

ExtremeWireless 802.11ax AP510C/CX Indoor Access Points

AP510C/CX Overview

The AP510C/CX access points are high-performance 802.11ax dual-5G, dual-band access points designed for high-density indoor environments that require high definition (HD) video streaming and large file transfers. The AP510CX access point has external antennas, that are sold separately.

The access point can be installed on an indoor environment such as a ceiling rail, on non-standard ceilings, and on a wall.

The AP510C/CX access points have the following features:

- Radio technology: two built-in dual-band radios
- Kensington lock
- ETH0 Ethernet port:
 - autosensing 100/1000/2500G BASE-T/TX Mbps, with IEEE 802.3af or 802.3at compliant Power over Ethernet (PoE), and requires a Cat6 cable
- Eth1 Ethernet port:
 - autosensing 10/100/1000 BASE-T/TX Mbps, with IEEE 802.3af- or 802.3at-compliant PoE
- Antennas:
 - AP510C - four internal omnidirectional 2.4 GHz/5 GHz dual-band antennas and 4 internal omnidirectional 5 GHz antennas
 - AP510CX option 1 - four external omnidirectional 2.4 GHz/5 GHz dual-band antennas and 4 external omnidirectional 5 GHz antennas
 - One dual-band antenna is shared between Wi-Fi and Bluetooth Low Energy (BLE)
 - AP510CX option 2 - 8 internal omnidirectional 5 GHz antennas
- Power source - 802.3af and 802.3at power over Ethernet injector
- Temperature:
 - AP510C operating temperature: 0 °C to +40 °C (+32 °F to +104 °F)
 - AP510CX operating temperature: -20°C to +55 °C (-4 °F to +131 °F)
 - Storage temperature: -40 °C to +80 °C (-40 °F to +176 °F)
 - Relative humidity: 5% to 95% (non-condensing)

For detailed device and radio specifications, refer to the *AP510C/CX Data Sheet*.

Figure 1 Front views of AP510C/CX

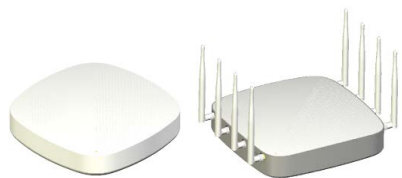


Figure 2 AP510C/CX access point hardware components



Table 1 Side ports on AP510C/CX access point

Callout	Description
1	ETH0 port
2	ETH1 port
3	DC power
4	Console port
5	USB port
6	Reset button
7	Security slot

Status LED

The AP510C/CX have a rectangular status light on the top right corner of the chassis. The status light conveys operational states for system power, firmware updates, Ethernet and wireless interface activity, and major alarms.

- Steady white: 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 802.3af power instead of 802.3at power.
- Fast-blinking white: The device is looking for a mesh neighbor from which to obtain a password.
- Steady amber: The device is initializing, rebooting, or is running without a CAPWAP connection.
- Slow-blinking amber (AF power mode only): The device has no CAPWAP connection to ExtremeCloud IQ, and is operating on 802.3af power instead of 802.3at power.
- Fast-blinking amber: The device is upgrading its IQ Engine firmware.
- Dark: power is off.

Micro USB Console Port

The console port is located at the bottom of the access point. Through the console port, you can make a serial connection between your management system and the access point.

AP510C/CX Box Contents

Ensure that the following items are available:

Table 2 Contents of the AP510C/CX Box

Quantity	Item
1	Read Me card
1	An access point you have ordered (AP510C or AP510CX)
1	Mounting bracket for prelude T-bar ceiling installation (part number AH-ACC-BKT-AX-TB)

All optional brackets and accessories are sold separately. For detailed installation instructions about all mounting procedures, refer to the *ExtremeWireless AP510C/CX Access Point Installation 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 that will work as a guide to 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 AP510C/CX access points easily and safely.

Install the Access Point on a Standard Ceiling Rail

The AP510C/CX access points ship with a mounting bracket for standard 15/16 in. dropped ceiling grid. For non-standard ceiling rail installations, see "Install the Access Point on a Non-Standard 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 3 AH-ACC-BKT-AX-TB bracket

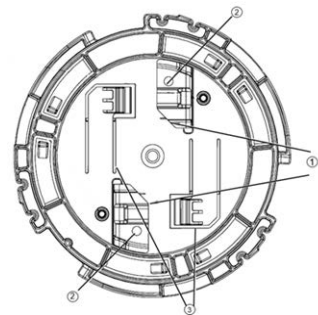


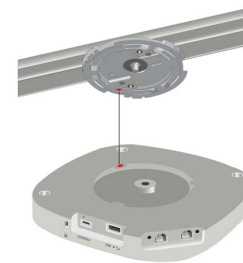
Table 3 AH-ACC-BKT-AX-Tb bracket parts description

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 *WiFi6 802.11ax 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.

