CW9172I Datasheet

High-Performance Wi-Fi 7 Wireless

The Cisco® Wireless 9172 Series Wi-Fi 7 access points provide a seamless entry into next-generation wireless networking, delivering reliable, high-performance connectivity for environments like boutique hotels, student housing, retail stores, healthcare clinics, remote work hubs, and distributed business locations such as satellite offices, regional branches, and logistics hubs. With a compact, energy-efficient design and flexible management options, the 9172 Series helps ensure strong, future-ready connectivity without compromising affordability.

The Cisco Wireless 9172 Series Wi-Fi 7 access points are high-performance wireless solutions designed for environments like healthcare clinics, retail stores, and distributed business locations such as regional branches and logistics hubs. With tri-radio functionality across 2.4-GHz, 5-GHz, and 6-GHz bands, the 9172 Series provides reliable, high-speed connectivity (up to 9000 Mbps) for spaces with low to moderate device density. Flexible deployment options—cloud, on-premises, or hybrid—allow seamless integration into existing networks.

The 9172I model supports flexible configurations, including a high-density 4x4 radio option for 5 GHz when the 6-GHz band is disabled, making it ideal for retail, healthcare, and branch office use. Featuring plug-and-play setup with existing mount compatibility for quick and efficient deployment.

For customers, the 9172 Series delivers reliable Wi-Fi 7 performance, enabling advanced applications like IoT integration, telehealth, and seamless customer experiences. The primary business benefit is future-ready connectivity with energy efficiency, reducing power consumption while supporting evolving network demands. This makes the 9172 Series a cornerstone for modernizing and optimizing network infrastructure.

Cisco Meraki Cloud Management

Pairing the Cisco Wireless 9172 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 Cisco Wireless 9172 Series and Cisco Meraki offer such features as:

- Cisco Spaces
- Cisco Identity Services Engine
- Wirelesss AIOps innovations
- Meraki Vision, smart cameras, and sensors for network closet monitoring

Cisco Catalyst Center and Catalyst 9800 WLC support

Cisco Wireless 9172 Series Access Points can also be paired with Catalyst 9800 WLC and Cisco Wireless Center. Cisco Wireless 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 Cisco Wireless 9172 Series and Cisco Catalyst Center offer such features as:

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

Software configurable flex radio architecture for Tri-band or High Performance Dual-band support

The CW9172I supports a software-defined flex radio which can be operated in either a 2.4/5/6 GHz 2x2:2 tri-band mode, or in a dual-band mode with 2x2:2 in 2.4GHz and 4x4:4 in 5GHz. This provides a flexible option to operate the AP in a dual-band mode, in countries where 6 GHz support is not available yet or if customers want to operate the 5 GHz radio for higher performance.

The CW9172I is a cloud-managed 2x2:2 802.11be 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 CW9172I offers high throughput, enterprise-grade security, and simple management.

The CW9172I provides a maximum of 9 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 CW9172I 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.

CW9172 and Meraki cloud management

Management of the CW9172I is through Dashboard with an intuitive browser-based interface that enables rapid deployment without time-consuming deployment

complexity and time-consuming staging process. Since the CW9172I 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 CW9172I'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

- 2x2:2 UL/DL MU-MIMO 802.11be compatible
- 9 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 2.5 Gbps mGig Ethernet port support
- USB 2.0 host interface (Type A connector) with 4.5W power budget
- Dedicated 2.4 GHz IoT Radio with Application hosting technology
- 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
- Enhanced transmit power and receive sensitivity

Features

Tri–radio aggregate frame rate of up to 9 Gbps*

A 6 GHz 2x2:2, 5 GHz 2x2:2 and 2.4 GHz 2x2:2 radio offer a combined tri–radio aggregate frame rate of 9 Gbps*, with upto 5764 Mbps in 6 GHz band, 2882 Mbps in 5 GHz band and 344 Mbps in 2.4 GHz band. With the flex radio running in dual-band mode, the dual-radio aggregate frame rate becomes 6Gpbs, with up to 5764 Mbps on the 4x4:4 5GHz radio and 344 Mbps on the 2x2:2 2.4GHz radio. Technologies like transmit beamforming and enhanced receive sensitivity allow the CW9172I 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 802.11be operation.

