Important!

Read All the Safety Information Before Installing the Hardware.

Getting Started and Product Document of Compliance for the Cisco Wireless Gateway for LoRaWAN

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78-100921-01C0

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For the complete installation procedure, please refer to the Cisco Wireless Gateway for LoRaWAN Hardware Installation Guide on Cisco.com:

http://www.cisco.com/c/en/us/support/routers/interface-module-lorawan/products-installation-guides-list.html

Cisco Information

Table 1 Cisco Company Name and Address Details

Company Name	Cisco Address
Cisco Systems, Inc.	170 West Tasman Drive, San Jose, CA 95134-1706, United States.

Introduction

The purpose of this document is to provide the installer the necessary information for installing the Cisco Wireless Gateway for LoRaWAN. The documentation is on-line, and subject to change. Make sure that you are downloading or viewing on-line the latest version before beginning an installation:

http://www.cisco.com/c/en/us/support/routers/interface-module-lorawan/products-installation-guides-list.html

Unpacking the Device

Follow these steps to unpack the box:

1. Open the shipping container and carefully remove the contents.
2. Return all packing materials to the shipping container and save it.
3. Ensure that all items listed in the "Package Contents" section on page 2 are included in the shipment. Check each item for damage. If any item is damaged or missing, notify your authorized Cisco sales representative.

Package Contents

Each Cisco Wireless Gateway for LoRaWAN package contains the following items:

- One Cisco Wireless Gateway for LoRaWAN (IXM-LPWA-800-16-K9 or IXM-LPWA-900-16-K9)
- This document (Part Number 78-100921-01)

Optional Equipment

Depending on what you ordered, the following optional equipment may be part of your shipment:

- Wall/pole mount kit (AIR-ACC1530-PMK1=)
- DC-IN power adapter jack plug (PLG-PWRJCK=)
- Grounding lug
- LoRa Antenna
  - Omni-directional antenna (ANT-LPWA-DB-O-N=)
  - Antennas lightning arrestor (ACC-LA-H-NM-NF=)
  - 10-ft low-loss cable assembly with N type connector (AIR-CAB010LL-N=)
- GPS Antenna
  - Outdoor GPS antenna with integrated 15-ft cable (ANT-GPS-OUT-TNC=)

- Outdoor GPS antenna lightning arrestor (ACC-LA-G-TM-TF=)

Equipment That You Supply

- ESD-preventive cord and wrist strap.
- Crimping tool (such as Thomas & Bett part number WT2000, ERG-2001, or equivalent).
- 6 AWG (13.3 mm^2) copper ground wire
- Wire-stripping tools for stripping 6 AWG (13.3 mm^2) wire
- A number-2 Phillips screwdriver

Related Documentation

To access resources or to display the latest Cisco Wireless Gateway for LoRaWAN documentation on-line, go to this URL: www.cisco.com/go/lorawanmodule

This portal has all of the information you need to get to know your device, install and configure it, as well as access software. Look at the right side of the page under **Support**. You will see the following categories as well as other important information:

- **All support information for Cisco Wireless Gateway for LoRaWAN:** Provides the most requested resources and a list of all of the models in the series.
- **Software Downloads, Release and General Information:** Links to the Software Download site, Compatibility Information, Licensing Information, and Product Release notes.
- **Install and Upgrade:** This is your starting point for Installing the Router. look under the Install and Upgrade Guide section for this model,
- **Configure:** These links provide configuration information. Look first under the Configuration Guide section for this model.

Other important and helpful links to Cisco information are here:

- Cisco.com: www.cisco.com
- Warranty Information: www.cisco-warrantyfinder.com
- Cisco Information Packet, consisting of Cisco Limited Warranty, Disclaimer of Warranty, End User License Agreement, and United States Federal Communications Commission Notice: www.cisco.com/en/US/docs/general/warranty/English/SL3DEN__.html
- Cisco Marketplace: marketplace.com
- Cisco Product Documentation: www.cisco.com/go/techdocs
- Cisco Support: www.cisco.com/cisco/web/support/index.html

Installation Warning and Caution Statements

Warning: IMPORTANT SAFETY INSTRUCTIONS

Means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device. Statement 1071

Warning: Before performing any of the following procedures, ensure that power is removed from the DC circuit. Statement 1003

Warning: Read the installation instructions before you connect the system to its power source. Statement 1004

Warning: This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that the protective device is rated not greater than: 2 A. Statement 1005

Warning: This unit is intended for installation in restricted access areas. A restricted access area can be accessed only through the use of a special tool, lock and key, or other means of security. Statement 1017

