Hardware Installation Guide for Cisco Catalyst Wireless Gateways

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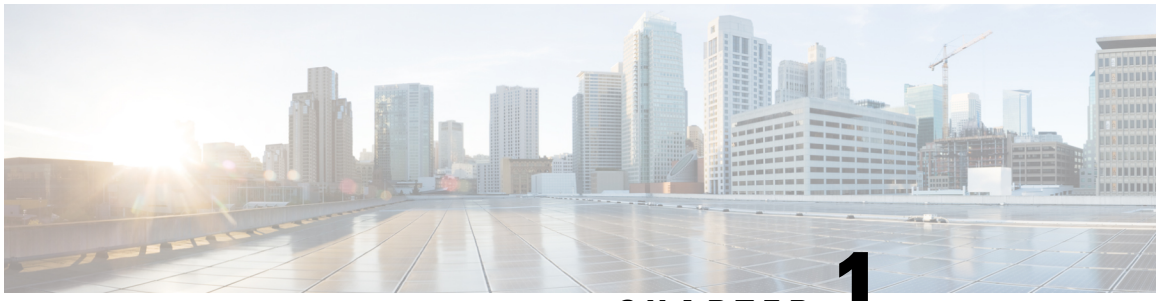
CONTENTS



CHAPTER 1

Overview

Cisco Catalyst Wireless Gateways extend an enterprise network to remote workers, providing numerous advantages:

- Hardware-based stable connectivity to an enterprise VPN
- Optimized network performance with Wi-Fi 6
- Cellular network connectivity, in supporting models, providing a cellular internet connection (with one active and one standby SIM) for uninterrupted internet connectivity
- Separate service set identifiers (SSIDs) for connecting work and personal devices

Cisco Catalyst Wireless Gateway connectivity is as follows:

- The Cisco Catalyst Wireless Gateway CG113-W6 accesses the internet using a wired WAN connection at a remote site.
- The Cisco Catalyst Wireless Gateway CG113-4GW6 accesses the internet using a wired WAN connection at a remote site or using a cellular link. The device supports two SIM cards: one active, and one on standby. If the wired WAN connection fails, the device fails over to the cellular link to ensure internet connectivity.

Note The device has a single cellular connection, so only one SIM can be active at a given time. You can configure which of the two SIM slots serves as primary and which serves as secondary (failover).

Managing Cisco Catalyst Wireless Gateways

Use Cisco SD-WAN Manager to configure and manage Cisco Catalyst Wireless Gateways. Cisco SD-WAN Manager provides a convenient workflow for configuring Wi-Fi, cellular, VPN, and other functionality. Cisco SD-WAN Manager also provides methods for monitoring device performance.

- Cisco Catalyst Wireless Gateway CG113-W6, on page 2
- Cisco Catalyst Wireless Gateway CG113-4GW6, on page 7

Cisco Catalyst Wireless Gateway CG113-W6

The following sections provide hardware specifications and other information about the Cisco Catalyst Wireless Gateway CG113-W6.

Package Contents

The package for this device contains the following:

- Device chassis
- Power supply
- Pointer card, providing a link to the product documentation

Hardware Specifications

Table 1: Hardware Specifications, Cisco Catalyst Wireless Gateway CG113-W6

Item	Specifications
Interfaces	
2.5 Gigabit ethernet	1
1 Gigabit ethernet	2
Wi-Fi	
Wi-Fi bands	2.4 GHz, 5 GHz
Antennas	Dual 2x2 MIMO (internal)
Cellular	
None	
Operating Conditions	
Temperature	0℃ to 45℃ (32℉ to 113℉)
Humidity	10 to 90% RH Non-condensing
Altitude	3000 m (10,000 ft)
Storage Conditions	
Temperature	-25℃ to 70℃ (-13℉ to 158℉)
Humidity	5 to 95% RH Non-condensing
Altitude	4570 m (15,000 ft)

Item	Specifications
Power	
Power adapter	12V, 3A maximum Models, according to region: CG113-4G-PWR-US, -EU, -AU
Power connector	USB-C
Mounting and Accessories	
The device is installed on a desk or other flat surface. No additional mounting equipment is supplied.	

Ethernet Interfaces, Power Port, and Reset Button

The ethernet interfaces, power port, and reset button are located on the back panel of the device.

