



AP-7562 Access Point

Installation Guide

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1 Introduction

AP-7562 Access Point Overview

Designed for extending network coverage to outside areas, the AP-7562 brings the latest 802.11ac 3x3:3 *Multiple Input Multiple Output* (MIMO) dual radio design together with rugged outdoor performance. The AP-7562 is a 3x3:3 802.11ac Access Point utilizing one 2.4 GHz 802.11n radio and one 5 GHz 802.11ac radio. The AP-7562 is optimized with WiNG intelligence, extending QoS, security, and mobility services to the Access Point to support better capacity and performance.

Deployments can be managed using WiNG architecture. WiNG architecture leverages the best aspects of independent and dependent architectures to create a smart network that meets the connectivity, quality, and security needs of each user and their applications based on the availability of network resources, including wired networks.

Once adopted by a WLAN or Integrated Services Controller running WiNG firmware, the AP-7562 is managed as an Adaptive AP, running the WiNG network management protocol. WiNG networks extend the current differentiation that Adaptive APs offered to the next level by now having the services and security available at every point in the network. The traffic flow is optimized to prevent wired congestion. Traffic flows dynamically, based on user and application, and finds alternate routes to work around any possible network choke points. Mixed-media application optimization is the hallmark of WiNG 5 networks.

Updated versions of this guide could be periodically released to the Support site as new product functionality is introduced. For more information, see <http://documentation.extremenetworks.com>.

Document Conventions

The following graphical alerts are used in this document to indicate notable situations:



NOTE

This is note text.



CAUTION

This is caution text.



WARNING

This is warning text.

AP-7562 Hardware

The following AP-7562 SKUs are available:

Model Part Number	Description
AP-7562-67040-US	AP-7562 Access Point outdoor IP67 dual radio 3x3:3 802.11 a/b/g/n/ac radio SKU: US
AP-7562-67040-1-WR	AP-7562 Access Point outdoor IP67 dual radio 3x3:3 802.11 a/b/g/n/ac radio SKU: WR
AP-7562-670042-US	AP-7562 Access Point dual radio 3X3:3 MIMO 802.11AC Outdoor Access Point facade Antenna SKU: US
AP-7562-670042-1-WR	AP-7562 Access Point outdoor dual radio 3X3:3 MIMO 802.11AC facade Antenna SKU: WR
AP-7562-6704M-US	AP-7562 Access Point dual radio 3X3:3 MIMO 802.11AC Outdoor Access Point External Antenna SKU: US, M12 Connector
AP-7562-6704M-1-WR	AP-7562 Access Point outdoor dual radio 3X3:3 MIMO 802.11AC External Antenna SKU: WR, M12 Connector

The AP-7562-670042-US/WR includes a factory installed facade antenna and does not require additional antennas. See the antenna guide for specific antenna patterns.



Antenna Accessories



NOTE

AP-7562 Access Points ship with one weatherized Ethernet adapter (except M12 connector models). AP-7562 Access Points do not ship with the Mounting Kit/ Antenna and POE injector. These items must be ordered separately.

**NOTE**

Antennas are included in the SKUs with an antenna facade but must be ordered separately for the other SKUs and are not included.

Antennas are included with the SKUs listing an antenna facade, but must be ordered separately for the other SKUs and are not included:

Dual Band 2.4 GHz / 5 GHz Antenna - US and Canada

Part Number	Antenna Type	2.4 GHz Peak Gain	5.2 GHz Peak Gain
ML-2452-HPAG4A6-01	Dipole	4.0	7.3
ML-2452-HPA6X6-036	Dipole	4.0	7.3
ML-2452-HPA6-01	Dipole	5.3	6.1
ML-2452-PNA5-01R	Panel	5.5	6.0
ML-2452-PNL3M3-1	Polarized Panel	9.7	9.2
AP-7562-670042-US	Dipole	4.8	6.4
AP-7562-670042-WR	Dipole	4.8	6.4

Single Band 2.4 GHz Antennas - US and Canada

Part Number	Antenna Type	2.4 GHz Peak Gain
ML-2499-FHPA5-01R	Dipole	5.3
ML-2499-HPA4-01	Dipole	4.5
ML-2499-5PNL-72-N	Panel	6.5

Single Band 5 GHz Antenna - US and Canada

Part Number	Antenna Type	5.2 GHz Peak Gain
ML-5299-HPA5-01	Dipole	5.6

Outdoor Elevation Gain Configuration for US SKUs

Per FCC requirement, the use of the Access Point on UNII-1 band requires installers to input antenna elevation gain for dipole antennas during configuration. This information can be found in the Extreme Networks *Antenna Specification Guide* available at <http://documentation.extremenetworks.com>.

The applicable outdoor antennas on 5GHz band are shown below:

Index	Antenna Type	Part Number	Elevation Gain
1	Dipole	ML-5299-HPA5-01	-2.53
2	Dipole	ML-2452-HPAG4A6-01	5.7
3	Dipole	ML-2452-HPA6X6-036	3.9
4	Dipole	ML-2452-HPA6-01	4.09
5	Dipole	AP-7562-670042-US	5.4*



NOTE

*The elevation gain for the AP-7562-670042-US version SKU is built into the WiNG software, the professional installer does need to manually enter it.

Dual Band 2.4 GHz / 5 GHz Antennas - EMEA

Part Number	Antenna Type	2.4 GHz Peak Gain	5.2 GHz Peak Gain
ML-2452-HPAG5A8-01	Dipole	7.5	8.0
ML-2452-PNA7-01R	Panel	8.0	12.0
ML-2452-PNL3M3-1	Polarized Panel	9.7	9.2

Single Band 2.4 GHz Antennas - EMEA

Part Number	Antenna Type	2.4 GHz Peak Gain
ML-2499-FHPA9-01R	Dipole	10.5
ML-2499-HPA8-01	Dipole	8.0

Single Band 5 GHz Antenna - EMEA

Part Number	Antenna Type	5.2 GHz Peak Gain
ML-5299-HPA10-01	Dipole	10.5
ML-5299-HPA5-01	Dipole	5.6

Hardware and Mounting Accessories

The AP-7562 is a *Power over Ethernet* (PoE) device. When deployed, the use of an outdoor rated PoE power supply and mounting bracket may be required. The recommended PoE accessories are listed in the following table:

Part Number	Description
PD-9001GO-ENT	Outdoor IP66 802.3AT gigabit Ethernet power injector, 100-240 VAC US
PD-9001GO-ENT	Outdoor IP66 802.3AT gigabit Ethernet power injector, 100-240 VAC International
PD-MBKOUT	Outdoor PoE mounting kit

Mounting Accessories

The AP-7562 has a flexible three piece mounting kit (KT-147407-01), together with an optional standoff extension arm (KT-150173-01) for pole mounting. Additionally, the KT-147407-02 stainless steel hardware mounting bracket kit is available for deployments in corrosive environments.

Part Number	Description
KT-147407-01	Hardware mounting kit
KT-150173-01	12 inch extension arm for mounting kit
KT-147407-02	Stainless steel hardware mounting kit

Weatherized Ethernet Accessories

One RJ45 weatherized connector plug is included with each AP-7562 Access Point (except M12 connector models). If additional plugs are required, they can be ordered using the following part number:

Part Number	Description
KT-153676-01	RJ45 weatherized connector plug



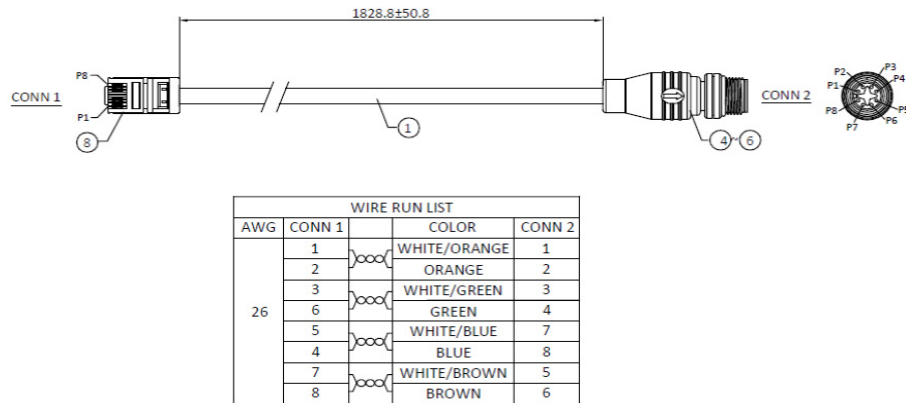
CAUTION

When connecting RJ45 cables, ensure cables are connected to the Access Point from the bottom, and include a drip loop to prevent moisture intrusion. Cover the Ethernet cable with self-healing weatherproofing tape.

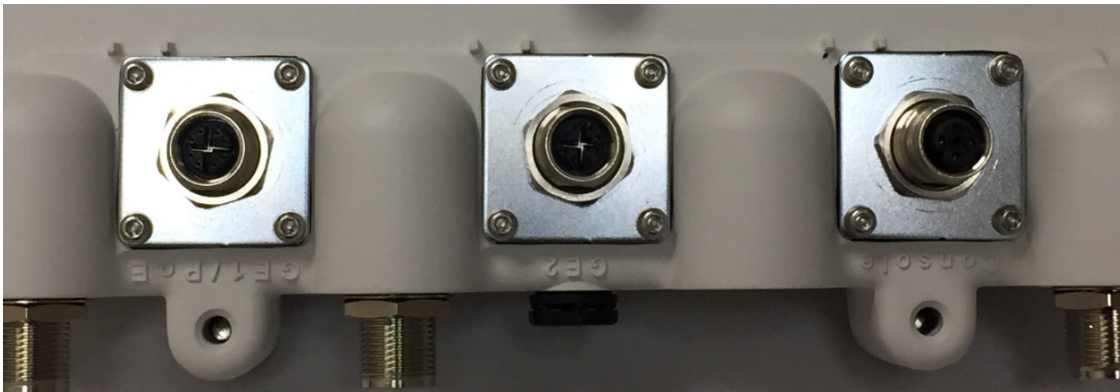
Refer to the installation instructions included with the RJ45 weatherized connector plug for proper procedure to form a drip loop with the cable.

M12 Console Port Connections

The AP-7562-6704M is an M12 version of the AP-7562 ruggedized IP 67 Access Point specifically designed for harsh environments requiring locking connectors for industrial applications. M12 connectors provide a reliable sturdy connection when subjected to shock and vibration.



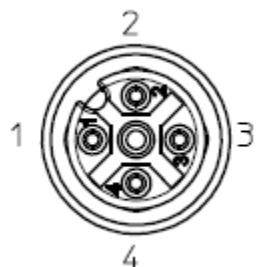
M12 X-Coded Ethernet Cable for the AP-7562-6704M-US



GE Ports - M12 8-Pole X-Coded Female

Console Port - M12 4-Pole A-Coded Female

GE ports support the use of commercially available M12 X-Coded Ethernet cables. Refer to the connections below for M12 Console port connections:



Pin 1 - Transmit from Access Point

Pin 2 - Receive to Access Point

Pin 3 - Ground

Pin 4 - Ground

Package Contents

Carefully remove all protective packing material around the AP-7562 Access Point and save the container for storage. Refer to [Hardware and Mounting Accessories](#) on page 7 when verifying all AP-7562 hardware has been received.



