



Extreme Wireless 802.11be Wi-Fi 7 Indoor AP5020 Access Point Installation Guide

Setup, Configuration, and Specifications

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Abstract

This installation guide for the ExtremeWireless™ AP5020 access point outlines procedures for installing the access point in high-density environments. It describes AP5020 features, including radios and antennas, power profiles, and LED statuses. Detailed instructions are given for mounting on walls, ceilings, and beams using the provided and optional brackets. The guide also includes information on connecting power supplies and securing the device, along with regulatory compliance details to ensure legal use.



Preface

Read the following topics to learn about:

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

Text Conventions

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

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

Table 1: Notes and warnings






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

Table 2: Text

Convention	Description
screen displays	This typeface indicates command syntax, or represents information as it is displayed on the screen.
The words <i>enter</i> and <i>type</i>	When you see the word <i>enter</i> 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 <i>type</i> .
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
<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.
NEW!	New information. In a PDF, this is searchable text.

Table 3: Command syntax

Convention	Description
bold text	Bold text indicates command names, keywords, and command options.
<i>italic text</i>	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, <i>member [member...]</i> .
\	In command examples, the backslash indicates a “soft” line break. When a backslash separates two lines of a command input, enter the entire command at the prompt without the backslash.

Documentation and Training

Find Extreme Networks product information at the following locations:

[Current Product Documentation](#)

[Release Notes](#)

[Hardware and Software Compatibility](#) for Extreme Networks products

[Extreme Optics Compatibility](#)

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

Extreme Portal

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

The Hub

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

Call GTAC

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

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

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

Subscribe to Product Announcements

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1. Go to [The Hub](#).
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4. Select **Subscribe**.
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- Content errors, or confusing or conflicting information.
- Improvements that would help you find relevant information.
- Broken links or usability issues.

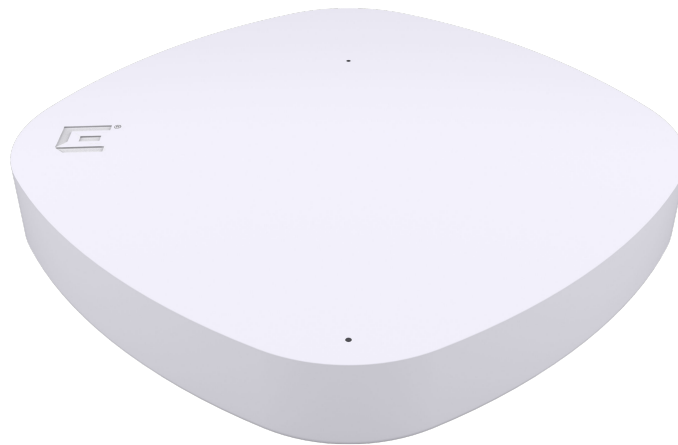
To send feedback, email us at documentation@extremenetworks.com.

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



Overview of the AP5020

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The AP5020 access point is an universal *indoor* access point with a Wi-Fi 7 tri-radio. It is designed for high density environments where a large number of people will access your network such as schools, warehouses, healthcare facilities, and stadiums.

The AP5020 uses the 802.11 wireless standards (802.11a/b/g/n/ac/ax/be) for network communications, and bridge network traffic to an Ethernet LAN. It can operate in

either the cloud with ExtremeCloud™ IQ or in an on-premise environment with ExtremeCloud™ IQ Controller.

You can operate the radio across three bands - 2.4 GHz (4x4:4), 5 GHz (4x4:4), and 6 GHz (4x4:4).

You can operate the AP in two modes:

- Mode 1: 2.4 GHz (full) /5 GHz/6 GHz - Tri-Radio
- Mode 3: 5 GHz (Low)/5 GHz (High)/ 6 GHz - Dual 5GHz with 6GHz



Note

Several channels are offered on the 6 GHz band so it is a best practice to configure the Preferred Scanning Channel (PSC). PSC helps reduce the amount of probing.



Note

You do not have to use a country-specific SKU unless you are ordering for Israel or Egypt.

New in this Guide

The following sections shows the recent documentation revisions for this guide. Use this information to locate the latest updates

October 2024

Table 4: New and Revised Information

Section	Description
Power Profile	Updated for Modes 2, 4, 5 and 6.
Antenna Gain matrix	Added antenna gain information.
Supplement to Product Instructions	Added section for Compliance.
Country of Manufacture	Added Taiwan and Phillipines

Technical Specifications

The AP5020 supports both 802.3at PoE and 802.3bt PoE. It is supported on the following platforms:

- ExtremeCloud™ IQ
- Extreme IQ Controller

For more information about the technical specifications, see the AP5020 Data Sheets [found here](#).

Internal Antennas

The AP5020 has the following internal antennas:

- (4) Dual band 2.4 GHz and 5 GHz
- (4) Single band 6 GHz
- (2) 5 GHz/6 GHz sensor
- (3) IoT sensor

Antenna Gain Matrix

The following table lists the antenna gains for your access point grouped by operational mode and radio. Use this information as you plan your installation to maximize the AP's efficiency.



Note

Antenna gain is a measure of an antenna's efficiency to convert power into radio waves. It relates the intensity of an antenna in a given direction to the intensity that is produced isotropically or by an antenna that radiates equally in all directions and has no losses.

Only a professional installer should ever set the antenna gain. For more information, see [Wireless Controller, Service Platform and Access Point CLI Reference Guide](#).

The AP5020 has the following internal antennas:

- (4) dual band 2.4 GHz and 5 GHz
- (4) single band 6 GHz
- (2) 5 GHz/6 GHz sensor
- (3) IoT sensor

Table 5: Antenna Gain Matrix

	Radio 1	Radio 2	Radio 3	IoT Radio
Mode 1	2.4G - 3.2dBi	5G - 5.1dBi	6G - 6dBi	4.2dBi
Mode 2*	2.4G - 3.2dBi 5G - 4.2dBi 6G - 4.4dBi	5G - 5.1dBi	6G - 6dBi	4.2dBi
Mode 3	5G - 4.2dBi	5G - 5.1dBi	6G - 6dBi	4.2dBi
Mode 4*	2.4G - 3.2dBi 5G - 4.2dBi 6G - 4.4dBi	5G - 5.1dBi	2.4G - 3.2dBi	4.2dBi
Mode 5	5G - 4.2dBi	5G - 5.1dBi	2.4G - 3.2dBi	4.2dBi
Mode 6	6G - 4.4dBi	5G - 5.1dBi	6G - 6dBi	4.2dBi

*Modes 2 and 4 are available in a future software release.

Internal Antenna Gain, Beam and Radiation Patterns

Gain and Beam

The following table shows the Gain and Beam for the AP5020 internal antenna. Use this information when you plan your installation.

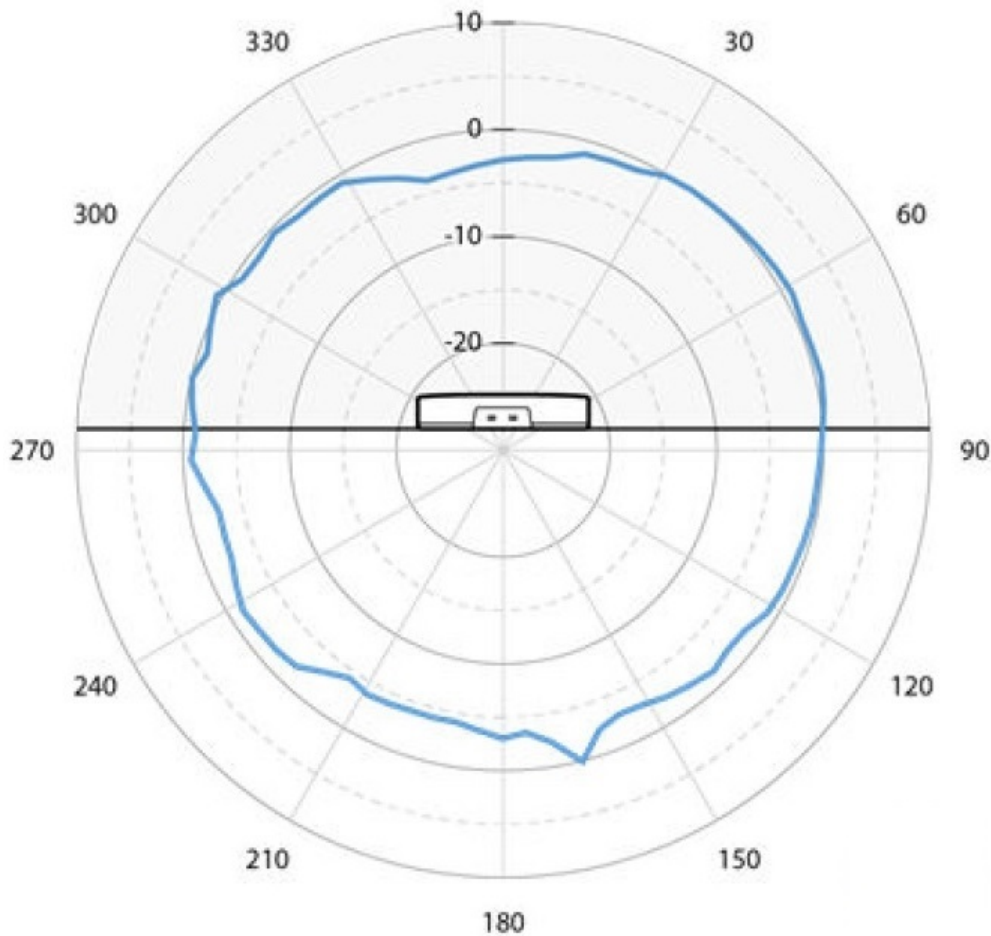
Table 6: Ports, Gains, and Beam

Radio	2.4 GHz		5 GHz		6 GHz	
-	4dBi	360	6dBi	360	6dBi	360

2.4 GHz Radiation Patterns

The following diagrams illustrate the radiation patterns for the AP5020 2GHz internal antenna.

