



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

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

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

## Specifications

Figure 1 Specifications for the Cisco GPS-ACT-ANTM-SMA Antenna

Specification	Description
Maximum input power	1 W
Power Supply	3-5VDC, 20mA typical @3V 30mA typical @5V
Noise Figure	1.5dB typical @25C
Amplifier Filter Topology	Antenna-LNA1-BPF1-LNA2-cable-SMA(m) connector.  Due to a topology without front end filter immediately following the antenna, antenna has the benefit of lower noise figure, but may not be suitable for collocation with a high power wireless transceiver.
Connector	SMA male
VSWR <sup>1</sup>	2:1 or less
Noise Figure	1.5dB typical @25C
Amplifier Filter Topology	Antenna-LNA1-BPF1-LNA2-cable-SMA(m) connector.  Due to a topology without front end filter immediately following the antenna, the antenna has the benefit of a lower noise figure, but may not be suitable for collocation with a high power wireless transceiver.
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 <sup>2</sup>
Maximum peak gain (at Boresight)	4 dBic
Shocks	50G
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](#)

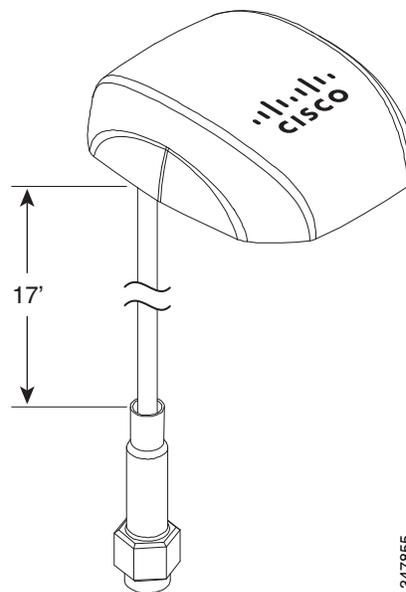
- [Mounting the Cisco 4G Active GPS Antenna Without Bracket](#)
- [Mounting the Cisco 4G Active GPS Antenna With the Bracket](#)

## 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 2](#).

**Figure 2** Wall-Mounted Antenna



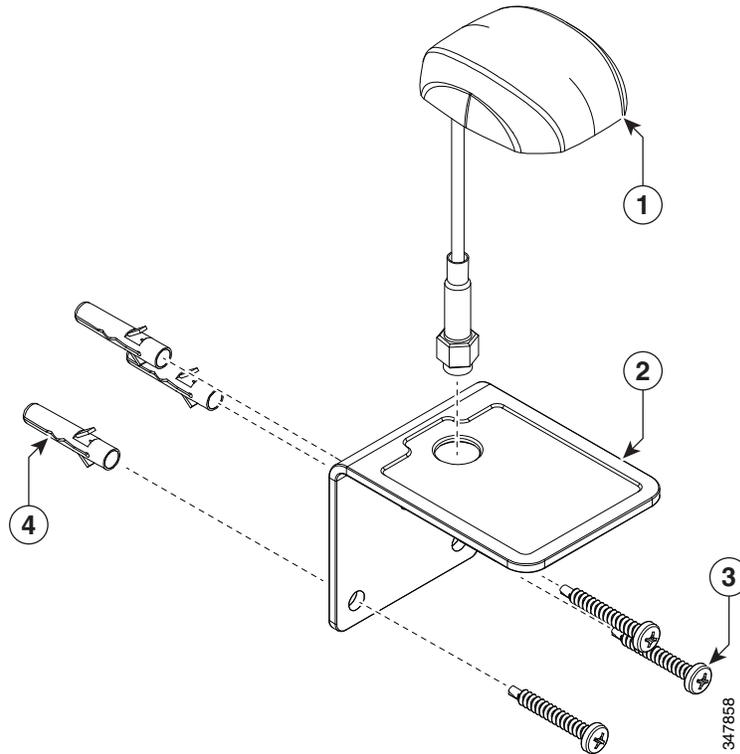
### Mounting the Cisco 4G Active GPS Antenna Without Bracket

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

1. Use the supplied metal bracket, screws and wall anchors (if necessary) to mount the antenna to a wall, as shown in [Figure 3](#).
2. Insert the cable through the hole on top of the bracket and seat the antenna radome on the bracket as shown in [Figure 3](#).

**Figure 3** Attaching the Antenna Wall-mount



## 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>

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