AP-7562 ACCESS POINT
INSTALLATION GUIDE
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1 Introduction

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.

1.1 Document Conventions

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

- **NOTE**  Tips, hints, or special requirements that you should take note of.
- **CAUTION**  Care is required. Disregarding a caution can result in data loss or equipment malfunction.
- **WARNING!**  Indicates a condition or procedure that could result in personal injury or equipment damage.
1.2 AP-7562 Hardware

There are currently three AP-7562 Access Points:

<table>
<thead>
<tr>
<th>Model Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP-7562-67040-US</td>
<td>AP-7562 Access Point outdoor IP67 dual radio 3x3:3 802.11 a/b/g/n/ac radio SKU: US</td>
</tr>
<tr>
<td>AP-7562-67040-EU</td>
<td>AP-7562 Access Point outdoor IP67 dual radio 3x3:3 802.11 a/b/g/n/ac radio SKU: EU</td>
</tr>
<tr>
<td>AP-7562-67040-WR</td>
<td>AP-7562 Access Point outdoor IP67 dual radio 3x3:3 802.11 a/b/g/n/ac radio SKU: WR</td>
</tr>
</tbody>
</table>

**NOTE** All AP-7562 Access Points ship with one weatherized Ethernet adapter. AP-7562 Access Points do not ship with the Mounting Kit/Antenna and POE injector. These items must be ordered separately.

1.3 AP-7562 Antenna Accessories

**NOTE** Antennas must be ordered separately and are not included with the AP-7562.

The AP-7562 antenna suite includes the following optional antenna accessories. The antennas do not ship with the AP-7562 Access Points and must be ordered separately.
## 1.3.1 AP-7562 Dual Band 2.4 GHz / 5 GHz Antennas - US and Canada

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Antenna Type</th>
<th>2.4 GHz Peak Gain</th>
<th>5.2 GHz Peak Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML-2452-HPAG4A6-01</td>
<td>Dipole</td>
<td>4.0</td>
<td>7.3</td>
</tr>
<tr>
<td>ML-2452-HPA6X6-036</td>
<td>Dipole</td>
<td>4.0</td>
<td>7.3</td>
</tr>
<tr>
<td>ML-2452-HPA6-01</td>
<td>Dipole</td>
<td>5.3</td>
<td>6.1</td>
</tr>
<tr>
<td>ML-2452-PNA5-01R</td>
<td>Panel</td>
<td>5.5</td>
<td>6.0</td>
</tr>
<tr>
<td>ML-2452-PNL3M3-1</td>
<td>Polarized Panel</td>
<td>9.7</td>
<td>9.2</td>
</tr>
</tbody>
</table>

## 1.3.2 AP-7562 Single Band 2.4 GHz Antennas - US and Canada

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Antenna Type</th>
<th>2.4 GHz Peak Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML-2499-FHPA5-01R</td>
<td>Dipole</td>
<td>5.3</td>
</tr>
<tr>
<td>ML-2499-HPA4-01</td>
<td>Dipole</td>
<td>4.5</td>
</tr>
<tr>
<td>ML-2499-5PNL-72-N</td>
<td>Panel</td>
<td>6.5</td>
</tr>
</tbody>
</table>

## 1.3.3 AP-7562 Single Band 5 GHz Antenna - US and Canada

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Antenna Type</th>
<th>5.2 GHz Peak Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML-5299-HPA5-01</td>
<td>Dipole</td>
<td>5.6</td>
</tr>
</tbody>
</table>
1.3.4 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 Zebra antenna guide document at [www.zebra.com/support](http://www.zebra.com/support).

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

<table>
<thead>
<tr>
<th>Index</th>
<th>Antenna Type</th>
<th>Part Number</th>
<th>Elevation Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dipole</td>
<td>ML-5299-HPA5-01</td>
<td>-2.53</td>
</tr>
<tr>
<td>2</td>
<td>Dipole</td>
<td>ML-2452-HPAG4A6-01</td>
<td>5.7</td>
</tr>
<tr>
<td>3</td>
<td>Dipole</td>
<td>ML-2452-HPA6X6-036</td>
<td>3.9</td>
</tr>
<tr>
<td>4</td>
<td>Dipole</td>
<td>ML-2452-HPA6-01</td>
<td>4.09</td>
</tr>
</tbody>
</table>

