



Cisco 4G Indoor/Outdoor Active GPS Antenna (GPS-ACT-ANTM-SMA)

First Published: July 22, 2013

The Cisco 4G indoor/outdoor, active GPS antenna (GPS-ACT-ANTM-SMA) can be physically connected to the Cisco 819 Integrated Services Routers (ISRs) and Cisco 4G Enhanced High-Speed WAN Interface Cards (EHWICs) to receive GPS broadcasts from satellites.

- [Specifications, page 1](#)
- [Installing the Cisco 4G Active GPS Antenna, page 2](#)
- [Obtaining Documentation and Submitting a Service Request, page 5](#)

Specifications

Table 1 *Specifications for the Cisco GPS-ACT-ANTM-SMA Antenna*

Specification	Description
Maximum input power	1 W
Connector	SMA male
VSWR ¹	2:1 or less
Characteristic impedance	50 Ohm
Antenna base and radome color	Black
Antenna dimensions	1.7 (L) x 1.4 (W) x 0.55 (H) in. (44 x 36 x 14mm)
Operating temperature	-40° to 185°F (-40° to 85°C)
Operating frequency ranges	1574.42-1576.42 MHz
Polarization	RHCP ²
Maximum peak gain (at Boresight)	4 dBic
Shocks	50G



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

Table 1 Specifications for the Cisco GPS-ACT-ANTM-SMA Antenna (continued)

Specification	Description
Drop test	10x3 axis / 1 meter drop 6 axis
Cable Length	17 ft (5.18 meters)
Mount Bracket	Metal
Anchor	1 inch. The anchor drill size is 3/16.
Screws	3 stainless-steel screws that are self-drilling pan head #2 Phillips.

1. VSWR = voltage standing wave ratio.
2. RHCP = right hand circularly polarized.

Installing the Cisco 4G Active GPS Antenna

- [Installation Guidelines for the Cisco 4G Active GPS Antenna, page 2](#)
- [Mounting the Cisco 4G Active GPS Antenna Without Bracket, page 3](#)
- [Mounting the Cisco 4G Active GPS Antenna With the Bracket, page 3](#)
- [Attaching the Cisco 4G Active GPS Antenna Cable to the Device, page 4](#)

Installation Guidelines for the Cisco 4G Active GPS Antenna

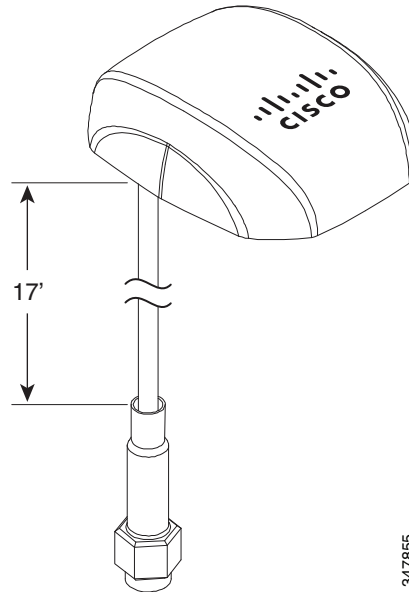
- The antenna must be placed so that the radome has a clear site to just above the horizon and a clear view of the horizon.
- Antenna performance can be adversely affected by the surrounding environment such as physical obstructions or radio frequency (RF) interference.
- Avoid mounting the antenna next to a column or vertical support that could create a shadow zone and reduce the coverage area.
- Keep the antenna away from reflective metal objects that block cellular signal and make reception poor, such as heating and air conditioning ducts, large ceiling trusses, building superstructures, and major power cabling runs. If necessary, use an extension cable to relocate the antenna away from these obstructions.
- If installing the antenna indoors, make sure it is near a window.



Note

The Cisco logo and product ID are printed onto the GPS-ACT-ANTM-SMA antenna radome. Position the antenna as shown in the [Figure 1](#).

Figure 1 Wall-Mounted Antenna



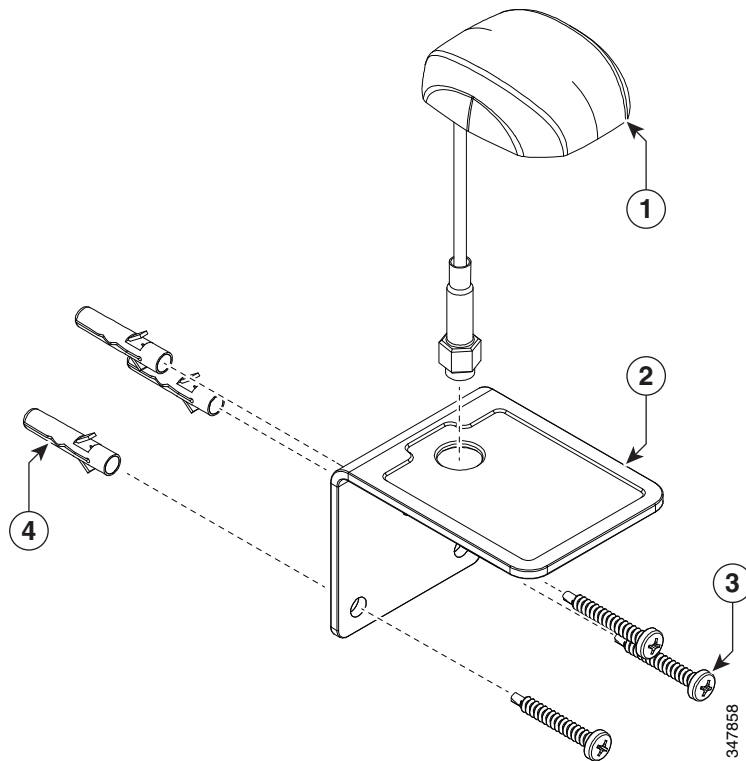
Mounting the Cisco 4G Active GPS Antenna Without Bracket

