Cisco Wireless 9171I Series Wi-Fi 7 Access Point Hardware Installation Guide

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Preface

This preface describes this guide and provides information about the conventions used in this guide, and related documentation.

It includes the following sections:

- About this Guide, on page v
- Conventions, on page v
- Related Documentation, on page vi
- Communications, services, and additional information, on page vi

About this Guide

This guide provides instructions to install your Cisco access point and provides links to resources that can help you configure it. This guide also provides mounting instructions and troubleshooting information.

Note that the Cisco Wireless 9171I Wi-Fi 7 Access Point is referred to as *access point* or *AP* in this document.

Conventions

This document uses the following conventions for notes, cautions, and safety warnings. Notes and cautions contain important information that you should know.

Note Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the manual.

Caution Means *reader be careful*. Cautions contain information about something you might do that could result in equipment damage or loss of data.

Warning Safety warnings appear throughout this guide in procedures that, if performed incorrectly, can cause physical injuries. A warning symbol precedes each warning statement.

Related Documentation

All user documentation for the Cisco Wireless 9171I Wi-Fi 7 Access Point is available at:

For detailed information and guidelines about configuring and deploying your access point in a wireless network, see the following document:

Cisco Catalyst 9800 Series Wireless Controller Software Configuration Guide

Communications, services, and additional information

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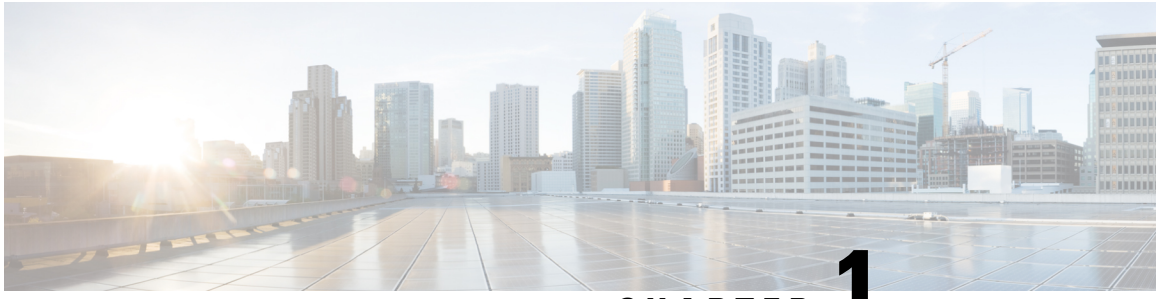


CHAPTER 1

About the Access Point

- Introduction to Cisco Wireless 9171I Wi-Fi 7 Access Point, on page 1
- Cisco wireless 9171I Wi-Fi 7 access point features, on page 1
- AP model numbers and regulatory domains, on page 4
- Antennas and Radios, on page 4

Introduction to Cisco Wireless 9171I Wi-Fi 7 Access Point

The Cisco Wireless 9171I Wi-Fi 7 Access Point (AP) is an enterprise-class device designed for indoor environments, delivering high-performance wireless solutions that

- Offers a migration path for existing MR36, MR28, and Cisco Catalyst 9105 Series Access Point customers.
- Functions as a converged platform, serving both Cisco Catalyst and Meraki customers with a common hardware architecture and industrial design.
- Operates in dual-radio tri-band configuration (2.4/5/6 GHz) with concurrent operation in two bands.

The AP hardware is supported on the following platforms:

- Cisco Catalyst Center (formerly known as Cisco DNA Center) on-premises
- Cisco Catalyst stack
- Meraki cloud-based stack

A full listing of the AP's features and specifications is provided in the Cisco Wireless 9171I Wi-Fi 7 Access Point Data Sheet, at:

Cisco wireless 9171I Wi-Fi 7 access point features

The CW9171I Access Point (AP) is a tri-band Wi-Fi 7 enterprise indoor access point. It is designed for seamless integration with the Cisco Catalyst 9800 Series Wireless Controller. This AP delivers superior connectivity, expanded coverage, and support for advanced IoT applications.

Below are the hardware and supporting features:

- Radios and Wireless Capabilities

- Wi-Fi 7 radios supporting 2.4 GHz, 5 GHz, and 6 GHz frequencies with integrated omnidirectional antennas.
- The AP operates in dual-radio tri-band mode with 4 spatial streams, allowing operation in (2.4 + 5 GHz) or (2.4 + 6 GHz).
- Supports Wi-Fi 7 and 802.11be, as well as previous Wi-Fi standards up to, and including Wi-Fi 6 R2 and Wi-Fi 6E.
- Dedicated scanning and AUX radio for real-time network monitoring and optimization.
- Integrated radio for Bluetooth/BLE 6.0+, Thread, Zigbee, and Matter.
- Supports Modulation up to 4096 QAM.
- Multi-Link Operation (MLO) for Multi-Link Devices (MLDs) to maintain associations and simultaneously transmit data across multiple frequency bands.
- Orthogonal Frequency Division Multiple Access (OFDMA) for efficient traffic scheduling and resource utilization.
- Channel Puncturing for efficient spectrum utilization.
- Supports security features including WPA3 Beacon Protection, WPA3 SAE-PK, WPA3 192-bit, and GCMP for WPA2 and WPA3.
- USB port for optional CW-ACC-GPS1= GPS module.

- Ports and Connectivity
  - Ethernet Uplink: One 2.5Gbps RJ45 Ethernet port, supporting 100/1000Mbps speeds, VXLAN, CDP, LLDP, and MACSEC.
  - Power over Ethernet (PoE): Supports 802.3af, 802.3at, 802.3bt (PoE, PoE+, PoE++, UPOE). Full feature enablement requires 802.3at. 802.3bt class 5 is required to enable USB.

Note Before deployment, verify that all PoE injectors and switches provide the necessary power budget to enable all access point features.

  - USB Port: One USB-A connector (USB 2.0 spec) providing 4.5W power output.
  - DC Power Jack: Supports external power supply (e.g., MA-PWR-30W-x, MA-PWR-50WAC).
  - Console Port: One RJ45 Console port.

- Ethernet Cable Requirements
  - CAT5E or above: Recommended for distances up to 100m.
  - Environmental Considerations: Avoid routing cables near high-interference sources such as electrical panels or motors. Ensure cable installations comply with local building and fire safety codes.

- System Hardware and Mechanical
  - Antennas: Integrated internal omnidirectional antennas.

- Sensors: Includes a barometer for height estimation and sensors for orientation (tilt and rotation).
- Security: Implements Cisco-TPM for secure boot and secure storage of device certificates, and includes a Kensington locking mechanism.
- LED Indicators: Supports multi-color (red, green, blue, white, pink, orange) system LEDs that are dimmable, and LED indicators on the Ethernet port for link/status.
- Form Factor: Indoor ceiling mount AP, with dimensions not exceeding CW9162 (200mm x 200mm x 43.6mm max) and weight not exceeding 2.05 lbs (0.93 kg).
- Power Management: Includes circuitry to measure power consumption and the ability to control power by enabling/disabling radios, reducing spatial streams, turning USB port on/off, and controlling Ethernet port speed.

- Operating Modes
  - Local Mode: Default mode for client servicing, utilizing CAPWAP tunnels for centralized management and offering central switching capabilities.
  - FlexConnect Mode: Allows local data AC switching and enables continued operation during controller disconnection.
  - Monitor Mode: Acts as a dedicated sensor for Intrusion Detection Systems (IDS), rogue AP detection, and Location-based services (LBS).
  - Sniffer Mode: Captures and forwards wireless packets for remote analysis using tools like Wireshark or AiroPeek NX, including metadata like timestamps, signal strength, and packet size.

Note Requires the receiving server to be on the same VLAN as the controller management VLAN.