Figure 1: Back Panel

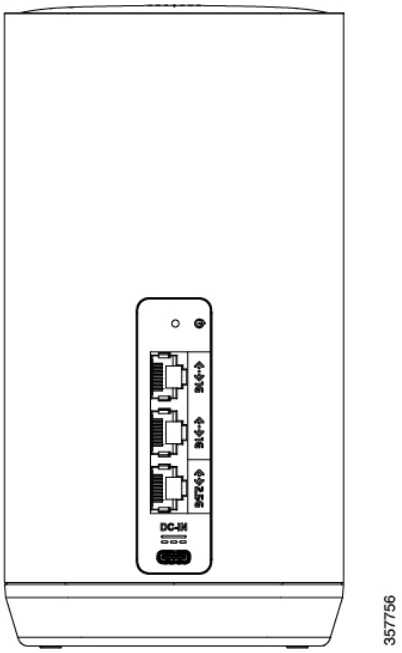
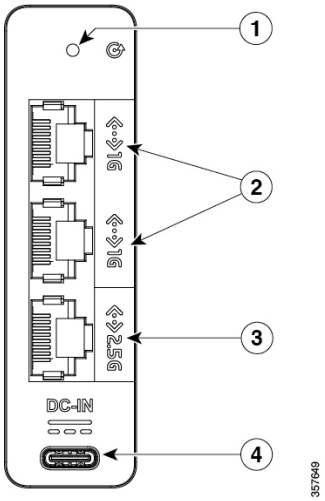


Figure 2: Reset Button, Interfaces, and Power Port



1	Reset button
2	1 Gbps ethernet interfaces
3	2.5 Gbps ethernet interface
4	USB-C power port

LED Indicators

The single LED indicator appears on the front panel of the device.

Figure 3: Front Panel

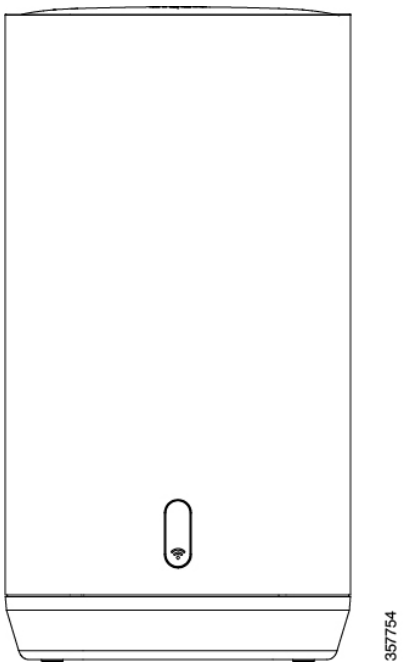
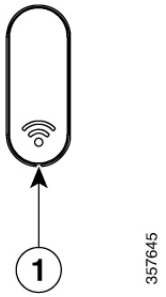


Figure 4: LED Indicator on Front Panel



1	LED indicator for Wi-Fi connectivity

Table 2: LED Indicator Behavior

LED	Color	Description
Wi-Fi	Red, blinking	Device is booting
	Red, solid	Wi-Fi not ready
	Green, solid	Wi-Fi ready, no devices connected
	Blue, solid	Wi-Fi ready, one or more devices connected

Antenna Information

Antennas, Gain, and Impedance

Table 3: List of Internal Antennas Supported on Cisco CG113-W6

Antenna Type	Antenna Gain	Antenna Impedance
Antenna type: Wi-Fi Single-Port/Dual Band/Omni-directional (Linear Polarization, Wi-Fi 1)	2.4GHz: 4dBi 5GHz: 5dBi	50 ohms
Antenna type: Wi-Fi Single-Port/Dual Band/Omni-directional (Linear Polarization, Wi-Fi 2)	2.4GHz: 2.6dBi 5GHz: 4.8dBi	50 ohms

Maximum Transmitted Power

The frequency and the maximum transmitted power are listed below:

2412-2472MHz: 19.99 dBm

5180-5240MHz: 22.92 dBm

5260-5320MHz: 22.95 dBm

5500-5700: 29.97 dBm

Power Supply

The following power supplies are included with the device, depending on region.

