the accessory bracket.
6. Attach the network cable.
7. Place the cable cover over the Ethernet cable.
8. Replace the ceiling tiles.

Install the Access Point on a 15/16-inch T-bar

Before You Begin

Obtain the following items:

- One access point
- One ACC-BKT-TB-NF adapter
- One AH-ACC-BKT-AX-TB accessory

About This Task

Use the ACC-BKT-TB-NF bracket when you install the AP on a suspended ceiling with 15/16-inch grid system.

Procedure

1. Remove the ceiling tiles.
2. Using the adapter guide on the top half of the ACC-BKT-TB-NF adapter, align and attach the -NF on to the ceiling rail.

3. Slide the other part of the -NF adapter onto the half attached to the ceiling rail.
4. Attach the AH-ACC-BKT-AX-TB accessory onto the -NF adapter.
   a. Center the -TB accessory on the attached -NF parts.
   b. Push up and rotate the -TB accessory clockwise until the metal hinges hook over the bottom halves of the -NF adapter ends and the plastic tabs on the -TB accessory click into place.

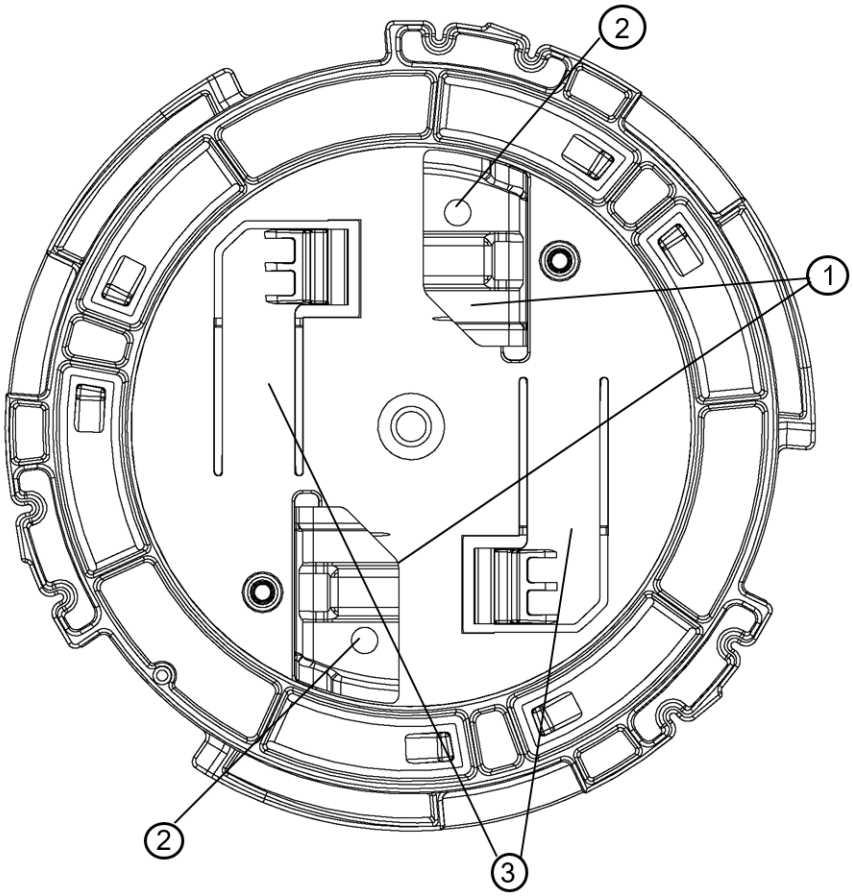


Figure 30: AH-ACC-BKT-AX-TB Accessory Bracket

Callout	Description
1	Metal hinges on the AH-ACC-BKT-AX-TB bracket
2	Mounting holes for wall mounting
3	White plastic tab on the AH-ACC-BKT-AX-TB bracket

5. Align the red dot on the back of the access point against the -TB bracket red dot.

Note
The bracket has a circular tip that fits into the circular depression on the back of the access point.

6. Press and rotate the access point one-eighth of a turn clockwise until it clicks into place on the accessory.

7. Connect the network cable.
8. Replace the ceiling tiles.

Install the Access Point to a T-bar with a ACC-BKT-AX-TBW

Before You Begin

The following hardware is required for installing the ACC-BKT-AX-TBW accessory on a T-bar:

- An indoor access point
- One ACC-BKT-AX-TBW Accessory
- Two M3.5 screws (included in the -TBW accessory)

Note
The screws come with the accessory and are partially attached in place.

About This Task

You can use the ACC-BKT-AX-TBW accessory for T-bar installation. The -TBW bracket is used for 1.5 inch wide T-bars with varying thickness from 3.175 mm to 6.350 mm, with flush ceiling tiles.

The following ceiling tile protrusions are accommodated by the -TBW mounting bracket:

- If the T-bar is 0.25 inches thick, the -TBW bracket will only accommodate flush ceiling tiles
- If the T-bar is 0.1875 inches thick, the -TBW bracket will accommodate flush ceiling tiles as well as ceiling tiles with 0.062 inches protrusion
- If the T-bar is 0.125 inches thick, the -TBW bracket will accommodate flush ceiling tiles as well as ceiling tiles up to 0.125 inches protrusion