Figure 4 Access point alignment against the red dot on the -TB bracket



- 6 Press and rotate the access point 1/8th turn clockwise until it clicks into place on the accessory.
- 7 Attach the Cat6 RJ45 cable to the ETH0 or ETH1 port.
- 8 Place the cable cover over the Ethernet cable.
- 9 Replace the ceiling tiles.

Install the Access Point on a Non-Standard Ceiling Grid or a Wall

For detailed non-standard ceiling grid installation or wall installation instructions, refer to the *WiFi6 802.11ax Access Points Accessories Guide*.

The access point can be installed on a non-standard ceiling grid using the following accessories:

Table 4 Non-standard ceiling grid and wall accessories information

Bracket part number	Description
ACC-BKT-AX-BEAM	Beam mounting for indoor access points
AH-ACC-BKT-AX-TB	Mounting bracket for prelude 15/16 in. dropped ceiling grid
AH-ACC-BKT-AX-IL	Mounting bracket for interlude ceilings and suprafine 9/16 in. ceilings and walls
AH-ACC-BKT-AX-SL	Mounting bracket for silhouette 1/8 in. and silhouette 1/4 in. ceiling grids
ACC-BKT-AX-JB	Junction box or wall mounting for indoor access points

Bracket 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-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.

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.

Connect the Access Point to the Network

- 1 Plug the AC power supply into the 12V port on the device and into a standard wall socket.
- 2 Connect an Ethernet cable to the RJ45 port and to a modem or other network device.
- 3 After the access point receives power, it automatically tries to get network settings and contact ExtremeCloud IQ. When you see the access point listed on the Devices page in the Manage section of the ExtremeCloud IQ GUI, the initial setup is complete and you can begin managing the access point with ExtremeCloud IQ.

Antenna Gain Information

	Radio 0	Radio 1	IoT
Fixed dual	2.4 GHz (4.5 dBi)	5 GHz (6 dBi)	4.2 dBi
Dual 5G	5 GHz (5.7 dBi)	5 GHz (6 dBi)	4.2 dBi

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 *ExtremeWireless AP510C/CX Access Point 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.

Instructions d'installation professionnelle

Installation

Ce produit est destiné à un usage spécifique et doit être installé par un personnel qualifié maîtrisant les radiofréquences et les règles s'y rapportant. L'installation et les réglages ne doivent pas être modifiés par l'utilisateur final.

Procédure d'installation

Consultez le manuel d'utilisation *ExtremeWireless AP510C/CX Access Point Installation Guide*.

Warning: Avertissement: Choisir avec soin la position d'installation et s'assurer que la puissance de sortie ne dépasse pas les limites en vigueur. La violation de cette règle peut conduire à de sérieuses pénalités fédérales.

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.

Japan Indoor Use Statement

For Japan, the AP510C and AP510CX are restricted for indoor use in the 5150-5350 MHz band only.

Japan Voluntary Control Council for Interference (VCCI) - Class B

この装置は、クラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。

取扱説明書に従って正しい取り扱いをして下さい。 VCCI—B

Conformité Européenne (CE) Information

Warning: CE co-location MPE Statement: This equipment complies with CE 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 device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range.

Selling Countries:

	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

CE Marking and European Area (EEA)

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

Other Countries

Brazil

Este produto está homologado pela ANATEL, de acordo com os procedimentos regulamentados pela Resolução n°. 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

Mexico Compliance Statement

La operacion de este equipo esta 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 operacion 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.

Industry Canada Notice

Warning: For indoor use only.
Pour une utilisation en intérieur uniquement.

This device complies with ISSED's licence-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

Caution: 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.

Caution: Avertissement: 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 radio transmitter [IC: 4141B-AP510CX] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed in *ExtremeWireless AP510C/CX Access Point Installation Guide*, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Le présent émetteur radio [IC: 4141B-AP510CX] a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne répertoriés dans le Guide d'installation des points d'accès sans fil extrêmes AP510C/CX, avec le un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué pour tout type figurant sur la liste, sont strictement interdits pour l'exploitation de l'émetteur.

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.

Warning: Radiation Exposure Statement: This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment must be installed and operated with minimum distance 30 cm between the radiator and people or animals.

Warning: Déclaration d'exposition aux radiations: 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 30 cm de distance entre la source de rayonnement et des personnes ou des animaux.

