Cisco Wireless 9177 Series Access Points

Contents

Extend enterprise-grade wireless beyond the walls. The Cisco® Wireless 9177 Series delivers high-performance, tri-band Wi-Fi 7 connectivity purpose-built for demanding outdoor environments, from stadiums and campuses to industrial sites and smart cities. With enhanced spectrum efficiency, superior user experiences, and three model options, the 9177 Series gives you the flexibility to design a network tailored to your environment.

Overview

Need enterprise-grade Wi-Fi that performs outdoors as well as it does indoors? The 9177 Series delivers. Built on a tri-radio, tri-band architecture across 2.4 GHz, 5 GHz, and 6 GHz, these Wi-Fi 7 access points support up to 12 spatial streams, providing the coverage, capacity, and reliability your outdoor environments demand.

Engineered for demanding outdoor environments, the 9177 Series combines Wi-Fi 7 (802.11be) performance with purpose-built features for flexible, intelligent deployments:

- Integrated GPS/GNSS for precise location services
- Flexible antenna options: internal omnidirectional, directional, and external, to adapt to any deployment scenario
- Dedicated scanning radio with Cisco CleanAir® Pro for proactive interference mitigation
- Whether you're extending coverage across a stadium, campus, industrial yard, or smart city deployment, the 9177 Series delivers the speed, reliability, and intelligence to connect your organization today and future-proof it for the AI-driven innovations of tomorrow.

Features and benefits

Table 1. Specifications

Feature	Benefit
Wi-Fi 7 for outdoors	Supporting Wi-Fi 7 (802.11be), the 9177 Series access points are designed with an IP67 rating for incredible performance in most challenging outdoor environments.
Multiple models for specific coverage	Design your outdoor network for maximum performance and coverage with three access point models to choose from. With internal omnidirectional, internal directional, and external antenna connector designs, you can get the specific unit for the coverage you need.
10G Multigigabit Ethernet and SFP port	Choose your power source with either Power over Ethernet (PoE) or a DC power adapter, so you can quickly and easily upgrade to the 9177 Series.

Feature	Benefit
Bluetooth (BLE)	The integrated BLE 6.0 radio enables location-based use cases such as asset tracking, wayfinding, and analytics.
Accelerometer	In the CW9177I and CW9177D models, a built-in accelerometer allows continuous post-deployment verification of how the access point is installed.
Cisco Ultra Reliable Wireless Backhaul (URWB)	URWB provides ultra-reliable wireless connectivity for moving assets or to extend the network where running fiber isn't feasible or is too costly. It provides near-zero latency (<10 ms) and zero packet loss with seamless handoffs.
AP power optimizations (AP Power Save mode)	AP Power Save mode allows the access point to reduce its power consumption by shutting off radios during off-hours and weekends – while still 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.
Built-in GNSS/GPS	A built-in GNSS/GPS receiver supports Automated Frequency Coordination (AFC) and enables the Global Use AP to intelligently select regulatory domain and location.
CleanAir Pro	Cisco CleanAir Pro applies Cisco's industry-leading RF interference detection and classification to the 2.4-GHz, 5-GHz, and 6-GHz bands.
Client steering	Client steering helps clients that are 6-GHz capable leave the 5-GHz radio and connect to the 6-GHz radio. Wi-Fi 6E clients are automatically directed to connect to the 6-GHz radio to take advantage of the benefits it offers and free up the 2.4-GHz and 5-GHz radios for legacy clients.

Product highlights

Built for the outdoors. Ready for what's next.

The Cisco Wireless 9177 Series extends enterprise-grade Wi-Fi to the outdoor places your business depends on most. Stadiums. Campuses. Ports. Rail yards. Smart cities. Wherever you need to connect people, devices, and operations, the 9177 Series delivers the performance, intelligence, and resilience of Cisco networking in a platform purpose-built for the outdoors.

Tri-radio, tri-band Wi-Fi 7 performance.

The 9177 Series brings indoor-class Wi-Fi 7 capacity and low latency outside. A tri-radio, tri-band architecture delivers up to 12 spatial streams across 2.4 GHz, 5 GHz, and 6 GHz, or in 2.4 GHz, dual 5Ghz mode, so you get the speed and capacity to support dense, demanding environments. An IP67-rated enclosure, wide operating temperature range, and tolerance for 100-mph sustained winds help keep the network running through extreme heat, cold, wind, and weather.

