

Cisco Catalyst CW9166I

Flagship Tri-Band 4x4 Wi-Fi 6E Access Point (CW9166I-B)

FCC DATASHEET

Product Overview: The Cisco Catalyst CW9166I-B Access Point is engineered specifically for the North American Regulatory Domain (FCC - US / ISCED - Canada). Built for ultra-high-density enterprise applications, it features full 4x4 MU-MIMO radios across 2.4 GHz, 5 GHz, and FCC-compliant 6 GHz bands (UNII-5 to UNII-8), integrated environmental telemetry sensors, 5 Gbps Multigigabit uplink, and dual management (Catalyst On-Premises or Cisco Meraki Cloud).

KEY CAPABILITIES & FEATURES

Full 4x4 MU-MIMO FCC Radios

- FCC 6 GHz Spectrum:** Unlocks full UNII-5 through UNII-8 (5.925 GHz to 7.125 GHz) spectrum allocation.
- 4x4 Spatial Streams:** Concurrent 4x4:4 MU-MIMO on 2.4 GHz, 5 GHz, and 6 GHz.
- Max PHY Rate:** Up to 7.78 Gbps total aggregate tri-radio physical data rate.

Dual Architecture Management

- Cisco Meraki Cloud:** Cloud dashboard, zero-touch provisioning, and live monitoring.
- Cisco Catalyst Controller:** High-density control via Catalyst 9800 WLC & Catalyst Center.
- On-Demand Transition:** Switch management engines seamlessly without replacing hardware.

Environmental Telemetry & IoT

- Integrated Sensors:** Built-in Temperature, Relative Humidity, and Air Quality (TVOC) sensors.
- Bluetooth 5.1 & Zigbee:** Native IoT radios for indoor positioning and smart building integration.
- 5 Gbps Multigigabit Uplink:** High-speed 5GbE RJ-45 uplink eliminating wired bottlenecks.

RF Intelligence & Security

- Dedicated Scanning Radio:** 24x7 CleanAir Pro spectrum analysis and threat monitoring.
- WPA3 Encryption:** Enterprise WPA3 security compliant across all frequency bands.
- Hardware Trust Anchor:** Secure Boot architecture preventing unauthorized firmware execution.

HARDWARE SPECIFICATIONS

Parameter	Specification
Model Number	CW9166I-B (US / Canada / FCC Regulatory Domain)
Wireless Standard	IEEE 802.11ax (Wi-Fi 6E), 802.11a/b/g/n/ac compatible
Radio Configuration	2.4 GHz (4x4), 5 GHz (4x4), 6 GHz / XOR (4x4) + Dedicated Scanning Radio

INTERFACE & PHYSICAL OVERVIEW



CW9166I Rear Ports and Interface View

Figure 1: Rear interface layout showing 5G Multigigabit RJ-45 uplink, Console, USB, and DC Power ports.

POWER REQUIREMENTS & OPERATING MODES

Power Source	Functional Level	Operational Notes
802.3bt (UPOE)	Full Functionality	All 3 radios active (4x4 on all bands), 5GbE speed enabled, USB port active (4.5W max). Max power: 30.5W.
802.3at (PoE+)	Full Wireless Functionality	All 3 radios active (4x4 on all bands), 5GbE speed enabled; USB port disabled. Max power: 25.0W.
802.3af (PoE)	Not Supported	802.3af does not provide sufficient power for AP operation.
DC Power Input	Full Functionality	DC 54V direct power input jack.

PHYSICAL & ENVIRONMENTAL SPECIFICATIONS

Metric	Details
Dimensions (W x L x H)	24.1 cm x 24.1 cm x 5.7 cm (9.5 in. x 9.5 in. x 2.2 in.)
Weight	1.6 kg (3.5 lbs)
Integrated Telemetry	Air Quality (TVOC), Temperature, and Relative Humidity sensors
Operating Temperature	0°C to 50°C (32°F to 122°F)
Non-Operating Temp.	-30°C to 70°C (-22°F to 158°F)
System Memory	2 GB DRAM / 1 GB Flash Memory

REGULATORY & REGIONAL COMPLIANCE (-B)

FCC / North American Regulatory Domain (-B): The **CW9166I-B** model complies with **US FCC (Federal Communications Commission)** and **Canadian ISED** regulations. It supports full UNII-5 through UNII-8 spectrum (5.925 GHz to 7.125 GHz) for high-density North American Wi-Fi 6E deployments.