

ExtremeWireless 802.11ax Wi-Fi 6E Outdoor AP5050D Access Point

Overview of AP5050D

The AP5050D is a 802.11ax stadium-optimized overhead Wi-Fi 6E outdoor access point. It supports high density of users and devices. The AP5050D access point offers flexible deployment options and can be mounted to a wall or to a pole using the KT-147407-02, KT-150173-01, and MBO-ART03 mounting brackets, thereby ensuring exceptional mobile experience throughout the stadium. For more information, see *Extreme Wireless 802.11ax Wi-Fi 6E Outdoor AP5050D Access Point Installation Guide*.

AP5050D Box Contents

Ensure that the following items are available:

Quantity	Item
1	AP5050D access point.
1	Quick Reference Guide.
1	The Hardware Kit hardware bag containing the following hardware components: <ul style="list-style-type: none"> One plastic service panel base. One plastic service panel top with one captive screw. Four 75 mm service panel shoulder screws.
10	Black gaskets for use with a CAT6 and CAT6A cable. This is packaged as 5 Bags of 2 gaskets for a total of 10 gaskets.

The access point ships with two black gaskets in the box for use with Category 6 (CAT 6) Ethernet cables with a cable diameter from 6.0mm to 9.2mm. This includes unshielded twisted-pair (UTP) Cat 6 cables. Store these gaskets in a safe place if you do not use them right away.

The access point has light-gray gaskets pre-installed in the access point glands. The light-gray gasket handles all CAT 5 and CAT 5E cables, with a cable diameter range from 4.5mm to 6.0mm.

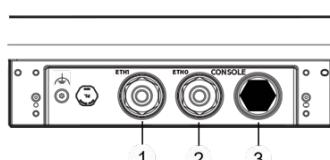
Features

The AP5050D access point has the following features:

- Radios: 3 radios (2.4GHz, 5.0 GHz, and 6 GHz); 1 IoT Radio (BLE/802.15.4)
- One micro USB console port
 - You can order a micro USB console adapter for the access point using the part number ACC-WIFI-MICRO-USB
- Two Ethernet ports:
 - ETH0 is 1x100/1000/2500/5000 Mpbs auto-negotiation Ethernet port, RJ45 (PoE)
 - ETH1 is 1x100/1000/2500 Mpbs auto-negotiation Ethernet port, RJ45 (PSE)
- Dimensions: 11.3 in. x 18.9 in. x 3.5 in. (288 mm x 481 mm x 88 mm)
- One dual LED
- For LED activity description, see "Status LED Activity Description"
- 3 mm diameter safety hanger provision
- Power: PoE 802.3at with 4x4x4
- For complete power profile information, refer to the *ExtremeWireless AP5050D Access Point Installation Guide* at the Extreme Networks Documentation Site.
- Antennas:
 - Two software selectable internal antennas (30 degree and 70 degree directional antennas)
- Temperature:
 - 40°C to +60°C (-40°F to +140°F) operating temperature
 - 40°C to +70°C (-40°F to +158°F) storage temperature
- Enclosure: Radome plastic with an aluminum base.

The service panel can be used on wall or pole mount using the Hardware Kit to protect the Glands or hide them for aesthetics. You need to order the Hardware Kit. This is not required.

Figure 1 AP5050D side ports



Callout	Description
1	ETH1 (PSE) port
2	ETH0 (PoE) port
3	Console port

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 **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 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 **ExtremeCloud IQ**, and is operating on 802.3at power instead of 802.3bt power.
- Fast-blinking amber: The device is updating its IQ Engine firmware.

ExtremeCloud IQ Controller Status LED Activity

- Dark: Power is off or the LED has been turned off.
- 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.

Mounting Accessories

AP5050D can be mounted to a wall or to a pole by using a mounting kit that can be purchased separately, which is described in the following table. The following table lists the mounting options available.

Mounting bracket	Wall install	Pole install	Notes
KT-147407-02 bracket; comes with three bracket parts	Yes	Yes	1-axis +/-15 degree tilt
KT-150173-01; extension arm; used with KT-147407-02 bracket parts	Yes; place the KT-150173-01 extension arm on top of the 1-axis KT-147407-02 tilt part	Yes; attach the KT-147407-02 pole part to the extension arm	-
MBO-ART03	Yes	Yes, attach the KT-147407-02 pole part to the MBO-ART03	The articulating mounting bracket is paired with the KT-147407-02 bracket for pole installations. For wall installations, the wall must be strong enough to support the access point during inclement weather.

