CISCO CATALYST / MERAKI ARCHITECTURE

Cisco CW9179F-ROW

Wi-Fi 7 (802.11be) Directional Large Public Venue (LPV) Access Point

REST OF WORLD (-ROW)

Key Architecture Summary: The Cisco CW9179F-ROW is a specialized, ultra-high-density Wi-Fi 7 access point purpose-built for Large Public Venues (LPV), stadiums, arenas, convention centers, and high-ceiling environments. Featuring high-gain directional beam patterns, dynamic Tri-Radio/Quad-Radio operation, dual 10 Gbps uplinks, and up to 24 Gbps aggregate phy rate.

PRODUCT OVERVIEW

The Cisco CW9179F-ROW delivers extreme wireless performance using the 802.11be (Wi-Fi 7) standard. Designed to solve RF interference and long-throw coverage challenges in crowded venues, it combines high-gain directional internal antennas with flexible external antenna connectors. Configured for international markets (-ROW), it enforces localized frequency allocation, EIRP transmit levels, and DFS rules.

Directional Beam Shaping

Integrated directional antennas with up to 12 dBi gain isolate RF coverage zones in high-density seating areas, minimizing co-channel interference.

Flex-Radio Architecture

Operates in Tri-Radio mode (2.4GHz + 5GHz + 6GHz) or Quad-Radio mode (2.4GHz + Dual 5GHz + 6GHz) with 16 total spatial streams.

Dual 10G mGig Backhaul

Two 100M/1G/2.5G/5G/10G BASE-T RJ-45 Ethernet interfaces provide power/link redundancy and maximum throughput load balancing.

Unified Cloud Management

Dual-stack management framework supporting centralized cloud control via Cisco Meraki Dashboard or on-premises management via Cisco Catalyst Center.

TECHNICAL SPECIFICATIONS

Model SKU	**CW9179F-ROW** (Directional Antennas, Rest of World Regulatory Domain)
Wi-Fi Standard	Wi-Fi 7 (IEEE 802.11be Extremely High Throughput)
Target Deployments	Stadiums, Arenas, Convention Centers, Airports, High-Ceiling Warehouses & Outdoor Venues
Radio Configurations	• **Tri-Radio (Default):** 4x4 2.4 GHz, 4x4 5 GHz, 4x4 6 GHz • **Quad-Radio:** 4x4 2.4 GHz, 4x4 5 GHz (Low), 4x4 5 GHz (High), 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) • Built-in GNSS / GPS for location tracking
Antenna System	Integrated High-Gain Directional Array (5 GHz: 12 dBi, 6 GHz: 12 dBi boresight / 7 dBi wide) with external spot-antenna options
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 CW9179F features intelligent power distribution to maintain maximum directional throughput across varying Power over Ethernet (PoE) levels.

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 venue-visible status LED.

PHYSICAL & ENVIRONMENTAL SPECIFICATIONS

Dimensions (W x D x H)	11.2 x 11.2 x 2.6 inches (284 x 284 x 66 mm)
Weight	5.2 lbs (2.35 kg)
Operating Temperature	-4°F to 122°F (-20°C to 50°C)
Environmental Rating	Ruggedized IP65/IP67 weather resistant rating with outdoor installation kit.
Mounting Options	Beam mounts, catwalk brackets, wall/pole brackets, and articulated venue mount kits 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.

REGULATORY DOMAIN INFORMATION (-ROW)

The **-ROW (Rest of World)** designation configures frequency bands, maximum transmit powers (EIRP), Dynamic Frequency Selection (DFS), and outdoor transmit constraints in compliance with regulatory bodies across Europe, Asia-Pacific, Latin America, Middle East, and Africa.