

Overview of the AP-8163

The AP-8163 is designed for extending network coverage to outside areas with the latest 802.11n 3x3:3 Multiple Input Multiple Output (MIMO) tri-radio design together with rugged outdoor performance. True perimeter security is provided using either a dedicated dual band sensor or software mode for both 2.4GHz and 5GHz bands to deliver 24x7 rogue detection and termination.

Verifying the AP-8163 Box Contents

Verify that the box contains the following items:

Table 1 Contents of the AP-8163 Box

Quantity	Item
1	AP-8163 Quick Reference Guide
1	AP-8163 Access Point
The following hardware is included	
1	Weatherproof RJ45 plug kit

Antennas must be ordered separately and do not ship with the AP-8163.

LED Indicators

AP-8163 Access Points have LED activity indicators on the front of the enclosure. The LEDs provide a status display indicating error conditions, transmission, and network activity for the 2.4 GHz radio (green) and the 5 GHz radio (amber). For more information about LED status, refer to the *ExtremeWireless WiNG AP-8163 Installation Guide*.

Mounting and Installation

The following sections detail the installation procedure for deploying the AP-8163 Access Point. It is recommended that the mounting bracket kit (KT-147407-01) be used for most deployments. When a standoff distance is required for a pole mounted or wall mounted installation, use the extension arm kit (KT-150173-01).



Warning: Only qualified personnel should perform installation procedures.



Caution: All device wiring must comply with the National Electric Code (NEC) or regulations and procedures defined by the regulatory bodies of the country or region where the devices are being deployed. All local building and structure codes must be observed.



Caution: Always mount the AP-8163 with the black gore vent facing down.

Installing the AP on a Pole

For poles of up to 3 inches in diameter, attach the pole mount bracket of the mounting hardware kit at the desired position on the pole using band clamps up to 3/4 inch width, or a 1/2 inch x 4 inch wide U-bolt and nuts. For poles greater than 3 inches in diameter, attach the pole mount bracket using band clamps.



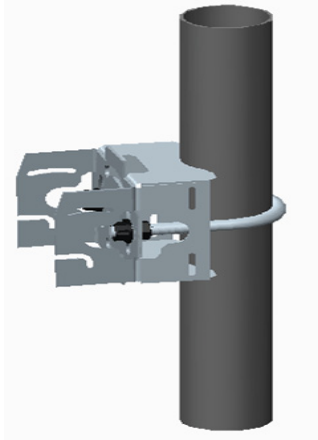
Note: The U-bolt and band clamps are not included in the mounting bracket kit.

Vertical Pole Mount

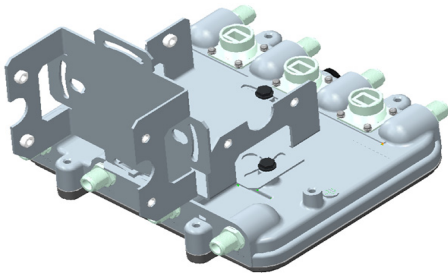
For poles up to 3 inches in diameter when using a U-bolt:

- 1 Thread two 1/2 inch nuts onto the U-bolt.
- 2 Position the U-bolt on the pole and place the pole mount bracket section on the U bolt. Adjust the two 1/2 inch inner nuts until the pole mount bracket section is against the pole and the U-bolt can be secured tightly to the pole at the desired mounting location.

- 3 Place the angle adapter bracket section on the U-bolt with the open slot connections on the bottom and align it with the pole mount section. Attach with two 1/2 inch nuts. Tighten all nuts to 300 inch pounds (lbf-in).



- 4 Position the Access Point bracket section so the bottom of the section with the straight (not bevel cut) side is oriented toward the bottom side of the AP with the gore vent. Using a torque wrench or a ratchet and a 10mm socket, or an adjustable wrench, attach (but don't tighten) the Access Point bracket section to the AP-8163 with the four M6 flange screws.



- 5 To adjust the position of the Access Point, rotate the Access Point bracket section (plus or minus 15 degrees) and tilt the angle adapter bracket section (up to 45 degrees).
- 6 Tighten all hex flange screws to 60 inch pounds (lbf-in).

Refer to the *ExtremeWireless WiNG AP-8163 Installation Guide* for information on pole mounting the AP-8163 with band clamps or using extension arms.

Installing the AP on a wall

For wall mounted installations, use only the Access Point bracket section and angle adjust bracket section if required.

- 1 With the open slot connections facing down, attach the angle adjust bracket section at the desired mounting location using four #10/32 lag bolts.



Note: The lag bolts are not included in the mounting bracket kit.

