

# MR26

Dual-radio 3x3 MIMO 802.11n access point with third radio dedicated to RF and security



## High performance cloud-managed wireless LAN

The Cisco Meraki MR26 is an industry-first three-radio, cloud-managed 3x3 MIMO 802.11n access point designed for high-density deployments in large offices, schools, hospitals and hotels that require premium performance. The MR26 features dual-concurrent, dual-band operation with the speed of 3x3 MIMO with three spatial streams, delivering the ultra-high throughput and reliable coverage required by the most demanding business applications like voice and high-definition streaming video. Not only does the MR26 provide data rates of up to 900 Mbps with two concurrent 3x3:3 MIMO radios, but also delivers unprecedented security and spectrum visibility via a third radio dedicated to 24x7 WIDS/WIPS and advanced RF analytics.

### MR26 and Meraki Cloud Management: A Powerful Combo

The MR26 is managed through the Meraki cloud, with an intuitive browser-based interface that enables rapid deployment without training or certifications. Since the MR26 is self-configuring and managed over the web, it can even be deployed at a remote location without on-site IT staff.

The MR26 is monitored 24x7 via the Meraki cloud, which delivers real-time alerts if the network encounters problems. Remote diagnostics tools enable real-time troubleshooting over the web, meaning multi-site, distributed networks can be managed remotely.

The MR26's firmware is always kept up to date from the cloud. New features, bug fixes, and enhancements are delivered seamlessly over the web, meaning no manual software updates to download or missing security patches to worry about.

### Product Highlights

- 3x3 802.11n MIMO with three spatial streams
- Up to 900 Mbps combined data rate
- 24x7 real-time WIPS/WIDS and spectrum analytics via dedicated third radio\*
- Enhanced transmit power and receive sensitivity
- Self-healing, zero-configuration mesh
- Integrated enterprise security and guest access
- Application-aware traffic shaping
- Self-configuring, plug-and-play deployment
- Sleek, low profile design blends into office environments
- Optimized for voice and video

## Features

### Dual 3x3 MIMO 802.11n radios, up to 900 Mbps

The MR26 uses three spatial streams to provide data rates of up to 450 Mbps per radio, for a combined 900 Mbps. Technologies like transmit beamforming and enhanced receive sensitivity give the MR26 increased range compared to typical enterprise-class access points, resulting in fewer required APs for a given deployment. In addition, the MR26 uses band steering to automatically serve 5 GHz-capable clients with the 5 GHz radio, maximizing capacity in the 2.4 GHz range for older 802.11b/g and 2.4 GHz-only clients.

### Dedicated third radio delivers 24x7 wireless security and RF analytics

The MR26's dedicated dual-band third radio scans the environment continuously, characterizing RF interference and containing wireless threats like rogue access points. No more need to choose between wireless security, advanced RF analysis, and serving client data: a dedicated third radio means that all three occur in real-time, without any impact to client traffic or AP throughput.

### Application-aware traffic shaping

The MR26 includes an integrated layer 7 packet inspection, classification, and control engine, enabling QoS policies based on traffic type. Integrated support for Wireless Multi Media (WMM) and 802.1p DSCP tagging. Prioritize your mission critical applications, while setting limits on recreational traffic, e.g., peer-to-peer and video streaming.

### Automatic RF optimization with spectrum analysis

The MR26's sophisticated, automated RF optimization means that there is no need for the dedicated hardware and RF expertise typically required to tune a wireless network. An integrated spectrum analyzer monitors the airspace for neighboring WiFi devices as well as non-802.11 interference – microwave ovens, Bluetooth headsets, etc. The Meraki cloud then automatically optimizes the MR26's channel selection, transmit power, and client connection settings, providing optimal performance even under challenging RF conditions.

### Integrated enterprise security and guest access

The MR26 features integrated, easy-to-use security technologies to provide secure connectivity for employees and guests alike. Advanced security features such as AES hardware-based encryption and WPA2-Enterprise authentication with 802.1X and Active Directory integration provide wire-like security while still being easy to configure. One-click guest isolation provides secure, Internet-only access for visitors. The integrated policy firewall (Identity Policy Manager) enables granular group or device-based access control. Meraki Teleworker VPN makes it easy to extend the corporate LAN to remote sites, without requiring clients and devices to have client VPN software. PCI compliance reports check network settings against PCI requirements to simplify secure retail deployments.

### Secure wireless environments 24x7 using Air Marshal

There's no need to choose between a wireless intrusion prevention system (WIPS) and serving client data: thanks to the dedicated third radio, Air Marshal, a highly optimized built-in WIPS, scans continuously for threats and remediates them as commanded, all without disrupting client service. Alarms and auto-containment of malicious and rogue APs are configured via flexible remediation policies, ensuring optimal security and performance in even the most challenging wireless environments.

### High performance mesh

The MR26's advanced mesh technologies like multi-channel routing protocols and multiple gateway support enable scalable, high throughput coverage of hard-to-wire areas with zero configuration. Mesh also improves network reliability – in the event of a switch or cable failure, the MR26 will automatically revert to mesh mode, providing continued gateway connectivity to clients.

