

Overview of the ExtremeWireless AP-7532/AP-7532I External/Internal Antenna Access Point

The AP-7532/AP-7532I external antenna and internal antenna Access Points are mid-tier Access Points with a relatively small footprint which supports functionality for dependable and efficient network performance.The AP-7532/AP-7532I is a 3x3:3 802.11ac Access Point utilizing one 2.4 GHz 802.11n radio and one 5 GHz 802.11ac radio. The Access Point housing is Plenum-rated (UL2043). The Access Point's unique WiNG 5 software enables it to function as either a *Standalone* Access Point, an *Adaptive* Access Point, or a *Virtual Controller*.

This document is written for the qualified network device installer.

The AP-7532/AP-7532I Access Point has the following features:

- Two RJ-45 connectors (GE1/POE and Console)
- Two LED indicators
- One 5GHz 802.11ac radio, and one 2.4GHz 802.11n radio
- 3X3 MIMO, 2 spatial streams
- GE1/POE accepts 802.3at or 802.3af compliant power from an external source.

AP-7532/AP-7532I Package Contents

Verify that the box contains the following items:


Table 1 Contents of the AP-7532/AP-7532I Box

Quantit y	Item
1	AP-7532/AP-7532I Quick Reference Guide
1	AP-7532/AP-7532I Access Point
The following hardware is included	
1	Wall mount screws and mounting bracket

Hardware Installation

Before installing an AP-7532/AP-7532I Access Point, verify the following:

- You are using the correctly rated power solution for the AP-7532/AP-7532I, either the PD-9001GR-ENT Power Injector or the 37215 external power supply. For more information about the Power Injector system or the external power supply, see the *ExtremeWireless AP-7532/AP-7532I Access Point Installation Guide*.
- Do not install the AP-7532/AP-7532I in wet or dusty areas.
- Verify the environment has a continuous temperature range between -4°F to 104°F/-20°C to 40°C for external antenna Access Points and 32°F to 104°F/0°C to 40° C for internal antenna Access Points.

 **Note:** When operating in a Gigabit Ethernet environment, CAT-5e or CAT-6 cable is recommended for Gigabit operation.

Wall Mount Instructions

The AP-7532/AP-7532I can be mounted on any plaster, wood, or cement wall surface using the mounting brackets provided. The hardware required to install the AP-7532/AP-7532I on a wall consists of:

- Two wide-shoulder Phillips pan head self-tapping screws (M3,5 x 0,6 x 23 mm)
- Mounting bracket


Optional customer provided installation tools include:

- Phillips head screw driver, or drill and drill bit.

Wall Mount Procedure - New Installation

This section describes a new AP-7532/AP-7532I installation with no previous Access Point existing on the intended wall surface.

- 1 Place the mounting bracket against the wall.
- 2 Mark the screw hole locations on the intended deployment orientation of the unit.

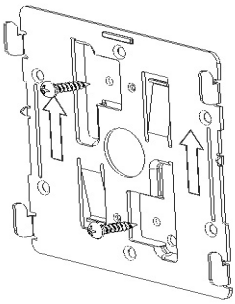
 **Note:** When pre-drilling a hole, the recommended hole size is 4mm (0.16 in).

- 3 At each point, drill a hole in the wall and attach the mounting bracket (see [Figure 1](#)).
- 4 Place the Access Point on the mounting bracket.
- 5 Cable the Access Point using either the Power Injector Solution (PD-9001GR-ENT) or the approved AP-7532/AP-7532I power supply (37215).

For more information, refer to the *ExtremeWireless AP-7532/AP-7532I Access Point Installation Guide*.

- 6 Verify the unit has power by observing the LEDs. For more information on AP-7532/AP-7532I LED behavior, see the ExtremeWireless AP-7532/AP-7532I Installation Guide.

Figure 1 Attaching Mounting Bracket to the Wall



Wall Mount Procedure - Existing Access Point Replacement

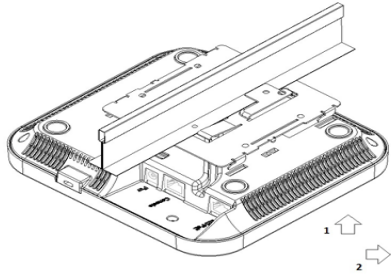
An existing AP-7131 or AP-7131N Series Access Point installed on a wall can be replaced by an AP-7532/AP-7532I. Simply remove the existing AP-7131 or AP-7131N and install the new provided mounting bracket for AP-7532/AP-7532I directly to the wall. The cabling procedure for such a replacement is as described in the previous section.

Suspended Ceiling T-Bar Mount Installation

Ceiling mount requires holding the AP-7532/AP-7532I up against the T-bar of a suspended ceiling grid and twisting the unit on to the T-bar. If deploying the AP-7532/AP-7532I on a sculpted ceiling T-Bar, the Access Point mounting kit (Part No. KT-135628-01) can optionally be used as well.

