

# ExtremeWireless 802.11ax AP4000-1 Indoor Access Point

## AP4000-1 Overview

The AP4000-1 access point is a high-performance, 802.11ax Wi-Fi 6E access point. Designed for high-density indoor environments, the access point can operate in 6 GHz, 5 GHz band, and 2.4 GHz bands. The access point can support IEEE 802.11ax Orthogonal Frequency-Division Multiple Access (OFDMA) multi-user access. The access point can be installed on an indoor environment such as a ceiling rail, on non-standard ceilings, on a wall, on a junction box, or to a beam.

The AP4000-1 access point has 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 half- and full-duplex connections with the connecting device.
  - Eth0: 100/1000/2500 Mbps auto-negotiation Ethernet port, RJ45, Power over Ethernet (PoE) at 802.3at
  - Eth1: 10/100/1000 Mbps auto-negotiation Ethernet port, RJ45  
These ports are auto-sensing and adjust to straight-through and crossover standard Cat5e or better Ethernet cables automatically. The access point receives power through an Ethernet connection to the Eth0 port from power sourcing equipment (PSE) that is compatible with the 802.3at 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 screw that secures 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 802.3at PoE Power

## Power Options

- Power Draw:
  - Typical: 13.0 W; Max: 14.5 W (without USB)
  - Typical: 15.8 W; Max: 17.3 W (with USB)
- 802.3at PoE capable
- Gigabit Ethernet port (RJ45 power input pins: Wires 4,5,7,8 or 1,2,3,6)

For detailed device and radio specifications, refer to the *AP4000-1 Data Sheet*.

Figure 1 AP4000-1 access point hardware components

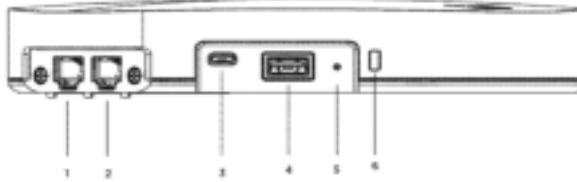


Table 1 AP4000-1 access point hardware ports

Callout	Description
1	Eth1
2	Eth0/PoE+
3	Console port
4	USB port
5	Reset button
6	Security Kensington lock

## Status LED Activity Description

The AP4000-1 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.

- Dark: power is off.
- 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.
- Steady amber: The device is initializing, rebooting, or is running without a CAPWAP connection.
- Slow-blinking amber: 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.

## Micro USB Console Port

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



**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 Tera Term Pro (a free terminal emulator) or Hilgraeve HyperTerminal (provided with Windows operating systems from XP forward).

## AP4000-1 Box Contents

Ensure that the following items are available:

Table 2 Contents of the AP4000-1 Box

Quantity	Item
1	An AP4000-1 access point
1	Mounting bracket for 15/16 in. T-bar ceiling installation (part number AH-ACC-BKT-AX-TB)
1	Quick Reference Guide

All optional brackets and accessories are sold separately. For detailed instructions about all mounting procedures, refer to the *ExtremeWireless AP4000-1 Access Point 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 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 AP4000-1 access point easily and safely.

## Install the Access Point on a Standard Ceiling Rail

The AP4000-1 access point ships 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 2 AH-ACC-BKT-AX-TB bracket

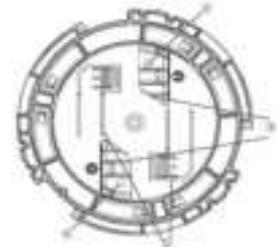


Table 3 AH-ACC-BKT-AX-TB bracket parts description

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 AP4000-1 access point ceiling install



