

# Cisco Wireless 9176 Series Access Points

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Cisco Wireless Wi-Fi 7 access points create wireless networks for the AI enterprise, bridging the gap between physical and digital experiences.



## Product overview

Cisco's Wi-Fi 7 access points power the next generation of wireless experiences, designed to revolutionize connectivity and digital experiences. Offering unprecedented speeds, enhanced security, and resilient connectivity, these products are ideal for high-density environments and critical applications. They seamlessly integrate into your existing network, whether on-premises, cloud-based, or hybrid, providing flexible deployment options to suit various organizational needs.

The Cisco® Wireless Wi-Fi 7 access points enable transformative user experiences. Enterprises can leverage the predictability and low latency of Wi-Fi 7 to support better video streaming, Augmented Reality (AR), and Virtual Reality (VR) applications. By connecting people and things within physical spaces, Cisco's wireless solutions with Wi-Fi 7 offer real-time insights and actions such as indoor navigation and personalized user experiences.

Create differentiated customer experiences, accelerate digital business transformation, and prepare networks for the future with Cisco's Wi-Fi 7 solutions. With faster data transfer rates, reduced network congestion, and simplified network management with AI-driven insights and automation, the Cisco Wireless 9176 Series Access Points provide the foundation for the future of wireless.

## Features and benefits

**Table 1.** Features and benefits

Feature	Benefit
<b>Wi-Fi 7 (802.11be)</b>	The IEEE 802.11be standard, also known as Extremely High Throughput (EHT) or Wi-Fi 7, is the latest in Wi-Fi with enhancements such as 4K-QAM, Multilink Operation (MLO), enhanced Orthogonal Frequency-Division Multiple Access (OFDMA), preamble puncturing support for a 320-MHz channel width built to increase data transfer rates and connection performance, especially for applications requiring low latency like AR and VR apps.
<b>Wi-Fi 6E (802.11ax)</b>	The IEEE 802.11ax standard, also known as High-Efficiency Wireless (HEW) or Wi-Fi 6, builds on 802.11ac. It delivers a better experience in typical environments with more predictable performance for advanced applications such as 4K or 8K video; high-density, high-definition collaboration apps; all-wireless offices; and the Internet of Things (IoT). Wi-Fi 6E is Wi-Fi 6 “ <b>extended</b> ” into the 6-GHz frequency band.

Feature	Benefit
<b>10G Multigigabit Ethernet</b>	Multigigabit Ethernet provides speeds up to 10 Gbps. <b>Note:</b> Cat6/Cat6A cabling is required for 10 Gbps port speeds. Cat 5e cable can support speeds up to 5 Gbps.
<b>Built-in GNSS/GPS</b>	A built-in GNSS/GPS antenna allows seamless co-location onboarding, with the AP intelligently selecting regulatory domain and location information.
<b>Integrated Ultra-Wideband (UWB) radio</b>	For precision asset tracking and location services using Cisco Wi-Fi 7 APs, an integrated UWB radio provides the flexibility to enable more use cases for enterprises.
<b>AP power optimizations (AP Power Save Mode)</b>	AP Power optimizations (AP Power save mode) allow the access point to reduce its power consumption by e.g. shutting off radios during off-hours and weekends – while still being smart enough to re-engage all features should they be needed. This both saves power and reduces the carbon footprint of running a wireless network.
<b>Band steering</b>	Enhanced to help clients that are 6-GHz capable to leave the 5-GHz radio and connect to the 6-GHz radio. Wi-Fi 6E-capable clients are automatically directed to connect to the 6-GHz radio to take advantage of the benefits that that radio offers while clearing the 2.4- and 5-GHz radios for legacy clients.
<b>Intelligent Capture</b>	Intelligent Capture probes the network and provides Cisco Catalyst™ Center with deep analysis. The software can track more than 240 anomalies and instantaneously review all packets on demand, emulating the onsite network administrator. Intelligent Capture allows for more informed decisions on your wireless networks.
<b>Flexible Radio Assignment (FRA)</b>	FRA allows the access points to intelligently determine the operating mode of client-serving radios based on the RF environment and traffic demands. The CW9176I/D1 access points can be flexibly configured in tri-radio mode with 2.4GHz, 5GHz, 6GHz, or as 5GHz, 5GHz, 6GHz.
<b>Bluetooth/BLE</b>	The integrated Bluetooth Low Energy (BLE) 5.3 radio enables location-based use cases such as asset tracking, wayfinding, and analytics. Upgradeable to BLE 6 with a future software update
<b>Application hosting</b>	Application hosting helps simplify IoT deployments and ready them for the future by eliminating the need to install and manage overlay networks. Using the USB interface, containerized applications, and hardware modules can be deployed to reduce cost and complexity. Adding the Cisco Catalyst Center provides workflows and deployment-wide application lifecycle management.
<b>Container support for applications</b>	Container support enables edge computing capabilities for IoT applications on the host access point.
<b>Accelerometer</b>	A built-in accelerometer allows continuous, post-deployment verification of how the AP is installed.

For more details about Cisco Wireless 9176 Series feature support, see [Cisco's Feature Matrix](#).

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## Introducing global use access points and Cisco Networking Subscription

### Global use access points

Expanding our comprehensive 6-GHz wireless portfolio, the 9176 Series global use access points offer a resilient, scalable solution for your modern wireless network. These access points seamlessly operate in either deployment mode, giving you the flexibility and investment protection you need for the future.

With the Cisco Wireless Wi-Fi 7 access points, you get an intelligent process for management mode discovery that's seamless, scalable, and straightforward. The global use access points' onboarding process eliminates the need for stack-specific and regulatory domain-specific products, saving you time and effort during installation.

Cisco's Wi-Fi 7 global use access points further unify our wireless product portfolio. Whether you choose on-premises or cloud-managed networking, the 9176 Series access points help you build future-proofed networks with ease.

### Cisco Networking Subscription

A Cisco Networking Subscription streamlines the purchasing and use of Cisco software, hardware, services, and platforms. This unified licensing model offers the flexibility to manage your network on-premises, in the cloud, or in a hybrid manner, using the same unified licenses, product support, and hardware.

You can purchase our new unified licenses (Cisco Wireless Essentials or Advantage) in a Cisco Networking Subscription. These licenses include product support for both your hardware and software. With an active subscription, you can align renewal dates to your cost-center needs, add licenses without changing renewal dates, and upgrade entitlements midterm. The Cisco Networking Subscription provides flexible management options, supporting your network investment today and protecting it for the future.

**Note:** For more information about the Cisco Networking Subscription, refer to the [data sheet](#).

### Secure infrastructure

Trustworthy systems built with Cisco Trust Anchor Technologies provide a highly secure foundation for Cisco products. Cisco Wireless access points help enable assurance of hardware and software authenticity for supply chain trust and strong defense against man-in-the-middle attacks that compromise software and firmware. Trust Anchor capabilities include:

- Image signing
- Secure Boot
- Cisco Trust Anchor module

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## Cisco Catalyst Center and Catalyst 9800 Series support

Pairing the Cisco Wireless 9176 Series Access Points with a Catalyst 9800 Series WLC and Cisco Catalyst Center allows for a total network transformation. Cisco Catalyst Center allows you to truly understand your network with real-time analytics, quickly detect and contain security threats, and easily provide networkwide consistency through automation and virtualization. The Cisco Wireless 9176 Series supports Software-Defined Access (SD-Access), Cisco's leading enterprise architecture.

The Cisco Wireless 9176 Series Access points, combined with Cisco solutions, offer such features as:

- Cisco Spaces
- Cisco Identity Services Engine
- Cisco DNA Analytics and Assurance along with Intelligence Capture (iCAP)

**Note:** For information about Cisco Catalyst Center, refer to the [Cisco Catalyst Center Solution Overview](#).

## Cisco Meraki cloud management

Pairing the Cisco Wireless 9176 Series Access Points with the Cisco Meraki® cloud platform gives organizations a unified IT experience for network monitoring and management. The Meraki dashboard provides an intuitive and interactive web interface connecting your network to the industry's leading cloud IT platform.

Through the dashboard, Meraki provides sophisticated and scalable tools to automate network optimization, deploy policy and segmentation configurations across thousands of sites and devices, and manage a full-stack network, from SD-WAN to access to IoT technologies. The platform supports over 3.5 million active networks around the world.

Working together, the Cisco Wireless 9176 Series and Meraki offer such features as:

- Cisco Spaces
- Cisco Identity Services Engine
- Meraki Health intelligent optimization and assurance
- Meraki Vision, smart cameras, and sensors

**Note:** For information about Cisco Meraki, refer to <https://meraki.cisco.com/products/>.

## Licensing

Cisco's Wi-Fi 7 access points, including the 9176 Series, need a Cisco Networking Subscription for wireless, either Essentials or Advantage licenses.

For information about licensing features and support refer to the [Cisco Networking Subscription data sheet](#).

## Product specifications

**Table 2.** Product specifications

Item	Specification
<b>Part numbers</b>	<b>Cisco Wireless 9176 Access Points: Internal antennas</b> <ul style="list-style-type: none"> <li>• CW9176I: Indoor access point with omnidirectional antenna</li> <li>• CW9176D1: Indoor access point with directional antenna</li> </ul>
<b>Software</b>	<b>Cisco Wireless 9176 Series</b> <ul style="list-style-type: none"> <li>• Cisco IOS® XE Software Release 17.15.2 or later</li> </ul>
<b>Supported wireless LAN controllers</b>	<ul style="list-style-type: none"> <li>• Catalyst 9800 Series Wireless Controllers (physical or virtual)</li> <li>• Cisco Catalyst 9000 switches with Embedded Wireless Controller in SDA mode</li> </ul>
<b>802.11be</b>	<ul style="list-style-type: none"> <li>• 4x4 uplink/downlink MU-MIMO with four spatial streams (2.4/5 GHz(XOR), 5 GHz, and 6 GHz)</li> <li>• 4096 QAM</li> <li>• Multilink operation</li> <li>• Preamble puncturing</li> <li>• Uplink/downlink OFDMA</li> <li>• TWT</li> <li>• BSS coloring</li> <li>• Maximal Ratio Combining (MRC)</li> <li>• 20-, 40-, 80-, 160-, and 320-MHz channels (6 GHz)</li> <li>• 20-, 40-, 80-, and 160-MHz channels (5 GHz)</li> <li>• 20-MHz channels (2.4 GHz)</li> <li>• PHY data rates up to 18 Gbps (4x4 320 MHz on 6 GHz, 4x4 160 MHz on 5 GHz, and 4x4 20 MHz on 2.4 GHz) or PHY data rates up to 23 Gbps (4x4 320 MHz on 6 GHz, 4x4 160 MHz on 5 GHz and 4x4 160 MHz on 5 GHz)</li> <li>• Packet aggregation: Aggregate MAC Protocol Data Unit (A-MPDU) (transmit and receive), Aggregate MAC Service Data Unit (A-MSDU) (transmit and receive)</li> <li>• 802.11 Dynamic Frequency Selection (DFS)</li> <li>• Cyclic Shift Diversity (CSD) support</li> <li>• Wi-Fi Protected Access 3 (WPA3) support</li> </ul>
<b>802.11ax</b>	<ul style="list-style-type: none"> <li>• 4x4 uplink/downlink MU-MIMO with four spatial streams each (2.4/5 GHz, 5 GHz, and 6 GHz)</li> <li>• Uplink/downlink OFDMA</li> <li>• 1024 QAM</li> <li>• TWT</li> <li>• BSS coloring</li> <li>• MRC</li> <li>• 802.11ax beamforming</li> <li>• 20-, 40-, 80-, and 160-MHz channels (5 and 6-GHz)</li> <li>• 20-MHz channels (2.4-GHz)</li> <li>• PHY data rates up to 10.1 Gbps (4x4 160 MHz on 6 GHz, 4x4 160 MHz on 5 GHz, and 4x4 20 MHz on 2.4 GHz) or PHY data rates up to 14.4 Gbps (4x4 160 MHz on 6 GHz, 4x4 160 MHz on 5 GHz, and 4x4 160 MHz on 5 GHz)</li> <li>• Packet aggregation: A-MPDU (transmit and receive), A-MSDU (transmit and receive)</li> <li>• 802.11 DFS</li> <li>• CSD support</li> <li>• WPA2/WPA3 support</li> </ul>