Attach the antenna radome to any magnetic metal surface or stick the antenna radome onto a non-metallic surface using the sticky back.

Mounting the Cisco 4G Active GPS Antenna With the Bracket

- Step 1** Use the supplied metal bracket, screws and wall anchors (if necessary) to mount the antenna to a wall, as shown in [Figure 2](#).
- Step 2** Insert the cable through the hole on top of the bracket and seat the antenna radome on the bracket as shown in [Figure 2](#).

Figure 2 Attaching the Antenna Wall-mount



Attaching the Cisco 4G Active GPS Antenna Cable to the Device

For the Cisco 819 ISR (Figure 3) and 4G EHWIC module (Figure 4), unscrew the cap-screw on the GPS mating connector. Next, tightly screw the antenna cable SMA male connector to the GPS mating connector.

Figure 3 Cisco 819 ISR Antenna Installation

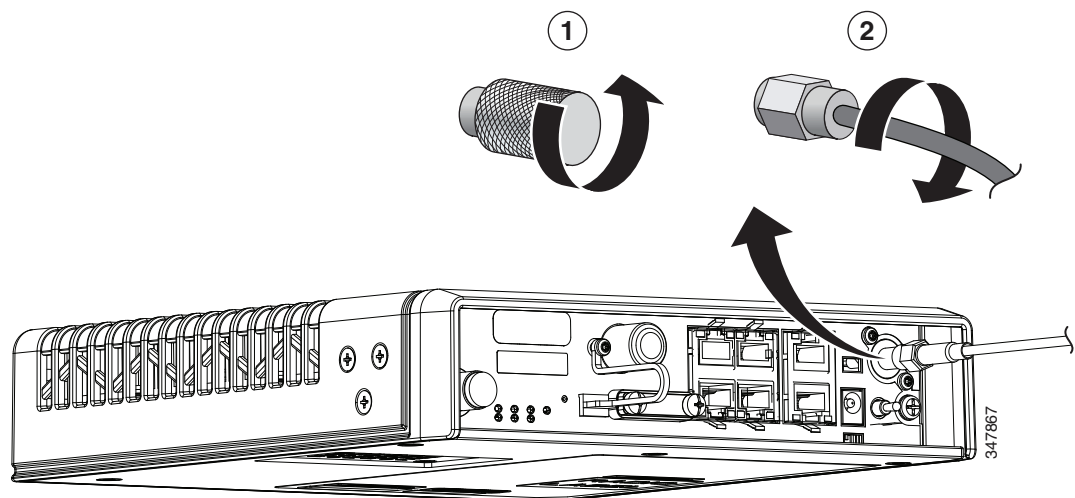
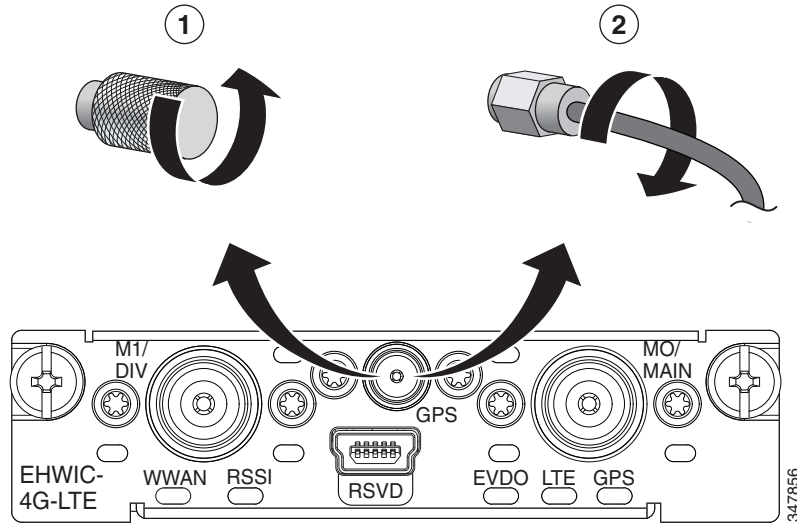


Figure 4 4G EHWIC Antenna Installation



Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as an RSS feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service. Cisco currently supports RSS Version 2.0.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

© 2013 Cisco Systems, Inc. All rights reserved.