



## Quick Start Guide



Cisco Small Business

### HGA9N High Gain Omni-Directional Antenna for N Type Connectors

#### Package Contents

- Antenna Body
- Antenna Cable
- Lightning Protector
- Mounting Kit
- Product CD-ROM
- Quick Start Guide

## Welcome

Thank you for choosing the Cisco HGA9N High Gain Omni-Directional antenna for N Type Connectors. The antenna and the Wireless-G Exterior Access Point together provide 9dBi peak gain and should be used together. This guide will help you set up and place the antenna and the access point properly so you can achieve optimal range.

Use the instructions in this Guide to further help you connect the 9dBi Omni-Directional antenna to the Wireless-G Exterior Access Point and bridge your different networks. These instructions should be all you need to get the most out of the High Gain Omni-Directional antenna.

### 1 Before You Begin

Make sure that you have all of the required hardware, as illustrated below, as well as the plastic bag containing the mounting hardware.

#### Omni-Directional Antenna Port



#### Lightning Protector



#### Antenna Cable



#### Cisco Small Business WAP200E Exterior Access Point

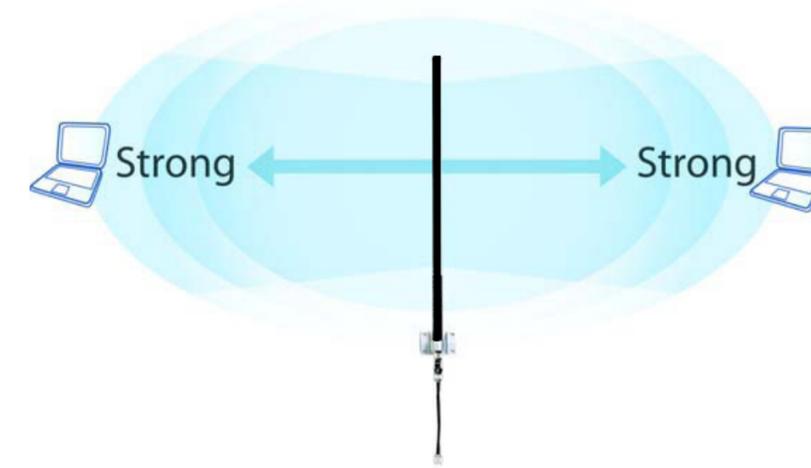


### 2 Site Planning

Before placing and connecting the High Gain Omni-Directional antenna, you should determine its optimum location.

#### Optimizing Range

The power of the wireless signal is strongest on the horizontal plane of the Omni-Directional antenna. For best results, Cisco recommends placing the Omni-Directional antenna as illustrated below. Note the strongest ranges according to the positioning of the antenna.



For best results, maintain line of sight between the antenna and the access point or wireless client. Also avoid obstacles such as trees and buildings. Place the antenna as high as possible.

#### Achieving Optimal Gain

Wireless coverage depends on several factors, including power, transmission, wavelength, and distance. You can calculate the exact coverage distance by using a formula that is described in the *Cisco Small Business HGA9N Administration Guide* (see [Where to Go From Here, page 2](#)).

### 3 Connecting the Equipment

The general outline of a typical external antenna setup is as follows:

The lightning protector is connected to the antenna. The antenna cable is connected to the lightning protector and then to the access point.



**NOTE IMPORTANT:** Connect the polarities correctly. The cable end with the white tape must be connected to the Access Point.

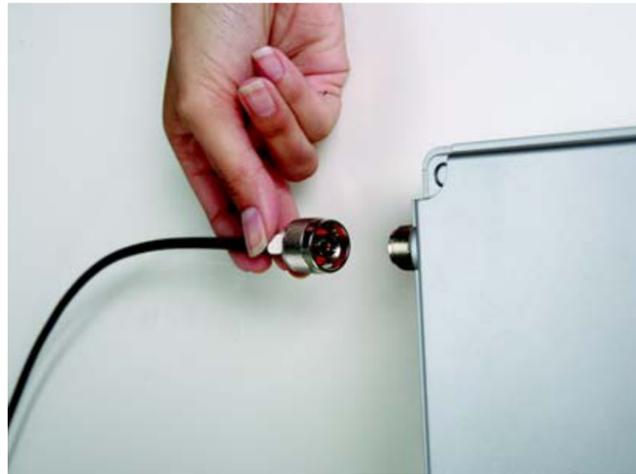
**STEP 1** The bottom of the Omni-Directional antenna has a removable black covering. Remove the black covering and attach the lightning protector by inserting the male end of the protector into the antenna.



**STEP 2** Attach the untaped end of the antenna cable to the lightning protector.



**STEP 3** Attach the taped end of the antenna cable to the Wireless-G Exterior Access Point.



You can now mount the antenna to a base (such as a wall) or to a pole.

