

Cisco Catalyst 9162 Series Access Points

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The Cisco Catalyst 9162 Series Access Points (APs) allow you to choose between on-premises and cloud management. These next generation APs are perfect for small to medium-sized deployments and support the new 6-GHz band for Wi-Fi. They are resilient, secure, and intelligent.



Figure 1.
Catalyst 9162I access point

With the flexibility to choose between cloud and on-premises management, the Catalyst 9162 Series Access Points help protect your network investment and unlock the power of hybrid work. The Wi-Fi 6E-compliant access points take advantage of the 6-GHz band expansion to produce a network that is more reliable and secure, with higher throughput, more capacity, and less device interference. They come with three 2x2 radios and provide a host of cutting-edge features.

The Catalyst 9162 Series joins the industry’s leading network architecture (Catalyst) with the industry’s leading cloud IT platform (Meraki), for an unparalleled network experience. Organizations that need solutions to power hybrid work and allow their people to work anywhere at any time with elevated, secure, and connected experiences will find that the 9162 Series is the best choice.

With the Catalyst 9162 Series, you can change your network management whenever you want. For example, you can start with an on-premises deployment and later change to cloud-based management without the need to purchase and redistribute additional hardware.

Table 1. Features and benefits

Feature	Benefits
Wi-Fi 6 and Wi-Fi 6E (802.11ax)	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 “ extended ” into the 6-GHz frequency band.
AP power optimizations (AP Power Save mode)	AP power optimizations (AP Power Save mode) allow the access point to reduce its power consumption by, for example, shutting off radios during off-hours and weekends, while being smart enough to reengage all features should they be needed. This both saves power and reduces the carbon footprint of running a wireless network.
Cisco CleanAir Pro	CleanAir Pro extends Cisco’s industry-leading RF Interference detection and classification into the 6-GHz band.

Feature	Benefits
Band steering	Band steering helps clients that are 6-GHz capable leave the 5-GHz radio and connect to the 6-GHz one. Wi-Fi 6E clients are automatically directed to connect to the 6-GHz radio to take advantage of the benefits that it offers and free up the 2.4- and 5-GHz radios for legacy clients.
Uplink/downlink OFDMA	Orthogonal Frequency-Division Multiple Access (OFDMA)-based scheduling splits the bandwidth into smaller frequency allocations called Resource Units (RUs), which can be assigned to individual clients in both the downlink and uplink directions to reduce overhead and latency.
Uplink/downlink MU-MIMO technology	Supporting six spatial streams, multiuser multiple input, multiple output (MU-MIMO) enables the access points to split spatial streams between client devices to maximize throughput.
BSS coloring	Spatial reuse (also known as Basic Service Set [BSS] coloring) allows the access points and their clients to differentiate between BSSs, thus permitting more simultaneous transmissions.
Target Wake Time	Target Wake Time (TWT) allows the client to stay asleep and to wake up only at prescheduled (target) times to exchange data with the access point. This offers significant energy savings for battery-operated devices, up to three to four times the savings achieved by 802.11n and 802.11ac.
Intelligent Capture	Intelligent Capture probes the network and provides Cisco DNA Center with deep analysis. It can track more than 240 anomalies and instantaneously review all packets on demand, emulating the onsite network administrator. This feature allows for more informed decision making on your wireless network.
Application hosting	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 Cisco DNA Center provides workflows and deployment-wide application lifecycle management.
Bluetooth 5.1	The integrated Bluetooth Low Energy (BLE) 5.1 radio enables location-based use cases such as asset tracking, wayfinding, and analytics.
Container support for applications	Container support enables edge computing capabilities for IoT applications on the host access point.
Choice of management mode	The Catalyst 9162 Series can be managed either on-premises with Catalyst 9800 Series Wireless Controllers or cloud-managed through the Meraki Dashboard. It gives you the flexibility to deploy the access points in one management mode and shift to a different management mode in the future.

For more details about Catalyst 9162 Series feature support, see [Cisco's Feature Matrix](#).