Table 4: Power Supply Part and Model Numbers, by Region

Region	Cisco Part Number	Model Number
USA	CG113-4G-PWR-US	ADH-36DW B
Australia	CG113-4G-PWR-AU	ADH-36DW E
EU, UK	CG113-4G-PWR-EU	ADH-36DW C

Table 5: Power Supply Specifications

Specification	Description
Input	100-240V AC 50-60Hz

Cisco Catalyst Wireless Gateway CG113-4GW6

The following sections provide hardware specifications and other information about the Cisco Catalyst Wireless Gateway CG113-4GW6.

Package Contents

The package for this device contains the following:

- Device chassis
- Power supply
- Pointer card, providing a link to the product documentation

Hardware Specifications

Table 6: Hardware Specifications, Cisco Catalyst Wireless Gateway CG113-4GW6

Item	Specifications
Interfaces	
2.5 Gigabit ethernet	1
1 Gigabit ethernet	2
Wi-Fi	
Wi-Fi bands	2.4 GHz, 5 GHz
Antennas	Dual 2x2 MIMO (internal)
Cellular	
SIM slots	2
Cellular bands	4G/Cat7
Operating Conditions	
Temperature	0℃ to 45℃ (32℉ to 113℉)
Humidity	10 to 90% RH Non-condensing
Altitude	3000 m (10,000 ft)
Storage Conditions	
Temperature	-25℃ to 70℃ (-13℉ to 158℉)
Humidity	5 to 95% RH Non-condensing

Item	Specifications
Altitude	4570 m (15,000 ft)
Power	
Power adapter	12V, 3A maximum Models, according to region: CG113-4G-PWR-US, -EU, -AU
Power connector	USB-C
Mounting and Accessories	
The device is installed on a desk or other flat surface. No additional mounting equipment is supplied.	

Ethernet Interfaces and Power Port

The ethernet interfaces, power port, and reset button are located on the back panel of the device.

Figure 5: Back Panel

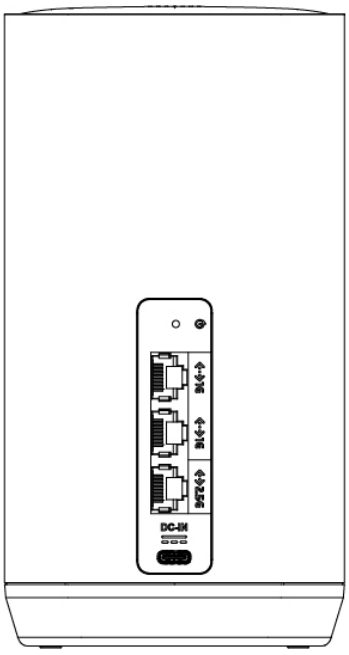
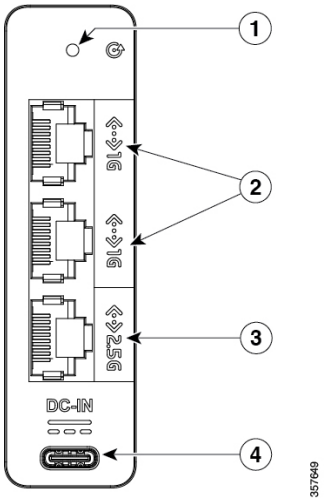


Figure 6: Reset Button, Interfaces, and Power Port

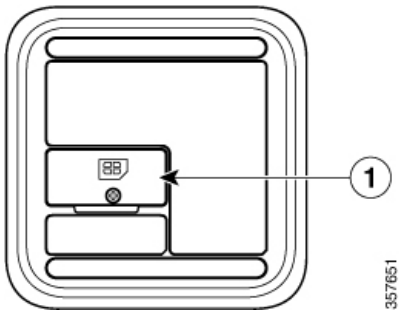


1	Reset button
2	1 Gbps ethernet interfaces
3	2.5 Gbps ethernet interface
4	USB-C power port

SIM Card Slots

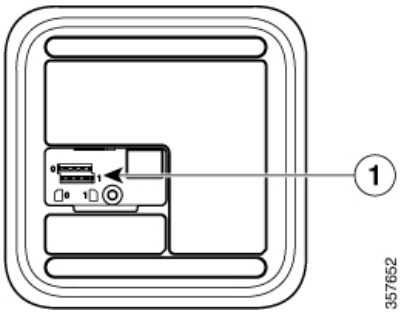
The SIM card slots are accessible from the bottom panel of the device. For information about installing SIM cards, see Install SIMs, LTE Models, on page 20.

