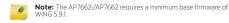
Installing the ExtremeWiNG AP7662i/AP7662 Access Point

Overview of the AP7662i/AP7662

The AP7662 is an IP67 rated Access Point with 80211ac dual band 2:2 radios. The AP7662 is easy to install, lightweight, and is available in an internal (AP7662) and external (AP7662) antenna model. Each model includes 802.11 radios, an IoT radio, and a GPS radio. The AP7662 model comes in two models: AP7662i and AP7662. In this document, the functionality, feature, and the procedure applies to both the models when AP7662i/AP7662 is used.

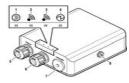


The AP7662i/AP7662 model has the following features:

- Radios: 2 radios (2.4GHz and 5GHz); 1 IoT/BLE/802.15.4 Radio (2.4 GHz)
- Console Port: RJ45
- One RJ45, 10/100/1000 Ethernet Port (GE1) with PoE
 One RJ45, 10/100/1000Mb Ethernet port (GE2)
- IP67 Connectors on all ports
- LEDs: 4 (see Figure 1)
- One Reset button
- Power: PoE 802.3af or 802.3at
 GPS Receiver (will be supported via a future firmware release)
- Antennas:
- AP7662i Five internal antennas (four band locked antennas and one BLE antenna)
- AP7662- Five external antennas (four single band antennas and one BLE antenna)
- Temperature:
 Ap7017: 409
- AP3917i -40°C to +65°C (-40°F to 149°F) without solar radiation; -40°C to +55°C (-40°F to 131°F) with solar radiation
- AP3917e -40°C to +65°C (-40°F to 149°F) without solar radiation; -40°C to +55°C (-40°F to 131°F) with solar radiation
- Enclosure: Cast Aluminum base and Top

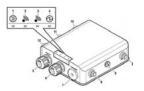
In Figure 1, the top image indicates AP7662i. Figure 2 shows the top and side views of AP7662.

Figure 1 Top and Side Views of AP7662i



1	IoT/BLE Radio
2	Radio - 5 GHz
3	Radio - 2.4 GHz
4	Status
5	GEI (PoE IN)
6	GE2
7	Console/Reset
8	Vent

Figure 2 Top and Side Views of AP7662



1	IoT/BLE Radio
2	Radio - 5 GHz
3	Radio - 2.4 GHz
4	Status

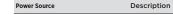
5 GE1 (PoE IN) 6 GE2 7 Console/Reset 8 2.4 G - Antenna 1 and 2 9 Vent 10 5G - Antenna 1 11 BLE/80215.4 Antenna 12 5 G - Antenna 2

LEDs on the Front of the AP

Amber LEDs indicate 5 GHz Wi-Fi Radio, Green LEDs indicate 2.4 GHz Wi-Fi Radio, and Blue LED indicates the IoT Radio. The Status LED is ON only during bootup.

For detailed installation information about the AP7662i/AP7662, see the *ExtremeWireless AP7662i/AP7662 Installation Guide*. Table 1 shows ways to power the AP7662i/AP7662.

Table 1 Powering the AP7662i/AP7662



Power over Ethernet Power is provided through the RJ45 Ethernet port (GE1 port). (PoE)

Verifying the AP7662i/AP7662 Box Contents

Verify the contents of the box and ensure that the following items are available:

Table 2 Contents of the AP7662i/AP7662 Box

Quantity	Item
1	AP7662i/AP7662 Quick Reference Guide
1	Cloud Quick Start Card
The following	g hardware is included:
1	M4 screw assembly with star washer
1	Ring terminal

Mounting and Connecting the AP

Electrical Hazard: Only qualified personnel should perform installation procedures.

Use these instructions as guidelines for mounting and connecting the AP7662i/AP7662 easily and safely. The AP7662i/AP7662 mounting brackets are sold separately. For more information about installing the optional bracket and the adapter, see the *ExtremeWireless AP7662i/AP7662 Installation Guide*. For installation videos of the AP, see www.extremenetworks.com/support/

Mounting the AP7662i/AP7662

Use these instructions as guidelines for mounting and connecting the AP7662//AP7662 easily and safely. The installation of the AP7662//AP7662 should be performed by a professional installer to ensure proper operation and compliance with local safety guidelines. Attach the AP7652/AP7662 to a surface that can support the AP and in an

environment it can withstand. It can be mounted to a wall, girder, ceiling, or pole, and the surface material can be concrete, brick, wood, metal, or plastic.

Positioning the AP for Installation

Mount the AP so that the glands are on the side of the AP closest to the ground, and not above the plastic cover. You must provide a 3-inch drip loop on all cables

Note: Do not remove the dust cap until you need to install the BLE/ IoT antennas.

