CW9166 Datasheet

Ultra-High Performance Wi-Fi 6E Wireless

Tri-band 802.11ax-compatible access point with separate radios dedicated to security, RF management, and Bluetooth® coupled with a USB port for added connectivity options.

Figure 1.

Catalyst 9166 Series access point

Figure 2.

Catalyst 9166D1, pictured with different configurations utilizing a bracket [AIR-AP-Bracket-2] and articulating arm [CW-MNT-ART2-00]

Flexible Deployment Options

The Cisco Catalyst 9166 Series Access Points (AP) allow you to choose between on premises and cloud management. They are the next-generation APs perfect for mission critical deployments and support the new 6GHz band for Wi-Fi.

They are resilient, secure, and intelligent.

The Cisco Catalyst 9166 series Wi-Fi 6E access points enable operation in the 6GHz band to produce a network that is more reliable and secure, with higher throughput, more capacity, and less device interference. These access points provide three 4x4 radios and a host of cutting-edge features, including integrated environmental sensors (Only in DNA Mode) and IoT radios. The Catalyst 9166 Series even offers an internal directional antenna model - the Catalyst 9166D1 - designed for use cases and areas with high ceilings such as auditoriums, warehouses, and other large open space areas. The Catalyst 9166D1 should be leveraged where typically external antennas would be required. And because the Catalyst 9166D1 uses a built-in directional antenna, it eliminates the need for additional hardware to achieve ideal wireless coverage.

Operational management is flexible because customers can change their network management whenever they want. If a network with Cisco Catalyst 9166 Series Access Points was originally an on-premises deployment, it can be changed to cloud-based management without the need to purchase and redistribute additional hardware, saving you money as you network your way.

With the industry's leading on-premises network platform (Catalyst) joining the industry's leading cloud IT platform (Meraki), these access points provide an unparalleled network experience. For organizations that need a wireless solution to deliver a reliable, flexible, and superior experience for your users, the Cisco Catalyst 9166 Series Access Points are the best choice.

Cisco Meraki Cloud Management

Pairing the Cisco Catalyst 9166 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 9166 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

Cisco DNA and Catalyst 9800 WLC support

Cisco Catalyst 9166 Series Access Points can also be paired with Catalyst 9800 WLC and Cisco Catalyst Center. Cisco Catalyst Center allows you to understand your network with real-time analytics, quickly detect and contain security threats, and easily provide network-wide consistency through automation and virtualization.

Working together, the Catalyst 9166 Series and Cisco DNA offer such features as:

- Cisco Spaces
- Cisco Identity Services Engine
- Cisco DNA Analytics and Assurance along with Intelligence Capture (iCAP)
- For information about Cisco DNA, refer to the Cisco DNA Solution Overview.

Software configurable flex radio architecture for 6 GHz support

The Cisco Catalyst Wireless 9166 supports a software-defined flex radio which can be operated in either a 5 GHz or 6 GHz mode. This provides an option to operate the AP in either a dual 5 GHz configuration or a true tri-band configuration.

Tri-band configuration unlocks the use of the new spectrum in the 6 GHz frequency range, which provides additional channels to increase throughput and reduce interference and noise from legacy devices. 6 GHz support ensures that the CW9166 supports future technologies.

High-Performance 802.11ax compatible wireless

The CW9166 is a cloud-managed 4x4:4 802.11ax compatible access point that raises the bar for wireless performance and efficiency. Designed for next-generation deployments in offices, schools, hospitals, retail shops, and hotels, the CW9166 offers high throughput, enterprise-grade security, and simple management.

The CW9166 provides a maximum of 7.78 Gbps* aggregate frame rate with concurrent 2.4 GHz, 5 GHz, and 6 GHz radios. A dedicated fourth radio provides real-time WIDS/WIPS with automated RF optimization, and a fifth integrated IoT radio delivers Bluetooth scanning and beaconing.

With the combination of cloud management, high-performance hardware, multiple radios, and advanced software features, the CW9166 makes an outstanding platform for the most demanding of uses—including high-density deployments and bandwidth or performance-intensive applications like voice (Cisco WebEx) and high-definition video.

CW9166 and Meraki cloud management

Management of the CW9166 is through the Meraki cloud, with an intuitive browser-based interface that enables rapid deployment without time-consuming deployment complexity and time-consuming staging process. Since the CW9166 is self-configuring and managed over the web, it can be deployed at a remote location in a matter of minutes, even without on-site IT staff.

24x7 monitoring via the Meraki cloud delivers real-time alerts if the network encounters problems. Remote diagnostic tools enable immediate troubleshooting over the web so that distributed networks can be managed with a minimum of hassle.

The CW9166's firmware is automatically kept up to date via the cloud. New features, bug fixes, and enhancements are delivered seamlessly over the web. This means no manual software updates to download or missing security patches to

worry about.

Product Highlights

- 4x4:4 UL/DL MU-MIMO 802.11ax compatible
- 7.78 Gbps tri-radio aggregate frame rate
- 24x7 real-time WIDS/WIPS and spectrum analytics via dedicated Scanning radio
- Integrated Bluetooth Low Energy Beacon and scanning radio
- Single 5 Gbps mGig Ethernet port support
- USB 2.0 host interface (Type A connector) with 4.5W power budget
- Enhanced transmit power and receive sensitivity
- Full-time Wi-Fi location tracking via dedicated Scanning radio
- Integrated enterprise security and guest access
- Application-aware traffic shaping
- Optimized for voice and video
- Self-configuring, plug-and-play deployment
- Sleek design blends into office environments

Features

Tri–radio aggregate frame rate of up to 7.78 Gbps*

A 6 GHz 4x4:4, 5 GHz 4x4:4 and 2.4 GHz 4x4:4 radio offer a combined tri–radio aggregate frame rate of 7.78 Gbps*. Technologies like transmit beamforming and enhanced receive sensitivity allow the CW9166 to support a higher client density than typical enterprise-class access points, resulting in better performance for more clients from each AP.

* Refers to maximum over-the-air data frame rate capability of the radio chipset, and may exceed data rates allowed by IEEE 802.11ax operation.

Multi-User Multiple Input Multiple Output (MU-MIMO)

With support for features of 802.11ax, the CW9166 offers DL and UL MU-MIMO and OFDMA for more efficient transmission to multiple clients. Especially suited to environments with numerous mobile devices, MU-MIMO and OFDMA enable multiple clients to receive data simultaneously. This increases the total network performance and improves the end-user experience.

IoT and Bluetooth Low Energy Radio

An integrated Bluetooth radio provides seamless deployment of BLE Beacon functionality and effortless visibility of Bluetooth devices. The CW9166 enables the next generation of location-aware applications while future-proofing deployments, ensuring it’s ready for any new customer engagement strategies.

Automatic cloud-based RF Optimization

The CW9166's sophisticated and automated RF optimization means that there is no need for the dedicated hardware and RF expertise typically required to tune a wireless network. The RF data collected by the dedicated fourth radio is continuously fed back to the Meraki cloud. This data is then used to automatically tune the channel selection, transmit power, and client connection settings for optimal performance under even the most challenging RF conditions.

Integrated Enterprise Security and Guest Access

The CW9166 features integrated, easy-to-use security technologies to provide secure connectivity for employees and guests alike. Advanced security features such as AES hardware-based encryption and Enterprise authentication with 802.1X and Active Directory integration provide wired-like security while still being easy to configure. CW9166 will also support 192-bit encryption along with WPA3 support for added security of the wireless network.

One-click guest isolation provides secure, Internet-only access for visitors. PCI compliance reports check network settings against PCI requirements to simplify secure retail deployments.

Dedicated scanning radio delivers 24x7 Air Marshal and RF analytics

There's no need to choose between wireless security (AirMarshal), advanced RF analysis, and serving client data. A dedicated scanning radio means that all functions occur in real-time, without any impact on client traffic or AP throughput.

The CW9166's dedicated tri-band scanning radio security radio continually monitors the environment, characterizing RF interference and containing wireless threats like rogue access points. Containment is only possible in the 2.4 GHz and 5 GHz frequencies as 6 GHz requires Protected Management Frames (PMF).

Enterprise Mobility Management (EMM) & Mobile Device Management (MDM) integration

Meraki Systems Manager natively integrates with the CW9166 to offer automatic, context-aware security. System Manager's self-service enrollment helps to rapidly deploy MDM without installing additional equipment and then dynamically tie firewall and traffic shaping policies to client posture.

Application-aware traffic shaping

The CW9166 includes an integrated layer 7 packet inspection, classification, and control engine, enabling the configuration of QoS policies based on traffic type, helping to prioritize mission-critical applications while setting limits on recreational traffic like peer-to-peer and video streaming. Policies can be implemented per network, SSID, user group, or individual user for maximum flexibility and control.

Voice and video optimizations

Industry-standard QoS features are built-in and easy to configure. Wireless Multimedia (WMM) access categories, 802.1p, and DSCP standards support all ensure important applications get prioritized correctly, not only on the CW9166

but also on other network devices on. Unscheduled Automatic Power Save Delivery (U-APSD) and Target Wait Time feature in 802.11ax clients ensure minimal battery drain on wireless VoIP phones.

Self-configuring, self-maintaining, always up-to-date

When plugged in, the CW9166 automatically connects to the Meraki cloud, downloads its configuration, and joins the appropriate network. Administrators can schedule automatic firmware upgrades for their Dashboard network seamlessly. This ensures the network is kept up-to-date with bug fixes, security updates, and new features.