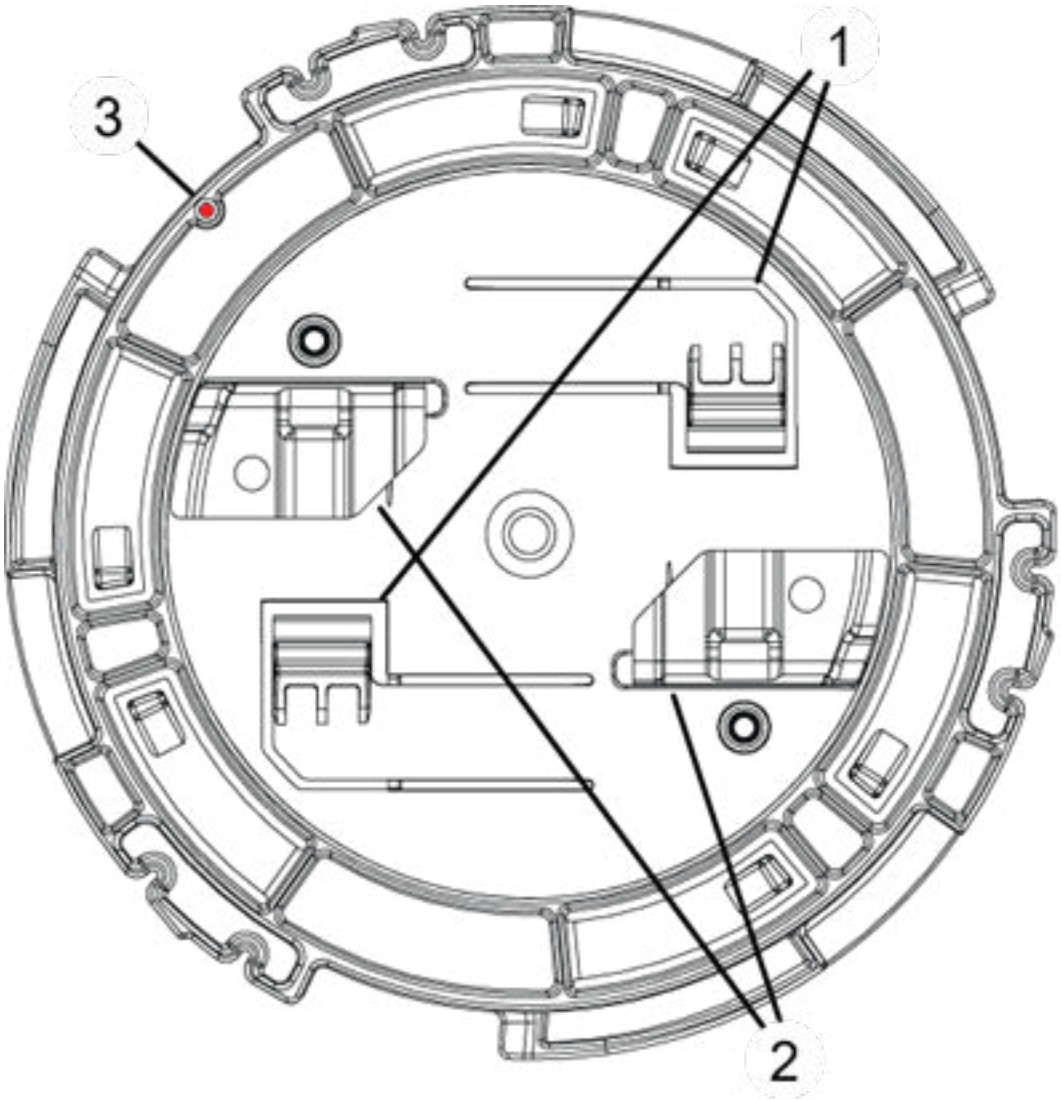


Figure 31: ACC-BKT-AX-TBW bracket T-bar side

Callout	Description
1	-TBW bracket plastic parts
2	-TBW bracket metal parts
3	Red on the bracket to align against the access point

Procedure

1. Turn the -TBW accessory screws in such a way that they do not extend past the plastic on the T-bar side.
2. Align the -TBW accessory metal clips on a T-bar and rotate the metal clip about 1/6th turn clockwise to attach the bracket to the T-bar.

3. Tighten the screws until either resistance is noticed or the screw head bottoms on the -TBW accessory plastic part.

Note
Torque the screws to 1.0 in-lbs, and turn each screw 1 more complete turn clockwise.