Key capabilities:

- Tri-radio, tri-band Wi-Fi 7 with up to 12 spatial streams
- IP67-rated, hardened design for harsh outdoor conditions

Three models. One flexible platform.

Outdoor environments vary, and your access points should adapt to each one. The 9177 Series offers three models to match your coverage needs. The CW9177I uses internal omnidirectional antennas for broad coverage. The CW9177D uses internal directional antennas for focused, long-range signal. The CW9177E supports external antennas for fully customized RF designs. A built-in GNSS/GPS receiver enables AFC and intelligent regulatory-domain selection. And because the hardware is unified, you can manage the same access point on-premises with Cisco Wireless 9800 Series controllers or in the cloud with Meraki®, with no hardware swap required.

Key capabilities:

- Three models: omnidirectional, directional, and external antenna and various mounting options
- Integrated GNSS/GPS for AFC and location intelligence
- One device, one license, managed on-premises, in the cloud, or both

Platform support

Table 2. Supported antennas

Product ID	Description
CW-ANT-T-D4-N	Cisco 8/8/8dBi, 3 band, dir. ant, 8xN-type
CW-ANT-T-O3-N	Cisco 5/6/5dBi, 3 band, Omni dir. ant, 8xN-type
CW-CAB-004-N4-N4	Dual 4x N-N type ant. cable, M/M, 4 foot
AIR-ANT2513P4M-NS	2.4GHz/5GHz 13dBi Patch Antenna 4port, Nconn
AIR-ANT2588P4M-N	2.4GHz/5GHz 13dBi Patch Antenna 4port, Nconn
AIR-ANT2588P4M-NS	Dual Band Dual-polarized directional antenna

Table 3. Mounting kits and accessories

Accessories	CW9177II	CW9177D	CW9177E
CW-MNT-STRAND1A Cable strand Horizontal mount	✓	✓	✗
CW-MNT-HORZ2 Horizontal mount	✓	✓	✗
AIR-MNT-ART1 Articulating mount	✗	✓	✗
CW-MNT-ART4 Articulating mount	✗	✓	✗
MA-MNT-MR-16 Vertical mount	✗	✓	✓
CW-MNT-VERT3 Vertical mount	✗	✓	✓

Licensing

Cisco Networking Subscription

Simplify your stack with the Cisco Networking Subscription

The Cisco Networking Subscription offers flexible licensing for on-premises, cloud, or hybrid management using the same licenses, service levels, and hardware. Align renewal dates to your cost-center needs, add licenses, and upgrade entitlements mid-term without changing renewal dates. Unified licenses deliver features from the best of Meraki and Catalyst, aiming to deliver equivalent functionality across all deployment models. Invest now to support your current and future business needs.

Table 4. Licensing and benefits

Unified hardware	Unified hardware eliminates the need for regulatory domains and enables either on-premises or cloud management with one license type.
Intelligent identification	Access point identifies your network management type during onboarding, saving you time and effort.
Flexible management	Convert your deployment and management type as your network scales or your strategy changes without purchasing new hardware or licensing.
Cisco Networking Subscription	Manage your network on-premises, through cloud-based monitoring, or entirely within the cloud without the need for different license types.

Get more info on the Cisco Networking Subscription

Product sustainability

Information about Cisco's Environmental, Social, and Governance (ESG) initiatives and performance is provided in Cisco's CSR and sustainability reporting.