  - Site Survey Mode: Enables RF parameter configuration for site survey investigations, simplifying network planning and installation.
  - SDA/Fabric Mode: Supports Software-Defined Access (SD-Access) for advanced segmentation and policy enforcement.

- Intelligent Network Capabilities
  - CleanAir Pro Technology: Provides advanced spectrum intelligence for 2.4 GHz, 5 GHz, and 6 GHz bands, supporting high-speed spectrum analysis (20 MHz to 320 MHz) to identify and mitigate interference sources.
  - Intelligent Capture: Probes the network to provide deep diagnostic insights, enabling troubleshooting of latency, interference, and other performance issues.

- Software Features
  - Cisco Catalyst Center Support: Integrates with Cisco Catalyst Center to enable Cisco Spaces for location services.
  - Apple FastLane: For optimized iOS device performance.

- Cisco Identity Services Engine (ISE) support: Integration with ISE for advanced security and network access control.

AP model numbers and regulatory domains

AP type	Product ID	Details
Access Point for indoor environments, with internal antennas	CW9171I	Wi-Fi 7 AP, tri-band, 802.11be with internal antennas

With the new Wi-Fi 7 APs, Cisco now has one AP portfolio that can be used either with the Meraki cloud native network or Catalyst on-premise controller-based deployments. With the introduction of the one AP portfolio, it is essential to have a single product ID (PID) at manufacturing, to simplify logistics or operations. This AP model is designed for global use under a single PID. To verify approval and to identify the regulatory domain that corresponds to a particular country, see https://www.cisco.com/c/dam/assets/prod/wireless/wireless-compliance-tool/index.html. Regulatory approvals are continually updated as they are obtained.

Antennas and Radios

The following sections provide detailed information about the AP's antennas and radios.

Internal Antennas

The Cisco Wireless 9171I Access Point is designed with integrated internal antennas. The antenna configuration includes

- Two Wi-Fi serving antennas, each capable of supporting 2.4 GHz, 5 GHz, and 6 GHz bands, for dual-radio concurrent operation.
- One tri-band antenna for the dedicated 2.4 GHz, 5 GHz, and 6 GHz Auxiliary (scanning) radio.
- One single-band antenna for the dedicated 2.4 GHz IoT radio.

Note All antennas are internal and integrated into the CW9171I unit, not visible from outside the chassis.

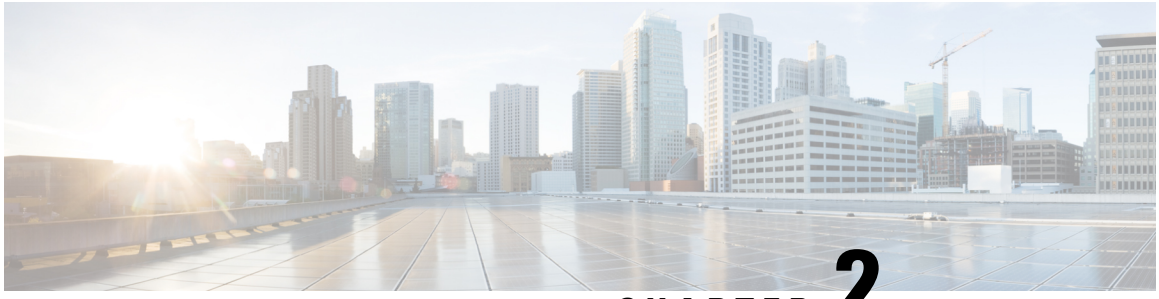
Operating frequency and effective isotropic radiated power

Table 1: Cisco CW9171I AP values for European Union (CE) region

Evaluation mode	Frequency range	EIRP power limit
	(MHz)	(dBm)
2.4GHz WLAN	2400-2483.5	20
5GHz WLAN B1	5150-5250	23
5GHz WLAN B2	5250-5350	23
5GHz WLAN B3	5470-5725	30
5GHz WLAN B4	5725-5875	13.98
(EN 300 440 V2.2.1)		
6GHz WLAN	5945~6425	LPI：23
(Draft EN 303 687)		
Bluetooth	2400-2483.5	9.97
IEEE 802.15.4	2400-2483.5	9.9
(Zigbee)		

Table 2: Cisco CW9171I Values for United Kingdom Region

Evaluation Mode	Frequency Range	EIRP Power Limit
	(MHz)	(dBm)
2.4GHz WLAN	2400-2483.5	20
5GHz WLAN B1	5150-5250	23
5GHz WLAN B2	5250-5350	23
5GHz WLAN B3	5470-5725	30
5GHz WLAN B4	5725-5850	23
(IR 2030)		
6G WLAN	5925-6425	LPI：23.98
(IR 2030)		
Bluetooth	2400-2483.5	9.97
IEEE 802.15.4	2400-2483.5	9.9
(Zigbee)		



CHAPTER 2

Hardware Features

This chapter describes the hardware features of Cisco Wireless 9171I Wi-Fi 7 Access Point and contains the following sections:

- Access point views, ports, and connectors, on page 7

Access point views, ports, and connectors

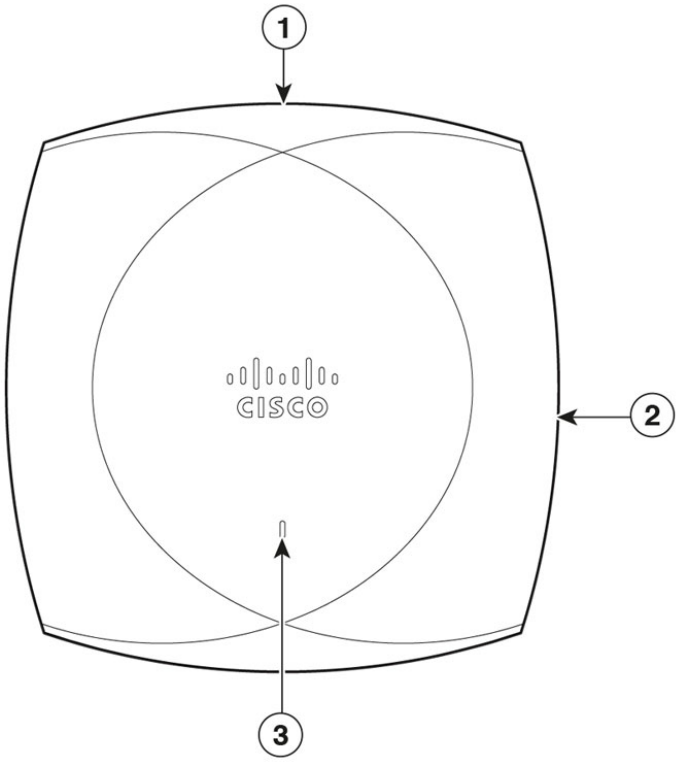
Cisco Wireless 9171I Wi-Fi 7 Access Point has multiple options that you can use to power the AP. For information about connectors and ports for the AP models, see Connectors and ports on the AP, on page 7.

