



Extreme networks AP5010 Indoor Access Points User Guide

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AP5010 and AP5010U Overview

The AP5010 and AP5010U are high-performance 802.11ax Wi-Fi 6E, 6 GHz, 5 GHz band, and 2.4 GHz band access points designed for high-density indoor environments. The access points support IEEE 802.11ax Orthogonal Frequency-Division Multiple Access (OFDMA) multi-user access. The access points can be installed indoors on a ceiling rail, on a nonstandard ceiling, or on a wall. The access points have the following features:

- One multicolor LED status light
For LED activity description, see “Status LED Activity Description”
- One light sensor located at the top of the device
- Two Ethernet ports – Eth0 and Eth1 Ethernet ports (Eth0 and Eth1) automatically negotiate full-duplex connections with the connecting device.
 - Eth0 is 5/2.5/1GE/100 with Power over Ethernet (PoE)
 - Eth1 is 2.5/1GE/100 with PoE power sourcing equipment (PSE)These ports are auto-sensing and adjust to straight-through and crossover standard Cat6 or better Ethernet cables automatically. The access point receives power through an Ethernet connection to the ETH0 port from PSE that is compatible with the 802.3bt and 802.3at standards.
- One USB port Use the USB port to connect USB-based beacons such as iBeacon and Internet of Things (IoT) devices. Remove the protective cover to access the USB port.
- One micro USB console port
- One reset button
- One Kensington lock The best practice is to use Kensington locks for locking the device.
- Temperature: Operating temperature: 0 °C to +50 °C (+32 °F to +122 °F) Storage temperature: -40 °C to +70 °C (-40 °F to +158 °F)
- Relative humidity: 0% to 95% non-condensing

Power Specifications

- IEEE 802.3bt PoE Power
- Ultra-wideband (UWB) support on AP5010U

Power Profile

	BT profile	AT profile	AT with USB	Power Supply
2.4G RF	18dBm, 4×4	18dBm, 4×4	18dBm, 3×3	18dBm, 4×4
5G RF	18dBm, 4×4	18dBm, 4×4	18dBm, 3×3	18dBm, 4×4
6G RF	18dBm, 4×4	18dBm, 4×4	18dBm, 3×3	18dBm, 4×4
BLE	Yes	Yes	Yes	Yes
UWB	Yes	Yes	Yes	Yes
2nd Ethernet port	Yes	Yes	Yes	Yes
USB (2.5W)	Yes	No	Yes	Yes
PSE (15.4W)	Yes	No	No	No

Power Options

- **Power Draw:**
Typical: 21.0 W;
Max: 25.5 W
- 802.3bt PoE capable
- Gigabit Ethernet port For detailed device and radio specifications, refer to the Data Sheet.

Figure 1 Hardware components

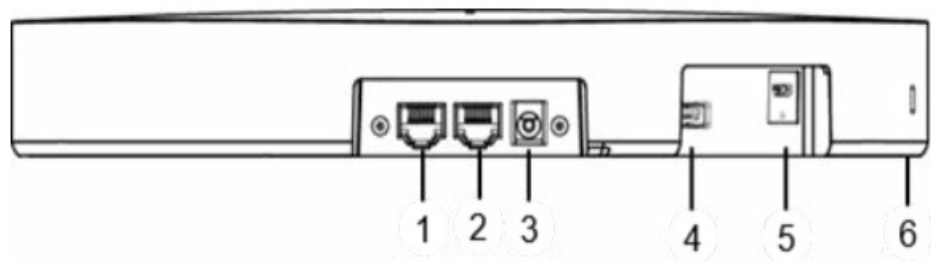


Table 1 AP5010 and AP5010U access points hardware ports

Callout	Description
1	Eth0/PoE+
2	ETH1
3	12V DC
4	USB port
5	Console

Status LED Activity Description

The access point has one status light on top of the chassis. The status light conveys operational states for system power, firmware updates, Ethernet and wireless interface activity, and major alarms.