Note: The AP5050D access point cannot be installed without the mounting brackets.

Warning: When installing the access point on a wall or to a pole, the cable glands must face down.

For complete installation information and installation using other compatible brackets and accessories, refer to the *ExtremeWireless AP5050D Access Point Installation Guide* at the Extreme Networks Documentation Site.

The KT-147407-02 bracket has three parts:

- Flat part with holes on the metal surface
- 1-axis tilt part
- Boxed pole part with step edge

Available Accessories

The following accessories are available:

Item	Description
ACC-CAT6-LAN-GSKT	A black gasket. For use with a CAT6 and CAT6A cable. The gasket ships with the AP5050D and AP5050U RevAB and later.
ACC-WIFI-MICRO-USB	Micro USB cable Used for troubleshooting issues.
KT-147407-02	A stainless steel mounting kit for mounting access points outdoors.
KT-150173-01	A 12-inch extension arm for pole and wall mounting.
MBO-ART03	An unistrut mounting bracket with 2-axis tilt, +/- 80-degree in 10 degree increments, and variable 7.5", 9" or 10.5" extension.
Hardware Kit (Service Panel)	An aesthetic or protective cover for the AP560/AP5050 glands and other IO.

Install the AP5050D Access Point on a Wall or a Flat Surface Using the KT-147407-02 Wall Bracket Parts

Note: Only qualified professionals must perform the installation procedures.

- Attach the flat part of the KT-147407-02 bracket to the access point using two M6 screws.
- Using the 1-axis tilt bracket as a template, mark and drill four holes on a wall or on a flat surface.
- Attach the 1-axis tilt bracket to a wall or flat surface using four M6 head size screws.

- Align the 1-axis tilt bracket part inside the flat part of the KT-147407-02 bracket, and attach the flat bracket to the 1-axis tilt bracket using four M6 screws.
- Tilt the access point to a desired angle and tighten the four M6 screws to a torque of 45 in-lbs.

Note: The 1-axis tilt bracket has +15 degrees to -15 degrees of tilt.

Install the AP5050D Access Point to a Pole Using the KT-147407-02 Bracket Parts

The AP5050D access point can be mounted on a pole using:

- All the KT-147407-02 bracket parts
- KT-147407-02 bracket pole part

Install the AP5050D Access Point to a Pole Using all the KT-147407-02 Bracket Parts

Note: You need to provide your own stainless-steel cable clamps. The band must be 1/2 in. (12.7 mm) wide and should be made of stainless steel.

- Attach the KT-147407-02 flat part to the access point using two M6 screws.
- Align the 1-axis tilt bracket part inside the flat part of the KT-147407-02 bracket, and attach the flat bracket to the 1-axis tilt bracket using four M6 screws.
- Attach the KT-147407-02 pole part to the 1-axis tilt bracket using two M12 bolts through the large bracket holes on the 1-axis tilt bracket and the pole bracket.
- Fasten the bolts using two M12 hex nuts.
- Insert two 0.5 in. stainless-steel cable clamp through the long slots on the pole bracket.
- Position the cable clamps on the pole bracket around a pole and attach the pole bracket.
- Insert the ends of the cable clamps around the pole and tighten the clamp screws to a torque of 11 in-lbs.

Secure the Access Point after Installation

You can secure the access point to the mounting environment using a 3 mm diameter safety cable. The safety cable is used to enhance the physical security of the access point after installation.

You must supply the following hardware must for safety cable installation:

- A 3 mm diameter security cable
- Lock to secure the ends of the security cable
- Insert the safety cable through the security cable hole on the metal base of the access point.
- Push the cable through the security hole until you see it come out on the other side of the metal base.
- Insert a lock through the looped ends of the cable and lock it in place.
- Tighten the ground screw to 8 in-lbs.

Power or Pressure Washing Guidelines

Ensure that your pressure washing equipment fulfills the following specifications:

- Pressure washer Pounds per Square Inch (PSI) must be less than 4000psi.
- Do not use a nozzle with less than 15-degree washer tip.
- The pressure washing nozzle must be at least 24 in. away from the access point.

Note: The best practice is to follow the pressure washing guidelines for longevity of the access point parts.

Cleaning solution specifications:

- Use only commercially available cleaning agents and solvents to clean the access point.
- Use only commercially available ice-melt products.