Attach the Ground Wire

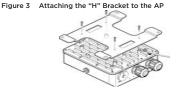
Use the M4 ground screw assembly, with the star washer, to attach the ground wire's ring terminal to the back for the AP. The wire should be as close to the AP bottom as possible. Tighten the screw to a torque of 13.0-13.5 in-

Note: Attach the H bracket after attaching the ground wire onto the AP. Tighten the torque, tighten the screws, and attach the LAN cable.

Mounting the AP7662i/AP7662 to a Wall

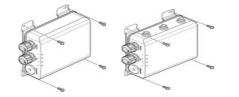
Note: The "H" type Mounting Bracket (WS-MBO-H01) is sold as a separate accessory (ordering part #30519).

- 1 Using the mounting bracket as a guide, mark the location for the mounting screws. The wall bracket provides eight attachment holes. Use four (one in each corner). Place the bracket and mark the four hole centers.
- 2 Drill four holes into the wall as follows:
- for installing the AP on a masonry wall, use a 5/16" diameter bit.
 for other materials, use the appropriate drill for the screws being used.
 For masonry installations drill at least 1/4" (Amn) past the depth of the
- screw, or bolt, being used, and place four anchor assemblies into the boles
- 4 Attach the AP to the "H" Bracket:
- a Use four M4 screw assemblies to attach the AP to the "H" bracket on the side that does *not* have the PEM stand-offs.
- b Tighten the four screws to a torque of 13.0-13.5 in-lbs.



5 Secure the anchors to the wall, then secure the bracket to the anchors.
6 If using #10 screws, tighten them to a torque of 25 in-lbs. If using ¼" screws, tighten them to 45 in-lbs.

Figure 4 AP7662i and AP7662 Wall Mount "H" Bracket



Mounting the AP7662i/AP7662 to a Pole



Determine the diameter of the pole.

Pole Diameter	Cable Clamp Size			
<= 2.5" (63.5mm)	Use small cable clamp.			
5" - 7" (178mm)	Use large cable clamp			

For other pole diameters, provide your own stainless steel cable clamp. The band must be ½" (12 7mm) wide

The band must be ½" (12.7mm) wide. 2 Attach the AP to the "Pole Mount" bracket using 4 M4 screws. Tighten the four screws to a torque of 13.0-13.5 in-Ibs.

Figure 5 Attaching a Pole Bracket to the AP



turning a flat bladed screwdriver counterclockwise. Then, insert the nonclamp end into the pole bracket through the holes.



3 Attach the cable clamp to the pole bracket. Open the cable clamp by

Figure 6 AP with Mounting Bracket–Vertical Pole



Mounting the AP7662i/AP7662 to a Wall/Pole using the WS-MBO-ART01 2 Axis Extension Arm

You can mount the to AP7662//AP7662 to a wall or a pole using a 10" extension arm (WS-MBO-ARTO), ordering part #30514). For mounting and installation instructions, refer to the *ExtremeWireless AP7662*//AP7662 Installation Guide.

Installing External Antennas

- Professionally install the external antennas intended for area coverage. For information about antenna selection and installation, refer to the External Antenna Site Preparation and Installation Guide.
- Attach the external anterna cables to the Standard Polarity Type-N connectors on the AP7662i/AP7662.

Connecting a Power Supply to the AP7662i/AP7662

If you need to power the AP7662i/AP7662, you can do so my using the GEI port on the AP. The power LED on the front face of the AP illuminates when the device is powered on. Refer to the *ExtremeWireless AP7662i/AP7662* Installation Guide for more information.

LAN/Console Connections

The AP7662i/AP7662 has two LAN (Ethernet) ports and a Console port. Refer to Figure 1 and Figure 2 for the location of these ports. During administration and maintenance through the LAN or Console, the AP must still have a power connection through either an Ethernet PAE cable or a DC nower supply.

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 nstall or channe the setting.

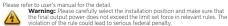
Installation location

he product shall be installed at a location where the radiating antenna can be kept 20 m for AP76621 and 35 cm for AP7662 (FCC) and 20 cm for AP76621 and 42 cm for P7662 (ISED) from nearby person in normal operation condition to meet regulatory R xposure requirement.

External antenna

Use only the antennas which have been approved by the applicant. The non-approved antenna(s) may produce unwanted spurious or excessive RF transmitting power whic may lead to the violation of ECC/ISED limit and is prohibited.

