

Cisco Meraki MR56-HW

Ultra High-Performance Cloud-Managed Wi-Fi 6 (802.11ax) Access Point

DATASHEET

Product Overview: The Cisco Meraki MR56-HW is a flagship cloud-managed 4-radio 802.11ax (Wi-Fi 6) indoor access point designed for mission-critical, ultra-high-density enterprise environments, stadiums, and university campus auditoriums. Featuring a massive 8x8:8 MU-MIMO radio architecture on 5 GHz alongside a 4x4:4 radio on 2.4 GHz, a 5 Gbps Multigigabit Ethernet uplink, dedicated WIDS/WIPS scanning, and BLE, it delivers up to 5.9 Gbps aggregate frame rate.

5.9 Gbps

AGGREGATE MAX RATE

5 GbE

MGIG UPLINK PORT

8x8:8 + 4x4:4

SPATIAL STREAMS

4 Radios

2.4G / 5G / WIPS / BLE

RADIO & WIRELESS SPECIFICATIONS

Radio Parameter	Specification Details
Access Radios	5 GHz 8x8:8 MU-MIMO 802.11ax 2.4 GHz 4x4:4 MU-MIMO 802.11ax
Security & Spectrum Radio	2.4 GHz & 5 GHz dual-band full-time WIDS/WIPS, spectrum analysis & location analytics
IoT / Bluetooth Radio	2.4 GHz Bluetooth Low Energy (BLE) radio with Beacon and BLE scanning capabilities
Peak Data Rates	5 GHz: 4,804 Mbps 2.4 GHz: 1,147 Mbps (Combined 5.9 Gbps aggregate max frame rate)
Antenna System	Integrated high-gain internal omni-directional antennas (5.4 dBi @ 2.4 GHz, 6.0 dBi @ 5 GHz)

WI-FI 6 (802.11AX) & ADVANCED CAPABILITIES

OFDMA & Modulation	DL/UL OFDMA, Target Wake Time (TWT), BSS Coloring, 1024-QAM on 2.4 GHz and 5 GHz
MIMO & Beamforming	SU-MIMO & DL/UL MU-MIMO (8-stream 5 GHz), MRC, Transmit Beamforming
Channel Widths	20 / 40 MHz (2.4 GHz & 5 GHz), 80 MHz (5 GHz 802.11ac/ax)
Ultra-High Density Scale	Purpose-built for large public venues and high-concurrency environments (supports 150+ active devices)

INTERFACES & POWER REQUIREMENTS

Network Uplink Interface	1x 100/1000/2.5G/5G BASE-T Multigigabit Ethernet RJ45 (802.3at PoE+)
Power Supply Options	802.3at PoE+ (Full functionality) 12V DC external power connector
Power Draw	30W Max power consumption (PoE injector / DC power supply sold separately)

KEY SOFTWARE & ENTERPRISE CAPABILITIES

8-Stream 5 GHz MU-MIMO

8 spatial streams on the 5 GHz band dramatically increase multi-user capacity, enabling concurrent communication with dozens of Wi-Fi 6 devices.

8x8:8 MU-MIMO**5 GbE mGig**

Air Marshal WIDS / WIPS

Dedicated scanning radio continuously guards against rogue APs, packet injection, SSID spoofing, and wireless protocol attacks 24x7.

Air Marshal**24/7 Security**

Enterprise Identity & Guest Access

WPA3-Enterprise security, 802.1X RADIUS, Active Directory integration, customizable splash portals, and isolated guest networks.

WPA3-Enterprise**802.1X Auth**

Layer 7 Application DPI & QoS

Deep packet inspection engines identify 100s of applications, enforcing dynamic bandwidth rate limits and prioritizing voice/video traffic.

Layer 7 DPI**Traffic Shaping**

SECURITY & WIRELESS STANDARDS

Category	Standards & Features Supported
Encryption & Wireless Security	WPA3-Personal, WPA3-Enterprise, WPA2-Enterprise, WPA3-Enhanced Open (OWE), TKIP, AES
Fast Roaming Protocols	802.11r Fast BSS Transition, 802.11k Neighbor Reports, 802.11v BSS Transition Management
Compliance & IEEE Standards	IEEE 802.11a/b/g/n/ac/ax, 802.1X, 802.11e QoS, 802.11i Security, 802.1Q VLAN Tagging
Location & BLE Analytics	High-density location tracking, BLE beaconing, Asset tracking via Meraki Dashboard APIs

ORDERING INFORMATION & ACCESSORIES

Part Number	Description
MR56-HW	Cisco Meraki MR56 Cloud-Managed Ultra-High Performance Wi-Fi 6 AP
LIC-ENT-1YR	Cisco Meraki Enterprise Cloud Controller License & Support (1 Year)
LIC-ENT-3YR	Cisco Meraki Enterprise Cloud Controller License & Support (3 Years)
MA-INJ-5-US	Cisco Meraki Multigigabit 802.3at Power over Ethernet Injector
MA-PWR-30W-US	Meraki AC Adapter for MR Access Points (12V DC)

Warranty & Cloud Support: The MR56-HW includes Cisco Meraki's standard limited lifetime hardware warranty with Advanced Next Business Day (NBD) replacement, alongside 24x7 technical phone support and continuous cloud software upgrades provided under an active Meraki Enterprise subscription.