High-density wireless deployments made easy with the Cisco Meraki MR84

We love crowds

Providing wireless connectivity to large numbers mobile devices in venues like stadiums, city streets, or parks can be tough. There can be noticeably slow throughput that frustrates users and harms brands; “dead zones” from being unable to run network cabling to remote locations where WiFi is needed; outdoor interference from the elements; and the hassle of trying to manage and secure tens, hundreds, or thousands of access points (APs) across multiple locations with a lean IT staff — to name a few challenges.

At the same time, network providers want more information about their users to better tailor and deliver branded experiences and quality of service, while maintaining high levels of security throughout the wireless infrastructure.

Enter the Cisco Meraki MR84

Sporting the market’s most advanced 802.11ac Wave 2 chipset, the MR84 provides the highest client density support, a blazingly fast multigigabit uplink for heavy data loads, self-healing mesh, dynamic tuning to automatically optimize RF in congested environments, built-in security, a slew of features to help you selectively tune your RF environments, and integrated location-based analytics to help you understand the foot traffic and behavior of connected clients across your sites. In a nutshell: the MR84 loves a crowd.

Get started with a risk-free trial at meraki.cisco.com/eval

“The connectivity allows us to welcome our customers and be with them during events as they roam throughout the venue, making sure their experience is positive — and ultimately helping our business to be more profitable.”

— Manuel Saucedo, CEO - Impulsa at Barclaycard Centre
Best-in-class, high-density wireless made easy

Crowd-friendly Wi-Fi that deploys in minutes

- Serve more concurrent clients with an advanced 802.11ac Wave 2 chipset, 4x4:4-stream MU-MIMO 160MHz architecture, and multigigabit uplink
- Steer clients to faster, less congested 5GHz channels and improve roaming performance by setting minimum bitrates
- Enjoy a seamless wireless experience — even with 10,000+ devices — across entire venue with Layer 3 roaming
- Quickly deploy baseline configuration and security across tens, hundreds, or thousands of APs with network templates
- Rapidly expand wireless connectivity to remote “dead zone” areas with zero-touch, automatic AP meshing
- Reduce RF interference in congested areas with a dedicated scanning radio that proactively tunes to optimize performance
- Improve performance with selective SSID and band enablement

Wireless options

<table>
<thead>
<tr>
<th>Band selection</th>
<th>Minimum bitrate (Mbps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dual band operation (2.4 GHz and 5 GHz)</td>
<td>64, 8, 12, 16, 24, 36, 48, 54</td>
</tr>
<tr>
<td>5 GHz band only</td>
<td>Lower Density</td>
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<tr>
<td>5 GHz has more capacity and less interference than 2.4 GHz, but legacy clients are not capable of using it.</td>
<td></td>
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<tr>
<td>Dual band operation with Band Steering</td>
<td>Higher Density</td>
</tr>
<tr>
<td>Band Steering detects clients capable of 5 GHz operation and steers them to that frequency, while leaving 2.4 GHz available for legacy clients.</td>
<td></td>
</tr>
</tbody>
</table>

Integrated analytics for better service & branding

- Leverage out-of-the-box analytics to understand client behavior and foot traffic across sites and venues
- Use location data to make informed decisions about staffing, event or storefront displays, advertising — even AP placement
- Deploy targeted advertising via built-in splash page hosting, integrated billing for pay-per-use WiFi, or BLE beaconing with retailing apps.
- Integrate raw, real-time data with business intelligence systems and perform deeper analysis using built-in API

Location analytics displays customizeable charts on foot traffic, like dwell time and repeat visits — and is included at no additional charge.
Enterprise security without the hassle

- Enable groups like ticketing, refreshments, or emergency response to receive different security postures and network access across one SSID, reducing RF overhead
- Employ Cisco ISE integration (with CoA) to securely manage authorized users, onboard guests with rich splash pages, and assess the security of BYOD devices
- Integrated, stateful Layer 3 and 7 firewalls, enterprise grade encryption and authentication, and VLAN tagging support

Air Marshal automatically protects wireless networks in real time.