1.3.5 AP-7562 Dual Band 2.4 GHz / 5 GHz Antennas - EU

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Antenna Type</th>
<th>2.4 GHz Peak Gain</th>
<th>5.2 GHz Peak Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML-2452-HPAG5A8-01</td>
<td>Dipole</td>
<td>7.5</td>
<td>8.0</td>
</tr>
<tr>
<td>ML-2452-PNA7-01R</td>
<td>Panel</td>
<td>8.0</td>
<td>12.0</td>
</tr>
<tr>
<td>ML-2452-PNL3M3-1</td>
<td>Polarized Panel</td>
<td>9.7</td>
<td>9.2</td>
</tr>
</tbody>
</table>

1.3.6 AP-7562 Single Band 2.4 GHz Antennas - EU

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Antenna Type</th>
<th>2.4 GHz Peak Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML-2499-FHPA9-01R</td>
<td>Dipole</td>
<td>10.5</td>
</tr>
<tr>
<td>ML-2499-HPA8-01</td>
<td>Dipole</td>
<td>8.0</td>
</tr>
</tbody>
</table>

1.3.7 AP-7562 Single Band 5 GHz Antenna - EU

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Antenna Type</th>
<th>5.2 GHz Peak Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML-5299-HPA10-01</td>
<td>Dipole</td>
<td>10.5</td>
</tr>
<tr>
<td>ML-5299-HPA5-01</td>
<td>Dipole</td>
<td>5.6</td>
</tr>
</tbody>
</table>
1.4 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:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP-PSBIAS-7161-US</td>
<td>Outdoor IP66 802.3AT gigabit Ethernet power injector, 100-240 VAC US</td>
</tr>
<tr>
<td>AP-PSBIAS-7161-WW</td>
<td>Outdoor IP66 802.3AT gigabit Ethernet power injector, 100-240 VAC International</td>
</tr>
<tr>
<td>KT-153143-01</td>
<td>Outdoor PoE mounting kit</td>
</tr>
</tbody>
</table>

1.5 AP-7562 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.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KT-147407-01</td>
<td>Hardware Mounting Kit</td>
</tr>
<tr>
<td>KT-150173-01</td>
<td>12 inch extension arm for mounting kit</td>
</tr>
</tbody>
</table>

1.6 AP-7562 Weatherized Ethernet Accessories

One RJ45 weatherized connector plug is included with each AP-7562 Access Point. If additional plugs are required, they can be ordered using the part number listed in the following table:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KT-153676-01</td>
<td>RJ45 weatherized connector plug</td>
</tr>
</tbody>
</table>

---

**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. 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.
1.7 Package Contents

Carefully remove all protective packing material around the AP-7562 Access Point and save the container for storage. Refer to AP-7562 Hardware on page 7 when verifying all AP-7562 hardware has been received. Record the serial numbers on the shipping cartons and AP-7562 for warranty claims and reference during software download procedures.

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

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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 AP-7562 Hardware on page 7) includes the following parts:

- AP-7562 Access Point
- Weatherproof RJ45 plug kit
- AP-7562 Access Point Installation Guide (this document)

1.8 Hardware Installation Guidelines

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**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.

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**WARNING!**  Strictly observe safety precautions and warnings when installing an AP-7562 Access Point.
1.8.1 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 AP-7562 Grounding Post on page 17.
- 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.

**CAUTION** Lightning damage is not covered under the conditions of a standard product warranty. When installed correctly, Lightning Protection Units (LPUs) provide the best protection from the harmful effects of lightning. Observe all regional and national codes that apply for lightning protection.

- Verify the deployment environment has a continuous temperature range compatible with the operating temperature range of the device.
1.8.2 **Warnings**

- 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.

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**CAUTION** The maximum length allowed for PoE cables is 100 meters.

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**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.
1.9 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.

1.10 AP-7562 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.

1.10.1 AP-7562 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
1.10.2 **AP-7562 Antenna Connectors**

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

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**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.
1.10.3 Antenna Mounting Guidelines

The following are examples of acceptable mounting for dipole antenna deployments:

The following are examples of acceptable mounting methods for panel antenna deployments:
1.10.4 AP-7562 Grounding Post

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

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).