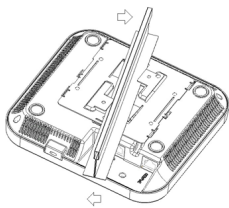
- 1 Install the mounting bracket on the T-bar, then attach the mounting bracket using the mounting slots on the Access Point (see [Figure 2](#)).
- 2 See steps 5 and 6 in Wall Mount Procedure - New Installation to cable the Access Point using either the Power Injector solution (PD-9001GR-ENT) or the approved AP-7532/AP-7532I power supply (37215).
- 3 Align the bottom of the ceiling T-bar with the back of the Access Point.

Figure 2 Installing AP-7532/AP-7532I (internal antenna) on the T-bar



- 4 Orient the Access Point chassis by its length and the length of the ceiling T-bar.
- 5 Rotate the Access Point chassis 45 degree clockwise.
- 6 Push the back of the Access Point chassis on the bottom of the ceiling T-bar.
- 7 Rotate the Access Point chassis 45 degrees counter-clockwise. The clips click as they fasten to the T-bar (see [Figure 3](#)).

Figure 3 Rotating the AP-7532/AP-7532I (internal antenna) chassis 45 degrees counter-clockwise



Basic Access Point Configuration

Once the AP-7532/AP-7532I is installed and powered on, refer to the *ExtremeWireless AP-7532/AP-7532I Access Point Installation Guide* to configure it and access management functions.

Regulatory and Compliance Information

Wireless Device Country Approvals

Regulatory markings, subject to certification, are applied to the device signifying the radio(s) is/are approved for use in the following countries: United States, Canada, Japan, China, S. Korea, Australia, and Europe.

Please refer to the Declaration of Conformity (DoC) for details of other country markings. This is available at: www.extremenetworks.com



Note: For 2.4GHz or 5GHz Products: Europe includes, Austria, Belgium, Bulgaria, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.



Caution: Operation of the device without regulatory approval is illegal.

Country Selection

Select only the country in which you are using the device. Any other selection will make the operation of this device illegal. Some Access Points are specifically designed to operate in certain countries (Example: -US for the United States, -EU for the European Union).

Country Roaming

This device incorporates the International Roaming feature (IEEE802.11d) which will ensure the product operates on the correct channels for the particular country of use.

Frequency of Operation - FCC and IC

Industry Canada Notice:

5 GHz Only



Caution: The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-Channel mobile satellite systems. High power radars are allocated as primary users (meaning they have priority) of 5250-5350 MHz and 5650-5850 MHz and these radars could cause interference and/or damage to LE-LAN devices.

Avertissement:

Le dispositif fonctionnant dans la bande 5150-5250 MHz est réservé uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

Les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

2.4 GHz Only

The available channels for 802.11bg operation in the US are Channels 1 to 11. The range of channels is limited by firmware.

Health and Safety Recommendations



Caution: In order to avoid or minimize the potential risk of ergonomic injury follow the recommendations below. Consult with your local Health & Safety Manager to ensure that you are adhering to your company's safety programs to prevent employee injury.

- Reduce or eliminate repetitive motion
- Maintain a natural position
- Reduce or eliminate excessive force
- Keep objects that are used frequently within easy reach
- Perform tasks at correct heights
- Reduce or eliminate vibration
- Reduce or eliminate direct pressure
- Provide adjustable workstations
- Provide adequate clearance
- Provide a suitable working environment
- Improve work procedures

IMPORTANT

Before installing or using, check state and local laws regarding windshield mounting and use of equipment.

For Safe installation

- Do not put your phone in a location that obstructs the drivers vision or interferes with the operation of the Vehicle.
- Do not cover an airbag.

Safety on the Road

Do not take notes or use the device while driving. Jotting down a "to do" list or flipping through your address book takes attention away from your primary responsibility, driving safely.

When driving a car, driving is your first responsibility - Give full attention to driving. Check the laws and regulations on the use of wireless devices in the areas where you drive. Always obey them.

Warnings for the use of Wireless Devices



Warning: Please observe all warning notices with regard to the usage of wireless devices.

Potentially Hazardous Atmospheres - Fixed Installations

You are reminded of the need to observe restrictions on the use of radio devices in fuel depots, chemical plants etc. and areas where the air contains chemicals or particles (such as grain, dust, or metal powders).

Safety in Hospitals

Wireless devices transmit radio frequency energy and may affect medical electrical equipment. When installed adjacent to other equipment, it is advised to verify that the adjacent equipment is not adversely affected.

Pacemakers

Pacemaker manufacturers recommended that a minimum of 15cm (6 inches) be maintained between a handheld wireless device and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with independent research and recommendations by Wireless Technology Research.