AP5020 2GHz Vertical Radiation Pattern



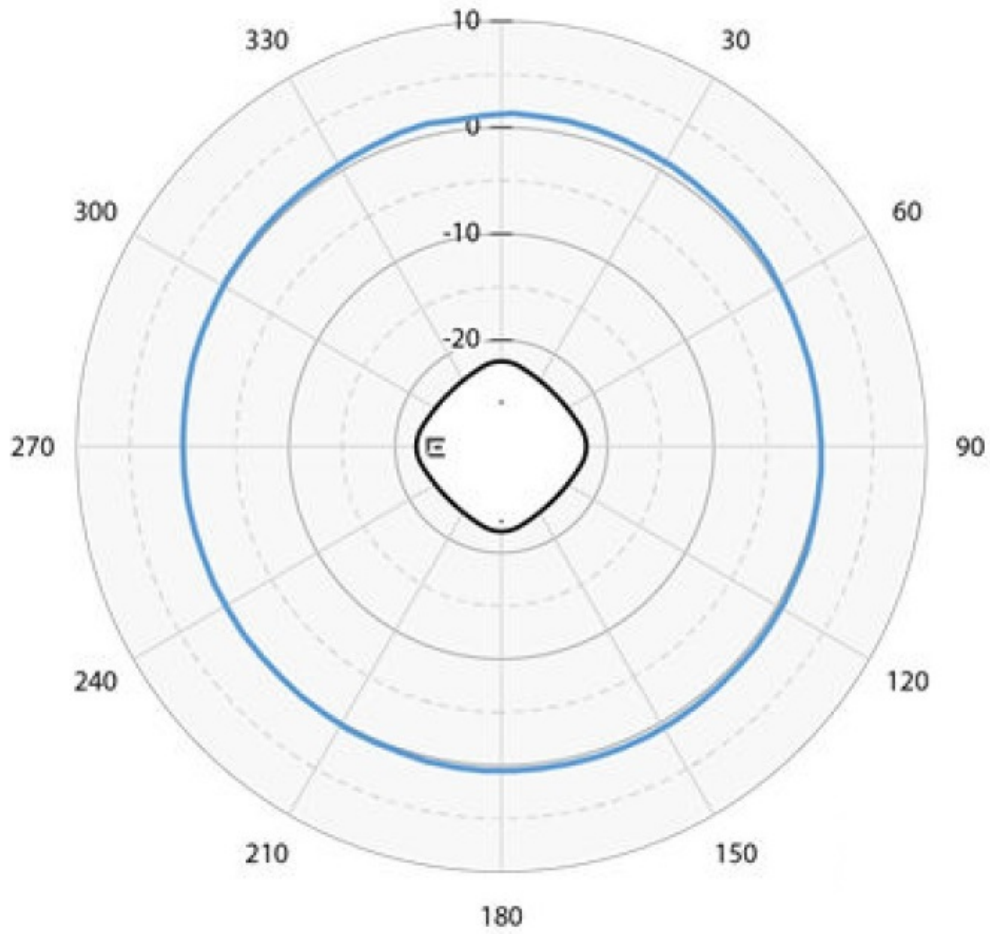


Figure 1: AP5020 2GHz Horizontal Radiation Pattern

5 GHz Radiation Patterns

The following diagrams illustrate the radiation patterns for the AP5020 5 GHz internal antenna.

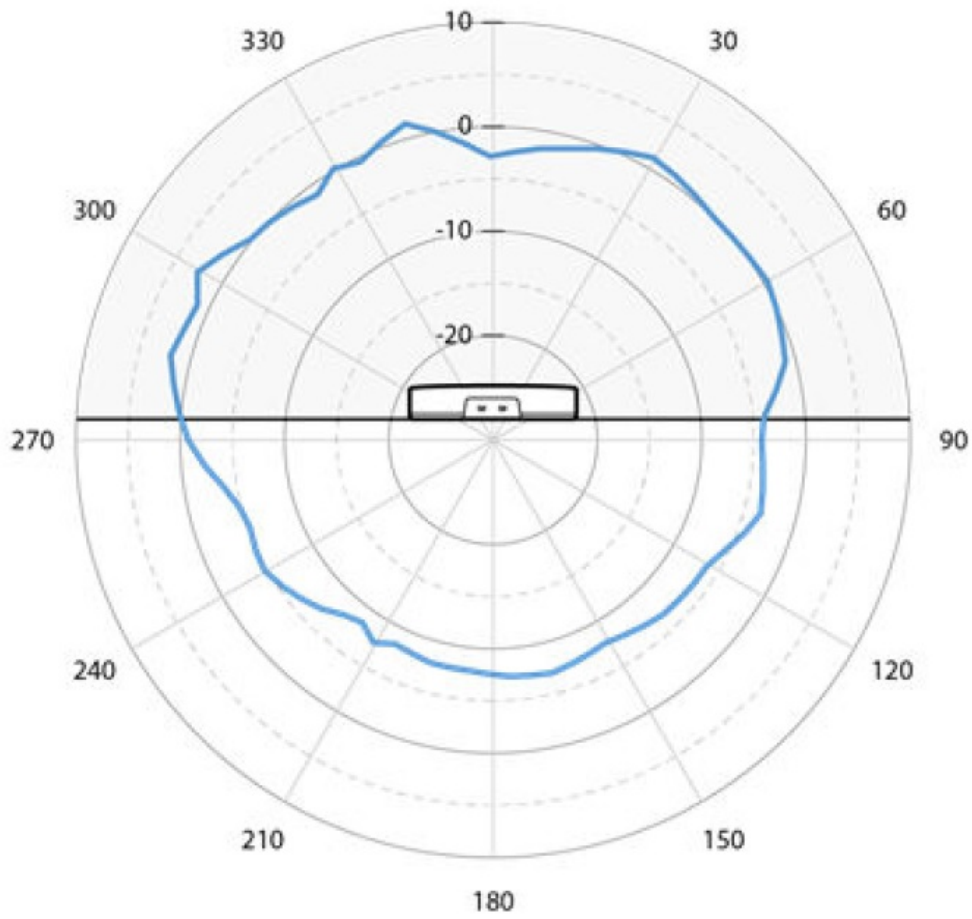


Figure 2: AP5020 5 GHz Vertical Radiation Pattern

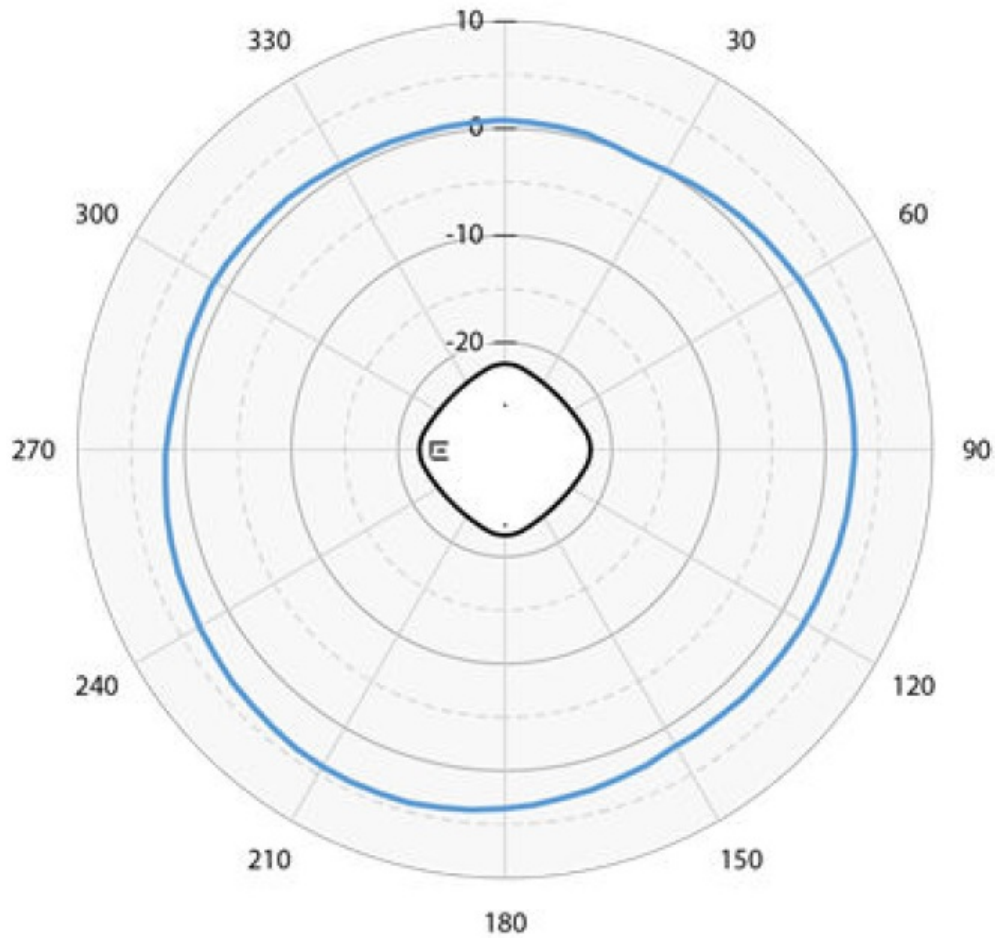


Figure 3: AP5020 5 GHz Horizontal Radiation Pattern

6 GHz Radiation Patterns

The following diagrams illustrate the radiation patterns for the AP5020 6 GHz internal antenna.