- 2 With the Access Point positioned so the gore vent is facing down, insert the two M6 hex flange screws in the bottom holes on the sides of the Access Point bracket section into the open slot connections on the bottom of the angle adapter bracket section. Rotate the Access Point bracket section upward and align the top holes on the sides with the top holes on the angle adapter bracket section. Insert two M6 hex flange screws into the top holes on the angle adapter bracket section.
- 3 To adjust the position of the Access Point, rotate the Access Point bracket section (plus or minus 15 degrees) and tilt the angle adapter bracket section (up to 45 degrees).
- 4 Use a torque wrench or a ratchet and a 10mm socket, or an adjustable wrench, to tighten all screws when all adjustments are complete.
- 5 Tighten all hex flange screws to 60 inch pounds (lbf-in).

Refer to the *ExtremeWireless WiNG AP-8163 Installation Guide* for information on wall mounting the AP-8163 using extension arms.

Basic Access Point Configuration

Refer to the *ExtremeWireless WiNG AP-8163 Installation Guide* to configure the device and access management functions.

Notice

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Legal Notices

Extreme Networks, Inc. reserves the right to make changes in specifications and other information contained in this document and its website without prior notice. The reader should in all cases consult representatives of Extreme Networks to determine whether any such changes have been made.

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Documentation & Support

For product support, including documentation, visit:

www.extremenetworks.com/support/

Regulatory and Compliance Information

Wireless Device Country Approvals

Regulatory markings are applied to the device signifying the radio(s) are approved for use in the following countries: United States, Canada, 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.

Frequency of Operation – FCC and IC

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.

5 GHz Only

The use in the UNII (Unlicensed National Information Infrastructure) band 1 (5150-5250 MHz) is restricted to Indoor Use Only; any other use will make the operation of this device illegal.

Industry Canada Notice:



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.

Health and Safety Recommendations

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).

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

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 26cm 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 filling.

To satisfy US and Canadian RF exposure requirements, a transmitting device must operate with a minimum separation distance of 35cm 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 35cm ou plus de corps d'une personne.

Power Supply

Connect the RJ45 Cable to the PoE port. 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.

Australia

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

Canada

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 210 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.

Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet 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.

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

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (EIRP) is not more than that permitted for successful communication.

The device could automatically discontinue transmission in case of absence of information to transmit, or operational failure. Note that this is not intended to prohibit transmission of control or signaling information or the use of repetitive codes where required by the technology.

The maximum antenna gain permitted for devices in the band 5725-5825 MHz shall comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.

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 (identify the device by certification number, or model number if Category II) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio (identifier le dispositif par son numéro de certification ou son numéro de modèle s'il fait partie du matériel de catégorie I) 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)

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.
- Italy requires a user license for outside usage.

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 13th June 2017). A Declaration of Conformity may be obtained from www.extremenetworks.com.

TURKISH WEEE Statement of Compliance

EEE Yönetmeliğine Uygundur

Other Countries

Australia

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

Brazil (UNWANTED EMISSIONS - ALL PRODUCTS)

Regulatory Declarations for AP-8163 - BRAZIL

For more information consult the website <http://www.anatel.gov.br>.

Declarações Regulamentares para AP-8163 - Brasil



Note: A marca de certificação se aplica ao Transceptor, modelo AP-8163. 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: <http://www.anatel.gov.br>.

Chile

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

China

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Hong Kong

In accordance with HKTA1039, the band 5.15GHz - 5.35GHz is for indoor operation only.

Mexico

Restrict Frequency Range to: 2.450 - 2.4835 GHz.

La operación de este equipo está 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 operación no deseada.

S. Korea

For a radio equipment using 2400-2483.5MHz or 5725-5825MHz, the following two expression should be displayed:

무선설비는 운용 중 전파혼신 가능성이 있음

당해 무선설비는 전파혼신 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。

在 5.25-5.35 赫茲頻帶內操作之無線資訊傳輸設備，限於室內使用。

無線接入點 (專業安裝)

- 「本公司於說明書中提供所有必要資訊以指導使用者/安裝者正確的安裝及操作」警語。

並於該中文使用說明書及器材上標示

- 「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」警語。

Ukraine

Дане обладнання відповідає вимогам технічного регламенту №1057, № 2008 на обмеження щодо

використання деяких небезпечних речовин в електричних та електронних пристроях.

Thailand

เครื่องโทรคมนาคมและอุปกรณ์นี้ มีความสอดคล้องตามข้อกำหนดของ กทท.

Hong Kong

This equipment is restricted to indoor operation in the 5.15-5.35GHz band for Hong Kong.

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).

Access Point China ROHS Compliance

部件名称 (Parts)	有害物质					
	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“x”的技术原因进行进一步说明。)

Extreme Wireless™ WiNG™ Access Point

Quick Reference

AP-8163-66S40-US

AP-8163-66S40-1-WR

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