Multi Link Operation (MLO)

With support for features of 802.11be, the CW9172I can operate in multiple bands simultaneously to achieve higher throughput and improved SLA. This increases the total network performance and improves the end-user experience.

Multi User Multiple Input Multiple Output (MU-MIMO)

With support for features of 802.11be, the CW9172I 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.

Bluetooth Low Energy Beacon and Scanning Radio

An integrated Bluetooth radio provides seamless deployment of BLE Beacon functionality and effortless visibility of Bluetooth devices. The CW9172I 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 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 CW9172I 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. CW9172I 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

The CW9172I's dedicated tri-band scanning and security radio continually assesses the environment, characterizing RF interference and containing (in 2.4GHz and 5GHz only, since 6GHz mandates PMF) wireless threats like rogue access points. There's no need to choose between wireless security (AirMarshal), advanced RF analysis, and serving client data - a dedicated fourth radio means that all functions occur in real-time, without any impact on client traffic or AP throughput.

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

Meraki Systems Manager natively integrates with the CW917I to offer automatic, context-aware security. Meraki Systems 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 CW9172I 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, per SSID, per user group, or per 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 CW9172I but on other devices in the network. Unscheduled Automatic Power Save Delivery (U-APSD) and the new 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 CW9172I 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

CW9172I will support all the latest and greatest analytics to provide machine learning-based 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, CW9172I

will provide advanced location analytics via API and graphs in the dashboard to provide a clear picture of client density and their movement across the floor plan.

Choice of Mode

Cisco Wireless 9172I 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/be client access radio • 5 GHz 802.11a/n/ac/ax/be client access radio • 6 GHz 802.11 ax/be client access radio • Flexibility to operate in Tri-band 2.4, 5, 6 GHz in 2x2:2 or Dual-band 2.4 GHz in 2x2:2 and 5 GHz in 4x4:4 • 2.4 GHz IoT Radio • 2.4 GHz, 5 GHz, and 6 GHz tri-band Air Marshal WIDS/WIPS, spectrum analysis, & location analytics radio • 2.4 GHz Bluetooth Low Energy (BLE) radio with Beacon and BLE scanning support Concurrent operation of 6.0 in the future.
GPS	Supported via optional USB GPS/GNSS module (CW-ACC-GPS1=)
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 6 dBi, Internal Antenna, Omnidirectional in azimuth
802.11ax, 802.11ac Wave 2 and 802.11n Capabilities	• DL-OFDMA**, UL-OFDMA**, TWT support**, BSS coloring** • 2x2 multiple input, multiple output (MIMO) with two spatial streams • 2x2+4x4 • SU-MIMO, UL MU-MIMO**, and DL MU-MIMO support • Maximal ratio combining (MRC) & beamforming • 20 and 40 MHz* channels (802.11n); 20, 40*, and 80 MHz channels (802.11ac Wave 2); 20, 40* and 80* MH **Note:** *40MHz and 80 MHz channels are supported only in the 5GHz and 6 GHz band. 802.11ax supported only
802.11be Capabilities	• Up to 4096-QAM on 2.4 GHz, 5 GHz and 6 GHz bands

Category	Specifications
	• 20 MHz channels on 2.4 GHz bands • 20, 40, 80, 160 MHz on 5 GHz bands • 20, 40, 80, 160, 320 MHz on 6 GHz bands • MLO (Multi-link operation) across different bands • MRU (Multiple Resource Unit) allocation in OFDMA • 4 x 4 multiple input, multiple output (MIMO) with four spatial streams

Power	• Power over Ethernet: 42.5 - 57 V 802.3bt(Class 5)/802.3at/802.3af compliant
	• Minimum power requirement : (PD: 12.95W min 802.3af)
	• Maximum power requirement : (PD: 25.5W max 802.3at)
	• Idle power consumption
	  ◦ Dual radio mode: 10.3W +/- 2W
	  ◦ Tri-radio mode: 10.7W +/- 2W
	• Typical power consumption
	  ◦ Dual radio mode: 11.2W +/- 4W
	  ◦ Tri-radio mode: 12.2W +/- 4W
	
	Note: Actual power consumption may vary depending on AP usage. Typical power consumption assume and is idle during off-business hours. Business hours are assumed to be 11 hours a day, 6 days a week.
	