Warning: A readily accessible two-poled disconnect device must be incorporated in the fixed wiring. Statement 1022

Warning: This equipment must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available. Statement 1024

Warning: Only trained and qualified personnel should be allowed to install, replace, or service this equipment. Statement 1030

Warning: Ultimate disposal of this product should be handled according to all national laws and regulations. Statement 1040

Warning: For connections outside the building where the equipment is installed, the following ports must be connected through an approved network termination unit with integral circuit protection: 10/100 Ethernet Statement 1044

Warning: To prevent the system from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of: 131°F (55°C) Statement 1047

Warning: This equipment is intended to be grounded to comply with emission and immunity requirements. Ensure that the switch functional ground lug is connected to earth ground during normal use. Statement 1064

Warning: Installation of the equipment must comply with local and national electrical codes. Statement 1074

Warning: Avoid using or servicing any equipment that has outdoor connections during an electrical storm. There may be a risk of electric shock from lightning. Statement 1088

Caution: For the device, connect only to an NEC Class 2 power source or limited power source as defined by IEC 60950-1.

Warning: This product is designed for specific application and needs to be installed by a qualified personal who has RF and related rule knowledge. The general user shall not attempt to install or change the setting.

Warning: The product shall be installed at a location where the radiating antenna can be kept 34 cm from nearby person in normal operation condition to meet regulatory RF exposure requirement.

Warning: Use only the antennas which have been approved by the applicant. The non-approved antenna(s) may produce unwanted spurious or excessive RF transmitting power which may lead to the violation of FCC/ISED limit and is prohibited.

Warning: Please carefully select the installation position and make sure that the final output power does not exceed the limit set force in relevant rules. The violation of the rule could lead to serious federal penalty.

Note: The device is suitable for use in environmental air space in accordance with section 300.22.C of the National Electrical Code and sections 2-128, 12-010(3), and 12-100 of the Canadian Electrical Code, Part 1, C22.1. You should not install the power supply or power injector in air handling spaces.

Note: Use only with listed ITE equipment.

Note: The maximum ambient operating temperature range is -40 to 131° F (-40 to 55° C), plus solar load.

Note: The POE source which the unit is intended to connect is IEEE 802.3 at.

FCC 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 transmitter must not be co-located or operating in conjunction with any other antenna or transmitter, except the collocation in accordance with FCC multi-transmitter product guidelines.

Industry Canada Statement

This device complies with ISED's licence-exempt RSSs. 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.

Le présent appareil est conforme aux CNR d' ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée 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.

Radiation Exposure Statement

This equipment complies with FCC and ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 34 cm between the radiator and your body.

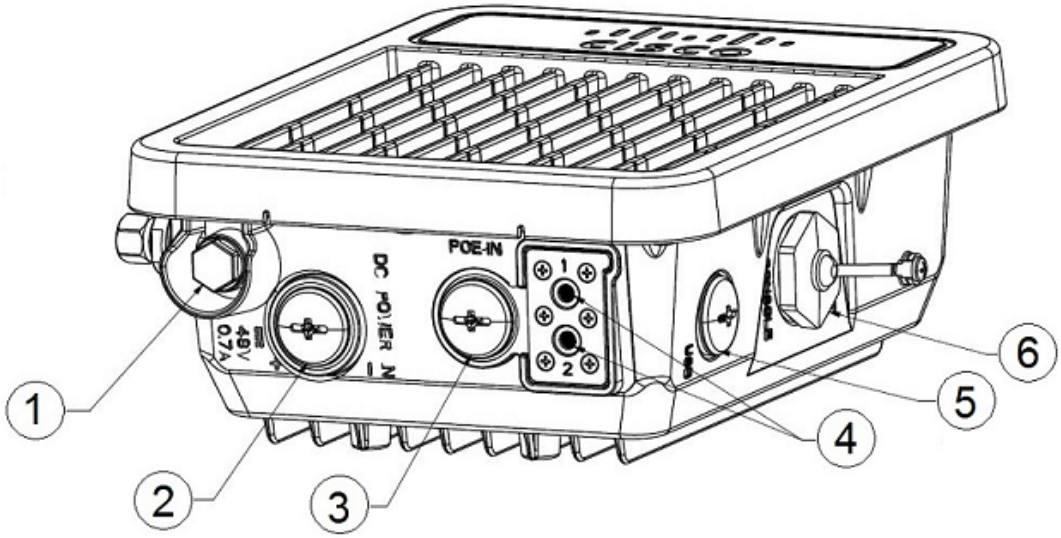
Déclaration d'exposition aux radiations

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 34 cm de distance entre la source de rayonnement et votre corps.