Item	Specification
<b>802.11ac</b>	<ul style="list-style-type: none"> <li>• 4x4 + 4x4 downlink MU-MIMO with 4x4 spatial streams</li> <li>• MRC</li> <li>• 802.11ac beamforming</li> <li>• 20-, 40-, 80-, and 160-MHz channels</li> <li>• PHY data rates up to 3.4 Gbps (dual 4x4 160 MHz on 5 GHz)</li> <li>• Packet aggregation: A-MPDU (transmit and receive), A-MSDU (transmit and receive)</li> <li>• 802.11 DFS</li> <li>• CSD support</li> <li>• WPA2/WPA3 support</li> </ul>
<b>802.11n version 2.0 (and related) capabilities</b>	<ul style="list-style-type: none"> <li>• 4x4 MIMO with four spatial streams</li> <li>• MRC</li> <li>• 802.11n and 802.11a/g beamforming</li> <li>• 20- and 40-MHz channels</li> <li>• PHY data rates up to 1.5 Gbps (40 MHz with 5 GHz and 20 MHz with 2.4 GHz)</li> <li>• Packet aggregation: A-MPDU (transmit and receive), A-MSDU (transmit and receive)</li> <li>• 802.11 DFS</li> <li>• CSD support</li> </ul>
<b>Integrated antenna</b>	<p><b>Cisco Wireless 9176I</b></p> <ul style="list-style-type: none"> <li>• 2.4 GHz: Peak gain 5 dBi, internal antenna, omnidirectional in azimuth</li> <li>• 5 GHz: Peak gain 5 dBi, internal antenna, omnidirectional in azimuth</li> <li>• 6 GHz: Peak gain 6 dBi, internal antenna, omnidirectional in azimuth</li> <li>• IoT: Peak gain 4 dBi, internal antenna, omnidirectional in azimuth</li> <li>• UWB: Peak gain 7 dBi, internal antenna, omnidirectional in azimuth</li> <li>• GNSS: (L1) Peak gain 3 dBi, (L5) Peak gain 3 dBi, internal antenna, omnidirectional in azimuth</li> </ul> <p><b>Cisco Wireless 9176D1</b></p> <ul style="list-style-type: none"> <li>• 2.4 GHz: Peak gain 7 dBi, internal antenna, directional in azimuth (80 x 80 beam width)</li> <li>• 5 GHz: Peak gain 8 dBi, internal antenna, directional in azimuth (70 x 70 beam width)</li> <li>• 6 GHz: Peak gain 8 dBi, internal antenna, directional in azimuth (70 x 70 beam width)</li> <li>• IoT: Peak gain 7 dBi, internal antenna, omnidirectional in azimuth (70 x 70 beam width)</li> <li>• UWB: Peak gain 10 dBi, internal antenna, omnidirectional in azimuth</li> <li>• GNSS: (L1) Peak gain 2 dBi, (L5) Peak gain 5 dBi, internal antenna, omnidirectional in azimuth</li> </ul>
<b>Interfaces</b>	<ul style="list-style-type: none"> <li>• 1x 100M/1000M/2.5G/5G/10G Multigigabit Ethernet (RJ-45)</li> <li>• Management console port (RJ-45) with default speed of 115200 bps</li> <li>• USB 2.0 at 9W</li> </ul>
<b>Incorporated radios</b>	<ul style="list-style-type: none"> <li>• Three built in radios including GPS/GNSS, dedicated IoT radio, and Ultra Wide Band radio</li> </ul>
<b>Indicators</b>	<ul style="list-style-type: none"> <li>• Status LED indicates boot loader status, association status, operating status, boot loader warnings, and boot loader errors</li> </ul>
<b>Dimensions (W x L x H)</b>	<ul style="list-style-type: none"> <li>• 9176I access point (without mounting brackets): <ul style="list-style-type: none"> <li>◦ 9.5 x 9.5 x 2.0 in. (24 x 24 x 5.1 cm)</li> </ul> </li> <li>• 9176D1 access point (without mounting brackets): <ul style="list-style-type: none"> <li>◦ 9.5 x 9.5 x 2.0 in. (24 x 25 x 5.1 cm)</li> </ul> </li> </ul>