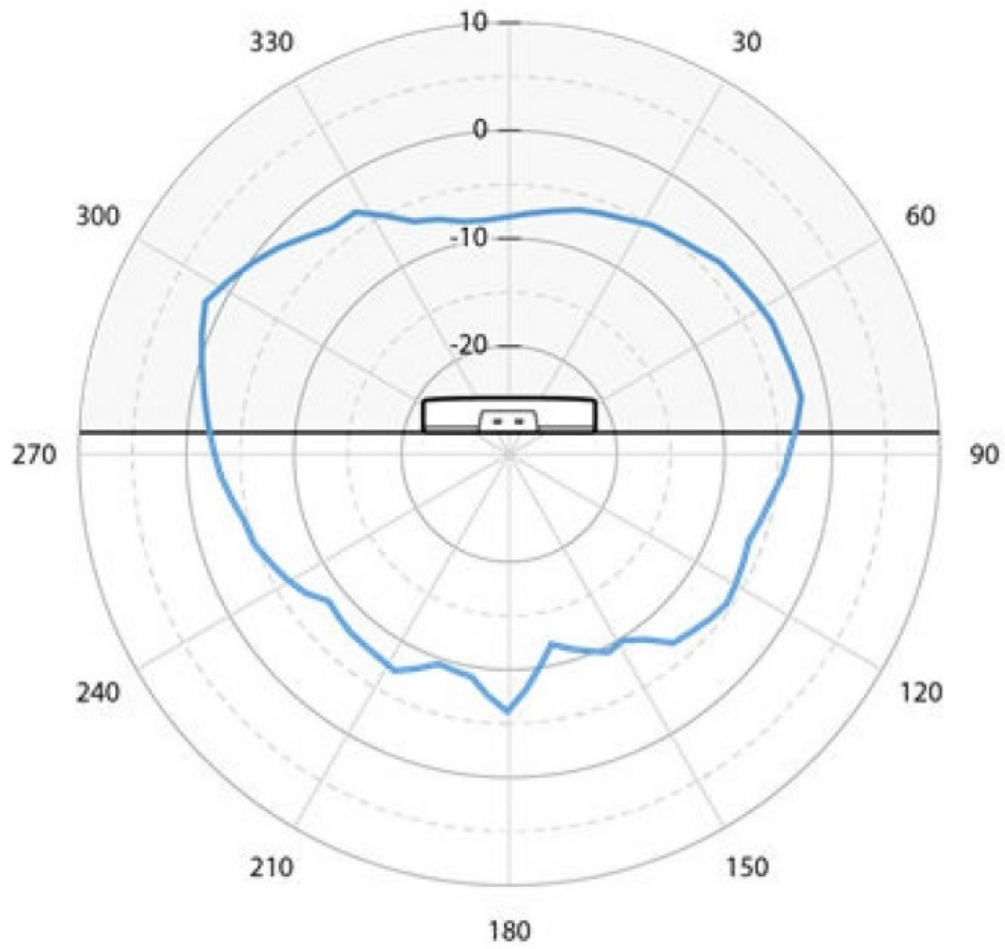


Figure 4: AP5020 6 GHz Vertical Radiation Pattern

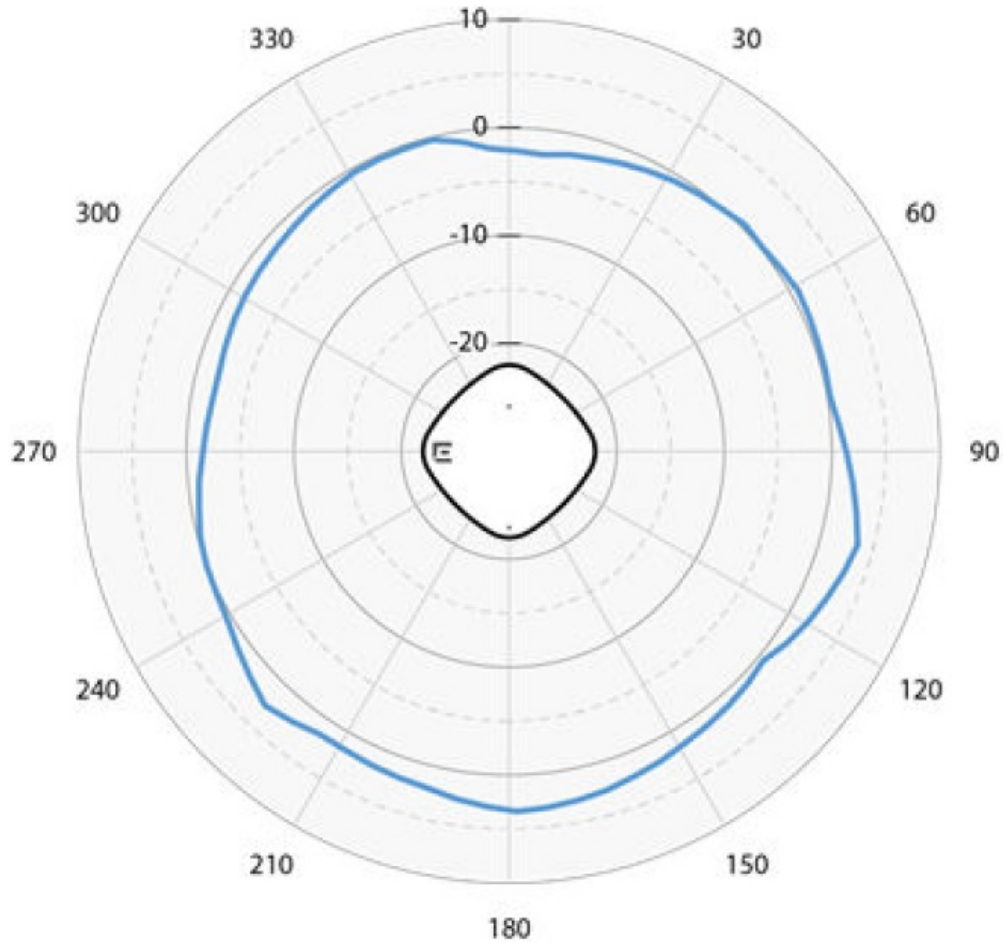


Figure 5: AP5020 6 GHz Horizontal Radiation Pattern

Enclosure

The AP5020 has a plastic top with an aluminum bottom.

Power Options

The AP5020 supports the following power options:

- Power draw: 802.3at PoE: typical 21W, max. 25.5W (802.3at profile) w/o PoE out or USB
- Power draw: 802.3bt: max. 35W with 5W USB
- 12V DC/3A. DC power has priority when both DC and PoE power sources are available
- PoE failover or optional Power Sourcing Equipment (PSE) out is supported



Note

Power Sourcing Equipment (PSE) is disabled by default.

- With DC power in, USB 5W power is supported

Radios

The AP5020 has the following radios:

- Three 802.11ax radios 2.4 GHz (4x4:4), 5 GHz (4x4:4) and 6 GHz (4x4:4)
- Two dual IoT Radio (2.4 GHz)

Maximum users:

- SSID per radio: 16 with a total of 48
- Users per radio: 512 with a total of 1536

Ports and Connectors

The AP5020 has the following ports, connectors, and hardware features:

- One Kensington security slot
- One USB 2.0 type A connector
- Two Ethernet ports (ETH0 and ETH1) with RJ45 connectors
 - 100/1,000/2,500/5,000/10,000 Mbps autosensing link speed Ethernet port, PoE PD
 - 100/1,000/2,500/5,000 Mbps autosensing link speed Ethernet port, PoE PD in or 802.3af 15.4W PSE out mode (requires 802.3bt on Eth0).



Note

Power Sourcing Equipment (PSE) is disabled by default.

Physical Specifications

The AP5020 has the following dimensions and weight:

- Dimensions: 10.16 in. x 10.16 in. x 1.62 in. (258mm x 258mm x 41mm)
- Weight: 3.57 lbs (1.62 kg)

Environmental Specifications

The following list shows the environmental operating conditions for the AP5020:

- 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)

Hardware Ports

The AP5020 has several ports and hardware features that connect the AP to your network or are used to access a feature. Use the information in the following sections to locate these ports.

Hardware Ports - Front

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

Table 7: AP5020 Ports and Connections

Item	Port	Description
1	2.0 USB type A port, 5V/500mA with POE.at or 5V/1000mA with POE.bt	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. 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 will damage the AP if you use another cable.
3	Kensington security slot	A security feature that prevents someone from removing the AP. This is an optional task.

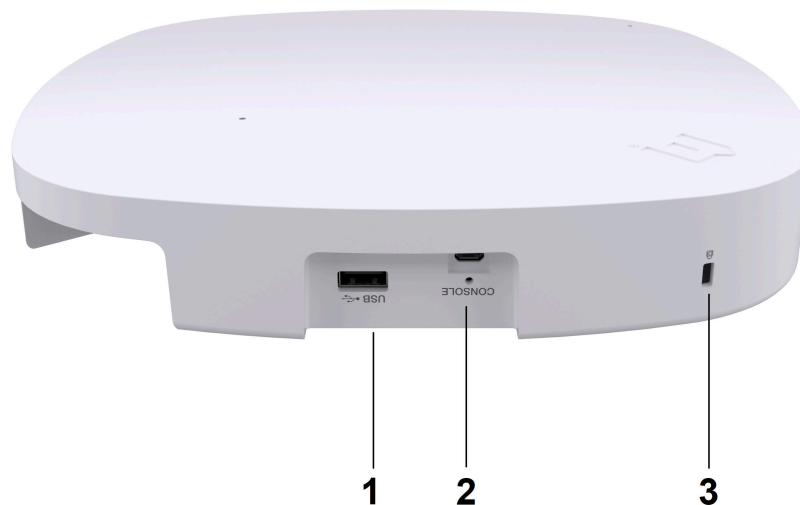


Figure 6: AP5020 Front Hardware Ports and Connections

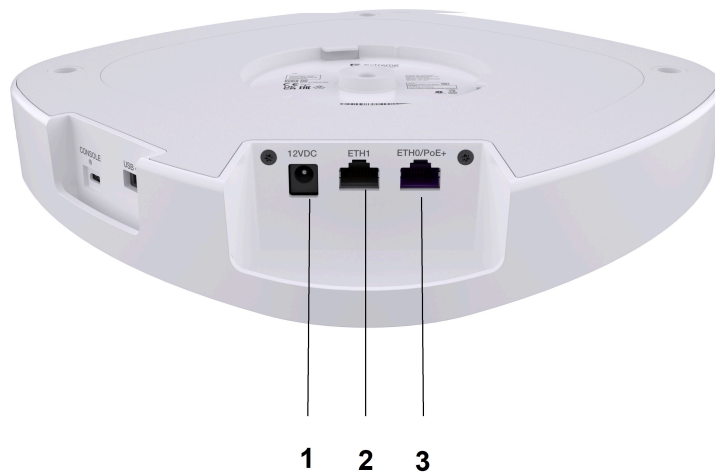
Hardware Ports - Rear

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

Table 8: AP5020 Ports and Connections

Item	Description	Use
1	12VDC	12-volts of direct current.
2	ETH1 port	Ethernet port.
3	ETH0/PoE port	Ethernet port.