Connectors and ports on the AP

The following figures show the available ports on the AP:

CW9171I face view

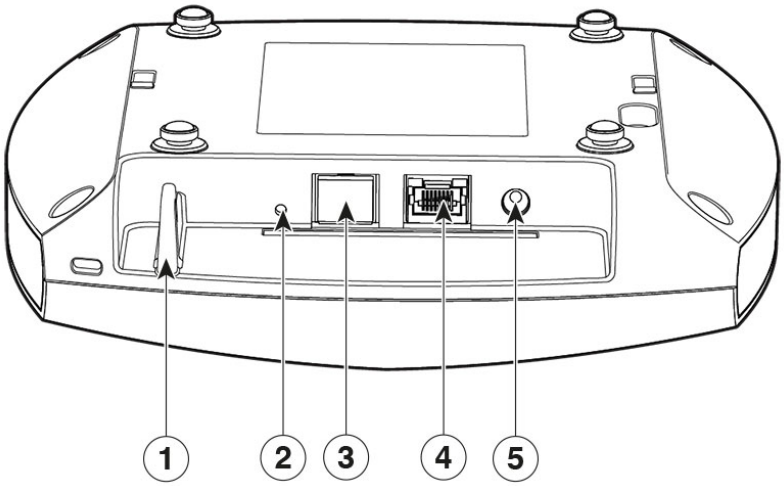
Figure 1: CW9171I face view



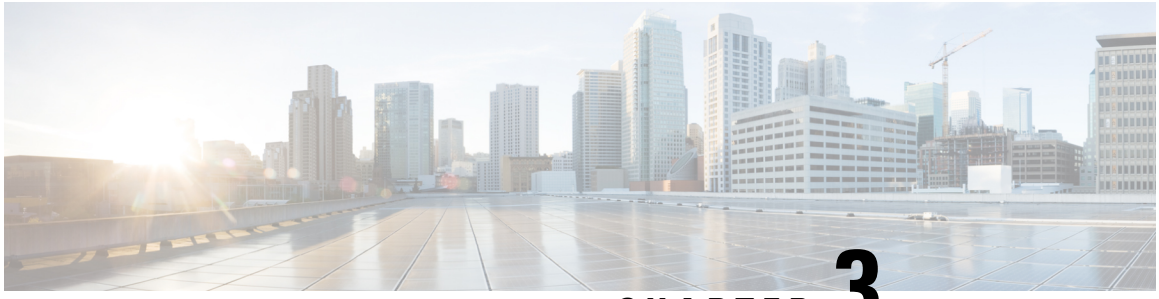
1	Kensington lock slot
2	USB 2.0 port
3	Status LED For information on the LEDs status, see LED Status Indications.

CW9171I top view

Figure 2: CW9171I top Vvew with connectors and ports



1	Security hasp for padlocking AP to mounting bracket	4	Ethernet port 0
2	Reset button For information about how to use the Reset button, see the Using the Mode Button section	5	DC power jack
3	RJ-45 console port Default baud rate is 115200.		



CHAPTER 3

Installing the Access Point

Installing an AP involves the following high-level tasks.

- Unpacking the Package, on page 11
- Preinstallation checks and installation guidelines, on page 15
- Mounting the Access Point, on page 16
- Powering the access point, on page 17

Unpacking the Package

Package Contents

Each Cisco Wireless 9171I Access Point package contains the following items:

- One Cisco Wireless 9171I Access Point
- Default mounting brackets: Adjustable ceiling-rail clips AIR-AP-T-RAIL-R= and AIR-AP-BRACKET-1=
- Orderable optional mounting brackets: AIR-AP-T-RAIL-F= and AIR-AP-BRACKET-2=
- Cisco product documentation and pointer card

Unpacking the access point

Procedure

Step 1 Unpack and remove the access point and the selected mounting accessory kit from the shipping box.

Step 2 Return the packing material to the shipping container and save it for future use.

Step 3 Verify that you have received all the items you ordered. If any item is missing or is damaged, contact your Cisco representative or reseller for instructions.

Cisco orderable accessories

You can order the following accessories separately from Cisco for the Cisco Wireless 9171I Access Point:

- AP-mounting brackets to mount the AP

Mounting Brackets	Description
AIR-AP-BRACKET-1=	Low-profile bracket: Used for ceiling-mount installations
AIR-AP-BRACKET-2=	Universal bracket: Used for wall or electrical box installations
AIR-AP-T-RAIL-R=	Ceiling grid clip (recessed mounting)
AIR-AP-T-RAIL-F=	Flush ceiling grid clip
AIR-CHNL-ADAPTER=	T-RAIL channel adapter

- Power supplies and injectors when Power over Ethernet (PoE) is not available

Power Supply / Injector	Description
MA-PWR-30W-x	External AC power supply.
MA-PWR-50WAC	External AC power supply.
CW-INJ-8	Meraki 802.3bt PoE injector. Power Specifications: 60W, 10 Gbps Ethernet. For more information, see *Cisco Power Injector CW-INJ-8 Quick Start Guide*.
AIR-PWRINJ7=	Mid-span power injector. Power Specifications: 50W, 56VDC. For more information, see the *Cisco Multigigabit 802.3bt Power Injector*.
AIR-PWRINJ6=	802.3at power injector. Power Specifications: 30W, 55VDC. **Note** If 802.3af is used, the system function will be disabled. For more information, see the *Cisco Aironet Power Injector AIR-PWRINJ6= Installation Guide*.
MA-INJ-6-x	Meraki 802.3bt PoE injector. Power Specifications: 60W, 55VDC. For more information, see the *MA-INJ-6 Meraki Multigigabit 802.3bt Power over Ethernet Injector*.

- Other Accessories

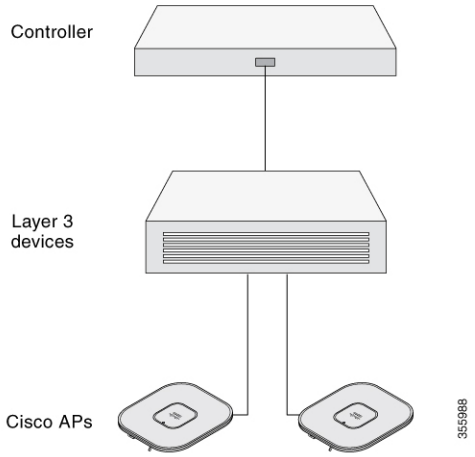
Accessory	Description
CW-ACC-GPS1=	USB GPS module

Performing a preinstallation configuration

The following procedures describe the processes to ensure that your AP installation and initial operation go as expected.

Note Performing a preinstallation configuration is an optional procedure. If your network controller is properly configured, you can install your AP in its final location and connect it to the network from there. For more information, see Deploying the access point on a wireless network, on page 20.

The following illustration shows the preinstallation configuration setup:



Perform the following steps:

Before you begin

Ensure that the Cisco Controller Distribution System (DS) port is connected to the network. Use the procedure for CLI or GUI, as described in the release-appropriate *Cisco Catalyst 9800 Series Wireless Controller Software Configuration Guide*.

- Enable Layer 3 connectivity between APs and wireless controller's wireless management interface.
- Configure the switch to which your AP has to attach. See the *Cisco Wireless Controller Configuration Guide* for the release you are using, for additional information.
- Ensure that the DHCP is enabled on the network. The AP must receive its IP address through DHCP.

Note An AP is assigned an IP address from the DHCP server only if a default router (gateway) is configured on the DHCP server (enabling the AP to receive its gateway IP address) and the gateway ARP is resolved.

- CAPWAP UDP ports must not be blocked in the network.
- The AP must be able to find the IP address of the controller. This can be accomplished using DHCP, DNS, or IP subnet broadcast. This guide describes the DHCP method to convey the controller IP address. For other methods, see the product documentation. See also Configuring DHCP option 43, on page 25 for more information.

Note The AP requires an 10G Ethernet link to prevent the Ethernet port from becoming a bottleneck for traffic.

Procedure

Step 1 Power the AP using a supported power source.

See Powering the access point, on page 17.

- The AP checks for cloud connectivity and attempts to connect to the Meraki dashboard.
- If the AP is unable to find cloud connectivity, it uses fast offline migration to look for a Cisco Catalyst 9800 Controller. The AP uses DHCP, DNS, and L2 discovery mechanisms for the migration. For more information, see *Global Use Access Points*.

  Note
  The AP should not have cloud connectivity from its subnet if it intends to connect to a controller. If the AP joins a Meraki Dashboard, it can be later migrated to a controller.

Once the AP discovers the controller, it performs a firmware image download and reboots.