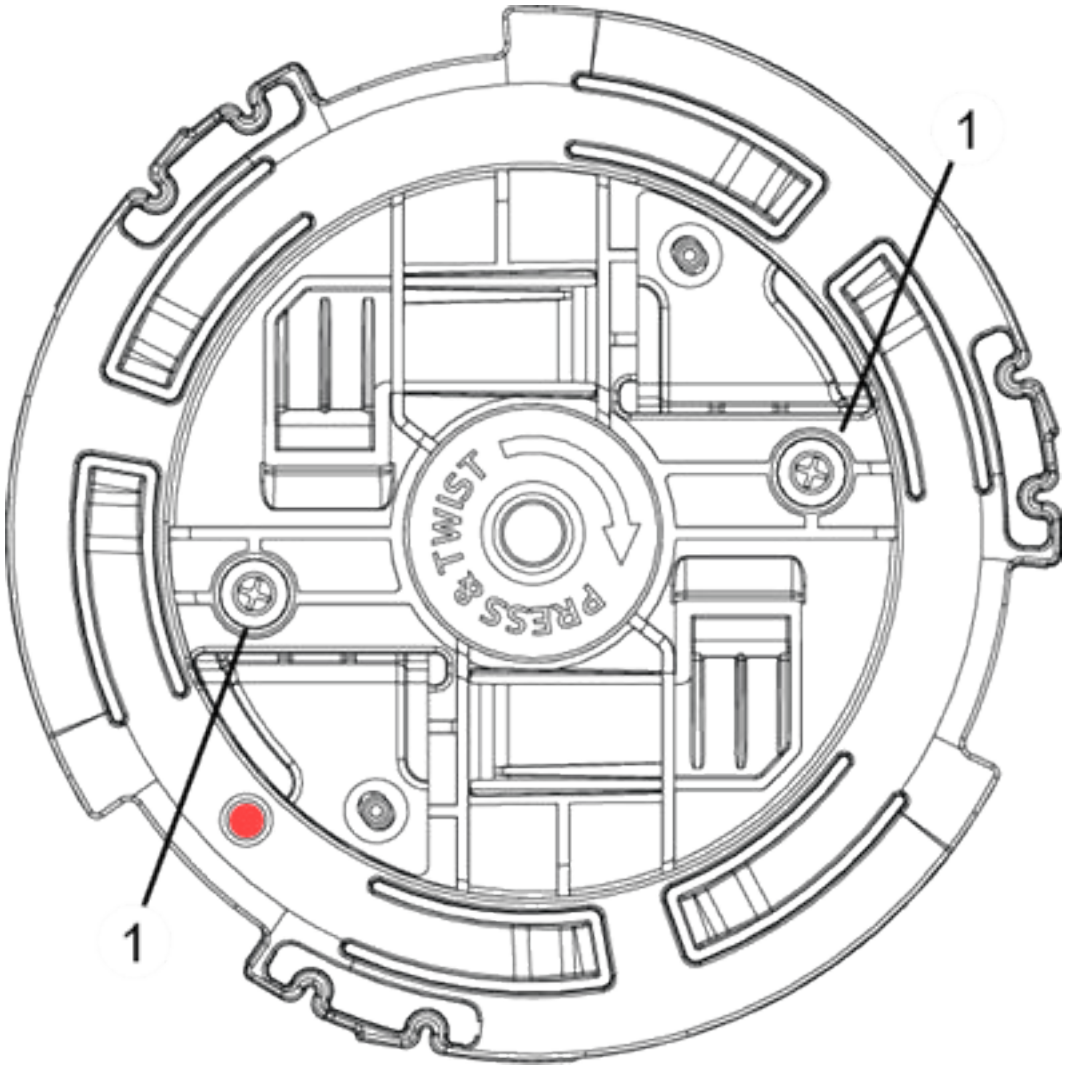


Figure 32: ACC-BKT-AX-TBW bracket access point side

Callout	Description
1	Screws for tightening to T-bar

4. Attach the access point to the -TBW bracket by aligning the red dot on the bracket and the access point.

Note
The bracket has a circular tip that fits into the circular depression on the back of the access point.

5. Press and rotate the access point 1/6th turn clockwise until it clicks into place on the bracket.
6. Attach the Cat5e RJ45 cable to the ETH0 port on AP305C/CX or the Cat6 RJ45 cable to the ETH0 or ETH1 port on all other indoor access points.
7. If desired for aesthetics, place the cable cover over the Ethernet cable.

Install the Access Point on a Junction Box

Before You Begin

The following hardware is required to install an indoor access point on a junction box (box):

- An indoor access point
- ACC-BKT-AX-JB accessory

About This Task

Install the access point to a junction box if you want to power the AP using an electrical connection.

The ACC-BKT-AX-JB accessory bracket is used when you need to install the access point on an indoor junction box. The ACC-BKT-AX-JB access has two parts:

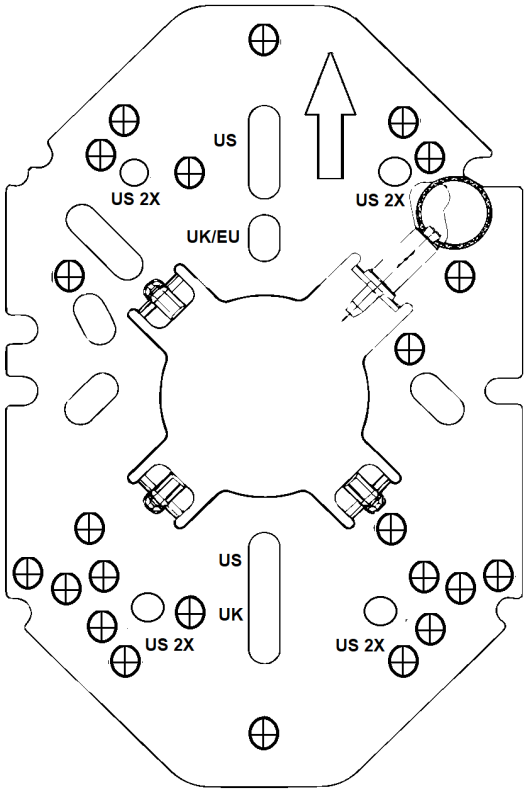


Figure 33: ACC-BKT-AX-JB Accessory Bracket Metal Part

Procedure

1. Remove the screws holding the junction box cover plate.
2. Remove the LAN cable from the cover plate.
3. Bring the LAN cable through the center hole of the metal bracket part.

   The LAN wire must be in-between the metal part and the plastic part during installation.
4. Place the ACC-BKT-AX-JB accessory metal part, with the bracket holes against the cover plate of the box.
5. Using the screws removed from the cover plate, find the bracket holes that align with the junction box screw holes.

   Important
   The text for the holes must be normally readable.

6. Using the cover plate screws, attach the metal bracket part to the junction box.
7. Place the plastic part on the metal part, rotate it ¼th to 1/3rd turn clockwise until you hear it click in place as the lock is set.

   Important
   When installed correctly on a wall, the side arrows on the plastic part must be pointing up.

   Note
   There is a metal pull ring in the metal part that is used to unlock and remove the plastic part.

   To unlock the plastic part, pull out the pin's ring and turn the plastic part 1/3rd turn counter-clockwise and lift it apart.

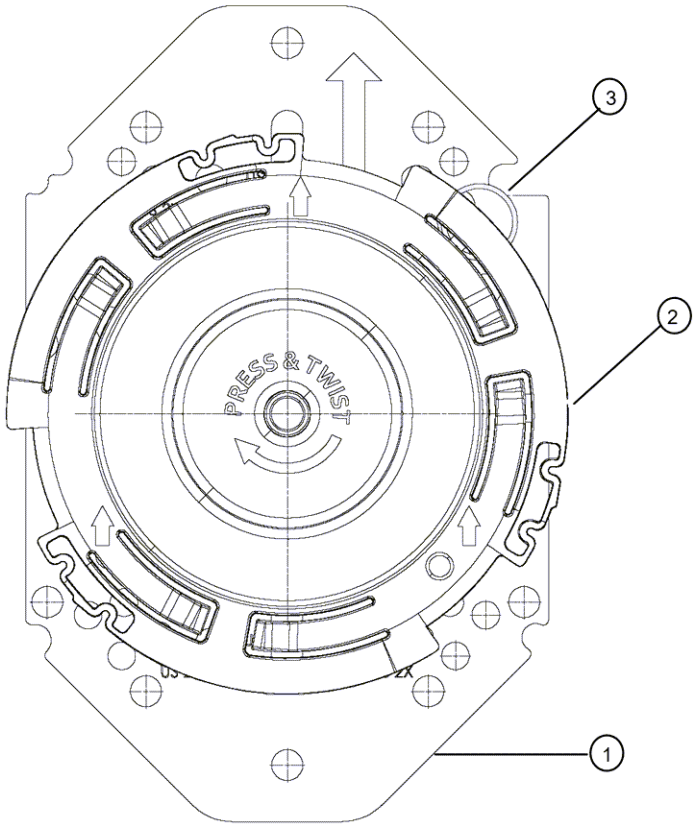


Figure 34: Junction Box Accessory Bracket Assembly

Callout	Description
1	Sheet-metal junction box hole metal part
2	Plastic twist plate part
3	Pull ring with 10 mm diameter ring for unlocking the plastic part

8. Align the red dot on the back of the access point against the red dot on the plastic part.
9. Push the access point onto the plastic part and turn it clockwise until you hear it lock in place.
10. Insert the RJ45 cable connector to the Ethernet connector on the access point.