- 7 Attach the Cat6 RJ45 cable to the Eth0 or Eth1 port.
- 8 If hidden cables are desired, then 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 *802.11ax and Cloud 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
AH-ACC-BKT-AX-WL	Mounting bracket for direct-to-wall installations
AH-ACC-BKT-916-KIT	9/16 in. ceiling mount brackets for non-flat and protruded ceiling tiles. Use with AH-ACC-BKT-AX-TB
ACC-BKT-TB-NF	Adapter bracket AH-ACC-BKT-TB for 15/16 in. wide T-bars non-flat or protruded ceiling tiles
ACC-BKT-AX-WNGADAPT	Adapter bracket for using cloud access point with WING mounting plate (#37201)
ACC-BKT-AX-JB	<b>Note:</b> 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.
Junction box or wall mounting for indoor access points	
Beam mounting for indoor access points	

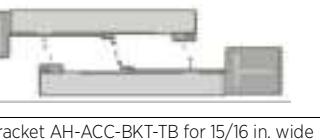
Bracket part number

Description

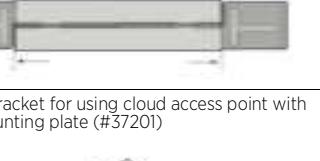
Mounting bracket for direct-to-wall installations



9/16 in. ceiling mount brackets for non-flat and protruded ceiling tiles. Use with AH-ACC-BKT-AX-TB



Adapter bracket AH-ACC-BKT-TB for 15/16 in. wide T-bars non-flat or protruded ceiling tiles



Adapter bracket for using cloud access point with WING mounting plate (#37201)



**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.

### Antenna Information

The access points have internal antennas.

- 2 Dual-band 2.4G/5G antennas
- 2 6G band antennas
- 2 scanning 2.4G/5G/6G antennas

### 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 AP4000-1 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

Consulter le manuel d'utilisation *ExtremeWireless AP4000-1 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 des séries de sanctions 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.

### 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 44 cm between the radiator and your body.

### Japan Indoor Use Statement

For Japan, AP4000-1 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

### 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:

Restrictions or requirements in the UK	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

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](http://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.

### 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:  
2424-2472MHz: 19.96 dBm  
5180-5240MHz: 22.95 dBm  
5260-5320MHz: 22.98 dBm  
5500-5700MHz: 22.98 dBm  
5745-5825 MHz: 22.98 dBm  
5955-6415MHz: 22.97 dBm

CE - The device is restricted to indoor use only when operating in the 5150-5350 MHz and 5945 to 6425 MHz frequency range.  
UK - The device is restricted to indoor use only when operating in the 5150-5350 MHz and 5925 to 6425 MHz frequency range.  
The device is restricted for indoor use only in the frequency range.  
Hereby, Extreme Networks declares that the radio equipment AP4000-1 is in compliance with Radio Equipment Regulations 2017.

### 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.  
Pour une utilisation en intérieur uniquement.

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 27 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 27 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.

This radio transmitter [IC: 4141B-AP4000] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed in *ExtremeWireless AP4000-1 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-AP4000] 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 AP4000-1, avec le 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.  
Operation on oil platforms, cars, trains, boats, and aircraft shall be prohibited except for on large aircraft flying above 10,000 ft.  
L'exploitation sur les plates-formes pétrolières, les voitures, les trains, les bateaux et les aéronefs est interdite, sauf sur les gros aéronefs volant au-dessus de 10,000 pieds.

### Taiwan Regulatory Statement

第十二條：製式認證證明之銷售點或新設辦事處，並經評定、公告，應註明其新設辦事處或新設辦點之詳細資訊。第十二條：一組以上的銷售點或新設辦事處或新設辦點，若經營項目有重複或衝擊，應註明序號。並於各項經營項目後註明該項經營項目是否為合法之經營。科系或服務項目不得重複或衝突。

第十二條：新設辦點或新設辦事處經營項目與現有之經營項目有重複或衝突，應註明序號。

新設辦點或新設辦事處經營項目與現有之經營項目有重複或衝突，應註明序號。

### Taiwan Maximum Permissible Exposure (MPE) Warning

電磁波曝露量：H1T：總功率（RF）：Inv<100mW，測量內置天線：0.734 mW/m<sup>2</sup>。  
輻射影響：The emission of hereby radio system, 落近免影響附設譯譯器之操作。  
High-power RF transmission system only allowed in stationary point-to-point systems. 高強度移動點對點系統。