- Secure guest WiFi with device isolation that takes seconds to deploy via the Meraki dashboard
- Run the latest, most feature-rich and secure software with automatic firmware and security updates
- Protect your network with a dedicated, dual-band security radio that continuously scans for and contains rogue APs and malicious packets — all without hampering client access to WiFi

Certified Antennas

<table>
<thead>
<tr>
<th>Antenna</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIR-ANT2513P4M-N</td>
<td>Dual-band, 4-port, 30° beam</td>
</tr>
<tr>
<td>MA-ANT-27</td>
<td>Dual-band sector</td>
</tr>
<tr>
<td>MA-ANT-25</td>
<td>Dual-band patch</td>
</tr>
<tr>
<td>MA-ANT-20</td>
<td>Dual-band omni</td>
</tr>
</tbody>
</table>

Learn More

Cisco Meraki offers cloud-managed enterprise networking products with a refreshingly simple approach. We recognize there are many factors to consider when updating a network, and we therefore strive to make every step along the way easy. Let us know how we can help!

Risk-free evaluation  
meraki.cisco.com/eval

Check out our website & blog  
meraki.cisco.com/blog

Contact Sales  
meraki.cisco.com/contact
Specifications

Radios
2.4 GHz 802.11b/g/n/ac client access radio
5 GHz 802.11a/n/ac client access radio
2.4 GHz & 5 GHz dual-band WIDS/WIPS, spectrum analysis, & location analytics radio
2.4 GHz Bluetooth Low Energy (BLE) radio with Beacon and scanning support
Concurrent operations of all four radios

Supported frequency bands (country-specific restrictions apply):
- 2.412-2.484 GHz
- 5.150-5.250 GHz (UNII-1)
- 5.250-5.350 GHz (UNII-2)
- 5.470-5.600, 5.660-5.725 GHz (UNII-2e)
- 5.725 -5.825 GHz (UNII-3)

802.11ac Wave 2 and 802.11n Capabilities
- 4 x 4 multiple input, multiple output (MIMO) with four spatial streams
- SU-MIMO and MU-MIMO support
- Maximal ratio combining (MRC) & beamforming
- 20 and 40 MHz channels (802.11n), 20, 40, 80, 160, 80 + 80 MHz channels (802.11ac)
- Up to 256-QAM on both 2.4 GHz & 5 GHz bands
- Packet aggregation

Power
- Power over Ethernet: 37 - 57 V (802.3at required with functionality-restricted 802.3af mode supported)
- Power consumption: 21W max (802.3at)
- Power over Ethernet injector sold separately

Mounting
- Mounts to walls and vertical poles.
- Mounting hardware included

Physical Security
- Security screw included
- Concealed mount plate

Environment
- Operating temperature: -40 °F to 131 °F (-40 °C to 55 °C)
- Humidity: 5 to 95% non-condensing
- IP67 environmental rating

Physical Dimensions
- 28.6 cm x 17.6 cm x 18.5 cm including mounting bracket
- Weight: 3.8 lbs. (1.7 kg)

Interfaces
- 1x 100/1000/2.5G BASE-T Ethernet & 1x 10/100/1000 BASE-T Ethernet (RJ45)
- Four external N-type female antenna connectors

Security
- Integrated Layer 7 firewall with mobile device policy management
- Real-time WIDS/WIPS with alerting and automatic rogue AP containment with Air Marshal
- Flexible guest access with device isolation
- VLAN tagging (802.1q) and tunneling with IPsec VPN
- PCI compliance reporting
- WEP, WPA, WPA2-PSK, WPA2-Enterprise with 802.1X
- EAP-TLS, EAP-TTLS, EAP-MSCHAPv2, EAP-SIM
- TKIP and AES encryption
- Enterprise Mobility Management (EMM) & Mobile Device Management (MDM) integration
- Cisco ISE integration for Guest access and BYOD Posturing

Quality of Service
- Advanced Power Save (U-APSD)
- WMM Access Categories with DSCP and 802.1p support
- Layer 7 application traffic identification and shaping

Mobility
- PMK, OKC, & 802.11r for fast Layer 2 roaming
- Distributed or centralized layer 3 roaming

Analytics
- Embedded location analytics reporting and device tracking
- Global L7 traffic analytics reporting per network, per device, & per application

Warranty
- 1 year hardware warranty with advanced replacement included

Ordering Information
- MR84-HW   Meraki MR84 Cloud Managed 802.11ac AP
- MA-INJ-5-XX Meraki Multigigabit 802.3at PoE Injector (XX = US/EU/UK/AU)
- MA-ANT-20 Meraki Dual-Band Omni Antennas
- MA-ANT-25 Meraki Dual-Band Patch Antenna
- MA-ANT-27 Meraki Dual-Band Sector Antenna
- AIR-ANT2513P4M-N Dual-band, 4-port, 30° beam

Note: Meraki Enterprise license required. For AIR-ANT2513P4M-N antenna, contact Cisco directly.