Figure 7: Bottom Panel



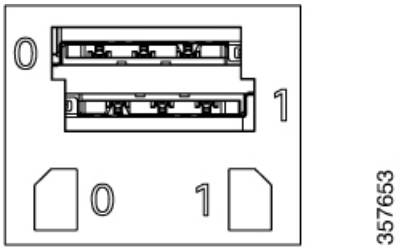
1	Cover for SIM card slots

Figure 8: SIM Card Slots, with the Cover Removed



1	SIM card slots 0 and 1

Figure 9: SIM Card Slots



LED Indicators

The LED indicators appear on the front panel of the device.

Figure 10: Front Panel

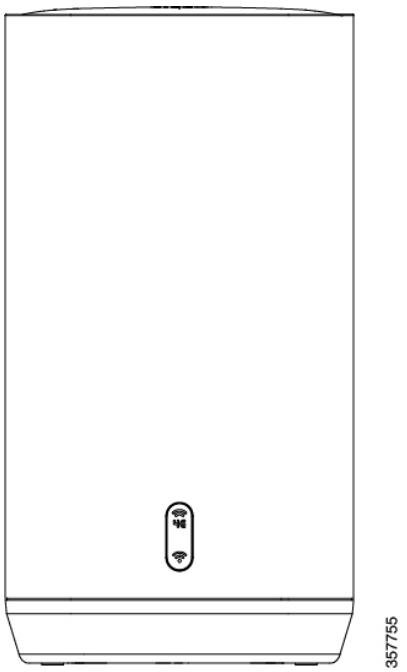
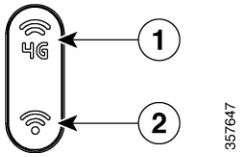


Figure 11: LED Indicators on Front Panel



1	LED indicator for cellular connectivity
2	LED indicator for Wi-Fi connectivity

Table 7: LED Indicator Behavior

LED	Color	Description
Wi-Fi	Red, blinking	Device is booting
	Red, solid	Wi-Fi not ready
	Green, solid	Wi-Fi ready, no devices connected
	Blue, solid	Wi-Fi ready, one or more devices connected
	Green, blinking	Firmware upgrade in progress

LED	Color	Description
4G	Red, blinking	Device is booting
	Red, solid	Completed boot, no SIM detected, not connected to network
	Green, solid	SIM detected, connected to network, wired connection is active and cellular connection is standby
	Green, blinking	Firmware upgrade in progress
	Blue, blinking	SIM detected, connected to network, cellular connection is active, weak signal
	Blue, solid	SIM detected, connected to network, cellular connection is active, strong signal

Antenna Information

Antennas, Gain, and Impedance

Table 8: List of Internal Antennas Supported on Cisco CG113-4GW6 (Includes LTE)

Antenna Type	Antenna Gain	Antenna Impedance
Antenna type: Wi-Fi Single-Port/Dual Band/Omni-directional (Linear Polarization, Wi-Fi 1)	2.4GHz: 4dBi 5GHz: 5dBi	50 ohms
Antenna type: Wi-Fi Single-Port/Dual Band/Omni-directional (Linear Polarization, Wi-Fi 2)	2.4GHz: 2.6dBi 5GHz: 4.8dBi	50 ohms
Antenna type: LTE Single-Port/LTE Full Band/Omni-directional (Mixed Polarization, LTE Main)	617-960MHz: 2.1dBi 1710-2700MHz: 4.1dBi 3300-3800MHz: 3.6dBi	50 ohms
Antenna type: LTE Single-Port/LTE Full Band/Omni-directional (Vertical Polarization, LTE Auxiliary)	617-960MHz: 2.1dBi 1710-2700MHz: 4.1dBi 3300-3800MHz: 3.6dBi	50 ohms

Maximum Transmitted Power

The frequency and the maximum transmitted power are listed below:

2412-2472MHz: 19.99 dBm

5180-5240MHz: 22.92 dBm

5260-5320MHz: 22.95 dBm

5500-5700: 29.97 dBm

Power Supply

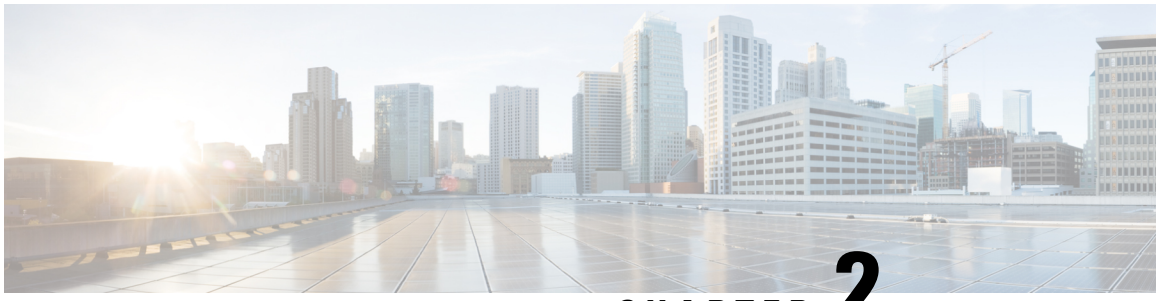
The following power supplies are included with the device, depending on region.

Table 9: Power Supply Part and Model Numbers, by Region

Region	Cisco Part Number	Model Number
USA	CG113-4G-PWR-US	ADH-36DW B
Australia	CG113-4G-PWR-AU	ADH-36DW E
EU, UK	CG113-4G-PWR-EU	ADH-36DW C

Table 10: Power Supply Specifications

Specification	Description
Input	100-240V AC 50-60Hz



CHAPTER 2

Safety Guidelines and Warnings

Statement 1071—Warning Definition

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 provided at the end of each warning statement to locate its translation in the translated safety warnings for this device.

SAVE THESE INSTRUCTIONS

Statement 407—Japanese Safety Instruction

Note You are strongly advised to read the safety instruction before using the product.

https://www.cisco.com/web/JP/techdoc/pldoc/pldoc.html

When installing the product, use the provided or designated connection cables/power cables/AC adapters.

〈製品仕様における安全上の注意〉
www.cisco.com/web/JP/techdoc/index.html

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Statement 1004—Installation Instructions

Warning Read the installation instructions before using, installing, or connecting the system to the power source.

Statement 1033—Safety Extra-Low Voltage (SELV)—IEC 60950/ES1–IEC 62368 DC Power Supply

Warning To reduce risk of electric shock, connect the unit only to a DC power source that complies with the SELV requirements in IEC 60950-based safety standards or ES1 requirements in IEC 62368-based safety standards.

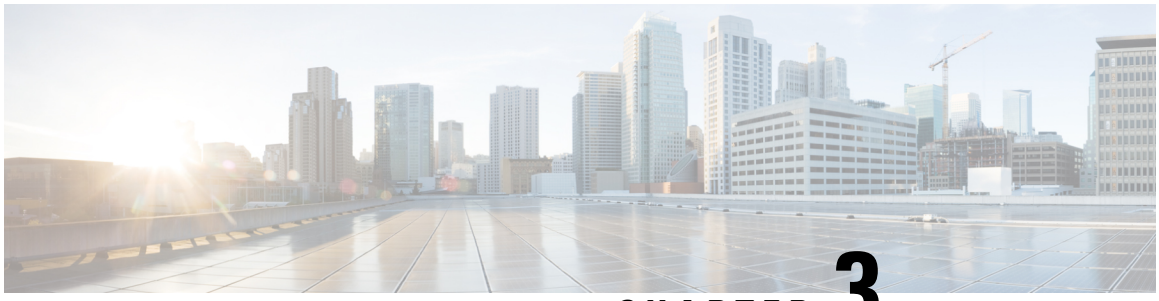
Statement 1047—Overheating Prevention

Warning To reduce the risk of fire or bodily injury, do not operate the unit in an area that exceeds the maximum recommended ambient temperature of: 45℃.