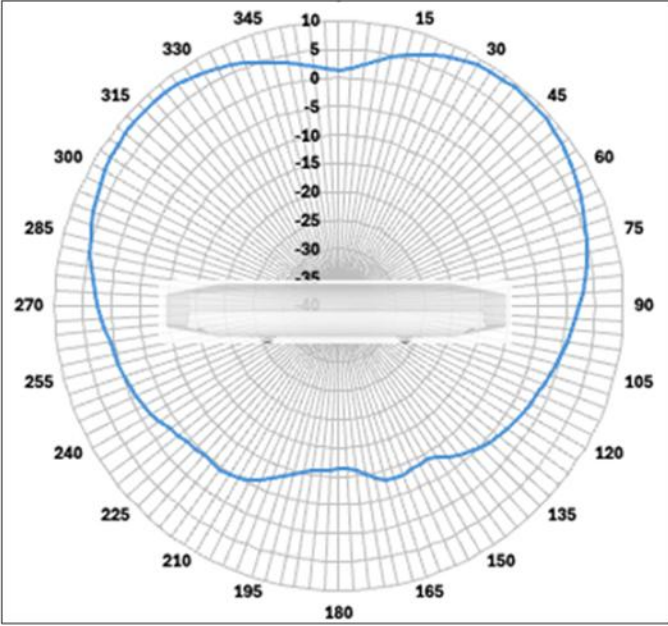
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<b>Weight</b>	<p><b>Cisco Wireless 9176I</b></p> <ul style="list-style-type: none"> <li>• 3.4 lb. (1.56 kg)</li> </ul> <p><b>Cisco Wireless 9176D1</b></p> <ul style="list-style-type: none"> <li>• 3.4 lb. (1.56 kg)</li> </ul>																																																														
<b>Input power requirements</b>	<ul style="list-style-type: none"> <li>• 802.3bt Cisco Universal PoE (Cisco UPOE®), 802.3at Power over Ethernet Plus (PoE+), 802.3af PoE (only for configuration staging, all radios off)</li> <li>• (Or) Cisco power injector CW-INJ-8</li> </ul> <p><b>Cisco Wireless 9176I</b></p> <table border="1" data-bbox="440 615 1503 989"> <thead> <tr> <th>Power source</th> <th>2.4-GHz radio</th> <th>5-GHz radio</th> <th>6-GHz radio</th> <th>Link speed</th> <th>USB</th> <th>Max PoE power consumption</th> </tr> </thead> <tbody> <tr> <td>802.3bt (Class 5) (UPOE)</td> <td>4x4</td> <td>4x4</td> <td>4x4</td> <td>1 x 10G</td> <td>Y (9W)</td> <td>39W</td> </tr> <tr> <td>802.3at (PoE+)</td> <td>2x2</td> <td>4x4</td> <td>4x4</td> <td>1x 2.5G</td> <td>N</td> <td>25.5W</td> </tr> <tr> <td>802.3af (PoE)</td> <td>-</td> <td>-</td> <td>-</td> <td>1x 1G</td> <td>N</td> <td>13.95W</td> </tr> </tbody> </table> <p><b>Note:</b> Actual power consumption may vary depending on access point usage. It is recommended that you ensure that Link Layer Discovery Protocol (LLDP)/Cisco Discovery Protocol is enabled to allow proper power negotiation.</p> <p><b>Cisco Wireless 9176D1</b></p> <table border="1" data-bbox="440 1167 1503 1541"> <thead> <tr> <th>Power source</th> <th>2.4-GHz radio</th> <th>5-GHz radio</th> <th>6-GHz radio</th> <th>Link speed</th> <th>USB</th> <th>Max PoE power consumption</th> </tr> </thead> <tbody> <tr> <td>802.3bt (Class 5) (UPOE)</td> <td>4x4</td> <td>4x4</td> <td>4x4</td> <td>1 x 10G</td> <td>Y (9W)</td> <td>39W</td> </tr> <tr> <td>802.3at (PoE+)</td> <td>2x2</td> <td>4x4</td> <td>4x4</td> <td>1x 2.5G</td> <td>N</td> <td>25.5W</td> </tr> <tr> <td>802.3af (PoE)</td> <td>-</td> <td>-</td> <td>-</td> <td>1x 1G</td> <td>N</td> <td>13.95W</td> </tr> </tbody> </table> <p><b>Note:</b> Above power draw table starting with IOS-XE version 17.15.3</p>							Power source	2.4-GHz radio	5-GHz radio	6-GHz radio	Link speed	USB	Max PoE power consumption	802.3bt (Class 5) (UPOE)	4x4	4x4	4x4	1 x 10G	Y (9W)	39W	802.3at (PoE+)	2x2	4x4	4x4	1x 2.5G	N	25.5W	802.3af (PoE)	-	-	-	1x 1G	N	13.95W	Power source	2.4-GHz radio	5-GHz radio	6-GHz radio	Link speed	USB	Max PoE power consumption	802.3bt (Class 5) (UPOE)	4x4	4x4	4x4	1 x 10G	Y (9W)	39W	802.3at (PoE+)	2x2	4x4	4x4	1x 2.5G	N	25.5W	802.3af (PoE)	-	-	-	1x 1G	N	13.95W
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Environmental	<p><b>Cisco Wireless 9176I</b></p> <ul style="list-style-type: none"> <li>• Nonoperating (storage) temperature: -22° to 158°F (-30° to 70°C)</li> <li>• Nonoperating (storage) altitude test: 25°C (77°F) at 15,000 ft (46000 m)</li> <li>• Operating temperature: 32° to 122°F (0° to 50°C)</li> <li>• Operating humidity: 10% to 90% (noncondensing)</li> <li>• Operating altitude test: 40°C (104°F) at 9843 ft (3000 m)</li> </ul> <p><b>Cisco Wireless 9176D1</b></p> <ul style="list-style-type: none"> <li>• Nonoperating (storage) temperature: -22° to 158°F (-30° to 70°C)</li> <li>• Nonoperating (storage) altitude test: 25°C (77°F) at 15,000 ft (4570 m)</li> <li>• Operating temperature: 32° to 122°F (0° to 50°C)</li> <li>• Operating humidity: 10% to 90% (noncondensing)</li> <li>• Operating altitude test: 40°C (104°F) at 9843 ft (3000 m)</li> </ul>														
System memory	<ul style="list-style-type: none"> <li>• 4096 MB DRAM</li> <li>• 16 GB storage flash</li> </ul>														
Available transmit power settings	<p><b>Cisco Wireless 9176I</b></p> <table border="1" data-bbox="440 890 1503 1226"> <thead> <tr> <th data-bbox="440 890 764 930">2.4 GHz</th> <th data-bbox="769 890 1057 930">5 GHz</th> <th data-bbox="1062 890 1503 930">6 GHz</th> </tr> </thead> <tbody> <tr> <td data-bbox="440 936 764 1010"> <ul style="list-style-type: none"> <li>• 23 dBm (200 mW)</li> <li>• -4 dBm (0.39 mW)</li> </ul> </td> <td data-bbox="769 936 1057 1010"> <ul style="list-style-type: none"> <li>• 23 dBm (200 mW)</li> <li>• -4 dBm (0.39 mW)</li> </ul> </td> <td data-bbox="1062 936 1503 1226"> <ul style="list-style-type: none"> <li>• 23 dBm (200 mW)</li> <li>• -4 dBm (0.39 mW)</li> </ul> <p><b>Note:</b> In countries where use of the 6-GHz band is not allowed or there is no current software support, the 6-GHz radio will be disabled. The radio may be enabled with future software, once the product is certified to operate in 6 GHz for that country.</p> </td> </tr> </tbody> </table> <p><b>Cisco Wireless 9176D1</b></p> <table border="1" data-bbox="440 1289 1503 1621"> <thead> <tr> <th data-bbox="440 1289 764 1329">2.4 GHz</th> <th data-bbox="769 1289 1057 1329">5 GHz</th> <th data-bbox="1062 1289 1503 1329">6 GHz</th> </tr> </thead> <tbody> <tr> <td data-bbox="440 1335 764 1409"> <ul style="list-style-type: none"> <li>• 23 dBm (200 mW)</li> <li>• -4 dBm (0.39 mW)</li> </ul> </td> <td data-bbox="769 1335 1057 1409"> <ul style="list-style-type: none"> <li>• 23 dBm (200 mW)</li> <li>• -4 dBm (0.39 mW)</li> </ul> </td> <td data-bbox="1062 1335 1503 1621"> <ul style="list-style-type: none"> <li>• 23 dBm (200 mW)</li> <li>• -4 dBm (0.39 mW)</li> </ul> <p><b>Note:</b> In countries where use of the 6-GHz band is not allowed or there is no current software support, the 6-GHz radio will be disabled. The radio may be enabled with future software, once the product is certified to operate in 6 GHz for that country.</p> </td> </tr> </tbody> </table>			2.4 GHz	5 GHz	6 GHz	<ul style="list-style-type: none"> <li>• 23 dBm (200 mW)</li> <li>• -4 dBm (0.39 mW)</li> </ul>	<ul style="list-style-type: none"> <li>• 23 dBm (200 mW)</li> <li>• -4 dBm (0.39 mW)</li> </ul>	<ul style="list-style-type: none"> <li>• 23 dBm (200 mW)</li> <li>• -4 dBm (0.39 mW)</li> </ul> <p><b>Note:</b> In countries where use of the 6-GHz band is not allowed or there is no current software support, the 6-GHz radio will be disabled. The radio may be enabled with future software, once the product is certified to operate in 6 GHz for that country.</p>	2.4 GHz	5 GHz	6 GHz	<ul style="list-style-type: none"> <li>• 23 dBm (200 mW)</li> <li>• -4 dBm (0.39 mW)</li> </ul>	<ul style="list-style-type: none"> <li>• 23 dBm (200 mW)</li> <li>• -4 dBm (0.39 mW)</li> </ul>	<ul style="list-style-type: none"> <li>• 23 dBm (200 mW)</li> <li>• -4 dBm (0.39 mW)</li> </ul> <p><b>Note:</b> In countries where use of the 6-GHz band is not allowed or there is no current software support, the 6-GHz radio will be disabled. The radio may be enabled with future software, once the product is certified to operate in 6 GHz for that country.</p>
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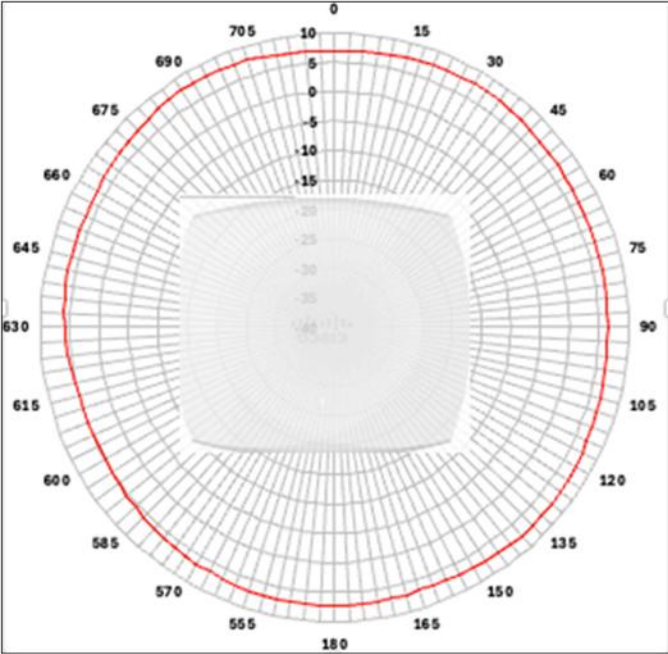
Item	Specification
<b>Compliance standards</b>	<ul style="list-style-type: none"> <li>• <b>Safety:</b> <ul style="list-style-type: none"> <li>◦ IEC 60950-1 / IEC 62368-1 Ed.3 (with Ed.2 Deviation annex)</li> <li>◦ EN 60950-1 / EN 62368-1 Ed.3 (with Ed.2 Deviation annex)</li> <li>◦ UL 60950-1 / UL62368-1 3rd (with Ed.2 Deviation annex)</li> <li>◦ CAN/CSA-C22.2 No. 60950-1 / CAN/CSA-C22.2 No. 62368-1 3rd (with Ed.2 Deviation annex)</li> <li>◦ AS/NZS60950.1 / AS/NZS62368.1 Ed.3 (with Ed.2 Deviation annex)</li> <li>◦ UL 2043</li> <li>◦ Class III equipment</li> </ul> </li> <li>• <b>Emissions:</b> <ul style="list-style-type: none"> <li>◦ CISPR 32 (rev. 2015) +AMD1:2019</li> <li>◦ EN 55032:2015/A11:2020</li> <li>◦ EN IEC 61000-3-2:2019/A1:2021</li> <li>◦ EN 61000-3-3:2013+A1:2019</li> <li>◦ AS/NZS CISPR32: 2015+AMD1:2020</li> <li>◦ 47 CFR FCC Part 15B</li> <li>◦ ICES-003 (Issue 7, Class B)</li> <li>◦ VCCI-CISPR 32:2016</li> <li>◦ CNS 13438:2006 (95)</li> <li>◦ KS C 9832:2019</li> <li>◦ QCVN 118:2018/BTTTT</li> </ul> </li> <li>• <b>Immunity:</b> <ul style="list-style-type: none"> <li>◦ EN 55035:2017+A11:2020</li> <li>◦ KS C 9835:2019</li> </ul> </li> <li>• <b>Emissions and immunity:</b> <ul style="list-style-type: none"> <li>◦ EN 301 489-1 V2.2.3 (2019-11)</li> <li>◦ EN 301 489-17 V3.2.4 (2020-09)</li> <li>◦ QCVN (18:2014)</li> <li>◦ QCVN 112:2017/BTTTT</li> <li>◦ KS X 3124:2020</li> <li>◦ KS X 3126:2020</li> <li>◦ EN 61000-6-1:2019</li> <li>◦ EN 60601-1-2:2015+A1:2021</li> </ul> </li> </ul> <ul style="list-style-type: none"> <li>• <b>Radio:</b> <ul style="list-style-type: none"> <li>◦ EN 300 328 (v2.2.2)</li> <li>◦ EN 301 893 (v2.1.1)</li> <li>◦ EN 303 687 (v0.0.14, draft)</li> <li>◦ AS/NZS 4268 (rev. 2017)</li> <li>◦ 47 CFR FCC Part 15C, 15.247, 15.407</li> <li>◦ RSP-100</li> <li>◦ RSS-GEN</li> <li>◦ RSS-247</li> <li>◦ LP0002 (109)</li> <li>◦ Japan Std. 66, and Std. 71</li> </ul> </li> <li>• <b>RF safety:</b> <ul style="list-style-type: none"> <li>◦ EN 50385:2017</li> <li>◦ AS/NZS 2772 (rev. 2016)</li> <li>◦ 47 CFR Part 2.1091</li> <li>◦ RSS-102</li> <li>◦ IEEE standards: <ul style="list-style-type: none"> <li>◦ IEEE 802.3</li> <li>◦ IEEE 802.3ab</li> <li>◦ IEEE 802.3af/at</li> <li>◦ IEEE 802.11a/b/g/n/ac/ax/be</li> <li>◦ IEEE 802.11h, 802.11d</li> </ul> </li> </ul> </li> <li>• <b>Security:</b> <ul style="list-style-type: none"> <li>◦ 802.11i (WPA2, WPA3)</li> <li>◦ 802.1x/802.1x - SHA256</li> <li>◦ Enhanced Open/OWE</li> <li>◦ Advanced Encryption Standard (AES) - GCMP128, GCMP256 and CCMP256</li> </ul> </li> <li>• <b>Extensible Authentication Protocol (EAP) types:</b> <ul style="list-style-type: none"> <li>◦ EAP-Transport Layer Security (TLS)</li> <li>◦ EAP-Tunneled TLS (TTLS) or Microsoft Challenge Handshake Authentication Protocol (MSCHAP) v2</li> <li>◦ Protected EAP (PEAP) v0 or EAP-MSCHAP v2</li> <li>◦ EAP-Flexible Authentication via Secure Tunneling (EAP-FAST)</li> <li>◦ PEAP v1 or EAP-Generic Token Card (GTC)</li> <li>◦ EAP-Subscriber Identity Module (SIM)</li> </ul> </li> </ul>
<b>Certifications</b>	<ul style="list-style-type: none"> <li>• <b>Wi-Fi Alliance:</b> Wi-Fi 7 (R1), Wi-Fi 6 (R2), Wi-Fi 6E, WPA3-R3, WPA3-Suite B, Enhanced Open Security</li> <li>• <b>Bluetooth SIG:</b> Bluetooth Low Energy</li> </ul>