	Test Conditions:
	
	Dual Radio 802.3at: The 5 GHz band operating at 160 MHz (4x4) passing 400 Mbps per band of downlo (2x2) passing 50 Mbps of download traffic; USB disabled; 2.5G Ethernet Port; Ambient temperature 25˚C
	
	Tri Radio 802.3at: The 6 GHz and the 5 GHz bands both operating at 160 MHz (2x2) passing 200 Mbps operating at 20 MHz (2x2) passing 50 Mbps of download traffic; USB disabled; 2.5G Ethernet Port; Ambi
	• Power over Ethernet injector sold separately
	• DC power: 54V (MA-PWR-50WAC)

Interfaces	• 1x 100/1,000/2.5 BASE-T Ethernet (RJ45) • USB 2.0 at 4.5W • DC power jack

Category	Specifications
Mounting	• Desktop, ceiling, and wall mount capable ◦ AIR-AP-BRACKET-1 ◦ AIR-AP-BRACKET-2 • Ceiling tile rail (9/16, 15/16 or 1 1⁄2” flush or recessed rails), assorted cable junction boxes ◦ AIR-AP-T-RAIL-R ◦ AIR-AP-T-RAIL-F
Physical Security	Kensington lock slot
Environment	• Nonoperating (storage) temperature: -40° to 158°F (-40° to 70°C) • Nonoperating (storage) altitude test: 25°C (77°F) at 16,000 ft (4863 m) • Operating temperature: 32° to 122°F (0° to 50°C) 40-50C derated • Operating humidity: 10% to 95% (noncondensing) • Operating altitude test: 45° C (113° F) at 4205m (13.8K ft) • Humidity:10% to 90% non-condensing
Reliability	• Mean time between failure (MTBF): 842,342 hrs at 25°C operating temperature • Mean time between failure (MTBF): 349,710 hrs at 50°C operating temperature
Physical Dimensions	• CW9172I ◦ 7.8 x 7.8 x 2.1 in. (20 x 20 x 5.3 cm) ◦ Weight: 1.9 lb. (874 g)
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 • WPA, WPA2-PSK, WPA2-Enterprise with 802.1X, WPA3 - Personal**, WPA3 - Enterprise**, WPA3 - Enhanc

Category	Specifications
	• EAP-TLS, EAP-TTLS, EAP-MSCHAPv2, EAP-SIM • TKIP, AES encryption • Enterprise mobility management (EMM) and 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, and 802.11r for fast layer 2 roaming • Distributed or centralized layer 3 roaming
Analytics	• Embedded location analytics reporting and device tracking • Global layer 7 traffic analytics reporting per network, per device, and per application
LED Indicators	• 1 power/booting/firmware upgrade status • Ethernet LED
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	• CW9172I Cloud Managed Omnidirectional 802.11be Compatible AP • MA-PWR-50WAC: Meraki AC Adapter for MR Series (power cable separate SKU) • CW-INJ-8: Multigigabit 802.3bt Power over Ethernet Injector (power cables sold separately) • MA-INJ-6: Meraki Multigigabit 802.3bt Power over Ethernet Injector (power cable sold separately) • Cisco AIR-PWRINJ-6 802.3at

Category	Specifications
	• Cisco AIR-PWRINJ-7 802.3bt Power cord - MA-PWR-CORD-XX (XX Country Code) should be ordered separately for the AC adapter and Ethe • Note: Cisco Subscription or Meraki access point license required

Compliance and Standards

Category	Standard
IEEE Standards	• 802.3 ab/bz • 802.3 af/at/bt • 802.11a/b/g/n/ac/ax/be • 802.11d/h/i/k/r/u/v/w
Certifications	● Wi-Fi Alliance: Wi-Fi 7 (R1), 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