Meraki Health

CW9166 will support all the latest and greatest analytics to provide AI/ML anomaly detection, server root cause analysis, wireless client scoring based on performance and connectivity metrics, and network benchmarking for networks of similar size and vertical. Along with these features, CW9166 will provide advanced location analytics via API and graphs in Dashboard to provide a clear picture of client density and their movement across the floor plan.

Choice of Mode

Cisco Catalyst 9166 Series Access Points can be managed either on-premises with Catalyst 9800 Wireless Lan Controllers (WLC) or cloud-managed through the Meraki dashboard. Customers have the flexibility to deploy these access points in one mode and migrate to the other mode in the future.

Specifications

Category	Specifications
Radios	• 2.4 GHz 802.11b/g/n/ax client access radio • 5 GHz 802.11a/n/ac/ax client access radio • 6 GHz 802.11ax client access radio • 2.4 GHz, 5 GHz, and 6 GHz tri-band Air Marshal WIDS/WIPS, spectrum analysis, & location analytics radio Due to the 6 GHz band requiring PMF some Air Marshal featurestions may not be effective • 2.4 GHz Bluetooth Low Energy (BLE) radio with Beacon and BLE scanning support Concurrent operation of all five radios

Antenna	• CW9166I ◦ 2.4 GHz: Peak gain 3 dBi, internal antenna, omnidirectional in azimuth ◦ 5 GHz: Peak gain 5 dBi, internal antenna, omnidirectional in azimuth ◦ 5 GHz: (XOR) Peak gain 5 dBi, internal antenna, omnidirectional in azimuth ◦ 6 GHz: Peak gain 4 dBi, internal antenna, omnidirectional in azimuth • CW9166D1 ◦ 2.4 GHz: Peak gain 6 dBi, directional antenna, (70x70) ◦ 5 GHz: Peak gain 6 dBi, directional antenna, (70x70) ◦ 5 GHz (XOR): Peak gain 8 dBi, directional antenna, (60x60) ◦ 6 GHz: Peak gain 8 dBi, directional antenna, (60x60)
802.11ax compatible, 802.11ac Wave 2 and 802.11n Capabilities	• UL/DL-OFDMA • Target Wait Time (TWT) • BSS coloring* • SU-MIMO and DL MU-MIMO support • Maximal ratio combining (MRC) • 802.11ax beamforming • 20 and 40 MHz* channels (802.11n) • 20, 40*, 80 MHz channels (802.11ac Wave 2) • 20, 40*, 80 and 160MHz channels (802.11ax) **Note:** *40MHz channels are supported only in 5 & 6 GHz bands.

	• Up to 1024-QAM on 2.4 GHz, 5 GHz and 6 GHz bands • Packet aggregation - A-MPDU (transmit and receive), A-MSDU (transmit and receive)
Power	• Power over Ethernet: 42.5 - 57 V (PoE+ and UPoE compliant) • DC Power Adapter (54V) • Power requirement USB: Up to 30.5W (UPOE) • Power requirement No USB: Up to 25W (PoE+) • Power over Ethernet injector and DC adapter sold separately Actual power consumption may vary depending on the AP usage

CW9166I

Power Source	2.4 GHz radio	5 GHz radio	6 GHz radio	Link speed	USB	Maximum PoE Power consumption
802.3bt (UPOE)	4x4	4x4	4x4	5Gbps	Y (4.5W)	30.5W
802.3at (PoE+)	4x4	4x4	4x4	5Gbps	N	25 W
802.3af (PoE)	–	–	–	–	–	–
DC Power	4x4	4x4	4x4	5Gbps	Y	

CW9166D1

Power Source	2.4 GHz radio	5 GHz radio	6 GHz radio	Link speed	USB	Maximum PoE Power consumption

802.3bt (UPOE)	4x4	4x4	4x4	5Gbps	Y (4.5W)	30.5W
802.3at (PoE+)	4x4	4x4	4x4	5Gbps	N	25 W
802.3af (PoE)	–	–	–	–	–	–
DC Power	4x4	4x4	4x4	5Gbps	Y	

It is recommended that you ensure that LLDP is enabled to allow proper power negotiation

802.3af PoE is not supported

Interfaces	• 1x 100/1000/2.5G/5G BASE-T Ethernet (RJ45) • 1x DC power connector (8 mm, center positive) • USB 2.0 at 4.5W • RJ45 Console port - Only available in DNA Mode • Environmental Interfaces - Only available in DNA Mode
Mounting	• All Cisco standard mounting hardware supported (AIR-AP-BRACKET-2 included) • Articulating Arm (CW-MNT-ART2-00 optional) • Desktop, ceiling, wall, and pole mount capable • Ceiling tile rail (9/16, 15/16, or 1 ½” flush or recessed rails), assorted cable junction boxes
Physical security	• Kensington lock slot
Environment	• CW9166I

- 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% (non-condensing)
- Operating altitude test: 40˚C (104°F) at 9843 ft (3000 m)

- CW9166D1
  - 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: -4° to 122°F (-20° to 50°C)
  - Operating humidity: 10% to 90% (noncondensing)
  - Operating altitude test: 40°C (104°F) at 9843 ft (3000 m)

Reliability

Mean Time Between Failure (MTBF):

- 1,128,980 hrs at 77°F (25°C) operating temperature
- 289,596 hrs at 122°F (50°C) operating temperature

Physical Dimensions

- CW9166I
  - 9.5 x 9.5 x 2.2 in. (241.3 x 241.3 x 56.9 mm)
  - Weight: 3.54 lb. (1.60 kg)
- CW9166D1
  - 9.5 x 9.5 x 2.28 in (241.3 x 241.3 x 57.9 mm)
  - Weight: 3.50 lb (1.59 kg)

Security

- Integrated Layer 7 firewall with mobile device policy management

	• Real-time WIDS/WIPS with alerting and automatic rogue AP containment with Air Marshal • Flexible guest access with device isolation • VLAN tagging (802.1q) and tunneling with IPsec VPN • PCI compliance reporting • WPA2-PSK, WPA2-Enterprise, WPA3 - Personal, WPA3 - Enterprise, WPA3 - Enhanced Open (OWE) • EAP Local authentication - EAP-TTLS/PAP, PEAP-GTC, EAP-TLS • Advanced Encryption Standard (AES) • Enterprise Mobility Management (EMM) & Mobile Device Management (MDM) integration • Cisco ISE integration for Guest access and BYOD Posturing
Quality of Service	• Advanced Power Save (U-APSD) • WMM Access Categories with DSCP and 802.1p support • Layer 7 application traffic identification and shaping
Mobility	• PMK, OKC, & 802.11r for fast Layer 2 roaming • Distributed or centralized layer 3 roaming
Analytics	• Embedded location analytics reporting and device tracking • Global L7 traffic analytics reporting per network, per device, & per application
LED Indicators	• One power/booting/firmware upgrade status
Regulatory	• RoHS

	• For additional country-specific regulatory information, please contact Meraki sales
Warranty	• Indoor access point • Lifetime hardware warranty with advanced replacement included
Ordering Information	• CW9166I-MR: Meraki CW9166I Cloud Managed Omnidirectional 802.11ax Compatible AP • CW9166D1-MR: Meraki CW9166I Cloud Managed Directional 802.11ax Compatible AP • MA-PWR-50WAC: Meraki AC Adapter for MR Series (power cable separate SKU) • MA-INJ-6: Meraki Multigigabit 802.3bt Power over Ethernet Injector (power cable separate SKU) • Cisco AIR-PWRINJ-6 802.3at • Cisco AIR-PWRINJ-7 802.3bt Power cord - MA-PWR-CORD-XX (XX Country Code) should be ordered separately for the AC adapter and Ethernet injector • Mounting bracket: ◦ CW9166I: AIR-AP-BRACKET-1 and AIR-AP-BRACKET-2(bundled) ◦ CW9166ID1: AIR-AP-BRACKET-2(bundled) • Articulating Arm: CW-MNT-ART2-00 • Meraki access point license required

Software features can be enabled via firmware updates

Compliance and Standards

Category	Standard
IEEE Standards	• 802.3 ab/bz

	• 802.3 af/at/bt • 802.11a/b/g/n/ac/ax • 802.11d/h/i/k/r/u/v/w
Certifications	● **Wi-Fi Alliance:** Wi-Fi 6 (R2), Wi-Fi 6E, WPA3-R3, WPA3-Suite B, Enhanced Open Security ● **Bluetooth SIG:** Bluetooth Low Energy
Safety Approvals	• CSA and CB 60950 & 62368 • EN 60601 certified • Conforms to UL 2043 (Plenum Rating)
Radio Approvals	• FCC Part 15C • 15E RSS-247 (Canada) • EN 300 328 (v2.1.1) • EN 301 893 (v2.1.1) • AS/NZS 4268 (Australia/NZ) • NOM-121 (Mexico) • NCC LP0002 (Taiwan) For additional country-specific regulatory information, please contact Meraki sales
EMI Approvals (Class B)	• FCC Part 15B • ICES-003 (Canada) • EN 301 489-1-17