Persons with Pacemakers:

- Should ALWAYS keep the device more than 15cm (6 inches) from their pacemaker when turned ON.
- Should not carry the device in a breast pocket.
- Should use the ear furthest from the pacemaker to minimize the potential for interference.
- If you have any reason to suspect that interference is taking place, turn OFF your device.

Other Medical Devices

Please consult your physician or the manufacturer of the medical device, to determine if the operation of your wireless product may interfere with the medical device.

RF Exposure Guidelines

Safety Information

Reducing RF Exposure - Use Properly

Only operate the device in accordance with the instructions supplied.

International

The device complies with internationally recognized standards covering human exposure to electromagnetic fields from radio devices. For information on "International" human exposure to electromagnetic fields refer to the Declaration of Conformity (DoC) at: www.extremenetworks.com

EU

Remote and Standalone Antenna Configurations

To comply with EU RF exposure requirements, antennas that are mounted externally at remote locations or operating near users at stand-alone desktop of similar configurations must operate with a minimum separation distance of 20cm from all persons.

US and Canada

Co-located statement

To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must not be co-located or operating in conjunction with any other transmitter/ antenna except those already approved in this filing.

To satisfy US and Canadian RF exposure requirements, a transmitting device must operate with a minimum separation distance of 30cm or more from a person's body.

Pour satisfaire aux exigences Américaines et Canadiennes d'exposition aux radiofréquences, un dispositif de transmission doit fonctionner avec une distance de séparation minimale de 30cm ou plus de corps d'une personne.

Radiation Exposure Statement

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 30cm between the radiator and your body.

NOTE IMPORTANTE: (Pour l'utilisation de dispositifs mobiles)

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 30cm de distance entre la source de rayonnement et votre corps.

Remote and Standalone Antenna Configurations

To comply with FCC RF exposure requirements, Antennas that are mounted externally must be professionally installed at a fixed location and operate with a minimum distance of 30cm from all persons.

To comply with FCC Antenna requirements, the Antenna must be adjusted such that the RF emission lobes are below 30 degrees elevation.

Power Supply

This device must be powered from a 802.3af or 802.3at compliant power source which has been certified by the appropriate agencies, or by a approved UL LISTED ITE (IEC/EN 60950-1, LPS/SELV) power supply with electrical ratings: Output 12 Vdc, min 1.25 A or 48 Vdc min 0.375 A (POE), with a recommended ambient temperature greater than 40 degrees C. Use of alternative power supply will invalidate any approvals given to this unit and may be dangerous.

Federal Communications Commission (FCC) Notice:

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/TV technician for help.

Radio Transmitters (Part 15)

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.

Radio Frequency Interference Requirements - Canada

CAC ICES-3 (B)/NMB-3(B) Radio Transmitters

For RLAN Devices: The use of 5 GHz RLAN's, for use in Canada, have the following restrictions:

- Restricted Band 5.60 – 5.65 GHz

This device complies with RSS 247 of Industry Canada. 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'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Label Marking: The Term "IC:" before the radio certification only signifies that Industry Canada technical specifications were met.

In accordance with the regulations of Industry Canada, this radio transmitter can operate with an antenna of a type and a maximum gain (or lower) approved for the transmitter by Industry Canada. With the aim of reducing the risk of radio interference to other users, the chosen antenna type and its gain should be selected so that the equivalent isotropically radiated power (e.i.r.p.) does not exceed the intensity necessary for the establishment of a satisfactory connection.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectriqueà l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire àl'établissement d'une communication satisfaisante.

In compliance with respective local regulatory law, the AP software provides professional installers the option to configure the antenna type and antenna gain for approved antennas.

This radio transmitter (AP-7532, AP-7532I) has been approved by Industry Canada to operate with the antenna types listed below and having a maximum gain allowable and the impedance required for each type of antenna. The antenna types not included in this list, or whose gain is higher than the maximum gain indicates, are strictly prohibited for the operation of the transmitter.

Le présent émetteur radio (AP-7532, AP-7532I) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

CE Marking and European Economic Area (EEA)

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

The use of 2.4GHz RLAN's, for use through the EEA, have the following restrictions:

- Maximum radiated transmit power of 100 mW EIRP in the frequency range 2.400 -2.4835 GHz.

Statement of Compliance

Extreme Networks hereby declares that this radio equipment is in compliance with Directive 2011/65/EU and 1999/5/EC or 2014/53/EU (2014/53/EU supersedes 1999/5/EC from 13thJune 2017).