Category	Standard
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

802.11be, 802.11ax, 802.11ac Wave 2 and 802.11n Capabilities

MR36	MR44	CW9162	CW9
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-C color MLO
2.4 GHz: 2 x 2 multiple input, multiple output (MIMO) with two spatial streams 5 GHz: 2x2 multiple input, multiple output (MIMO) with two spatial streams	2:4GHz: 4 x 4 multiple input, multiple output (MIMO) with four spatial streams 5 GHz: 4 x 4 multiple input, multiple output (MIMO) with four spatial streams	2.4 GHz: 2x2 multiple input, multiple output (MIMO) with two spatial streams 5 GHz: 2x2 multiple input, multiple output (MIMO) with two spatial streams 6 GHz: 2x2 multiple input, multiple output (MIMO) with two spatial streams	2.4 G with 5 GH with 6 GH with *Note inste

MR36	MR44	CW9162	CW9
Maximal ratio combining (MRC) & beamforming	Maximal ratio combining (MRC) & beamforming	Maximal ratio combining (MRC) & beamforming	Maxi
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-M
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 ar MHz and 320M

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 all three - 2.4 GHz, 5 GHz and 6 GHz bands	Up to GHz
Packet aggregation	Packet aggregation	Packet aggregation	Pack

Power

MR36	MR44	CW9162
Power over Ethernet: 37 - 57 V (802.af compliant)	Power over Ethernet: 42.5 - 57 V (802.3at 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
Power consumption: 15W max (802.3af)	Power consumption: 30W max (802.3at required)	Power consumption: 30.0W max (802.3 at required)
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

MR36	MR44	CW9162I	CW9
1x 100/1000/2.5G BASE-T Ethernet (RJ45)	1x 100/1000/2.5G BASE-T Ethernet (RJ45)	1x 100/1000/2.5G BASE-T Ethernet (RJ45)	1x 10
1x DC power connector (5.5 mm x 2.5 mm, center positive)	1x DC power connector (5.5 mm x 2.5 mm, center positive)	1x DC power connector (8 mm, center positive)	1x D

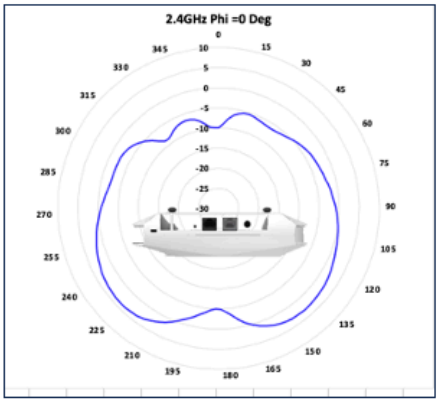
Physical Dimensions

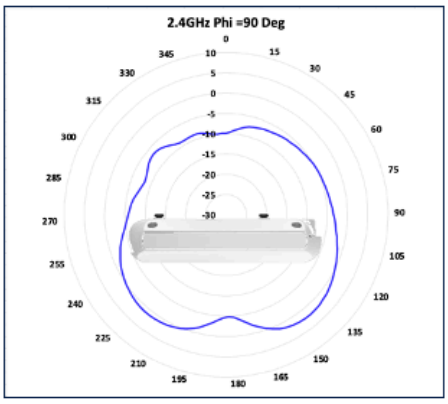
MR36	MR44	CW9162I	CW
9.84” x 4.72” x 1.42” (25 cm x 12 cm x 3.6 cm), not including desk mount feet or mount plate	12.05" × 5.06" × 1.74" (306.0 × 12.8.4 × 44.3 mm), not including mount plate	7.8" x 7.8" x 1.7" 200 x 200 x 45.45 mm) , not including mount plate	7.8 mo
Weight: 17.35 oz (492 g)	Weight: 26.07 lbs (739g)	Weight: 2.05lbs (930 kg)	We