	• EN 55032 • EN 55024 (Europe) • CISPR 32 (Australia/NZ) VCCI (Japan)
Exposure Approvals	• FCC Part 2 RSS-102 (Canada) • EN 50385 • EN 6231 • EN 62479 (Europe) • AS/NZS 2772 (Australia/NZ)

Context and Comparisons

802.11ax, 802.11ac Wave 2 and 802.11n Capabilities

MR44	MR46	MR56	CW9166I	CW9166D1
DL-OFDMA, UL-OFDMA, TWT support**, BSS coloring**	DL-OFDMA, UL-OFDMA, TWT support**, BSS coloring**	DL-OFDMA, UL-OFDMA, TWT support**, BSS coloring**	DL-OFDMA, UL-OFDMA, TWT support**, BSS coloring**	DL-OFDMA, UL-OFDMA, TWT support**, BSS coloring**
2.4 GHz: 2 x 2 multiple input, multiple output (MIMO) with two spatial streams 5 GHz: 4 x 4 multiple input, multiple output	2:4GHz: 4 x 4 multiple input, multiple output (MIMO) with four spatial streams 5 GHz: 4 x 4 multiple input, multiple output	2.4 GHz: 4 x 4 multiple input, multiple output (MIMO) with four spatial streams 5 GHz: 8 x 8 multiple input,	2.4 GHz 4 x 4 multiple input, multiple output (MIMO) with four spatial streams 5 GHz: 4 x 4 multiple input, multiple output (MIMO) with	2.4 GHz 4 x 4 multiple input, multiple output (MIMO) with four spatial streams 5 GHz: 4 x 4 multiple input, multiple output (MIMO) with

(MIMO) with four spatial streams	(MIMO) with four spatial streams	multiple output (MIMO) with eight spatial streams	four spatial streams 6 GHz: 4 x 4 multiple input, multiple output (MIMO) with four spatial streams	four spatial streams 6 GHz: 4 x 4 multiple input, multiple output (MIMO) with four spatial streams
Maximal ratio combining (MRC) & beamforming	Maximal ratio combining (MRC) & beamforming	Maximal ratio combining (MRC) & beamforming	Maximal ratio combining (MRC) & beamforming	Maximal ratio combining (MRC) & beamforming
SU-MIMO, UL MU-MIMO and DL MU-MIMO support	SU-MIMO, UL MU-MIMO and DL MU-MIMO support	SU-MIMO, UL MU-MIMO and DL MU-MIMO support	SU-MIMO, UL MU-MIMO and DL MU-MIMO support	SU-MIMO, UL MU-MIMO and DL MU-MIMO support
20 and 40 MHz* channels (802.11n); 20, 40*, and 80 MHz channels (802.11ac Wave 2); 20, 40* and 80 MHz channels (802.11ax)	20 and 40 MHz* channels (802.11n); 20, 40*, and 80 MHz channels (802.11ac Wave 2); 20, 40* and 80 MHz channels (802.11ax)	20 and 40 MHz* channels (802.11n); 20, 40*, and 80 MHz channels (802.11ac Wave 2); 20, 40* and 80 MHz channels (802.11ax)	20 and 40 MHz* channels (802.11n); 20, 40*, and 80 MHz channels (802.11ac Wave 2); 20, 40*, 80MHz and 160MHz channels (802.11ax)	20 and 40 MHz* channels (802.11n); 20, 40*, and 80 MHz channels (802.11ac Wave 2); 20, 40*, 80MHz and 160MHz channels (802.11ax)
Note: *40MHz channels are supported only in 5 & 6 GHz bands.				
Up to 1024-QAM on both 2.4 GHz & 5 GHz bands	Up to 1024-QAM on both 2.4 GHz & 5 GHz bands	Up to 1024-QAM on both 2.4 GHz & 5 GHz bands	Up to 1024-QAM on all three - 2.4 GHz, 5 GHz and 6 GHz bands	Up to 1024-QAM on all three - 2.4 GHz, 5 GHz and 6 GHz bands
Packet aggregation	Packet aggregation	Packet aggregation	Packet aggregation	Packet aggregation

Power

MR44	MR46	MR56	CW9166I	CW9166D1
Power over Ethernet: 42.5 - 57 V (802.3at) **or** 37 - 57 V (802.3af) - low power mode **	Power over Ethernet: 42.5 - 57 V (802.3at compliant)	Power over Ethernet: 42.5 - 57 V (802.3at compliant)	Power over Ethernet: 42.5 - 57 V (802.3at and 802.3bt compliant)	Power over Ethernet: 42.5 - 57 V (802.3at and 802.3bt compliant)
Alternative: 12 V DC input	Alternative: 12 V DC input	Alternative: 12 V DC input	Alternative: 54 V DC input	Alternative: 54 V DC input
Power consumption: 30W max (802.3at) **or** 15W max (802.3af) - low power mode **	Power consumption: 30W max (802.3at **required**)	Power consumption: 30W max (802.3at **required**)	Power consumption: 30.5W max with USB support and 25W max without USB support	Power consumption: 30.5W max with USB support and 25W max without USB support
Power over Ethernet injector and DC adapter sold separately	Power over Ethernet injector and DC adapter sold separately	Power over Ethernet injector and DC adapter sold separately	Power over Ethernet injector and DC adapter sold separately	Power over Ethernet injector and DC adapter sold separately

** features can be enabled via future firmware updates

Interfaces

MR44	MR46	MR56	CW9166I	CW9166D1
1x 100/1000/2.5G BASE-T Ethernet (RJ45)	1x 100/1000/2.5G BASE-T Ethernet (RJ45)	1x 100/1000/2.5G/5G BASE-T Ethernet (RJ45)	1x 1000/2.5G/5G BASE-T Ethernet (RJ45)	1x 1000/2.5G/5G BASE-T Ethernet (RJ45)
1x DC power	1x DC power	1x DC power	1x DC power	1x DC power

connector (5.5 mm x 2.5 mm, center positive)	connector (5.5 mm x 2.5 mm, center positive)	connector (5.5 mm x 2.5 mm, center positive)	connector (8 mm, center positive)	connector (8 mm, center positive)

The CW9166 RJ45 console port is only available when in Cisco DNA management mode.

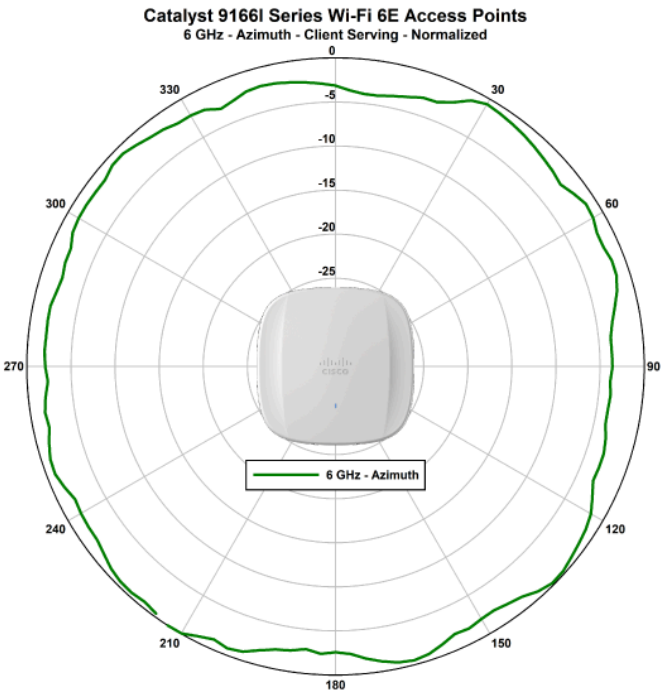
Physical Dimensions

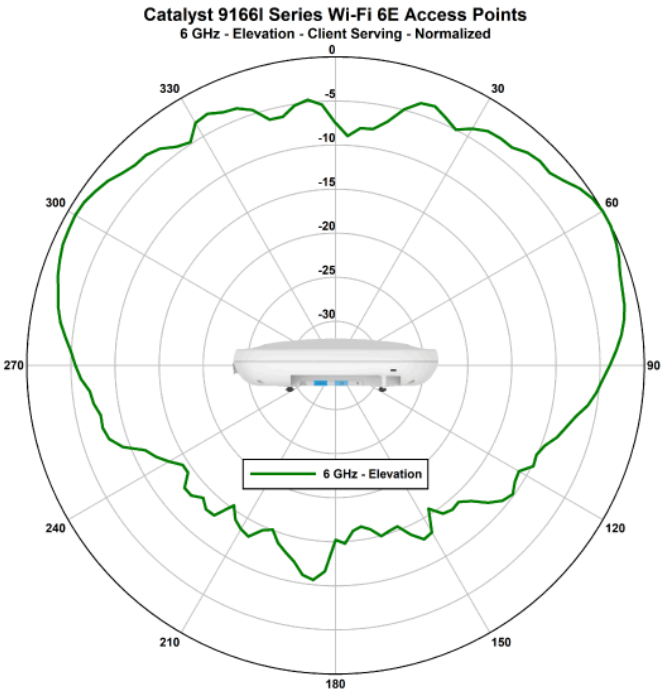
MR44	MR46	MR56	CW9166	CW9166D1
12.05" × 5.06" × 1.74" (306.0 × 12.8.4 × 44.3 mm), not including mount plate	12.05" × 5.06" × 1.74" (306.0 × 12.8.4 × 44.3 mm), not including mount plate	12.83” x 5.54” x 1.76” (326.0 x 140.79 x 44.7 mm), not including mount plate	9.5 x 9.5 x 2.2 in. (241.3 x 241.3 x 56.9 mm), not including mount plate	9.5 x 9.5 x 2.28 in. (241.3 x 241.3 x 57.9 mm), not including mount plate
Weight: 26.07 oz (0.739 kg)	Weight: 1.76lbs (0.800 kg)	Weight: 2.2lbs (1 kg)	Weight: 3.54lbs (1.60kg)	Weight: 3.50lbs (1.59kg)

