AP6562 Access Point INSTALLATION GUIDE





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1.0 Introduction
1.1 Document Conventions
1.2 Warnings
1.3 Site Preparation
1.4 AP6562 Package Contents6
1.4.1 Internal Antenna Model Package Contents
1.4.2 External Antenna Model Package Contents
1.4.3 Features
2.0 Hardware Installation
2.1 Installation Instructions 8
2.2 Access Point Placement
2.3 AP6562 Hardware Mouting and Installation
2.3.1 Mounting Bracket Kit
2.3.2 Extension Arm Kit
2.3.3 Pole Mounted Installations 11
2.3.4 Vertical Pole Mount 12
2.3.5 Wall Mounted Installation
2.4 AP6562 Internal Antenna Model Antenna Options
2.5 AP6562 External Antenna Model Antenna Options
2.6 AP6562 LED Indicators 20
3.0 Basic Access Point Configuration 22
4.0 Specifications
4.1 AP6562 Internal Antenna Model Electrical Specifications
4.2 AP6562 Internal Antenna Model Physical Specifications
4.3 AP6562 Internal Antenna Model Antenna Specifications
4.4 AP6562 External Antenna Model Electrical Specifications
4.5 AP6562 External Antenna Model Physical Specifications
4.6 Radio Specifications

5.0 Regulatory Information	36
5.1 Regulatory Information	36
5.2 Wireless Device Country Approvals	36
5.2.1 Country Selection	36
5.2.2 Frequency of Operation - FCC and IC	37
5.3 Health and Safety Recommendations	37
5.3.1 Warnings for Wireless Devices	37
5.3.2 Potentially Hazardous Atmospheres - Fixed Installations	37
5.3.3 Safety in Hospitals	38
5.4 RF Exposure Guidelines 3	38
5.5 International	38
5.6 Europe	38
5.7 US and Canada	39
5.8 Power Supply	39
5.9 Radio Frequency Interference Requirements - FCC	39
5.10 Radio Frequency Interference Requirements - Canada	10
5.11 CE Marking ad European Economic Area (EEA)	11
5.12 Statement of Compliance	11
5.13 Other Countries	11
5.13 Waste Electrical and Electronic Waste Equipment (WEEE)	13
5.14 Turkish WEEE Statement of Compliance	14
6.0 Motorola Solutions Support Center 4	15
7.0 AP6562 Access Point China ROHS Compliance	16

1 Introduction

The AP6562 access point, a component of the Motorola Solutions wireless controller system, links wireless 802.11 abgn devices, enabling the growth of your wireless network with a cost effective alternative to standard access points. The AP6562 access point provides multiple deployment options.

The AP6562 access point receives all power and transfers data through the same CAT-5 or better Ethernet cable. An 802.3at Ethernet switch or power supply (specifically rated for the AP6562) is required. Motorola Solutions recommends the AP-PSBIAS-7161-US or AP-PSBIAS-7161-WW outdoor rated power supply

An AP6562 model access point uses WiNG 5 software as its onboard operating system. The access point's unique WiNG 5 software enables the access point to function as either a Virtual Controller AP capable of adopting and managing up to 24 additional AP6562 access points or a Standalone access point managed by its connected controller.

If new to Motorola Solutions access point technology, refer to the *WiNG Access Point System Reference Guide* to familiarize yourself with access point technology and the feature set supported by the WiNG operating system. The guide is available at <u>http://supportcentral.motorolasolutions.com/support/product/manuals.do</u>.

The AP6562 access point is approved under MODEL: AP-6562.

This document is written for the qualified network device installer.

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.

<u>/</u>

WARNING! Indicates a condition or procedure that could result in personal injury or equipment damage.

1.2 Warnings

- Read all installation instructions and site survey reports, and verify correct equipment installation before connecting the access point.
- 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.
- Verify there is adequate ventilation around the device, and that ambient temperatures meet equipment operation specifications.

1.3 Site Preparation

- Consult your site survey and network analysis reports.
- 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.

1.4 AP6562 Package Contents

An AP6562 access point is available in internal antenna and external antenna models. Contents differ depending on the model ordered.

1.4.1 Internal Antenna Model Package Contents

Part Number	Description
AP-6562-66030-US	AP6562: Outdoor Dual Radio 802.11N US
AP-6562-66030-WR	AP6562 Outdoor Dual Radio 802.11N INTL
AP-6562-66030-EU	AP6562 Outdoor Dual Radio 802.11N EU

AP6562 internal antenna models (AP-6562-66030-US, AP-6562-66030-WW and AP-6562-66030-EU) include the following:

- AP6562 access point with internal antennas
- Weatherproof RJ45 plug kit
- AP6562 Installation Guide (*This Guide*)

1.4.2 External Antenna Model Package Contents

Part Number	Description
AP-6562-66040-US	AP6562 Outdoor Dual Radio 802.11N US
AP-6562-66040-WR	AP6562 Outdoor Dual Radio 802.11N INTL
AP-6562-66040-EU	AP6562 Outdoor Dual Radio 802.11N EU

AP6562 external antenna models (AP-6562-66040-US, AP-6562-66040-WW and AP-6562-66040-EU) include the following:

- AP6562 access point with external antenna connectors
- Weatherproof RJ45 plug kit
- AP6562 Installation Guide (*This Guide*)

1.4.3 Features

- GE1/PoE LAN port
- Console port
- LED indicators (see AP6562 LED Indicators on page 20)

The illustration below is of an internal antenna model.



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

The AP6562 access point comes with dual radios supporting 802.11abgn. The access point contains runtime firmware which enables the unit to boot after a power up. The runtime firmware on the access point and the firmware downloaded from the connected controller can be updated via the Ethernet interface.

2 Hardware Installation

2.1 Installation Instructions

To prepare for the installation:

- 1. Match the model number on the purchase order with the model numbers in the packing list and on the case of the access point.
- 2. Verify the contents of the box include the intended AP6562 access point, and the included hardware matches the package contents for an internal antenna access point (see *Internal Antenna Model Package Contents on page 6*) or external antenna access point (see *External Antenna Model Package Contents on page 7*).
- 3. Review site survey and network analysis reports to determine the location and mounting position for the AP6562 access point.
- 4. Connect a CAT-5 or better Ethernet cable to a compatible 802.3at power source and run the cable to the installation site. Ensure there is sufficient slack on the cable to perform the installation steps.