Install the Access Point on a Beam

Before You Begin

The following hardware is required to install the access point on a beam:

- An indoor model access point
- ACC-BKT-AX-BEAM accessory

Find a location that supports the following requirements:

- The beam must be able to support the access point in all environmental conditions.
- The beam must be flat.
- Beam attachment area is at least 0.5 in. (12.7mm) wide and as long as the access point's largest dimension.
- Beam mounting surface is at least 0.040 in. (1.0 mm) thick, but less than 0.650 in. (16.5mm) thick.

About This Task

If you are installing the access point in a warehouse or other industrial environments, then you might have to install the AP on a beam instead of a ceiling.

Procedure

1. Align the red dot on the access point with the red dot on the accessory bracket.
2. Insert the plastic part posts into the access point back recess.
3. Push the access point onto the plastic part, and rotate the access point about one-sixth turn clockwise to make it lock in place.

   Note
   If you can turn or twist the access point, it was not locked in place properly. Remove the access point and attach it again until it locks in place.

4. Plug the RJ45 connector plug into ETH or ETH0, RJ45 connector receptacle on the access point.

   If desired, flat Ethernet cables and caps may be used with all indoor access points.

5. Open the top screw as necessary and place the beam clip onto a beam.

Note
You must hold the access point when attaching the beam clip.

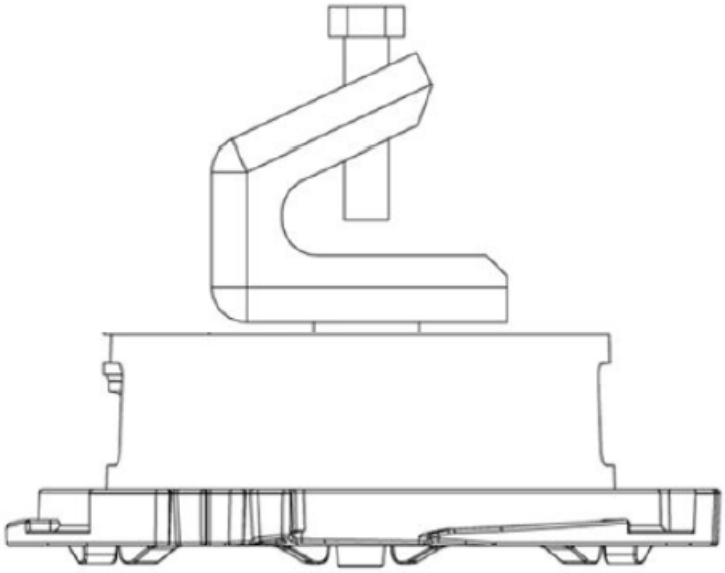


Figure 35: ACC-BKT-AX-BEAM Accessory Bracket

6. Tighten the beam clip top screw to a torque of 50 in-lbs.

Connect the AP to the Network

Before You Begin

You will need a Ethernet cable. Locate the Ethernet ports on the AP before you begin. See Ports and Connections.

About This Task

Connect the AP to your network using one of the Ethernet ports and a network cable.

Procedure

1. Connect the Ethernet cable to one of the Ethernet ports on the AP.
2. Connect the other end of the cable to the Ethernet port on the switch.

Connect a Power Supply

Before You Begin

Obtain a Powertron 12V DC power supply. The power supply is ordered separately. See the table below.

Caution
Only use Extreme approved power supplies for your access point. Unapproved third-party components can damage your AP.

Table 17: Power Accessory

Part number	Description
37219	PWR 12VDC, 3A, 2.5 mm X 5.5 mm connector

About This Task

You can power the AP through the ETH0 RJ45 Ethernet port. But if you prefer an external power supply, then you can use the 12V DC power supply. See the Power Profile for power consumption specifications.

Figure 36: AP4020 12V Port

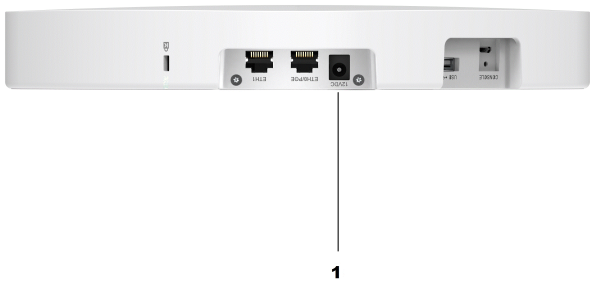


Table 18: AP4020 12V Port

Item	Description	Use
1	12V DC	12-volts of direct current.

Procedure

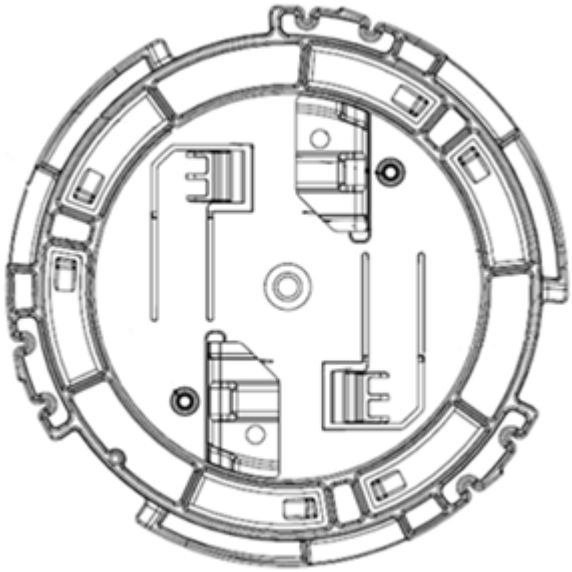
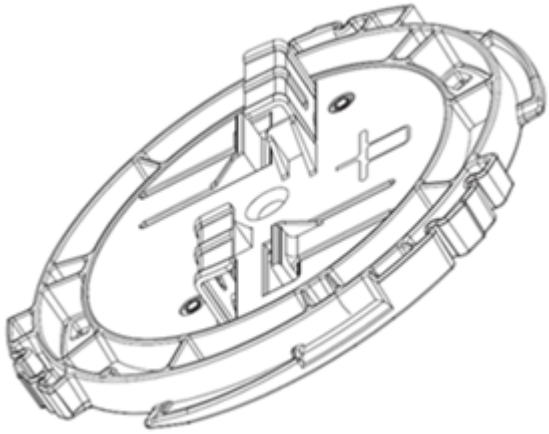
Plug the power supply into the 12-volt power connector.

