

Cisco CW9178I-B

Wi-Fi 7 (802.11be) Quad-Radio Enterprise Access Point

NORTH AMERICA (-B)

Key Architecture Summary: The Cisco CW9178I-B is a flagship, ultra-high-capacity Wi-Fi 7 access point engineered for modern, high-density enterprise environments across North America (FCC jurisdiction). Featuring dynamic Tri-Radio or Quad-Radio operation, dual 10 Gbps Ethernet uplinks, and up to 24 Gbps aggregate phy rate.

PRODUCT OVERVIEW

The Cisco CW9178I-B delivers next-generation wireless performance using the 802.11be (Wi-Fi 7) standard. Built to address demanding connectivity needs in large-scale enterprise spaces, higher education, medical centers, and sports venues, it features internal omnidirectional antennas calibrated for clean horizontal and multi-floor signal distribution while fully complying with Federal Communications Commission (FCC) regulation rules and Automated Frequency Coordination (AFC) for 6 GHz operations.

Flex-Radio Architecture

Operates in default Tri-Radio mode (2.4GHz + 5GHz + 6GHz) or Quad-Radio mode (2.4GHz + Dual 5GHz + 6GHz) for maximum capacity and client handling flexibility.

24 Gbps Aggregate Speed

Combined phy rate delivering up to 11.5 Gbps on 6 GHz (320 MHz channels), 5.7 Gbps on 5 GHz (160 MHz), and 688 Mbps on 2.4 GHz.

Dual 10G mGig Uplinks

Two 100M/1G/2.5G/5G/10G BASE-T RJ-45 Ethernet interfaces provide power/link redundancy and eliminate backhaul bandwidth bottlenecks.

Unified Management

Dual-stack architecture supporting cloud-first deployment via Cisco Meraki Dashboard or on-premises management via Cisco Catalyst Center.

TECHNICAL SPECIFICATIONS

Model SKU	CW9178I-B (Internal Antennas, US / FCC Regulatory Domain)
Wi-Fi Standard	Wi-Fi 7 (IEEE 802.11be Extremely High Throughput)
Radio Modes	• Tri-Radio (Default): 4x4 2.4 GHz, 4x4 5 GHz, 4x4 6 GHz • Quad-Radio: 4x4 2.4 GHz, 4x4 5 GHz (Low-Band), 4x4 5 GHz (High-Band), 4x4 6 GHz
Auxiliary Radios	• Dedicated 2.4 / 5 / 6 GHz Tri-Band Scanning Radio (WIDS/WIPS & Spectrum Analysis) • Dedicated 2.4 GHz IoT Radio (Bluetooth Low Energy 5.3, Thread/Zigbee) • GNSS / GPS for location tracking & AFC compliance
Antenna Gain	• 2.4 GHz: 4 dBi Peak Gain (Omnidirectional) • 5 GHz: 5 dBi Peak Gain (Omnidirectional) • 6 GHz: 6 dBi Peak Gain (Omnidirectional)
Wi-Fi 7 Enhancements	4096-QAM (4K-QAM), Multi-Link Operation (MLO), Preamble Puncturing, 320 MHz Channel Width, Enhanced OFDMA, Target Wake Time (TWT)

POWER NEGOTIATION & OPERATIONAL PROFILES

The CW9178I features adaptive power management to adjust capabilities based on available Power over Ethernet (PoE) budgets.

Power Source	Radio Allocations	Uplink Speed	USB Budget	Max Power Draw
802.3bt (Class 6) / UPOE	Full 4x4 (All Bands / Quad Mode)	Dual 10 Gbps	Enabled (9W)	47 W
802.3at (PoE+) - Tri-Radio	4x4 (5 GHz), 2x2 (2.4/6 GHz)	Dual 2.5 Gbps	Disabled	25.5 W
802.3at (PoE+) - Quad-Radio	2x2 across all 4 radios	Dual 2.5 Gbps	Disabled	25.5 W
802.3af (Low-Power)	Radios Disabled (Mgmt Only)	1x 1 Gbps	Disabled	13.95 W

INTERFACES & HARDWARE SPECS

- **Network Interfaces:** 2x 100M/1G/2.5G/5G/10G BASE-T Multigigabit Ethernet (RJ-45) with UPOE / PoE PD support.
- **Management Console:** 1x RJ-45 Management Port (115,200 bps).
- **Expansion Port:** 1x USB 2.0 Host Port (Type-A, up to 9W power output).
- **System Memory:** 4 GB RAM, 16 GB Flash Memory.
- **Status Indicators:** Multi-color system status LED.

PHYSICAL & ENVIRONMENTAL SPECIFICATIONS

Dimensions (W x D x H)	9.9 x 9.9 x 2.0 inches (250 x 250 x 51 mm)
Weight	4.10 lbs (1.87 kg)
Operating Temperature	32°F to 122°F (0°C to 50°C)
Humidity Range	10% to 90% (non-condensing)
Mounting Options	Solid ceiling/wall bracket, recessed ceiling, and T-bar channel mount options supported.

SECURITY & COMPLIANCE

Wireless Encryption WPA3-Enterprise, WPA3-Personal, WPA2-Enterprise, WPA2-Personal, AES-128/256-GCMP, Enhanced Open.	Threat Detection 24/7 Air Marshal WIDS/WIPS, Rogue AP containment, Packet Inspection, and BSS Coloring analytics.
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REGULATORY DOMAIN INFORMATION (-B)

The **-B (North America / US FCC)** designation configures frequency bands, maximum transmit powers (EIRP), Dynamic Frequency Selection (DFS), and Automated Frequency Coordination (AFC) for standard power 6 GHz operation according to FCC guidelines.