AP5020 Rear Ports and Connections



Security

The AP5020 supports Wi-Fi Alliance WPA3 security certifications. Use Extreme Fabric Attach for provisioning and deployment to a Fabric Connect-enabled switch.

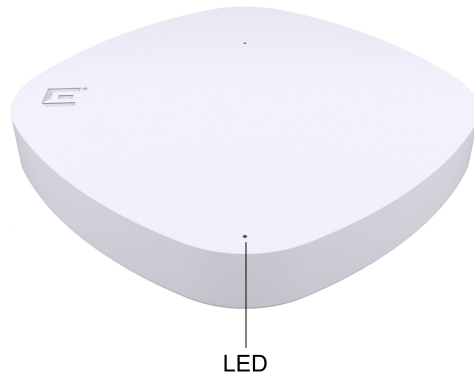
The access point also supports the following security features:

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

LED Descriptions

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

Figure 7: AP5020 LED



The following tables show the LED states based on your firmware platform.

Table 9: 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.
Slow-blinking white	The device has a CAPWAP connection to ExtremeCloud IQ, but is operating on 802.3at power instead of 802.3bt power.
Solid amber	The power is on and the AP is in boot up mode, or is running without a CAPWAP connection.
Slow-blinking amber	The device has no CAPWAP connection to ExtremeCloud IQ. It is operating on 802.3at power instead of 802.3bt power.
Fast-blinking amber	The IQ Engine firmware is updating.

Table 10: 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.
Slow-blinking white	The AP is being taken over by the controller or has failed to be taken over by the controller.

Table 10: ExtremeCloud™ IQ Controller LED Activity (continued)

Status	Activity
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.

Power Profiles

The following tables shows the AP5020 power profiles.



Note

For AF Power staging: Only the AP5020 Ethernet Port is available. Radios 1, 2, 3 and PSE are not available at AF Power staging.

Table 11: AP5020 AT Power Profile

	Radio 1	Radio 2	Radio 3	Ethernet Port	USB (2.0W)	PSE
Mode 1	(2.4G) 13dBm, 2x2	(5G) 13dBm, 3x3	(6G) 13dBm, 2x2	Yes	No	No
Mode 2* (USB)	Sensor	(5G) 13dBm, 2x2	(6G) 13dBm, 2x2	Yes	Yes	No
Mode 3 (Dual 5G)	(5G-L) 13dBm, 2x2	(5G-H) 13dBm, 2x2	(6G) 13dBm, 2x2	Yes	No	No
Mode 4*	Sensor	(5G) 13dBm, 2x2	(2G) 13dBm, 2x2	Yes	Yes	No
Mode 5	(5G-L) 13dBm, 2x2	(5G-H) 13dBm, 2x2	(2G) 13dBm, 2x2	Yes	No	No
Mode 6 (Dual 6G)	(6G-L) 13dBm, 2x2	(5G) 13dBm, 2x2	(6G-H) 13dBm, 2x2	Yes	No	No

*Modes 2 and 4 are available in a future software release.

Table 12: AP5020 BT Power Profile

	Radio 1	Radio 2	Radio 3	Ethernet Port	USB (2.0W)	PSE
Mode 1	(2.4G) 18dBm, 4x4	(5G) 18dBm, 4x4	(6G) 18dBm, 4x4	Yes	Yes	Yes
Mode 2* (USB)	Sensor	(5G) 18dBm, 4x4	(6G) 18dBm, 4x4	Yes	Yes	Yes
Mode 3 (Dual 5G)	(5G-L) 16dBm, 2x2	(5G-H) 16dBm, 4x4	(6G) 18dBm, 4x4	Yes	Yes	Yes

Table 12: AP5020 BT Power Profile (continued)

	Radio 1	Radio 2	Radio 3	Ethernet Port	USB (2.0W)	PSE
Mode 4*	Sensor	(5G) 18dBm, 4x4	(2G) 18dBm, 2x2	Yes	Yes	Yes
Mode 5	(5G-L) 16dBm, 2x2	(5G-H) 16dBm, 4x4	(2G) 18dBm, 2x2	Yes	Yes	Yes
Mode 6 (Dual 6G)	(6G-L) 16dBm, 2x2	(5G) 18dBm, 4x4	(6G-H) 17dBm, 4x4	Yes	Yes	Yes

*Modes 2 and 4 are available in a future software release.

Table 13: AP5020 DC Adapter Power Profile

	Radio 1	Radio 2	Radio 3	Ethernet Port	USB (2.0W)	PSE
Mode 1	(2.4G) 18dBm, 4x	(5G) 18dBm, 4x4	(6G) 18dBm, 4x4	Yes	Yes	No
Mode 2* (USB)	Sensor	(5G) 18dBm, 4x4	(6G) 18dBm, 4x4	Yes	Yes	No
Mode 3 (Dual 5G)	(5G-L) 16dBm, 2x2	(5G-H) 16dBm, 4x4	(6G) 18dBm, 4x4	Yes	Yes	No
Mode 4*	Sensor	(5G) 18dBm, 4x4	(2G) 18dBm, 2x2	Yes	Yes	No
Mode 5	(5G-L) 16dBm, 2x2	(5G-H) 16dBm, 4x4	(2G) 18dBm, 2x2	Yes	Yes	No
Mode 6 (Dual 6G)	(6G-L) 16dBm, 2x2	(5G) 18dBm, 4x4	(6G-H) 17dBm, 4x4	Yes	Yes	No

*Modes 2 and 4 are available in a future software release.

Accessories

The AP5020 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.

Supported Mounting Accessories

The following table lists the supported mounting accessories. For more information, see the [802.11ax and Cloud Access Points Accessories Guide](#).

Table 14: 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).
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.
ACC-BKT-AX-WNGADAPT	Adapter bracket for Cloud AP to WiNG Mounting Plate (#37201). Ships in a pack of 10.

Supported 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 15: 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 16: Other accessories

Part number	Description
ACC-WIFI-MICRO-USB	Extreme Networks micro USB cable. Note: When you connect to the device using 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. Set your baud rate to 115200.

Micro USB Console Port Information

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.



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).

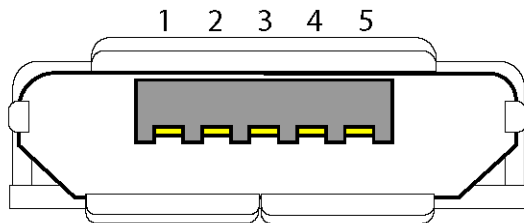


Figure 8: Micro-B model Console Port Pin Information

Table 17: Micro-B USB Pin Information

Pin number	Pin name and description
1	NC
2	RxD (input to access point)
3	TxD (output to terminal)
4	Signal (GND)
5	Signal (GND)

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.

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 AP5020 in a liquid. You will damage the device and void the warranty. Instead, you can wipe the plastic housing - also called the radome - with a damp cloth. But you must avoid the ports and connectors. Do not power wash the AP.

Purchase Information

Use the information below when you order your AP. The AP5020 access point is sold with the AH-ACC-BKT-AX-TB mounting bracket.

Table 18: Access point part number

Part number	Description
AP5020-WW	Indoor Tri Radio Wi-Fi 7E AP (4x4:4): 2.4 GHz, 5 GHz, 6 GHz and Multirate Port, Internal antennas. T-Bar, Incl Mt (AH- ACC-BKT-AX-TB). Domain: World SKU



Installation

- [Pre-Installation Tasks](#) on page 28
- [Installation Workflow](#) on page 29
- [Box Contents](#) on page 30
- [Position the Access Point before Installation](#) on page 31
- [Install the Access Point on a Standard Flat Ceiling Rail with Sculpted Ceiling Tiles](#) on page 32
- [Nonstandard Ceiling Grid or Wall Installation](#) on page 35
- [Install the Access Point to a Wall with AH-ACC-BKT-AX-WL](#) on page 38
- [Install the Access Point on a Silhouette Ceiling](#) on page 38
- [Install the Access Point to a 9/16-inch T-bar Ceiling](#) on page 41
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- [Install the Access Point on a Junction Box](#) on page 47
- [Install the Access Point on a Beam](#) on page 48
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Install the access point on a ceiling rail, on a nonstandard ceiling, or on a wall.

Pre-Installation Tasks

Extreme Networks Access Points have been designed for 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.

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.

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.

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 about DNS and NTP, see *ExtremeCloud IQ Controller Deployment Guide* for Cloud deployment and *Extreme Campus Controller Deployment Guide* for Campus or on-premises deployment.