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

2.2 Access Point Placement

For optimal performance, install the access point away from transformers, heavy-duty motors, fluorescent lights, microwave ovens, refrigerators and other industrial equipment. Signal loss can occur when metal, concrete, walls or floors block transmission. Install the access point in an open area or add access points as needed to improve coverage.

Place the access point using the following guidelines:

- Orient the access point antennas vertically for best reception (applies to external antenna models only).
- When deploying outdoor mesh networks using a pole mounted installation, install the access point at an ideal height of 30 to 35 feet from the ground.

To maximize the access point's radio coverage area, Motorola Solutions recommends conducting a site survey to define and document radio interference obstacles before installing the access point.

2.3 AP6562 Hardware Mounting and Installation

It is recommended to use the AP6562 mounting bracket kit (KT-147407-01) 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).

2.3.1 Mounting Bracket Kit

The AP6562 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 the angle adapter bracket can rotated (plus or minus 15 degrees) and tilted (up to 45 degrees) to achieve the required angle and rotation.

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

Description	Quantity
M6 serrated hex flanged screws	8
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. A finished assembly of the mounting bracket kit is shown below. Assembly during deployment may differ to achieve the required angle and rotation.



2.3.2 Extension Arm Kit

When mounting an AP6562 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 is only required for AP6562 external antenna models.





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

The following ancillary hardware to attach the extension arm to the mounting bracket kit sections 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

2.3.3 Pole Mounted Installations

The mounting hardware kit and extension arm can be used in various combinations to properly install the AP6562 on a pole. For poles of up to 3 inches in diameter, attach the pole mount bracket of the mounting hardware kit at the desired position on the pole using band clamps up to 3/4 inch width, or a 1/2 inch x 4 inch wide U-bolt and nuts. For poles greater than 3 inches in diameter, attach the pole mount bracket using band clamps.



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



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

2.3.4 Vertical Pole Mount

Use the following procedures for vertical pole mount installations. The extension arm is recommended when mounting the access point to poles greater than 3 inches is diameter.

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

- 1. Thread the two inner nuts onto the U-bolt. Place the U-bolt at the desired mounting location.
- 2. Place the pole mount bracket section on the U bolt. Adjust the inner nuts until the pole mount bracket section is against the pole and the U-bolt can be secured tightly to the pole.
- 3. Place the angle adapter bracket section on the U-bolt with the open slot connections on the bottom and align it with the pole mount section.
- 4. Put the two outer nuts on the U-bolt to attach the angle adapter bracket section to the pole mount bracket section.
- 5. Tighten all nuts to 300 inch pounds (lbf-in).
- 6. Position the access point bracket section so that the bottom of the section with the straight (not bevel cut) side is oriented toward the bottom side of the access point. Using a torque wrench or a ratchet and a 10mm socket, or an adjustable wrench, attach (but don't tighten) the access point bracket section to the AP6562 with the with four M6 hex flange screws.
- 7. Insert two M6 hex flange screws into the bottom holes on the sides of the access point bracket section.
- 8. Insert the two M6 hex flange screws in the bottom holes on the sides of the access point bracket section into the open slot connections on the bottom of the angle adapter bracket section.
- 9. Rotate the access point bracket section upward and align the top holes on the sides with the top holes on the angle adapter bracket section. Insert two M6 hex flange screws into the top holes on the angle adapter bracket section.
- 10. Use a torque wrench or a ratchet and a 10mm socket, or an adjustable wrench, to finish attaching the access point bracket section to the angle adapter bracket section with the M6 hex flange screws in the open slot connections and the top holes on the angle adapter bracket section. Do not tighten the screws until all rotation and tilt adjustments are complete.
- 11. To adjust the position of the access point, rotate the access point bracket section (plus or minus 15 degrees) and tilt the angle adapter bracket section (up to 45 degrees).
- 12. Tighten all hex flange screws to 60 inch pounds (lbf-in).
- 13. If required, install and attach a Kensington security cable (customer supplied) to the unit's lock port.
- 14. Attach an Ethernet cable from the access point to a controller with an 802.3at-compatible power source or use the designated outdoor rated power supply (AP-PSBIAS-7161-US or AP-PSBIAS-7161-WW) to supply power to the AP6562 (once fully cabled).

15. Verify the unit has power by observing that the LEDs are lit or flashing.

	CAUTION	If not using a 802.3at capable controller to power the AP6562, ensure
		only the AP6562's designated outdoor power supply
\wedge		(AP-PSBIAS-7161-US or AP-PSBIAS-7161-WW) is used to supply
		power to the access point. Using an incorrectly rated power supply
$\overline{}$		could damage the unit and void the product warranty. Do not actually
		connect to the power source until the cabling portion of the
		installation is complete.

For mounting with band clamps:

- 1. Attach the pole mount bracket section at the desired mounting location using band clamps.
- 2. With the angle adapter bracket section positioned so that the open connector slots are on the bottom, attach the angle adapter bracket section to the pole mount bracket section using two 1/2 inch bolts and nuts. Tighten the nuts to 30 inch pounds (lbf-in).
- 3. Position the access point bracket section so that the bottom of the section with the straight (not bevel cut) sides is oriented toward the bottom side of the access point. Using a torque wrench or a ratchet and a 10mm socket, or an adjustable wrench, attach (but don't tighten) the access point bracket section to the AP6562 with the with four M6 hex flange screws.
- 4. Insert two M6 hex flange screws into the bottom holes on the sides of the access point bracket section.
- 5. Insert the two M6 hex flange screws in the bottom holes on the sides of the access point bracket section into the open slot connections on the bottom of the angle adapter bracket section.
- 6. Rotate the access point bracket section upward and align the top holes on the sides with the top holes on the angle adapter bracket section. Insert two M6 hex flange screws into the top holes on the angle adapter bracket section.
- 7. Use a torque wrench or a ratchet and a 10mm socket, or an adjustable wrench, to finish attaching the access point bracket section to the angle adapter bracket section with the M6 hex flange screws in the open slot connections and the top holes on the angle adapter bracket section. Do not tighten the screws until all rotation and tilt adjustments are complete.
- 8. Tighten all hex flange screws to 60 inch pounds (lbf-in).
- 9. If required, install and attach a Kensington security cable (customer supplied) to the unit's lock port.
- 10. Attach an Ethernet cable from the access point to a controller with an 802.3at-compatible power source or use the designated outdoor rated power supply (AP-PSBIAS-7161-US or AP-PSBIAS-7161-WW) to supply power to the AP6562 (once fully cabled).