IQ Engine Status LED Activity

- Dark: Power is off.
- **Solid white:** The device power is on and the access point is ready to use. The device has successfully established a Control And Provisioning of Wireless Access Points (CAPWAP) connection to Extreme Cloud IQ and is operating normally.
- Slow-blinking white: The device has a CAPWAP connection to Extreme Cloud IQ, but is operating on 802.3at power instead of 802.3bt power.
- **Solid amber:** The device power is on and the access point is in boot up mode, or is running without a CAPWAP connection. ·
- Slow-blinking amber: The device has no CAPWAP connection to Extreme Cloud IQ, and is operating on 802.3at power instead of 802.3bt power. · Fast-blinking amber: The device is updating its IQ Engine firmware.

Extreme Wireless WING Status LED Activity

- **Dark:** Power is off or access point is taken over by the controller. Configuration pushes down to access point from controller to turn off the LED completely.
- **Solid white:** The device is booting or already taken over by the controller.
- **Slow-blinking white:** The device is in the process of being taken over by the controller or has failed to be taken over by the controller.
- **Flashing fading white:** Configuration pushes down to access point from controller helping an user to locate the access point location using visual inspection.
- **Solid amber:** The access point is upgrading its firmware.
- **Fast-blinking amber:** The access point is acquiring DHCP IP.

Micro USB Console Port

Through the console port, you can make a serial connection between your management system and the access point.



Note: The best practice is to use the Extreme Networks micro USB cable (part number ACC-WIFI-MICRO-USB). 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.

Box Contents

Ensure that the following items are available:

Table 2 Contents of the AP5010 and AP5010U Box

Quantity	Item
1	An AP5010 or AP5010U access point
1	Mounting bracket for prelude T-bar ceiling installation (part number AHACC-BKT-AX-TB)
1	Quick Reference Guide

All optional brackets and accessories are sold separately. For detailed installation instructions about all mounting procedures, refer to the ExtremeWireless AP5010 and AP5010U Access Points Installation Guide and the 802.11ax and Cloud Access Points Accessories Guide in the Extreme Networks Documentation Support site.

Position the Access Point before Installation

There is a red dot on the back of the access point and the bracket to help you position the access point for installation. Line up the red dot on the access point and the bracket for ease of installation.

Install the Access Point



Electrical Hazard: Only qualified personnel must perform installation procedures.

Use these instructions as guidelines for mounting and connecting the AP5010 access point easily and safely.

Install the Access Point on a Standard Ceiling Rail

The access point ships with a mounting bracket for standard 15/16 in. dropped ceiling grid. For nonstandard ceiling rail installations, see “Install the Access Point on a Nonstandard Ceiling Grid or a Wall” .

1. Remove the ceiling tiles.
2. Align the accessory on the ceiling rail in such a way that the accessory 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 in the back of the accessory that holds on to the ceiling rail in place. Use your finger to push and unhook one side of the white tab if you want to remove the accessory from the ceiling rail.

Figure 2 AH-ACC-BKT-AX-TB bracket

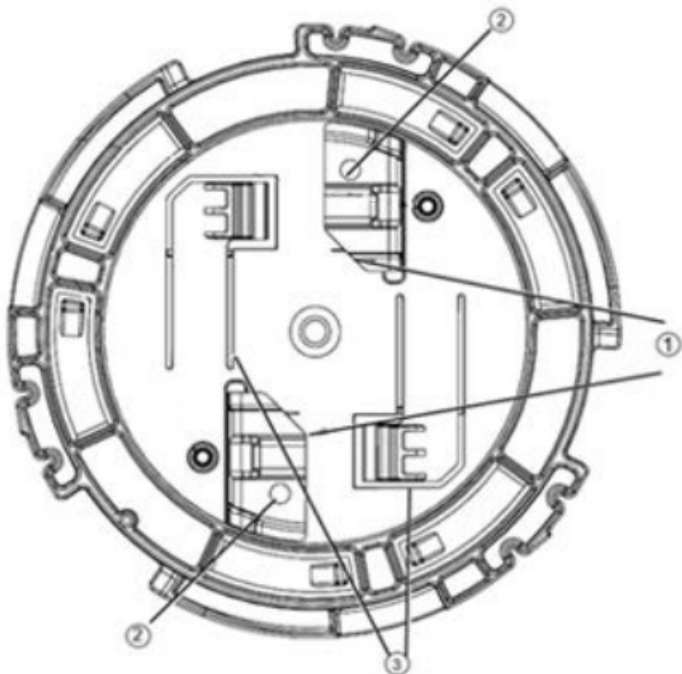


Table 3 AH-ACC-BKT-AX-TB bracket parts description

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 Ethernet port cap to the access point Ethernet port.
For more information about Ethernet cap, refer to Ethernet Cap Accessory Information on the 802.11ax and Cloud Access Points Accessories Guide.
5. Align the red dot on the back of the access point against the bracket red dot.