Secure infrastructure

Trustworthy systems built with Cisco Trust Anchor technologies provide a highly secure foundation for Cisco products. With the Cisco Catalyst 9162 Series Access Points, these technologies 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

Cisco DNA and Catalyst 9800 controller support

Pairing the Cisco Catalyst 9162 Series Access Points with Cisco DNA allows for a total network transformation. Cisco DNA 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 9162 Series supports Software-Defined Access (SD-Access), Cisco's leading enterprise architecture.

Working together, the Catalyst 9162 Series and Cisco DNA offer such features as:

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

The result? Your network stays relevant, becomes digital ready, and is the lifeblood of your organization.

Note: For information about Cisco DNA, refer to the [Cisco Networking Solution Overview](#).

Cisco Meraki cloud management

Pairing the Cisco Catalyst 9162 Series Access Points with the 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 Catalyst 9162 Series and Cisco Meraki offer such features as:

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

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

Product specifications

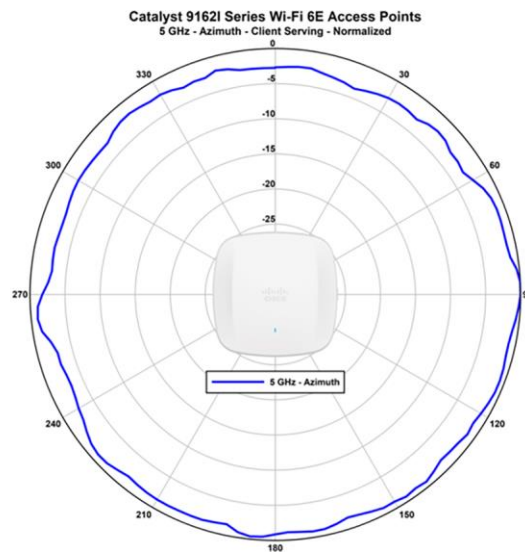
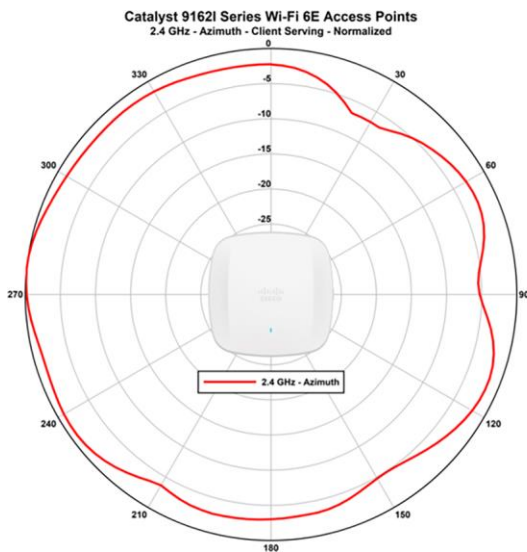
Table 2. Specifications

Item	Specification
Part numbers	Cisco Catalyst access points • CW9162I-x: Cisco Catalyst 9162 Series Regulatory domains: (x = regulatory domain) Customers are responsible for verifying approval for use in their individual countries. To verify approval and to identify the regulatory domain that corresponds to a particular country, visit https://www.cisco.com/go/aironet/compliance. Not all regulatory domains have been approved. As they are approved, the part numbers will be available on the Global Price List and/or regional price lists. • CW9162I-MR: Cisco Catalyst 9162 Series, w/Meraki Cloud-managed version using Meraki Dashboard Cisco wireless LAN services • For details on optional WLAN services, visit Services for Wireless and Mobility
Software	• Cisco IOS XE Software Release 17.9.2/17.10.1 or later
Supported wireless controllers	• Cisco Catalyst 9800 Series Wireless Controllers (physical or virtual)
802.11n version 2.0 (and related) capabilities	• 2x2 MIMO with two spatial streams • Maximal Ratio Combining (MRC) • 802.11n and 802.11a/g • 20- and 40-MHz channels • PHY data rates up to 444.4 Mbps (40 MHz with 5 GHz and 20 MHz with 2.4 GHz) • Packet aggregation: Aggregate MAC Protocol Data Unit (A-MPDU) (transmit and receive), Aggregate MAC Service Data Unit (A-MSDU) (transmit and receive) • 802.11 Dynamic Frequency Selection (DFS) • Cyclic Shift Diversity (CSD) support
802.11ac	• 2x2 downlink MU-MIMO with two spatial streams • MRC • 802.11ac beamforming • 20-, 40-, and 80-MHz channels • PHY data rates up to 866.7 Mbps (2x2 80 MHz on 5 GHz) • Packet aggregation: A-MPDU (transmit and receive), A-MSDU (transmit and receive) • 802.11 DFS • CSD support • Wi-Fi Protected Access (WPA) 3 support