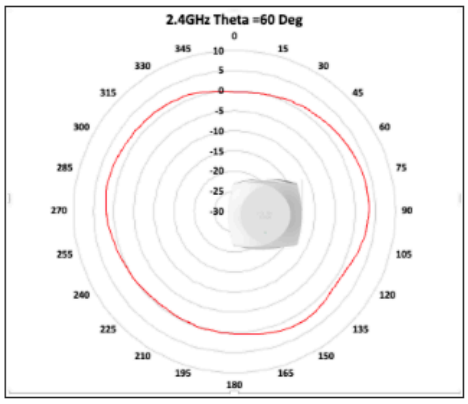
Signal Coverage Pattern

Client Serving Radios

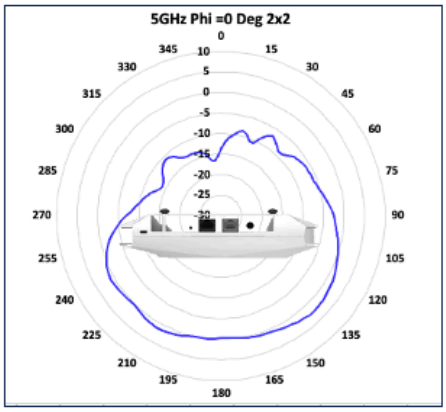
2.4 GHz Radio

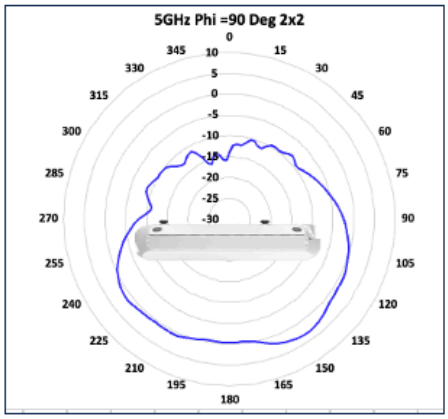


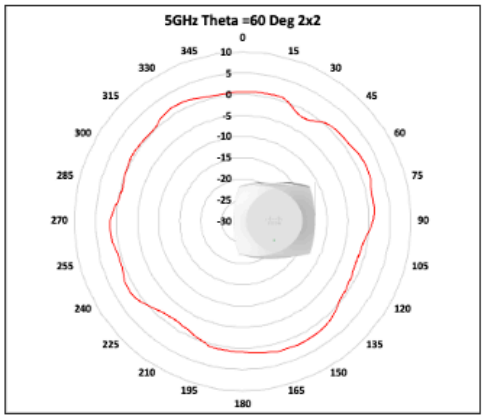




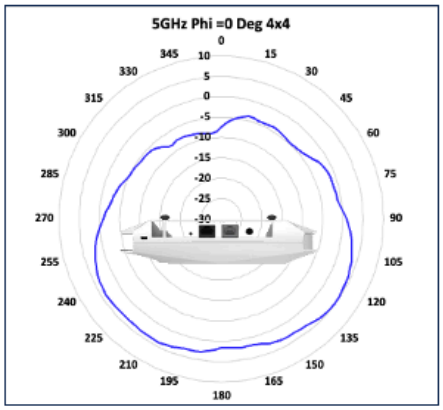
5 GHz Radio (2x2:2)