Antenna patterns - Cisco Wireless 9176I

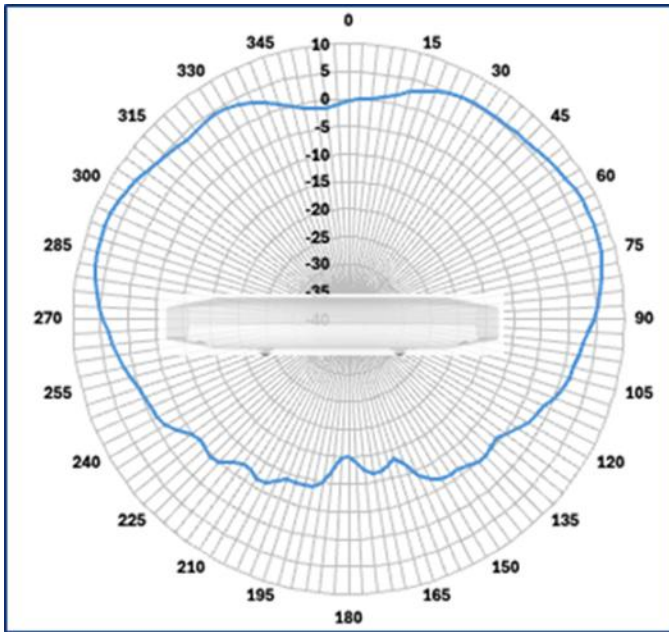
2.4-GHz elevation



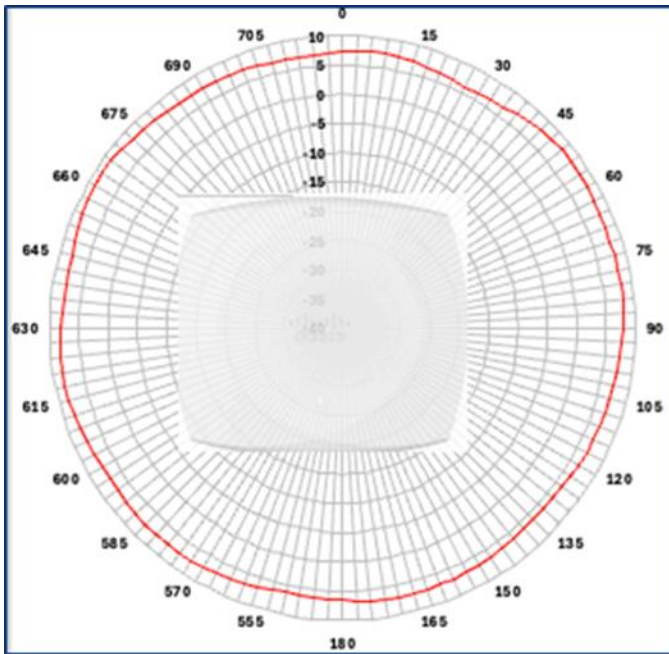
2.4-GHz azimuth



### 5-GHz elevation

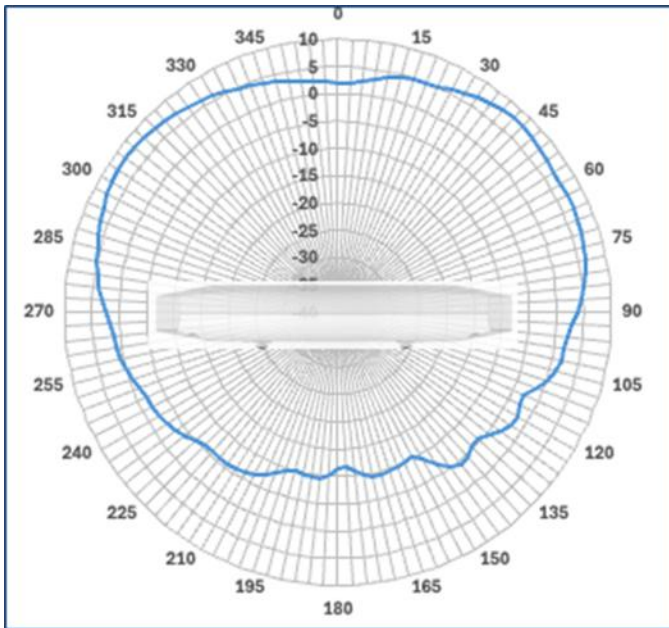


### 5-GHz azimuth

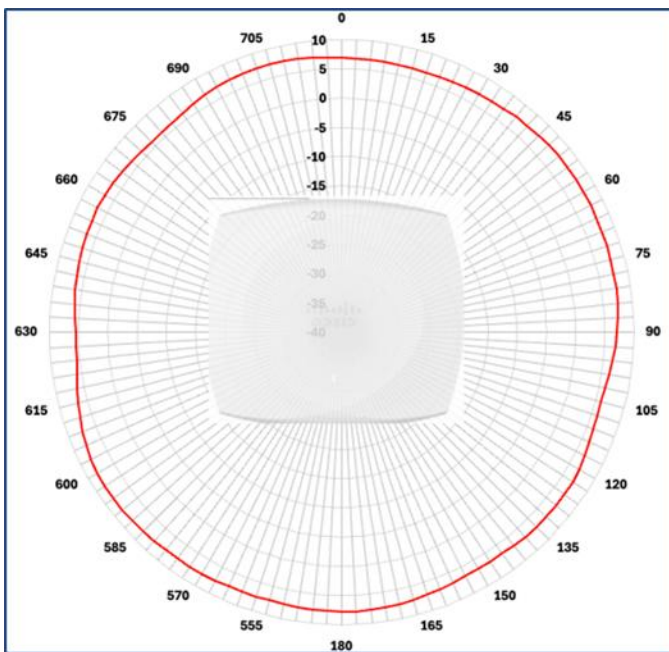


**Figure 1.**  
9176I dual-band radio antenna patterns

## Elevation

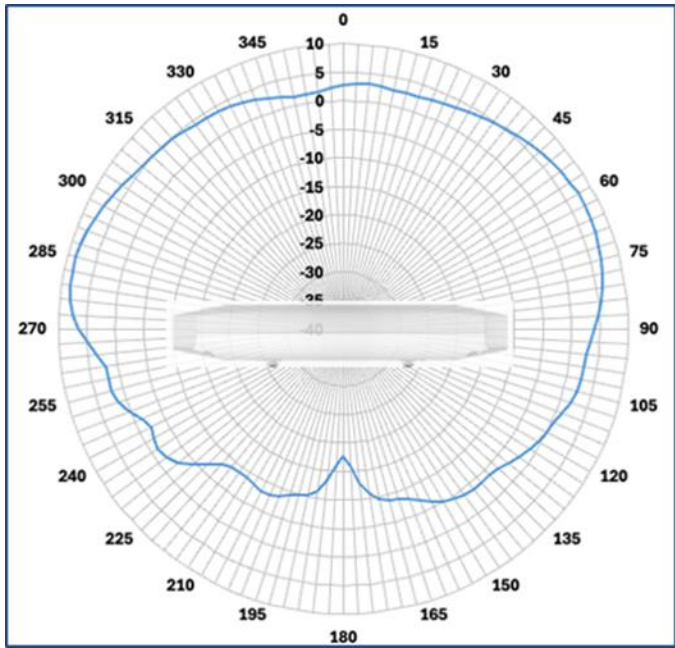


## Azimuth



**Figure 2.**  
9176I 5-GHz slot 1 radio antenna patterns

Elevation



Azimuth

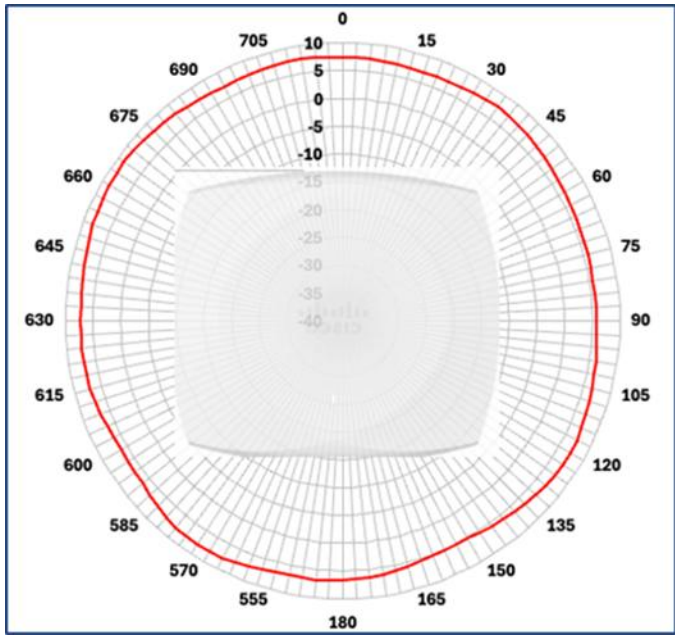
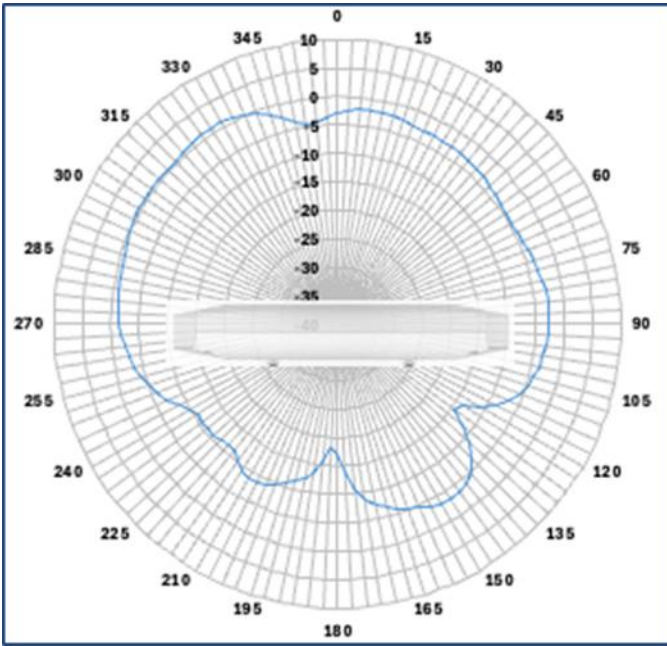
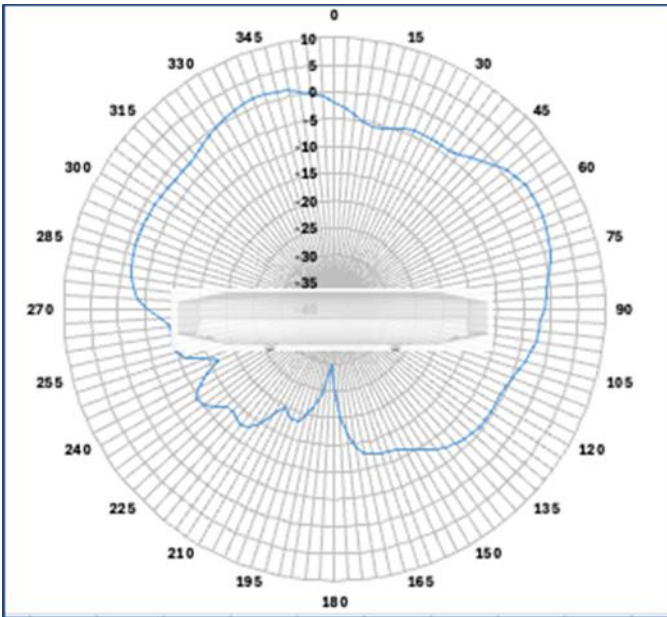