Item	Specification																																			
802.11ax	• 2x2 uplink/downlink MU-MIMO with two spatial streams (6 GHz) • 2x2 downlink MU-MIMO with two spatial streams (2.4 GHz and 5 GHz) • Uplink/downlink OFDMA • TWT • BSS coloring • MRC • 802.11ax beamforming • 20-, 40-, 80-, and 160-MHz channels (6 GHz) • 20-, 40-, and 80-MHz channels (5 GHz) • 20-MHz channels (2.4 GHz) • PHY data rates up to 3.9 Gbps (2x2 160 MHz on 6 GHz, 2x2 80 MHz on 5 GHz, and 2x2 20 MHz on 2.4 GHz) • Packet aggregation: A-MPDU (transmit and receive), A-MSDU (transmit and receive) • 802.11 DFS • CSD support • WPA3 support																																			
Integrated antenna	• 2.4 GHz: Peak gain 4 dBi, internal antenna, omnidirectional in azimuth • 5 GHz: Peak gain 5 dBi, internal antenna, omnidirectional in azimuth • 6 GHz: Peak gain 5 dBi, internal antenna, omnidirectional in azimuth																																			
Interfaces	• 1x 100M/1000M/2.5G Multigigabit Ethernet (RJ-45) port • Management console port (RJ-45) • USB 2.0 at 4.5W																																			
Indicators	• Status LED indicates boot loader status, association status, operating status, boot loader warnings, and boot loader errors																																			
Dimensions (W x L x H)	• Access point (without mounting brackets): ◦ 7.8 x 7.8 x 1.7 in. (200 x 200 x 44.45 mm)																																			
Weight	• 2.05 lb. (0.93 kg)																																			
Input power requirements	• 802.3bt, Cisco Universal PoE (Cisco UPOE), 802.3at Power over Ethernet Plus (PoE+) • Cisco power injectors: AIR-PWRINJ7=, AIR-PWRINJ6=, MA-INJ-6 • 802.3af PoE (for 802.3af, see the matrix below for radio configuration) • DC power input (12V/ MA-PWR-30W) <table><tr><th>PoE power consumption</th><th>2.4-GHz radio</th><th>5-GHz radio</th><th>6-GHz radio, low power indoor (LPI)</th><th>Link speed</th><th>USB</th><th>Link Layer Discovery Protocol (LLDP)</th></tr><tr><td>802.3bt (UPOE)</td><td>2x2</td><td>2x2</td><td>2x2</td><td>2.5G</td><td>Y (4.5W)</td><td>25.5W</td></tr><tr><td>802.3at (PoE+)</td><td>2x2</td><td>2x2</td><td>2x2</td><td>2.5G</td><td>Y (4.5W)</td><td>25.5W</td></tr><tr><td>802.3af (PoE)</td><td>–</td><td>1x1</td><td>1x1</td><td>1G</td><td>N</td><td>13.3W</td></tr><tr><td>DC power (30W)</td><td>2x2</td><td>2x2</td><td>2x2</td><td>2.5G</td><td>Y (4.5W)</td><td>–</td></tr></table> Note: Power required at the power source equipment (PSE) will depend on the cable length and other environmental issues.	PoE power consumption	2.4-GHz radio	5-GHz radio	6-GHz radio, low power indoor (LPI)	Link speed	USB	Link Layer Discovery Protocol (LLDP)	802.3bt (UPOE)	2x2	2x2	2x2	2.5G	Y (4.5W)	25.5W	802.3at (PoE+)	2x2	2x2	2x2	2.5G	Y (4.5W)	25.5W	802.3af (PoE)	–	1x1	1x1	1G	N	13.3W	DC power (30W)	2x2	2x2	2x2	2.5G	Y (4.5W)	–
PoE power consumption	2.4-GHz radio	5-GHz radio	6-GHz radio, low power indoor (LPI)	Link speed	USB	Link Layer Discovery Protocol (LLDP)																														
802.3bt (UPOE)	2x2	2x2	2x2	2.5G	Y (4.5W)	25.5W																														
802.3at (PoE+)	2x2	2x2	2x2	2.5G	Y (4.5W)	25.5W																														
802.3af (PoE)	–	1x1	1x1	1G	N	13.3W																														
DC power (30W)	2x2	2x2	2x2	2.5G	Y (4.5W)	–																														