Step 2 If the preinstallation configuration is successful, the Status LED is green, indicating normal operation. Disconnect the AP and mount it on the location at which you intend to deploy it on the wireless network.

Step 3 If your AP does not indicate normal operation, turn it off and repeat the preinstallation configuration.

Note
When you are installing a Layer 3 access point on a subnet that is different from the Catalyst 9800 controller, ensure that the following setup is configured:

- A DHCP server is reachable from the subnet on which you plan to install the AP.
- The subnet has a route back to the controller.
- This route has destination UDP ports 5246 and 5247 open for CAPWAP communications.
- The route back to the primary, secondary, and tertiary controller allows IP packet fragments.

- If address translation is used, the access point and the controller have a static 1-to-1 NAT to an outside address. Port Address Translation is not supported.

Preinstallation checks and installation guidelines

Before you mount and deploy your access point, we recommend that you perform a site survey (or use the Site Planning tool) to determine the best location to install your access point.

You should have the following information about your wireless network available:

- Access point locations
- Access point mounting options:
  - Below a suspended ceiling
  - on a flat horizontal surface
  - on top of a desk

Note You can mount the access point above a suspended ceiling, but you must purchase additional mounting hardware. For more information, see Mounting the Access Point, on page 16.

- Access point power options: Use either of the following options to power the AP:
  - Cisco-approved power injector
  - PoE with a supporting switch

Note
- The Underwriter Laboratories (UL)-approved Listed Power Adapter must meet the following minimum specifications: Rated output of 42.5 to 57 Vdc, min. 0.81-1.08A, Tma of 50°C minimum, altitude of 3048m minimum.
- If 802.3af is used, all the radios get switched off. Ethernet gets downgraded to 1 GbE. The Wi-Fi client serving radios and IoT radio are switched off.

- Operating temperature:
  - CW9171I: 32°F to 122°F (0°C to 50°C)

Note When installing the AP in an environment where the ambient temperature is in the range of 104°and 122°F (>40° and 50°C), the access point configuration changes.

- 2/5/6, 802.3bt: 2G radio scales to 2x2, ethernet port link remains at 10G, and the USB remains enabled.
- 5/5/6, 802.3bt: 6G radio scales to 2x2, ethernet port link remains at 10G, and the USB remains enabled.
- 2/5/6, 802.3at: Radios scale to 2x2, ethernet port link remains at 10G, and the USB remains disabled.
- 5/5/6, 802.3at: Radios scale to 2x2, ethernet port link remains at 10G, and the USB remains disabled.

- Console access using the console port

  We recommend that you use a console cable that is one meter or less in length.

Note The AP may face issues while booting if you use an unterminated console cable (not plugged into any device or terminal) or a console cable that is more than one meter in length.

We recommend that you make a site map showing access point locations so that you can record the device MAC addresses from each location and return them to the person who is planning or managing your wireless network.

Mounting the Access Point

Cisco Wireless 9171I Wi-Fi Access Point can be mounted in the following places:

- Suspended ceiling
- Hard ceiling
- Wall
- Electrical or network box
- Above a suspended ceiling

For detailed instructions on mounting the AP, see the *Access Point Mounting Instructions* document at:

http://www.cisco.com/c/en/us/td/docs/wireless/access_point/mounting/guide/apmount.html.

The standard mounting hardware supported by the AP are listed in the following table.

Table 3: Brackets and Clips to Mount the AP

Mounting Type	Part Number	Description
Brackets[1][2][3]	AIR-AP-BRACKET-1	Low-profile bracket: Used for ceiling-mount installations. (This is the default option.)
	AIR-AP-BRACKET-2	Universal bracket: Used for wall or electrical box installations.
Clips	AIR-AP-T-RAIL-R	Ceiling grid clip (recessed mounting). (This is the default option.)
	AIR-AP-T-RAIL-F	Ceiling grid clip (flush mounting).
	AIR-CHNL-ADAPTER	Optional adapter for channel-rail ceiling grid profile.

1 Mount the AP using no less than four screw holes on a bracket.
2 AIR-AP-BRACKET-3 is not compatible for use with Cisco CW9171I access points.
3 You can also use the *in-tile* mounting options available from third parties. For more information, see the access point data sheet.

When mounting the AP in areas where there is a possibility of the AP being knocked off the mounting bracket, use the lock hasp at the back of the AP to lock it to the bracket.

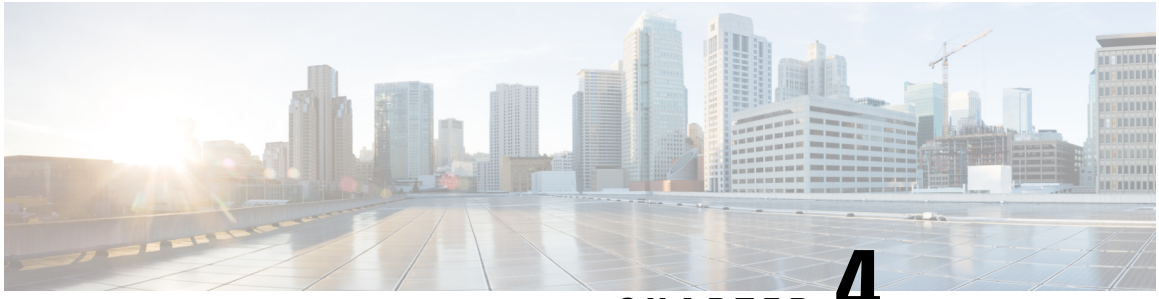
Powering the access point

Caution Ensure that the AP is powered using a Underwriters' Laboratories-compliant (UL-compliant) PoE power source. You must connect the unit only to the PoE network, without routing to the outside plant.

Note Actual power consumption may vary depending on access point usage. It is recommended that you ensure that Link Layer Discovery Protocol (LLDP)/Cisco Discovery Protocol is enabled to allow proper power negotiation.

Power Source	2.4-GHz radio	5-GHz radio	6-GHz radio	Link speed	USB	Max POE power consumption	Configuration information
802.3bt (Class 6) (UPOE)	4x4	4x4	4x4	1x 10G	Y (9W)	39W	Standard tri-band operation
802.3bt (Class 6) (UPOE)	2x2	4x4	Disabled	1x 10G	Y (9W)	39W	Dual radio mode: 2.4 GHz & 5 GHz
802.3at (PoE+)	2x2	4x4	4x4	1x 2.5 G	N	25.5W	Standard tri-band operation

802.3at (PoE+)	2x2	4x4	Disabled	1x 2.5 G	N	25.5W	Dual radio mode: 2.4 GHz & 5 GHz
802.3af (PoE)	-	-	-	1x 1G	N	13.95W	All radios switch off. Ethernet downgrades to 1 GbE. The Wi-Fi client serving radios and IoT radio also switch off.



CHAPTER 4

Configuring and Deploying the Access Point

This section describes subsequent discovery process for day 1 after the AP has successfully completed the initial discovery. For instructions on how to configure the AP, see the *Cisco Wireless Controller Configuration Guide* for the relevant release.

Note

- To configure a fresh out of the box AP to the Meraki Dashboard or Cisco Catalyst 9800 Controller, see Cisco Wireless Global Use AP Deployment Guide.
- If the organisation policy does not allow and the AP intends to join the controller, use fast offline migration technique.

- Controller Discovery Process, on page 19
- Deploying the access point on a wireless network, on page 20
- Checking the access point LEDs, on page 20

Controller Discovery Process

To support the CW9171I AP, the controller must be running Cisco IOS XE 17.18.2 or a later release. For more information, see the Cisco Catalyst 9171I Series Access Points Data Sheet.

Guidelines and Limitations

- It is not possible to edit or query an access point using the controller CLI if the name of the access point contains a space.
- Make sure that the controller is set to the current time. If the controller is set to a time that has already occurred, the access point might not join the controller because its certificate may not be valid for that time.

