



Antennas for Cisco Aironet Wi-Fi Access Points

Options for Every RF Environment

You can order Cisco® Aironet® 802.11n and 802.11ac access points with built-in antennas or with RF ports for connecting to external antennas. External antennas can improve your wireless coverage and data rates in certain situations. For example, building materials, floor layouts, distances, and usage patterns sometimes require concentrating radio signals in particular directions or at certain angles to get the fastest data throughput.

An extensive family of single- and dual-band antennas and mounting options for use with Cisco Aironet 802.11n and 802.11ac access points helps you optimize wireless performance in each unique situation (Table 1). Indoors. Outdoors. Around corners. In open areas. Down hallways and mine shafts. And in places where aesthetics are important.

Benefits

- Improve wireless data throughput
- Match radio signal strength to desired coverage patterns and building layouts
- Manage performance of dual-band implementations (5 GHz and 2.4 GHz) with full MIMO support
- Get the most out of your 802.11n and 802.11ac access point investments

Table 1. Types of Available Wi-F AP Antennas* and Typical Uses

Antenna Type	Description	Recommended Deployment(s)
Omnidirectional	Creates a 360-degree coverage pattern. Circular pattern covers wide areas. Ceiling or mast pole mounted.	Open office areas, conference rooms, warehouses, manufacturing floors, outdoor seating areas, indoor/outdoor retail environments.
Dipole	Creates a 360-degree coverage pattern. Can be bent at different angles to modify the coverage for wall and ceiling mounting as needed. Available in colors for aesthetic preferences.	Office areas, classrooms, hallways, conference rooms, shared (multitenant) environments.
Directional (including patch and Yagi)	Focuses the radio signal to direct energy in certain directions. Patch and Yagi are typically mounted to a wall or a mast and provide coverage in a limited-angle pattern.	Down a hallway in a hospital or office corridor. In a warehouse or manufacturing facility with high steel shelving. In mining shafts and drifts.

* Indoor APs require RP-TNC connectors; outdoor APs require N-Type connectors.

Next Steps

Use the following resources to determine the optimal Wi-Fi antenna choice for your RF environments:

- Find antenna specifics and part numbers in the Cisco Aironet antenna [Solution Overview](#).
- Consult the [Cisco Aironet Antennas and Accessories Reference Guide](#) for in-depth education about Wi-Fi antennas, cabling, and radio signal patterns.
- For a site survey or other assistance, consult your Cisco sales representative or [find a Cisco partner](#).
- To make a purchase, see Cisco [“How to Buy”](#) information.

Why Choose Cisco?

There are many good reasons for turning to Cisco for your Wi-Fi AP antenna needs:

- Cisco antennas go through complete electrical, mechanical, and environmental testing.
- All Cisco wireless network features are tested with Cisco antennas to help ensure consistent, repeatable performance. Examples of these wireless features are the Cisco radio resource management (RRM), Cisco CleanAir®, rogue access point detection, and location services.
- Cisco antenna patterns are integrated with Cisco management and location systems. That means your Cisco Prime™ Infrastructure and Mobility Service Engine (MSE) will display accurate signal coverage maps and correctly locate clients and unauthorized devices. That’s not possible with third-party antennas.
- You get the full support of the Cisco Technical Assistance Center (TAC) when you use Cisco antennas.