Item	Specification		
Environmental	- Nonoperating (storage) temperature: -22° to 158°F (-30° to 70°C) - Nonoperating (storage) altitude test: 25°C (77°F) at 15,000 ft (4600 m) - Operating temperature: 32° to 122°F (0° to 50°C) - Operating humidity: 10% to 90% (noncondensing) - Operating altitude test: 40°C (104°F) at 9843 ft (3000 m)		
System memory	2048 MB DRAM 1024 MB flash		
Warranty	Limited lifetime hardware warranty (WARR-CW-LIFE-LTD)		
Available transmit power settings	2.4 GHz 20 dBm (100 mW) -7 dBm (0.20 mW)	5 GHz 20 dBm (100 mW) -7 dBm (0.20 mW)	6 GHz 20 dBm (100 mW) -7 dBm (0.20 mW) Note: 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 at 6 GHz for that country.
Regulatory domains	Note: Customers are responsible for verifying approval for use in their individual countries. To verify approval and to identify the regulatory domain that corresponds to a particular country, visit https://www.cisco.com/go/aironet/compliance. For information about regulatory domain support, refer to the Cisco Regulatory Domain White Paper.		
Compliance standards	Safety: - IEC 60950-1 / IEC 62368-1 Ed.3 (with Ed.2 Deviation annex) - EN 60950-1 / EN 62368-1 Ed.3 (with Ed.2 Deviation annex) - UL 60950-1 / UL62368-1 3rd (with Ed.2 Deviation annex) - CAN/CSA-C22.2 No. 60950-1 / CAN/CSA-C22.2 No. 62368-1 3rd (with Ed.2 Deviation annex) - AS/NZS60950.1 / AS/NZS62368.1 Ed.3 (with Ed.2 Deviation annex) - UL 2043 - Class III equipment Emissions: - CISPR 32 (rev. 2015) +AMD1:2019 - EN 55032:2015/A11:2020 - EN IEC 61000-3-2:2019/A1:2021 - EN61000-3-3:2013+A1:2019 - AS/NZS CISPR32: 2015+AMD1:2020 47 CFR FCC Part 15B - ICES-003 (Issue 7, Class B) - VCCI-CISPR 32:2016 - CNS 13438:2006 (95) - KS C 9832:2019 Radio: - EN 300 328 (v2.2.2) - EN 301 893 (v2.1.1) - EN 303 687 (v0.0.14, draft) - AS/NZS 4268 (rev. 2017) 47 CFR FCC Part 15C, 15.247, 15.407 - RSP-100 - RSS-GEN - RSS-247 - LP002 - Japan Std. 66, and Std. 71 - RF safety: - EN 50385:2017 - EN 62311:2020 - AS/NZS 2772.2 (rev. 2016) 47 CFR Part 2.1091 - RSS-102 - IEEE standards: - IEEE 802.3 - IEEE 802.3ab - IEEE 802.3af/at/bt - IEEE 802.11a/b/g/n/ac/ax		