The AP must discover the controller before it can become an active part of the network. The AP supports the following controller discovery processes:

- Locally stored controller IP address discovery: If the access point was previously joined to a controller, the IP addresses of the primary, secondary, and tertiary controllers are stored in the access point's nonvolatile memory. This process of storing controller IP addresses on an access point for later deployment

is called priming the access point. For more information about priming, see Performing a preinstallation configuration, on page 13.

- DHCP server discovery: This feature uses DHCP Option 43 to provide controller IP addresses to the access points. Cisco switches support a DHCP server option that is typically used for this capability. For more information about DHCP Option 43, see Configuring DHCP option 43, on page 25.
- DNS discovery: The access point can discover controllers through your domain name server (DNS). For the access point to do so, you must configure your DNS to return controller IP addresses in response to CISCO-CAPWAP-CONTROLLER.localdomain, where localdomain is the access point domain name. Configuring the CISCO-CAPWAP-CONTROLLER provides backwards compatibility in an existing customer deployment. When an access point receives an IP address and DNS information from a DHCP server, it contacts the DNS to resolve CISCO-CAPWAP-CONTROLLER.localdomain. When the DNS sends a list of controller IP addresses, the access point sends discovery requests to these controllers.

Deploying the access point on a wireless network

After you mount the access point, follow these steps to deploy it on a wireless network:

Procedure

Step 1 Connect and power up the access point.

Step 2 Observe the access point LED.

For LED status descriptions, see Checking the access point LEDs, on page 20.

- When you power up the access point, it begins a power-up sequence that you can verify by observing the access point LED. If the power-up sequence is successful, the discovery and join process begins. During this process, the LED blinks green, red, and off sequentially. When the access point joins a controller, the LED is green if no clients are associated, or blue if one or more clients are associated.
- If the LED is not on, it is most likely that the access point is not receiving power.
- If the LED blinks sequentially for more than five minutes, the access point is unable to find its primary, secondary, and tertiary controller. Check the connection between the access point and the Cisco Wireless Controller, and be sure that the access point and the Cisco Wireless Controller are either on the same subnet or that the access point has a route back to its primary, secondary, and tertiary Cisco Wireless Controller. Also, if the access point is not on the same subnet as the Cisco Wireless Controller, ensure that there is a properly configured DHCP server on the same subnet as the access point.

Checking the access point LEDs

The location of the access point status LED is shown in Connectors and ports on the AP, on page 7.

Note

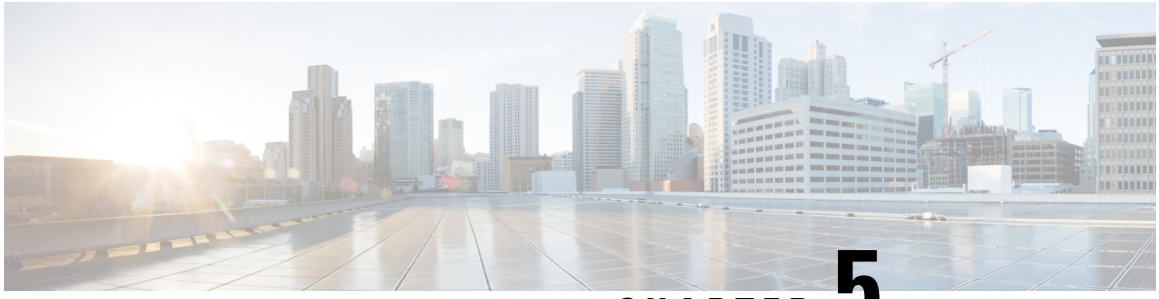
- Regarding LED status colors, it is expected that there might be small variations in color intensity and hue from unit to unit. This is within the normal range of the LED manufacturer's specifications and is not a defect. However, the intensity of the LED can be changed through the controller.
- When the AP is in Meraki management mode, the LED status indicators convey the status differently from the Cisco APs. For more information, see the .

The access point status LED indicates various conditions, which are described in the following table.

Table 4: LED Status Indications

Message Type	LED State	Message Meaning
System LED	Blinking Green	Boot loader status (DRAM test, board initialization, Flash initialization, Ethernet initialization, Starting IOS).
	Green	Normal operating condition, no wireless client associated.
	Blue	Normal operating condition, at least one wireless client associated.
	Alternating between Green and Red	Discovery or join process in progress.
		AP Location Command.
	Red	Ethernet failure.
	Blinking Blue	Configuration recovery in progress (Mode button pressed for 2-3 seconds).
	Red	Image recovery (Mode button pressed for 20-30 seconds).
	Cycling Blue, Green, Red, and Off	General warning, insufficient inline power.

Message Type	LED State	Message Meaning
Ethernet Port LEDs	Off	Link speed is 10 Mb, 100 Mb, or disconnected.
	Orange	Link speed is 1000 Mb.
	Green	Link speed is 2.5 Gb, 5 Gb, or 10 Gb.
	Blinking Green	Activity indicator for received or transmitted signal.



CHAPTER 5

Troubleshooting

- Using the reset button, on page 23
- Troubleshooting the access point to Cisco controller join process, on page 24
- Important information for controller-based deployments, on page 25
- Configuring DHCP option 43, on page 25

Using the reset button

Using the **Reset** button (see Figure 2: CW9171I top Vvew with connectors and ports, on page 9), you can reset the AP to factory default.

To reset the AP to the default factory-shipped configuration, perform the following steps:

1. Unplug the AP from the power source.
2. Hold the **Reset** button.
3. Power on the AP.

   Press, and continue to press the **Reset** button for the duration corresponding to your requirements listed in the table below:

0-5 seconds	Blinks green for Meraki mode, and blue for Catalyst mode.
> 10 seconds	The AP undergoes configuration wipe.
> 20 seconds	Ap resets completely and enters maintain management mode.
> 30 seconds	Configures FIPS in Catalyst mode.
> 60 seconds	The LED light turns solid pink, which indicates a factory reset.
> 90 seconds	LED turns off.

Troubleshooting the access point to Cisco controller join process

Note As specified in the *Cisco Wireless Solutions Software Compatibility Matrix*, ensure that your controller is running Cisco IOS XE 17.18.2 or a later release to support the Cisco CW9171I AP.

Access points can fail to join a controller for many reasons—a RADIUS authorization is pending, self-signed certificates are not enabled on the controller, the access point and the controller regulatory domains do not match, and so on.

Controller software enables you to configure the access points to send all CAPWAP-related errors to a syslog server. All the CAPWAP error messages can be viewed from the syslog server itself.

If the CW9171I is in Meraki Management mode, it does not attempt to join the Cisco 9800 Wireless Controller model. Contact the Meraki support team to perform the migration procedure on the AP.

The state of the access point is not maintained on the controller. It can be difficult to determine why the discovery request from a certain access point was rejected. In order to troubleshoot such joining problems, we recommend that you run trace commands on the Cisco Catalyst 9800 Wireless Controller.

The controller collects all the join-related information for each access point that sends a CAPWAP discovery request to the controller. Collection begins with the first discovery message received from the access point and ends with the last configuration payload sent from the controller to the access point.

When the controller is maintaining join-related information for the maximum number of access points, it does not collect information for any more access points.

An access point sends all the syslog messages to the IP address 255.255.255.255 by default.

You can also configure a DHCP server to return a syslog server IP address to the access point using Option 7 on the server. The access point then starts sending all the syslog messages to this IP address.

When the access point joins a controller for the first time, the controller sends the global syslog server IP address (the default is 255.255.255.255) to the access point.

The AP sends all the syslog messages to this IP address until it is overridden by the following configuration:

- The access point is still connected to the same controller, and the global syslog server IP address configuration on the controller has been changed using the **syslog host** *syslog-ip-address* command. In this case, the controller sends the new global syslog server IP address to the access point.