Taiwan Regulatory Statement

第十二條一經型式認證合格之低功率射頻電機，非經許可，公司，商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。第十四條一低功射頻電機之使用得影響飛航安全及干擾合法通信；經發現有干擾現象時，應即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功射頻電機須忍受合法通信或工業、科學及醫用電波射性電機設備之干擾。在 5.25-5.35 赫赫頻帶操作之無線資訊傳輸設備，限於室內使用。無線資訊傳輸設備的製造廠商應確保頻穩定性，如依製造廠商使用手冊上所述正常操作，發射的信號應維持於操作頻帶中。

Taiwan Maximum Permissible Exposure (MPE) Warning

電磁波曝露量MPE 標準?(MPE) 1mW/cm². 測測?品質?為0.734 mW/cm²

Avoid affecting the operation of nearby radar systems. 應避免影響附近雷達系統之操作

High-gain directional antennas can only be used in stationary point-to-point systems. 高增益指向性天線只得應用於固定式點對點系統。

Supplement to Product Instructions

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

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

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

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

European Waste Electrical and Electronic Equipment (WEEE) Notice



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

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

- 4 It is the 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.

Declaration of Conformity in Languages of the European Community

English Hereby, Extreme Networks declares that the radio equipment type (AP510C/CX) 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

Finnish Täten Extreme Networks vakuuttaa, että Radio laite tyyppi (AP510C/CX) on direktiivin 2014/53/EU mukainen.EU vaatimustenmukaisuusvakuutuksen täydellisestä tekstistä ota yhteyttä äärimmäisiin viranomais säädöksiin osoitteessa compliancerequest@extremenetworks.com

Dutch Extreme Networks verklaart hierbij dat het type radioapparatuur (AP510C/CX) in overeenstemming is met richtlijn 2014/53/EU.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 le type d'équipement radio (AP510C/CX) est conforme à la directive 2014/53/UE.Pour le texte intégral de la Déclaration de conformité de l'UE, veuillez communiquer avec Extreme Regulatory Compliance à compliancerequest@extremenetworks.com

Swedish Härmed intygar Extreme Networks att radioutrustning typ (AP510C/CX) överensstämmer med direktiv 2014/53/EU.För fullständig text av EU-försäkran om överensstämmelse, vänligen kontakta Extreme regelförfarlevnad på compliancerequest@extremenetworks.com

Danish Herved erklærer Extreme Networks, at radioudstyrs typen (AP510C/CX) er i overensstemmelse med direktiv 2014/53/EU.For den fulde ordlyd af EU-overensstemmelseserklæringen bedes du kontakte Extreme Regulatory Compliance på compliancerequest@extremenetworks.com

German Dabei erklärt Extreme Networks, dass der Funkgerätetyp (AP510C/CX) mit der Richtlinie 2014/53/EU im Einklang steht.Für den vollständigen Wortlaut der EU-Konformitätserklärung wenden Sie sich bitte an extreme Regulatory Compliance unter compliancerequest@extremenetworks.com

Greek Με την παρούσα, ακραία δίκτυα δηλώνουν ότι ο τύπος του ραδιοεξοπλισμού (AP510C/CX) συμμορφώνεται με την οδηγία 2014/53/EE.Για το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ, παρακαλούμε επικοινωνήστε με την ακραία κανονιστική συμμόρφωση στο compliancerequest@extremenetworks.com

Icelandic Hérleendis, Extreme Networks, lýsa því yfir að útvarpsbúnaðargerðin (AP510C/CX) sé í samræmi við tilskipun 2014/53/ESB.Fyrir fullan texta í ESB yfirlýsingu um samræmi, vinsamlegast hafðu samband við Extreme Reglufylgni á compliancerequest@extremenetworks.com

Italian Di conseguenza, Extreme Networks dichiara che il tipo di apparecchiature radio (AP510C/CX) è conforme alla direttiva 2014/53/EU.Per il testo integrale della Dichiarazione di conformità dell'UE, contattare Extreme Regulatory Compliance presso compliancerequest@extremenetworks.com

Spanish Por la presente, Extreme Networks declara que el tipo de equipo radioeléctrico (AP510C/CX) cumple con la Directiva 2014/53/UE.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 Por este meio, a Extreme Networks declara que o tipo de equipamento de rádio (AP510C/CX) está em conformidade com a Diretiva 2014/53/UE.Para obter o texto integral da Declaração de Conformidade da UE, contacte o cumprimento regulamentar extremo em compliancerequest@extremenetworks.com

Malti B' dan, networks estremi, jiddikjara li t-tip ta ' taghmir tar-radju (AP510C/CX) huwa konformi mad-Direttiva 2014/53/UE.Ghat-test shih tad-dikjarazzjoni ta ' konformità tal-UE, jekk joghgbok ikkuntattja lill-konformità regulatorja compliancerequest@extremenetworks.com

Extreme Wireless™ Indoor Access Points

Quick Reference

AP510C/CX

Notice

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