Becoming Familiar With the Device

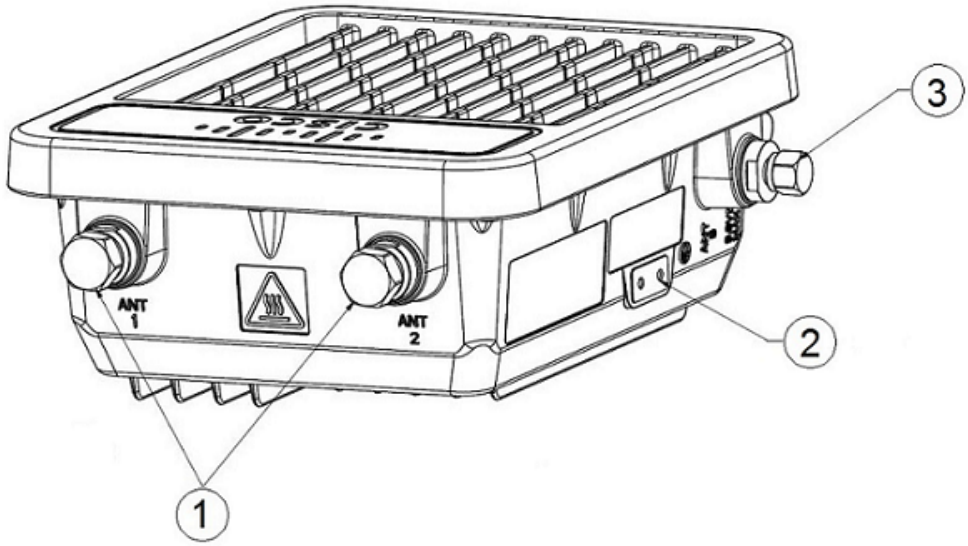
The following illustrations show the connections of the Cisco Wireless Gateway for LoRaWAN. Before you begin the installation process, use these illustrations to familiarize yourself with the device.

Figure 1 Cisco Wireless Gateway for LoRaWAN Bottom and Right Panels



1	Pressure vent	4	LED indicators
2	DC power port	5	USB port
3	PoE-in port	6	Console port and Reset button

Figure 2 Cisco Wireless Gateway for LoRaWAN Top and Left Panels



1	LoRa antenna ports	2	Ground lug location
3	GPS antenna port		

Antennas

The Cisco Wireless Gateway for LoRaWAN is equipped with two N-type radio frequency (RF) connectors (antenna ports 1 and 2) on the top of the unit for LoRa antennas, and one TNC connector on the left of the unit for the GPS antenna, as shown in Figure 3 on page 8. The LoRa antennas should be connected to the chassis via an appropriate low-loss RF coax cable, for the Cisco Wireless Gateway for LoRaWAN to work properly. The LoRa antennas should be installed closely to the Cisco Wireless Gateway for LoRaWAN to reduce the signal strength loss on the feed cable as much as possible.

Note: The antennas can't be directly installed on the unit without a cable.

For detailed information on the antenna installation options, see the *Cisco Wireless Gateway for LoRaWAN Hardware Installation Guide*.

Refer to the data sheet for the antenna specifications.

Note: The antenna port caps must be removed before using, but the unused ports should remain capped to provide an IP67 seal. All port or antenna connection must be terminated by an IP67 rated cap or cable.

Detachable Antenna Usage

This radio transmitter (IC: 2461L-IXMLPWA900 / Model: IXM-LPWA-900-16-K9) has been approved by ISED to operate with the antenna type listed below with maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio (IC: 2461L-IXMLPWA900 / Model: IXM-LPWA-900-16-K9) a été approuvé par ISED pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

LoRa Antenna List

Type	Gain
Dipole	6.22dBi

FCC 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 transmitter must not be co-located or operating in conjunction with any other antenna or transmitter, except the collocation in accordance with FCC multi-transmitter product guidelines.