  To configure the global syslog server IP address, run these commands:

  1. **configure terminal**
  2. **ap profile** *ap-profile-name*
  3. **syslog host** *syslog-ip-address*
  4. **exit**

- The access point is disconnected from the controller and joins another controller. In this case, the new controller sends its global syslog server IP address to the access point.

- Whenever a new syslog server IP address overrides the existing syslog server IP address, the old address is erased from persistent storage, and the new address is stored in its place. The access point also starts sending all the syslog messages to the new IP address, provided the access point can reach the syslog server IP address.

Note You can configure the syslog server for access points and view the access point join information only from the controller CLI.

Important information for controller-based deployments

Keep these guidelines in mind when you use Cisco CW9171I APs:

- The AP does not support Wireless Domain Services (WDS) and cannot communicate with WDS devices. However, the controller provides functionality equivalent to WDS when the AP joins it.
- CAPWAP does not support Layer 2. The AP must get an IP address and discover the controller using Layer 3, DHCP, DNS, or IP subnet broadcast.
- The AP console port is enabled for monitoring and debug purposes.

Note The default band rate is 115200.

- All the configuration commands are disabled when the AP is connected to a controller.

Configuring DHCP option 43

You can use DHCP Option 43 to provide a list of controller IP addresses to the access points, enabling them to find and join a controller.

The following is a DHCP Option 43 configuration example on a Windows 2003 Enterprise DHCP server for use with Cisco Catalyst lightweight access points. For other DHCP server implementations, see the product documentation for configuring DHCP Option 43. In Option 43, you should use the IP address of the controller management interface.

Note DHCP Option 43 is limited to one access point type per DHCP pool. You must configure a separate DHCP pool for each access point type.

The Cisco CW9171I access point uses the type-length-value (TLV) format for DHCP Option 43. DHCP servers must be programmed to return the option based on the access point DHCP Vendor Class Identifier (VCI) string (DHCP Option 43). The VCI string for the Cisco CW9171I access point is:

Cisco Wireless AP CW9171I

The following is the format of the TLV block:

- Type: 0xf1 (decimal 241)
- Length: Number of controller IP addresses x 4
- Value: IP addresses of the wireless controller management interfaces listed sequentially in Hex code.

To configure DHCP Option 43 in the embedded Cisco IOS DHCP server, follow these steps:

Note The procedure describes configuration process for an AP that has completed the intial discovery process. For more information on day 0 workflow, see Global Use Access Points.

Procedure

Step 1 Enter the configuration mode

Step 2 Create the DHCP pool, including the necessary parameters, such as default router and name server. A DHCP scope example is as follows:

```
ip dhcp pool <pool name>
network <IP Network> <Netmask>
default-router <Default router>
dns-server <DNS Server>
```

Here:

<pool name> is the name of the DHCP pool, such as AP9171I.

<IP Network> is the network IP address where the controller resides, such as 10.0.15.1.

<Netmask> is the subnet mask, such as 255.255.255.0.

<Default router> is the IP address of the default router, such as 10.0.0.1.

<DNS Server> is the IP address of the DNS server, such as 10.0.10.2.

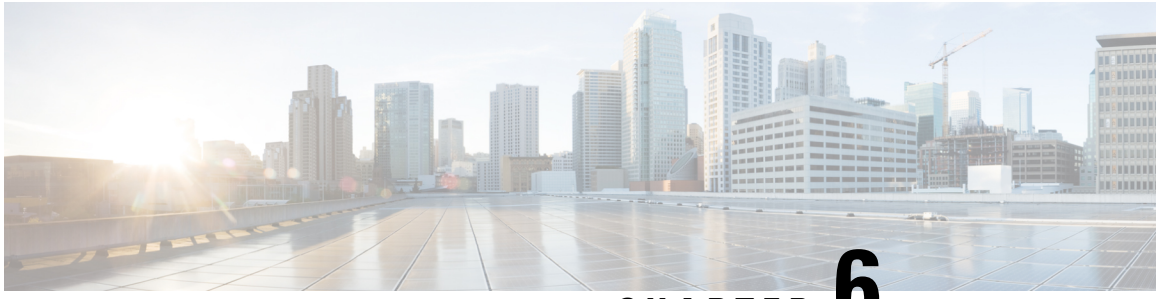
Step 3 Add the Option 43 line using the following syntax:

```
option 43 hex <hex string>
```

The hex string is assembled by concatenating the following TLV values:

Type + Length + Value

For example, if there are two controllers with management interface IP addresses, 10.126.126.2 and 10.127.127.2, the type is f1(hex), the length is 2 * 4 = 8 = 08 (hex), and the IP addresses translate to 0a7e7e02 and 0a7f7f02. Assembling the string then yields f1080a7e7e020a7f7f02. The resulting Cisco IOS command added to the DHCP scope is **option 43 hex f1080a7e7e020a7f7f02**.



CHAPTER 6

Safety Guidelines and Warnings

- Safety instructions, on page 27

Safety instructions

Translated versions of the following safety warnings are provided in the translated safety warnings document that is shipped with your AP. The translated warnings are also available in the Translated Safety Warnings for Cisco Catalyst Access Points, which is available on Cisco.com.

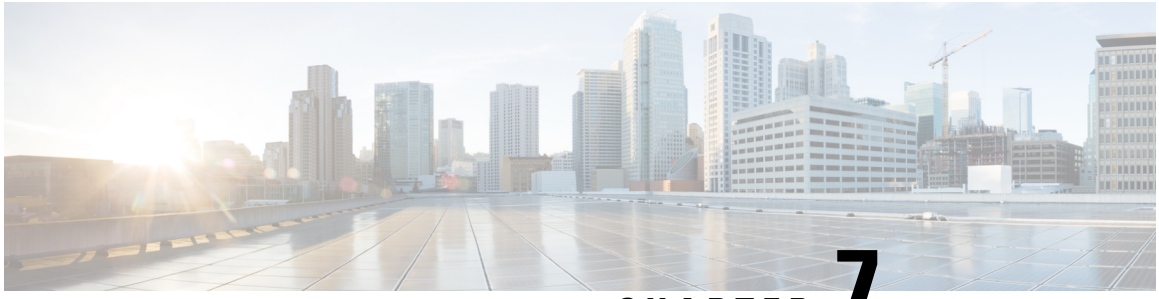
Warning IMPORTANT SAFETY INSTRUCTIONS

Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Read the installation instructions before using, installing, or connecting the system to the power source. Use the statement number at the beginning of each warning statement to locate its translation in the translated safety warnings for this device.

SAVE THESE INSTRUCTIONS

Warning This product relies on the building's installation for short-circuit (overcurrent) protection. To reduce risk of electric shock or fire, ensure that the protective device is rated not greater than: **20 A**

Warning To reduce risk of electric shock or fire, installation of the equipment must comply with local and national electrical codes.



CHAPTER 7

Declarations of Conformity and Regulatory Information

This section provides declarations of conformity and regulatory information for the . You can find additional information at: https://www.cisco.com/c/dam/assets/prod/wireless/wireless-compliance-tool/index.html.