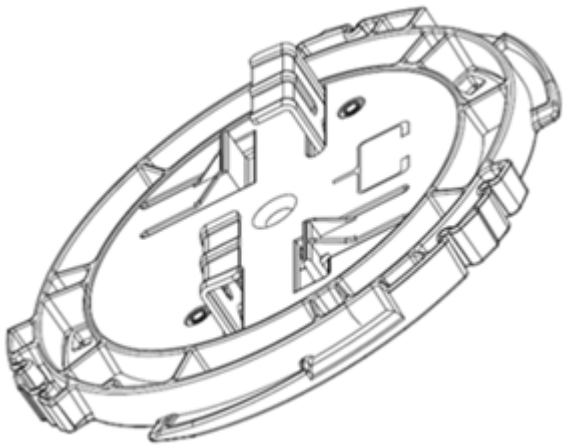
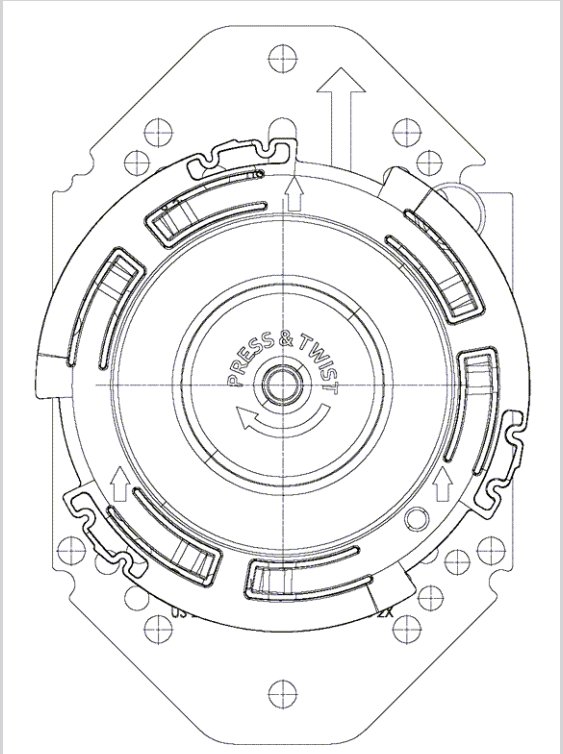
Results

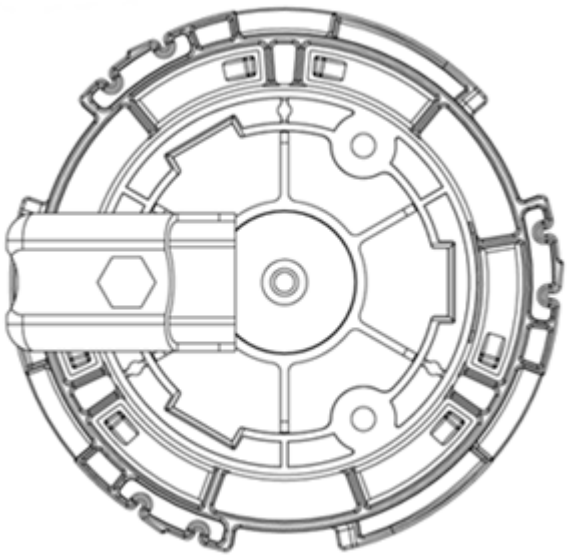
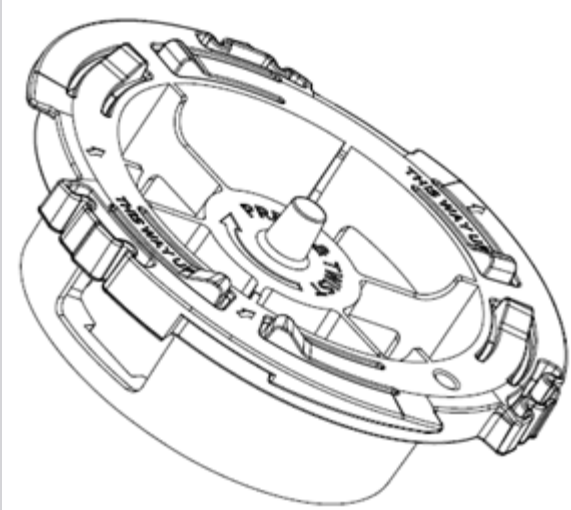
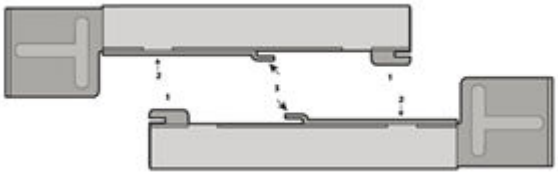
The LED on the top of the AP lights up. It should be white. If the LED is amber, then your AP has a technical issue.

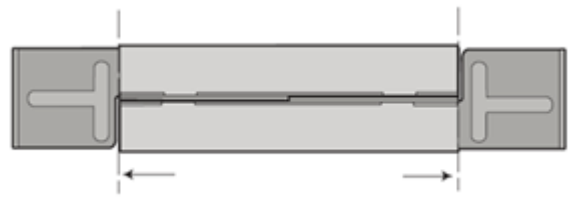
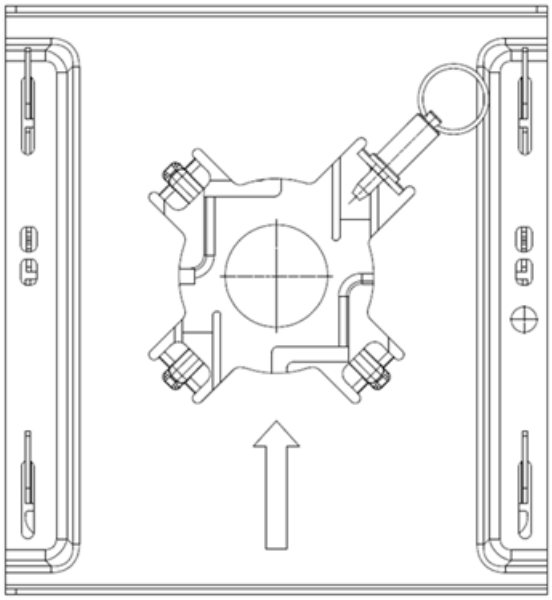
Nonstandard Ceiling or Wall