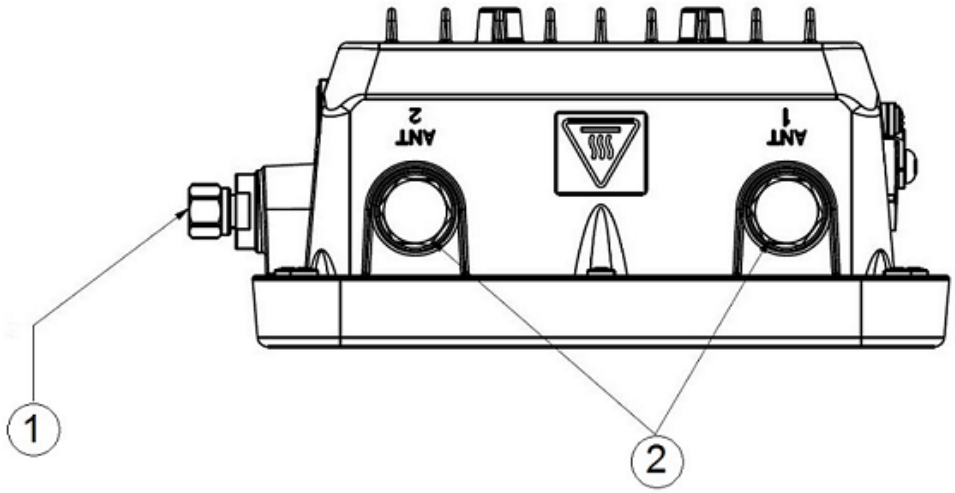
Radiation Exposure Statement

This equipment complies with FCC and ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 34 cm between the radiator and your body.

Déclaration d'exposition aux radiations

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 34 cm de distance entre la source de rayonnement et votre corps.

Figure 3 Antenna Connectors



1	TNC connector for GPS antenna	2	N-Type connectors for LoRa antennas

Antenna Mounting Configurations

The selection of the antenna is determined in the configuration of the product. The antennas can be mounted on a wall, pole and/or tower mounted.

The antennas must be installed at half a wavelength apart from each other.

Note: The FCC limits the amount of power this device can transmit. Power transmitted is a combination of the amplification of the signal and the antenna gain. The Cisco Wireless Gateway for LoRaWAN has been designed to operate with the Cisco provided antennas.

Power

Note: For detailed information on the power options available for the Cisco Wireless Gateway for LoRaWAN, see the *Cisco Wireless Gateway for LoRaWAN Hardware Installation Guide*.

Warning: **Installation of the equipment must comply with local and national electrical codes.** Statement 1074

Warning: **This equipment must be externally grounded using a customer-supplied ground wire before power is applied. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.** Statement 366

Warning: **Do not work on the system or connect or disconnect cables during periods of lightning activity.** Statement 1001

The Cisco Wireless Gateway for LoRaWAN supports these power sources:

- Power-over-Ethernet (PoE+, 30W)
- DC power—48 VDC

Caution: Do not place the power injector in an unprotected outdoor environment because water could get into the power injector and cause a short circuit and possible fire.

Warning: Connect the unit only to DC power source that complies with the Safety Extra-Low Voltage (SELV) requirements in IEC 60950 based safety standards Statement 1033

Ethernet (PoE+) Ports

The Cisco Wireless Gateway for LoRaWAN supports an Ethernet uplink port (PoE-In). The RJ-45 connector (with weatherproofing) links the device to the 10BASE-T or 100BASE-T network. The Ethernet cable is used to send and receive Ethernet data and to optionally supply inline 56-VDC power from the power injector.

Warning: To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord. Statement 1023

The Ethernet cable must be a shielded outdoor rated Category 5 (CAT5) or better cable. The Cisco Wireless Gateway for LoRaWAN senses the Ethernet and power signals and automatically switches internal circuitry to match the cable connections.

LEDs

This section describes the LEDs for the Cisco Wireless Gateway for LoRaWAN. See Figure 1 on page 6 for the locations of LED indicators.

Table 2 LED Definitions

LED	LED Color	Definition
LED 1	Off	Power off or under bootloader mode
	Blinking green	Under the starting kernel (bring up phase)
	Solid green	Normal operation state
	Blinking red	■ Failed to get IP address ■ Register to IR800 failed
	Solid red	■ ACT2 check failed ■ Lost connection to IR800 ■ CPU usage high ■ Temperature high ■ Flash usage high ■ Cover open
LED 2	Off (when LED 1 is solid green)	The gateway is running in standalone mode.
	Solid green (when LED 1 is solid green)	The gateway is running in virtual interface mode with the IR800 series.

Pole/Wall Mounting

Note: For more installation options and detailed installation instructions, see the *Cisco Wireless Gateway for LoRaWAN Hardware Installation Guide*.

The Cisco Wireless Gateway for LoRaWAN can be pole or wall mounted by using the mounting kit (AIR-ACC1530-PMK1=).