11. Verify the unit has power by observing that the LEDs are lit or flashing.

\sum	CAUTION	If not using a 802.3at capable controller to power the AP6562, ensure only the AP6562's designated outdoor power supply (AP-PSBIAS-7161-US or AP-PSBIAS-7161-WW) is used to supply power to the access point. Using an incorrectly rated power supply could damage the unit and void the product warranty. Do not actually connect to the power source until the cabling portion of the
		installation is complete.

To use the extension arm with the mounting hardware kit:

- 1. Attach the pole mount section 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 12*).
- 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 section with four M6 hex flange screws. Tighten the hex flange screws to 60 inch pounds (lbf-in).
- 4. With the access point properly positioned, attach the extension arm to the access point with four M6 hex flange screws. Tighten the hex flange screws to 60 inch pounds (lbf-in).
- 5. If required, install and attach a Kensington security cable (customer supplied) to the unit's lock port.
- 6. Attach an Ethernet cable from the access point to a controller with an 802.3at-compatible power source oruse the designated outdoor rated power supply (AP-PSBIAS-7161-US or AP-PSBIAS-7161-WW) to supply power to the AP6562 (once fully cabled).
- 7. Verify the unit has power by observing that the LEDs are lit or flashing.

CAUTION If not using a 802.3at capable controller to power the AP6562, en only the AP6562's designated outdoor power supply (AP-PSBIAS-7161-US or AP-PSBIAS-7161-WW) is used to supply power to the access point. Using an incorrectly rated power supply could damage the unit and void the product warranty. Do not acture connect to the power source until the cabling portion of the installation is complete.	sure ly Jally
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2.3.5 Wall Mounted Installation

For wall mounted installations, use only the access point bracket and if required the angle adapter bracket. The access point can also be installed using the sheet metal tab on the top of the enclosure.

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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 adapter bracket section 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 section to the AP6562 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 section.
- 3. Insert the two M6 hex flange screws in the bottom holes on the sides of the access point bracket section into the open slot connections on the bottom of the angle adapter bracket section.
- 4. Rotate the access point bracket section upward and align the top holes on the sides with the top holes on the angle adapter bracket section. Insert two M6 hex flange screws into the top holes on the angle adapter bracket section.
- 5. Use a torque wrench or a ratchet and a 10mm socket, or an adjustable wrench, to finish attaching the angle adapter bracket section to the access point bracket section with the four M6 hex flange screws in the open slot connections and the top holes on the angle adapter bracket section. Do not tighten the screws until all rotation and tilt adjustments are complete.
- 6. To adjust the position of the access point, rotate the access point bracket section (plus or minus 15 degrees) and tilt the angle adapter bracket section (up to 45 degrees).
- 7. Tighten all hex flange screws to 60 inch pounds (lbf-in).
- 8. If required, install and attach a Kensington security cable (customer supplied) to the unit's lock port.
- 9. Attach an Ethernet cable from the access point to a controller with an 802.3at-compatible power source or use the designated outdoor rated power supply (AP-PSBIAS-7161-US or AP-PSBIAS-7161-WW) to supply power to the AP6562 (once fully cabled).
- 10. Verify the unit has power by observing that the LEDs are lit or flashing.

CAUTION	If not using a 802.3at capable controller to power the AP6562, ensure only the AP6562's designated outdoor power supply (AP-PSBIAS-7161-US or AP-PSBIAS-7161-WW) is used to supply power to the access point. Using an incorrectly rated power supply could damage the unit and void the product warranty. Do not actually connect to the power source until the cabling portion of the installation is complete.

To use only the extension arm:

- 1. Using four #10/32 lag bolts, attach the extension arm at the desired mounting location.
- 2. Using a torque wrench or a ratchet and a 10mm socket, or an adjustable wrench, attach the mounting extension arm to the access point with four M6 hex flange screws. Tighten the 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 adapter bracket section 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 as outlined above (see *Vertical Pole Mount on page 12*).
- 3. Attach the extension arm to the access point bracket section of the assembled mounting bracket already in position using four M6 hex flange screws. Tighten the hex flange screws to 60 inch pounds (lbf-in).
- 4. Using a torque wrench or a ratchet and a 10mm socket, or an adjustable wrench, attach the extension arm to the access point with four M6 hex flange screws. Tighten the hex flange screws to 60 inch pounds (Ibf-in).

2.4 AP6562 Internal Antenna Model

AP6562 internal antenna models (AP-6562-66030-US, AP-6562-66030-WR and AP-6562-66030-EU) are configured with four internal antennas.



2.5 AP6562 External Antenna Model

AP6562 external antenna models (AP-6562-66040-US, AP-6562-66040-WR and AP-6562-66040-EU) are configured with four external N type connectors.



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NOTE If an antenna connector is unused, the open connector must be covered with an appropriate threaded metal or plastic antenna connector cover.

The labels for Radio 1-0, Radio 1-1, Radio 2-0 and Radio 2-1 are molded into the AP6562 access point enclosure beside the antenna connectors. When mounting antennas to the connectors, ensure that you have selected the appropriate band for the configured radio. Radio 1 is a 2.4 GHz radio.

Motorola Solutions offers three antenna suites to support 2.4 GHz band, 5 GHz band, and dual band options. Select an antenna model best suited to the intended operational environment of your access point.

Part Number	Antenna Type	Maximum Gain
ML-2499-HPA8-01	Outdoor rated dipole antenna; N-Male Connector	8
ML-2499-HPA4-01	Outdoor rated dipole antenna; N-Male Connector	4
ML-2499-HPA3-01R	Outdoor rated dipole antenna; RP-BNC Male Connector	8

The 2.4 GHz antenna suite includes the following models:

The 5 GHz antenna suite includes the following models:

Part Number	Antenna Type	Maximum Gain
ML-5299-HPA5-01	Outdoor rated dipole antenna; N-Male Connector	5
ML-5299-FHPA6-01	Outdoor rated dipole antenna; N-Male Connector	8

The dual band antenna suite includes the following model:

Part Number	Antenna Type	Maximum Gain
ML-2452-HPAG5A8-01	Outdoor rated dipole antenna; N-Male Connector	5



NOTE Dual band antennas should only be used on Radio 2-0 and Radio 2-1 connectors.

For up-to-date information on supported antennas and antenna specifications, please refer to the *Motorola Solutions Enterprise Wireless LAN Antenna Specification Guide* available on the Motorola Solutions Web site. For more information, refer to <u>http://supportcentral.motorolasolutions.com/support/product/manuals.do</u>.

