



Cisco Aironet Short Dual-Band Omni Antenna (AIR-ANT2535SDW-R and AIR-ANT2535SDW-RS)



Note

The documentation set for this product strives to use bias-free language. For purposes of this documentation set, bias-free is defined as language that does not imply discrimination based on age, disability, gender, racial identity, ethnic identity, sexual orientation, socioeconomic status, and intersectionality. Exceptions may be present in the documentation due to language that is hardcoded in the user interfaces of the product software, language used based on RFP documentation, or language that is used by a referenced third-party product.

This document describes the Cisco Aironet AIR-ANT2535SDW-R and AIR-ANT2535SDW-RS antennas and provides electrical specifications and mounting instructions. The antenna operates over the 2.4 GHz and 5 GHz Wi-Fi bands and is designed for indoor use with the Cisco Aironet 1600, 2600, 2800, 3600, 3700, 3800, and Cisco Catalyst 9120AXE series access points. The antenna utilizes an omnidirectional radiation pattern to achieve a broad coverage area.

The AIR-ANT2535SDW-RS antenna includes circuitry to enable self-identification of the antenna by the Cisco access points. The antenna has a built-in EEPROM that can be read by the AP to automatically configure the antenna type and gain in the wireless controller.



Note

The antenna's self-identifying feature (SIA) functions with Cisco Catalyst 9120AXE AP only.

The AIR-ANT2535SDW-RS antenna has a purple marking indicating that it is a self-identifying antenna (SIA), where as an orange marking on the antenna denotes that it is a non-SIA, AIR-ANT2535SDW-R antenna.

The following information is provided in this document:

- [Technical Specifications, page 2](#)
- [System Requirements, page 4](#)
- [Safety Precautions, page 4](#)
- [Installation Notes, page 5](#)



- [Obtaining Documentation and Submitting a Service Request, page 6](#)

Technical Specifications

Antenna Type	Omnidirectional
Operational Frequency Ranges	2.4-2.5 GHz & 5.15-5.925 GHz
Nominal Input Impedance*	50 Ohms
VSWR*	2.0:1
Polarization	Vertical
2.4 - 2.5 GHz Nominal Peak Gain*	3 dBi
5.15 - 5.925 GHz Nominal Peak Gain*	5 dBi
2.4 - 2.5 GHz Elevation Plane Beamwidth*	35°
5.15 - 5.925 GHz Elevation Plane Beamwidth*	35°
2.4 - 2.5 GHz Port-to-Port Isolation*	> 20 dB
5.15 - 5.925 GHz Port-to-Port Isolation*	> 23 dB
Connector Type	Male RP-TNC
UV Stability	ASTM D-4674 Method 1
Diameter	1.25 in. (3.18 cm)
Height	3.3 in. (8.4 cm)
Weight	1.7 oz. (0.05 kg)
Operating Temperature Range	-30° C to 70° C
Storage Temperature Range	-40° C to 85° C

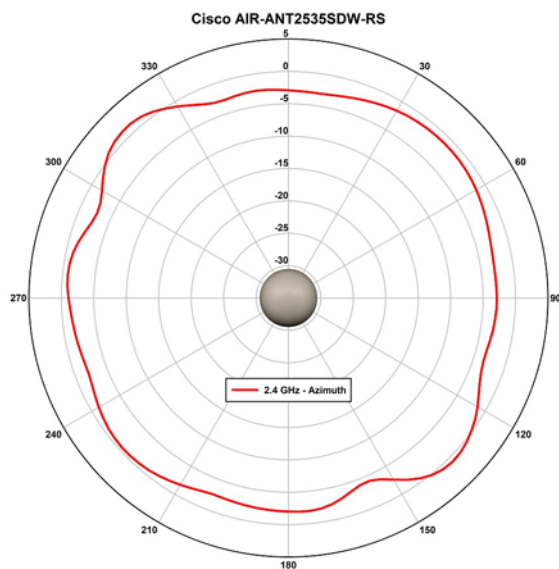
*When the antenna is mounted to a Cisco Aironet 1600, 2600, 3600, 3700, or Cisco Catalyst 9120AXE access points.