NOTE

Record the serial numbers on the shipping cartons and AP-7562 Access Points for warranty claims and reference during software download procedures.

When opening the shipping cartons, inspect the equipment for damage. If you find any damaged equipment or any equipment is missing, contact Support immediately.

Each AP-7562 Access Point (see [Hardware and Mounting Accessories](#) on page 7) includes the following parts:

- AP-7562 Access Point
- Weatherproof RJ45 plug kit (except M12 connector models)

AP-7562 Access Point Installation Guide (this document)

Hardware Installation Guidelines



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.



WARNING

Strictly observe safety precautions and warnings when installing an AP-7562 Access Point.

Precautions

Before installing an AP-7562 Access Point, verify the following grounding and lightning protection guidelines:

- The installation professional should be familiar with all grounding requirements and regional codes and ensure the Access Point and mounting asset are properly grounded. The grounding cable for an AP-7562 must be at a minimum a #10 gauge wire cross section. The cable can be attached to the unit using one of the following methods:
 - Loosen the grounding screw, insert the grounding cable into the hole below it, and tighten the screw.
 - Loosen the grounding screw, wind the grounding cable around it, and tighten the screw.
 - Attach a ring lug to the grounding cable and secure it to the unit using the grounding screw.
- To properly attach the grounding cable to the Access Point, refer to **on Page 14**.
- For Ethernet and lightning protection, it is recommended that a commercially available off-the-shelf *Lightning Protection Unit* (LPU) be used on all shielded CAT5E Ethernet connections. The LPU should be rated for outdoor use.
 - For the best possible protection, each Access Point requires an LPU be installed adjacent to the Access Point. If there is a LAN connection to an indoor network, a second LPU is required at the cable entry point to the building.
- Verify the deployment environment has a continuous temperature range compatible with the operating temperature range of the device.

Warnings

- This equipment is designed to operate in ambient temperatures up to 70°C. When operating in elevated ambient temperatures, the surface of the equipment may exceed 70°C and become too hot to safely touch. Under this condition, this product must be installed in a secured location that is not accessible to accidental touch, and access to the device must be restricted to service persons or users who possess the proper tool or key to access the device and have been informed about the potential high surface temperatures and instructed on how to safely handle and/or service the device.
- Read all installation instructions and site survey reports, and verify correct equipment installation before connecting the Access Point to its power source.
- Remove jewelry and watches before installing this equipment.
- Verify the unit is grounded before connecting it to the power source.
- Verify any device connected to this unit is properly wired and grounded.
- Connect all power cords to a properly wired and grounded electrical circuit. Verify the electrical circuits have appropriate overload protection.
- Attach only approved power cords to the device.
- Verify the power connector and socket are accessible at all times during the operation of the equipment.
- Do not hold any component containing a radio such that it is very close to or touching any exposed parts of the body, especially the face or eyes, while transmitting.
- Do not work with power circuits in dimly lit spaces.
- Do not install this equipment or work with its power circuits during thunderstorms or other weather conditions that could cause a power surge.
- Verify there is adequate ventilation around the device, and that ambient temperatures meet equipment operation specifications.
- Avoid contact with overhead power lines.
- Take precautions to avoid injury from falling tools and equipment. Crews should wear hard hats in and around the installation work site.
- Be aware of vehicular traffic in and around the installation work site.
- Do not operate a portable transmitter near unshielded blasting caps or in an environment where explosives are present unless the transmitter is especially certified for such use.
- Refer to your site survey and network analysis reports to determine specific requirements for each deployment.
- Assign installation responsibility to the appropriate personnel.
- Identify and document where all installed components are located.
- Identify and prepare Ethernet and console port connections.
- Verify cable lengths are within the maximum allowable distances for optimal signal transmission.

**CAUTION**

The maximum length allowed for PoE cables is 100 meters.

**CAUTION**

When connecting RJ45 cables, ensure that all cables are connected to the Access Point from the bottom, and include a drip loop to prevent moisture intrusion.

Access Point Placement

Observe the following recommended guidelines:

Identify each piece of the mounting bracket and mounting extension arm hardware and ancillary hardware.

- Mount the device with the black gore vent down.



- Mounting height for network devices should not exceed 30 to 35 feet. Mounting height should vary to accommodate the topography of the deployment area, foliage, and other obstructions.
- Devices can be deployed using any of the recommended outdoor deployment procedures.

Line of Sight (LoS) guidelines should be given special consideration when deploying devices.

Hardware Overview

The AP-7562 is a 3x3:3 802.11ac Access Point utilizing one 2.4 GHz 802.11n radio and one 5 GHz 802.11ac radio.

An AP-7562 must be installed by trained professionals familiar with RF planning and regulatory limits defined by the regulatory bodies of the country where the devices are being deployed. All common precautions for grounding and *Electrostatic Discharge* (ESD) protection should be observed during deployment and installation. AP-7562 Access Points must be installed such that no harmful interference results from device operation.

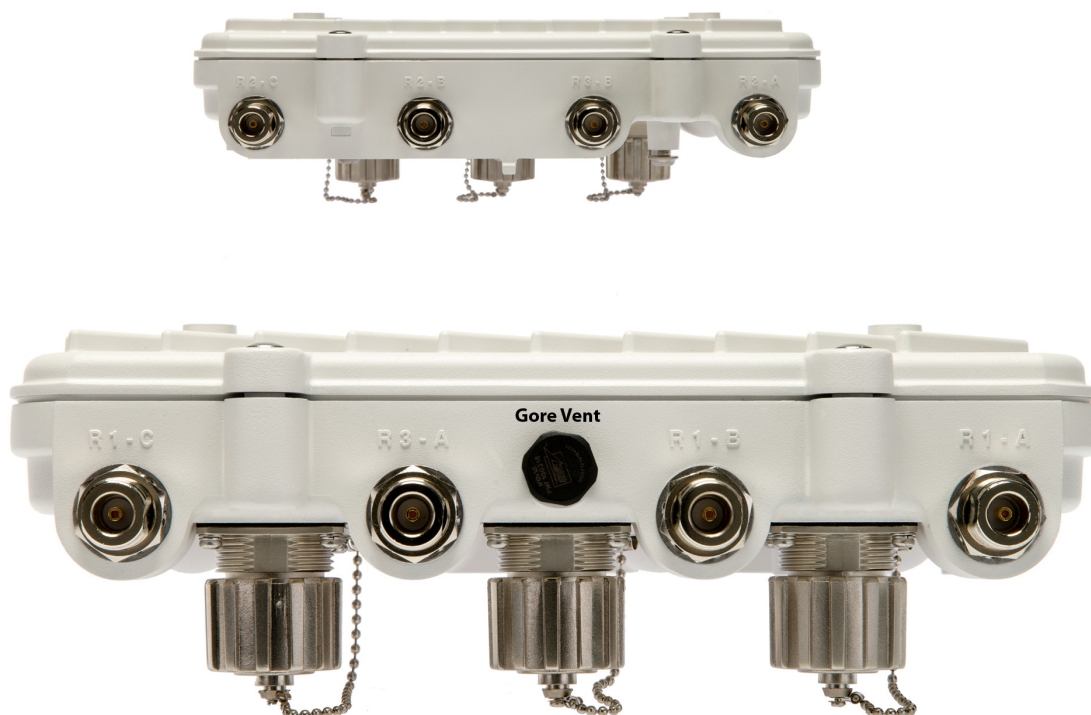
Ports and Connections

The AP-7562 Access Point has the following port designations:

- Antenna ports R1-A, B and C, R2-A, B and C
- Console port
- GE1/POE - LAN port
- GE2 - WAN port

Antenna Connectors

AP-7562 Access Points (AP-7562-67040-US and AP-7562-67040-1-WR) are configured with six N type connectors to support two active WLAN data radios.



WARNING

Antenna ports where no antenna is mounted must be properly terminated using an approved IP67 terminator.



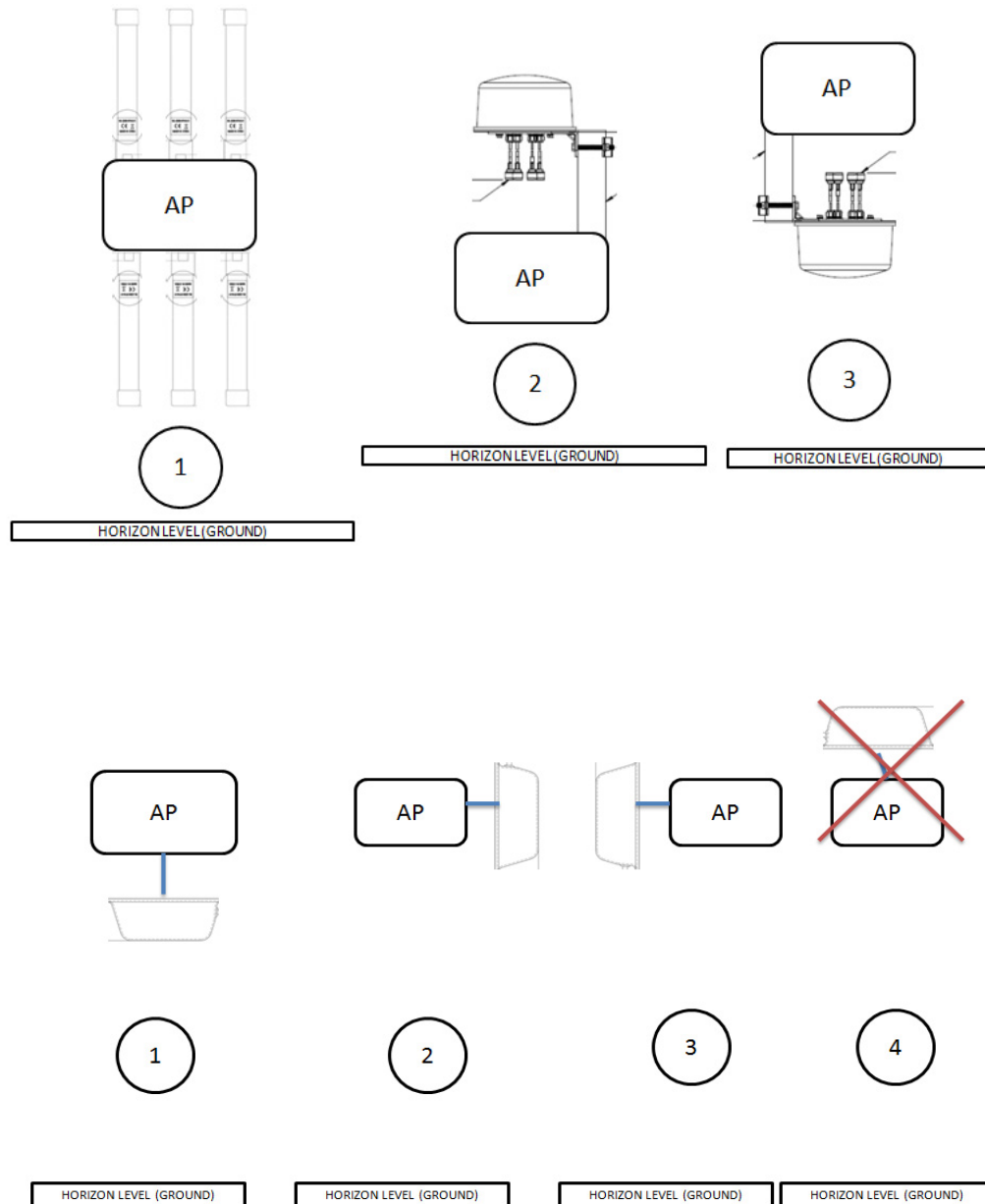
WARNING

All antenna connectors should be covered with weatherproofing tape.