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 19: 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: <ul style="list-style-type: none"> • Wall • Standard ceiling • Nonstandard ceiling or wall • 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: <ul style="list-style-type: none"> • 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.
4	(Optional) Lock the access point.	Secure the AP and prevent someone from removing it.
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.

Box Contents

Your Extreme access point 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 20: Hardware

Quantity	Item
1	Extreme AP5020 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.

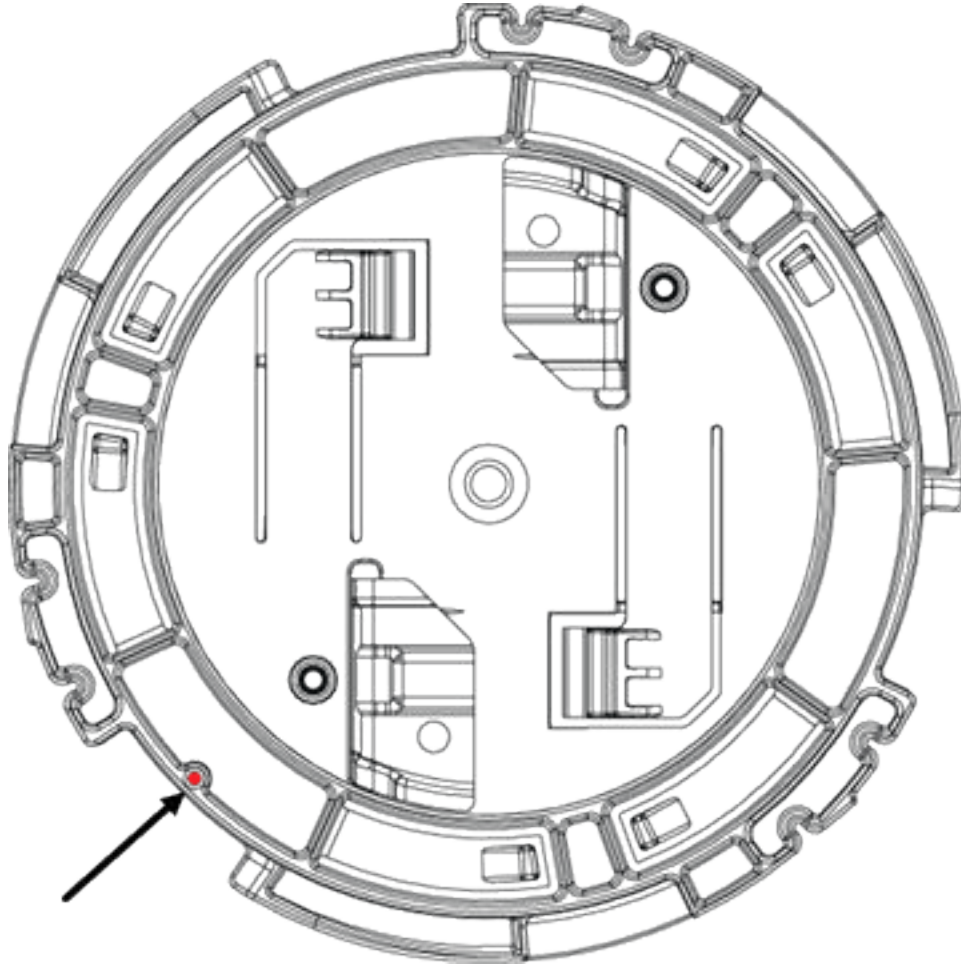


Figure 9: AH-ACC-BKT-AX-TB bracket red dot

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

Before You Begin

The following hardware is required for a standard ceiling rail installation:

- An AP5020 access point
- One AH-ACC-BKT-AX-TB mounting bracket for prelude T-bar ceiling installation, that is shipped with the access point

About This Task

The AP5020 access points ship with a mounting bracket for standard 15/16" (24mm) wide t-bars or 9/16" (14mm) wide t-bar rails. For non-standard ceiling rail installations, see [Non-Standard Ceiling Grid or Wall Installation](#).

Procedure

1. Remove the ceiling tiles.
2. Align the bracket on the ceiling rail in such a way that the bracket metal hinges are almost parallel to the sides of the ceiling rail.
3. Rotate the accessory clockwise until the metal hinges hook over the edge of the rail and the white tabs click in place.



Note

There are two white tabs on the back of the bracket that holds on to the ceiling rail. Use your finger to push and unhook one side of the white tab if you want to remove the bracket from the ceiling rail.

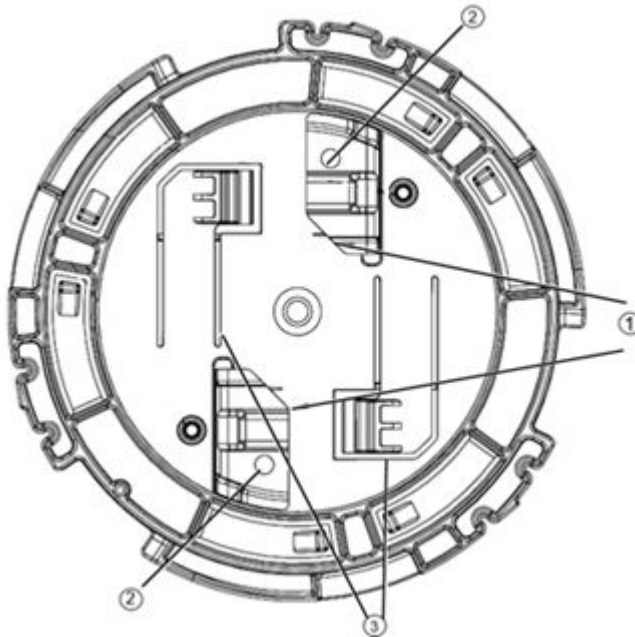


Figure 10: AH-ACC-BKT-AX-TB bracket

Table 21: AH-ACC-BKT-AX-TB bracket parts description

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

4. Attach the LAN cable ethernet plug to the appropriate access point Ethernet receptacle.
5. Align the red dot on the back of the access point against the 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 1/8th turn clockwise until it clicks into place on the bracket.

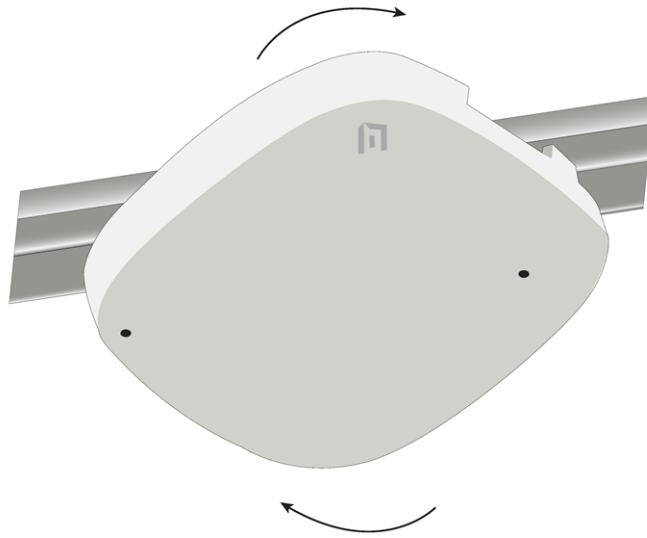
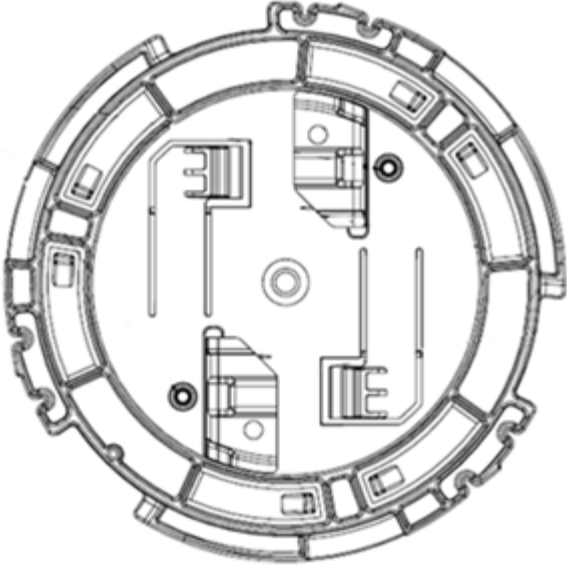
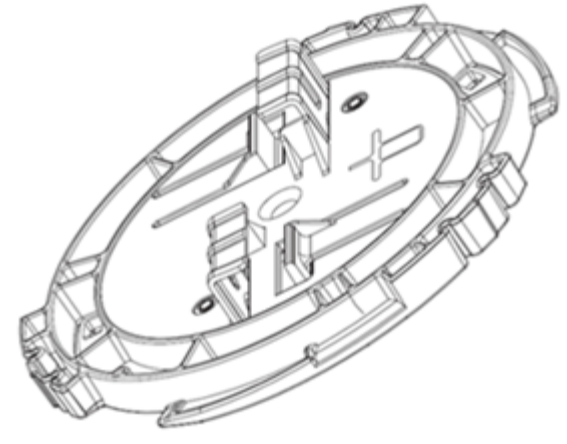