2.6 AP6562 LED Indicators

Both internal antenna and external antenna models have LED activity indicators on the front of the case.



The LEDs provide a status display indicating error conditions, transmission, and network activity for the 5 GHz 802.11an (amber) radio or the 2.4 GHz 802.11bgn (green) radio.

Task	5 GHz Activity LED (Amber)	2.4 GHz Activity LED (Green)
Unadopted	Off	Blink interval at 5 times a second
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	On	Off
Sensor Mode	Blink interval at 5 times a second	Blink interval at 5 times a second

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. Attach an Ethernet cable from the Access Point to a controller with an 802.3af compatible power source or use the designated outdoor rated power supply (AP-PSBIAS-7161-US or AP-PSBIAS-7161-WW) to supply power to the AP6562 (once fully cabled).

If your host system is a DHCP server, an IP address is automatically assigned to the Access Point and can be used for device connection. However, if a DHCP server is not available, you'll need to derive the IP address from the Access Point MAC address. Using this method, the last two bytes of the MAC address become the last two octets of the IP 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 be 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, FO.
- 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:

м	
Username	
Password	
Language	English
	Login Reset
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- 3. Enter the default username *admin* in the **Username** field.
- Enter the default password *motorola* in the **Password** field. 4.
- 5. Click the **Login** button to load the management interface.

When logging in for the first time, you're prompted to change the NOTE password to enhance device security in subsequent logins.

	If you get disconnected when running the wizard, you can connect again with the Access Point's actual IP address (once obtained) and resume the wizard.
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If this is the first time the management interface has been accessed, the Initial Setup Wizard 6. automatically displays.

🔚 Function Highlight

- Access Point Types: Virtual Controller AP, Standalone AP, or Dependent AP.
- Networking Mode: Bridge or Router Operation
- LAN Configuration
- Radio Configuration
- WAN Configuration
- Wireless LAN Setup
- Location, Country Code, Time Zone, Date and Time
- Summary and Save/Commit

Choose One Type to Setup the Access Point

- Typical Setup (Recommended)
 - The wizard uses as many default parameters as possible to simply the confiuration process.
- Advanced Setup

 With this selection, you may configure the access point's LAN, WAN, Radio Mapping, Radius Server, WLAN, etc.

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NOTE The Initial Setup Wizard displays the same pages and content for each Access Point model supported. The only difference being the number of radios configurable by model, as an AP7131 model can support up to three radios, AP6522, AP6532, AP6562, AP8132 and AP7161 models support two radios and AP6511 and AP6521 models support a single radio.

The Introduction screen displays the various actions that can be performed using the wizard under the **Function Highlight** field.

Use the **Choose One type to Setup the Access Point** field options to select the type of wizard to run. The **Typical Setup** is the recommended wizard. This wizard uses the default parameters for most of the configuration parameters and sets up a working network with the least amount of manual configuration.

The **Advanced Setup** wizard is for administrators who prefer more control over the different configuration parameters. A few more configuration screens are available for customization when the Advanced Setup wizard is used.

The first page of the *Initial Setup Wizard* displays the **Navigation Panel** and **Function Highlights** for the configuration activities comprising the Access Point's initial setup. This page also displays options to select the typical or advanced mode for the wizard.

The Navigation Panel for the Typical Setup Wizard displays the basic configuration options.



A green checkmark to the left of an item in the **Navigation Panel** defines the task as having its minimum required configuration set correctly. A red X defines a task as still requiring at least one parameter be defined correctly.

7. Select **Save/Commit** within each page to save the updates made to that page's configuration. Select **Next** to proceed to the next page listed in the Navigation Panel without saving your updates.

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NOTE While you can navigate to any page in the navigation panel, you cannot complete the Initial AP Setup Wizard until each task in the Navigation Panel has a green checkmark.

For the purposes of this guide, use the **Typical Setup (Recommended)** option to simplify the process of getting the Access Point up and running quickly with a minimum number of changes to the Access Point's default configuration.

For information on using the Access Point's Advanced Setup option, refer to the *WiNG Access Point System Reference Guide* to familiarize yourself with the feature set supported by the WiNG operating system. The guide is available at

http://supportcentral.motorolasolutions.com/support/product/manuals.do.

To configure the Access Point using the Typical Setup Wizard:

- 8. Select **Typical Setup** from the **Choose One type to Setup the Access Point** field on the Initial Setup Wizard.
- The Typical Setup Wizard displays the Access Point Settings screen to define the Access Point's Standalone versus Virtual Controller AP functionality. This screen also enables selection of the country of operation for the Access Point.

Access Point Type Selection

- Virtual Controller AP When more than one access point is deployed, a single access point can function as a Virtual Controller AP and manage Dependent mode access points. The Virtual Controller AP can adopt and configure other like APs in a 24-cell deployment.
- Standalone AP Select this option to deploy this access point as an autonomous "fat" access point. A standalone AP isn't managed by a Virtual Controller AP, or adopted by a controller.

Country	Choose a Country Code	•
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- 10. Select an Access Point Type from the following options:
 - *Virtual Controller AP* When more than one Access Point is deployed, a single Access Point can function as a Virtual Controller AP. Up to 24 Access Points can be connected to, and managed by, a single Virtual Controller AP of the same Access Point model. These connected Access Points must be the same model as the Virtual Controller AP.

• *Standalone AP* - Select this option to deploy this Access Point as an autonomous fat Access Point. A Standalone AP isn't managed by a Virtual Controller AP, or adopted by a controller.

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NOTE If wanting to adopt the Access Point to a controller or service platform, use the controller or service platform's resident UI to connect to the Access Point, provision its configuration and administrate the Access Point's configuration.

	NOTE	If designating the Access Point as a Standalone AP, Motorola Solutions
/		recommends the Access Point's UI be used exclusively to define its device configuration, and not the CLI. The CLI provides the ability to define more than one profile and the UI does not. Consequently, the two interfaces cannot be used collectively to manage profiles without an administrator encountering problems.

- 11. Select the **Country Code** of the country where the Access Point is deployed. Selecting a proper country is a critical task while configuring the Access Point, as it defines the correct channels of operation and ensures compliance to the regulations of the selected country. This field is only available for the Typical Setup Wizard.
- 12. Select **Next** to set the Access Point's network mode.

- 13. The Typical Setup Wizard displays the **Network Topology** screen to define how the Access Point handles network traffic.
- 🚊 Network Topology
 - Router Mode the access point routes traffic between the wireless network and the Internet or corporate network (WAN).