Antenna Mounting Guidelines

The following are acceptable mounting examples for dipole deployments:

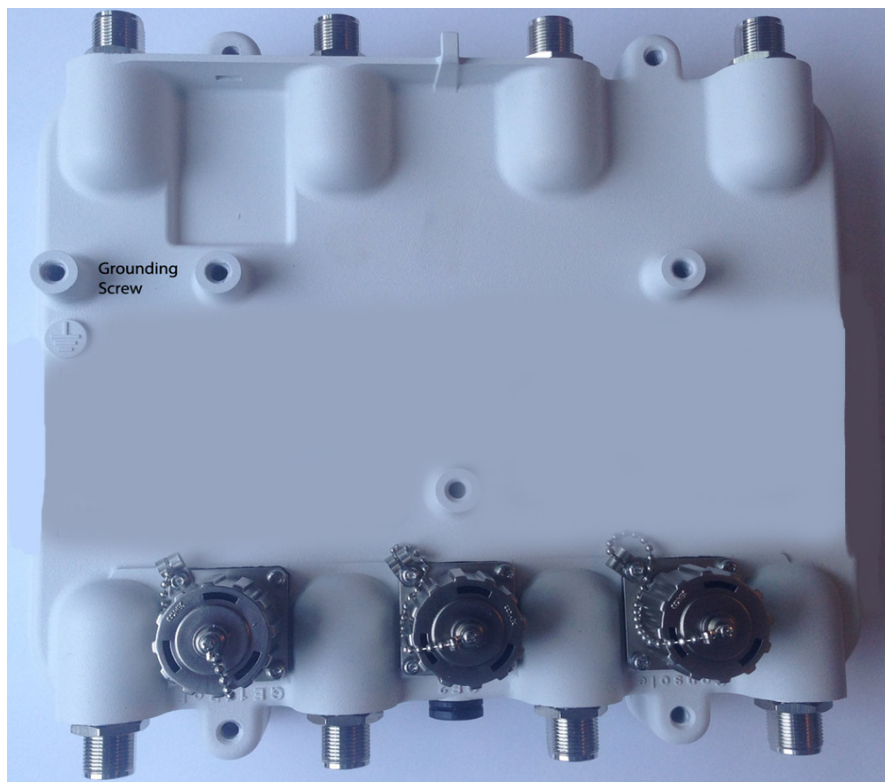
The following are examples of acceptable mounting methods for panel antenna deployments:



For the units utilizing an antenna façade, the unit can be mounted on a pole or in the ceiling as long as the unit faces its intended radio coverage area.

Grounding Post

The grounding post is located on the bottom of the Access Point above the GND symbol.



WARNING

The grounding cable for an AP-7562 must be at a minimum a #10 gauge wire cross section.

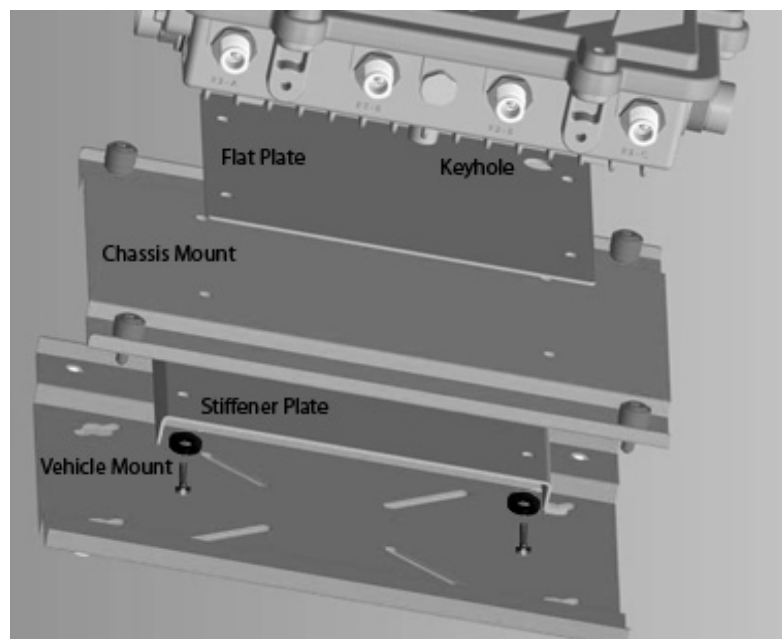
The grounding cable can be attached to the unit using one of the following methods:

- Use a grounding screw to securely attach the grounding cable to the grounding post. Use an 8mm socket and driver to tighten the grounding screw to 30 inch pounds (lbf-in).
- Attach a ring lug to the grounding cable and use a grounding screw to securely attach the ring lug to the Access Point. Use an 8mm socket and driver to tighten the grounding screw to 30 inch pounds (lbf-in).

VMM Mounting and Installation

The AP-7562 *Vehicle Mounted Modem* (VMM) is a software enabled profile within the WiNG 5 architecture that uses the same hardware as the AP-7562 Access Point infrastructure models.

An AP-7562 Access Point operating as a VMM can be permanently mounted in a vehicle. It provides mesh backhaul access to a mesh infrastructure network to connect mobile data terminals, laptop computers, or any other device with either Ethernet or 802.11 wireless capability. The VMM operates on *Power over Ethernet* (PoE) and is rugged enough for installation in commercial and public safety vehicles for mobile deployments. Extreme recommends using the vehicle mount kit (KT-158767-01) for mobile deployments.



To install the Access Point VMM:

- 1 Remove the rubber plugs from the four screw holes on the LED side of the AP-7562. Position unit with screw holes facing upwards.
- 2 Put the flat plate on top of the VMM. Align the key hole and four screw holes on the flat plate with the philips screw head and four screw holes on the VMM.

- Put the chassis mount on the flat plate with the key hole and four screw holes aligned.

**NOTE**

The screw heads on the chassis mount should be facing down.

- Put the stiffener plate on the chassis mount with the key hole and four screw holes aligned.



- 5 Insert four screws with washers through the holes of the three plates and into the screw holes on the bottom of the VMM.



- 6 Using a 5mm allen wrench or box wrench, tighten the screws to 150 inch pounds (lbf-in).
- 7 Set the VMM and top bracket sub-assembly aside.
- 8 Locate the mount point position for the VMM in the vehicle. Ensure there is sufficient clearance for cables and antennas. The surface should be metal (1.0 mm minimum thickness), hard plastic or plywood, and capable of supporting the weight of the VMM and bracket assembly.
- 9 Attach the vehicle mount securely to the mount point with metal screws or bolts (not provided).
- 10 Securely attach the AP-7562 top bracket sub-assembly to the vehicle mount with the four pre-installed thumb screws. Tighten the screws to 90 inch pounds (lbf-in) using a philips screwdriver or pliers.
- 11 Attach three RP-SMAF adapters (part number 25-90263-02R) to the N connectors on the active mobile radio on the VMM. Radio 1 ports are labeled R1-A, R1-B, and R1-C. Radio 2 ports are labeled R2-A, R2-B, and R2-C.
- 12 Attach the antennas to the adapters for each radio to be enabled.
- 13 Connect the CAT5E cable providing power to the RJ45 port labeled GE1/POE.

**WARNING**

Connecting power to any other port could damage the unit.

- 14 Select an Access Point Mode from the available options.

VMM Power Options

A mounted AP-7562 operating as a VMM within a vehicle or mobile asset requires a power source delivered via *Power over Ethernet* (PoE). A professional certified installation partner should be consulted in respect to appropriate power sources and installation within a vehicle or mobile asset. A vehicular power source is not provided. No responsibility is taken for any power source design operated outside of the allowed specifications for power of an AP-7562 operating as a VMM.

The following table shows a number of potential power sources and corresponding industry options to power an AP-7562 VMM:



WARNING

Exceeding these listed power requirements can invalidate the Access Point warranty.

Potential Vehicular/Mobile Power Sources	Required Source
12V battery	DC-DC convertor or DC PoE injector
24V battery	DC-DC convertor or DC PoE injector
12V power plug	DC PoE injector with power plug adapter
AC inverter within vehicle	AC PoE injector
PoE switch in train or vehicle	Direct connection via CAT5E cable

LED Indicators

AP-7562 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).

Task	2.4 GHz Activity LED (Green)	5 GHz Activity LED (Amber)
Unconfigured Radio	On	On
Normal Operation	<ul style="list-style-type: none"> If this radio band is enabled: Blink at 5 second interval If this radio band is disabled: Off If there is activity on this band: Blink interval at 1 time per second 	<ul style="list-style-type: none"> If this radio band is enabled: Blink at 5 second interval If this radio band is disabled: Off If there is activity on this band: Blink interval at 1 time per second
Firmware Update	Off	On
Locate AP Mode	LEDs blink in an alternating green, red and amber pattern using an irregular blink rate. This LED state in no way resembles normal operating conditions	LEDs blink in an alternating green, red and amber pattern using an irregular blink rate. This LED state in no way resembles normal operating conditions.

2 Hardware Mounting and Installation

The AP-7562 mounting bracket kit (KT-147407-01) is recommended 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). Additionally, the KT-147407-02 stainless steel hardware mounting bracket kit is available for deployments in corrosive environments.