Figure 3.  
9176I 6-GHz radio antenna patterns

## 2.4-GHz elevation

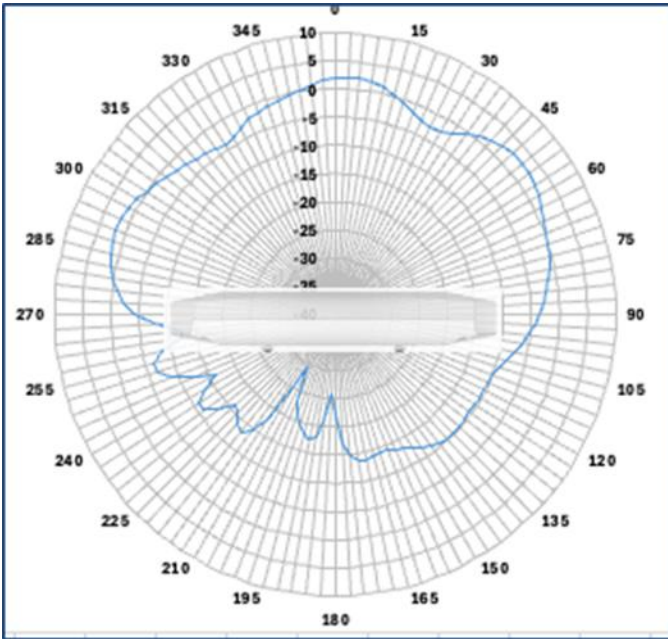


## 5-GHz elevation

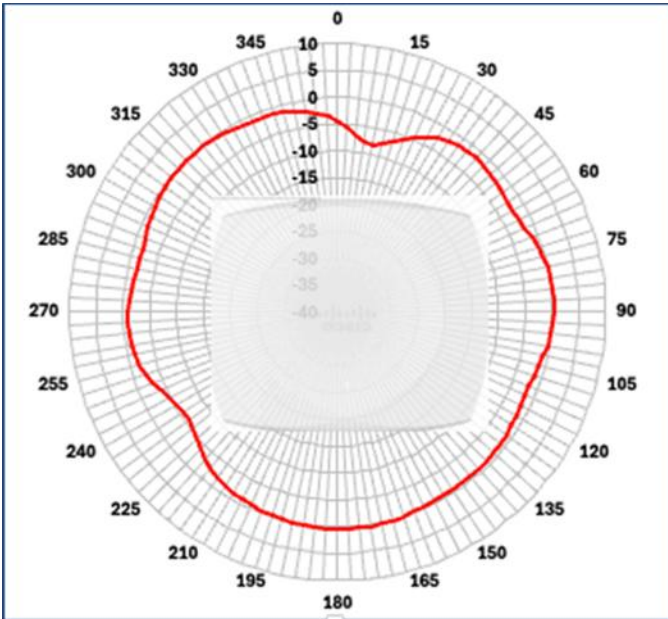




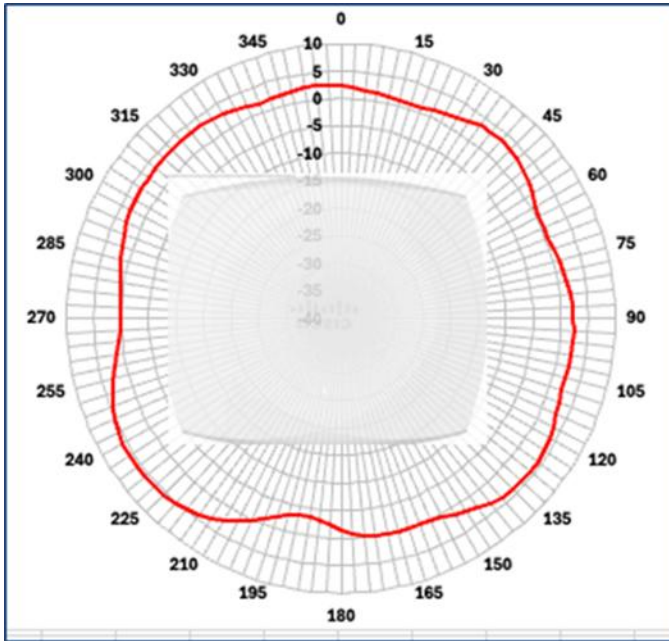
6-GHz elevation



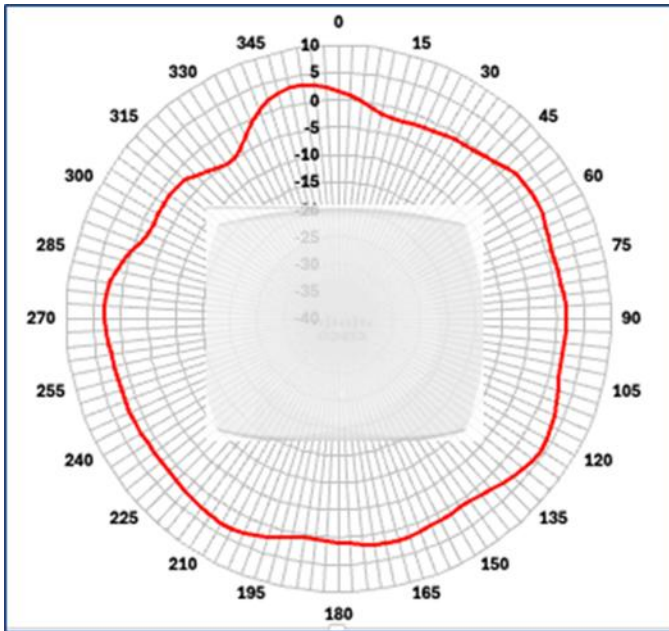
2.4-GHz azimuth



### 5-GHz azimuth

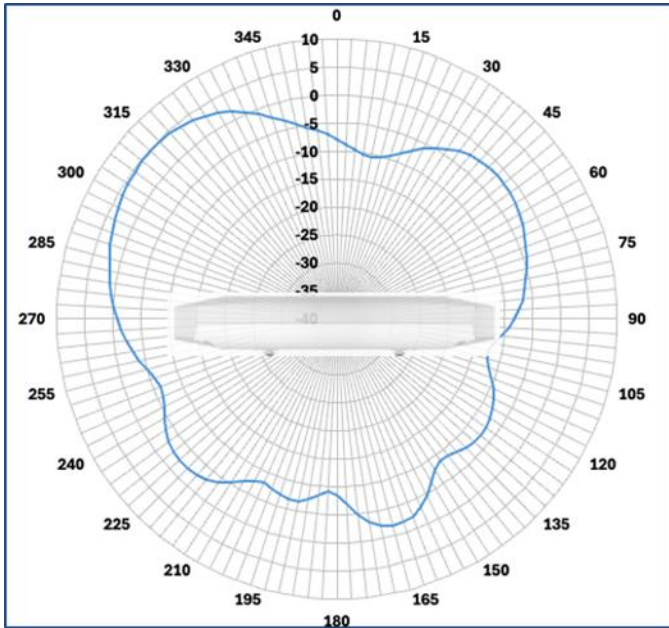


### 6-GHz azimuth

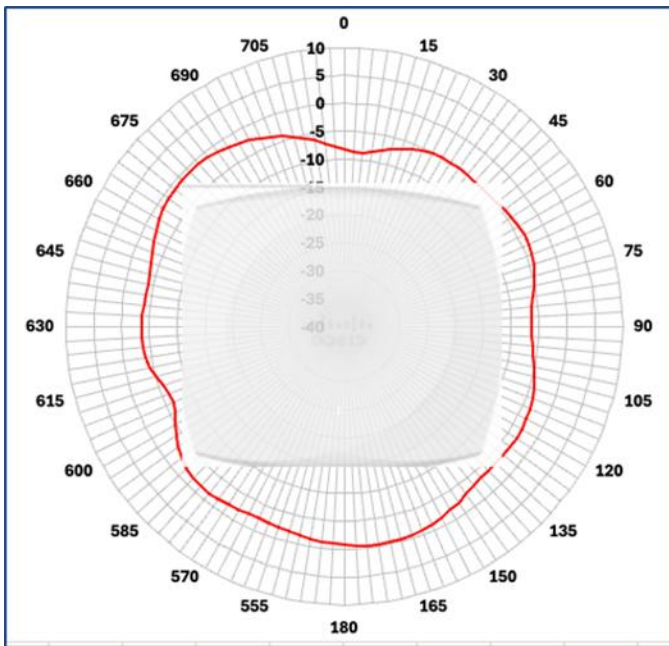


**Figure 4.**  
9176I AI/ML-driven scan radio antenna patterns

## 2.4-GHz elevation

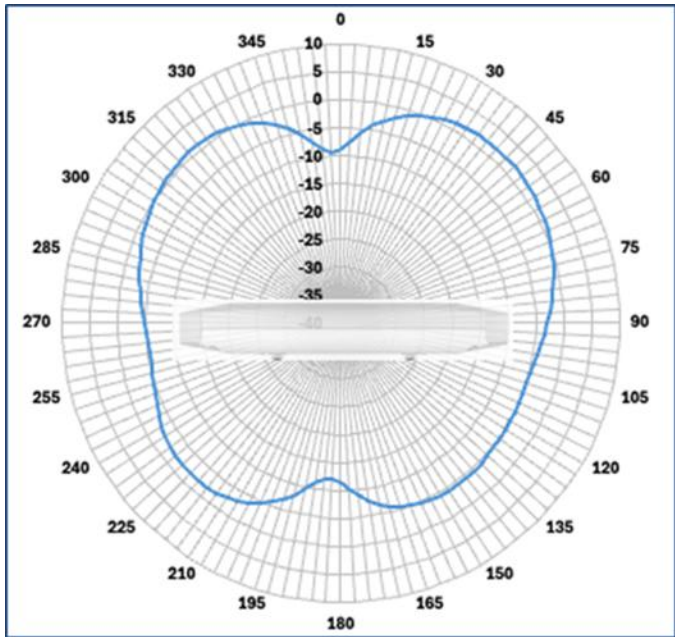