Warning: Do not use cleaning agents, solvents, and ice-melt products that are flammable, contain polycarbonate or rubber dissolving ingredients, uses refined petrochemical materials, and any other materials that can damage a concrete surface.

Note: Do not use the power washing equipment near power lines.

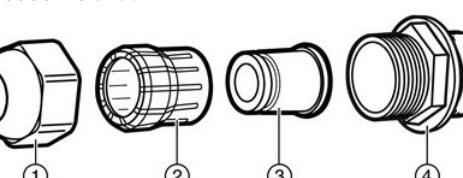
Note: Wear safety goggles with complete eye protection when using the power washing equipment.

You can pressure wash the access point and the surface around the access point to remove dirt and debris.

Connect the ETH1 or ETH0 cable

The ETH1 or ETH0 cable is connected through the ETH1 or ETH0 gland port.

Figure 2 AP5050D Glands



Callout	Description
1	Gland cap
2	Gland cage

Callout	Description
3	Gland LAN cable gasket
4	Gland body - Do not remove the gland body. This is a factory sealed component; do not remove from housing.

Note: Ensure that you use the correct gasket for your LAN cable.

Option 1: Pre-installed on the access point gland. The gray gasket is for CAT5 and CAT5E cables. It has a cable diameter range of 4.5-6.0mm.

Option 2: Included in the box in a plastic bag. The black gasket is for all CAT6, including /UTP cables, and CAT6A cables. It has a cable diameter range of 6.0-9.2mm.

- Attach the ground wire to the access point.
- Remove the ETH0 port gland cap, plastic cage, and gasket.
- Connect the ETH0 cable through the ETH0 gland port until it clicks into place. If there is a ETH1 connection, insert the cable through the ETH1 gland port until it locks into place.
- Slide the plastic cage over the gland and into the gland body, and then secure it with the gland cap.
- Torque the gland cap to 12-in lbs.

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 installation guide for details.

Warning: Carefully select the installation position and ensure that the final output power does not exceed the limit set forth in relevant rules. 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

Japan Indoor Use Statement

For Japan, AP5050D access point is 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機器です。この装置は、住宅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

Translation:

This is a Class B equipment. Although this equipment is intended for use in a residential environment, it could cause poor reception if used near a radio or a television receiver. Please follow instructions in the instruction manual.

VCCI-B

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

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(NI)	

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

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

AP5050D EU	AP5050D UK
2400-2483.5MHz: 19.99 dBm	2400-2483.5MHz: 19.99 dBm
2400-2483.5MHz(LE): 6.59 dBm	2400-2483.5MHz(LE): 6.59 dBm
2400-2483.5MHz (802.15.4): 6.89 dBm	2400-2483.5MHz (802.15.4): 6.89 dBm
5150-5250MHz: 22.94 dBm	5150-5250MHz: 22.94 dBm
5250-5350MHz: 22.97 dBm	5250-5350MHz: 22.97 dBm
5470-5725MHz: 28.28 dBm	5470-5725MHz: 28.28 dBm
5725-5850MHz(EN 300 440): 13.96 dBm	5725-5850MHz(EN 300 440): 13.96 dBm

Warning: EU/UK 21cm radiation distance This equipment complies with EU/UK radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 21cm between the radiator and your body.

Brazil Compliance Statement

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.

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

O produto poderá operar na faixa de 5150-5350MHz somente em ambientes fechado (indoor).

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.

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

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.

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.

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 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.

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.

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。

請至此連結閱讀中文說明：<https://www.extremenetworks.com/support/documentation/>
ExtremeWireless 802.11ax Wi-Fi 6E 室外 AP5050D 無線接入點無線電：3 個無線電 (2.4GHz、5 GHz 和 6 GHz); 1 個物聯網無線電 (BLE/802.15.4)

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.

Thailand Regulatory Statement

เครื่องโทรศัพท์มือถือและอุปกรณ์นี้

มีความสอดคล้องตามมาตรฐานหรือข้อกำหนดทางเทคนิคของ กสทช.