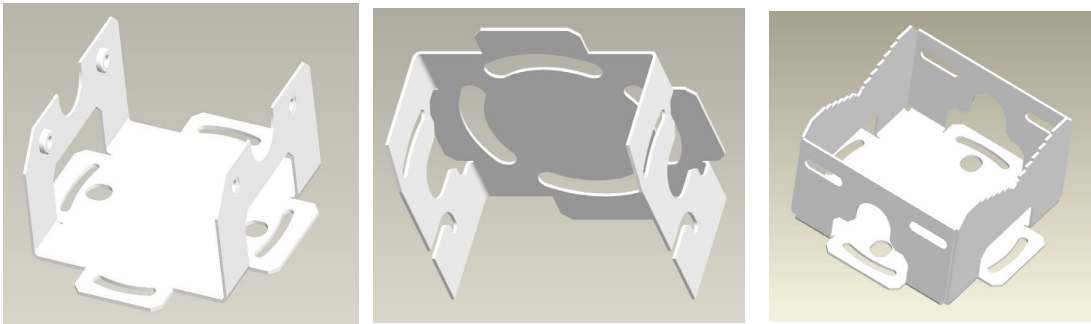


NOTE

The KT-147407-02 stainless steel bracket is specially rated for deployments that potentially contain corrosive particles in the air.

Mounting Bracket Kit

The AP-7562 mounting bracket kit (KT-147407-01) includes the Access Point bracket (left), angle adapter bracket (center), and pole mount bracket (right) sections:



The Access Point bracket and angle adapter bracket can be rotated (plus or minus 15 degrees) and tilted (up to 45 degrees) to orient the unit for optimal positioning.

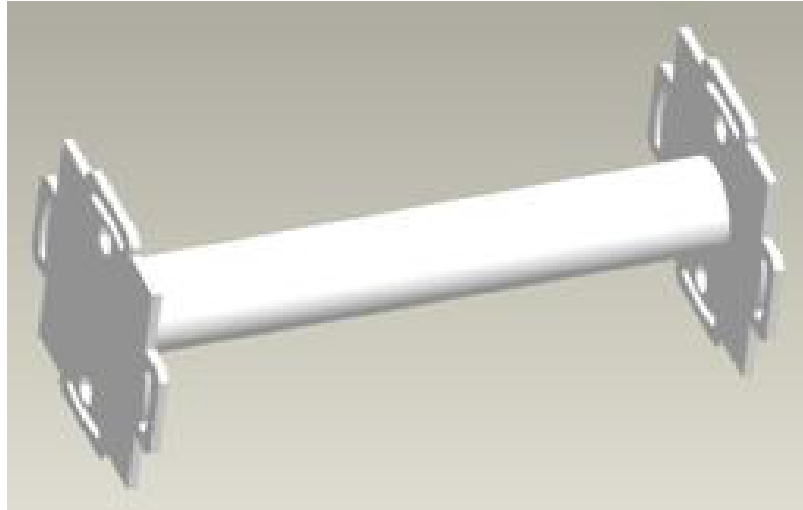
The following ancillary hardware is included in the kit to assemble the mounting bracket:

Description	Quantity
M6 serrated hex flanged screws	7
1/2 inch hex head nut	2
1/2 inch x 3/4 inch hex head bolt	2

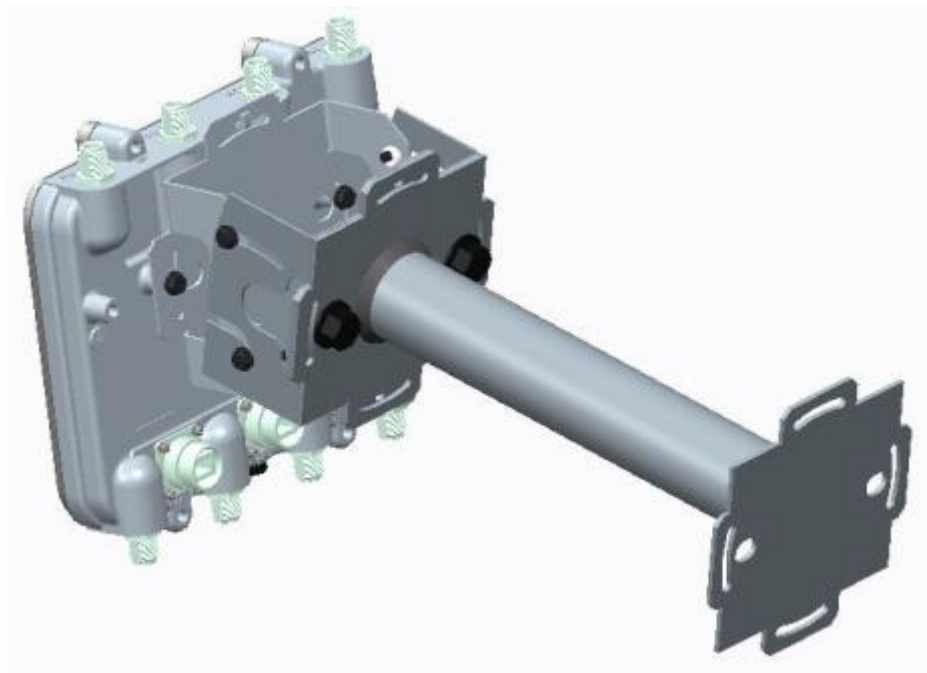
A torque wrench or ratchet with a 10mm adapter, or an adjustable wrench, can be used to assemble the mounting brackets.

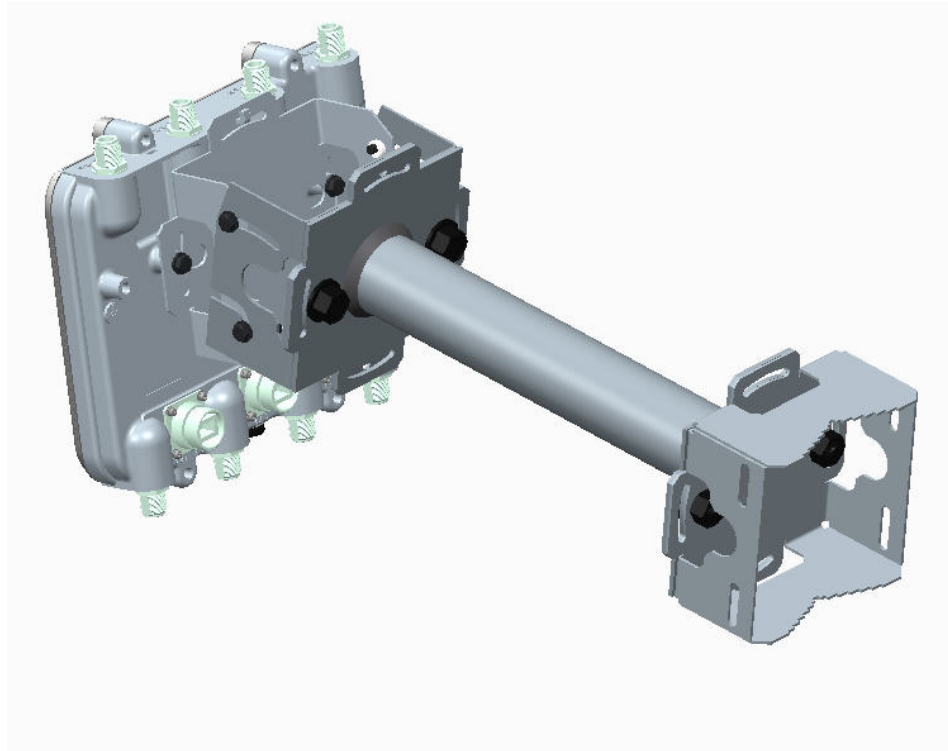
Extension Arm Kit

When mounting an AP-7562 on poles more than 3 inches in diameter, use the extension arm kit (KT-150173-01) to provide a minimum standoff distance of twelve inches to avoid interference with the antennas.



The extension arm kit can also be used in combination with any of the brackets from the mounting bracket kit.





The following ancillary hardware to attach the extension arm to the mounting bracket is included in the extension arm kit:

Description	Quantity
1/2 inch hex head nut	2
1/2 inch x 3/4 inch hex head bolt	2

Pole Mounted Installations

The mounting hardware kit and extension arm can be used in various combinations to properly install the AP-7562 on a pole. For poles 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.

CAUTION

Always mount the AP-7562 with the black gore vent facing down.

NOTE

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

NOTE

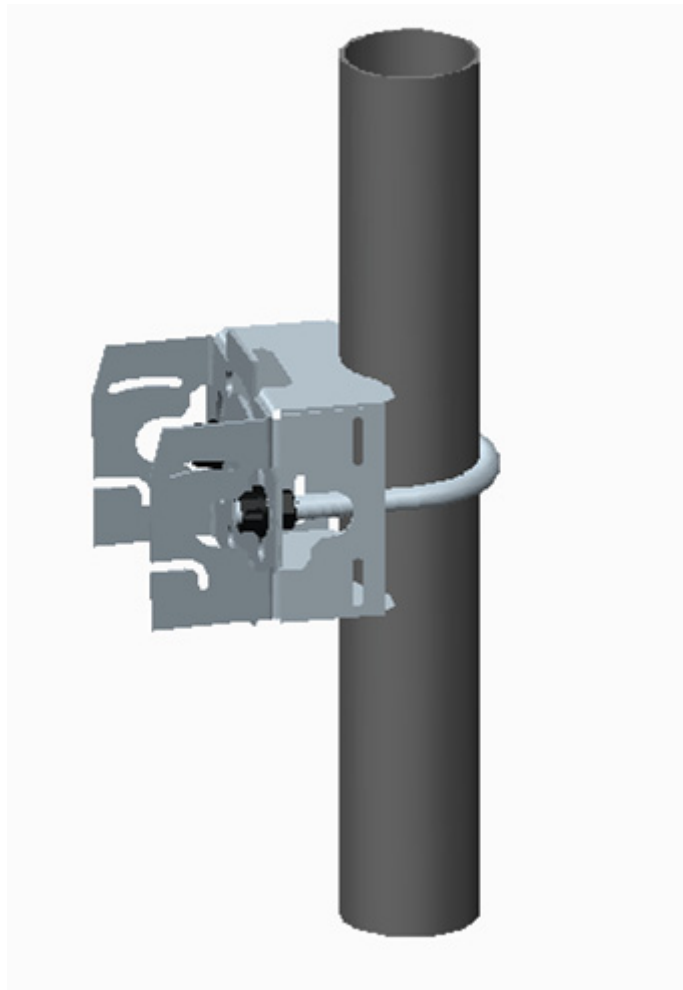
The use of an extension arm is recommended for installations on poles greater than 3 inches in diameter.

Vertical Pole Mount

Use the following procedure for vertical pole mount installations. The extension arm is recommended when mounting the Access Point to poles greater than 3 inches in diameter.