Signal Coverage Pattern

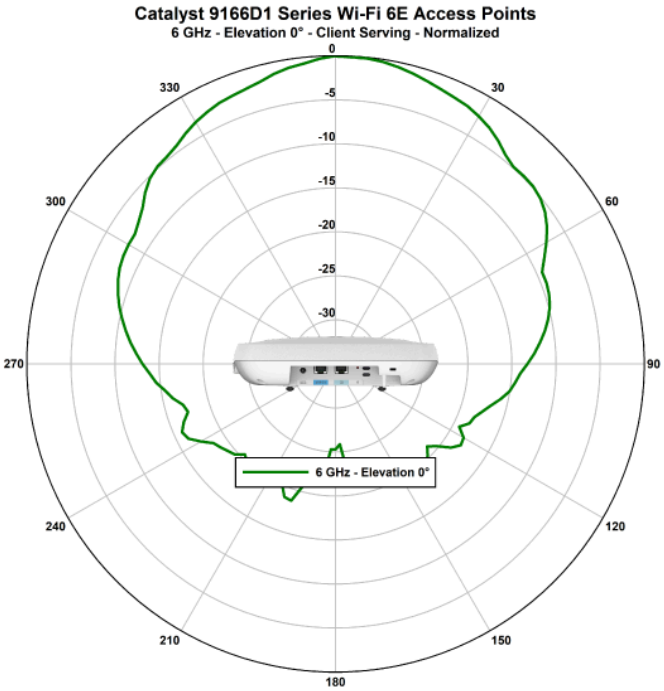
Client Serving Radios

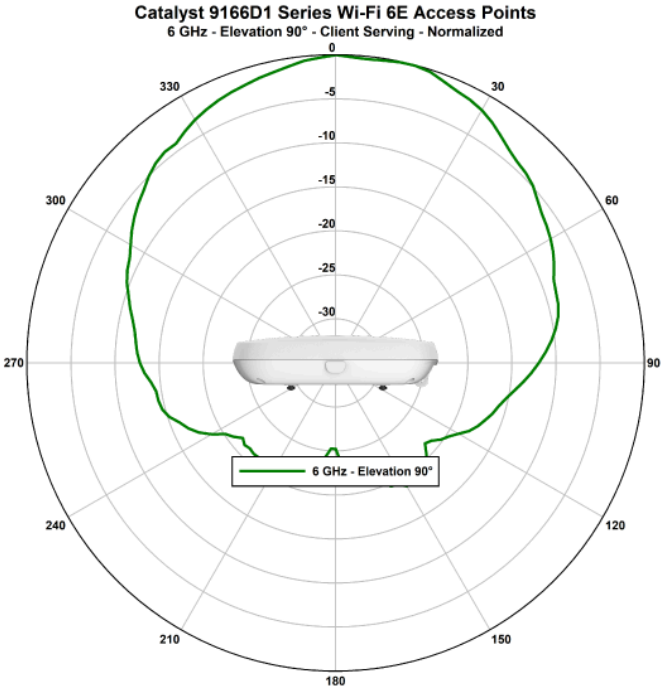
CW9166I 6 GHz Radio



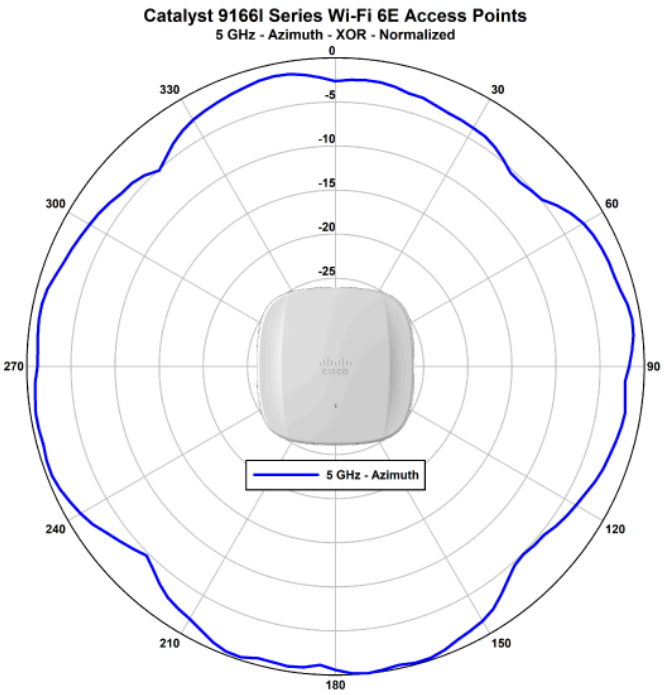


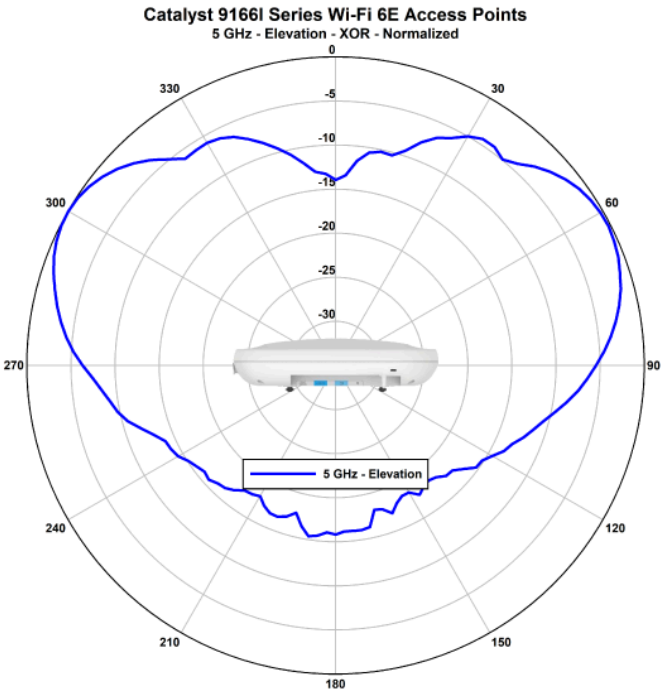
CW9166D1 6 GHz Radio



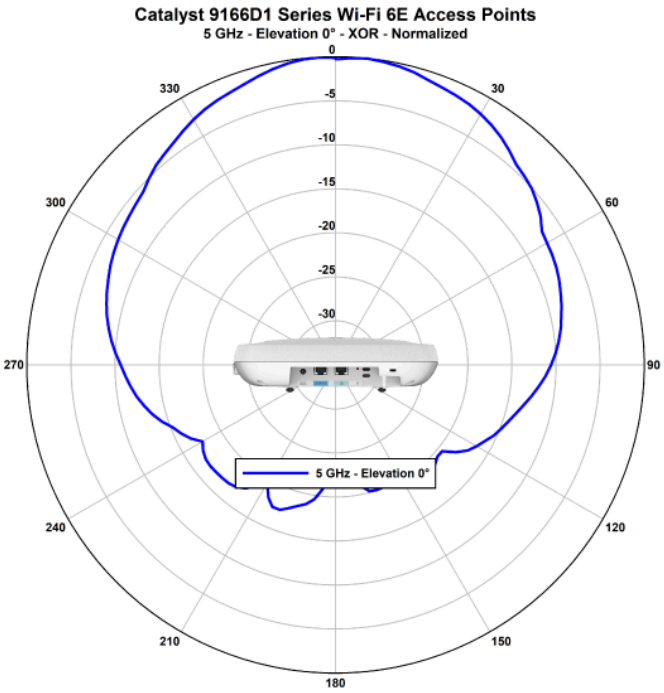


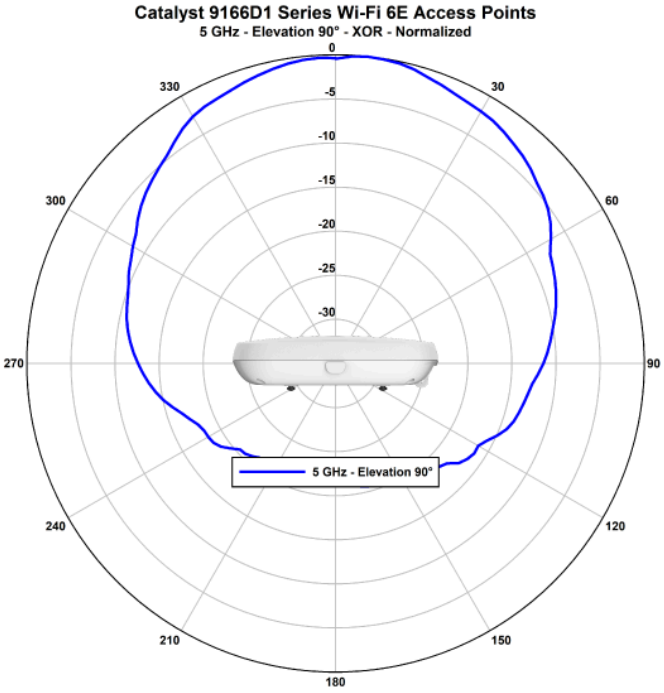
CW9166I 5 GHz(XOR) Radio



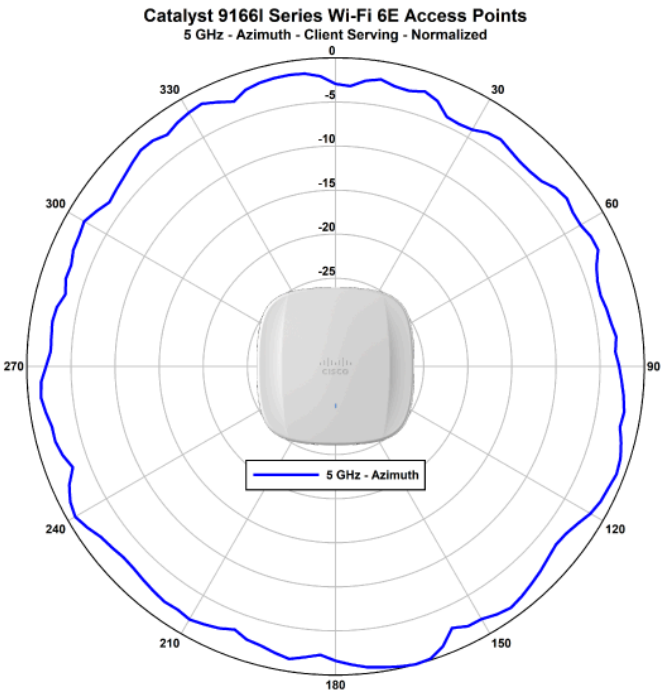