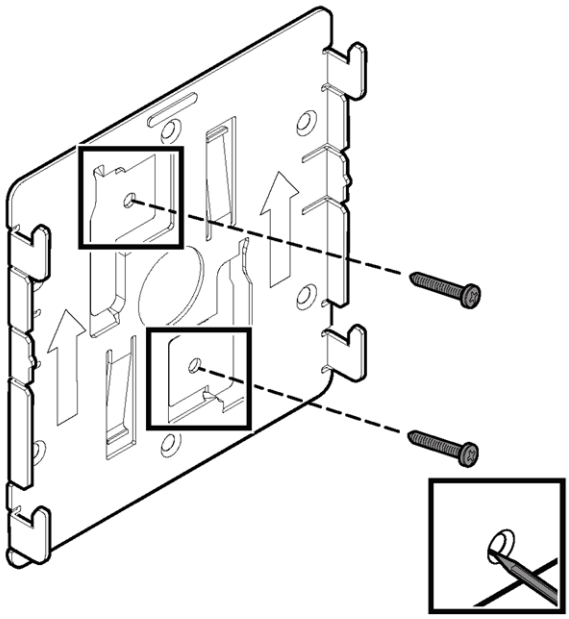
The access point can be installed on a nonstandard ceiling grid using the following accessories:

Order part number	Description
AH-ACC-BKT-AX-TB **Note:** Only this bracket is included with the access point	Mounting bracket for 15/16 in. ceiling grid 
AH-ACC-BKT-AX-IL	Mounting bracket for 9/16 in. wide T-bar with protrusion, 9/16 in. ceilings, and walls 

Order part number	Description
AH-ACC-BKT-AX-SL	Mounting bracket for 1/8 in. and 1/4 in. ceiling grids with a bottom opening 
ACC-BKT-AX-JB	Junction box or wall mounting for indoor access points 

Order part number	Description
ACC-BKT-AX-BEAM	Beam mounting for indoor access points 
AH-ACC-BKT-AX-WL	Mounting bracket for direct-to-wall installations 
AH-ACC-BKT-916-KIT	9/16 in. ceiling mount brackets for non-flat and protruded ceiling tiles. Use with AH-ACC-BKT-AX-TB 

Order part number	Description
ACC-BKT-TB-NF	Adapter bracket for use with AH-ACC-BKT-TB with 15/16 in. wide T-bars on non-flat or protruded ceiling tiles 
ACC-BKT-AX-WNGADAPT	Adapter bracket for use with cloud access point that has an existing WiNG mounting plate (#37201)  **Figure 37: ACC-BKT-AX-WNGADAPT adapter bracket**

Order part number	Description
	 **Figure 38: WiNG metal bracket (#37201)**

Important
The default bracket for wall installation is the ACC-BKT-AX-JB bracket.

Note
Order the -JB bracket for new wall installations. The AH-ACC-BKT-AX-WL bracket is for users who already have the -WL brackets.

Lock Your Access Point

Before You Begin

You will need a Kensington security lock.

About This Task

Secure the access point from damage or theft.

Procedure

1. Securely attach the free end of the Kensington lock cable near the AP.
2. Insert the rectangular lock end into the Kensington security slot on the AP.
3. Lock the Kensington lock.

Onboard the Access Point with the ExtremeCloud IQ Mobile Onboarding App

Before You Begin

You can download the ExtremeCloud IQ Mobile Onboarding application to your mobile device from the Google application store or from the Apple application store. For more information, see *APs Onboarding - An Effortless Onboarding Experience*.

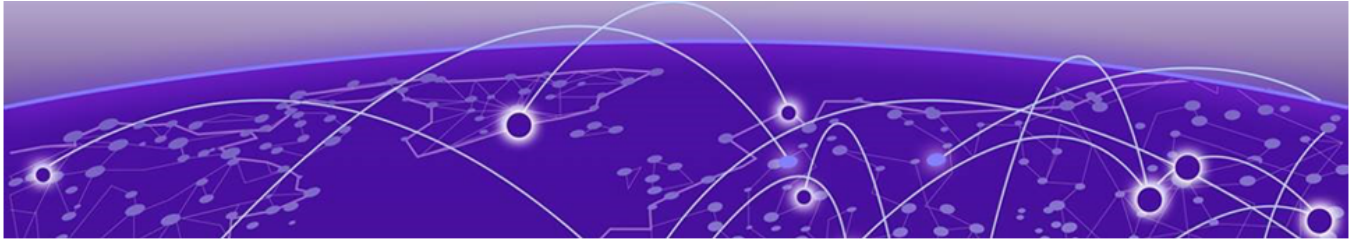
You require administrator login privileges. Contact your network administrator if you need login credentials.

About This Task

You can use the ExtremeCloud IQ Mobile Onboarding application to quickly onboard, monitor and troubleshoot access points.

Procedure

1. Open the ExtremeCloud IQ Mobile Onboarding application.
2. Enter your login information.
3. Tap **Add a Device**.
4. Scan the QR code or bar code on the back of the AP with your mobile device camera.
5. Verify the AP model and serial number
6. Select the location.
7. Choose any configured network policies for the AP.



Regulatory and Compliance

The following sections outline the regulatory and compliance information for the AP4020.

Country of Manufacture

China

Manufacturer: Sercomm Corporation

Address: No.8, Tangzhuang Road, Suzhou Industrial Park, Jiangsu, China

Philippines

Manufacturer: Sercomm Philippines, Inc.

Address: Lot 4, Innovation Drive, CIP 1, Canlubang, 4027, City of Calamba Laguna, Philippines

Taiwan

Manufacturer: Sercomm Chunan

Address: No.81, YuYi Road, Chu-Nan Miao-Li 350, Taiwan

Professional Installation Instruction

Installation personnel

This product is designed for specific application and needs to be installed by a qualified personnel 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 non-approved 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

Refer to the installation instructions for details.

Warning
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.

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.