Figure 1 ANT2535SDW-R High

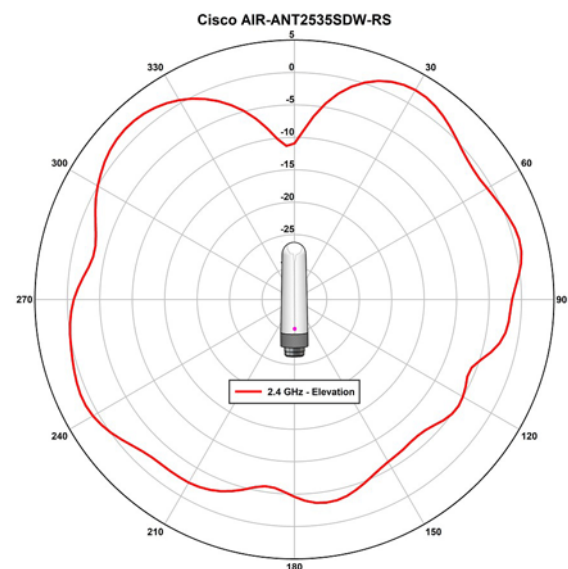


AIR-ANT2535SDW-R and AIR-ANT2535SDW-RS Antenna Radiation Patterns

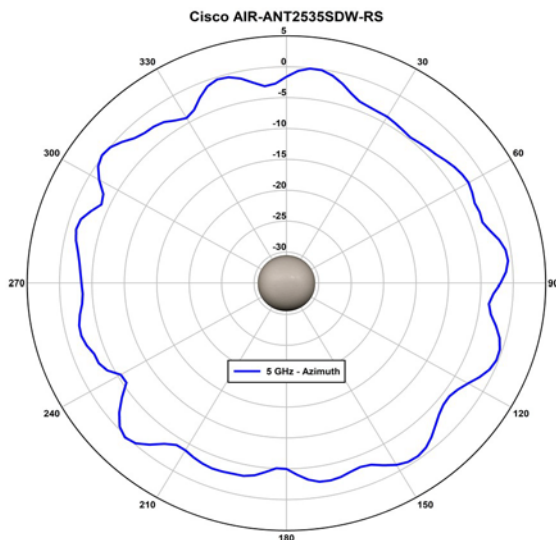
2.4-GHz Azimuth Radiation Pattern



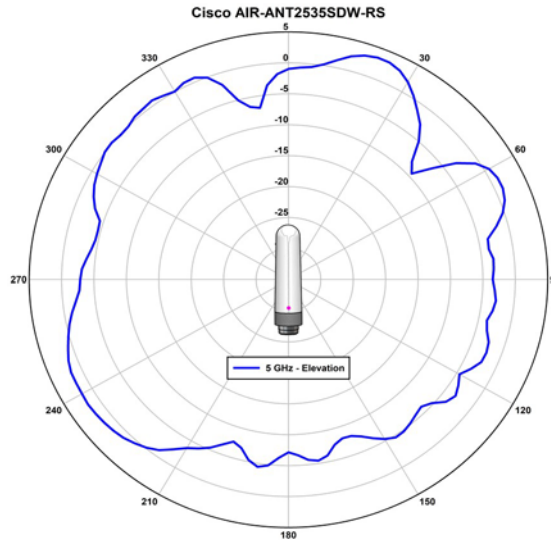
2.4-GHz Elevation Radiation Pattern



5-GHz Azimuth Radiation Pattern



5-GHz Elevation Radiation Pattern



System Requirements

This antenna is designed for use with Cisco access points having dual-band antenna ports. These include the Cisco Aironet 1600, 2600, 3600, 3700, and Cisco Catalyst 9120AXE series access points. The antenna is intended solely for indoor deployments.

The Self Identifying Antenna model AIR-ANT2535SDW-RS= is supported only on Cisco Catalyst 9800 Series Wireless Controllers running an IOS-XE 17.4.1 release or a later release. This antenna model is not supported on Cisco AireOS Wireless Controllers.

Safety Precautions

For your safety, read and follow these safety precautions:

1. Before you install an antenna, contact your Cisco account representative to explain which mounting method to use for the size and type of antenna that you are about to install.
2. Find someone to help you—installing an antenna is often a two-person job.
3. Select your installation site with safety, as well as performance, in mind. Remember that electric power lines and phone lines look alike. For your safety, assume that any overhead line can kill you.
4. Contact your electric power company. Tell them your plans and ask them to come look at your proposed installation.
5. Plan your installation carefully and completely before you begin. Each person involved in an installation should be assigned to a specific task and should know what to do and when to do it. One person should be in charge of the operation to issue instructions and watch for signs of trouble.
6. When installing your antenna, follow these guidelines:
 - a. Do not use a metal ladder.

- b. Do not work on a wet or windy day.
 - c. Do dress properly—wear shoes with rubber soles and heels, rubber gloves, and a long-sleeved shirt or jacket.
7. If the assembly starts to drop, move away from it and let it fall. Because the antenna, mast, cable, and metal guy wires are all excellent conductors of electrical current, even the slightest touch of any of these parts to a power line completes an electrical path through the antenna and the installer.
 8. If any part of the antenna system should come in contact with a power line, do not touch it or try to remove it yourself. Call your local power company to have it removed safely.
 9. If an accident should occur with the power lines, call for qualified emergency help immediately.

Installation Notes

The antenna is designed to connect to a dedicated antenna connector on the access point. No special tools are required to install the antenna.

Choosing a Mounting Location

The antenna radiates an omnidirectional pattern in the plane of the access point. To achieve this pattern, the access point should be mounted clear of any obstructions to the sides of the radiating element. If the mounting location is on the side of a building or tower, the antenna pattern is degraded on the building or tower side.

Tools and Equipment Required

No tools are required to mount the antenna to the access point. For information about tools required to mount the access point, see the appropriate access point documentation.

Mounting the Antenna

To connect the antenna to the access point, follow these steps:

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- Step 1** Align the antenna's RP-TNC connector with the appropriate antenna port.
 - Step 2** Gently push the antenna into the port.
 - Step 3** Hand tighten the antenna to the port using the metal knurled ring only.



Do not use the plastic body to tighten. This may damage the antenna.

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, at:

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

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