**WARNING!** The grounding cable for an AP-7562 must be at a minimum a #10 gauge wire cross section.
1.11 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. Zebra recommends using the vehicle mount kit (KT-158767-01) for mobile deployments.

To install the Access Point VMM:

1. Remove rubber plugs from 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.
3. 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.
4. 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 7161 running as an AP 7161 VMM.

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

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

**WARNING!** Exceeding these listed power requirements can invalidate warranty.
1.12 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).

<table>
<thead>
<tr>
<th>Task</th>
<th>2.4 GHz Activity LED (Green)</th>
<th>5 GHz Activity LED (Amber)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unconfigured Radio</td>
<td>On</td>
<td>On</td>
</tr>
</tbody>
</table>
| Normal Operation   | • 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 | • 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 AP-7562 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).

2.1 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:

![Mounting Bracket Kit Images]

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 to assemble the mounting bracket is included in the kit:

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M6 serrated hex flanged screws</td>
<td>7</td>
</tr>
<tr>
<td>1/2 inch hex head nut</td>
<td>2</td>
</tr>
<tr>
<td>1/2 inch x 3/4 inch hex head bolt</td>
<td>2</td>
</tr>
</tbody>
</table>

A torque wrench or ratchet with a 10mm adapter, or an adjustable wrench, can be used to assemble the mounting brackets.
2.1.1 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 kit is included in the extension arm kit:

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2 inch hex head nut</td>
<td>2</td>
</tr>
<tr>
<td>1/2 inch x 3/4 inch hex head bolt</td>
<td>2</td>
</tr>
</tbody>
</table>

### 2.2 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 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.

**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** Use of the extension arm is recommended for installations on poles greater than 3 inches in diameter.
2.2.1 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. 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 the four M6 flange screw.

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 with the straight (not bevel cut) sides 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 to the AP-7562 with the four M6 hex flange screws.

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

5. 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.
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 26.
3. Using a torque wrench or a ratchet and a 10mm socket, or an adjustable wrench, attach the extension arm to the Access Point bracket with four M6 hex flange screws. 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. With the Access Point positioned so the gore vent is facing down, attach the extension arm to the Access Point bracket with two 1/2 inch bolts and nuts. Tighten the nuts to 300 inch pounds (lbf-in).
2.2.2 Wall Mounted Installations

For wall mounted 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 26.

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).
2.3 AP-7562 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 802.3at PoE.

For installations requiring an outdoor PoE injector, the following options are recommended:

- AP-PSBIAS-7161-US
- AP-PSBIAS-7161-WW

The AP-PSBIAS-7161 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 AP-PSBIAS-7161-US 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 AP-PSBIAS-7161-WW comes equipped with a cable with open leads. Mounting kits are not supplied (see *Hardware and Mounting Accessories on page 10* for mounting kit part numbers).

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**NOTE**

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

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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 steps to get the device up and running and access management functions:

1. The Access Point’s IP address is optimally provided using DHCP or from bottom of the Access Point itself (if available). A zero config IP address can also be derived if DHCP resources are unavailable or the IP address is not listed on the bottom of the unit. Using zero config, the last two octets in the IP address are the decimal equivalent of the last two bytes in the Access Point’s hardcoded MAC address.

   For example:

   MAC address - 00:C0:23:00:F0:0A
   Zero-config IP address - 169.254.240.10

   To derive the Access Point’s IP address using its MAC address:

   a. Open the Windows calculator by selecting Start > All Programs > Accessories > Calculator. This menu path may vary slightly depending on your version of Windows.
   b. With the Calculator displayed, select View > Scientific. Select the Hex radio button.
   c. Enter a hex byte of the Access Point’s MAC address. For example, F0.
   d. Select the Dec radio button. The calculator converts F0 into 240. Repeat this process for the last Access Point MAC address octet.

2. Point the Web browser to the Access Point’s IP address. The following login screen displays:

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.
If this is the first time the interface has been accessed, a screen displays prompting for the Access Point's country code.

6. Select the **Country Code** 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. Select **Apply** to implement the selected Country Code. SKU’s only support certain countries (for example: a US SKU only includes US, Guam, Puerto Rico, American Samoa, US Virgin Islands and Mariana Island).