MPE

เครื่องวิทยุคมนาคมที่มีระดับการแพรคลื่นแม่เหล็กไฟฟ้าสอดคล้องตามมาตรฐานความปลอดภัยต่อสุขภาพของมนุษย์จากการใช้เครื่องวิทยุคมนาคมที่คณะกรรมการการกีจการโทรศัพท์มือถือและสื่อสารแห่งชาติประกาศกำหนด



Declaration of Conformity in Languages of the European and United Kingdom Community

English

Hereby, Extreme Networks declares that the radio equipment type (AP5050D) is in compliance with Radio Equipment Regulations 2017 and Directive 2014/53/EU. For full text of the EU and UK Declaration of Conformity, please contact Extreme Regulatory Compliance at compliancerequest@extremenetworks.com

Finnish

Täten Extreme Networks vakuuttaa, että radiolaitetyyppi (AP5050D) on Radio Equipment Regulations 2017 -säännösten ja direktiivin 2014/53/EU mukainen. EU:n ja Yhdysvaltojen kuningaskunnan vaatimustenmukaisuusvakuutuksen koko tekstin saat ottamalla yhteyttä Extreme Regulatory Complianceen osoitteeseen compliancerequest@extremenetworks.com

Dutch

Hierbij verklaart Extreme Networks dat het type radioapparatuur (AP5050D) in overeenstemming is met de Radio Equipment Regulations 2017 en Richtlijn 2014/53/EU. Voor de volledige tekst van de conformiteitsverklaring van de EU en het VK kunt u contact opnemen met Extreme Regulatory Compliance op: compliancerequest@extremenetworks.com

French

Par la présente, Extreme Networks déclare que le type d'équipement radio (AP5050D) est conforme aux réglementations sur les équipements radio 2017 et à la directive 2014/53/UE. Pour obtenir le texte complet de la déclaration de conformité UE et Royaume-Uni, veuillez contacter Extreme Regulatory Compliance à compliancerequest@extremenetworks.com

Swedish

Härmed förklarar Extreme Networks att radioutrustningstypen (AP5050D) överensstämmer med radioutrustningsföreskrifterna 2017 och direktiv 2014/53/EU. För den fullständiga texten till EU- och Storbritanniens försäkran om överensstämmelse, kontakta Extreme Regulatory Compliance på compliancerequest@extremenetworks.com

Danish

Extreme Networks erklærer hermed, at radioudstyrstypen (AP5050D) er i overensstemmelse med radioudstyrstyperneskrift 2017 og direktiv 2014/53/EU. For den fulde tekst af EU- og UK-overensstemmelseserklæringen, kontakt venligst Extreme Regulatory Compliance på compliancerequest@extremenetworks.com

German

Hiermit erklärt Extreme Networks, dass der Funkgerätetyp (AP5050D) den Funkgerätevorschriften 2017 und der Richtlinie 2014/53/UE entspricht. Für den vollständigen Text der EU- und UK-Konformitätserklärung wenden Sie sich bitte an Extreme Regulatory Compliance unter compliancerequest@extremenetworks.com

Greek

Με την παρούσα, ακραία δίκτια δηλώνουν ότι ο τύπος του ραδιοεξοπλισμού (AP5050D) συμμορφώνεται με την οδηγία 2014/53/EΕ. Για το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ, παρακαλούμε επικοινωνήστε με την ακραία κανονική συμμόρφωση στο compliancerequest@extremenetworks.com

Icelandic

Hér til eru, Extreme Networks lýsa því að útvarpsbúnaðargerðin (AP5050D) sé í samræmi við tilskipun 2014/53/ES. Fyrir fullan texta í ESB yfirlysingum um samræmi, vinsamlegast hafðu samband við Extreme Reglulegylgni á compliancerequest@extremenetworks.com

Italian

Di conseguenza, Extreme Networks dichiara che il tipo di apparecchiatura radio (AP5050D) è conforme alla direttiva 2014/53/UE. 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 (AP5050D) 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 (AP5050D) 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, netwerks estremi, jiddikjara li t-tip ta ' tagħġmir tar-radju (AP5050D) huwa konformi mad-Direttiva 2014/53/UE. Għat-test shiħi tad-dikjarazzjoni ta' konformità tal-UE, jekk jogħġibok ikkuntatt ill-konformità regolatorja compliancerequest@extremenetworks.com

ExtremeWireless™ Access Point

Quick Reference

AP5050D

Scan to Download the ExtremeCloud IQ Companion Mobile Application

Commission, monitor, and troubleshoot devices easily with **ExtremeCloud IQ 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 **ExtremeCloud IQ Companion** Mobile Application enables you to access the device CLI for troubleshooting and view device and client status.



ExtremeCloud IQ Companion iOS Mobile Application **ExtremeCloud IQ Companion** Android Mobile Application

Scan for Product Support Details



ExtremeCloud IQ Companion Mobile Application Onboarding

Documentation

Notice