Statement 1074—Comply with Local and National Electrical Codes

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

Statement 1074—Comply with Local and National Electrical Codes



CHAPTER 3

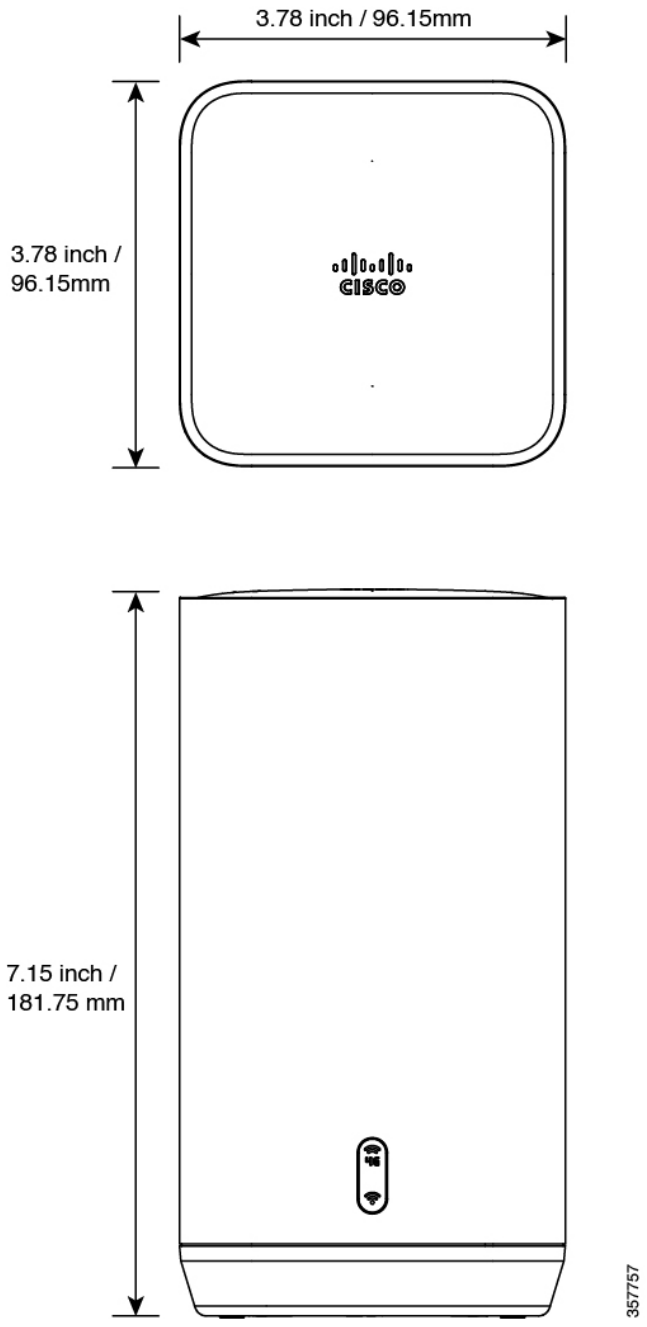
Install Cisco Catalyst Wireless Gateways

Device Placement

Place the Cisco Catalyst Wireless Gateway on a flat surface, with access to a household power outlet and to an ethernet connection providing internet connectivity. The device has two rubber pads for resting on a desk or shelf. No special hardware is required for mounting.

The dimensions of the device are shown in the following illustration.

Figure 12: Product Dimensions



Install SIMs, LTE Models

For LTE models, install one or two SIM cards to provide cellular connectivity. For an illustration of the SIM card slots, see SIM Card Slots, on page 9.

Required Equipment

Small Phillips-head screwdriver

Install SIMs

1. On the bottom of the Cisco Catalyst Wireless Gateway, open the cover for the SIM slots using the a small Phillips-head screwdriver.
2. Install either one (1) or two (2) SIM cards in the two slots, marked 0 and 1.

   If you are installing two SIM cards, make note of which SIM card you place in each slot. This information is required during configuration of the two slots as primary and secondary.
3. Replace the cover for the SIM slots.

Power

Connect the power adapter to an household power outlet, and connect its cable to the USB-C port on the back of the Cisco Catalyst Wireless Gateway.