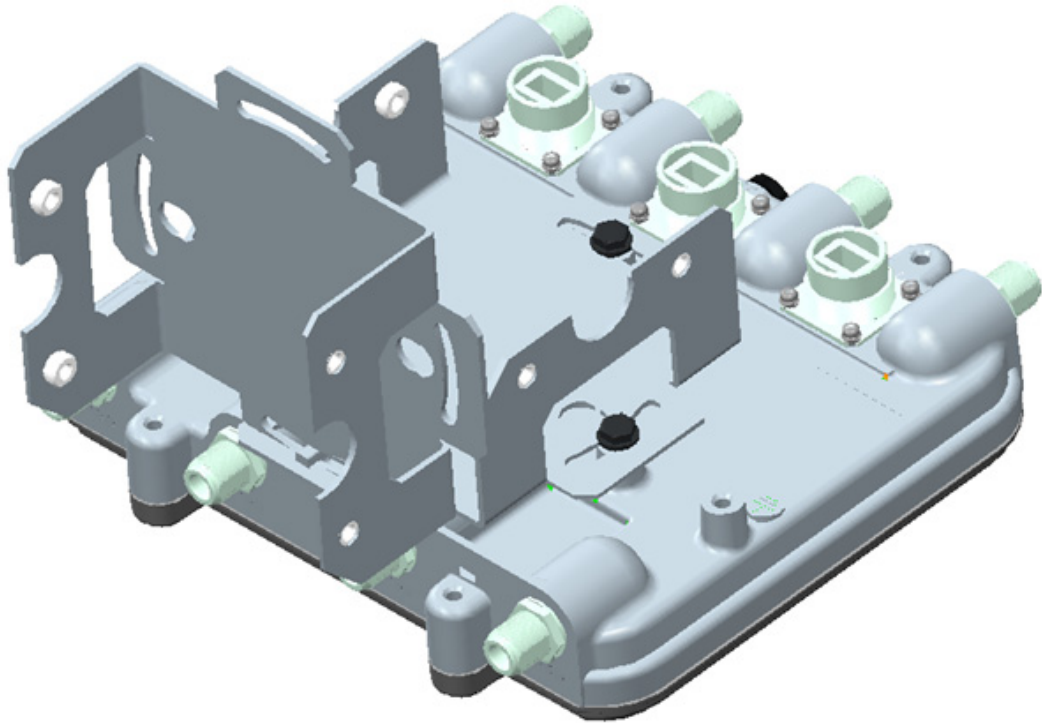
For poles up to 3 inches in diameter when using a U-bolt:

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

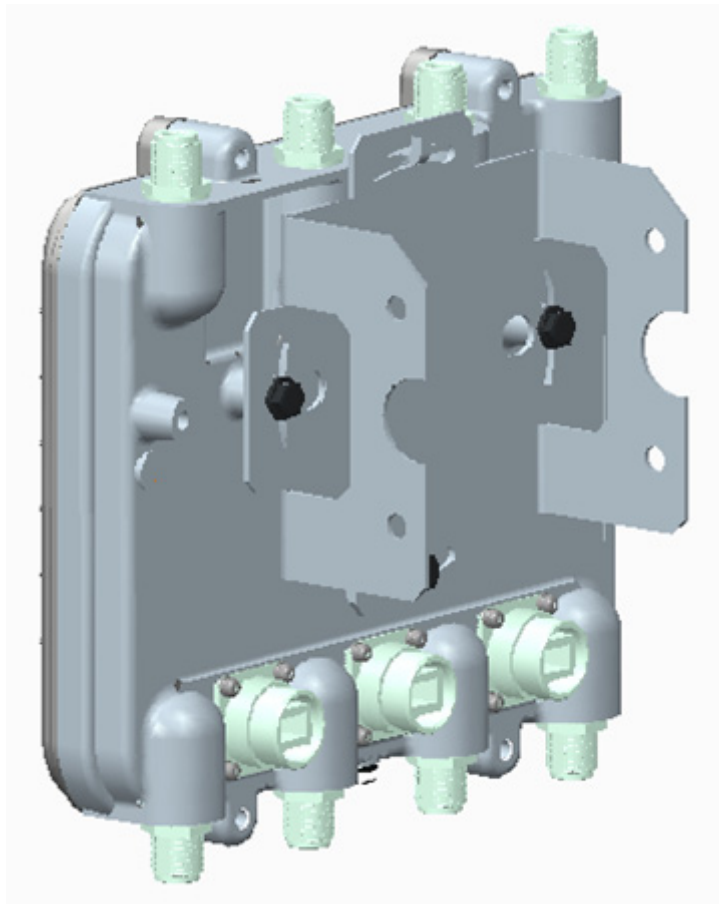


- 3 Place the angle adapter bracket on the U-bolt with the open slot connections on the bottom and align it with the pole mount. Attach with two 1/2 inch nuts. Tighten all nuts to 300 inch pounds (lbf-in).

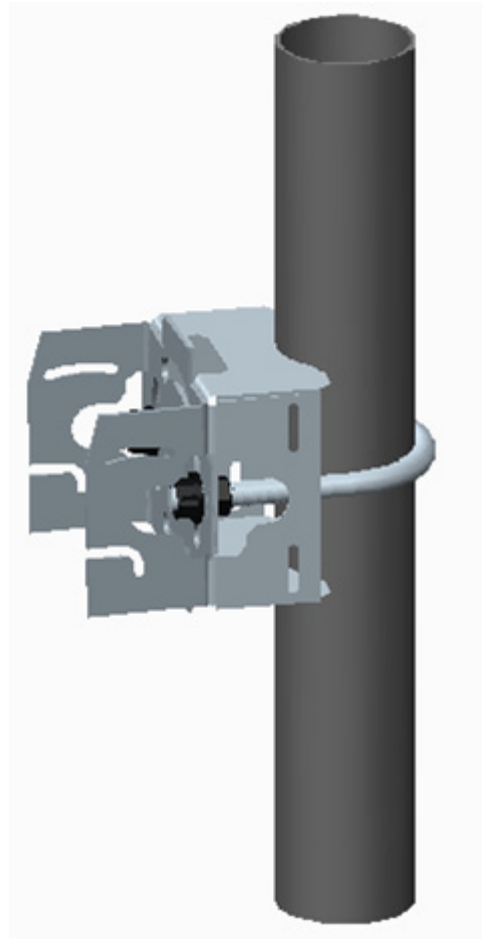
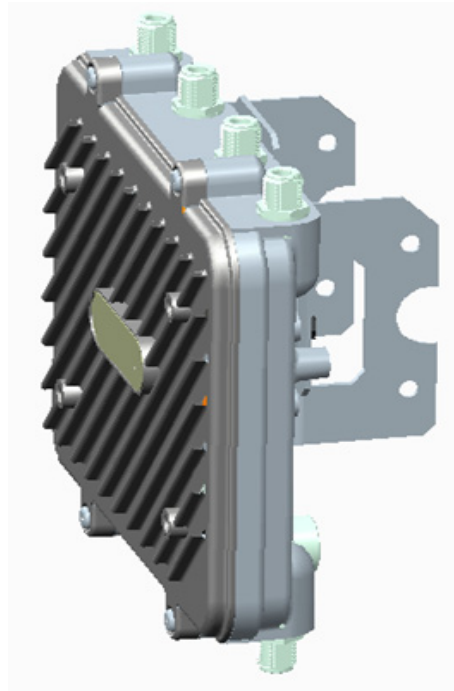
- 4 Position the Access Point bracket so the bottom of the section with the straight (not bevel cut) side is oriented toward the bottom side of the AP with the gore vent. Attach (but don't tighten) the bracket to the AP-7562 with the four M6 flange screw using a torque wrench, a ratchet and a 10mm socket or an adjustable wrench.



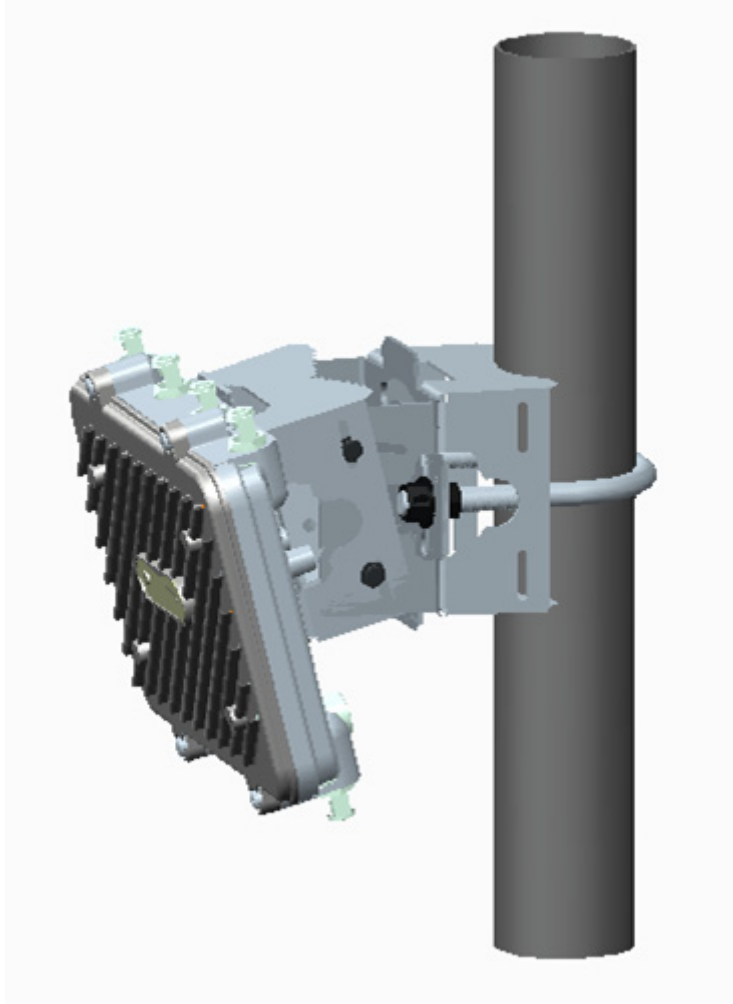
- 5 Insert two M6 hex flange screws into the bottom holes on the sides of the Access Point bracket.



- 6 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 into the open slot connections on the bottom of the angle adapter bracket.