Installation procedure



Instructions d'installation professionnelle

Ce produit est destine a un usage specifique et doit etre installe par un personnel qualifie maitrisant les radiofrequences et les regles s'y rapportant. L'installation et les reglages ne doivent pas etre modifies par l'utilisateur final.

Emplacement d'installation

En usage normal, afin de respecter les exigences reglementaires concernant l'exposition aux radiofrequences, ce produit doit etre installe de facon a respecter une distance de 20cm pour APF662 it 35 cm pour APF662 (FCC) et 20 cm pour APF662 iet 42 cm pour APF662 (ISED) entre l'antenne emettrice et les personnes.

Antenn externe

Utiliser uniiquement les antennes approuvees par le fabricant. L'utilisation d'autres antennes peut conduire a un niveau de rayonnement essentiel ou non essentiel depassant les niveaux limites definis par ISED, ce qui est interdit.

Procedure d'installation



Regulatory and Compliance Information Safety Guidelines

This section contains notices that are intended to protect your personal safety and prevent damage to the equipment. Qualified Personnel:



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 Communications, movely there is no guarance that interference to a dialo or 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 encoursed to try to correct the interference by one of the following measures: Received the separation between the equipment and receiver.

 Connect the equipment into an outlet on a circuit different from that to which the consult the dealer or an experienced radio/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 complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter

This device meets all the other requirements specified in Part 15E, Section 15.407 of the

Warning: FCC Radiation Exposure Statement: This equip plies with FCC radiation exposure limits set forth for an ontrolled environment. This equipment should be installed ar rated with minimum distance 20 cm for AP7662i and 35 cm 2 between the radiator & your body.

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 : dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit : (1) le accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un ctionnement indésirable Caution

- The device for operation in the band 5150-5250 MHz is only for indoor use to reduce The device for operation in the band 5150-5250 MHz is only for indoor operation in the band 5150-5250 MHz is only for indoor band operation in the presence of the operating operation of the systems;
 The maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complex with the circ. Inimits specified for point-to-
- be such that the culpment sall orbits with the cutput mins specified to point of point and non-point-to-point operation as appropriate; and Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

Avertissement:

- vertissement: 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 mobilies utilisant les mêmes canaux. le gain maximal d'antenne permis (pour les dispositifs utilisant la bande de 5725 à 5 850 MHz) doit être conforme à la limite de la p.r.es spécifiée pour l'exploitation point à point et l'exploitation non point à point, selon le cas: De plus, les utilisateurs derivent aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c-à-d, qu'ils ont la priorité) pour les bandes 550-5550 MHz et que ces radars pourraient causer du brouillage et/ our les dommages aux dispositifs LAN-teurs.



Warning: IC Radiation Exposure Statement: This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm for AP7662i and 42 cm for AP7662 between the radiator & your body.

Warning: Déclaration d'exposition aux radiations: Cet

ipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm pour AP7662i et 42 cm pour AP7662 de distance entre la source de rayonnement

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This radio transmitter (IC: 4141B-AP3917E/ Model: AP3917e & AP7662) has been approved by ISED to operate with the antenna type listed below with maximum permissible gain 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 (IC: 4141B-AP3917E/ Model: AP3917e & AP7662) a été Les presses en ISED pour foctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne ninclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur

Item	Function	Antenna Type	Part No	Connector	Gain (dBi)		
item					2.4G	4.9G	5G
1	WLAN	Dipole	ML-2452-HPAG5A8-01	N Male	5	7.5	8
2	WLAN	Dipole	ML-2452-HPAG4A6-01	N Male	4		7.3
3	WLAN	Dipole	ML-2452-HPA6X6-036	N Male	4		6
4	WLAN	Dipole	WS-AO-DQ04360N	4 N Male	5.5		6
5	WLAN	Dipole	ML-2499-HPA4-01	N Male	4.5		
6	WLAN	Dipole	ML-2452-HPA6-01	N Male	5.3	4.6	6.1
7	WLAN	Dipole	ML-5299-HPA5-01	N Male			5.6
8	WLAN & BT LE & Zigbee	Dipole	ML-2499-HPA8-01	N Male	8		
9	WLAN	Dipole	ML-2499-FHPA5-01R	N Male	7.7		
10	WLAN	Dipole	ML-5299-FHPA6-01R	N Male		8.25	8.25
11	WLAN	Panel	ML-2452-PNA5-01R	N Male	4.5	5	5~4.5 MAX:5
12	WLAN & BT LE & Zigbee	Panel	ML-2452-PNA7-01R	N Male	7.8	7	10.7~7 MAX:10.7
13	WLAN	Polarized Panel	ML-2452-PNL6M4-N36	4 N Male	5.6	6.7	6.7
14	WLAN	Polarized Panel	ML-2452-SEC6M4-N36	4 N Male	6.92		7.23
15	WLAN	Polarized Panel	ML-2452-SEC6M4-N30	4 N Male	5.5		6
16	WLAN	Polarized Panel	ML-2452-PNL9M3-N36	N Male	11	7.3	10.7

4.9G Antenna for Item 6 and Item 11 will be secondary primary permanent fixed operations use only.