Note: The accessory 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 accessory

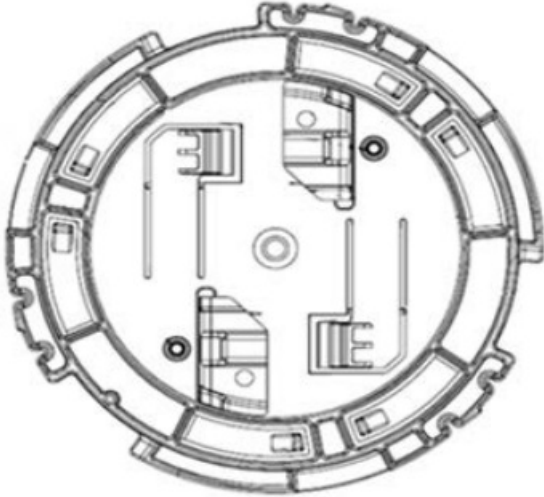
Figure 3 AP5010 access point ceiling install

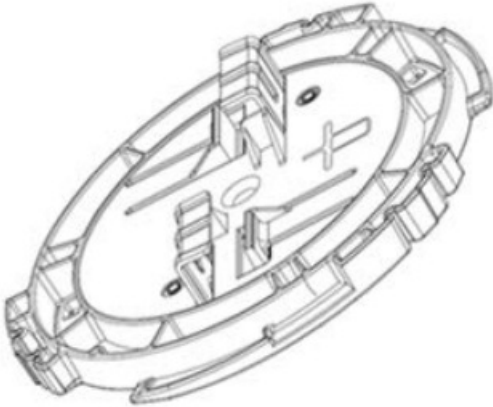

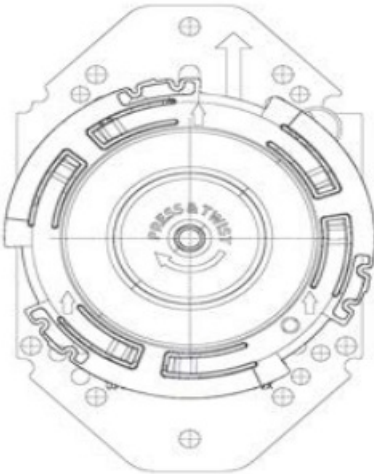


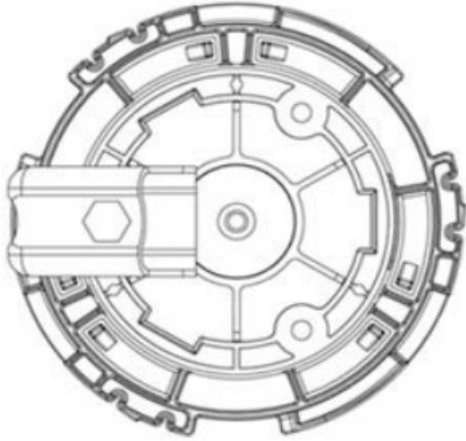
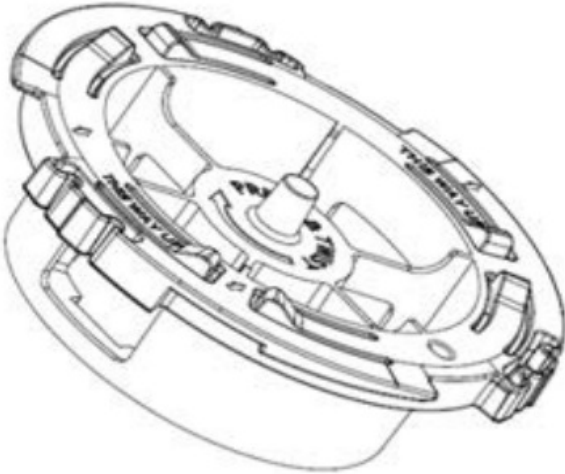
Install the Access Point on a Nonstandard Ceiling Grid or a Wall