Table 5. Cisco environmental sustainability information

Sustainability Topic		Reference
General	Information on product-material-content laws and regulations	Materials
	Information on electronic waste laws and regulations, including our products, batteries, and packaging	WEEE Compliance
	Information on product takeback and reuse program	Cisco Takeback and Reuse Program
	Sustainability inquiries	Contact: csr_inquiries@cisco.com
Material	Product packaging weight and materials	Contact: environment@cisco.com

Product specifications

Table 6. Product specifications

Item	Specification
Part numbers/ models	CW9177I CW9177D CW9177E
Software	Cisco IOS® XE Software Release 26.1.x or later or Meraki MR32.2.x or later
Supported wireless LAN controllers	Catalyst 9800 Series Wireless Controllers (physical or virtual) Cisco Catalyst 9000 switches with Embedded Wireless Controller in SDA mode
802.11be	4x4 uplink/downlink MU-MIMO with four spatial streams each (2.4 GHz, 5 GHz, 6 GHz or 2.4 GHz, 5 GHz, 5 GHz) 4096 QAM Multilink operation Preamble puncturing Uplink/downlink OFDMA

Item	Specification
	TWT BSS coloring Maximal Ratio Combining (MRC) 20-, 40-, 80-, 160- and 320-MHz channels (6 GHz) 20-, 40-, 80-, and 160-MHz channels (5 GHz) 20-MHz channels (2.4 GHz) PHY data rates: In tri-radio mode, 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 12.2 Gbps (4x4 160 MHz on 5 GHz, 4x4 160 MHz on 5 GHz and 4x4 20 MHz on 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 Wi-Fi Protected Access 3 (WPA3) support
802.11ax	4x4 + 4x4 uplink/downlink MU-MIMO with four spatial streams each (2.4Ghz, 5 Ghz, 6GHz) Uplink/downlink OFDMA 1024 QAM TWT BSS coloring MRC 802.11ax beamforming 20, 40, 80, and 160 MHz channels (5 and 6 GHz) 20 MHz channels (2.4 GHz) 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 10.1 Gbps (4x4 160 MHz on 5 GHz, 4x4 160 MHz on 5 GHz and 4x4 20 MHz on 2.4 GHz) Packet aggregation: A-MPDU (transmit and receive), A-MSDU (transmit and receive) 802.11 DFS CSD support WPA2/WPA3 support

Item	Specification					
802.11ac	4x4 + 4x4 downlink MU-MIMO with 4x4 spatial streams MRC 802.11ac beamforming 20, 40, 80, and 160 MHz channels PHY data rates up to 3.4 Gbps (dual 4x4 160 MHz on 5 GHz) Packet aggregation: A-MPDU (transmit and receive), A-MSDU (transmit and receive) 802.11 DFS CSD support WPA2/WPA3 support					
802.11n version 2.0 (and related) capabilities	4x4 MIMO with four spatial streams MRC 802.11n and 802.11a/g beamforming 20- and 40-MHz channels PHY data rates up to 1.5 Gbps (40 MHz with 5 GHz and 20 MHz with 2.4 GHz) Packet aggregation: A-MPDU (transmit and receive), A-MSDU (transmit and receive) 802.11 DFS CSD support					
Integrated antenna	**CW9177I**					
		2.4	5	6	IoT	GNSS
	Peak Gain	4 dBi	6 dBi	6 dBi	3 dBi	2 dBi
	CW9177D					
		2.4	5	6	IoT	GNSS
	Peak Gain	8 dBi	6 dBi	8 dBi	3 dBi	2 dBi

Item	Specification					
	CW9177E					
		2.4	5	6	IoT	GNSS
	CW-ANT-T-D4-N (Directional Antenna) Peak Gain	8.6 dBi	8.2 dBi	8.4 dBi	-	2 dBi
	CW-ANT-T-O3-N (Omni-directional Antenna) Peak Gain	5 dBi	6 dBi	5 dBi	-	2 dBi
Interfaces	1x 100M/1000M/2.5G/5G/10G Multigigabit Ethernet (RJ-45) 1x Gigabit Ethernet SFP/SFP+ Management console port (RJ-45)					
LED Indicators	Front and back status LED indicates boot loader status, association status, operating status, boot loader warnings, and boot loader errors					
Dimensions (W x L x H)	CW9177I, CW9177D, CW9177E (without mounting brackets): 352.2 mm x 270 mm x 76.2 mm (13.8 x 10.6 x 3 in.)					
Weight	CW9177I and CW9177D Access point Weight: 4.11kg CW9177E Access point weight: 4.12kg					
Input power requirements	802.3bt Cisco Universal PoE (Cisco UPOE®), 802.3at Power over Ethernet Plus (PoE+), 802.3af PoE (only for configuring staging, all radios off) (Or) DC Power Adapter - #PID					
	Power Source	2.4 GHz radio	5 GHz radio	6 GHz radio (XOR) 5 GHz radio	Link speed	Max PoE power consumption
	802.3bt (Class 6) (UPOE)	4x4	4x4 (FB)	4x4	2x 10G	45.1W