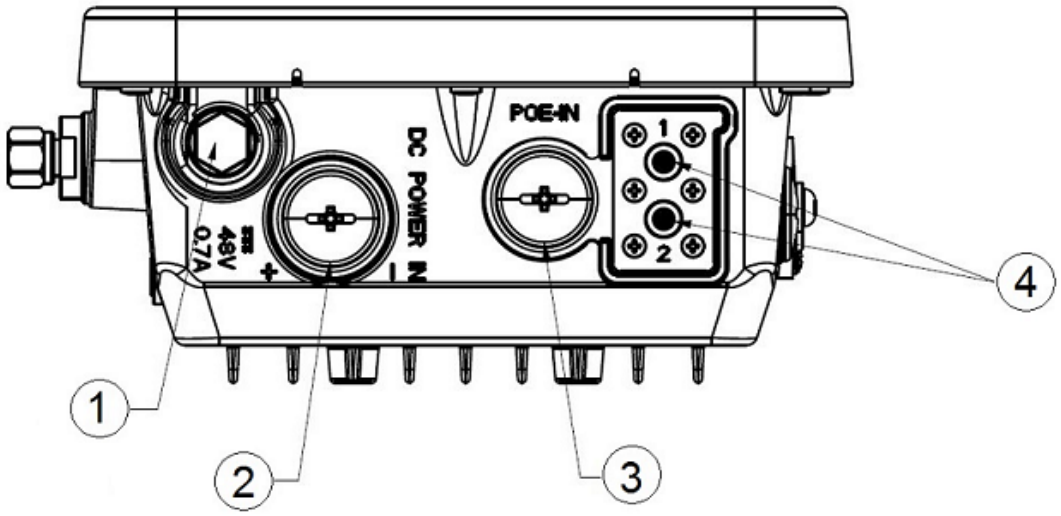
Warning: Only trained and qualified personnel should be allowed to install, replace, or service this equipment. Statement 1030

Warning: Installation of the equipment must comply with local and national electric codes. Statement 1074

When mounting a Cisco Wireless Gateway for LoRaWAN on a horizontal or vertical surface, you must ensure that the device is oriented with the LED indicators pointing down (see Figure 4 on page 10). This positioning allows LEDs to be visible to someone on the ground below the device.

You must also ensure the Cisco Wireless Gateway for LoRaWAN is mounted in such a way as to ensure that all antenna ports and the console port are accessible for future use.

Figure 4 LEDs Shown on the Bottom of the Cisco Wireless Gateway for LoRaWAN



1	Pressure vent	3	PoE-in port
2	DC power port	4	LED indicators

Wall Mounting With the Mounting Kit

The mounting kit contains a mounting bracket for wall mounting or pole mounting. You can use the mounting bracket as a template to mark the positions of the mounting holes for your installation. You then install the mounting plate, and attach the Cisco Wireless Gateway for LoRaWAN when you are ready. Table 3 lists the materials you will need to provide in addition to the fixed mounting kit.

Table 3 Material Needed for Vertical Wall Mounting

Materials Required	In Kit
Ground lug and screws (provided with Cisco Wireless Gateway for LoRaWAN)	Yes
One mount bracket	Yes
Four M6 x 12-mm Hex-head Bolts	Yes
Crimping tool for ground lug	No
Four wall mounting screws	No
Four wall anchors (specified for all material)	No
Drill bit for wall anchors	No
Electric drill and standard screwdriver	No

Table 3 Material Needed for Vertical Wall Mounting (continued)

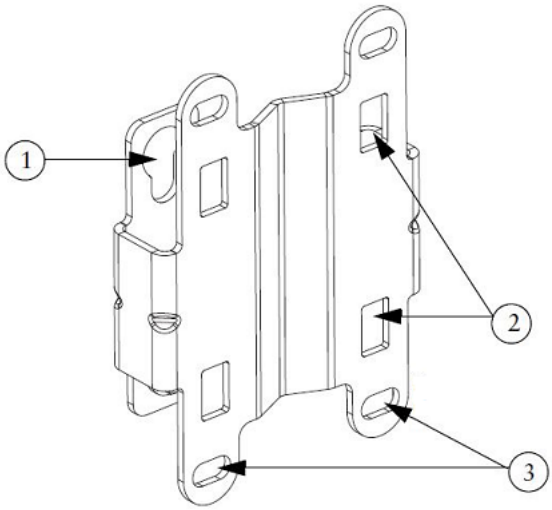
Materials Required	In Kit
#6 AWG ground wire	No
Shielded outdoor-rated Ethernet (CAT5 or better) cable with 4.3 to 6.5 mm (0.17 to 0.25 inch) diameter (for IP67 and strength relief)	No
Grounding block	No
Grounding rod	No
10-mm box-end wrench or socket set	No

Note: The mounting surface, attaching screws and optional wall anchors must be able to support a 50-lb (22.7 kg) static weight.