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

Table 4 Nonstandard ceiling grid and wall accessories information

Bracket part number	Description
AH-ACC-BKT-AX-TB	<div>Mounting bracket for Prelude ceilings (15/16 in. ceiling grid), Suprafine ceilings (9/16 in. ceiling grid), and walls</div> <div></div>

<p>AH-ACC-BKT-AX-IL</p>	<p>Mounting bracket for Interlude (9/16 wide T-bar with protrusion) ceilings</p> 
<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> 

ACC-BKT-AX-BEAM	<p>Beam mounting for indoor access points</p> 
AH-ACC-BKT-AX-WL	<p>Mounting bracket for direct-to-wall installations</p> 



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

For detailed nonstandard ceiling grid installation or wall installation instructions, refer to the 802.11ax and Cloud Access Points Accessories Guide.

Lock the Access Point after Installation

Secure the access point by using the Kensington lock on the side of the access point. The security feature is used to prevent the access point from being removed from the mounting accessory.

Antenna Information

The access point has internal antennas.

- 4 Dual-band 2.4G/5G antenna
- 4 6G band antenna
- 2 Dual 5G/6G antenna
- 1 BLE antenna
- 1 UWB antenna (for AP5010U only)

Table 5 Maximum antenna gain

Software mode	Radio 1	Radio 2	Radio 3	IoT radio
Mode 1	2G, 4.2dBi	5G, 6dBi	6G, 5.2dBi	4.2dBi
Mode 2	2G, 4.2dBi 5G, 6dBi 6G, 6dBi	5G, 6dBi	6G, 5.2dBi	4.2dBi

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 procedure

Refer to the Extreme Wireless AP5010 and AP5010U Access Points Installation Guide



Warning: Select the installation position and ensure that the final output power does not exceed the limit set forth in relevant rules. The violation of the rule could lead to serious federal penalty.

Regulatory and Compliance Information Safety Guidelines

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

Qualified Personnel:



Electrical Hazard: 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 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.

Federal Communication Commission Interference Statement

FCC regulations restrict the operation of this device to indoor use only. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio or TV technician for help

Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device is restricted for indoor use. This equipment may only be operated indoors. Operation outdoors is in violation of 47 U.S.C. 301 and could subject the operator to serious legal penalties. 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. Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or Communications with unmanned aircraft systems.



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 43 cm for AP5010 and 45 cm for AP5010U between the radiator and your body.

Japan Indoor Use Statement

For Japan, AP5010 access point is restricted for indoor use in the 5150-5350 MHz band only.

Japan Voluntary Control Council for Interference (VCCI) Class B

European Union (EU) Radiation Warning Statement



Warning: This equipment complies with EU radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body.

Selling Countries:

 <p>Restrictions or requirements in the UK</p>	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)

Other Countries

Brazil site da ANATEL – www.anatel.gov.br

Brazil 6E Statement

- It is possible that this equipment or device does not cause disruptive interference and This equipment or device must accept any interference, including interference that may cause

UK Statement and CE Statement

This equipment complies with the UK and EEA radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body.

The frequency and the maximum transmitted power in the UK and European Conformity are listed below:

AP5010 CE

2402-2480MHz (LE): 7.99 dBm
2405-2480MHz: 8.03 dBm
2412-2472MHz: 19.99 dBm
5180-5240MHz: 22.99 dBm
5260-5320MHz: 22.99 dBm
5500-5700MHz: 29.97 dBm
5955-6415MHz: 22.99 dBm

AP5010 UK

2402-2480MHz (LE): 7.99 dBm
2405-2480MHz: 8.03 dBm
2412-2472MHz: 19.99 dBm
5180-5240MHz: 22.99 dBm
5260-5320MHz: 22.99 dBm
5500-5700MHz: 29.97 dBm
5745-5825 MHz: 22.98 dBm
5955-6415MHz: 22.99 dBm