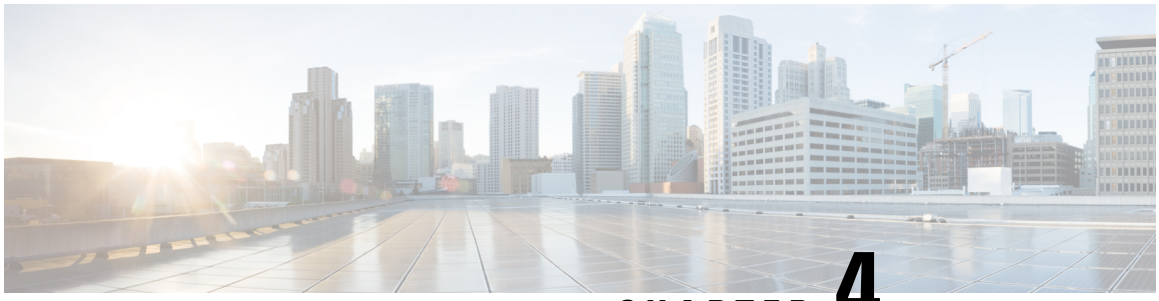
Ensure that the power cable is properly secured.

Data Connections

Ensure that any data cables connected to the device are properly secured.

Table 11: Data Connections

Connection	Description
Internet	Connect the device to a WAN providing internet access, using the 2.5 Gbps ethernet interface.



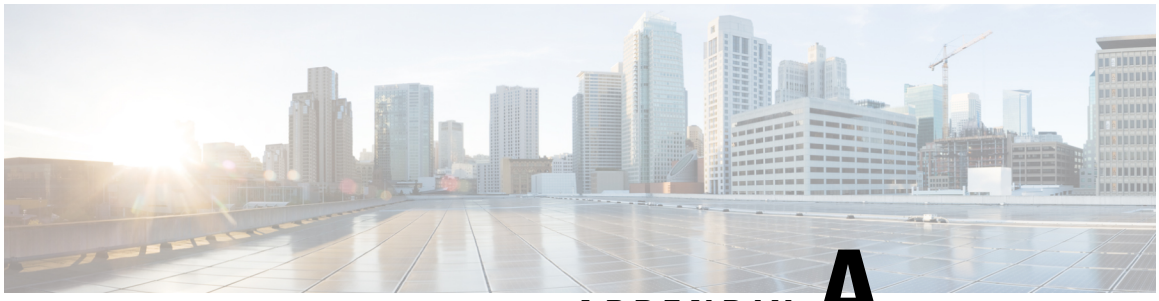
CHAPTER 4

Connect Devices

Ensure that any data cables connected to the device are properly secured.

Table 12: Connections

Connection	Description
Non-corporate wired LAN	To connect a non-corporate device, such as a personal laptop, by wired ethernet, connect it to the 1 Gbps ethernet interface that your organization has configured for general, non-corporate use. For information about which interface this is, contact your organization.
Corporate Wi-Fi	To connect your corporate device, such as a work laptop, by Wi-Fi, connect it to the Wi-Fi SSID that your organization has configured for corporate use. For information about which SSID this is, contact your organization.
Non-corporate Wi-Fi	To connect your non-corporate device, such as a work laptop, by Wi-Fi, connect it to the Wi-Fi SSID that your organization has configured for general, non-corporate use. For information about which SSID this is, contact your organization.



APPENDIX A

Declarations of Conformity and Regulatory Information

USA Conformity and Regulatory Information

Manufacturers Federal Communication Commission Declaration of Conformity Statement

FCC Mark

Certifications

Model	Certification Number
CG113-W6B	(Wi-Fi): LDKCG1132477
CG113-4GW6B	(Wi-Fi): LDKCG1132477 (LTE): N7NEM74B

Manufacturer

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

Compliance

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

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment. This equipment generates, uses, and radiates radiofrequency energy, and if not installed and used according to the instructions, it may cause harmful interference. Hence, professional installation is recommended. However, there is no guarantee that interference will not occur. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged 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

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.FCC regulations restrict the operation of this device to indoor use only. The operation of this device is prohibited on oil platforms, cars, trains, boats, and aircraft, except that operation of this device is permitted in large aircraft while flying above 10,000 feet.Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 44cm between the radiator and your body.