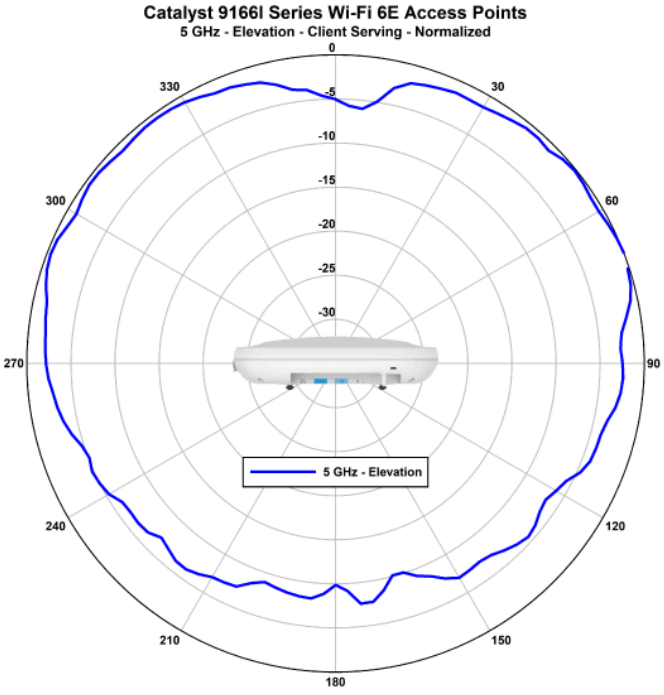
CW9166D1 5 GHz(XOR) Radio



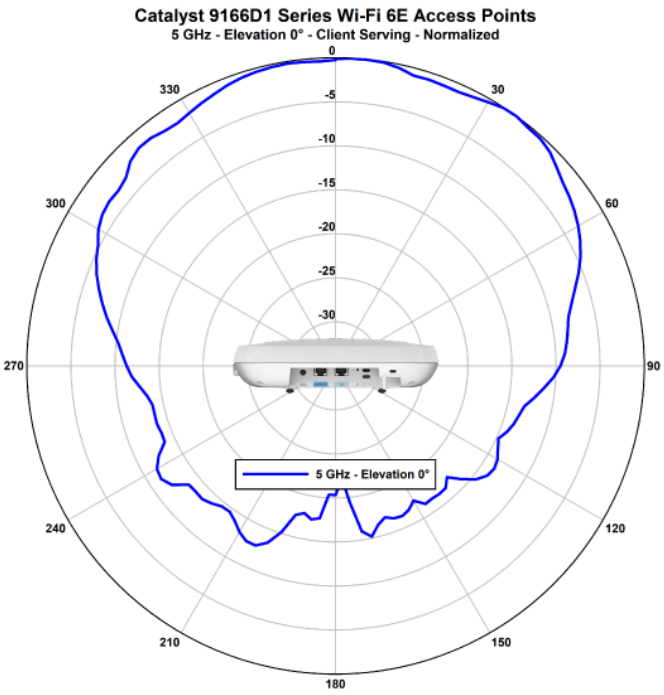


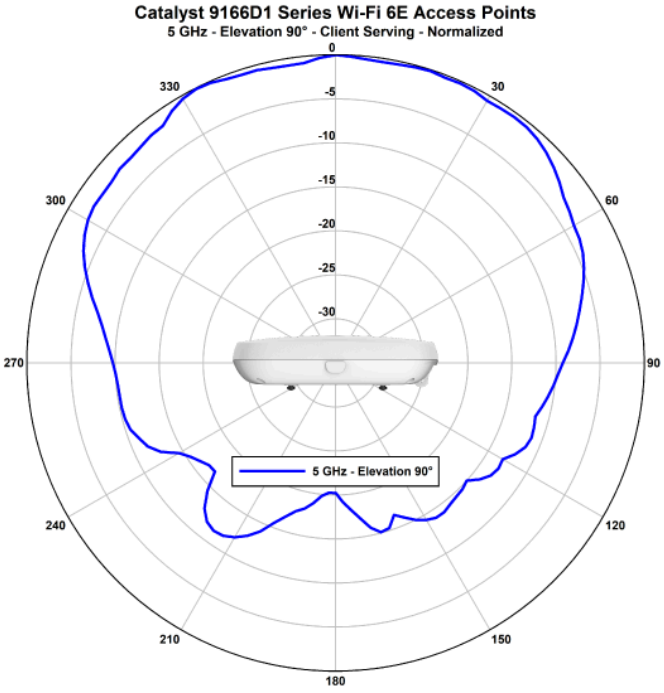
CW9166I 5 GHz Radio



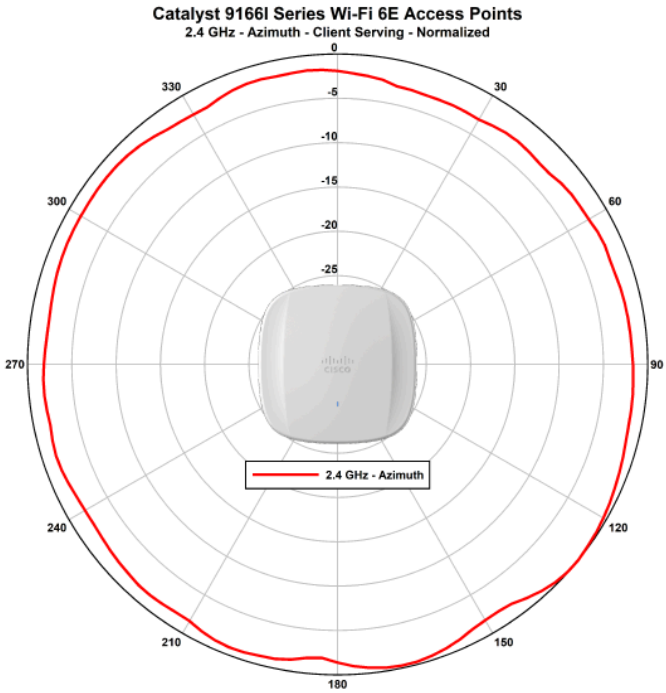


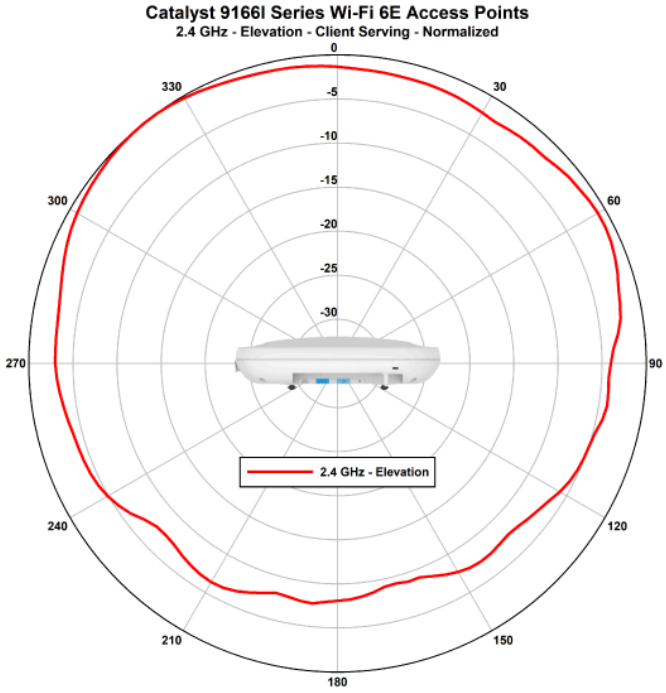
CW9166D1 5 GHz Radio



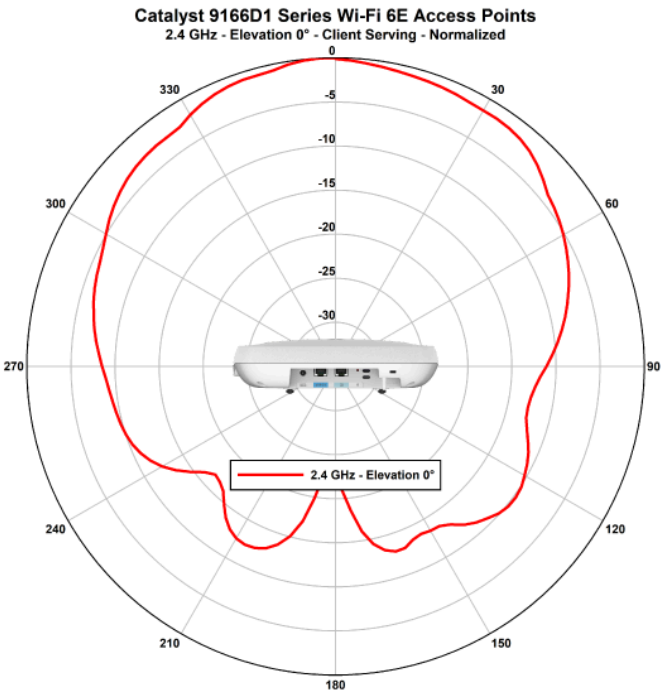


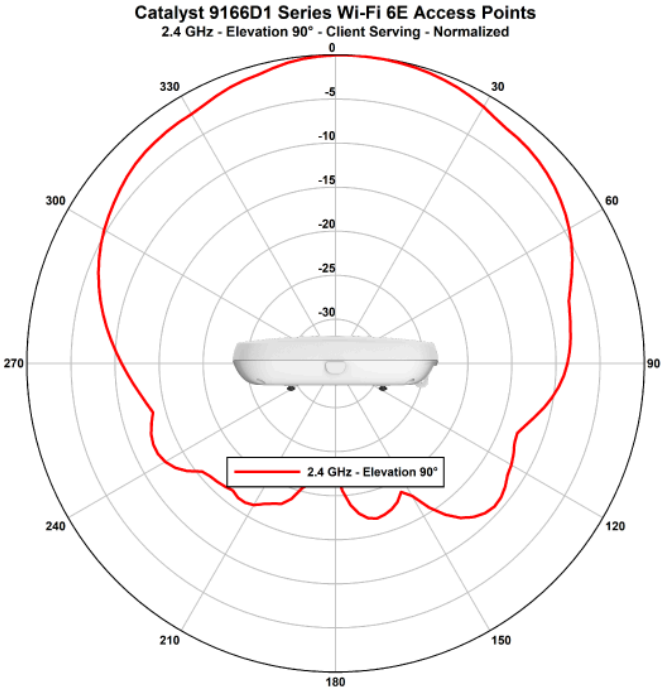
CW9166I 2.4 GHz Radio





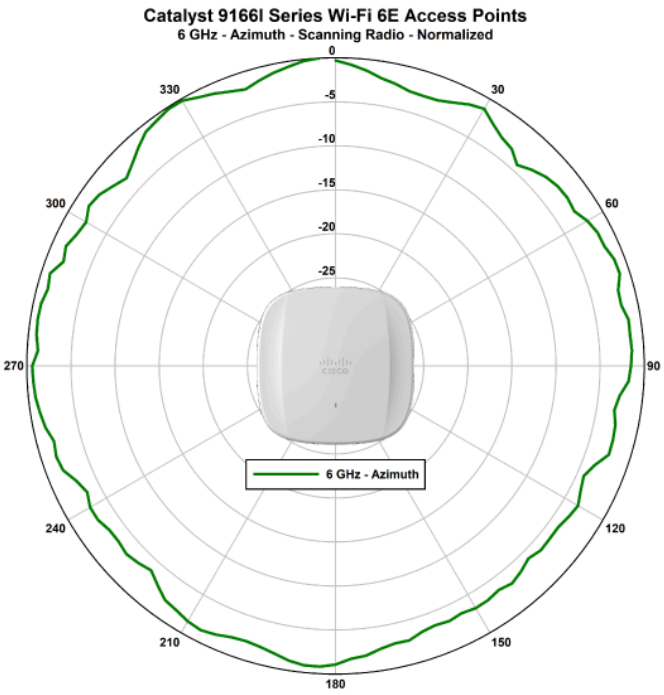