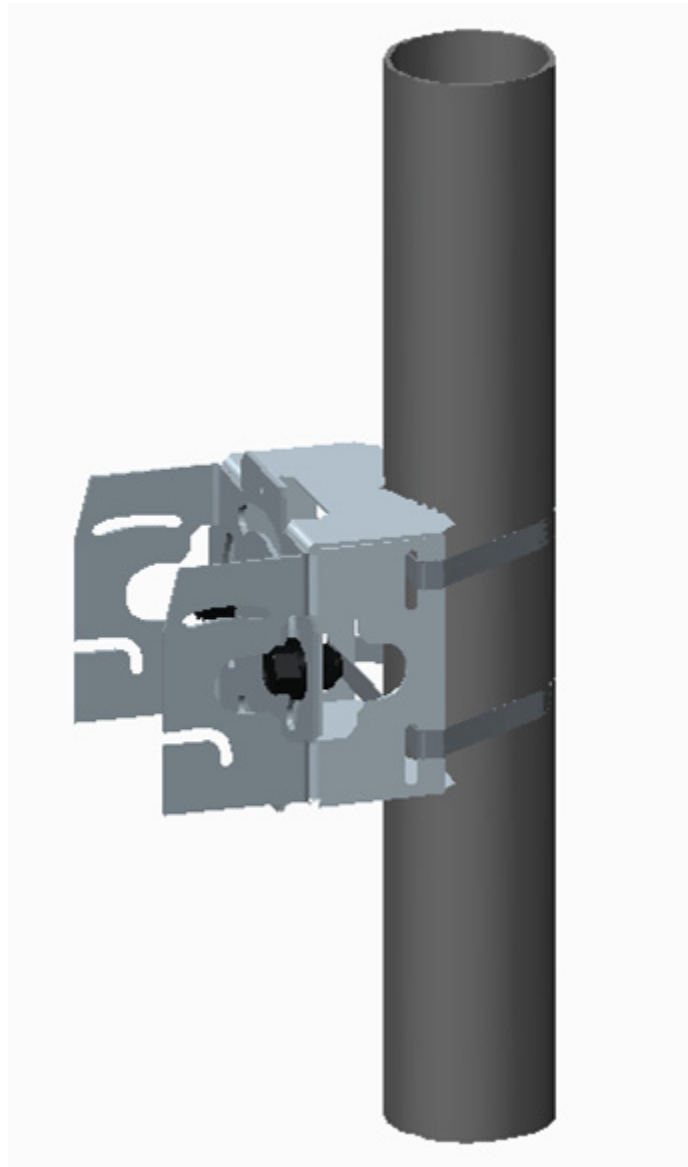
- 7 Rotate the Access Point bracket upward, and align the top holes on the sides with the top holes on the angle adapter bracket. Insert two M6 hex flange screws into the top holes on the angle adapter bracket.



- 8 Use a torque wrench or a ratchet and a 10mm socket, or an adjustable wrench, to finish attaching the Access Point bracket to the angle adapter bracket with the M6 hex flange screws in the open slot connections and the top holes on the angle adapter bracket. Do not tighten the screws until all rotation and tilt adjustments are complete.
- 9 To adjust the position of the Access Point, rotate the Access Point bracket (plus or minus 15 degrees) and tilt the angle adapter bracket (up to 45 degrees).
- 10 Tighten all hex flange screws to 60 inch pounds (lbf-in).

For mounting with band clamps:

- 1 Attach the pole mount bracket at the desired mounting location using band clamps.

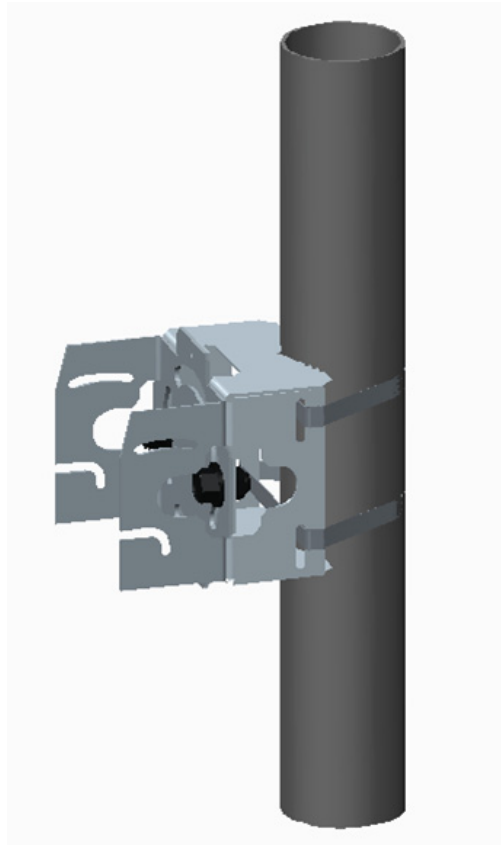


- 2 With the angle adapter bracket positioned so the open connector slots are on the bottom, attach the angle adapter bracket to the pole mount bracket using two 1/2 inch bolts and nuts. Tighten the nuts to 300 inch pounds (lbf-in).
- 3 Position the Access Point bracket so the bottom of the bracket with the straight (not bevel cut) sides is oriented toward the bottom side of the AP with the gore vent. Attach (but don't tighten) the bracket to the AP-7562 with the four M6 hex flange screws using a torque wrench, a ratchet and a 10mm socket or an adjustable wrench.
- 4 Insert two M6 hex flange screws into the bottom holes on the sides of the Access Point bracket.
- 5 Position the Access Point 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 into the open slot connections on the bottom of the angle adapter bracket.

- 6 Rotate the Access Point bracket upward and align the top holes on the sides with the top holes on the angle adapter bracket. Insert two M6 hex flange screws into the top holes on the angle adapter bracket. Use a torque wrench, or a ratchet and a 10mm socket, or an adjustable wrench, to finish attaching the Access Point bracket to the angle adapter bracket with the M6 hex flange screws in the open slot connections and the top holes on the angle adapter bracket. Do not tighten the screws until all rotation and tilt adjustments are complete.
- 7 To adjust the position of the Access Point, rotate the Access Point bracket (plus or minus 15 degrees) and tilt the angle adapter bracket (up to 45 degrees).
- 8 Tighten all hex flange screws to 60 inch pounds (lbf-in).

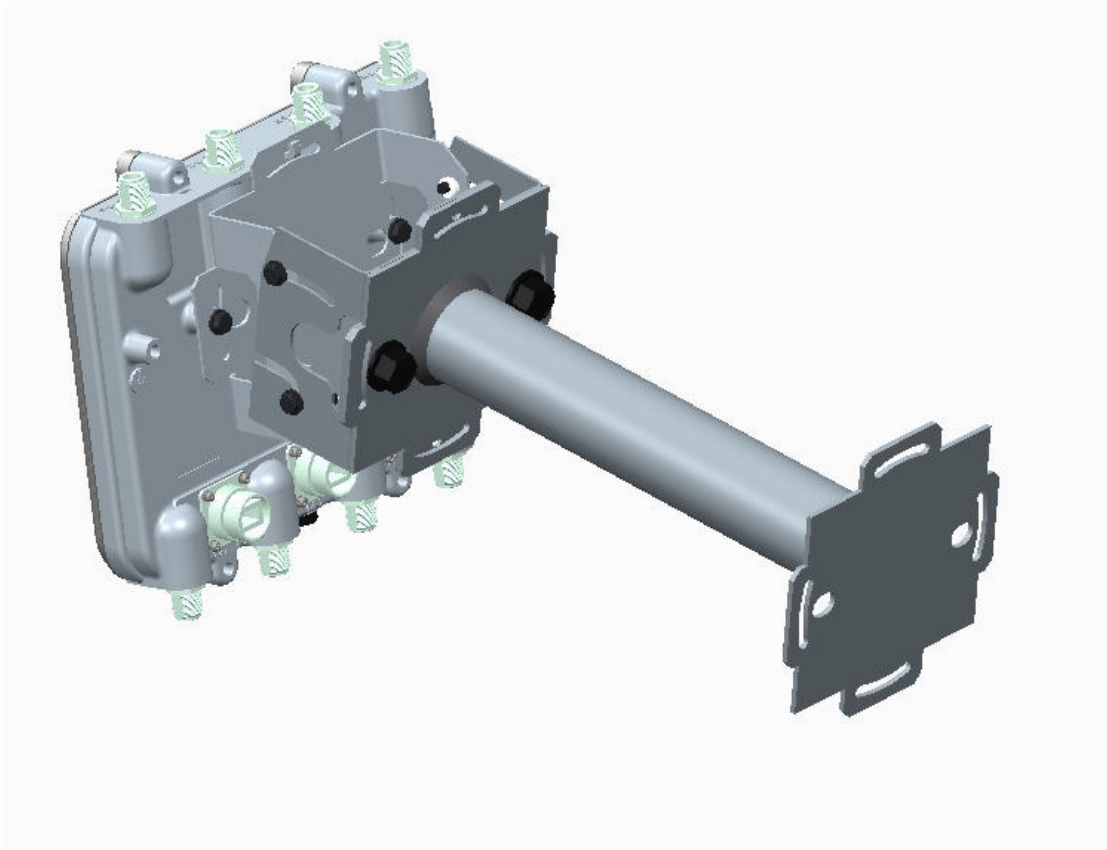
To use the extension arm with the mounting hardware kit:

- 1 Attach the pole mount at the desired mounting location using a U-bolt or band clamps.

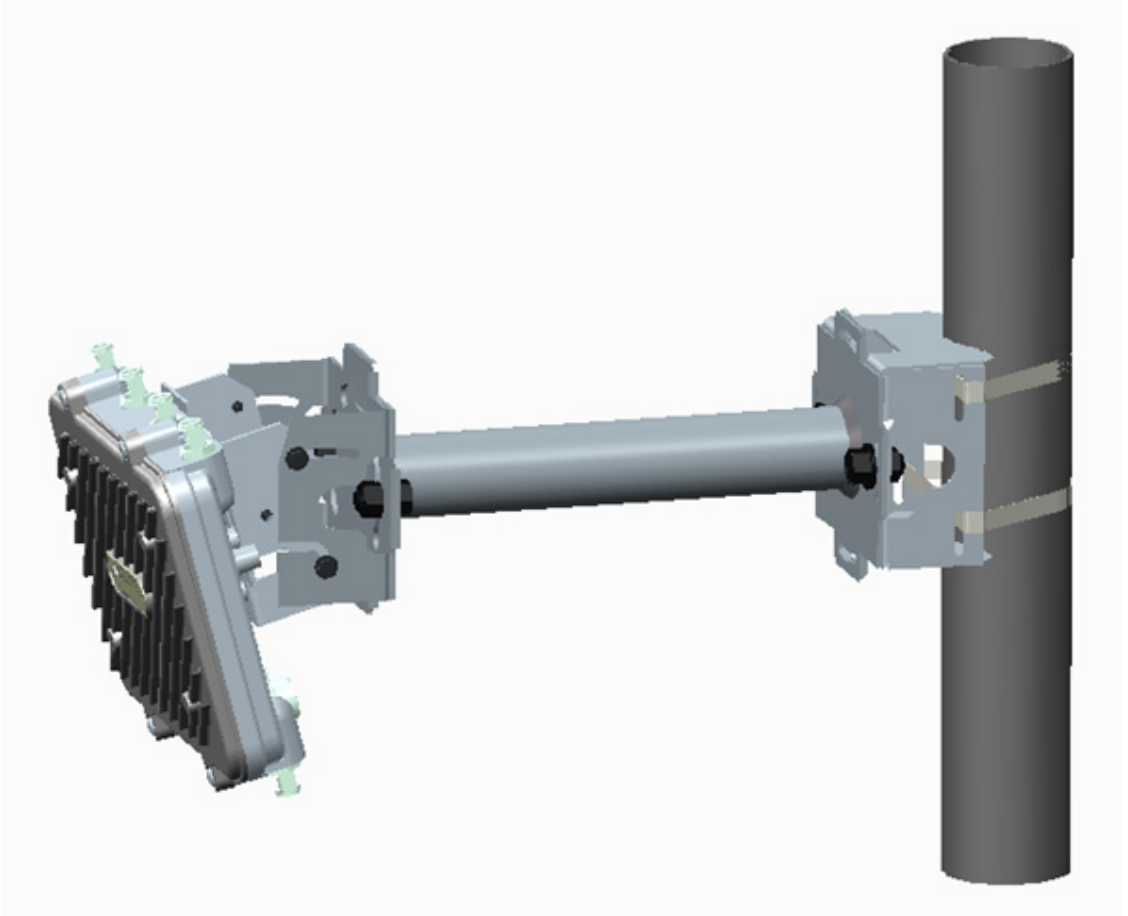


- 2 Complete the steps for assembling and positioning the mounting bracket sections for poles less than or greater than 3 inches. See [Vertical Pole Mount](#) on page 24.
- 3 Attach the extension arm to the bracket (with four M6 hex flange screws) using a torque wrench, a ratchet and a 10mm socket or an adjustable wrench. The two oval holes must

be positioned on the short sides of the Access Point. Tighten the hex flange screws to 60 inch pounds (lbf-in) the unit.