Item	Specification					
	802.3bt (Class 6 UPOE)	4x4	4x4 (LB)	4x4 (HB) (5 GHz)	2x10 G	45.1 W
	802.3at (PoE+) (Tri-band)	2x2	2x2	2x2	1x2.5 G	30 W
	802.3at (POE+) (Dual band)	2x2	4x4	NA	1x2.5 G	30 W
	802.3af (PoE)	1x1	1x1	1x1	1x 1G	15.4
	Note: 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. **Note:** FB is Full Band, LB is Lower UNII Bands (UNII 1 and 2) and HB is Higher UNII Bands (UNII 2E and 3).					
Environmental	Nonoperating (storage) temperature: -40° to 158°F (-40° to 70°C) Nonoperating (storage) altitude test: 77°F (25°C) at 17,000 ft (5182 m) Operating temperature: -40° to 149°F (-40° to 65°C) not including solar load. Operating temperature: -4° to 131°F (-40° to 55°C) including solar load. Operating humidity: 10% to 90% (noncondensing) Operating altitude test: 104°F (40°C) at 9843 ft (3000 m) Foreign Body/Water Ingress: IEC60529 IP66/IP67 Wind resistance: up to 100 mph (161 km/h) sustained winds and 165 mph (266 km/h) wind gusts Icing protection: MIL-STD-810F (0.5 in. (13mm)) Corrosion: NEMA 250 (600 hrs. salt) Solar radiation: EN 60068-2-5 (753 W/m2)					

Item	Specification
Available transmit power settings	**2.4 GHz** 17 dBm (50 mW) -10 dBm (0.1mW) **5 GHz** 17 dBm (50 mW) -10 dBm (0.1 mW) **6 GHz** 17 dBm (50 mW) -10 dBm (0.1 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 in 6 GHz for that country. **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 in 6 GHz for that country.
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 **Radio:** EN 300 328 (v2.2.2) EN 301 893 (v2.1.1) EN 303 687 (v1.1.1) AS/NZS 4268 (rev. 2017) 47 CFR FCC Part 15C, 15.247, 15.407 RSP-100 RSS-GEN RSS-247 LP0002 (109) Japan Std. 66, and Std. 71 RF safety: EN 50385:2017 AS/NZS 2772 (rev. 2016)

Item	Specification	
	EN 55032:2015/A11:2020 EN IEC 61000-3-2:2019/A1:2021 EN 61000-3-3:2013+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 QCVN 118:2018/BTTTT 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 (18:2014) QCVN 112:2017/BTTTT KS X 3124:2020 KS X 3126:2020 EN 61000-6-1:2019 EN 60601-1-2:2015+A1:2021	47 CFR Part 2.1091 RSS-102 IEEE standards: IEEE 802.3 IEEE 802.3ab IEEE 802.3af/at IEEE 802.11a/b/g/n/ac/ax/be IEEE 802.11h, 802.11d Security: 802.11i (WPA2, WPA3) 802.1x/802.1x - SHA256 Enhanced Open/OWE Advanced Encryption Standard (AES) - GCMP128, GCMP256 and CCMP256 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 7, Wi-Fi 6E, Wi-Fi 6, WPA3-R3, WPA3-Suite B, Enhanced Open Security Bluetooth SIG: Bluetooth Low Energy	

Ordering information

Table 7. Ordering information

Part #	Description
CW9177I	Omnidirectional Outdoor Wi-Fi 7 tri-band access point
CW9177D	Internal Directional Outdoor Wi-Fi 7 tri-band access point
CW9177E	External Antenna Connector Outdoor Wi-Fi 7 tri-band access point

For a detailed overview of the ordering process, please visit the Cisco Wireless Ordering Guide.

We recommend working with a Cisco partner to purchase.