To mount the Cisco Wireless Gateway for LoRaWAN on a vertical wall, follow these instructions:

1. Use the mounting bracket as a template to mark four screw hole locations on the mounting surface. See Figure 5 on page 11 for the mounting bracket screw hole locations. Use the bracket mount holes to attach the unit to the wall.

Figure 5 Mounting Bracket for Wall or Pole Mounting



1	Quick Mount Keyhole Slots (for the Cisco LoRa Interface use)	2	Mounting Slots (used with the band clamps)
3	Bracket Mount Holes (use bolts up to 1/4" or 6 mm in diameter)		

2. Use four customer-supplied screws and optional screw-anchors to attach the mounting plate to the mounting surface.
3. If necessary, use suitable screw anchors and an exterior-grade plywood backboard to mount the Cisco Wireless Gateway for LoRaWAN to stucco, cement or drywall.
4. Screw an M6 x12 mm bolt into each of the four support bolt holes on the back of the Cisco Wireless Gateway for LoRaWAN. Do not screw the bolt all the way in; leave approximately a 0.13 inch (3.3 mm) space.
5. Position the four bolts on the Cisco Wireless Gateway for LoRaWAN into the keyhole slots on the mounting bracket.

6. Slide the Cisco Wireless Gateway for LoRaWAN down to sit securely in the quick mount slots.
7. Using a 10mm wrench, secure the Cisco Wireless Gateway for LoRaWAN to the bracket by tightening the bolts to the bracket; torque to 40 in-lbs (4.52 N-m).
8. Continue with Grounding the Device, page 13.

Pole Mounting With the Mounting Kit

The mounting kit contains a mounting bracket for wall mounting or pole mounting. This kit can be used to install the Cisco Wireless Gateway for LoRaWAN on a pole. It supports metal, wood or fiberglass poles from 2 to 8 inches in diameter.

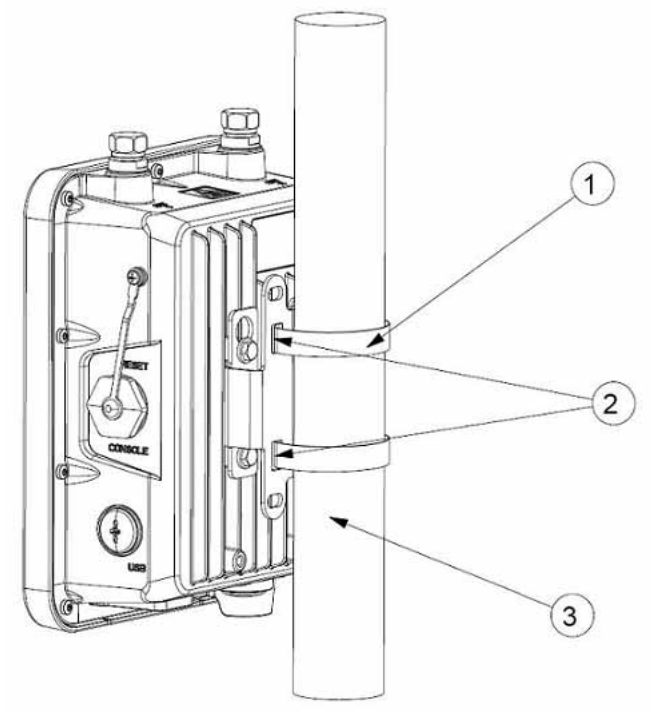
Table 4 Materials Needed for Vertical Pole Mounting

Materials Required	In Kit
One mount bracket	Yes
Four M6 x12mm hex head bolts	Yes
Two stainless steel band clamps (adjustable 2" -5" , 51-127 mm)	Yes
Two stainless steel band clamps (adjustable 5" -8" , 127-203 mm)	Yes
10 mm box-end wrench	No
Shielded outdoor-rated Ethernet (CAT5 or better) cable with 4.3 to 6.5 mm (0.17 to 0.25 inch) diameter (for IP67 and strength relief)	No
Ground lug (provided with the Cisco Wireless Gateway for LoRaWAN)	Yes
Ground block and rod	No
Crimping tool for ground lug	No
#6 AWG ground wire	No

To mount the Cisco Wireless Gateway for LoRaWAN onto a vertical pole, follow these steps:

1. Select a mounting location on the pole to mount the Cisco Wireless Gateway for LoRaWAN. You can attach the Cisco Wireless Gateway for LoRaWAN to any pole with a diameter from 2 to 8 inches (5.1 to 20.1 cm).
2. Determine which size of band clamp is needed based on the pole diameter. Slide the two clamps through the top and bottom set of mounting slots (see Figure 6 on page 13) and mount the bracket to the pole.
3. Wrap the band clamps around the pole and slide them into the second set of top and bottom mounting slots on the bracket. Lightly tighten the clamps. Only tighten them enough to keep the bracket from sliding down the pole.
4. Screw an M6 bolt into each of the four bolt holes on the back side of the Cisco Wireless Gateway for LoRaWAN. Do not screw the bolt in all the way. Leave a gap of about 1/8" (3.3mm).
5. Position the four bolts on the Cisco Wireless Gateway for LoRaWAN into the bracket keyhole slots. Check to be sure that the Cisco Wireless Gateway for LoRaWAN is properly seated in the slots.(See Figure 6 on page 13)
6. The Cisco Wireless Gateway for LoRaWAN should be positioned with the LEDs on the bottom to allow viewing from the ground.
7. Using a 10mm wrench, tighten the four bolts that connect the Cisco Wireless Gateway for LoRaWAN to the bracket to a torque of 40 in-lbs (4.52 N-m).
8. Locate the Cisco Wireless Gateway for LoRaWAN to its final position. Tighten the band clamps with the wrench so that the Cisco Wireless Gateway for LoRaWAN does not slide on the pole. Be sure that the clamps are tight enough that the Cisco Wireless Gateway for LoRaWAN does not move.
9. Continue with Grounding the Device, page 13.

Figure 6 Cisco Wireless Gateway for LoRaWAN and Fixed Mount Kit Installed on a Pole



1	Metal Band Strap	2	Mounting Slots
3	Pole		

Grounding the Device

Make sure to follow any grounding requirements at your site.

Warning: This equipment must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available. Statement 1024

Warning: Installation of the equipment must comply with local and national electrical codes. Statement 1074

Warning: The equipment has a separate protective earthing terminal on the chassis that must be permanently connected to the earth ground to adequately ground the chassis and protect the operator from electrical hazards.

Caution: Before equipment installation begins, ensure that a service personnel has attached an appropriate grounding lug to the grounding cable that you supply.

Caution: Power installation must be performed with qualified electrician and followed with National Electrical Code, ANSI/NFPA 70 and Canadian Electrical Code, Part I, CSA C22.1.

To connect earth ground to the unit:

1. Connect one end of the grounding cable to a proper earth ground.
2. Place the grounding lug attached to the grounding cable over the protective earthing terminal.
3. Secure the grounding lug to the protective earthing terminal with the washers and screws.

4. Dress the grounding cable and ensure that it does not touch or block access to other components.

Warning: Before the device is powered on, connect the frame of the unit to the earth.

Warning: For the earthing wire, green-and-yellow insulation is required and the cross-sectional area of the conductor must be more than 0.75mm^2 or 26 AWG.

Warning: The product shall be installed by a qualified service person and the installation shall conform to all local codes.

Regulatory Compliance and Safety Information

This product has not obtained the authentication of Japan terminal equipment technical (TBL) standards.

Declarations of Conformity and Regulatory Information

For the declarations of conformity and regulatory information for the Cisco Wireless Gateway for LoRaWAN, see the *Cisco Wireless Gateway for LoRaWAN Hardware Installation Guide*.

For EMC and safety information, see the Regulatory Compliance and Safety Information at this URL:

http://www.cisco.com/go/lorawanmodule

Compliance Information

Specification		Description
Safety		IEC 60950-1 EN 60950-1 UL 60950-1 EN 60950-22 EN 50385 IEC/EN 60529
EMC	Electromagnetic Emissions	FCC 47 CFR Part 15 Class A EN 55022 Class A VCCI-A
	Electromagnetic Immunity	EN 55024 EN 301 489-1/-3
Radio		EN 300 220-2 EN 300 440-2

Class A Notice for FCC

Modifying the equipment without Cisco's authorization may result in the equipment no longer complying with FCC requirements for Class A digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

This equipment has been tested and found to comply with the limits for a Class A 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 commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case users will be required to correct the interference at their own expense.

