

Cisco **Aironet 5 GHz Bridge** Antennas and Accessories—Complete the Wireless Solution

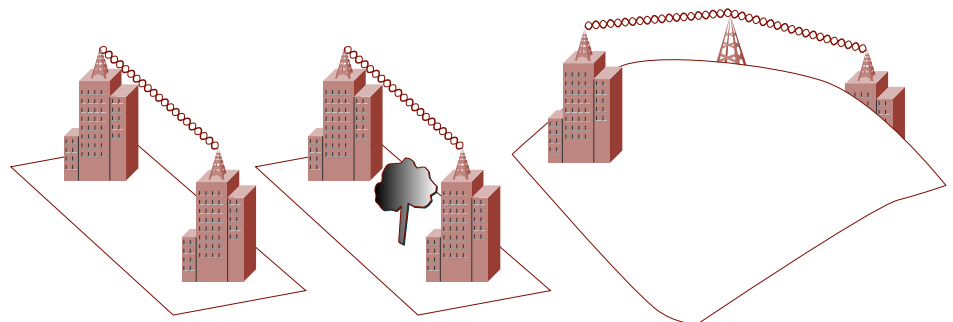
Cisco offers a complete range of antennas for 5 GHz bridging applications that enable a customized wireless solution for almost any installation.

Cisco Aironet Bridge Antennas and Accessories

Every wireless bridge deployment is different. When engineering a building-to-building solution, varying distances, configurations, and installation requirements create the need for a flexible solution.

Cisco® is committed to providing not only the best wireless bridges in the industry—it is also committed to providing a complete solution for any wireless bridge deployment.

Figure 1 With Cisco Aironet Bridge Antennas, the Right Mounting Hardware, and Qualified Installation, Wireless Links Over Great Distances and Obstacles are Possible



With the Cisco FCC-approved directional¹ and omni-directional² antennas, mounting hardware, and other accessories, installers can customize a wireless solution that meets the requirements of even the most challenging applications (Figure 1).

Cisco Aironet® bridges can be ordered with standard antennas that provide sufficient range³ for many applications. To extend the transmission range for more specialized applications, a variety of optional, higher-gain⁴ antennas are provided that are compatible with the bridge (Table 1).

1. An antenna that concentrates transmission power into a direction that increases coverage distance at the expense of coverage angle. Directional antenna types include patch and parabolic dish antennas. A patch antenna is a type of flat antenna that radiates a hemispherical coverage area. A parabolic dish antenna is a concave or dish-shaped object, often referred to as a dish antenna. Parabolic dish antennas tend to provide the greatest gain and the narrowest beam width making them ideal for point-to-point transmission over the longest distances.

2. An antenna that provides a 360-degree transmission pattern. These types of antennas are used when coverage in all directions is required.

3. A linear measure of the distance between a transmitter and receiver.

4. An antenna that concentrates its signal energy by reducing the angle of coverage. Antenna gain does not amplify the transmitted power of a radio, but simply focuses energy in a given direction. Therefore, as antenna gain increases, the angle of coverage decreases.

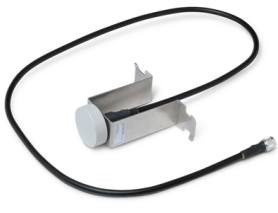


Bridge Antennas

Cisco Aironet bridge antennas allow for extraordinary transmission distances between two or more buildings. Available in directional configurations for point-to-point transmission and sector or omni-directional configurations for point-to-multipoint implementations, Cisco has a bridge antenna for every application (Table 1).

The antennas are available with different gain and range capabilities, beam widths,⁵ and form factors.

