Cisco Aironet Dual-band Dipole Antenna (AIR-ANT2524DB-R, AIR-ANT2524DG-R, and AIR-ANT2524DW-R)

This document describes and provides specifications for the Cisco Aironet high-performance, dual-band dipole antenna. The antenna operates in both the 2.4-GHz and 5-GHz frequency bands and is designed for use with Cisco Aironet 2.4-GHz and 5-GHz radio products that have dual-band reverse-polarity TNC (RP-TNC) antenna ports. The antenna has a nominal gain of 2 dBi in the 2.4-GHz frequency band and 4 dBi in the 5-GHz frequency band. The three antennas covered in this document are electrically the same. They differ physically by the color of the radome, which is specified by the product part number shown in Table 1.

Table 1 Antenna Radome Colors

Antenna Part Numbers	Radome Color
AIR-ANT2524DB-R	Black
AIR-ANT2524DG-R	Gray
AIR-ANT2524DW-R	White

The following information is provided in this document.

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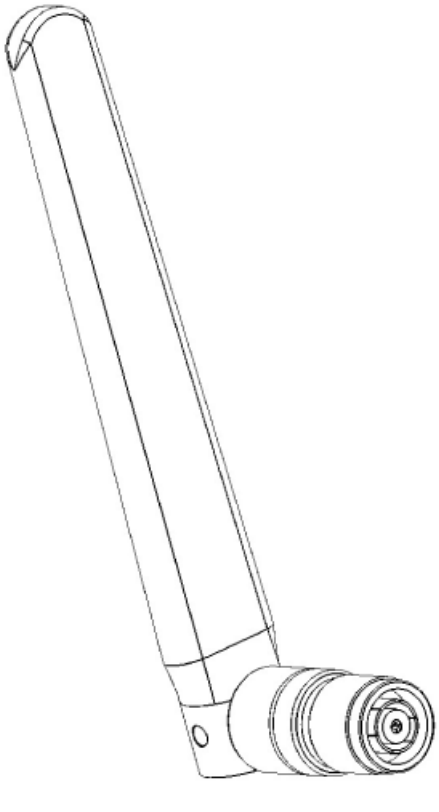
Technical Specifications

Table 2 AIR-ANT2524Dx-R Series Dual-band Dipole Specifications

Parameter	Specification	
Antenna type	Dual-band dipole	
Operating frequency range	2400 to 2500 MHz	
	5150 to 5850 MHz	
Nominal input impedance	50Ω	
VSWR	Less than 2:1	
Peak Gain @ 2.4. GHz	2 dBi	
Peak Gain @ 5 GHz	4 dBi	
Elevation plane 3dB beamwidth @2.4 GHz	63 degrees	
Elevation plane 3dB beamwidth @ 5 GHz	39 degrees	
Connector type	RP-TNC plug	
Antenna length	6.63 in. (168.5 mm)	
Antenna width	0.83 in (21 mm)	
Radome length	4.88 in. (124 mm)	
Weight	1.3 oz	
Operating temperature	–20°C to 60°C (–4° to 140°F)	
Storage temperature	–40°C to 85°C (–40°F to 185°F)	
Environment	Indoor, office	

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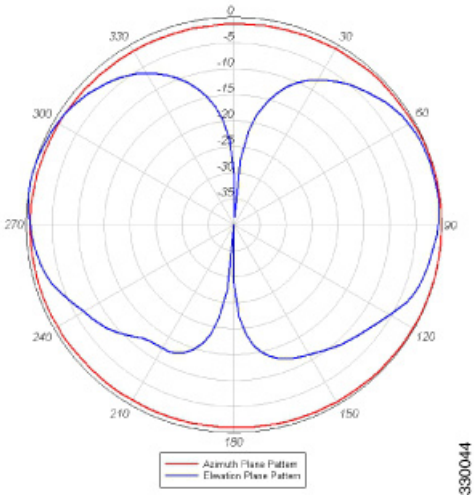
Azimuth and Elevation Plane Patterns for 2.4 GHz



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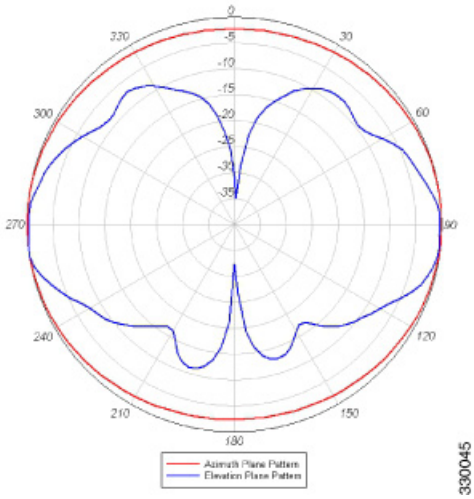
Azimuth and Elevation Plane Patterns for 5 GHz



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System Requirements

This antenna is designed for use with Cisco Aironet access points that support simultaneous operation in the 2.4 GHz band and the 5 GHz band and that have dual-band antenna ports, labeled as such in orange text.

Features

The antenna has an articulated base that can be rotated 360 degrees at the connection point and from 0 to 90 degrees at its joint.

Installing the Antenna

Caution The AIR-ANT2524Dx-R series of antennas are dual-band antennas, meaning that they operate in both the 2.4 GHz and 5 GHz frequency bands. The AIR-ANT2524Dx-R series antennas have an orange ID band on them to indicate their dual-band functionality. Connect these antennas only to dual-band antenna ports, which are identified with orange text on Cisco Aironet access points. Using these antennas on Cisco Aironet access points that employ single-band antennas might result in lower performance.

Follow these steps to install the antenna.

Step 1 Verify that the connector to which you are connecting the antenna is a dual-band antenna port, identified by orange text on the access point.

Step 2 Align the antenna connector with the RP-TNC connector on the access point.

Step 3 Engage the antenna connector threads with the RP-TNC connector on the access point.

Step 4 Tighten the antenna by hand. Do not use a wrench or any other tool to tighten the antenna.

Step 5 Adjust the antenna's articulating joint to the desired position.

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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