- Manufacturers Federal Communication Commission declaration of conformity statement, on page 29
- VCCI statement for Japan, on page 31
- Canadian compliance statement, on page 32
- European community, Switzerland, Norway, Iceland, and Liechtenstein compliance, on page 34
- United Kingdom compliance, on page 34
- Administrative rules for Cisco wireless access points in Taiwan, on page 34
- Operation of Cisco wireless access points in Brazil, on page 35
- Declaration of conformity for RF exposure, on page 36
- Declaration of conformity statements, on page 39

Manufacturers Federal Communication Commission declaration of conformity statement

Access Point Models	Certification Number
CW9171I	

Manufacturer:

Cisco Systems, Inc.170 West Tasman Drive San Jose, CA 95134-1706 USA

This device complies with Part 15 rules. Operation is subject to the following conditions:

1. This device may not cause harmful interference.

2. This device must accept any interference received, including interference that may cause undesired operation.
3. This equipment may only be operated indoors. Operation outdoors is in violation of 47 U.S.C. 301 and could subject the operator to serious legal penalties.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna
- Increase separation between the equipment and receiver
- Connect the equipment to an outlet on a circuit different from which the receiver is connected
- Consult the dealer or an experienced radio/TV technician
- Professional Installation is recommended

Caution Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter. For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

Low power indoor access points and subordinate devices

- FCC regulations restrict the operation of this device to indoor use only.
- This device is prohibited from being operated on oil platforms, cars, trains, boats, and aircraft, except it can be operated in large aircraft while flying above 10,000 feet in the 5.925-6.425 GHz band.
- Transmitters in the 5.925-7.125 GHz band are prohibited from operating to control or communicate with unmanned aircraft systems.

Standard power access points

- The operation of this device is prohibited on oil platforms, cars, trains, boats, and aircraft.
- Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.

VCCI statement for Japan

Warning	**Warning** This is a Class B product based on the standard of the Voluntary Control Council for Interference from Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.
警告	**Warning** この装置は、クラスＢ情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。 取扱説明書に従って正しい取り扱いをして下さい。 ＶＣＣＩ－Ｂ

Access Point Models:

CW9171I

Guidelines for operating Cisco Wireless access points in Japan

This section provides guidelines for avoiding interference when operating Cisco Catalyst access points in Japan. These guidelines are provided in both Japanese and English.

この機器の使用周波数帯では、電子レンジ等の産業・科学・医療用機器のほかエ場の製造ライン等で使用されている移動体識別用の構内無線局（免許を要する無線局）及び特定小電力無線局（免許を要しない無線局）が運用されています。

1. この機器を使用する前に、近くで移動体臓別用の構内無線局及び特定小電力無線局が運用されていないことを確認して下さい。
2. 万一、この機器から移動体識別用の構内無線局に対して電波干渉の事例が発生した場合には、速やかに使用周波数を変更するか又は電波の発射を停止した上、下記連絡先にご連絡頂き、混信回避のための処置等（例えぱ、ノくーティションの設置など } Iについてご相談して下さい。
3. その他、この機器から移動体撒別用の特定，ト電力無線局に対して電波干渉の事例が発生した場合など何かお困りのことが起きたときは、次の連絡先へお問い合わせ下さい。

   連絡先：03-6434-6500

English Translation

This equipment operates in the same frequency bandwidth as industrial, scientific, and medical devices such as microwave ovens and mobile object identification (RF-ID) systems (licensed premises radio stations and unlicensed specified low-power radio stations) used in factory production lines.

1. Before using this equipment, make sure that no premises radio stations or specified low-power radio stations of RF-ID are used in the vicinity.
2. If this equipment causes RF interference to a premises radio station of RF-ID, promptly change the frequency or stop using the device; contact the number below and ask for recommendations on avoiding radio interference, such as setting partitions.

3. If this equipment causes RF interference to a specified low-power radio station of RF-ID, contact the number below.

   Contact Number: **03-6434-6500**

Canadian compliance statement

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

- This device may not cause interference.
- This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- L'appareil ne doit pas produire de brouillage.
- L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Wi-Fi 7 Device

- Operation shall be limited to indoor use only.
- Devices shall not be used for control of or communications with unmanned aircraft systems.
- Devices shall not be used on oil platforms.
- Devices shall not be used on aircraft, except for the low-power indoor access points, indoor subordinate devices, low-power client devices, and very low-power devices operating in the 5925-6425 MHz band, that may be used on large aircraft as defined in the Canadian Aviation Regulations, while flying above 3,048 metres (10,000 feet).
- Devices shall not be used on automobiles.
- Devices shall not be used on trains.
- Devices shall not be used on maritime vessels

appareil Wi-Fi 7

- Utilisation limitée à l'intérieur seulement.
- Les dispositifs ne doivent pas être utilisés pour commander des systèmes d'aéronef sans pilote ni pour communiquer avec de tels systèmes.
- Les dispositifs ne doivent pas être utilisés sur les plateformes de forage pétrolier.
- Les dispositifs ne doivent pas être utilisés dans les aéronefs, à l'exception des points d'accès intérieurs de faible puissance, des dispositifs subordonnés intérieurs, des dispositifs clients de faible puissance et des dispositifs de très faible puissance fonctionnant dans la bande de 5 925 à 6 425 MHz, qui peuvent

être utilisés dans les gros aéronefs tel qu'il est défini dans le Règlement de l'aviation canadien, et ce, lorsqu'ils volent à une altitude supérieure à 3 048 mètres (10 000 pieds).

- Les dispositifs ne doivent pas être utilisés dans les automobiles.
- Les dispositifs ne doivent pas être utilisés dans les trains.
- Les dispositifs ne doivent pas être utilisés sur les navires maritimes.

The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

Les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

The transmitter module may not be co-located with any other transmitter or antenna.

Le module émetteur peut ne pas être coïmplanté avec un autre émetteur ou antenne.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

Pour les produits disponibles aux États-Unis / Canada du marché, seul le canal 1 à 11 peuvent être exploités. Sélection d'autres canaux n'est pas possible.

Low power indoor access points and indoor subordinate devices

- Operation shall be limited to indoor use only.
- Le fonctionnement doit être limitée à une utilisation à l'intérieur seulement.

Standard client devices

- The antenna height shall be determined by the installer or operator of the standard-power access point or fixed client device, or by automatic means. This information shall be stored internally in the device. Provision of accurate device information is mandatory. Information for antenna type(s), antenna models(s), and worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in section 4.5.4 (c) shall be clearly indicated.
- La hauteur de l'antenne doit être déterminée par l'installateur ou l'opérateur du point d'accès de puissance normale ou du dispositif client fixe, ou par des dispositifs automatiques. Cette information doit être enregistrée dans le dispositif. La fourniture d'information précise sur le dispositif est obligatoire. le ou les types d'antennes, le ou les modèles d'antennes et le ou les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la section 4.5.4 c. s'appliquant au masque de p.i.r.e. doivent être clairement indiqués.

Industry Canada

Access Point Models:

CW9171I

Access Point Model	Certification Number
CW9171I	

European community, Switzerland, Norway, Iceland, and Liechtenstein compliance

The product carries the CE Mark:

The device is restricted to indoor use only when operating between 5150 MHz and 5350 MHz, 5945 MHz and 6425 MHz frequency range.

This equipment complies with EU radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm (7.87 inches) between the radiator & your body.

Note This equipment is intended to be used in all EU and EFTA countries. Outdoor use may be restricted to certain frequencies and/or may require a license for operation. For more details, contact Cisco Corporate Compliance.

Access Point Models:

CW9171I

Manufacturer:

Cisco Systems, Inc.125 West Tasman Drive San Jose, CA 95134-1706 USA

United Kingdom compliance

The device is restricted to indoor use only when operating between 5150 MHz and 5350 MHz, 5925 MHz and 6425 MHz frequency range. This equipment should be installed and operated with minimum distance 20 cm (7.87 inches) between the radiator & your body.

Access Point Models:

CW9171I

Manufacturer:

Cisco Systems, Inc.125 West Tasman Drive San Jose, CA 95134-1706 USA

Administrative rules for Cisco wireless access points in Taiwan

This section provides administrative rules for operating Cisco Catalyst access points in Taiwan. The rules for all access points are provided in both Simplified Chinese and English.