Bridge Mode - In Bridge Mode, the access point depends on an external router for routingLAN and VVAN traffic. Routing is generally used on one device, whereas bridging is typically used in a larger density network. Thus, select Bridge Mode when deploying this access point with numerous peer APs supporting clients on both the 2.4 and 5GHz radio bands.



- 14. Select an Access Point Mode from the available options.
 - *Router Mode* -In Router Mode, the Access Point routes traffic between the local network (LAN) and the Internet or external network (WAN). Router mode is recommended in a deployment supported by just a single Access Point.
 - *Bridge Mode* In Bridge Mode, the Access Point depends on an external router for routing LAN and WAN traffic. Routing is generally used on one device, whereas bridging is typically used in a larger density network. Select Bridge Mode when deploying this Access Point with numerous peer Access Points supporting clients on both the 2.4GHz and 5GHz radio bands.

NOTE When Bridge Mode is selected, WAN configuration cannot be performed and the Typical Setup Wizard does not display the WAN configuration screen.

15. Select **Next**. The Typical Setup Wizard displays the **LAN Configuration** screen to set the Access Point's LAN interface configuration.

묽묽	LAN Configuration
	Please configure interface settings for LAN (VLAN 1) which will be used by wireless clients
	Use DHCP What is this?
	◉ Static IP Address/Subnet What is this? 192. 168. 13. 23 / 24 🖢 ★
	DHCP Server
	Use on-board DHCP server to assign IP addresses to wireless clients
	Range 192.168.0.100 192.168.0.200
	Default Gateway 192.168.0.1
	Domain Name Server (DNS)
	V DNS Forwarding
	Primary DNS Secondary DNS

- 16. Set the following DHCP and Static IP Address/Subnet information for the LAN interface:
 - Use DHCP Select the checkbox to enable an automatic network address configuration using the Access Point's DHCP server.
 - Static IP Address/Subnet Enter an IP Address and a subnet for the Access Point's LAN interface. If Use DHCP is selected, this field is not available. When selecting this option, define the following DHCP Server and Domain Name Server (DNS) resources, as those fields will become enabled on the bottom portion of the screen.
 - Use on-board DHCP server to assign IP addresses to wireless clients Select the checkbox to enable the Access Point's DHCP server to provide IP and DNS information to clients on the LAN interface.
 - *Range* Enter a starting and ending IP Address range for client assignments on the LAN interface. Avoid assigning IP addresses from x.x.x.1 - x.x.x.10 and x.x.x.255, as they are often reserved for standard network services. This is a required parameter.
 - *Default Gateway* Define a default gateway address for use with the default gateway. This is a required parameter.

- *DNS Forwarding* Select this option to allow a DNS server to translate domain names into IP addresses. If this option is not selected, a primary and secondary DNS resource must be specified. DNS forwarding is useful when a request for a domain name is made but the DNS server, responsible for converting the name into its corresponding IP address, cannot locate the matching IP address.
 - *Primary DNS* Enter an IP Address for the main Domain Name Server providing DNS services for the Access Point's LAN interface.
 - Secondary DNS Enter an IP Address for the backup Domain Name Server providing DNS services for the Access Point's LAN interface.
- 17. Select **Next.** The Typical Setup Wizard displays the **Wireless LAN Setup** screen to set the Access Point's Wireless LAN interface configuration.

_		WLAN 1 WLAN 2	
튑 WLAN	1 Configuration		
SSID	WLA_01	<u>VVhat is this?</u>	
WLAN	l Type 💿 No Authentication and	d No Encryption VVhat is this?	
	Captive Portal Authen	tication and No Encryption <u>What is this?</u>	
	PSK authentication, W	VPA2 encryption <u>What is this?</u>	

- 18. Set the following WLAN1 Configuration parameters:
 - SSID Configure the SSID for the WLAN.
 - *WLAN Type* Configure the encryption and authentication to use with this WLAN.
 - *No Authentication and No Encryption* Configures a network without any authentication. This option also configures the network without encryption. This means that any data transmitted through the network is in plain text. Any device between end points can see the information transmitted. This is the least secure of all network configurations.
 - *Captive Portal Authentication and No Encryption* Configures a network that uses a RADIUS server to authenticate users before allowing them on to the network. Once on the network, no encryption is used for the data being transmitted through the network. Select this option to use a Web page (either internally or externally hosted) to authenticate users before access is granted to the network.
 - *PSK authentication, WPA2 encryption* Configures a network that uses PSK authentication and WPA2 encryption. Select this option to implement a pre-shared key that must be correctly shared between the Access Point and requesting clients using this WLAN.

19. Select Next. The Typical Setup Wizard displays the RADIUS Server Configuration screen if required.

Otherwise, the *Typical Setup Wizard* displays the **Summary and Commit** screen.

20. Use the **Radius Server Configuration** screen to configure the users for the onboard RADIUS server. Use the screen to add, modify and remove RADIUS users.

Some WLANs require authentication using the on-board RADIUS server. User accounts must be added for all users that should be authorized by the server.

Username	Description

21. Select **Add User** to display the dialog to enter user information to add to the RADIUS server user database.

Add User			×
Username	*		
Password	*		
Confirm Password	*		
Description			
	Create Create & C	Close Cancel	

- 22. Enter the following user information:
 - Username Provide a user name used to authenticate the user.
 - *Password* Provide a password used to authenticate the user.
 - *Confirm Password* Confirm the password by entering the same password as entered in the Password field.
 - *Description* Provide a description to identify the user created in the RADIUS server database.
- 23. To create the entry in the RADIUS server database and add another user, select **Create**. To create the entry in the RADIUS server database and close the Add User dialog, select **Create & Close**.
- 24. Select **Modify User** on the RADIUS Server Configuration screen to modify information for an existing user from the RADIUS database. Highlight the user entry then select **Modify User**.



NOTE The Username cannot be modified with this dialog.

- 25. Select **Delete User** on the RADIUS Server Configuration screen to remove information for an existing user from the RADIUS database. Highlight the user entry and select **Delete User**.
- 26. Select **Confirm** on the dialog displayed. The entry for the user is removed from the RADIUS database.
- 27. To dismiss the dialog without adding, modifying or removing entries in the RADIUS server database, select **Cancel**.

28. Select **Next**. The Typical Setup Wizard displays the **Summary and Commit** screen to summarize the screens (pages) and settings updated using the Typical Setup Wizard.