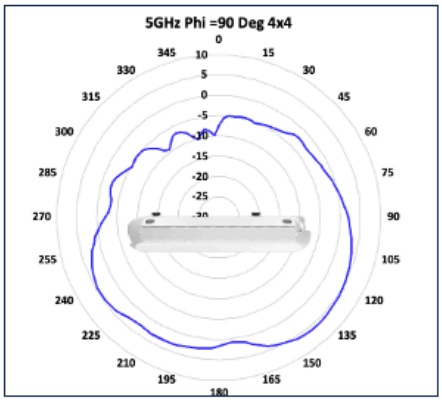


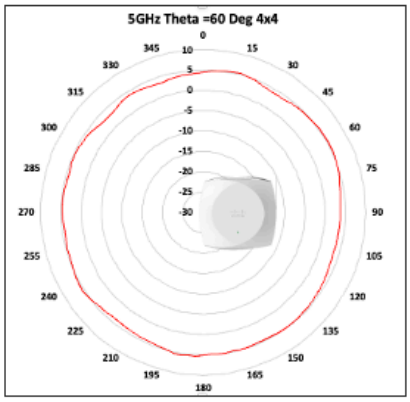




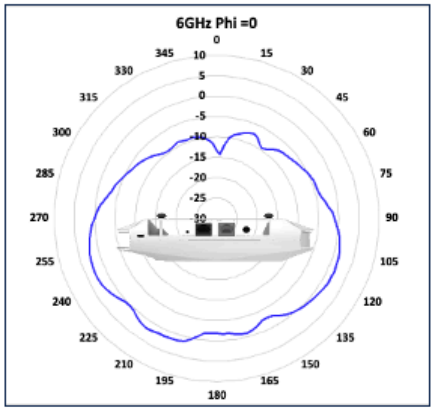
5 GHz Radio (4x4:4)

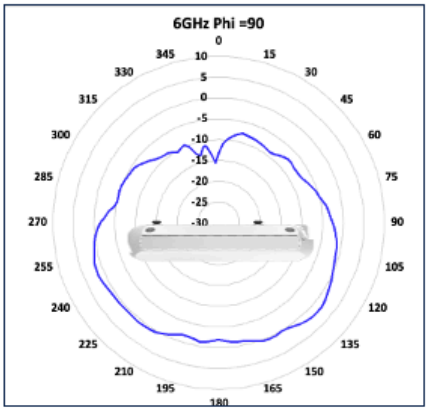


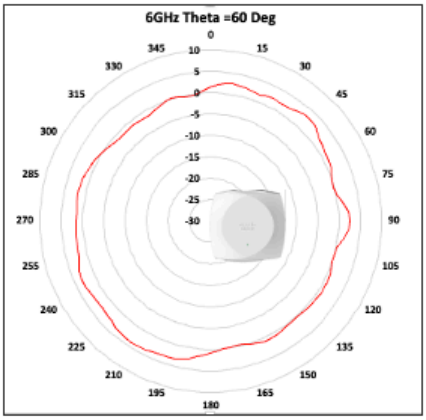




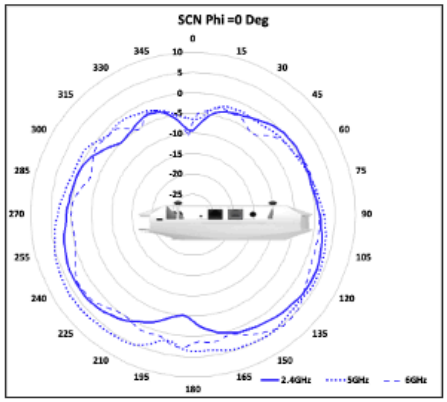
6 GHz Radio

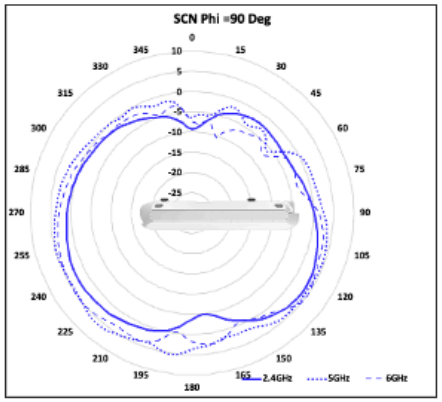


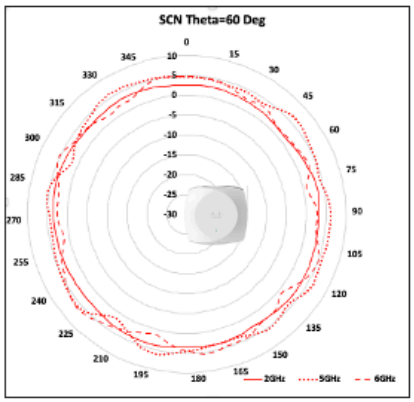




Scanning Radio







IoT/BLE 2.4 GHz Radio