Simplified Chinese translation

【低功率射頻器材技術規範】取得審驗證明之低功率射頻器材，非經核准，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。低功率射頻器材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。前述合法通信，指依電信管理法規定作業之無線電通信。低功率射頻器材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。應避免影響附近雷達系統之操作。

【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】

English translation

Without permission granted by the NCC, any company, enterprise, or user is not allowed to change frequency, enhance transmitting power or alter original characteristic as well as performance to a approved low power radio-frequency devices. The low power radio-frequency devices shall not influence aircraft security and interfere legal communications; If found, the user shall cease operating immediately until no interference is achieved. The said legal communications means radio communications is operated in compliance with the Telecommunications Management Act. The low power radio-frequency devices must be susceptible with the interference from legal communications or ISM radio wave radiated devices.

The operations near the radar system shall not be influenced.

This section contains special information for operation of Cisco Catalyst access points in Taiwan.

Access point models	Certification number
CW9171I	XXXXXXXXXXXXXX

Operation of Cisco wireless access points in Brazil

Figure 3: Brazil Regulatory Information

This section contains special information for operation of Cisco wireless access points in Brazil.

Portuguese

Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados.

English

This equipment is not entitled to the protection from harmful interference and may not cause interference with duly authorized systems.

equipamento Wi-Fi 7

O uso deste equipamento é restrito a ambientes fechados e proibido em plataformas petrolíferas, carros, trens, embarcações e no interior de aeronaves abaixo de 3.048 m (10.000 pés).

Wi-Fi 7 Device

Indoor use only. Operation on oil platforms, cars, trains, boats and aircraft shall be prohibited except for on large aircraft flying above 10,000 ft.

Access Point Models	Certification Number
CW9171I	

Declaration of conformity for RF exposure

This section contains information on compliance with guidelines related to RF exposure.

Generic discussion on RF exposure

The Cisco products are designed to comply with the following national and international standards on Human Exposure to Radio Frequencies:

- US 47 Code of Federal Regulations Part 2 Subpart J
- American National Standards Institute (ANSI) / Institute of Electrical and Electronic Engineers / IEEE C 95.1 (99)
- International Commission on Non Ionizing Radiation Protection (ICNIRP) 98
- Ministry of Health (Canada) Safety Code 6. Limits on Human Exposure to Radio Frequency Fields in the range from 3kHz to 300 GHz
- Australia Radiation Protection Standard

To ensure compliance with various national and international Electromagnetic Field (EMF) standards, the system should only be operated with Cisco approved antennas and accessories.

This device meets international guidelines for exposure to radio waves

The Cisco CW9171I device includes a radio transmitter and receiver. It is designed not to exceed the limits for exposure to radio waves (radio frequency electromagnetic fields) recommended by international guidelines. The guidelines were developed by an independent scientific organization (ICNIRP) and include a substantial safety margin designed to ensure the safety of all persons, regardless of age and health.

As such the systems are designed to be operated as to avoid contact with the antennas by the end user. It is recommended to set the system in a location where the antennas can remain at least a minimum distance as specified from the user in accordance to the regulatory guidelines which are designed to reduce the overall exposure of the user or operator.

Separation Distance
20 cm (7.87 inches)

The World Health Organization has stated that present scientific information does not indicate the need for any special precautions for the use of wireless devices. They recommend that if you are interested in further reducing your exposure then you can easily do so by reorienting antennas away from the user or placing the antennas at a greater separation distance then recommended.

This device meets FCC guidelines for exposure to radio waves

The Cisco CW9171I device includes a radio transmitter and receiver. It is designed not to exceed the limits for exposure to radio waves (radio frequency electromagnetic fields) as referenced in FCC Part 1.1310. The guidelines are based on IEEE ANSI C 95.1 (92) and include a substantial safety margin designed to ensure the safety of all persons, regardless of age and health.

As such the systems are designed to be operated as to avoid contact with the antennas by the end user. It is recommended to set the system in a location where the antennas can remain at least a minimum distance as specified from the user in accordance to the regulatory guidelines which are designed to reduce the overall exposure of the user or operator.

The device has been tested and found compliant with the applicable regulations as part of the radio certification process.

Separation Distance
20 cm (7.87 inches)

The US Food and Drug Administration has stated that present scientific information does not indicate the need for any special precautions for the use of wireless devices. The FCC recommends that if you are interested in further reducing your exposure then you can easily do so by reorienting antennas away from the user or placing the antennas at a greater separation distance then recommended or lowering the transmitter power output.

This device meets the industry Canada guidelines for exposure to radio waves

The Cisco CW9171I device includes a radio transmitter and receiver. It is designed not to exceed the limits for exposure to radio waves (radio frequency electromagnetic fields) as referenced in Health Canada Safety Code 6. The guidelines include a substantial safety margin designed into the limit to ensure the safety of all persons, regardless of age and health.

As such the systems are designed to be operated as to avoid contact with the antennas by the end user. It is recommended to set the system in a location where the antennas can remain at least a minimum distance as specified from the user in accordance to the regulatory guidelines which are designed to reduce the overall exposure of the user or operator.

Table 5: Separation distance

Frequency	Distance
2.4 GHz	20 cm (7.87 inches)
5 GHz	
6 GHz	

Health Canada states that present scientific information does not indicate the need for any special precautions for the use of wireless devices. They recommend that if you are interested in further reducing your exposure you can easily do so by reorienting antennas away from the user, placing the antennas at a greater separation distance than recommended, or lowering the transmitter power output.

Cet appareil est conforme aux directives internationales en matière d'exposition aux fréquences radioélectriques

Cet appareil de la gamme Cisco CW9171I comprend un émetteur-récepteur radio. Il a été conçu de manière à respecter les limites en matière d'exposition aux fréquences radioélectriques (champs électromagnétiques de fréquence radio), recommandées dans le code de sécurité 6 de Santé Canada. Ces directives intègrent une marge de sécurité importante destinée à assurer la sécurité de tous, indépendamment de l'âge et de la santé.

Par conséquent, les systèmes sont conçus pour être exploités en évitant que l'utilisateur n'entre en contact avec les antennes. Il est recommandé de poser le système là où les antennes sont à une distance minimale telle que précisée par l'utilisateur conformément aux directives réglementaires qui sont conçues pour réduire l'exposition générale de l'utilisateur ou de l'opérateur.

Table 6: Distance d'éloignement

Fréquence	Distance
2.4 GHz	20 cm (7.87 inches)
5 GHz	
6 GHz	

Santé Canada affirme que la littérature scientifique actuelle n'indique pas qu'il faille prendre des précautions particulières lors de l'utilisation d'un appareil sans fil. Si vous voulez réduire votre exposition encore davantage, selon l'agence, vous pouvez facilement le faire en réorientant les antennes afin qu'elles soient dirigées à l'écart de l'utilisateur, en les plaçant à une distance d'éloignement supérieure à celle recommandée ou en réduisant la puissance de sortie de l'émetteur.

Additional information on RF exposure

You can find additional information on the subject at the following links:

- Cisco Systems Spread Spectrum Radios and RF Safety white paper at this URL:

  http://www.cisco.com/warp/public/cc/pd/witc/ao340ap/prodlit/rfhr_wi.htm

- FCC Bulletin 56: Questions and Answers about Biological Effects and Potential Hazards of Radio Frequency Electromagnetic Fields

- FCC Bulletin 65: Evaluating Compliance with the FCC guidelines for Human Exposure to Radio Frequency Electromagnetic Fields

You can obtain additional information from the following organizations:

- World Health Organization Internal Commission on Non-Ionizing Radiation Protection
- United Kingdom, National Radiological Protection Board
- Cellular Telecommunications Association at this URL:

  https://www.ctia.org

- The Mobile & Wireless Forum at this URL:

  https://www.mwfai.org

Declaration of conformity statements

All the Declaration of Conformity statements related to this product can be found at the following location: https://pas.cisco.com/pdtcnc/#/