The Access Point automatically displays a **Dashboard** where users can assess network health and conduct a diagnostic review of Access Point performance.

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**NOTE**  At some point in the Access Point’s initial setup, the default password should be changed to enhance the security of the Access Point managed network. Refer to the **Configuration > Management** screen to change the default password to a more secure password.

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7. Expand the **Configuration** menu item and select **Basic**.
8. Set the following **Basic Configuration Settings** for this Access Point:

- **AP Name** - Provide an AP Name used as this Access Point’s network identifier. If setting this Access Point as a Virtual Controller, each Access Point managed by this Virtual Controller lists this Access Point’s AP Name as its own. The AP Name is a required parameter.

- **Country Code** - If the Country Code was not set when the Access Point was initially powered on, set the country now to ensure the Access Point’s legal operation. The Access Point’s wireless capabilities are disabled until the required country code is set.

- **Virtual Controller** - Select this option to define this Access Point as a Virtual Controller capable of managing and provisioning up to 24 Access Points of the same type. If selecting this Access Point as a Virtual Controller, those Access Points managed by this Virtual Controller will list this Access Point’s AP Name as its own. Only one Virtual Controller can be designated.

- **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.

- **NTP Server** - Optionally provide the IP address of a NTP server resource. **Network Time Protocol (NTP)** manages time and/or network clock synchronization within the Access Point managed network. NTP is a client/server implementation. Access Points (NTP clients) periodically synchronize their clock with a master clock (an NTP server). For example, an Access Point resets its clock to 07:04:59 upon reading a time of 07:04:59 from its designated NTP server.

9. Select **Apply** to implement the updates.
10. Expand the **Configuration** menu item and select **WAN**.

![WAN Settings](image)

11. Refer to the **WAN Settings** field and set the following:

- **Enable** - Select this option to allow a connection between the Access Point and a larger network or outside world through the WAN port. Disable this option to isolate the WAN connection. No connections to a larger network or Internet are possible. Clients cannot communicate beyond configured subnets. Both the physical **Port** used to connect to the WAN and the virtual **Interface** (VLAN) are also listed and fixed.

- **DHCP Client** - Select this option to enable DHCP for the Access Point WAN connection. This is useful, if the target network or **Internet Service Provider** (ISP) uses DHCP. DHCP is a protocol that includes mechanisms for IP address allocation and delivery of host-specific configuration parameters from a DHCP server to a host. Some of these parameters are IP address, network mask, and gateway. The WAN and LAN ports should not both be configured as DHCP clients.

- **Static IP** - Select this option to bypass DHCP address allocation resources and manually set the IP address for the Access Point’s WAN connection. Manually provide the Access Point’s Static IP/Mask and Default Gateway.

- **PPPoE Settings** - Optionally enable **Point-to-Point Protocol over Ethernet** (PPPoE) on the WAN network. If PPPoE is enabled, provide the required **Auth Type**, **Login Name** and **Login Password**. Server Name and Default Gateway are optional settings. PPP is a data-link protocol for dialup connections allowing an Access Point to use a broadband modem (DSL, cable modem, etc.) for access to high-speed data and broadband networks. Most DSL providers support (or deploy) the PPPoE protocol. PPPoE uses standard encryption, authentication, and compression as specified by the PPPoE protocol. PPPoE enables the Access Point to establish a point-to-point connection to an ISP over an existing Ethernet interface.
- **Static IP / Mask** - Specify an IP address for the WAN connection if using static address assignment for the WAN port. An IP address uses a series of four numbers defined in dot notation, for example, 190.188.12.1. Additionally, specify a Mask for the access point’s WAN connection. This number is available from the ISP for a DSL or cable-modem connection, or from an administrator if the Access Point connects to a larger network.

- **Primary/Secondary DNS/Default Gateway** - If using a static IP or DHCP, enter the Primary and Secondary DNS server resource’s numerical IP address and Default Gateway.

**NOTE** If segmenting traffic between the Access Point’s WAN and LAN, you’ll need to create a VLAN. Complete steps 13 and 14 to define the required VLAN. Otherwise, proceed to step 15.

12. Select **Apply** to implement the updates.

13. Expand the **Configuration** menu item and select **Access Points**. Each **AP Name** displays as a link that can be selected to update the configuration of that specific Access Point. Select a target AP Name link from amongst those displayed in the Access Points screen.