🧅 Access Point Type Page ————————————————————————————————————
Access Point Type Standalone AP
👔 Networking Mode Page ————————————————————————————————————
Networking Mode Router Mode
물물 LAN Configuration Page
LAN Configuration Type Static IP Address/Subnet
VLAN ID for the LAN Interface 1
Static IP Address/Subnet 192.168.13.23/24
물물 WAN Configuration Page
WAN Configuration Type Use DHCP
Port to External GE1 Port

믥 WLAN Configuration

No user intervention or additional settings are required. Its an additional means of validating the Access Point's updated configuration before it's deployed. However, if a screen displays settings not intended as part of the initial configuration, then any screen can be selected again from within the Navigation Panel and its settings modified accordingly.

29. If the configuration displays as intended, select **Save/Commit** to implement these settings to the Access Point's configuration. If additional changes are warranted based on the summary, either select the target page from the **Navigational Panel**, or use the **Back** and **Next** buttons to scroll to the target screen.

4 Specifications

4.1 AP6562 Internal Antenna Model Power Specifications

An AP6562 internal model access point has the following power specifications:

Operating voltage	36-57 VDC
Power in (PoE)	802.3at

4.2 AP6562 Internal Antenna Model Physical Specifications

An AP6562 internal antenna model access point has the following physical specifications:

Dimensions	9.1 in W x 9.8 in H x 2.6 in D 23.1cm W x 24.9cm H x 24.9cm D
Enclosure	IP 67 rated, polymeric corrosion resistant, ASTM B117 salt, fog, and rust resistent
Weight	2.90 lbs / 1.3 kg
Operating temperature	-22°F to +140°F/-30°C to +60°C
Storage temperature	-40°F to +185°F/-40°C to +85°C
Operating humidity	5 to 95% Relative Humidity non-condensing
Storage humidity	85% Relative Humidity non-condensing
Operating altitude (maximum)	8,000 ft/2438.4 m
Storage altitude (maximum)	30,000 ft/9144.0 m
Electrostatic discharge	EN61000-4-2 Air +/-15kV, Contact +/-8kV
Operational shock	IE60721-3-4, Class 4M3, MIL STD 810F
Operational vibration	IE60721-3-4, Class 4M3

4.3 AP6562 Internal Antenna Model Antenna Specifications

An AP6562 internal antenna model access point has the following antenna specifications:

Radio 1	2.4GHz@5.0dBi
Radio 2	2.4GHz@3.0dBi, 5.0GHz@6.0dBi

4.4 AP6562 External Antenna Model Power Specifications An AP6562 external antenna model access point has the following power specifications:

Operating voltage	36-57 VDC
Power in (PoE)	802.3at

4.5 AP6562 External Antenna Model Physical Specifications An AP6562 external antenna model access point has the following physical specifications:

Dimensions	9.1 in W x 9.8 in H x 2.6 in D 23.1cm W x 24.9cm H x 24.9cm D
Enclosure	IP 67 rated, polymeric corrosion resistant, ASTM B117 salt, fog, and rust resistent
Weight	2.90 lbs / 1.3 kg
Operating temperature	-22°F to +140°F/-30°C to +60°C
Storage temperature	-40°F to +185°F/-40°C to +85°C
Operating humidity	5 to 95% Relative Humidity non-condensing
Storage humidity	85% Relative Humidity non-condensing
Operating altitude (maximum)	8,000 ft/2438.4 m
Storage altitude (maximum)	30,000 ft/9144.0 m
Electrostatic discharge	EN61000-4-2 Air +/-15kV, Contact +/-8kV
Operational shock	IE60721-3-4, Class 4M3, MIL STD 810F
Operational vibration	IE60721-3-4, Class 4M3

4.6 Radio Specifications AP6562 model access points have the following radio specifications:

Data rates supported	802.11b/g: 1,2,5.5,11,6,9,12,18,24,36,48, and 54Mbps 802.11a: 6,9,12,18,24,36,48, and 54Mbps 802.11n: MCS 0-15 up to 300Mbps
Network standard	802.11a, 802.11b, 802.11g, 802.11n
Wireless medium	Direct Sequence Spread Spectrum (DSSS), Orthogonal Frequency Division Multiplexing (OFDM) Spatial multiplexing (MIMO)
Uplink	Auto-sensing 10/100/1000 Base-T Ethernet
Operating Channels	Radio 1: 2.4GHz channel 1-13 (2412-2472Mhz), Channel 14 (2484MHZ) Japan only Radio 2: 2.4GHz2.4GHz channel 1-13 (2412-2472Mhz), Channel 14 (2484MHZ) Japan only, 5GHz all channels from 5200MHz-5825MHz Actual operating frequencies depend upon national regulatory limits.
Maximum available transmit power	2.4GHz: 21dBm per chain 5.0GHz: 20dBm per chain
Maximum radio transmit power	2400MHz band: Single antenna transmit power: +21dBm Dual antenna composite transmit power: +24dBm 5200MHz band: Single antenna transmit power: +20dBm Dual antenna composite transmit power: +23dBm
Transmit power adjustment	1dB increments

5 Regulatory Information

5.1 Regulatory Information

This device is approved under Motorola Solutions, Inc.

This guide applies to MODEL: AP6562

All Motorola 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 web site: <u>http://www.motorolasolutions.com/support</u>

Any changes or modifications to Motorola equipment, not expressly approved by Motorola, could void the user's authority to operate the equipment.

Motorola 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 Motorola Wireless Switch.

5.2 Wireless Device Country Approvals

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

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

http://www.motorolasolutions.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.

5.2.1 Country Selection

Select only the country in which you are using the device. Any other selection will make the operation of this device illegal.

5.2.2 Frequency of Operation – FCC and IC

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

5 GHz Only

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

Industry Canada 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.

The professional installer should utilize the Motorola Antenna Guides 72E-162906-01 at <u>http://www.motorolasolutions.com</u> to ensure a compliant configuration consistent with the FCC Grant and the IC Listing. The transmitter power settings for each of the authorized antennas are contained in the Motorola Antenna Guide.

Avertissement: Le dispositive 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 utilizations de radars de haute puissance son designs utilizations principii (c.-à-d., quills not la priority) 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.

L'installateur professionnel devrait utiliser les Guides d'Antenne Motorola 72E-162906-01 à <u>http://www.motorolasolutions.com</u> pour garantir une configuration accommodante en accord avec la Subvention de FCC et la Liste d'IC. Les cadres de pouvoir de transmetteur pour chacune des antennes autorisées sont contenus dans le Guide d'Antenne Motorola.