Canada Conformity and Regulatory Information

Canada Compliance Statement

Certifications

Model	Certification Number
CG113-W6A	(Wi-Fi): 2461N-CG1132477
CG113-4GW6A	(Wi-Fi): 2461N-CG1132477 (LTE): 2417C-EM74B

Manufacturer

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

Product Use

- For indoor use only.

  Pour une utilisation en intérieur uniquement.

- 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.

IC Radiation Exposure Statement

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 25cm between the radiator and your body.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 25cm de distance entre la source de rayonnement et votre corps.

License-Exempt Tranmitters/Receivers

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

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil contient des émetteurs / récepteurs exempts de licence qui sont conformes au (x) RSS (s) exemptés de licence d'Innovation, Sciences et Développement économique Canada. L'opération est soumise aux deux conditions suivantes:

(1) Cet appareil ne doit pas provoquer d'interférences.

(2) Cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

European Community and UK Conformity and Regulatory Information

European Community, Switzerland, Norway, Iceland, and Liechtenstein Compliance

CE Mark

The product carries the CE Mark:

CE

Models

CG113-W6E

CG113-4GW6E

Manufacturer

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

Importer

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

Product Use

The device is restricted to indoor use only.

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.

Maximum Transmitted Power

The frequency and the maximum transmitted power in EU are listed below:

2412-2472MHz: 19.99 dBm

5180-5240MHz: 22.92 dBm

5260-5320MHz: 22.95 dBm

5500-5700: 29.97 dBm

Declaration of Conformity

Hereby, Cisco Systems, Inc. declares that the radio equipment type CG113-4GW6E, CG113-W6E is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:

https://www.cisco.com/web/dofc/EU89192.pdf

European Community and UK Radiation Exposure Statement

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

United Kingdom Compliance

UKCA Mark

UKCA

Models

CG113-W6E

CG113-4GW6E

Manufacturer

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

Importer

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

Product Use

The device is restricted to indoor use only.

This equipment should be installed and operated with minimum distance 20 cm (7.87 inches) between the radiator & your body.

Declaration of Conformity

The full text of the EU declaration of conformity is available at the following internet address:

https://www.cisco.com/web/dofc/UK89249.pdf

European Community and UK Radiation Exposure Statement

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

RF Exposure, Additional Information

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.

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:

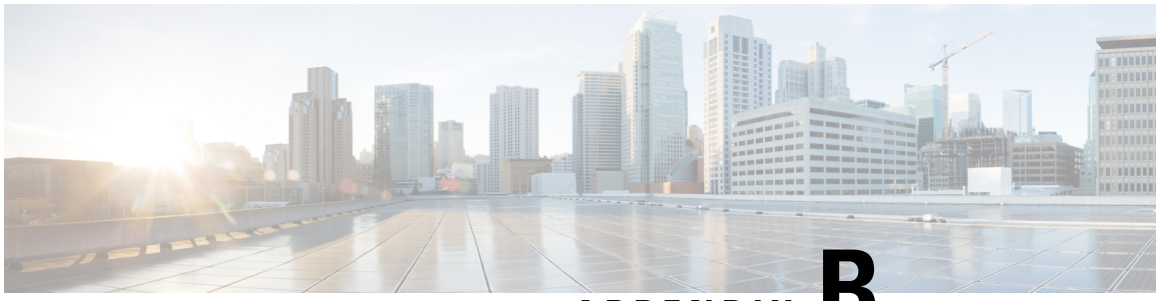
- World Health Organization Internal Commission on Non-Ionizing Radiation Protection
- United Kingdom, National Radiological Protection Board
- Cellular Telecommunications Association at this URL:

  https://www.ctia.org

- The Mobile & Wireless Forum at this URL:

  https://www.mwfai.org

Declarations of Conformity and Regulatory Information



APPENDIX B

Additional References

Additional References

Reference	Description
Release Notes for Cisco Catalyst Wireless Gateways	Description of new features in each release, and lists of any open or resolved caveats in each release.
Cisco Catalyst Wireless Gateways Software Configuration Guide	
Cisco Catalyst Wireless Gateway Web-Based Interface	Description of the web-based interface for monitoring and configuring Cisco Catalyst Wireless Gateways.
Regulatory Compliance and Safety Information – Cisco Catalyst Wireless Gateways	Regulatory compliance and safety information.

Additional References