Refer to the **LAN IP Interface Settings** field, and add a VLAN and Static IP as required for enabling DHCP (within the **Configuration > Services** screen) for client IP address requests and ensuring routable traffic.
14. Select **Apply** to commit the updates to the selected Access Point’s configuration.

15. Expand the **Configuration** menu item and select **Wireless**.

The Wireless screen displays fields where **Radio Settings** and **Wireless LAN** settings can be defined. Its recommended default radio settings remain as is for the Access Point’s basic setup.

In respect to the **Radio Settings**, the professional installer should be aware of the following:

- **Channels** available for configuration are channels for which the product is approved in its selected country. The professional installer must ensure the product is set to operate under conditions, and on channels, approved by country regulations.

- Selecting **Smart** as the **Power** setting automatically configures radio power to not exceed the maximum power allowed by the defined country. For static power settings, the professional installer must ensure the configured power levels are compliant with local and regional regulations. The county selected automatically limits the maximum output power that can be set.

- For external antenna Access Points, configure the **Antenna Gain** based on the antenna used in the deployment. The set gain value should include the antenna gain, along with any additional components, such as extension cables used between the Access Point and the antenna.

In respect to **Wireless LAN** settings, at minimum, a WLAN should be created providing some measure of security.
16. To create a new WLAN, select + Add from the upper, left-hand side of the Wireless LAN field.

17. Set the following configuration attributes for the new WLAN:

- **Name** - Provide a unique name for the WLAN as its network identifier. This is a required setting.
- **Enable** - Select this setting to enable this WLAN within the Access Point managed network and provide some measure of data protection.
- **SSID** - Specify the WLAN’s SSID. The WLAN SSID is case sensitive and alphanumeric. SSID length should not exceed 32 characters. This is a required setting. Select Client-To-Client Communication to enable client interoperability within this WLAN. The default is disabled, meaning clients are not allowed to exchange packets with other clients. It does not necessarily prevent clients on other WLANs from sending packets to this WLAN, but if this setting is disabled on the other WLAN, clients are not permitted to interoperate at all.
- **WLAN Type** - The screen displays with the Open option selected. Naming and saving such a policy (as is) would provide no security and might only make sense in a network wherein no sensitive data is either transmitted or received. This default setting is not recommended.

If selecting Secure-PSK, enter a WPA2 Key to password protect the WLAN. Define whether the key is entered in ASCII or HEX characters. Selecting Show to expose the key is not recommended.
If selecting **Secure-802.1x**, provide an IP address (or hostname) and a shared secret (password) used to access an external RADIUS server resource designated to validate user requests to the Access Point’s WLAN resources.

Selecting **Guest** displays fields for captive portal Web page creation, and is beyond the scope of this basic Access Point configuration.

- **Band** - Select the 2.4 GHz and/or 5 GHz radio bands supported by the Access Point and its connected client traffic. If this Access Point is designated as a Virtual Controller AP, both radio bands should be enabled.

- **VLAN** - Use the spinner control to specify a VLAN from 1 - 4,094 for this WLAN. When a client associates with a WLAN, the client is assigned a VLAN by load balance distribution. Its recommended you do not use VLAN 1 with the WLAN if the WAN port has been enabled.

- **Description** - Optionally enter a WLAN description to further describe the WLAN’s deployment objective.

18. Select **Apply** to commit the updates to the Access Point’s WLAN configuration.

19. Expand the **Configuration** menu item and select **Services**

20. Select **Enable DHCP Server** to ensure the Access Point can provision IP addresses to requesting clients over the specified interface.

---

**NOTE** A VLAN must be already configured and available to the DHCP server as a viable interface between the Access Point and requesting client. Refer to the **LAN IP Interface Settings** field (within the Edit Access Point screen), and add a VLAN.
Select + Add and provide a starting and ending IP range of addresses that constitute a pool of addresses available to requesting clients.