CW9166D1 2.4 GHz Radio

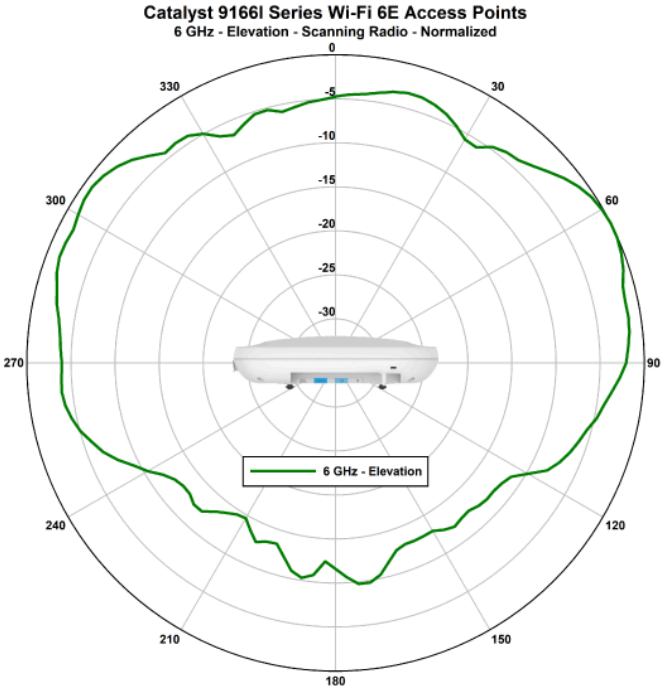




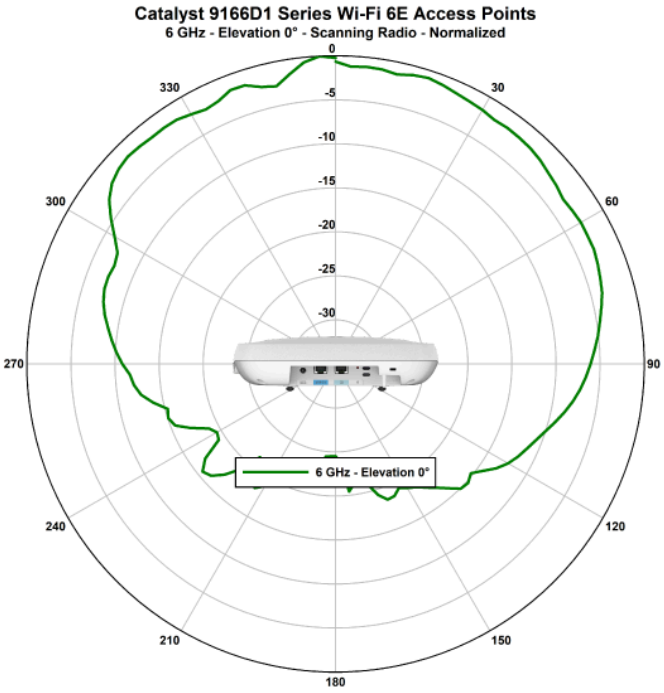
Scanning Radios

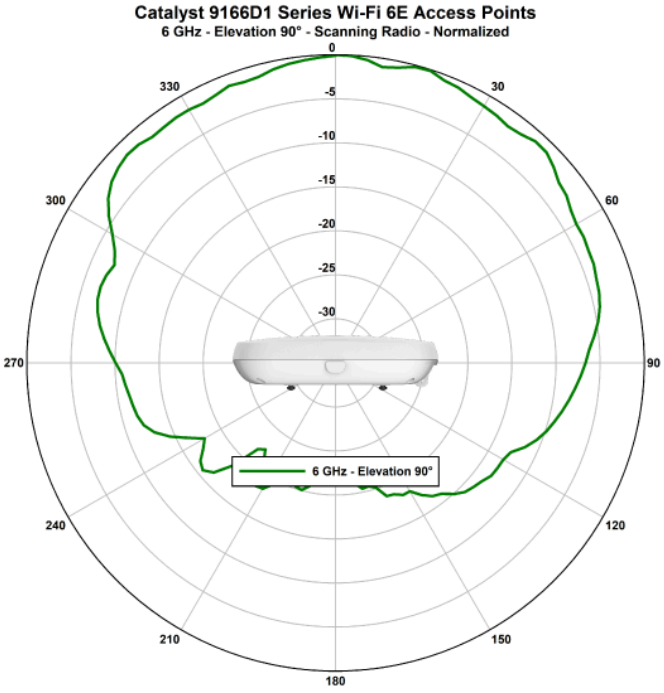
CW9166I 6 GHz Radio



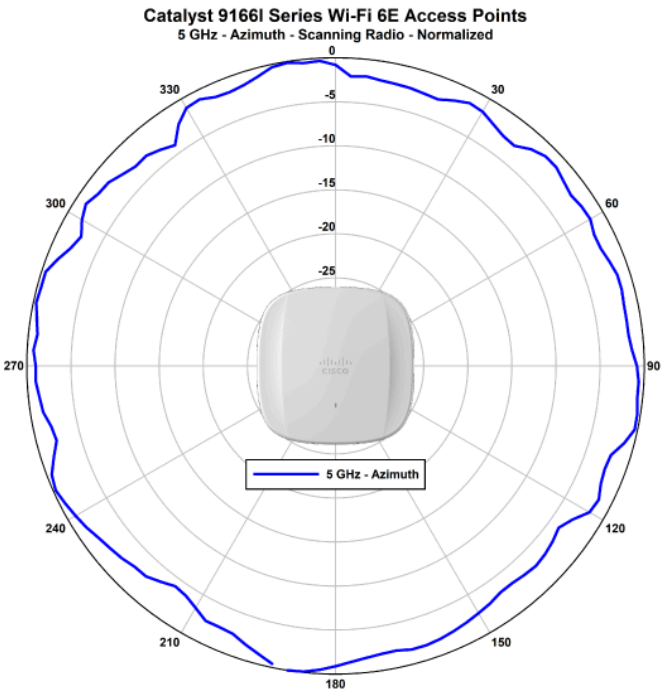


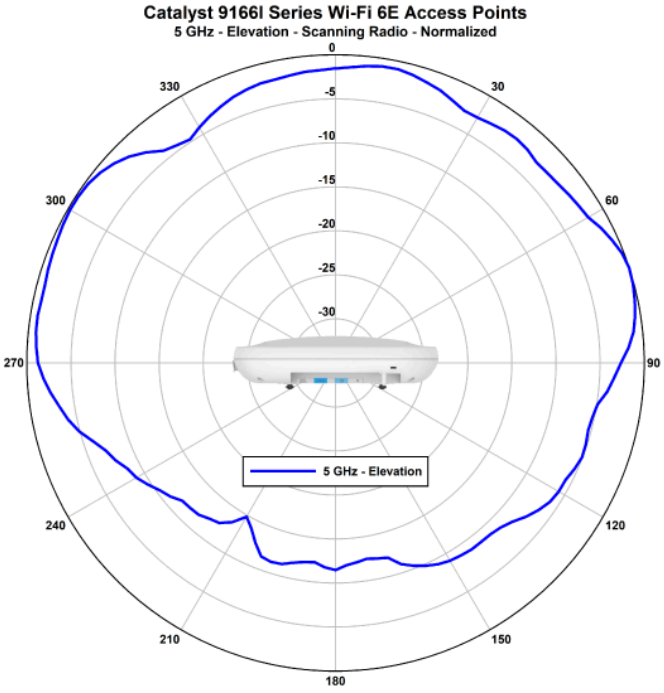
CW9166D1 6 GHz Radio



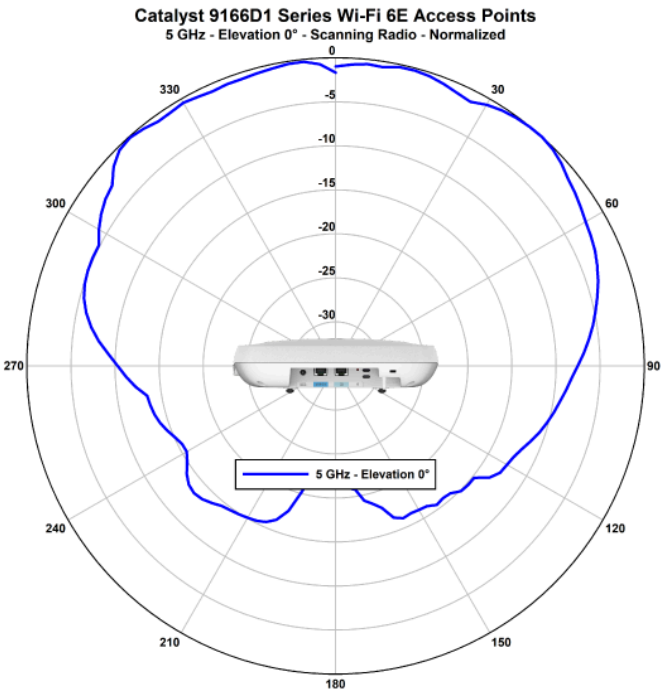


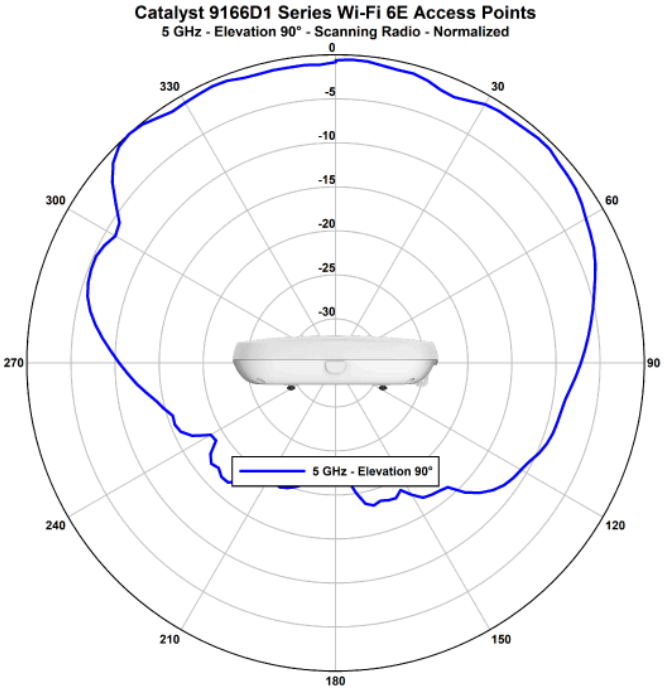
CW9166I 5 GHz Radio