Item	Specification
	• Immunity: ◦ EN 55035: 2017+A11:2020 ◦ KS C 9835:2019 • Emissions and immunity: ◦ EN 301 489-1 V2.2.3 (2019-11) ◦ EN 301 489-17 V3.2.4 (2020-09) ◦ QCVN 112:2017/BTTTT ◦ KS X 3124:2020 ◦ KS X 3126:2020 ◦ EN 61000-6-1: 2019 • Security: ◦ IEEE 802.11h, 802.11d ◦ WPA2-Personal (802.11i) ◦ WPA2-Enterprise with 802.1X ◦ WPA3-Personal, WPA3-Enterprise ◦ WPA3-Enhanced Open (OWE) ◦ Advanced Encryption Standard (AES) • Extensible Authentication Protocol (EAP) types: ◦ EAP-Transport Layer Security (TLS) ◦ EAP-Tunneled TLS (TTLS) or Microsoft Challenge Handshake Authentication Protocol (MSCHAP) v2 ◦ Protected EAP (PEAP) v0 or EAP-MSCHAP v2 ◦ EAP-Flexible Authentication via Secure Tunneling (EAP-FAST) ◦ PEAP v1 or EAP-Generic Token Card (GTC) ◦ EAP-Subscriber Identity Module (SIM)
Certifications	• Wi-Fi Alliance: Wi-Fi 6 (R2), Wi-Fi 6E, WPA3-R3, WPA3-Suite B, Enhanced Open Security • Bluetooth SIG: Bluetooth Low Energy



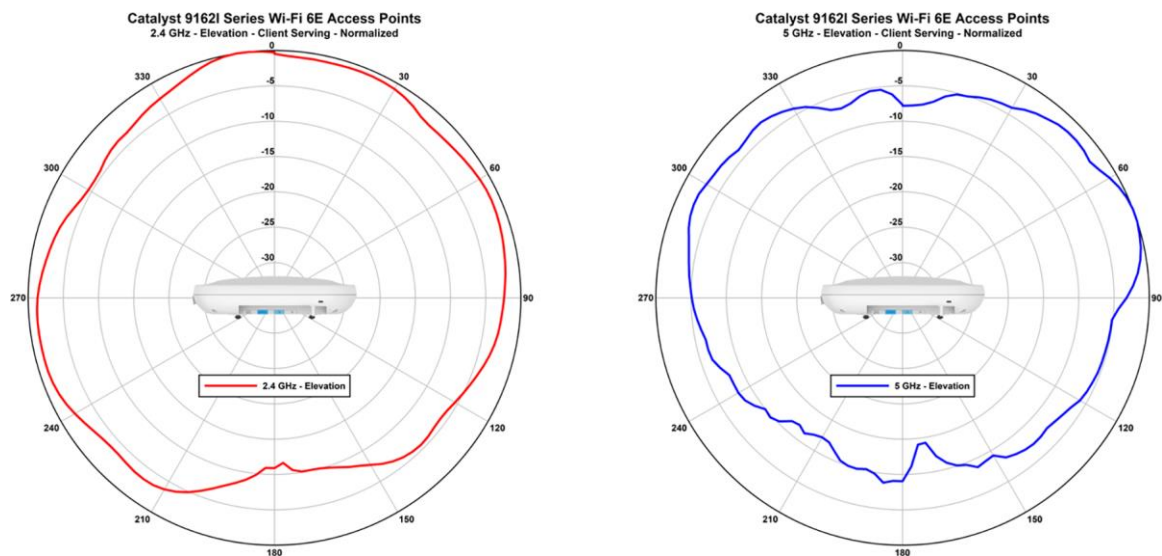


Figure 2.
Antenna patterns for Catalyst 9162I 2.4-GHz and 5-GHz client serving radios