Table 1 Cisco Aironet Bridge Antenna Features

Feature	AIR-ANT58G9VOA-N	AIR-ANT58G10SSA-N	AIR-ANT58G28SDA-N
			
Description	• Omni-directional • Mast mount	• Sector antenna • Mast mount	• Dish antenna • Mast mount
Application	• Outdoor short-range point-to-multipoint applications	• Outdoor medium-range point-to-point and point-to-multipoint applications	• Outdoor long-range directional connections
Gain (including supplied jumper cable)	• 9.0 dBi	• 9.5 dBi	• 28.0 dBi
Polarization	• Vertical	• Vertical or horizontal • Field configurable	• Vertical or horizontal • Field configurable
Elevation adjustment	• None	• None	• +/- 12.5 degrees
Approximate range at 9 Mbps ⁶	• 8 miles (13 km) (with 22.5 dBi captive antenna on the remote site)	• 8 miles (13 km) (with 22.5 dBi captive antenna on the remote site)	• 23 miles (37 km) (with 28 dBi antennas on each end)
Approximate range at 54 Mbps ⁶	• 2 miles (3 km) (with 22.5 dBi captive antenna on the remote site)	• 2 miles (3 km) (with 22.5 dBi captive antenna on the remote site)	• 12 miles (19 km) (with 28 dBi antennas on each end)
Beam width	• 360° H, 6° V	• 60° H, 60° V	• 5.7° H, 6° V
Supplied jumper cable length	• 4.9 ft. (1.5 m)	• 4.9 ft. (1.5 m)	• 4.9 ft. (1.5 m)
Dimensions	• Length: 18 in. (46 cm) • Diameter: 1 in. (2.5 cm)	• Length: 2.5 in. (6.4 cm) • Width: 2.5 in. (6.4 cm) • Depth: 1.75 in. (4.5 cm)	• Diameter: 29 in. (74 cm) • Depth: 14.5 in. (36.8 cm)
Weight	• 2.0 lb. (0.9 kg)	• 1.25 lb. (0.6 kg)	• 9.5 lb. (4.3 kg)

5. The angle of signal coverage provided by an antenna; it may be decreased by a directional antenna to increase gain.

6. The distances referenced here are approximations and should be used for estimation purposes only.



Power Injector Cables

Typical installations will place the outdoor unit on an external mast with the power injector unit placed indoors. These cables come with a pair of F-type connectors on each end. To allow flexibility in the distance between the units, a variety of cables are available (Figure 2 and Table 2).

Figure 2 Cisco Aironet Power Injector Cables



Table 2 Cisco Aironet Power Injector Cable Features

Feature	AIR-CAB020DRG6-F=	AIR-CAB050DRG6-F=	AIR-CAB100DRG6-F
Cable length	20 ft. (6m)	50 ft. (15m)	100 ft. (30m)

Accessories

To complete an installation, Cisco provides a variety of accessories that offer increased functionality, safety, and convenience (Figure 3 and Table 3).

Figure 3 Cisco Aironet Bridge Accessories





Table 3 Cisco Aironet Bridge Accessory Features

Feature	AIR-ACCRWM1400	AIR-ACCBRGB=	AIR-ACCMFM1400=
Description	• Roof/Wall mount kit	• Grounding block	• Multifunction mount
Application	• Allows mounting to flat surfaces • Includes full elevation and azimuth adjustment	• Helps prevent damage due to lightning-induced surges or static electricity	• Allows mounting to poles with a diameter between 1.5 in. and 2.5 in. • Includes both elevation and polarization adjustment



Corporate Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 526-4100

European Headquarters

Cisco Systems International BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: 31 0 20 357 1000
Fax: 31 0 20 357 1100

Americas Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-7660
Fax: 408 527-0883

Asia Pacific Headquarters

Cisco Systems, Inc.
Capital Tower
168 Robinson Road
#22-01 to #29-01
Singapore 068912
www.cisco.com
Tel: +65 6317 7777
Fax: +65 6317 7799

Cisco Systems has more than 200 offices in the following countries and regions. Addresses, phone numbers, and fax numbers are listed on the Cisco Web site at www.cisco.com/go/offices

Argentina • Australia • Austria • Belgium • Brazil • Bulgaria • Canada • Chile • China PRC • Colombia • Costa Rica • Croatia • Czech Republic • Denmark • Dubai, UAE • Finland • France • Germany • Greece • Hong Kong SAR • Hungary • India • Indonesia • Ireland • Israel • Italy • Japan • Korea • Luxembourg • Malaysia • Mexico • The Netherlands • New Zealand • Norway • Peru • Philippines • Poland • Portugal • Puerto Rico • Romania • Russia • Saudi Arabia • Scotland • Singapore • Slovakia • Slovenia • South Africa • Spain • Sweden • Switzerland • Taiwan • Thailand • Turkey • Ukraine • United Kingdom • United States • Venezuela • Vietnam • Zimbabwe

All contents are Copyright © 1992–2003 Cisco Systems, Inc. All rights reserved. Aironet, Cisco, Cisco IOS, Cisco Systems, and the Cisco Systems logo are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and certain other countries.

All other trademarks mentioned in this document or Web site 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. (4303R)