AP5010U CE

2402-2480MHz (LE): 7.99 dBm
2405-2480MHz: 8.03 dBm
2412-2472MHz: 19.99 dBm
5180-5240MHz: 22.99 dBm
5260-5320MHz: 22.99 dBm
5500-5700MHz: 29.99 dBm
5955-6415MHz: 22.99 dBm
6489.6-7987.2MHz: -0.13 dBm/RBW (for AP5010U only)

AP5010U UK

2402-2480MHz (LE): 7.99 dBm
2405-2480MHz: 8.03 dBm
2412-2472MHz: 19.99 dBm
5180-5240MHz: 22.99 dBm
5260-5320MHz: 22.99 dBm
5500-5700MHz: 29.99 dBm
5745-5825 MHz: 22.98 dBm
5955-6415MHz: 22.99 dBm
6489.6-7987.2MHz: -0.13 dBm/RBW (for AP5010U only)



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

CE – The device is restricted to indoor use only when operating in the 5945 to 6425 MHz frequency range. **UK** – The device is restricted to indoor use only when operating in the 5925 to 6425 MHz frequency range. Hereby,

Extreme Networks declares that the radio equipments AP5010 and AP5010U are in compliance with Radio Equipment Regulations 2017. For more details, contact Extreme Compliance Request at ComplianceRequest@extremenetworks.com.

Extreme Networks UK Address

Extreme Networks, UK Ltd. 250 Longwater Avenue Green Park 1st Floor Reading, UK

Extreme Networks EU Importer Address

Extreme Networks, Ireland Ops Ltd. Rineanna House Shannon Industrial Estate Shannon, V14CA36 Ireland

Industry Canada Notice



Warning: For indoor use only. t.

Operation on oil platforms, cars, trains, boats, and aircraft are prohibited except for on large aircraft flying above 10,000 ft. . This device complies withISED'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



Warning: IC Radiation Exposure Statement: 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 of 40 cm between the radiator and your body.



Caution: 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.

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 colocated or operating in conjunction with any other antenna or transmitter.

Taiwan Regulatory Statement

Taiwan Maximum Permissible Exposure (MPE) Warning

Hazardous Substances

This product complies with the requirements of Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

European Waste Electrical and Electronic Equipment (WEEE) Notice

In accordance with Directive 2012/19/EU of the European Parliament on waste electrical and electronic equipment (WEEE):

1. The symbol above indicates that separate collection of electrical and electronic equipment is required.
2. When this product has reached the end of its serviceable life, it cannot be disposed of as unsorted municipal waste. It must be collected and treated separately.
3. It has been determined by the European Parliament that there are potential negative effects on the

environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment. 4 It is the users' responsibility to utilize the available collection system to ensure WEEE is properly treated. For information about the available collection system, please contact Extreme Environmental Compliance at Green@extremenetworks.com.

Supplement to Product Instructions

Declaration of Conformity in Languages of the European Community

Hereby, Extreme Networks declares that the radio equipment type (AP5010 or AP5010U) is in compliance with Directive 2014/53/EU. For full text of the EU Declaration of Conformity, please contact Extreme Regulatory Compliance at compliancerequest@extremenetworks.com

Hereby, Extreme Networks declares that the radio equipment type (AP5010 or AP5010U) is in compliance with Directive 2014/53/EU. For full text of the EU Declaration of Conformity, please contact Extreme Regulatory Compliance at compliancerequest@extremenetworks.com

ExtremeWireless™ Indoor Access Points

Quick Reference

AP5010-WW AP5010U-WW

Scan to Download the XIQ Mobile Application

Commission, monitor, and troubleshoot devices at ease with XIQ Companion mobile application (supported on iOS and Android). Use your mobile device camera to scan the serial number, capture installation images, assign or change device location, and network policy. The XIQ Companion mobile application enables you to access the device CLI for troubleshooting and view device and client status.



XIQ iOS Mobile App



XIQ Android Mobile App

Scan for Product Support Details



XIQ Onboarding



Documentation



Product Videos

Notice

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Documents / Resources

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