### Self-configuring, self-optimizing, self-healing

When plugged in, the MR26 automatically connects to the Meraki cloud, downloads its configuration, and joins the appropriate network. It self optimizes, determining the ideal channel, transmit power, and client connection parameters. It also self heals, responding automatically to switch failures and other errors.

### Low profile, environmentally friendly design

Despite its robust feature set, the MR26 is packaged in a sleek, low profile enclosure that blends seamlessly into any environment. 90% of the access point materials are recyclable. A maximum power draw of only 13.7 watts and a cloud-managed architecture mean that pollution, material utilization and electricity bill are minimized.

\*Available Q2 CY2014 via software update

# Specifications

## Radios

One 2.4 GHz 802.11b/g/n radio, one 5 GHz 802.11a/n radio,

One dedicated radio for dual-band WIPS & spectrum analysis\*

Concurrent operations of all three radios

Max throughput 900 Mbit/s

Operating bands:

### FCC (US)

2.412-2.484 GHz

5.150-5.250 GHz (UNII-1)

5.725 -5.825 GHz (UNII-3)

### EU (Europe)

2.412-2.484 GHz

5.150-5.250 GHz (UNII-1)

5.250-5.350, 5.470-5.600, 5.650-5.725 GHz (UNII-2)

## 802.11n Capabilities

3 x 3 multiple input, multiple output (MIMO) with three spatial streams

Maximal ratio combining (MRC)

Beamforming

20 and 40 MHz channels

Packet aggregation

Cyclic shift diversity (CSD) support

## Power

Power over Ethernet: 37 - 57 V (802.3af compatible)

12 V DC

Power consumption: 13.7 W max

Power over Ethernet injector and DC adapter sold separately

## Mounting

All standard mounting hardware included

Desktop and wall mount

Ceiling tile rail (9/16, 15/16 or 1 ½" flush or recessed rails), assorted cable junction boxes

## Physical Security

Security screw included

Kensington lock hard point

Padlock hard point (Master Lock 120T or equivalent)

Anti-tamper cable bay, concealed mount plate

## Environment

Operating temperature: 32 °F to 104 °F (0 °C to 40 °C)

Humidity: 5 to 95% non-condensing

## Physical Dimensions

8.2" x 5.9" x 1.3" (210 mm x 150 mm x 32.5 mm) excluding deskmount feet or mount plate

Weight: 19.4 oz (0.55 kg)

## Antenna

Integrated omni-directional antennas

Gain: 3 dBi @ 2.4 GHz, 5 dBi @ 5 GHz

## Interfaces

1x 100/1000Base-T Ethernet (RJ45) with 48V DC 802.3af PoE

1x DC power connector (5 mm x 2.1 mm, center positive)

## Security

Integrated policy firewall (Identity Policy Manager)

Mobile device policies

Air Marshal: Real-time WIPS (wireless intrusion prevention system) with alarms

Rogue AP containment

Guest isolation

Teleworker VPN with IPsec

PCI compliance reporting

WEP, WPA, WPA2-PSK, WPA2-Enterprise with 802.1X

TKIP and AES encryption

VLAN tagging (802.1q)

## Quality of Service

Wireless Quality of Service (WMM/802.11e)

Advanced Power Save (U-APSD)

DSCP (802.1p)

Layer 7 application traffic shaping and firewall

## Mobility

PMK and OKC credential support for fast Layer 2 roaming

802.11r and 802.11k

Layer 3 roaming

## LED Indicators

1 Ethernet connectivity

1 power/booting/firmware upgrade status

## Regulatory

FCC (US), IC (Canada), CE (Europe), C-Tick (Australia/New Zealand)

RoHS

For additional country-specific regulatory information, please contact Meraki sales

## Mean Time Between Failure (MTBF)

230,000 hours

## Warranty

Lifetime hardware warranty with advanced replacement included

## Ordering Information

MR26-HW Cisco Meraki MR26 Cloud Managed AP

MA-INJ-4-XX Cisco Meraki 802.3at Power over Ethernet Injector (XX = US, EU, UK or AU)

AC-MR-1-XX Cisco Meraki AC Adapter for MR Series (XX = US, EU, UK or AU)

Note: Cisco Meraki Enterprise license required.

RF Performance Table

Operating Band	Operating Mode	Data Rate	TX Power (dBm)	RX Sensitivity
2.4 GHz	802.11b	1 Mb/s 11 Mb/s	22 22	-92 -85
2.4 GHz	802.11g	6 Mb/s 54 Mb/s	21 20	-88 -73
2.4 GHz	802.11n (HT20)	MCS0/8/16 HT20 MCS7/15/23 HT20	22 19	-90 -70
2.4 GHz	802.11n (HT40)	MCS0/8/16 HT40 MCS7/15/23 HT40	21 19	-85 -67
5 GHz	802.11a	6 Mb/s 54 Mb/s	21 19	-89 -71
5 GHz	802.11n (HT20)	MCS0/8/16 HT20 MCS7/15/23 HT20	22 18	-88 -69
5 GHz	802.11n (HT40)	MCS0/8/16 HT40 MCS7/15/23 HT40	20 17	-83 -65

\* Maximum hardware capability shown above. Transmit power is configurable in increments of 1 dB and is automatically limited to comply with local regulatory settings.

Signal Coverage Patterns