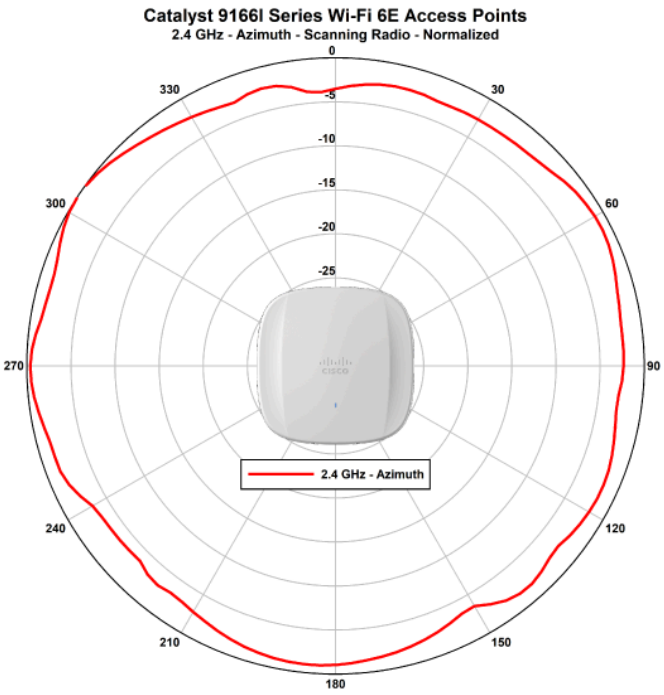


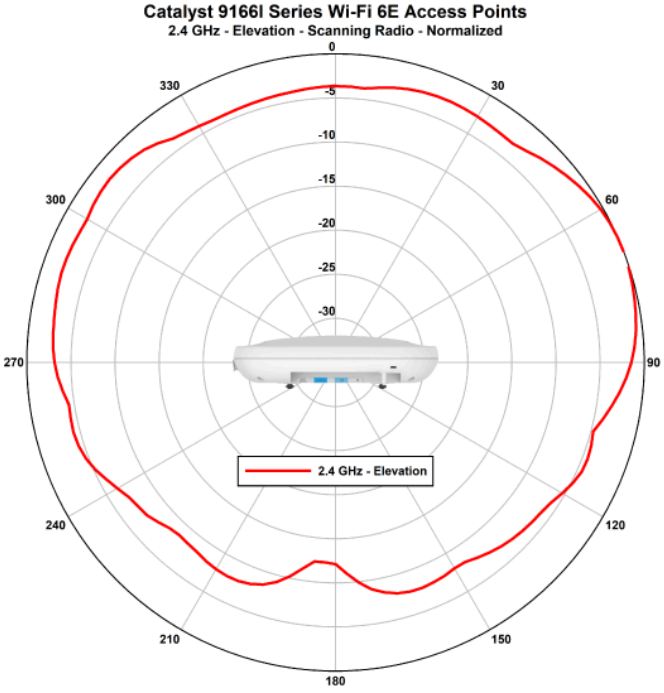
CW9166D1 5 GHz Radio



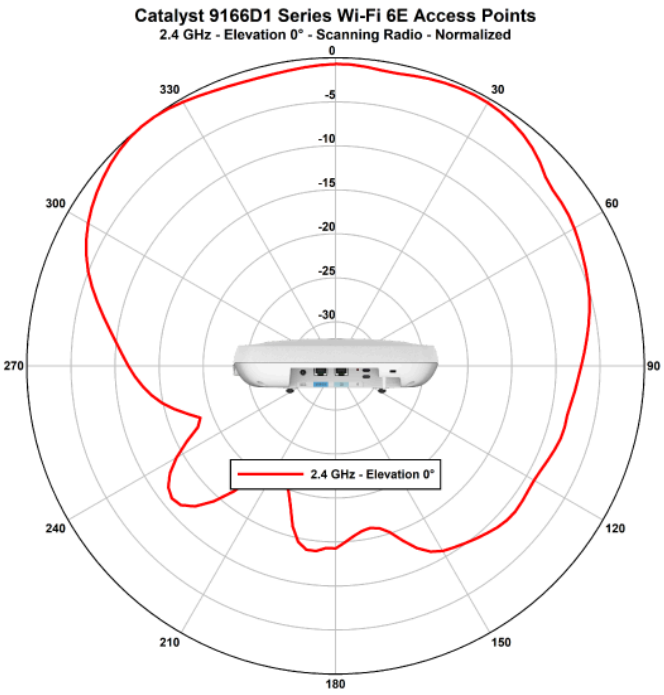


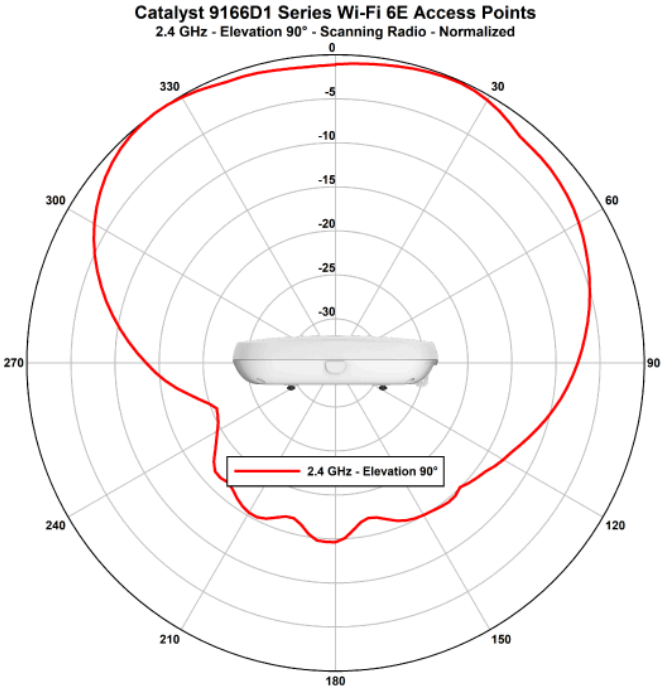
CW9166I 2.4 GHz Radio





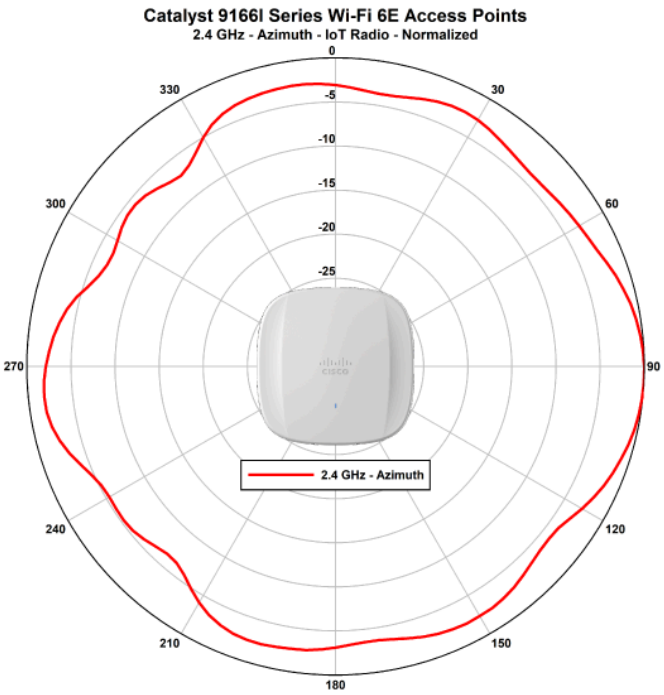
CW9166D1 2.4 GHz Radio

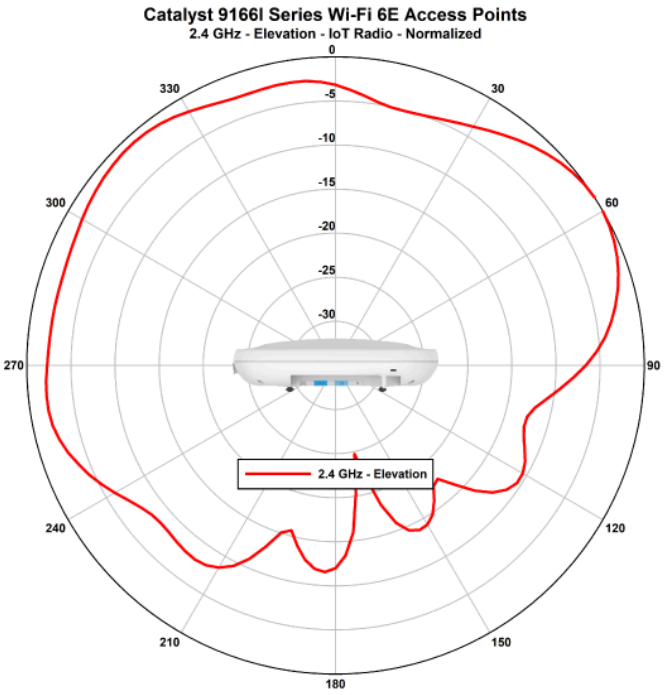




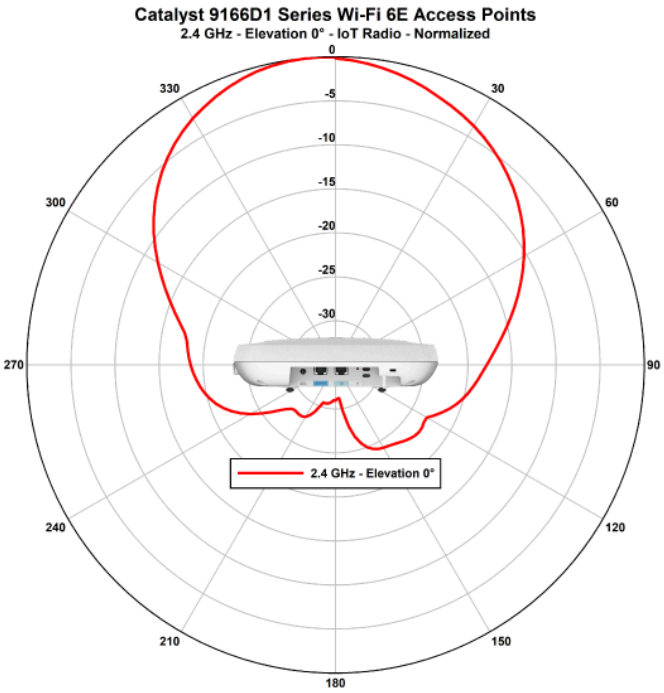
IoT Radios

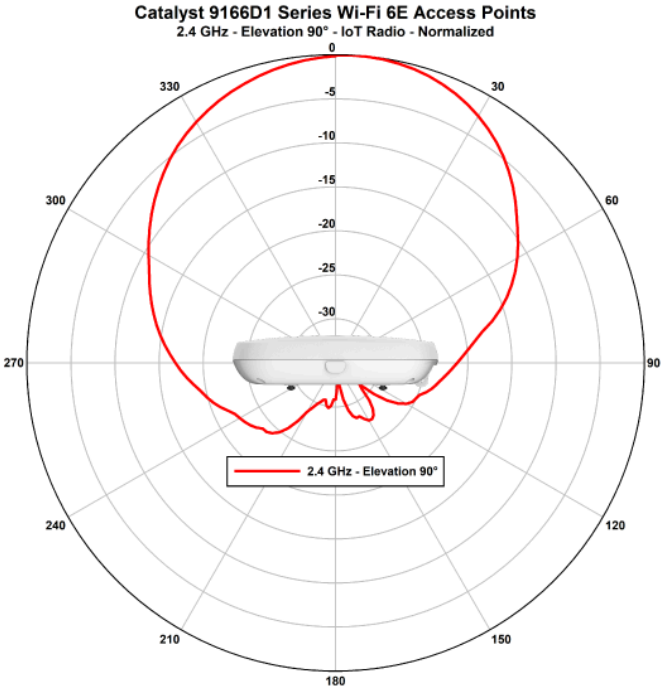
CW9166I IoT Radios





CW9166D1 IoT Radios


Catalyst 9166D1 Series Wi-Fi 6E Access Points
2.4 GHz - Elevation 0° - IoT Radio - Normalized
0
30
60
90
120
150
180
210
240
270
300
330
-5
-10
-15
-20
-25
-30
2.4 GHz - Elevation 0°


Catalyst 9166D1 Series Wi-Fi 6E Access Points
2.4 GHz - Elevation 90° - IoT Radio - Normalized
0
30
60
90
120
150
180
210
240
270
300
330
-5
-10
-15
-20
-25
-30
2.4 GHz - Elevation 90°