Cisco Aironet High Gain Omnidirectional Ceiling Mount Antenna (AIR-ANT1728)

Overview

This document outlines the specifications, describes the high gain omnidirectional ceiling mount antenna, and provides instructions for mounting it on a suspended ceiling track. Designed for WLAN applications operating in the 2.4- to 2.5-GHz frequency range, the antenna has a nominal gain of 5.2 dBi. The antenna is used primarily with access points, but is compatible with Cisco Aironet radio products utilizing a reverse-polarity threaded Neil Concelman (RP-TNC) connector.
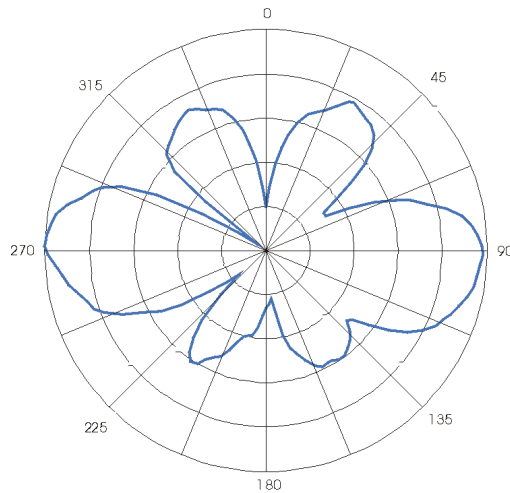
Technical Specifications

Antenna type	Dipole
Operating frequency range	2.4- to 2.483-GHz
VSWR	Less than 2:1, 1.5:1 nominal
Gain	5.2 dBi
Polarization	Vertical
E-Plane (3dB bandwidth)	40 degrees
H-Plane (3dB bandwidth)	Omnidirectional
Cable length and type	3 ft (0.91 m) Plenum rated RG-58
Dimensions (H x W)	11.5 in. x 1.25 in. (29.2 cm x 3.2 cm)
Weight	4.6 oz (131 g)

E-Plane Pattern	H-Plane Pattern
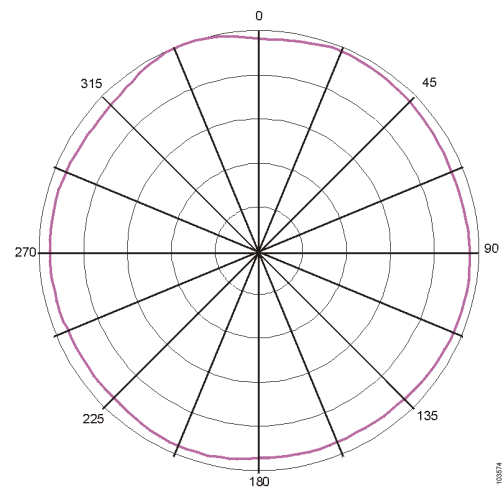
System Requirements

This antenna is designed for use with Cisco Aironet access points, but can be used with any 2.4-GHz Cisco Aironet radio device that utilizes a RP-TNC connector.

Installation Notes

Choosing a Mounting Location

The location of the antenna is important. Objects such as metal columns, walls, etc. will reduce efficiency. Best performance is achieved when transmit and receive antennas are mounted at the same height and in a direct line of sight with no obstructions. If this is not possible and reception is poor, you should try different mounting positions to optimize reception.

The antenna is designed to attach to and hang from a standard suspended ceiling track having a width from 13/16 inches (20.6 millimeters) to 1 1/4 inches (31.7 millimeters).

Tools and Equipment Required

To install the antenna on a suspended ceiling track, you will need the following tools and equipment.

- A ceiling track bracket (shipped with your antenna)
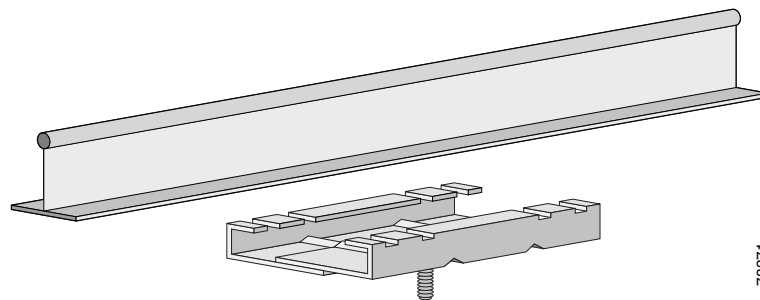- A 7/16 inch (11.1 millimeters) wrench
- Cable ties or electrical tape

The following sections contain procedures for installing the antenna to a suspended ceiling track.

Installing the Antenna

Follow these steps to install the antenna on a suspended ceiling track.

Step 1   Determine the location you wish to mount the antenna.

Step 2   Loosen the hex nut on the ceiling track bracket.

Step 3   Position the bracket on the ceiling track. See Figure 1.

Figure 1   *Positioning the Ceiling Track Bracket*

Step 4   Squeeze the bracket firmly onto the ceiling track.

Step 5   Use a 7/16 inch (11.1 millimeter) wrench to tighten the hex nut. Do not overtighten.

Step 6   Carefully screw the antenna onto the bracket's threaded stud until it is hand tight. See Figure 2.

Figure 2   *Attaching the Antenna*
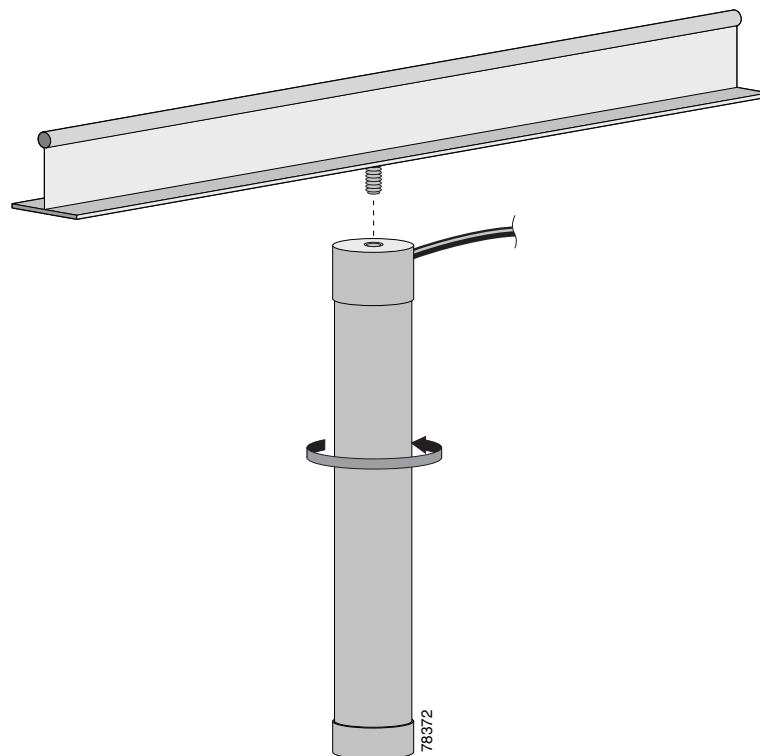
Step 7 Use cable ties or electrical tape to secure the antenna coaxial cable along the ceiling track.

Suggested Cable

Cisco recommends a high-quality, low-loss cable for use with the antenna.

> **Note** The higher the frequency, the higher the loss through the cable. Also, the longer the run, the higher the loss.

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New* in Cisco Product Documentation, which also lists all new and revised Cisco technical documentation, at:

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