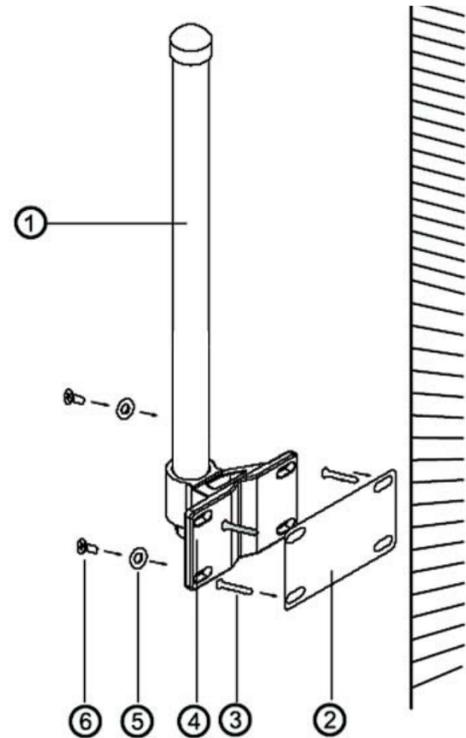
## 4 Installing the Antenna

You can mount the antenna to a base (such as a wall) or to a pole.

### Base Mounting

If you are mounting to a base (not included), make sure the base is secure. Assemble the mounting bracket as shown, using the following hardware:

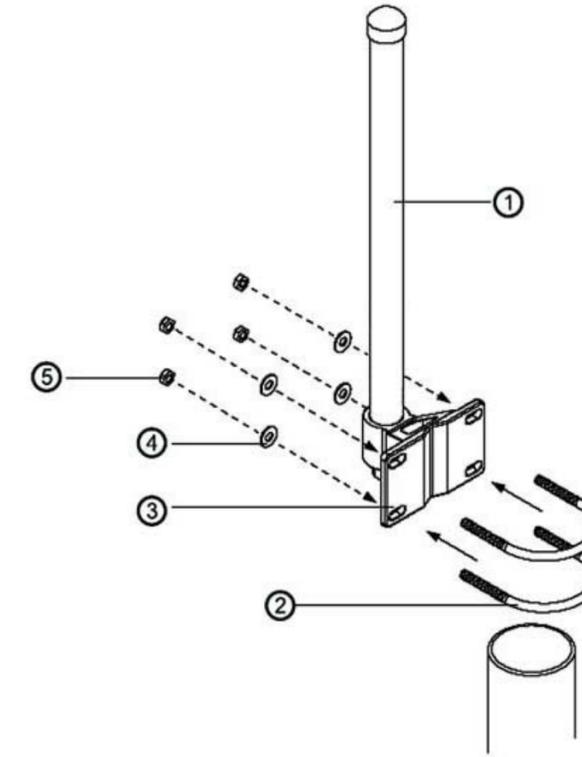
1. Antenna (1)
2. Sticker (1)
3. Plastics fixings (4)
4. Holder (1)
5. Washers (4)
6. Screws (4)



### Pole Mounting

If you are mounting the antenna to a pole (not included), make sure the pole has at least 2 meters of clearance from the ground. Assemble the mounting brackets as shown, using the following hardware:

1. Antenna (1)
2. Hose clamp (2)
3. Holder (1)
4. Washers (4)
5. Screw nuts (4)



## 5 Where to Go From Here

Support	
Cisco Small Business Support Community	<a href="http://www.cisco.com/go/smallbizsupport">www.cisco.com/go/smallbizsupport</a>
Online Technical Support and Documentation (Login Required)	<a href="http://www.cisco.com/support">www.cisco.com/support</a>
Phone Support Contacts	<a href="http://www.cisco.com/en/US/support/tsd_cisco_small_business_support_center_contacts.html">www.cisco.com/en/US/support/tsd_cisco_small_business_support_center_contacts.html</a>
Software Downloads (Login Required)	Go to <a href="http://tools.cisco.com/support/downloads">tools.cisco.com/support/downloads</a> , and enter the model number in the Software Search box.
Product Documentation	
Technical Documentation for Cisco HGA9N	<a href="http://www.cisco.com/en/US/products/ps10056/index.html">www.cisco.com/en/US/products/ps10056/index.html</a>
Cisco Small Business	
Cisco Partner Central for Small Business (Partner Login Required)	<a href="http://www.cisco.com/web/partners/sell/smb">www.cisco.com/web/partners/sell/smb</a>
Cisco Small Business Home	<a href="http://www.cisco.com/smb">www.cisco.com/smb</a>
Marketplace	<a href="http://www.cisco.com/go/marketplace">www.cisco.com/go/marketplace</a>

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