- 4 Position the Access Point so the gore vent is facing down. Attach the extension arm to the bracket with two 1/2 inch bolts and nuts. Tighten the nuts to 300 inch pounds (lbf-in).



Wall Mounted Installations

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

CAUTION

Always mount the AP-7562 with the black gore vent facing down.

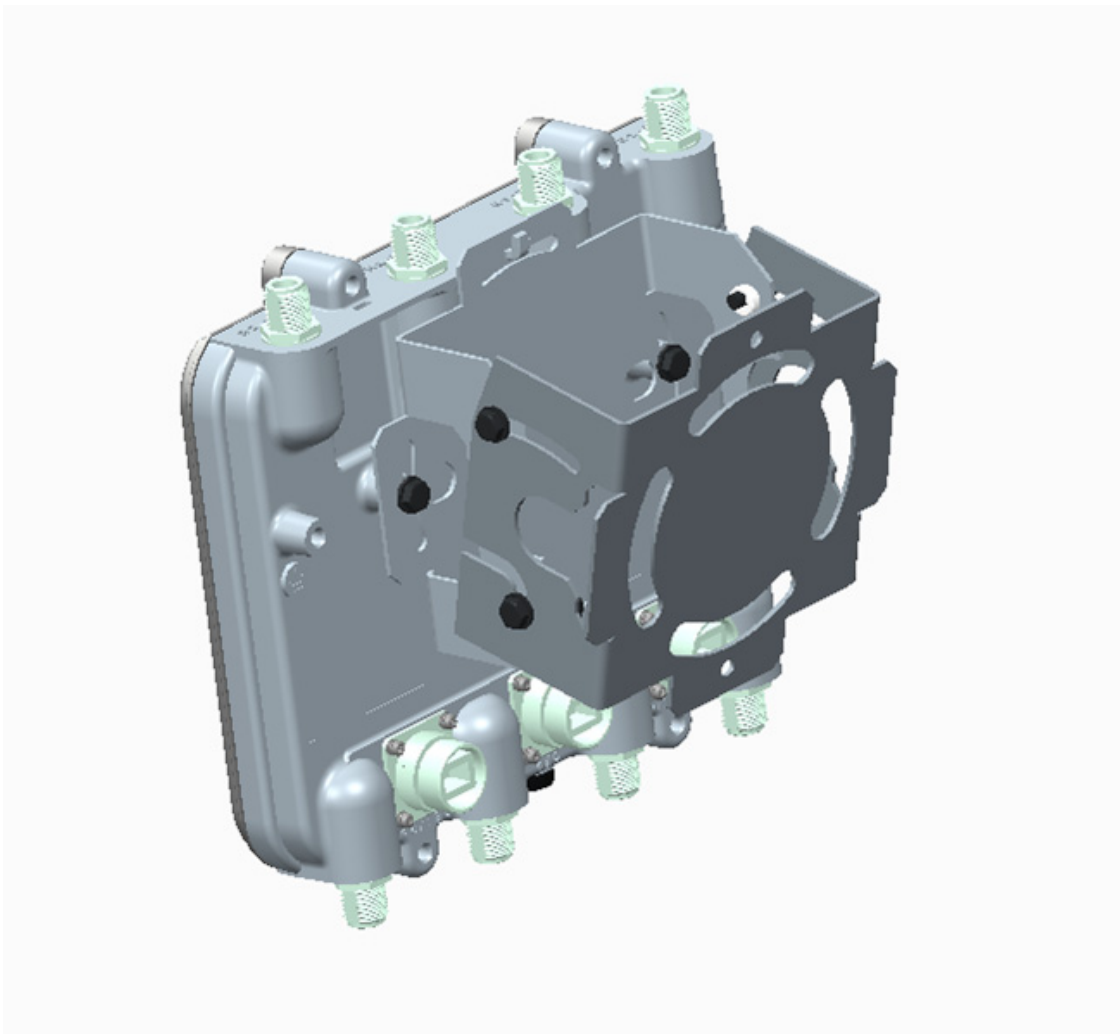
NOTE

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

NOTE

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

- 1 With the open slot connections facing down, attach the angle adjust bracket at the desired mounting location using four #10/32 lag bolts.
- 2 Using a torque wrench or a ratchet and a 10mm socket, or an adjustable wrench, attach (but don't tighten) the Access Point bracket to the AP-7562 with four M6 hex flange screws and insert two M6 hex flange screws into the bottom holes on the sides of the Access Point bracket.



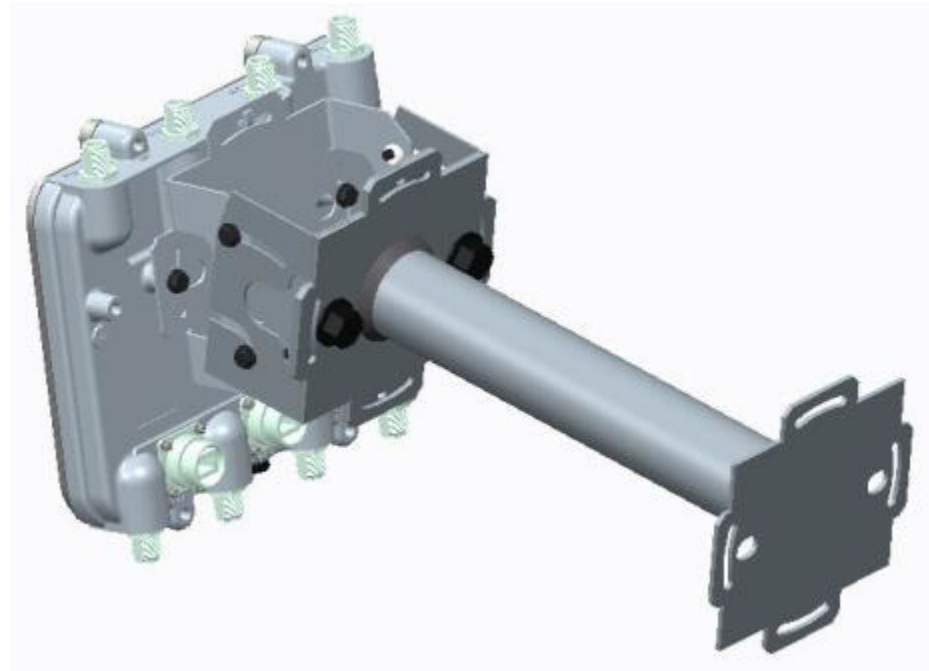
- 3 With the Access Point positioned so the gore vent is facing down, insert the two M6 hex flange screws in the bottom holes on the sides of the Access Point bracket into the open slot connections on the bottom of the angle adapter bracket. Rotate the Access Point bracket upward and align the top holes on the sides with the top holes on the angle

adapter bracket. Insert two M6 hex flange screws into the top holes on the angle adapter bracket.

- 4 Use a torque wrench or a ratchet and a 10mm socket, or an adjustable wrench, to finish attaching the angle adapter bracket to the Access Point bracket with the four M6 hex flange screws in the open slot connections and the top holes on the angle adapter bracket. Do not tighten the screws until all rotation and tilt adjustments are complete.
- 5 To adjust the position of the Access Point, rotate the Access Point bracket (plus or minus 15 degrees) and tilt the angle adapter bracket (up to 45 degrees).
- 6 Use a torque wrench or a ratchet and a 10mm socket, or an adjustable wrench, to tighten all screws when all adjustments are complete.
- 7 Tighten all hex flange screws to 60 inch pounds (lbf-in).

To use the extension arm with the mounting hardware kit:

- 1 With the open slot connections facing down, attach the angle adjust bracket at the desired mounting location using four #10/32 lag bolts.
- 2 Complete the steps for assembling and positioning the angle adapter bracket and Access Point bracket sections outlined above. See [Vertical Pole Mount](#) on page 24.
- 3 With the Access Point positioned so the gore vent is facing down, attach the extension arm to the Access Point bracket with two ½ inch bolts and nuts. Tighten bolts to 300 inch pounds (lbf-in).



Power Options Using Power over Ethernet

Power over Ethernet (PoE) is the power source for an AP-7562 Access Point. For optimal performance, an AP-7562 can be powered by the following injectors and RFS controllers that support 802.AT PoE.

For installations requiring an outdoor PoE injector, the following option is recommended:

- PD-9001GO-ENT

The PD-9001GO-ENT is a 1-Port 802.3at PoE Gigabit Ethernet injector. The injector is IP66 rated for outdoor deployments when used with the weatherproof kit supplied.

There are two power cord options. The PD-9001GO-ENT comes equipped with a cable with a standard three prong power plug. This plug can be removed by the installer if required when connecting to an AC source. The PD-9001GO-ENT comes equipped with a cable with open leads. Mounting kits are not supplied (see *Hardware and Mounting Accessories on page 7* for mounting kit part numbers).

NOTE

Product installation and mounting instructions are provided with the outdoor power injector.

If located within 100 meters of the controller and a PoE port is available, the AP-7562 Access Point can also be connected directly to a WLAN or Integrated Services Controller running WiNG 5.6 or higher.

A standard CAT5E cable can be used to provide the connection to the AP-7562. The GE1/POE port on the AP-7562 is where the standard CAT5E cable will connect to the Access Point and use of the weatherproof RJ45 plug kit that comes with the unit will maintain a weatherproof seal for outdoor installation at the ethernet port.

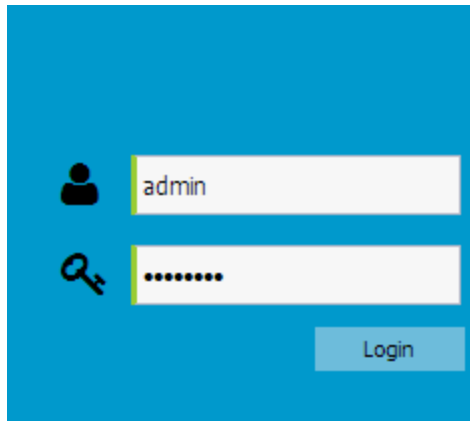
If a CAT5E cable is used to connect the Access Point to an RFS controller through a building egress, a suitable lightning protection system should be considered. A professional installer should be consulted to identify an appropriate system.