CE Marking and European Area (EEA)

Warning
This is a class B product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Energy-related Products (ErP) Notice

This equipment has been tested and is found to comply with the limits of Ecodesign Directive 2009/125/EC. Under the directive, this device may be considered a "networked equipment with high network availability" (HiNA equipment).

The communication protocol used is IEEE 802.11 b/g/n/a/ac/ax/be.

Wi-Fi functions can be controlled by ExtremeCloud IQ.

FCC Notice (Part 15 - Class B)

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, it 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 the one the receiver is connected

- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1)This device may not cause harmful interference, and (2)this device must accept any interference received, including interference that may cause undesired operation.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules

For 5925-7125 MHz transmitter operation in Low Power Indoor mode:

1. FCC regulations restrict the operation of this device to indoor use only.
2. The operation of this device is prohibited on oil platforms, cars, trains, boats, and aircraft, except that operation of this device is permitted in large aircraft while flying above 10,000 feet in the 5.925-6.425 GHz band.
3. Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.

For 5925-6425 MHz and 6525-6875 MHz transmitter operation in Standard power access point mode:

1. The operation of this device is prohibited on oil platforms, cars, trains, boats, and aircraft.
2. Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.

FCC Radiation Exposure Statement

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

This device meets all the other requirements specified in Part15C, Section 247 and Part 15E, Section 15.407 of the FCC Rules.

Warning
FCC Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This device has been tested and meets applicable limits for Radio Frequency (RF) exposure.

This device was tested with a separation distance of 22 cm. Always keep the device away from your body to ensure exposure levels remain at or below the tested levels.

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.

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.

Industry Canada Notice

Warning
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.

Warning
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.

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.

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 22cm between the radiator & your body.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 22cm de distance entre la source de rayonnement et votre corps

Indoor AP(6ID)

Operation shall be limited to indoor use only.

Le fonctionnement doit être limitée à une utilisation à l'intérieur seulement.

- Devices shall not be used for control of or communications with unmanned aircraft systems.
- Devices shall not be used on oil platforms.
- Devices shall not be used on aircraft, except for the low-power indoor access points, indoor subordinate devices, low-power client devices, and very low-power devices operating in the 5925-6425 MHz band, that may be used on large aircraft as defined in the Canadian Aviation Regulations, while flying above 3,048 metres (10,000 feet).
- Devices shall not be used on automobiles.
- Devices shall not be used on trains.
- Devices shall not be used on maritime vessels
- Les dispositifs ne doivent pas être utilisés pour commander des systèmes d'aéronef sans pilote ni pour communiquer avec de tels systèmes.
- Les dispositifs ne doivent pas être utilisés sur les plateformes de forage pétrolier.
- Les dispositifs ne doivent pas être utilisés dans les aéronefs, à l'exception des points d'accès intérieurs de faible puissance, des dispositifs subordonnés intérieurs, des dispositifs clients de faible puissance et des dispositifs de très faible puissance fonctionnant dans la bande de 5 925 à 6 425 MHz, qui peuvent être utilisés dans les gros aéronefs tel qu'il est défini dans le Règlement de l'aviation canadien, et ce, lorsqu'ils volent à une altitude supérieure à 3 048 mètres (10 000 pieds).
- Les dispositifs ne doivent pas être utilisés dans les automobiles.
- Les dispositifs ne doivent pas être utilisés dans les trains.
- Les dispositifs ne doivent pas être utilisés sur les navires maritimes.

Brazil Agência Nacional De Telecomunicações (Anatel) Statement

1. Este produto está homologado pela ANATEL, de acordo com os procedimentos regulamentados pela Resolução nº. 242/2000 e atende aos requisitos técnicos aplicados.

Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados. Para maiores informações, consulte o site da ANATEL – www.anatel.gov.br

2. O uso deste equipamento é restrito a ambientes fechados e proibido em plataformas petrolíferas, carros, trens, embarcações e no interior de aeronaves abaixo de 3.048 m (10.000 pés).

Israel Regulatory Statement

מספר אישור התאמה מטעם משרד התקשורת: 51-95969

חל איסור לבצע פעולות במכשיר שיש בהן כדי לשנות את תכונותיו האלחוטיות של המכשיר, ובכלל זה שינויי תוכנה, החלפת אנטנה מקורית או הוספת אפשרות לחיבור לאנטנה חיצונית, בלא קבלת אישור משרד התקשורת, בשל החשש להפרעות אלחוטיות.

חל איסור על הפעלת המכשיר מחוץ למבנה, בשל חשש להפרעות אלחוטיות.

Mexico Compliance Statement

Details about compliance conditions for device use in Mexico.

La operación de este equipo está sujeta a las siguientes dos condiciones

1. es posible que este equipo o dispositivo no cause interferencia perjudicial y
2. este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

The operation of this equipment is subject to the following two conditions:

1. it is possible that this equipment or device does not cause disruptive interference and
2. this equipment or device must accept any interference, including interference that may cause undesired operation.

Thailand Regulatory Statement

เครื่องโทรคมนาคมและอุปกรณ์นี้ มีความสอดคล้องตามข้อกำหนดของ กทช.

Japan (VCCI) - Voluntary Control Council for Interference Class A ITE

This is a class A product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may arise. When such trouble occurs, the user may be required to take corrective actions.

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

Taiwan Regulatory Statement

取得審驗證明之低功率射頻器材，非經核准，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。低功率射頻器材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。前述合法通信，指依電信管理法規定作業之無線電通信。低功率射頻器材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。

應避免影響附近雷達系統之操作。

本器材須經專業工程人員安裝及設定，始得設置使用，且不得直接販售給一般消費者

United Kingdom (UK) and European Union (EU) Radiation Warning Statement

The device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range.

The device is restricted to indoor use only when operating in the 5945 to 6425MHz frequency range.

Warning
EU/UK 22 cm radiation distance. This equipment complies with EU/UK radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 22 cm between the radiator and your body.