## 2.4-GHz azimuth

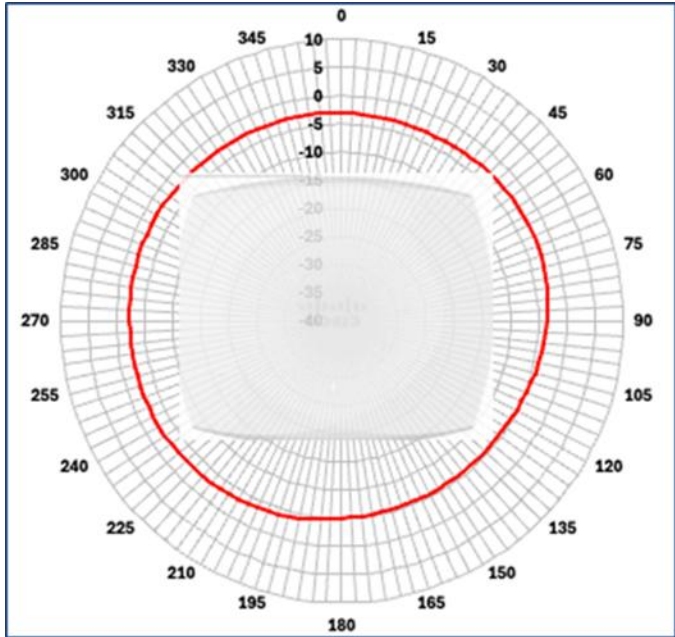


**Figure 5.**  
9176I IoT radio antenna patterns

**Elevation**



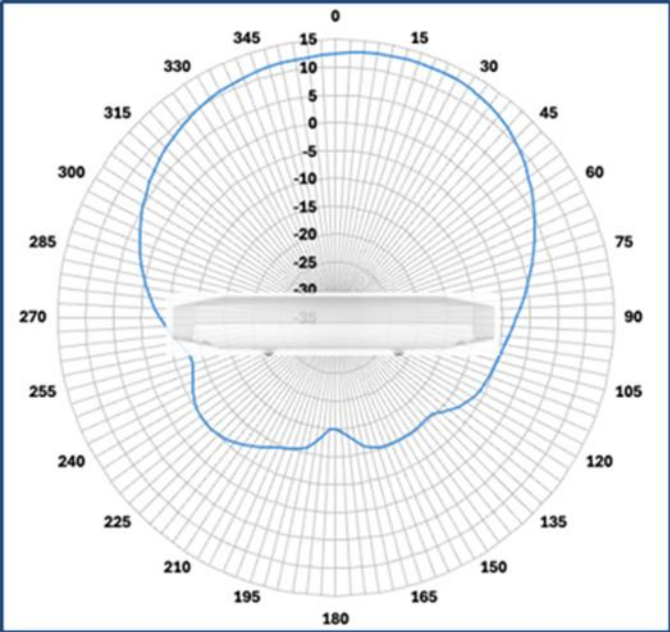
**Azimuth**



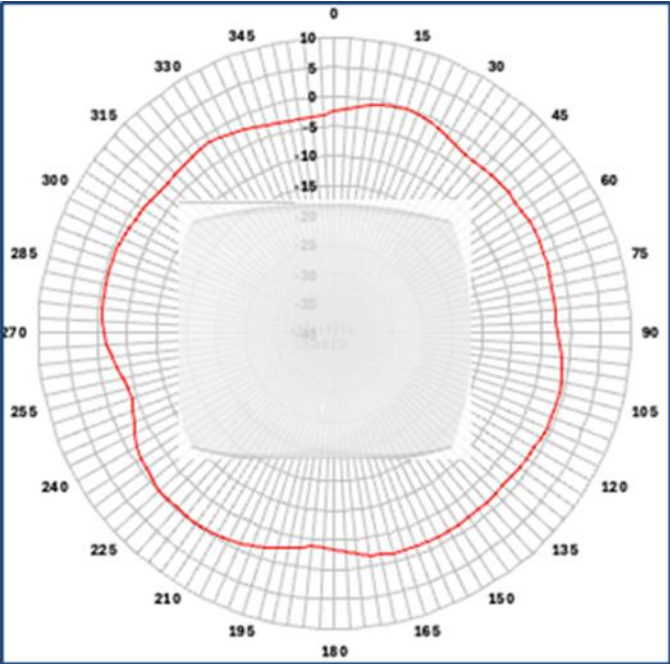
**Figure 6.**  
9176I GNSS antenna patterns

Antenna patterns - Cisco Wireless 9176D1

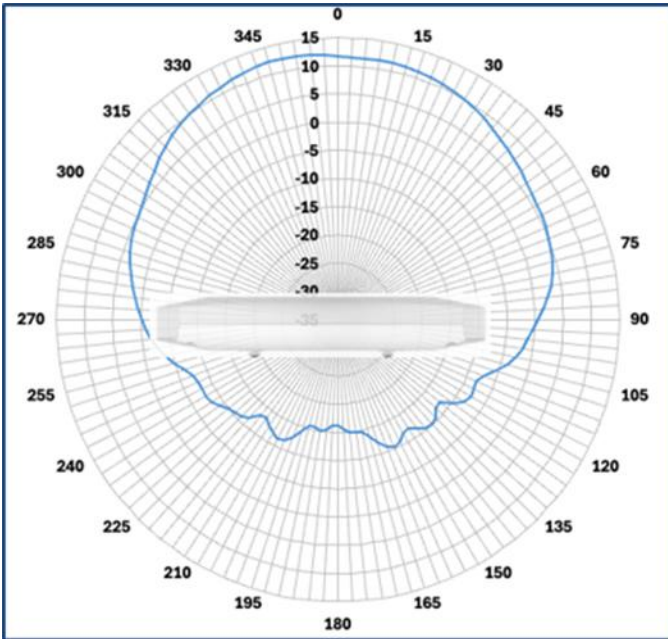
2.4-GHz elevation



2.4-GHz azimuth



5-GHz elevation



5-GHz azimuth

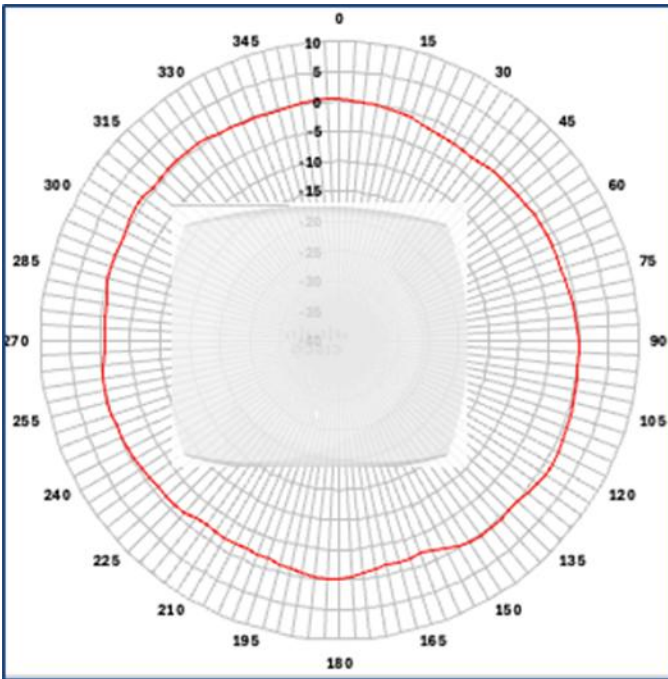
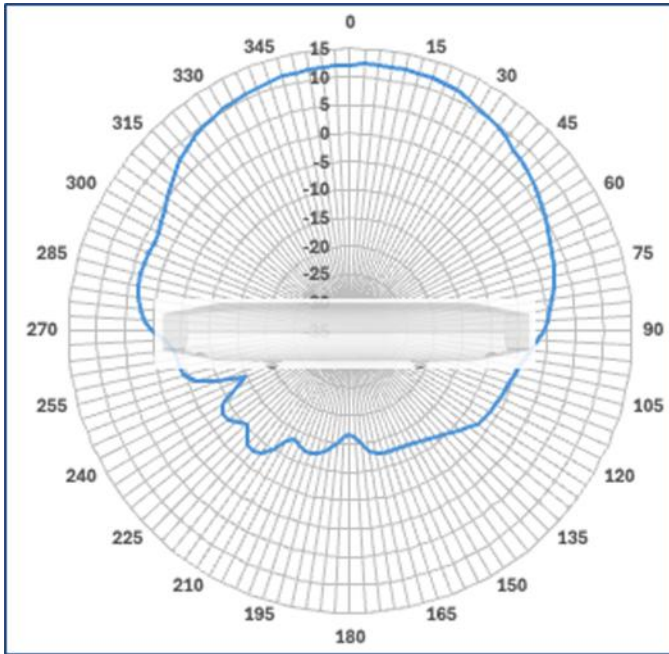
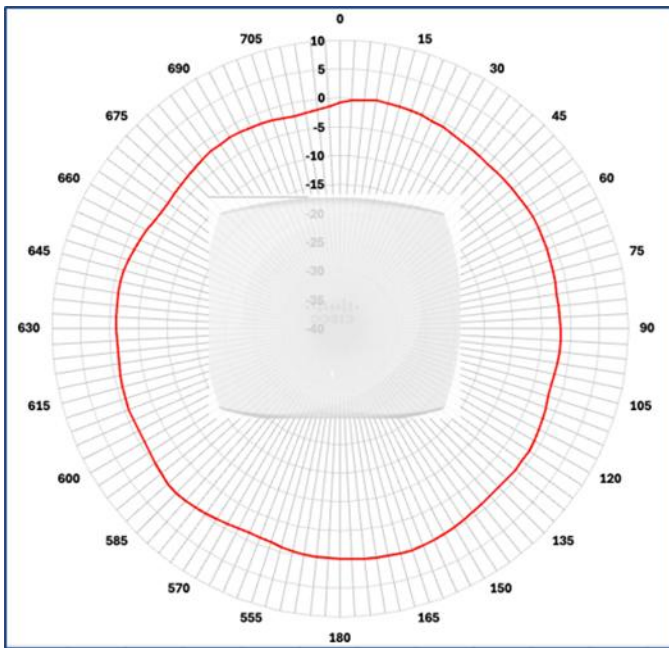