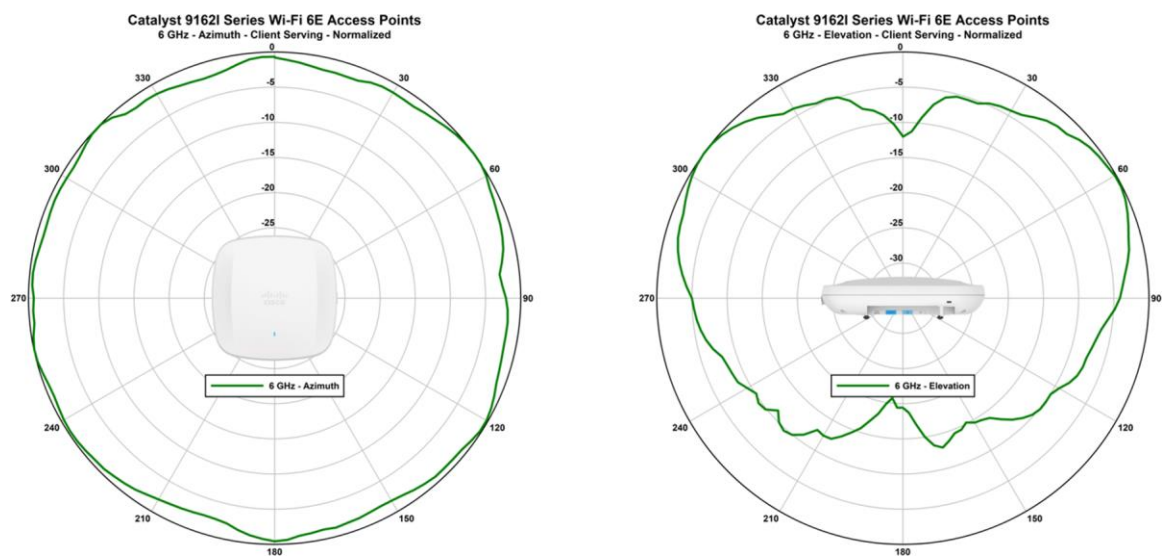


Figure 3.
Antenna patterns for Catalyst 9162I 6-GHz client serving and scanning radios