2.4 GHz Only

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

5.3 Health and Safety Recommendations

5.3.1 Warnings for Wireless Devices

Please observe <u>all</u> warning notices with regard to the usage of wireless devices.

5.3.2 Potetially Hazerdous Atmospheres - Fixed Installations

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

5.3.3 Safety in Hospitals



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

Pacemakers

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

Persons with Pacemakers:

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

Other Medical Devices

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

5.4 RF Exposure Guidelines

Safety Information

Reducing RF Exposure - Use Properly

Only operate the device in accordance with the instructions supplied.

5.5 International

The device complies with internationally recognized standards covering human exposure to electromagnetic fields from radio devices. For information on "International" human exposure to electromagnic fields refer to the Motorola Declaration of Conformity (DoC) at <u>http://www.motorolasolutions.com/doc</u>

For further information on the safety of RF energy from wireless devices - see

http://responsibility.motorolasolutions.com/index.php/ourapproach/wirelessscomhealth

5.6 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 20 cm from all persons.

5.7 US and Canada

Co-located statement

To comply with FCC RF exposure compliance requirement, the antennas 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.

Remote and Standalone Antenna Configurations

To comply with FCC 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 20 cm from all persons.

To satisfy FCC RF exposure requirements, a mobile transmitting device must operate with a minimum separation distance of 20 cm or more from a person's body.

5.8 Power Supply

Use ONLY an AP-PSBIAS-7161-US or AP-PSBIAS-7161-WW outdoor rated power supply...

This device can be powered from a 802.3at compliant power source which is certified by the appropriate agencies.

Use of alternative Power Supply will invalidate any approvals given to this unit and may be dangerous.

5.9 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.

5.10 Radio Frequency Interference Requirements – Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This device complies with Industry Canada licence-exempt RSS standard(s) 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.

Cet appareil se conforme Canada et Industrie Règles de normes de RSS permis-exempt. L'opération est assujetti au suivre deux conditions : (1) cet appareil ne peut pas causer l'intervention nuisible, et (2) cet appareil doit accepter de l'intervention reçue, y compris l'intervention qui peut causer l'opération non désirée.

Radio Transmitters

For RLAN Devices:

The 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.

This radio transmitter (identify the device by certification number, or model number if Category II) has been approved by Industry Canada to operate with the antenna types listed in the Motorola Antenna Guides 72E-162906-01 at <u>http://www.motorolasolutions.com</u> with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in guide, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Cet émetteur radio (identifient l'artifice par le nombre de certification, ou nombre modèle si la Catégorie II) a été approuvé par l'Industrie le Canada pour opérer avec les types d'antenne énumérés dans l'Antenne Motorola Guide 72E-162906-01 à

<u>http://www.motorolasolutions.com</u> avec l'augmentation permise maximum et a exigé l'impédance d'antenne pour chaque type d'antenne indiqué. Les types d'antenne non inclus dans le guide, en ayant une augmentation plus grande que l'augmentation maximum indiquée pour ce type, sont sévèrement interdits pour l'utilisation avec cet artifice.

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

CE 5.11 CE Marking and European Economic Area (EEA)

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

- Maximum radiated transmit power of 100 mW EIRP in the frequency range 2.400 -2.4835 GHz.
- France outside usage, the equipment is restricted to 2.400-2.45 GHz frequency range.
- Italy requires a user license for outside usage.

5.12 Statement of Compliance

Motorola 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 <u>http://www.motorola.com/doc</u>.

Korea Warning Statement for Class B

기 종 별	사용자안내문
B급 기기↓ (가정용 방송통신기기)	이 기기는 가정용 (B 급) 으로 전자파적합등록을 한 기기로서 주로 가정에서 사용하는 것을 목적 으로 하며, 모든 지역에서 사용할 수 있습니다
Class B (Broadcasting Communication Device for Home Use)	This device obtained EMC registration mainly for home use (Class B) and may be used in all areas.

5.13 Other Countries

Australia

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

Brazil

Declarações Regulamentares para AP6562 - Brasil

Nota: A marca de certificação se aplica ao Transceptor, modelo AP6562. 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: <u>www.anatel.gov.br</u>

Chile

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

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."

Taiwan

<u> 臺灣</u>

低功率電波輻射性電機管理辦法

第十二條

經型式認證合格之低功率射頻電機,非經許可,公司、商號或使用者均不得擅自變更頻 率、加大功率或變更原設計之特性及功能。

第十四條

低功率射頻電機之使用不得影響飛航安全及干擾合法通信;經發現有干擾現象時,應立即 停用,並改善至無干擾時方得繼續使用。 前項合法通信,指依電信規定作業之無線電通信。 低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

在 5.25-5.35 秭赫頻帶內操作之無線資訊傳輸設備, 限於室內使用

Korea

당해 무선설비는 운용 중 전파혼신 가능성이 있음

당해 무선설비 는전파혼 신 가능성이 있으므로 인명안전과 관련된 서비스는 할 수 없습니다.

5.14 Waste Electrical and Electronic Waste Equipment (WEEE)



English: For EU Customers: All products at the end of their life must be returned to Motorola Solutions for recycling. For information on how to return product, please go to:

http://www.motorolasolutions.com/recycling/weee.

Français: Clients de l'Union Européenne: Tous les produits en fin de cycle de vie doivent être retournés à Motorola Solutions pour recyclage. Pour de plus amples informations sur le retour de produits, consultez : http://www.motorolasolutions.com/recycling/weee.

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

Български: За клиенти от EC: След края на полезния им живот всички продукти трябва да се връщат на Motorola Solutions за рециклиране. За информация относно връщането на продукти, моля отидете на адрес: http://www.motorolasolutions.com/recycling/weee.

Deutsch: Für Kunden innerhalb der EU: Alle Produkte müssen am Ende ihrer Lebensdauer zum Recycling an Motorola Solutions zurückgesandt werden. Informationen zur Rücksendung von Produkten finden Sie unter http://www.motorolasolutions.com/recycling/weee.

Italiano: per i clienti dell'UE: tutti i prodotti che sono giunti al termine del rispettivo ciclo di vita devono essere restituiti a Motorola Solutions al fine di consentirne il riciclaggio. Per informazioni sulle modalità di restituzione, visitare il seguente sito Web: http://www.motorolasolutions.com/recycling/weee.

Português: Para clientes da UE: todos os produtos no fim de vida devem ser devolvidos à Motorola Solutions para reciclagem. Para obter informações sobre como devolver o produto, visite:

http://www.motorolasolutions.com/recycling/weee.