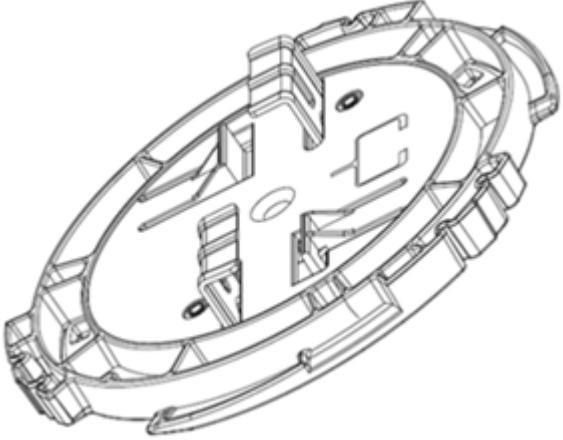
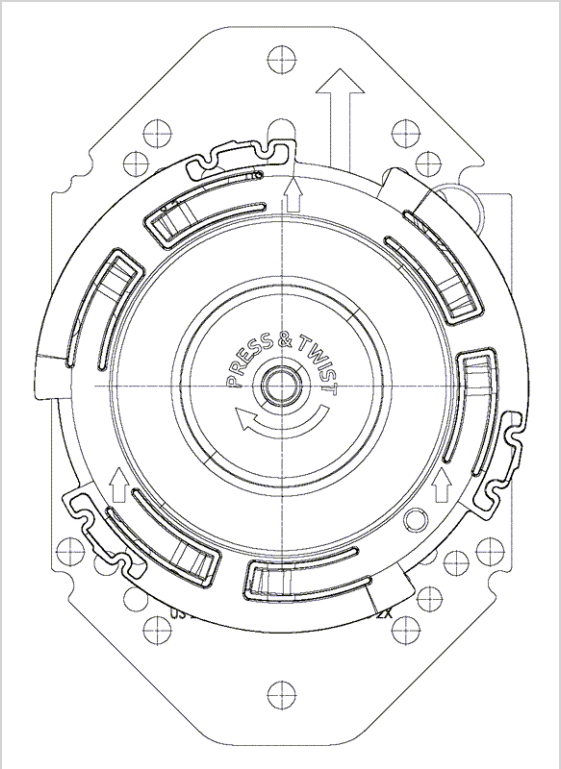
Figure 11: Access point ceiling install

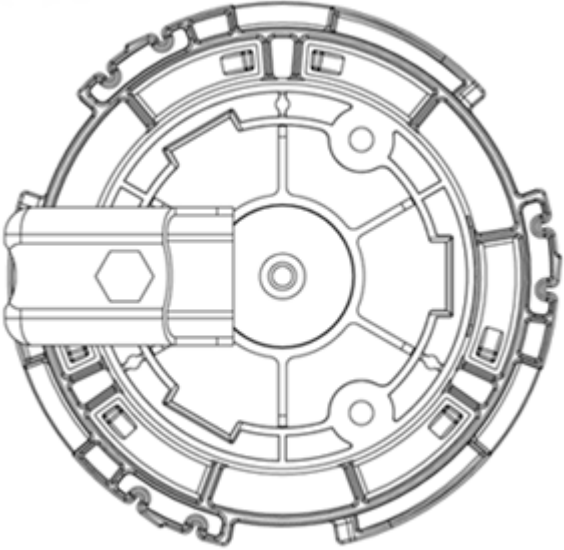
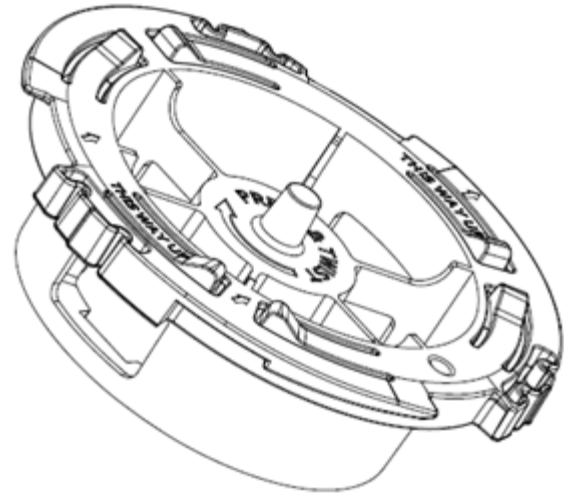
7. Attach the Cat6 RJ45 cable to the ETH0 or ETH1 port.
8. Replace the ceiling tiles.

Nonstandard Ceiling Grid or Wall Installation

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

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

Order part number	Description
<p>AH-ACC-BKT-AX-SL</p>	<p>Mounting bracket for Silhouette ceilings (ceiling grid with 1/8 in. or 1/4 in. bottom opening)</p> 
<p>ACC-BKT-AX-JB</p>	<p>Junction box or wall mounting for indoor access points</p> 

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 

**Note**

The default bracket for wall installation is the ACC-BKT-AX-TB bracket. One -TB bracket is included with the AP. The AH-ACCBKT-AX-WL bracket is for users who already have the -WL brackets.

In addition, the following extension kits are available for stepped or sculpted ceiling tiles:

Table 22: Extension Kits for Stepped Ceiling Tiles

Order part number	Description
AH-ACC-BKT-916-KIT	Mounting kit for 9/16" wide t-bars.
ACC-BKT-TB-NF	Mounting bracket for 15/16" wide t-bars.

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

Before You Begin

You need the following items:

- AP5020
- Three M3.5 screws and three screw-in anchors, shipped with the -WL bracket
- One AH-ACC-BKT-AX-WL bracket

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 Silhouette Ceiling

Before You Begin

You need the following items:

- One AP5020 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.

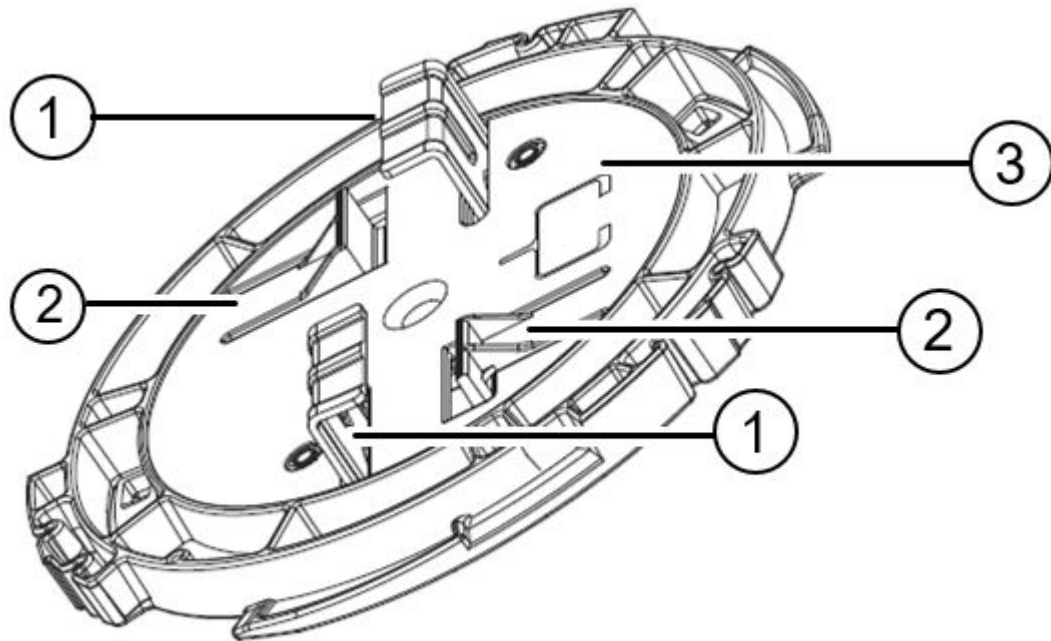


Figure 12: AH-ACC-BKT-AX-SL Accessory Bracket

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.

- 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.

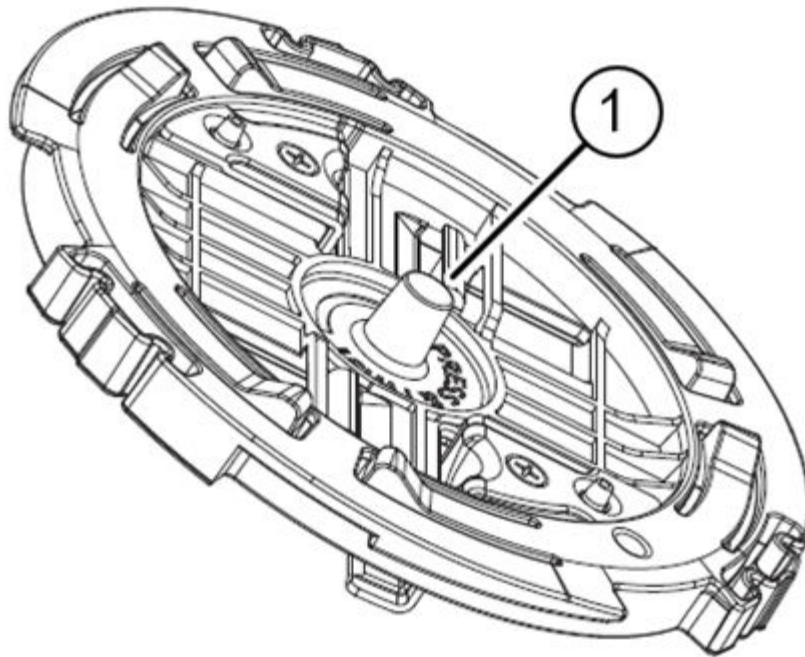


Figure 13: AH-ACC-BKT-AX-SL Accessory Bracket Circular Tip

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 AP5020 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.

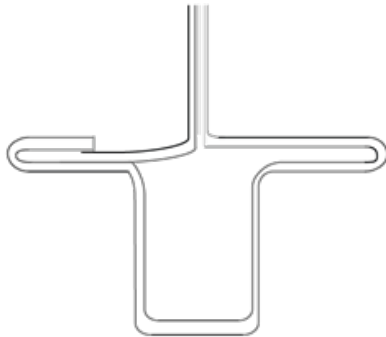


Figure 14: 9/16 in. wide T-bar with protrusion

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

There are two white tabs in the back of the accessory bracket that holds on to the ceiling rail in place. 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.