Figure 7.  
9176D1 dual-band radio antenna patterns

## Elevation

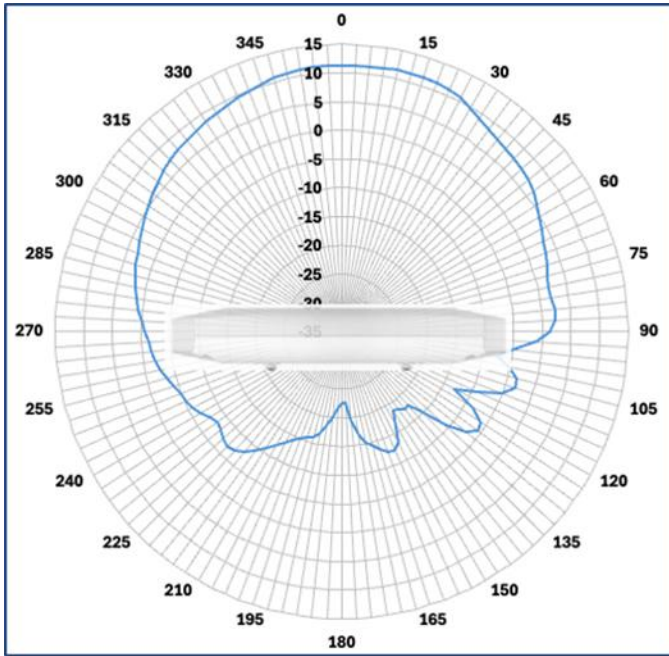


## Azimuth

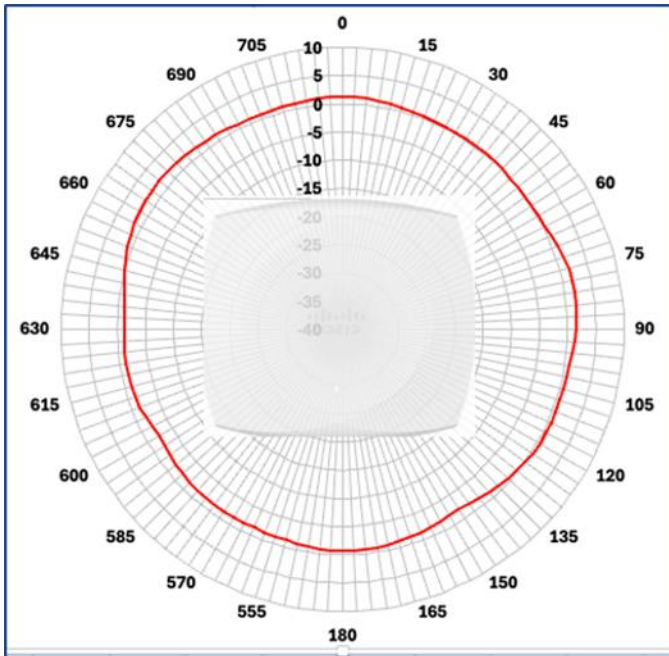


**Figure 8.**  
9176D1 5-GHz slot 1 radio antenna patterns

## Elevation



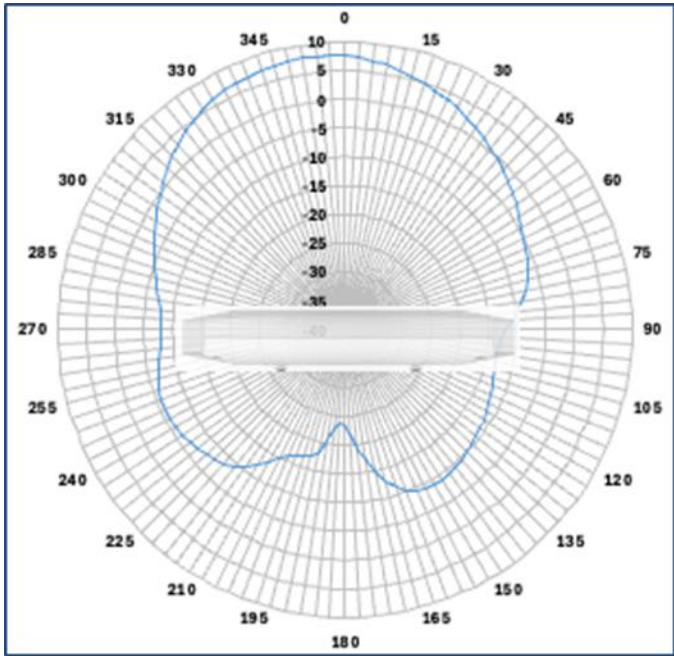
## Azimuth



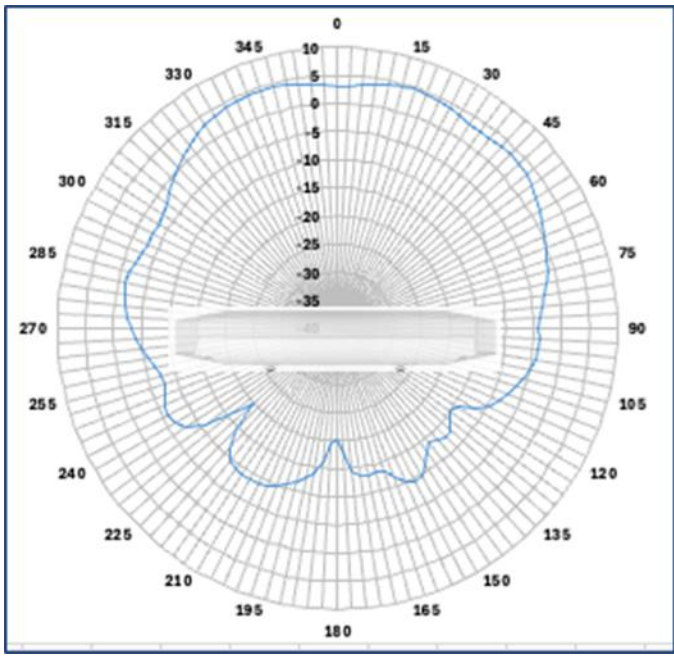
**Figure 9.**  
9176D1 6-GHz radio antenna patterns