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

Polski: Klienci z obszaru Unii Europejskiej: Produkty wycofane z eksploatacji nale¿y zwróciæ do firmy Motorola Solutions w celu ich utylizacji. Informacje na temat zwrotu produktów znajduj¹ siê na stronie internetowej http://www.motorolasolutions.com/recycling/weee.

Čeština: Pro zákazníky z EU: Všechny produkty je nutné po skonèení jejich životnosti vrátit spoleènosti Motorola Solutions k recyklaci. Informace o zpùsobu vrácení produktu najdete na webové stránce: http://www.motorolasolutions.com/recycling/weee.

Eesti: EL klientidele: kõik tooted tuleb nende eluea lõppedes tagastada taaskasutamise eesmärgil Motorola Solutions'ile. Lisainformatsiooni saamiseks toote tagastamise kohta külastage palun aadressi: http://www.motorolasolutions.com/recycling/weee.

Magyar: Az EU-ban vásárlóknak: Minden tönkrement terméket a Motorola Solutions vállalathoz kell eljuttatni újrahasznosítás céljából. A termék visszajuttatásának módjával kapcsolatos tudnivalókért látogasson el a http://www.motorolasolutions.com/recycling/weee weboldalra.

Svenska: För kunder inom EU: Alla produkter som uppnått sin livslängd måste returneras till Motorola Solutions för återvinning. Information om hur du returnerar produkten finns på http://www.motorolasolutions.com/recycling/weee.

Suomi: Asiakkaat Euroopan unionin alueella: Kaikki tuotteet on palautettava kierrätettäväksi Motorola Solutions-yhtiöön, kun tuotetta ei enää käytetä. Lisätietoja tuotteen palauttamisesta on osoitteessa http://www.motorolasolutions.com/recycling/weee.

Dansk: Til kunder i EU: Alle produkter skal returneres til Motorola Solutions til recirkulering, når de er udtjent. Læs oplysningerne om returnering af produkter på: http://www.motorolasolutions.com/recycling/weee.

Ελληνικά: Για πελάτες στην Ε.Ε.: Όλα τα προϊόντα, στο τέλος της διάρκειας ζωής τους, πρέπει να επιστρέφονται στην Motorola Solutions για ανακύκλωση. Για περισσότερες πληροφορίες σχετικά με την επιστροφή ενός προϊόντος, επισκεφθείτε τη διεύθυνση http://www.motorolasolutions.com/recycling/weee στο Διαδίκτυο.

Malti: Għal klijenti fl-UE: il-prodotti kollha li jkunu waslu fl-aħħar tal-ħajja ta' l-użu tagħhom, iridu jiġu rritornati għand Motorola Solutions għar-riċiklaġġ. Għal aktar tagħrif dwar kif għandek tirritorna l-prodott, jekk jogħġbok żur: http://www.motorolasolutions.com/recycling/weee.

Românesc: Pentru clienții din UE: Toate produsele, la sfârșitul duratei lor de funcționare, trebuie returnate la Motorola Solutions pentru reciclare. Pentru informații despre returnarea produsului, accesați: http://www.motorolasolutions.com/recycling/weee.

Slovenski: Za kupce v EU: vsi izdelki se morajo po poteku življenjske dobe vrniti podjetju Motorola Solutions za reciklažo. Za informacije o vračilu izdelka obiščite: http://www.motorolasolutions.com/recycling/weee.

Slovenčina: Pre zákazníkov z krajín EU: Všetky výrobky musia byť po uplynutí doby ich životnosti vrátené spoločnosti Motorola Solutions na recykláciu. Bližšie informácie o vrátení výrobkov nájdete na: http://www.motorolasolutions.com/recycling/weee.

Lietuvių: ES vartotojams: visi gaminiai, pasibaigus jų eksploatacijos laikui, turi būti grąžinti utilizuoti į kompaniją "Motorola Solutions". Daugiau informacijos, kaip grąžinti gaminį, rasite:

http://www.motorolasolutions.com/recycling/weee.

Latviešu: ES klientiem: visi produkti pēc to kalpošanas mūža beigām ir jānogādā atpakaļ Motorola Solutions otrreizējai pārstrādei. Lai iegūtu informāciju par produktu nogādāšanu Motorola, lūdzu, skatiet:

http://www.motorolasolutions.com/recycling/weee.**Türkçe:** AB Müşterileri için: Kullanım süresi dolan tüm ürünler geri dönüştürme için Motorola Solutions'ya iade edilmelidir. Ürünlerin nasıl iade edileceği hakkında bilgi için lütfen şu adresi ziyaret edin: http://www.motorolasolutions.com/recycling/weee.

5.15 TURKISH WEEE Statement of Compliance

EEE Yönetmeliğine Uygundur

6 Motorola Solutions Support Center

If you have a problem with your equipment, contact support for your region.

Contact information is available at: <u>http://www.motorolasolutions.com/support</u>.

When contacting Motorola Solutions support, please provide the following information:

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

Motorola Solutions 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 Motorola Solutions business partner, contact that business partner for support.

Customer Support Web Sites

The Motorola Solutions Support Central Web site, located at <u>http://supportcentral.motorolasolutions.com/support</u>

provides information and online assistance including developer tools, software downloads, product manuals and online repair requests.

Manuals

http://supportcentral.motorolasolutions.com/support/product/manuals.do

General Information

Obtain additional information by contacting Motorola Solutions at:

Telephone (North America): 1-800-722-6234

Telephone (International): +1-631-738-5200

Website: http://www.motorolasolutions.com

7 AP6562 Access Point China ROHS Compliance

	有毒有害物质或元素					
部件名称 (Parts)	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr⁶⁺)	多溴联 苯 (PBB)	多溴二苯 醚 (PBDE)
金属部件 (Metal Parts)	0	0	0	0	0	0
电路模块 (Circuit Modules)	Х	0	0	0	0	0
电缆及电缆组件 (Cables and Cable Assemblies)	Х	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

- O:表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T11363-2006 标准规定的限量要求以下。
- X:表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T11363-2006 标准规定的限量 要求。

对销售之日的所售产品,本表表示,公司供应链的电子信息产品可能包含这些物质。注意:在所售产品中可能会也可能不会含有所有所列的部件。

This table was created to comply with China RoHS requirements for Motorola Solutions' AP6562 Access Point.





Motorola Solutions, Inc. 1301 E. Algonquin Rd. Schaumburg, IL 60196-1078, U.S.A. http://www.motorolasolutions.com

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MN000040A01 Revision A September 2013