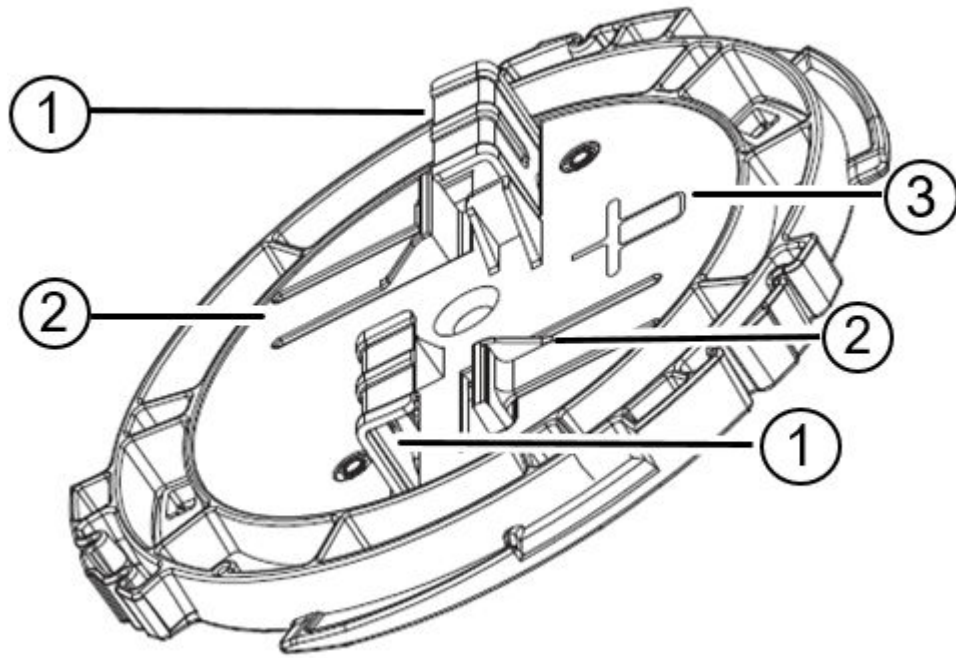


Figure 15: AH-ACC-BKT-AX-IL accessory bracket

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.

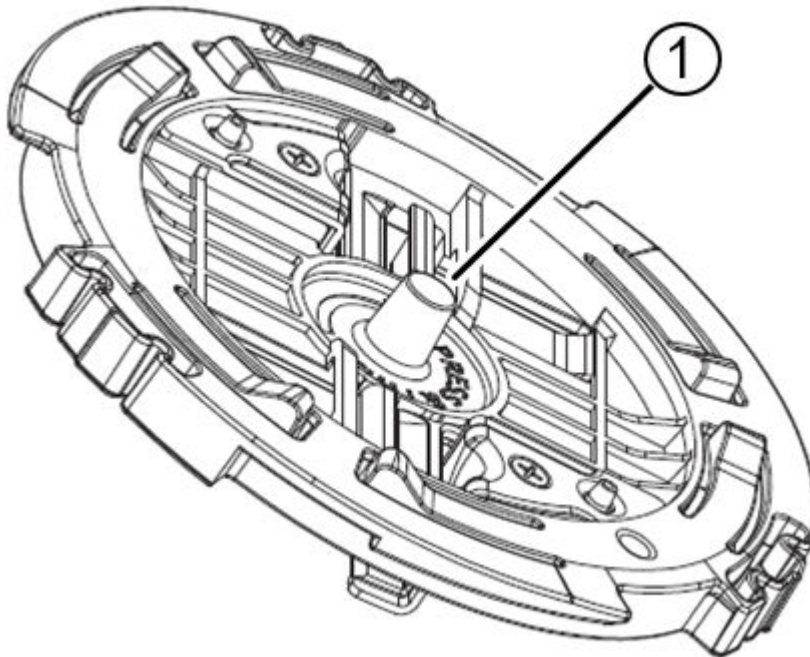


Figure 16: AH-ACC-BKT-AX-IL accessory bracket circular tip

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. Connect 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 AP5020 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.

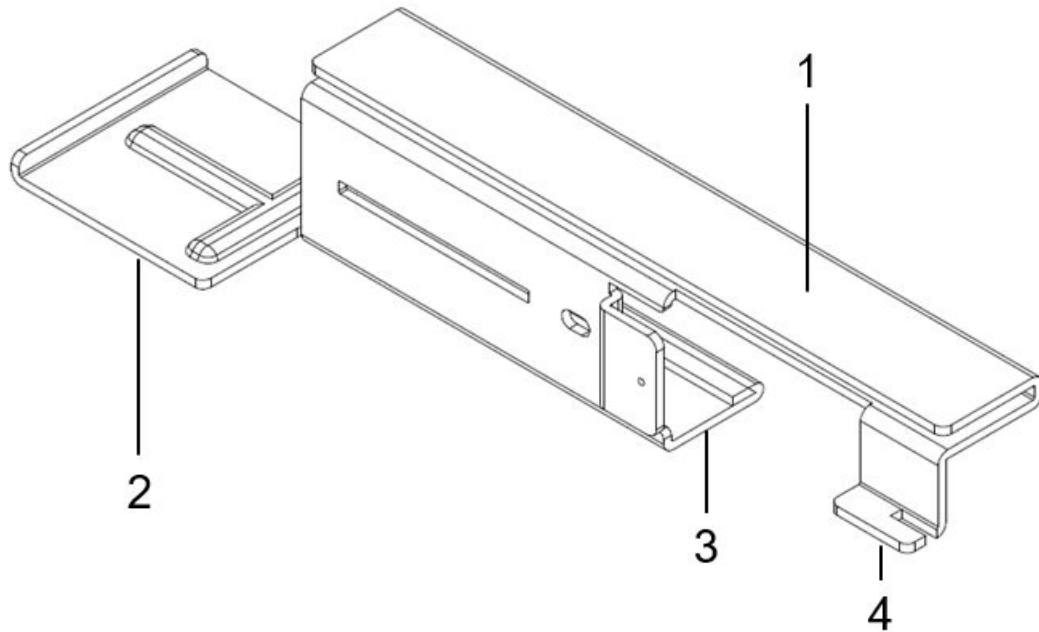


Figure 17: ACC-BKT-TB-NF Adapter

Callout	Description
1	Adapter guide for ceiling rail attachment
2	Adapter end
3	Indent for -NF second part attachment
4	Adapter tabs

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.

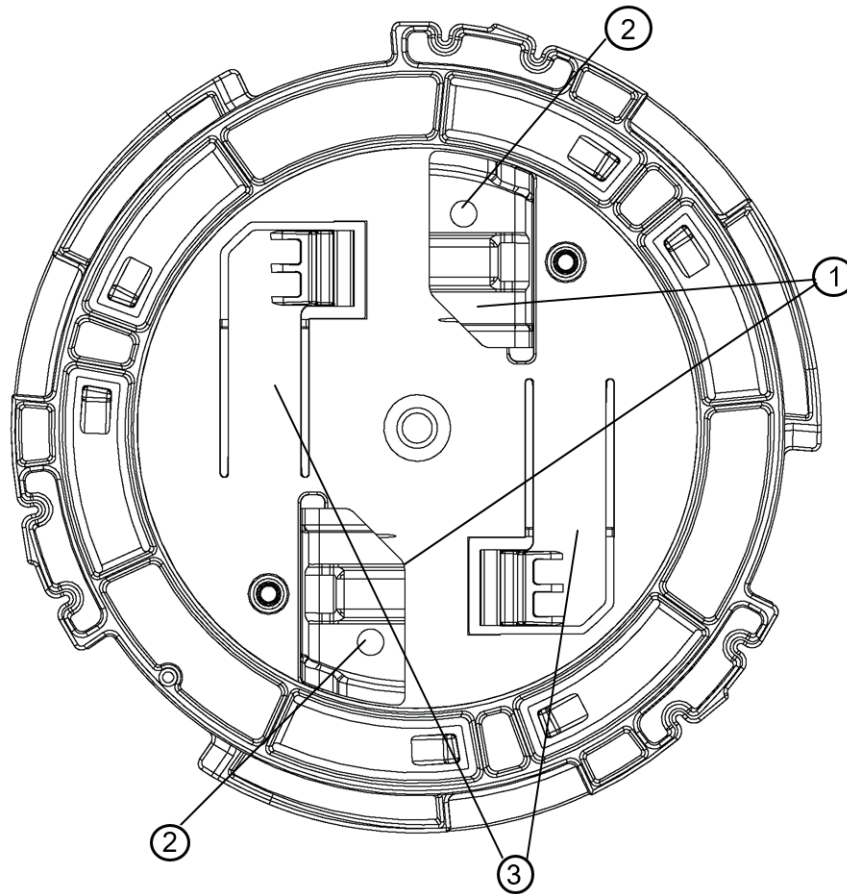


Figure 18: AH-ACC-BKT-AX-TB Accessory Bracket

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

- 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.

- Press and rotate the access point one-eighth of a turn clockwise until it clicks into place on the accessory.
- Connect the network cable.
- Replace the ceiling tiles.

Install the Access Point on a Junction Box

Before You Begin

You need the following items:

- One AP5020 access point
- ACC-BKT-AX-JB for junction box mounting.