21. Select **Apply** to commit the updates to the Access Point’s DHCP configuration.

22. At this point, you’re ready to connect to the network using the security restrictions applied to the newly created WLAN. Ensure the new secure WLAN has been enabled, and check whether a client is able to access the network.
4 Specifications

4.1 Physical Characteristics

| 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 Wireless Intrusion Prevention System (WIPS) |

4.2 Environmental Characteristics

| Operating Temperature          | -22° F to 140° F/-30° C to 60° 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           |
4.3 Power Characteristics

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<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Voltage</td>
<td>36-57 VDC</td>
</tr>
<tr>
<td>Operating Current</td>
<td>375mA at 48V in 802.3at mode</td>
</tr>
<tr>
<td>Integrated PoE</td>
<td>802.3af, 802.3at</td>
</tr>
</tbody>
</table>
5 Regulatory Information

This device is approved under Zebra Technologies Corporation.

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

Local language translations are available at the following website:

www.zebra.com/support

Any changes or modifications to Zebra equipment, not expressly approved by Zebra Technologies, could void the user’s authority to operate the equipment.

Zebra 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 antennas. Unauthorized antennas, modifications, or attachments could cause damage and may violate regulations.

5.1 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.zebra.com/doc.

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.
5.2 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 EIRP (21dBm) at any elevation angle above 30 degrees (21dBm). |

5.3 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.

5.4 Health and Safety Recommendations

5.4.1 Warnings for the Use of Wireless Devices

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

5.4.2 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:**
1. Should ALWAYS keep the device more than 15cm (6 inches) from their pacemaker when turned ON.
2. Should not carry the device in a breast pocket.
3. Should use the ear furthest from the pacemaker to minimise the potential for interference.
4. 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.

**5.5 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. For information on "International" human exposure to electromagnet fields refer to the Declaration of Conformity (DoC) at [www.zebra.com/doc](http://www.zebra.com/doc).

For further information on the safety of RF energy from wireless devices - see [www.zebra.com/support](http://www.zebra.com/support).

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 of 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 filling.

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.

### 5.6 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. PWRS-14000-247R or AP-PSBIAS-2P3-ATR, 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.

### 5.7 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.
5.7.1 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.

5.8 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 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 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 AP-7562 Antenna Accessories on page 7 of this guide for a listing of the 2.4 and 5 GHz antennas initially approved for use with the AP-7562.
5.9 **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
- Italy requires a user license for outside usage.

5.10 **Statement of Compliance**

Zebra hereby declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. A Declaration of Conformity may be obtained from [www.zebra.com/doc](http://www.zebra.com/doc).

5.11 **Other Countries**

**Australia**

Use of 5 GHz RLAN’s in Australia is restricted in the following band: 5.50 – 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](http://www.anatel.gov.br).

**Declarações Regulamentares para AP-7562 - Brasil**


**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.zebra.com/support](http://www.zebra.com/support)

确认进网标贴和证书真伪可查询网址

**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。

「電磁波曝露量 MPE 標準值 1mW/cm²。本產品使用時建議應距離人體：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 มีความปลอดภัยของ붐่ข้อกำหนดของกงที่.
5.12 Waste Electrical and Electronic Equipment (WEEE)

**English:** For EU Customers: All products at the end of their life must be returned to Zebra for recycling. For information on how to return product, please go to: www.zebra.com/weee.

**Français:** Clients de l’Union Européenne: Tous les produits en fin de cycle de vie doivent être retournés à Zebra pour recyclage. Pour de plus amples informations sur le retour de produits, consultez: www.zebra.com/weee.

**Español:** Para clientes en la Unión Europea: todos los productos deberán entregarse a Zebra al final de su ciclo de vida para que sean reciclados. Si desea más información sobre cómo devolver un producto, visite: www.zebra.com/weee.

**Български:** За клиенти от ЕС: След края на полезния им живот всички продукти трябва да се връщат на Zebra за рециклиране. За информация относно връщането на продукти, моля отидете на адрес: www.zebra.com/weee.


**Italiano:** per i clienti dell’UE: tutti i prodotti che sono giunti al termine del rispettivo ciclo di vita devono essere restituiti a Zebra al fine di consentire il riciclaggio. Per informazioni sulle modalità di restituzione, visitare il seguente sito Web: www.zebra.com/weee.

**Português:** Para clientes da UE: todos os produtos no fim de vida devem ser devolvidos à Zebra para reciclagem. Para obter informações sobre como devolver o produto, visite: www.zebra.com/weee.