EMC Class A Notices and Warnings

Statement 340—Class A Warning for CISPR22

Warnung **Dies ist ein Produkt der Klasse A. Bei der Verwendung dieses Produkts im Haus- oder Wohnungsbereich kann es zu Funkstörungen kommen. In diesem Fall muss der Benutzer u. U. angemessene Maßnahmen ergreifen.**

Statement 191—VCCI Class A Warning for Japan

Warning **This is a Class A product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may arise. When such trouble occurs, the user may be required to take corrective actions.**

警告 この装置は、クラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

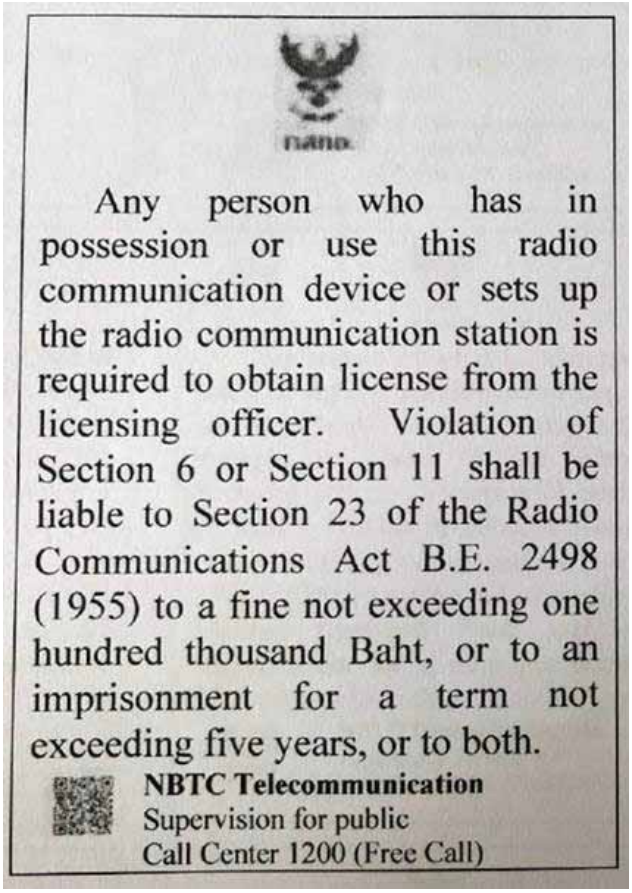
VCCI-A

Thailand Statement

Radiocommunication equipment has electromagnetic field strength in compliance with the Safety Standard for the Use of Radiocommunication Equipment on Human Health announced by the National Telecommunication Commission.

"เครื่องวิทยุคมนาคมนี้มีระดับการแผ่คลื่นแม่เหล็กไฟฟ้าสอดคล้องตามมาตรฐานความปลอดภัยต่อสุขภาพของมนุษย์จากการใช้เครื่องวิทยุคมนาคมที่คณะกรรมการกิจการโทรคมนาคมแห่งชาติประกาศกำหนด"


กสทช.
ผู้ใดมีไว้ในครอบครอง หรือ ใช้ซึ่งเครื่องวิทยุคมนาคมหรือตั้งสถานีวิทยุคมนาคมนี้ ต้องได้รับใบอนุญาตจากเจ้าพนักงานผู้ออกใบอนุญาต หากฝ่าฝืน มาตรา 6 หรือมาตรา 11 มีความผิดตามมาตรา 23 แห่งพระราชบัญญัติวิทยุคมนาคม พ.ศ. 2498 ต้องระวางโทษปรับไม่เกินหนึ่งแสนบาท หรือจำคุกไม่เกินห้าปี หรือทั้งปรับทั้งจำ
กสทช. | โทรคมนาคม
กำกับดูแลเพื่อประชาชน
Call Center 1200 (โทรฟรี)


กสทช.
Any person who has in possession or use this radio communication device or sets up the radio communication station is required to obtain license from the licensing officer. Violation of Section 6 or Section 11 shall be liable to Section 23 of the Radio Communications Act B.E. 2498 (1955) to a fine not exceeding one hundred thousand Baht, or to an imprisonment for a term not exceeding five years, or to both.
NBTC Telecommunication
Supervision for public
Call Center 1200 (Free Call)

China RoHS

产品中有毒有害物质或元素的名称及含量

部件名称	有毒有害物质或元素					
	铅	汞	镉	六价铬	多溴联苯	多溴二苯醚
金属部件（包括紧固件）	X	O	O	O	O	O
印刷电路板组件和元件	X	O	O	O	O	O
缆线和缆线组件	X	O	O	O	O	O
塑料和聚合物部件	O	O	O	O	O	O
显示器，包含灯泡	X	X	O	O	O	O
除印刷电路板外的其他电子组件	X	O	O	O	O	O
光学玻璃材料	X	O	X（滤光玻璃）	O	O	O
干电池	O	O	O	O	O	O

本表格依据 SJ/T 11364 的规定编制。

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GB/T 26572 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GB/T 26572 规定的限量要求。

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