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:

- A metal part that attaches to the junction box (also called the sheet-metal junction box hole plate)

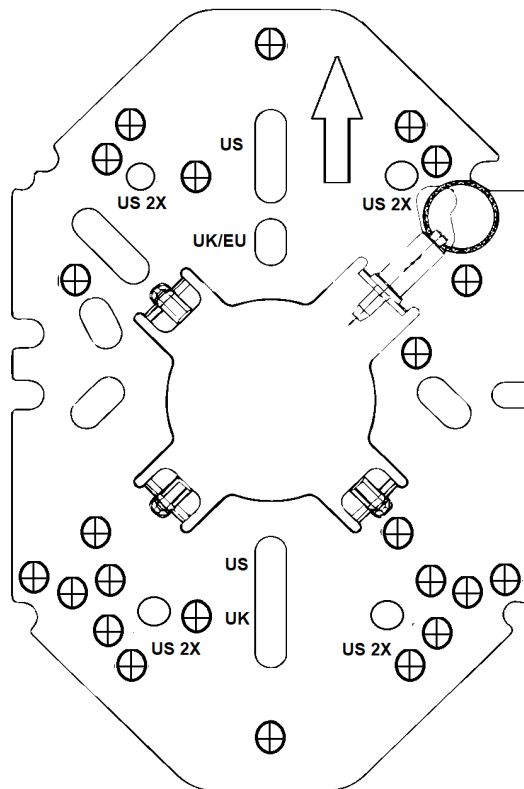


Figure 19: ACC-BKT-AX-JB Accessory Bracket Metal Part

- A plastic part that attaches to the metal part and the access point (also called the plastic twist plate)

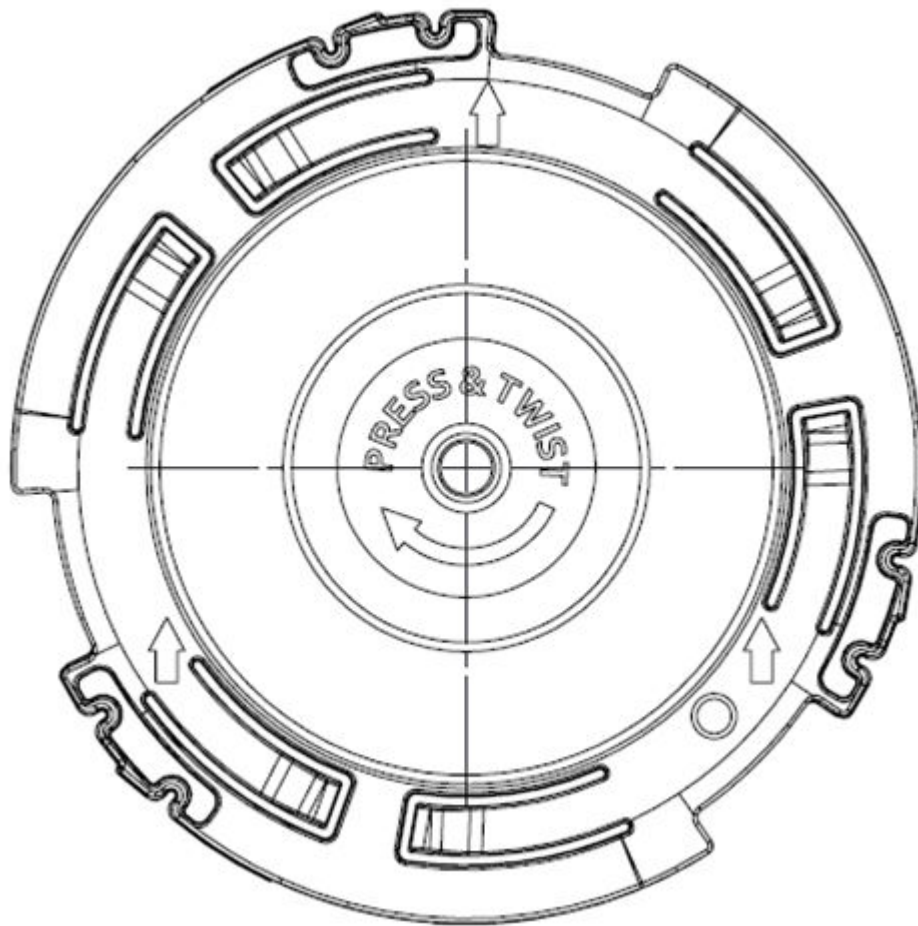


Figure 20: ACC-BKT-AX-JB Accessory Bracket Plastic Part

Procedure

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

Install the Access Point on a Beam

Before You Begin

You need the following items:

- One AP5020 access point
- ACC-BKT-AX-BEAM mounting bracket

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. Connect the network cable.
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.

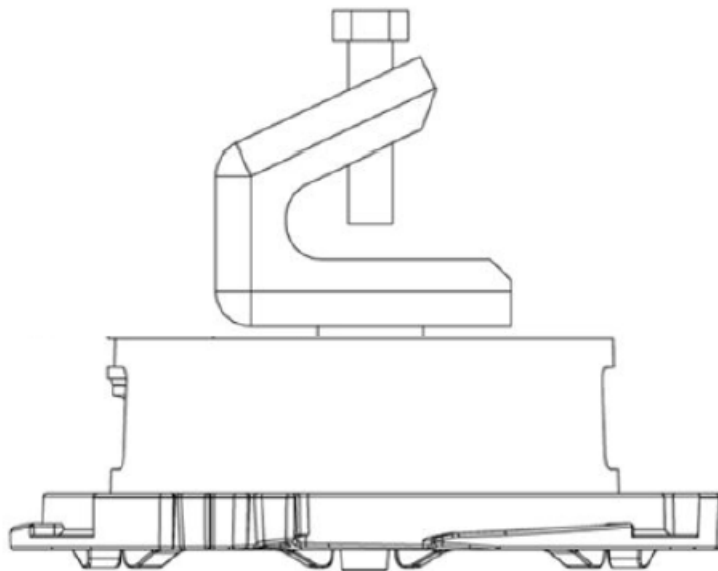


Figure 21: ACC-BKT-AX-BEAM Accessory Bracket

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

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 23: 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 22: AP5020 12V Port



Table 24: AP5020 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.

Lock Your Access Point

Before You Begin

You will need the following items:

- A Kensington security lock

About This Task

Secure the access point from damage or theft.



Figure 23: Kensington Security Slot

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 Information

- [Country of Manufacture](#) on page 53
- [Safety Guidelines](#) on page 54
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- [Professional Installation Instruction](#) on page 54
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The following sections outline the regulatory and compliance information for the AP5020.

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

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.

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 uniuquement 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.

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 54 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**

FCC Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 31 cm between the radiator and your body.

**Warning**

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

**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.

Low power indoor access point operation subject to following conditions:

1. Operation shall be limited to indoor use only.
2. Operation on oil platforms, automobiles, trains, maritime vessels and aircraft shall be prohibited except for on large aircraft flying above 3,048 m (10,000 ft)

Standard power access points subject to following conditions:

1. Operation on oil platforms, automobiles, trains, maritime vessels and aircraft shall be prohibited.
2. The antenna height shall be determined by the installer or operator of the standard-power access point or fixed client device, or by automatic means. This information shall be stored internally in the device. Provision of accurate device information is mandatory.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Fonctionnement du point d'accès intérieur à faible consommation sous réserve des conditions suivantes :

1. Le fonctionnement doit être limité à une utilisation en intérieur uniquement.
2. L'exploitation sur les plates-formes pétrolières, les automobiles, les trains, les navires maritimes et les avions est interdite, sauf sur les gros avions volant au-dessus de 3 048 m (10 000 ft).

Points d'accès à l'alimentation standard soumis aux conditions suivantes :

1. L'exploitation sur les plates-formes pétrolières, les automobiles, les trains, les navires et les avions est interdite.
2. La hauteur de l'antenne doit être déterminée par l'installateur ou l'opérateur du point d'accès à puissance standard ou de l'appareil client fixe, ou par des moyens automatiques. Ces informations doivent être stockées en interne dans l'appareil. La fourniture d'informations précises sur l'appareil est obligatoire.

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 กทท.

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。

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

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 20 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)

AP5020 EU	AP5020 UK
2412-2472MHz: 19.98 dBm	2412-2472MHz: 19.98 dBm
2402-2480MHz (BR/EDR): 9.95 dBm	2402-2480MHz (BR/EDR): 9.95 dBm
2402-2480MHz (LE): 9.95 dBm	2402-2480MHz (LE): 9.95 dBm
5180-5240MHz: 22.97 dBm	5180-5240MHz: 22.97 dBm
5260-5320MHz: 22.98 dBm	5260-5320MHz: 22.98 dBm
5500-5700: 29.97 dBm	5500-5700: 29.97 dBm
5745-5825MHz: 13.96 dBm	5745-5825MHz: 13.96 dBm
5955-6415MHz: 22.98 dBm	5925-6425 MHz: 22.9dBm

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)	○	○	○	○	○	○
<p>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.</p> <p>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.</p> <p>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.</p>						

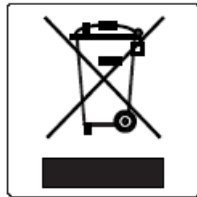
Declaration of Conformity in Languages of the European Community

English	Hereby, Extreme Networks declares that the radio equipment type (AP5020/AP5020WW) 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 (AP5020/AP5020WW) tyyppinen laite on direktiivin 2014/53/EU oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen. EU-vaatimusten mukaisuusvaatimuksen täydellisestä tekstistä ota yhteyttä äärimmäisiin säädösten noudattamiseen osoitteessa compliancerequest@extremenetworks.com

Dutch	Hierbij verklaart Extreme Networks dat het toestel Radio LAN device (AP5020/AP5020WW) 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 (AP5020/AP5020WW) 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 (AP5020/AP5020WW) överensstämmer 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 (AP5020/AP5020WW) 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 erkläre Extreme Networks die Übereinstimmung des "WLAN Wireless Controller bzw. Access Points" (AP5020/AP5020WW) 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 (AP5020/AP5020WW) ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΠΙΠΕΣ 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 lýsir her með yfir að thessi bunadur, Radio LAN device (AP5020/AP5020WW), uppfyllir allar grunnkröfur, sem gerðar eru í 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 (AP5020/AP5020WW) 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 (AP5020/AP5020WW) 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 (AP5020/AP5020WW) 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 (AP5020/AP5020WW) jikkonforma mal-htigijiet essenzjali u ma provvedimenti oħrajn rilevanti 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

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.



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