	AT	BE	BG	HR	CY	CZ	DK
	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL
	PT	RO	SK	SI	ES	SE	UK (NI)

AP4020 EU	AP4020 UK
2412-2472MHz: 19.99dBm	2412-2472MHz: 19.99dBm
2402-2480MHz (BT): 9.97dBm	2402-2480MHz (BT): 9.97dBm
5180-5240MHz: 22.99dBm	5180-5240MHz: 22.99dBm
5260-5320MHz: 22.99dBm	5260-5320MHz: 22.99dBm
5500-5700MHz: 28.06dBm	5500-5700MHz: 28.06dBm
5745-5825MHz: 13.97dBm	5745-5825MHz: 22.99dBm
5955-6415MHz: 22.98dBm	5925-6425MHz: 23.98dBm

Extreme Networks EU Importer Address

Extreme Networks, Ireland Ops Ltd.

Rineanna House Shannon Industrial Estate

Shannon, V14CA36 Ireland

Extreme Networks UK Address

Extreme Networks, UK Ltd.

250 Longwater Avenue Green Park

1st Floor

Reading, UK

Supplement to Product Instructions

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

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

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

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

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.

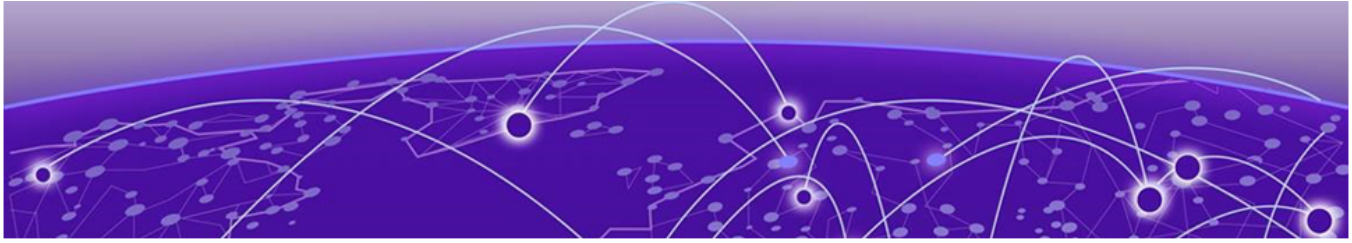
3. It has been determined by the European Parliament that there are potential negative effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment.
4. It is the user's responsibility to utilize the available collection system to ensure WEEE is properly treated.

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

Declaration of Conformity in Languages of the European Community

English	Hereby, Extreme Networks declares that the radio equipment type (AP4020/AP4020WW) is in compliance with Directive 2014/53/EU. For full text of the EU Declaration of Conformity, contact Extreme Regulatory Compliance at compliancerequest@extremenetworks.com
Finnish	Valmistaja Extreme Networks vakuuttaa täten että Radio LAN device (AP4020/AP4020WW) tyyppinen laite on direktiivin 2014/53/EU oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen. EU-vaatimustenmukaisuusvaatimuksen täydellisestä tekstistä ota yhteyttä äärimmäisiin säädösten noudattamiseen osoitteessa compliancerequest@extremenetworks.com
Dutch	Hierbij verklaart Extreme Networks dat het toestel Radio LAN device (AP4020/AP4020WW) in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2014/53/EU. Neem voor de volledige tekst van de EU-conformiteitsverklaring u contact opnemen met extreme regelgeving op compliancerequest@extremenetworks.com
French	Par la présente Extreme Networks déclare que l'appareil Radio LAN device (AP4020/AP4020WW) est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 2014/53/EU. Pour obtenir le texte intégral du processus de Déclaration de la conformité de l'UE, veuillez contacter la conformité réglementaire extrême à l'adresse suivante: compliancerequest@extremenetworks.com
Swedish	Härmed intygar Extreme Networks att radioutrustningstypen (AP4020/AP4020WW) överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2014/53/ EU. För fullständig text av EU-försäkran om överensstämmelse, kontakta Extreme regelefterlevnad på compliancerequest@extremenetworks.com
Danish	Undertegnede Extreme Networks erklærer herved, at følgende udstyr Radio LAN device (AP4020/AP4020WW) overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/53/EU. For den fulde ordlyd af EU-overensstemmelseserklæringen bedes du kontakte Extreme Regulatory Compliance på compliancerequest@extremenetworks.com
German	Hiermit erklärt Extreme Networks die Übereinstimmung des "WLAN Wireless Controller bzw. Access Points" (AP4020/AP4020WW) mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 2014/53/EU. Für den vollständigen Wortlaut der EU-Konformitätserklärung wenden Sie sich bitte an extreme Regulatory Compliance unter compliancerequest@extremenetworks.com

Greek	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Extreme Networks ΔΗΛΩΝΕΙ ΟΤΙ Radio LAN device (AP4020/AP4020WW) ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2014/53/EU. Για το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ, παρακαλούμε επικοινωνήστε με την ακραία κανονιστική συμμόρφωση στο compliancerequest@extremenetworks.com
Icelandic	Extreme Networks lysir her med yfir að thessi bunadur, Radio LAN device (AP4020/AP4020WW), uppfyllir allar grunnkrofur, sem gerdar eru i R&TTE tilskipun ESB nr 2014/53/EU. Fyrir fullan texta í ESB yfirlýsingu um samræmi, vinsamlegast hafðu samband við Extreme Reglufylgni á compliancerequest@extremenetworks.com
Italian	Con la presente Extreme Networks dichiara che questo Radio LAN device (AP4020/AP4020WW) è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/53/EU. Per il testo integrale della Dichiarazione di conformità dell'UE, contattare Extreme Regulatory Compliance presso compliancerequest@extremenetworks.com
Spanish	Por medio de la presente Extreme Networks declara que el Radio LAN device (AP4020/AP4020WW) cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 2014/53/EU. Para obtener el texto completo de la Declaración de conformidad de la UE, póngase en contacto con Extreme Regulatory Compliance en compliancerequest@extremenetworks.com
Portuguese	Extreme Networks declara que este Radio LAN device (AP4020/AP4020WW) está conforme com os requisitos essenciais e outras disposições da Directiva 2014/53/EU. Para o texto integral da declaração de conformidade da UE, contacte a conformidade regulamentar extrema em compliancerequest@extremenetworks.com
Malti	Hawnhekk, Extreme Networks, jiddikjara li dan Radio LAN device (AP4020/AP4020WW) jikkonforma mal-htigijiet essenzjali u ma provvedimenti ohrajn relevanti li hemm fid-Dirrettiva 2014/53/EU. Għat-test sħiħ tad-dikjarazzjoni ta ' konformità tal-UE, jekk jogħġbok ikkuntattja lill-konformità regolatorja compliancerequest@extremenetworks.com



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