**Nederlands:** Voor klanten in de EU: alle produkten dienen aan het einde van hun levensduur naar Zebra te worden teruggezonden voor recycling. Raadpleeg www.zebra.com/weee voor meer informatie over het terugzenden van producten.

**Polski:** Klienci z obszaru Unii Europejskiej: Produkty wycofane z eksploatacji należy zwrotie do firmy Zebra w celu ich utylizacji. Informacje na temat zwrotu produktów znajdż siê na stronie internetowej www.zebra.com/weee.

**Čeština:** Pro zákazníky z EU: Všechny produkty je nutné po skončení jejich životnosti vrátit společnosti Zebra k recyklaci. Informace o způsobu vrácení produktu najdete na webové stránce: www.zebra.com/weee.

**Eesti:** EL klientidele: kõik tooted tuleb nende eluea lõppedes tagastada taaskasutamise eesmärgil Zebra 'ile. Lisainformatsiooni saamiseks toote tagastamise kohta külastage palun aadressi: www.zebra.com/weee.

**Magyar:** Az EU-ban vásárlóknak: Minden tönkrement terméket a Zebra vállalathoz kell eljuttatni újrahasznosítás céljából. A termék visszajuttatásának módjával kapcsolatos tudnivalókért látogasson el a www.zebra.com/weee weboldalra.

**Svenska:** För kunder inom EU: Alla produkter som uppnått sin livslängd måste returneras till Zebra för återvinning. Information om hur du returnerar produkten finns på www.zebra.com/weee.

**Suomi:** Asiakkaat Euroopan unionin alueella: Kaikki tuotteet on palautettava kierrätettäväksi Zebra-yhtiöön, kun tuotetta ei enää käytetä. Lisätietoja tuotteen palauttamisesta on osoitteessa www.zebra.com/weee.

**Dansk:** Til kunder i EU: Alle produkter skal returneres til Zebra til recirkulerenng, når de er udtjent. Læs oplysningerne om returering af produkter på: www.zebra.com/weee.

**Ελληνικά:** Για τους πελάτες στην Ε.Ε.: Όλα τα προϊόντα, στο τέλος της διάρκειας ζωής τους, πρέπει να επιστρέφονται στην Zebra για ανακύκλωση. Για περισσότερες πληροφορίες σχετικά με την επιστροφή ενός προϊόντος, επισκεφθείτε τη διεύθυνση www.zebra.com/weee στο Διαδίκτυο.
5.13 Turkish WEEE Statement of Compliance

EEE Yönetmeliğine Uygundur
6 Support

If you have a problem with your equipment, contact support for your region. Contact information is available at: www.zebra.com/support.

When contacting support, please provide the following information:

• Serial number of the unit
• Model number or product name
• Software type and version number

Support responds to calls by e-mail, telephone, or fax within the time limits set forth in support agreements. If you purchased your product from a business partner, contact that business partner for support.

Customer Support Web Sites

The Support site, located at www.zebra.com/support, provides information and online assistance including developer tools, software downloads, product manuals and online repair requests.

Manuals

www.zebra.com/support
7 Symbol Technologies End-User Software License Agreement

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### 8 AP-7562 Series ROHS Compliance

<table>
<thead>
<tr>
<th>部件名称 (Parts)</th>
<th>有害物质</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>铅 (Pb)</td>
</tr>
<tr>
<td>金属部件 (Metal Parts)</td>
<td>X</td>
</tr>
<tr>
<td>电路模块 (Circuit Modules)</td>
<td>X</td>
</tr>
<tr>
<td>电缆及电缆组件 (Cables and Cable Assemblies)</td>
<td>X</td>
</tr>
<tr>
<td>塑料和聚合物部件 (Plastic and Polymeric Parts)</td>
<td>O</td>
</tr>
<tr>
<td>光学和光学组件 (Optics and Optical Components)</td>
<td>O</td>
</tr>
<tr>
<td>电池 (Batteries)</td>
<td>O</td>
</tr>
</tbody>
</table>

本表格依据 SJ/T 11364 的规定编制。
0: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。
X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。(企业可在此处，根据实际情况对上表中打“×”的技术原因进行进一步说明。)

This table was created to comply with China RoHS requirements.