3 Basic Access Point Configuration

Once the Access Point is installed and powered on, complete the following WiNG Assist configuration steps to get the Access Point up and running with minimal administrative intervention.

Startup Assist updates existing settings. To delete or revise existing Startup Assist settings, either rerun Startup Assist or navigate to where those parameters appear in the user interface and update them accordingly. Refer to the Access Point's more advanced configuration documentation available on the Extreme Networks support site for updating the management interface beyond the scope of the WiNG Assist configuration described in this guide. For more information, see <http://documentation.extremenetworks.com>

- 1 Power the Access Point using an appropriate power adapter, PoE injector, or PoE switch.
- 2 Connect to the Access Point.
 - If deploying an Express Access Point, connect to the "ExpressXXYY" SSID
 - If deploying an Enterprise Access Point, the default IP address is located on the backside of the Access Point.



- 3 Enter the default username *admin* in the Username field.
- 4 Enter the default password *admin123* in the Password field.

- 5 Select the Login button to load the management interface.

Start up Assist

Start up assist provides the basic setup information required to get one wireless LAN operational. Optionally, you may enable the guest portal. For Detailed configuration, Please access the appropriate page

Virtual Controller:

Country Name:

Timezone:

Date & Time: Hour: Mins: AM PM

WLAN Settings

WLAN 1 Name:

Authentication: Open PSK

Key (If PSK): Show Ascii Hex

WLAN 2 Name:

Authentication : Open PSK

Key (If PSK): Show Ascii Hex

- 6 If logging in using a factory default configuration, Startup Assist automatically displays.

If Startup Assist does not automatically display, it can be invoked at any time from the upper-left of the Basic Configuration screen.

NOTE

Startup Assist automatically sets the radio transmit power and enables Auto Channel selection. The Access Point's name is automatically assigned based on the Access Point type and the last three octets of the device's hardcoded MAC address. WLAN 1 and WLAN 2 both use VLAN ID 2200 by default. To adjust any of these parameters, edit the appropriate configuration screen directly. Refer to the Access Point reference material available on Extreme Networks Support for configuring the Access Point beyond the scope of the minimal WiNG Assist configuration described in this guide. For more information, go to <http://documentation.extremenetworks.com>

- 7 Set the following Startup Assist parameters:

- *Virtual Controller* - Select this option to set this Access Point as a Virtual Controller capable of managing and provisioning up to 24 Access Points of the same model. Those Access Points managed by this Virtual Controller list this Access Point's AP Name as its own. Only one Virtual Controller can be designated.
- *Country Name* - Set the country specific to this Access Point's deployment location. Selecting the correct country is central to legal operation. Each country has its own

regulatory restrictions concerning electromagnetic emissions and the maximum RF signal strength that can be transmitted.

- *Timezone* - Use the drop-down menu to specify the geographic timezone where the Access Point is deployed. Different geographic time zones have daylight savings clock adjustments, so specifying the timezone correctly is important to account for geographic time changes.
- *Date & Time* -Set the date, hour and minute for the Access Point's current system time. Specify whether the current time is in the AM or PM.
- *WLAN 1 Name* - Provide a unique name for this WLAN as its network identifier. This is a required setting. The name is used for the SSID and is assigned to both of the Access Point's radios.
- *Authentication* - Select PSK to apply a 64 character maximum passphrase. Provide the passphrase in either ASCII or Hex format. The authenticating device must use the same PSK algorithm during authentication. Selecting Show displays the key in exposed plain text (not recommended).

Selecting Open is not a recommended authentication scheme, as it would provide the Access Point's WLAN no security via credential exchange and would only make sense in a network where no sensitive data is either transmitted or received.

- 8 Select Apply to save and commit the Startup Assist changes to the Access Point's configuration. Select Discard to revert to the last saved configuration.

The *Virtual Controller*, *Country Name*, *Timezone* and *Date & Time* portions of the Basic Settings screen update with the settings applied and saved in the Startup Assist screen. WLAN updates made in Startup Assist are displayed in Wireless screen, not the Basic Configuration screen.

4 Specifications

Physical Characteristics without Antenna Facade

Dimensions	9.0 in. L x 10.0 in. W x 2.6 in. H 22.8 cm L x 25.4 cm W x 6.6 cm H
Weight (Unit)	5.6lbs / 2.54 Kg
Housing	Outdoor IP67 rated, die-cast aluminum, corrosion resistant enclosure, salt, fog, rust per ASTM B117
LED activity indication	2 top mounted LEDs
Uplink	2 ports (GE1/GE2) auto-sensing 10/100/1000BaseT Ethernet; 802.3at on GE1 LAN port
Antenna Connectors	6 N-Type console ports
Console Port	Outdoor rated RJ45 console port
Multi Band Security Sensor	Outdoor 24x7 <i>Wireless Intrusion Prevention System</i> (WIPS)

Physical Characteristics with Antenna Facade

Dimensions	13.4 in. L x 11 in. W x 4.0 in. H 34.0 cm L x 28.0 cm W x 10.0 cm H
Weight (Unit)	11.5lbs / 5.23 Kg
Housing	Outdoor IP67 rated, die-cast aluminum, corrosion resistant enclosure, salt, fog, rust per ASTM B117
LED activity indication	None
Uplink	2 ports (GE1/GE2) auto-sensing 10/100/1000BaseT Ethernet; 802.3at on GE1 LAN port
Antenna Connectors	None
Console Port	Outdoor rated RJ45 console port
Multi Band Security Sensor	Outdoor 24x7 <i>Wireless Intrusion Prevention System</i> (WIPS)

Environmental Characteristics

Operating Temperature	-40° F to 1158° F/-40° C to 70° C
Storage Temperature	-40° F to 185° F/-40° C to 80° C
Operating Humidity	5 to 95% RH non-condensing
IP Sealing	IP 67
Operating Altitude	8,000 ft. at 12 °C
Storage Altitude	30,000 ft. at 28 °C
Wind Rating	150 mph
Electrostatic Discharge	15kV air, 8kV contact
Operational Shock	IEC60721-3-4, Class 4M3, MIL STD 810F
Operational Vibration	IEC60721-3-4, Class 4M3

Power Characteristics

Operating Voltage	36-57 VDC
Operating Current	375mA at 48V in 802.3at mode
Integrated PoE	802.3af, 802.3at

5 Regulatory Information

All Extreme Networks devices are designed to be compliant with the rules and regulations in the locations they are sold and will be labeled as required.

Local language translations are available at the following Website:
www.extremenetworks.com/support/

Any changes or modifications to Extreme Networks equipment, not expressly approved by Extreme Networks could void the user's authority to operate the equipment. Extreme Networks devices are professionally installed, the Radio Frequency Output Power will not exceed the maximum allowable limit for the country of operation.

Antennas: Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could cause damage and may violate regulations.

This device is only to be used with a Extreme Networks Wireless Switch.

For use only with Extreme Networks approved and UL Listed mobile computers, Extreme Networks approved, and UL Listed/Recognized battery packs.

Wireless 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

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.

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.

NOTE

The EIRP for all outdoor antennas used in the 5.15 - 5.25 GHz band should not exceed a maximum 125 mW ERIP (21dBm) at any elevation angle above 30 degrees (21dBm). Refer to the WiNG CLI Reference for information on setting elevation gain. The guide is available at www.extremenetworks.com/support/.

Industry Canada Statement

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 bands 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

Please observe all warning notices with regard to using wireless devices.

Potentially Hazardous Atmospheres

Wireless devices transmit radio frequency energy and may affect medical electrical equipment. When installed adjacent to other equipment, it is advised to verify 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.

- 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

Reduce 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.

Declaration of Conformity in Languages of the European Community

Hereby, Extreme Networks, Inc. declares that the radio equipment type Wireless LAN Access Point is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following Internet address:

<http://www.extremenetworks.com/>

Located under Wireless Communications and Health

Europe

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 or similar configurations must operate with a minimum separation distance of 35 cm from all persons.

US and Canada

Co-located statement

To comply with FCC RF exposure compliance requirement, 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 35 cm 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 35 cm ou plus de corps d'une personne.

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 LISTED Type no. PWR-BGA48V45W0WW or PD-9001GR-ENT, direct plug-in power supply, marked Class 2 or LPS (IEC60950-1,SELV). Use of alternative Power Supply will invalidate any approvals given to this unit and may be dangerous

Radio Frequency Interference Requirements - FCC



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 or more 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

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.

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 trans-mit, 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.

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

This radio transmitter MODEL: AP-7562 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 MODEL: AP-7562 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.

Refer [Antenna Accessories](#) on page 4 of this guide for a listing of the 2.4 and 5 GHz antennas initially approved for use with the AP-7562.

CE Marking and European Economic Area (EEA)



The use of 2.4 GHz 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 13th June 2017).

Other Countries

Australia

Use of 5 GHz RLAN's in Australia is restricted in the following band:
5.60 – 5.65 GHz.

Brazil (UNWANTED EMISSIONS - ALL PRODUCTS)

Regulatory Declarations for AP-7562 - BRAZIL

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

Declarações Regulamentares para AP-7562 - Brasil

Nota: A marca de certificação se aplica ao Transceptor, modelo AP-7562. 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

通过访问以下网址可下载当地语言支持的产品说明书

www.extremenetworks.com/support/

确认进网标贴和证书真伪可查询网址

<http://www.tenaa.com.cn/>

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。

無線接入點 (專業安裝)

1. 「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

2. 「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。

「不致造成違反低功率電波輻射性電機管理? 法之所有控制、調整及開關之使用方法」。

「對任何可能造成違反管理? 法規定之調整予以警告，或建議由具有發射機維修專長之技術人員執行或由其直接監督及負責」。

「對任何可能造成違反管理? 法之零件(晶體、半導體等)置換之警告」。

「電磁波曝露量MPE標準值 $1\text{mW}/\text{cm}^2$ ，本產品使用時建議應距離人體：35 cm」。

Ukraine

Дане обладнання відповідає вимогам технічного регламенту №1057, № 2008 на обмеження щодо використання деяких небезпечних речовин в електричних та електронних пристроях.

Thailand

เครื่องโทรคมนาคมและอุปกรณ์นี้ มีความสอดคล้องตามข้อกำหนดของ กททช.

Waste Electrical and Electronic Equipment (WEEE)



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).

TURKISH WEEE Statement of Compliance

EEE Yönetmeliğine Uygundur

6 End-User Software License Agreement

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Extreme Networks, Inc.
6480 Via Del Oro
San Jose, CA 95119, USA
Tel: +1 408-579-2800
Toll-free: +1 888-257-3000

7 AP-7562 Series 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

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