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
- Customer Support at +353 61 705500 (Ireland).

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

NCC Statement	NCL statement
银功率重近辐射性电機管理脚法	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、商號及使用者均不得擅自變更頻 率、加大功率或變更原設計之將性及功能。	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,商號成使用者均不得撞自變更頻 率、加大均率或變更厚設計之將性及功能。 第十四條 低功率射頻電機之使用不得影響發航安全及
第十四條 敘功率射頻電機之使用不得影響飛航安全及 干擾合法通信;線發現有干擾現象時,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,指依電信法規定作業之無線	干扰合法通信: 经管现有干扰现象将, 應立 即停用, 並送券至無干扰時方得環境使用, 前項合法通信,指依電信法規定作業之無線 電通信。
而不可不通信,但不通道,但不通道,而不可不不 電通信。 低功率射頻電機須忍受合法通信或工業、科 學是醫療用電波輻射性電機設備之干擾。	电电10°。 低功率計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。 •「電磁波電量MPE標准是1mW/cm ² ,未是正使用時建築應
 「電磁波爆霧量MPE標準值1mW/cm¹,送用產品質測值為 0.359mW/cm¹。 使用此產品時無避免影響附近當達系統之操作。 	距離人體 35cm; 此因材預終業実送且原用於固定式點對點接作。 高層道義內位夫線只得應用於固定式點對點為統。 使用此是並將應避免影響和這當並系紙之條件。
 總私權譽誌標示:「為炸道陽私權,請妥通使用」。 本器材領燈專業工程人員安装及設定,始得設置使用,且 不得直播戰售給一般消費者。 	 本器材領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。 播払權警認標示:「為堆項隱私權,請妥適使用」。

NCC Statement

Declaration of Conformity in Languages of the European Community

NCC Statement

- Hereby, Extreme Networks, declares that this Radio LAN device is in English compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
- Valmistaja Extreme Networks vakuuttaa täten että Radio LAN device tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä Finnish koskevien direktiivin muiden ehtoien mukainen
- Dutch Hierbij verklaart Extreme Networks dat het toestel Radio LAN device in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.

Bij deze verklaart Extreme Networks dat deze Radio LAN device voldoet aan de essentiële eisen en aan de overige relevante bepalingen van Richtlijn 1999/5/EC.

French Par la présente Extreme Networks déclare que l'appareil Radio LAN device est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.

> Par la présente, Extreme Networks déclare que ce Radio LAN device est conforme aux exigences essentielles et aux autres dispositions de la directive 1999/5/CE qui lui sont applicables.

- Härmed intygar Extreme Networks att denna Radio LAN device står I Swedish överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
- Undertegnede Extreme Networks erklærer herved, at følgende udstyr Danish Radio LAN device overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
- Hiermit erklärt Extreme Networks die Übereinstimmung des "WI AN German Wireless Controller bzw. Access Points" mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 1999/5/EG.

Greek

- ME THN ΠΑΡΟΥΣΑ Extreme Networks ΛΗΛΟΝΕΙ ΟΤΙ Radio LAN device ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/
- Extreme Networks lysir her med yfir að thessi bunadur. Radio LAN Icelandic rice, uppfyllir allar grunnkrofur, sem gerdar eru i R&TTE tilskipun ESB nr 1999/5/EC
- Italian Con la presente Extreme Networks dichiara che questo Radio LAN device è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
- Por medio de la presente Extreme Networks declara que el Radio LAN Snanish device cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
- Extreme Networks declara que este Radio LAN device está conforme Portuguese com os requisitos essenciais e outras disposições da Directiva 1999/5/
- Malti Hawnhekk, Extreme Networks, jiddikjara li dan Radio LAN device jikkonforma mal-htigijiet essenzjali u ma provvedimenti ohrajn relevanti li hemm fid-Dirrettiva 1999/5/FC

ExtremeWiNG^{III} Access **Points**

Quick Reference

P/N 37121 AP-7662-680B30-US P/N 37122 AP-7662-680B30-WR P/N 37123 AP-7662-680B40-US P/N 37124 AP-7662-680B40-WR

Notice

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