### 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](mailto:Green@extremenetworks.com).

### Supplement to Product Instructions



### Declaration of Conformity in Languages of the European Community

English Hereby, Extreme Networks declares that the radio equipment type (AP4000-1) 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](mailto:compliancerequest@extremenetworks.com)

Finnish Täten Extreme Networks vakuuttaa, että Radio laite tyyppi (AP4000-1) on direktiivin 2014/53/EU mukainen.EU vaatimustenmukaisuusvakuutuksen täydellisestä tekstistä ottaa yhteyttä äärimmäisiin viranomaisten säädöksiin osoitteessa [compliancerequest@extremenetworks.com](mailto:compliancerequest@extremenetworks.com)

Dutch Extreme Networks verklaart hierbij dat het type radioapparatuur (AP4000-1) 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](mailto:compliancerequest@extremenetworks.com)

French Par la présente, Extreme Networks déclare que le type d'équipement radio (AP4000-1) 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](mailto:compliancerequest@extremenetworks.com)

Swedish Härmed intygar Extreme Networks att radioutrustning typ (AP4000-1) överensstämmer med direktiv 2014/53/EU.För fullständig text av EU-försäkran om överensstämmelse, vänligen kontakta Extreme regleterlevnad på [compliancerequest@extremenetworks.com](mailto:compliancerequest@extremenetworks.com)

Danish Herved erklærer Extreme Networks, at radioudstyrstypen (AP4000-1) 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](mailto:compliancerequest@extremenetworks.com)

German Dabei erklärt Extreme Networks, dass der Funkgerätetyp (AP4000-1) 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](mailto:compliancerequest@extremenetworks.com)

Greek Με την παρούσα, ακραία δικτύα στούδιουν ότι ο τύπος του ραδιοεξοπλισμού (AP4000-1) συμμορφώνεται με την σύνθηση 2014/53/EU. Για το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ, παρακαλούμε επικοινωνήστε με την ακραία κανονιστική συμμόρφωση στο [compliancerequest@extremenetworks.com](mailto:compliancerequest@extremenetworks.com)

Icelandic Hér tilskipun, Extreme Networks, lýsa við yfir að útværðsúnaðargerðin (AP4000-1) sé í samræmi við tilskipun 2014/53/ES.Yfirri fullan texta í ESB yfirlysingu um samræmi, vinnumlegast hafðu samband við Extreme Regluflýgini á [compliancerequest@extremenetworks.com](mailto:compliancerequest@extremenetworks.com)

Italian Di conseguenza, Extreme Networks dichiara che il tipo di apparecchiatura radio (AP4000-1) è conforme alla direttiva 2014/53/EU.Per il testo integrale della Dichiarazione di conformità della UE, contattare Extreme Regulatory Compliance presso [compliancerequest@extremenetworks.com](mailto:compliancerequest@extremenetworks.com)

Spanish Por la presente, Extreme Networks declara que el tipo de equipo radioeléctrico (AP4000-1) 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](mailto:compliancerequest@extremenetworks.com)

Portuguese Por este meio, a Extreme Networks declara que o tipo de equipamento de rádio (AP4000-1) 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](mailto:compliancerequest@extremenetworks.com)

Malti B' dan, netwerks estremi, jiddikjara li t-tip ta' tagħġir tar-radju (AP4000-1) huwa konformi mad-Direttiva 2014/53/UE.Għaq-żgħid t-shiħħi kollha l-konformità tal-UE, jekk jidher għidha l-konformità regolatorja [compliancerequest@extremenetworks.com](mailto:compliancerequest@extremenetworks.com)

# ExtremeWireless™ Indoor Access Point

## Quick Reference

AP4000-1



Documentation



Product Videos

### Notice

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