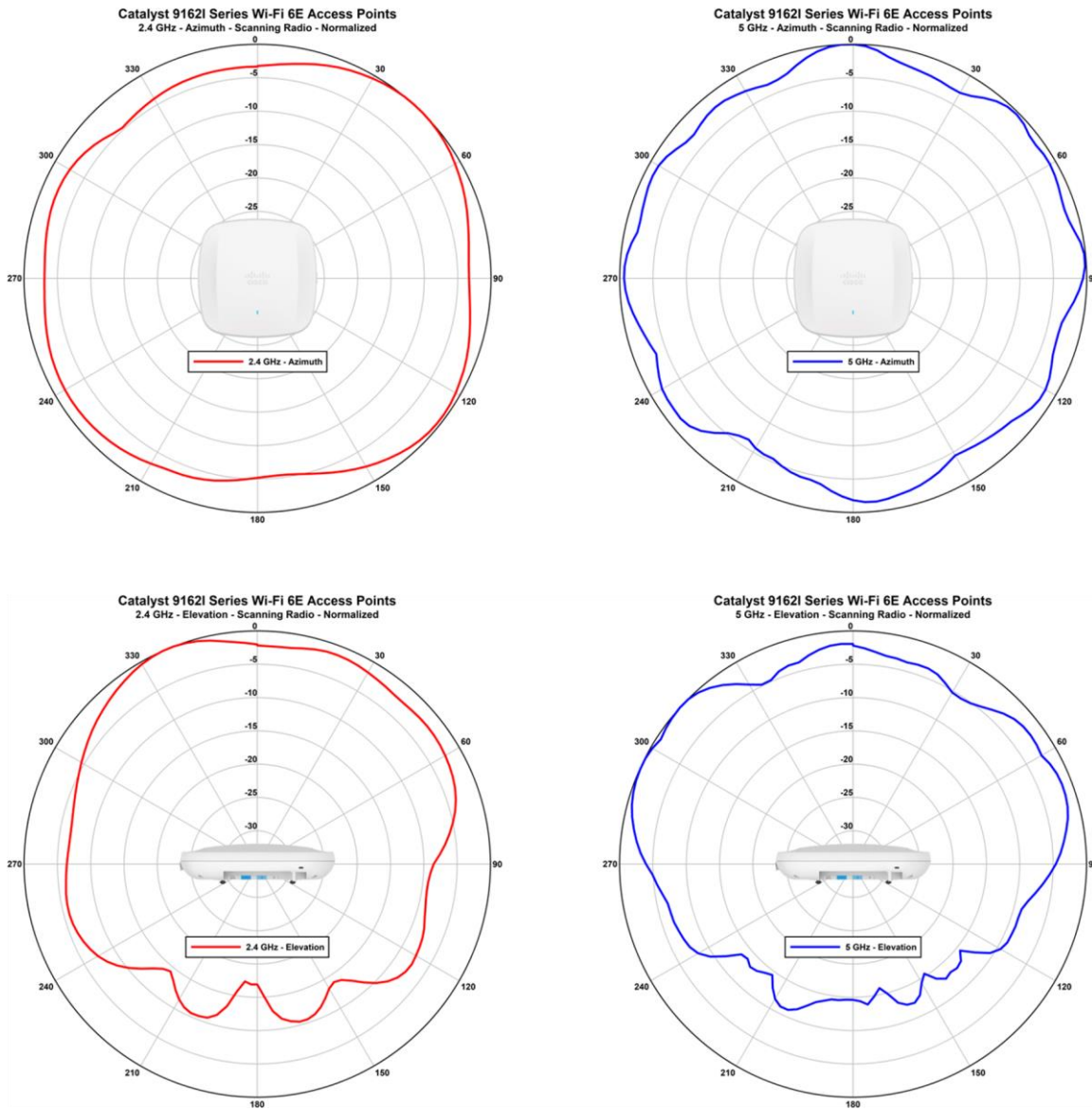


Figure 4.
Antenna patterns for Catalyst 9162I 2.4-GHz and 5-GHz scanning radios

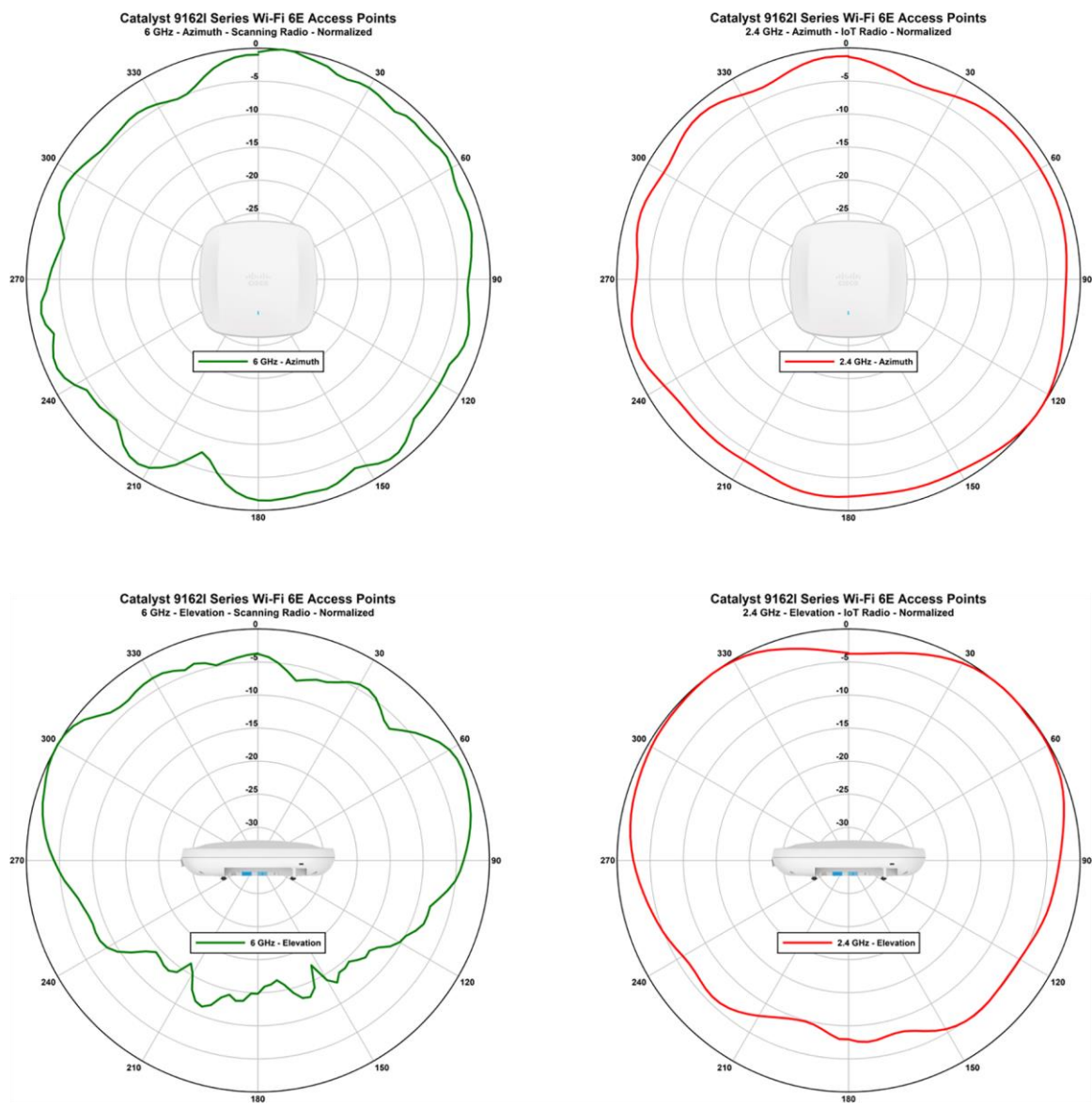


Figure 5.
Antenna patterns for Catalyst 9162I 6-GHz scanning radio and 2.4-GHz IoT radio

Licensing

For information about licensing and packaging, refer to [Cisco Licensing](#).

Warranty information

The Cisco Catalyst 9162 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>.

Cisco environmental sustainability

Information about Cisco's environmental sustainability policies and initiatives for our products, solutions, operations, and extended operations or supply chain is provided in the "Environment Sustainability" section of Cisco's [Corporate Social Responsibility](#) (CSR) Report.

Reference links to information are below.

Information on product material content laws and regulations: [Materials](#).

Information on electronic waste laws and regulations, including products, batteries, and packaging: [WEEE compliance](#).

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Cisco 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 Catalyst 9162 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 DNA-ready infrastructure.

Smart Account

Creating a Smart Account by using the Cisco Smart Software Manager (SSM) enables you to order devices and licensing packages and also manage your software licenses from a centralized website. For more information on Smart Accounts, refer to <https://www.cisco.com/go/smartaccounts>.

Cisco Capital

Flexible payment solutions to help you achieve your objectives

Cisco Capital makes it easier to get the right technology to achieve your objectives, enable business transformation, and stay competitive. We can help you reduce the total cost of ownership, conserve capital, and accelerate growth. In more than 100 countries, our flexible payment solutions can help you acquire hardware, software, services, and complementary third-party equipment in easy, predictable payments. [Learn more](#).

Document history

New or Revised Topic	Described In	Date
Cisco DNA Spaces name change	Updated product name to Cisco Spaces	10/14/22

Americas Headquarters
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Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
Singapore

Europe Headquarters
Cisco Systems International BV Amsterdam,
The Netherlands

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