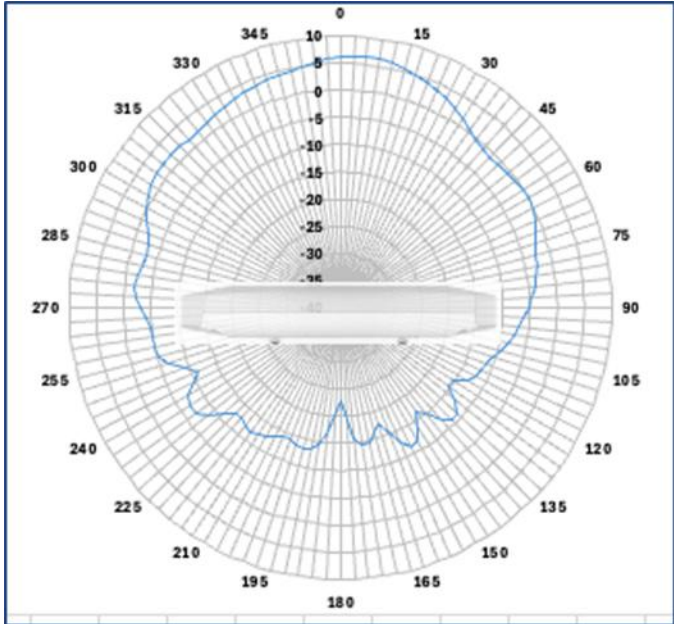
2.4-GHz elevation



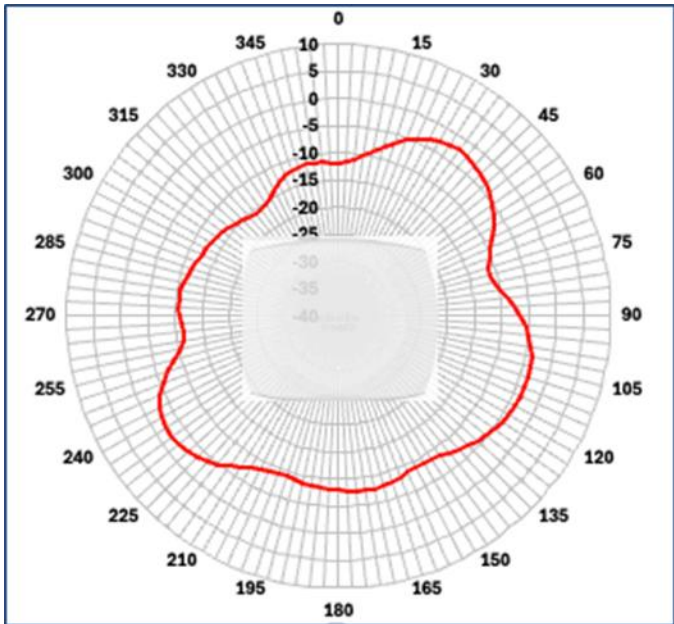
5-GHz elevation



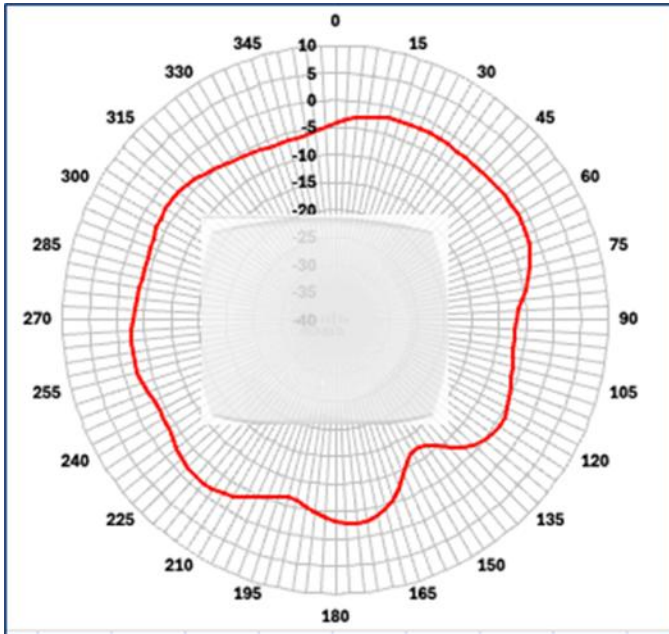
6-GHz elevation



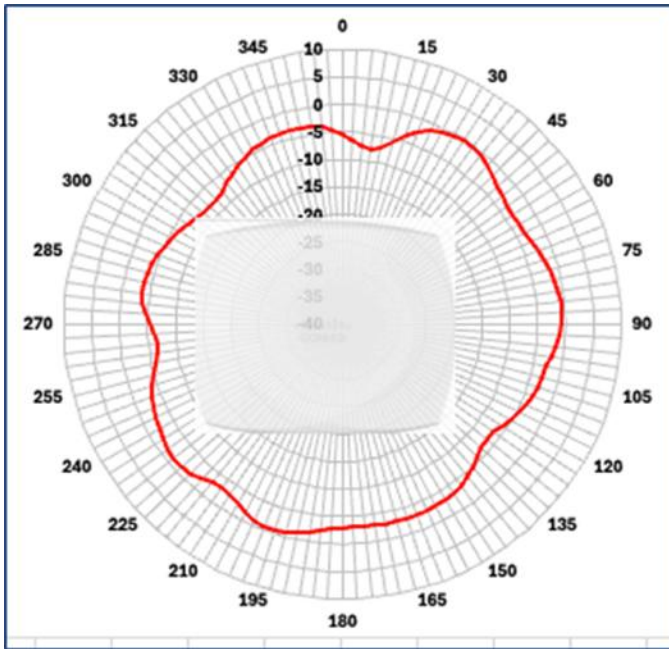
2.4-GHz azimuth radiation pattern plot



### 5-GHz azimuth

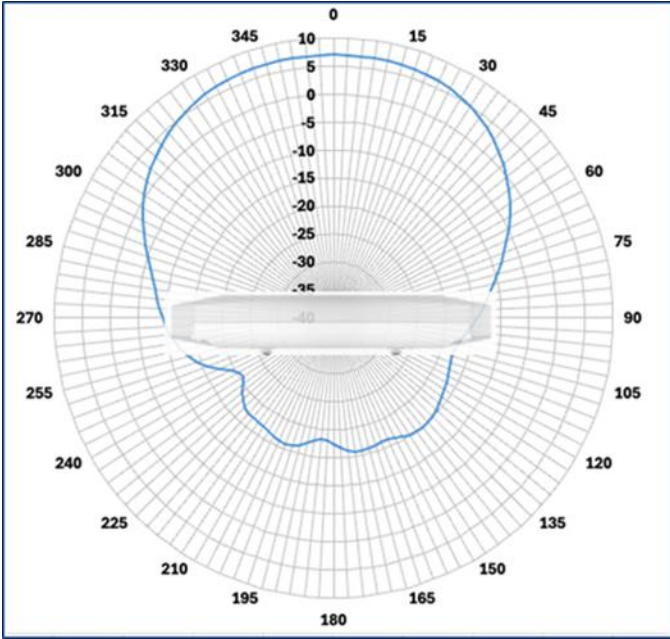


### 6-GHz azimuth



**Figure 10.**  
9176D1 AI/ML-driven scan radio antenna patterns

2.4-GHz elevation



2.4-GHz azimuth

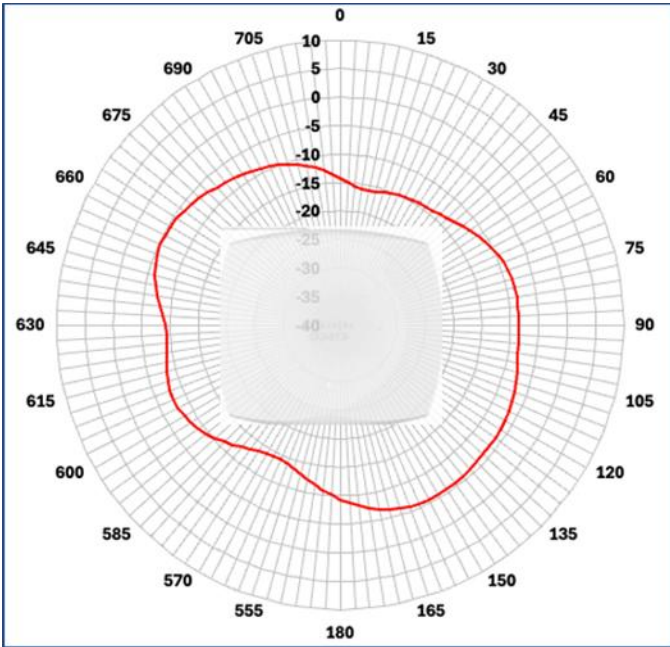
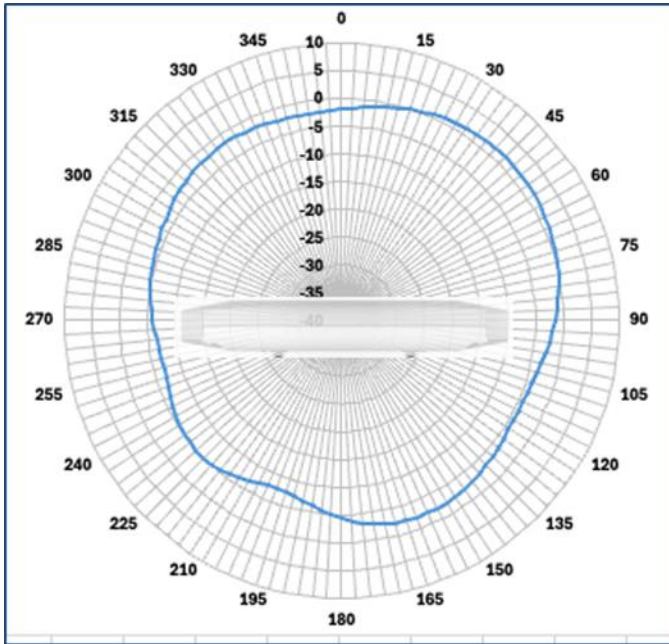
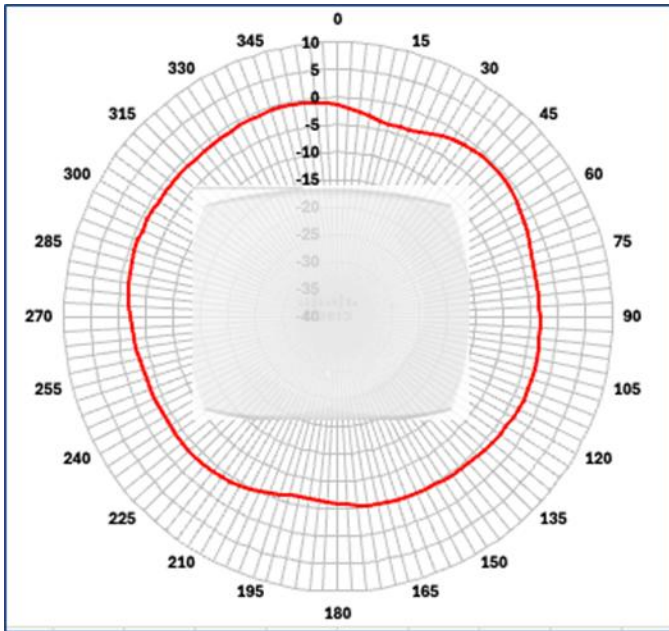


Figure 11.  
9176D1 IoT radio antenna patterns

## Elevation



## Azimuth



**Figure 12.**  
9176D1 GNSS antenna patterns

## Ordering information

The Cisco Wireless 9176 Series Access Points are available. To order, please visit the [Cisco Ordering homepage](#) or the [Cisco Wireless Ordering Guide](#).

For additional product numbers, please check the [Cisco Wi-Fi 7 products](#) price list or contact your local Cisco account representative.

## Warranty information

The Cisco Wireless 9176 Series Access Points come with a limited lifetime warranty that provides full warranty coverage of the hardware for as long as the original end user continues to own or use the product. The warranty includes 5-day advance hardware replacement and helps ensure that software media are defect-free for 90 days. For more details, visit <https://www.cisco.com/go/warranty>.

## Product sustainability

Information about Cisco's environmental, social, and governance (ESG) initiatives and performance is provided in Cisco's corporate social responsibility and sustainability [reporting](#).

**Table 3.** Cisco environmental sustainability information

Sustainability Topic		Reference
General	Information on product-material-content laws and regulations	<a href="#">Materials</a>
	Information on electronic waste laws and regulations, including our products, batteries, and packaging	<a href="#">WEEE Compliance</a>
	Information on product takeback and reuse program	<a href="#">Cisco Takeback and Reuse Program</a>
	Sustainability Inquiries	Contact: <a href="mailto:csr_inquiries@cisco.com">csr_inquiries@cisco.com</a>
Material	Product packaging weight and materials	Contact: <a href="mailto:environment@cisco.com">environment@cisco.com</a>

## Cisco and partner services

With Cisco Services, you can achieve infrastructure excellence faster with less risk. From an initial WLAN readiness assessment to implementation, full solution support, and in-depth training, our services for the Cisco Wireless 9176 Series provide expert guidance to help you successfully plan, deploy, manage, and support your new access points. With unmatched networking expertise, best practices, and innovative tools, Cisco Services can help you reduce overall upgrade, refresh, and migration costs as you introduce new hardware, software, and protocols into the network. With a comprehensive lifecycle of services, Cisco experts will help you minimize disruption and improve operational efficiency to extract maximum value from your Cisco infrastructure. For more information, please visit <https://www.cisco.com/go/services>.

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