Japan (VCCI) - Voluntary Control Council for Interference

この装置は、情報処理装置等電波障害自主規制協議会（V C C I）の基準に基づいたクラス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。

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5.2/5.3GHz 屋内使用規定” or この製品は屋内においてのみ使用可能です

Korea Warning Statement for Class B ITE

기종별	사용자안내문
B급 기기 (가정용 방송통신기자재)	이 기기는 가정용(B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

Other Countries

Australia

Use of 5GHz RLAN's in Australia is restricted in the following band 5.50 – 5.65GHz.

Brazil

Declarações Regulamentares para AP-7532/AP-7532I - Brasil

Nota: A marca de certificação se aplica ao Transceptor, modelo AP-7532. Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário. Para maiores informações sobre ANATEL consulte o site: www.anatel.gov.br

Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.

Este produto está homologado pela Anatel, de acordo com os procedimentos regulamentados pela Resolução nº242/2000 e atende aos requisitos técnicos aplicados, incluindo os limites de exposição da Taxa de Absorção Específica referente a campos elétricos, magnéticos e eletromagnéticos de radiofrequência, de acordo com as Resoluções nº 303/2002 e 533/2009.

Este dispositivo está em conformidade com as diretrizes de exposição à radiofrequência quando posicionado pelo menos 25 centímetros de distância do corpo. Para maiores informações, consulte o site da Anatel.

Chile

Este equipo cumple con la Resolución No 403 de 2008, de la Subsecretaria de telecomunicaciones, relativa a radiaciones electromagnéticas.

China



Mexico

Restrict Frequency Range to: 2.450 – 2.4835 GHz.

S. Korea

무선설비는 운용 중 전파혼신 가능성이 있음

당해 무선설비는 전파혼 신 가능성이 있으므로 인명안전과 관련된 서비스는 할 수 없습니다.

Taiwan

臺灣

低功率電波輻射性電機管理辦法

第十二條
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

低功率射頻電機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。
前項合法通信，指依電信規定作業之無線電通信。
低功率射頻電機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。

電磁波曝露量MPE標準值1mW/cm²，本產品使用時建議應距離人體：**25 cm**

「本器材須經專業工程人員安裝及設定，始得設置使用，且不得直接販售給一般消費者」。

Ant.	Model Name	Antenna Type	Connector	2.4GHz (dBm)	5GHz Band 1 (dBm)	5GHz Band 4 (dBm)
1	ML-2452-APA2-01	Dipole	RP-SMA Male	24.58	25.70	26.26
2	ML-2452-HPAS-036	Dipole	RP-SMA Male	24.58	25.70	26.26
3	ML-2452-APAG2A1-01	Dipole	RP-SMA Male	24.58	25.70	26.26
4	ML-2452-PNAS-01R	Panel	N-Type Male	25.06	24.68	26.01

Ant.	Model Number	Antenna Type	Connector	2.4GHz (dBm)	5GHz Band 1 (dBm)	5GHz Band 4 (dBm)
1	BIRCH INT ANT	PIFA Antenna	U.FL	26.30	16.99	25.13
2	BIRCH INT ANT	PIFA Antenna	U.FL	26.30	16.99	25.13
3	BIRCH INT ANT	PIFA Antenna	U.FL	26.30	16.99	25.13
4	BIRCH INT ANT	PIFA Antenna	U.FL	26.30	16.99	25.13
5	BIRCH INT ANT	PIFA Antenna	U.FL	26.30	16.99	25.13
6	BIRCH INT ANT	PIFA Antenna	U.FL	26.30	16.99	25.13

Thailand

เครื่องโทรคมนาคมและอุปกรณ์นี้ มีความสอดคล้องตามข้อกำหนดของ กทช.

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):

- The symbol above indicates that separate collection of electrical and electronic equipment is required.
- 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.
- 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.
- 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 Customer Support at 353 61 705500 (Ireland).

TURKISH WEEE Statement of Compliance

EEE Yönetmeliğine Uygundur

Access Point China ROHS Compliance

部件名称 (Parts)	有害物质						15
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)	
金属部件 (Metal Parts)	X	0	0	0	0	0	
电路模块 (Circuit Modules)	X	0	0	0	0	0	
电缆及电缆组件 (Cables and Cable Assemblies)	X	0	0	0	0	0	
塑料和聚合物部件 (Plastic and Polymeric Parts)	0	0	0	0	0	0	
光学和光学组件 (Optics and Optical Components)	0	0	0	0	0	0	
电池 (Batteries)	0	0	0	0	0	0	

本表格依据 SJ/T 11364 的规定编制。
O: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。

X: 表示该有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572 规定的限量要求。

(企业可在此处，根据实际情况对上表中打“*”的技术原因进行进一步说明。)

Extreme Wireless™ WiNG™ Access Point

Quick Reference

AP-7532-67040-US

AP-7532-67040-I-WR

AP-7532-67030-US

AP-7532-67030-I-WR

Notice

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Documentation & Support

For product support, including documentation, visit: www.extremenetworks.com/



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