

# Meraki MR11

## Dual-Band 802.11n Access Point

Sleek, high-performance design for demanding office environments

### The Evolution of the Enterprise Access Point

The Meraki MR11 is a dual-band, 802.11n access point designed to provide high-speed, reliable, and cost-effective wireless coverage in indoor environments.

The MR11 delivers the high throughput and advanced features required by the most demanding business applications, including voice and streaming video. High performance is delivered through a dual-band 802.11n radio that utilizes advanced radio techniques such as beam forming, multiple ratio combining, and expanded channel widths. In addition, MIMO technology provides more consistent coverage throughout corporate environments.

The MR11 is compatible with the Meraki Cloud Controller, which provides centralized management, authentication, monitoring, and performance optimization.



## Product Highlights

- 802.11n MIMO provides up to six times a/b/g speeds with improved range and more reliable coverage
- Self-healing mesh operation
- Seamless, reliable operation with auto-recovery from power or local interference events
- Fully integrated with the Meraki Cloud Controller
- Powered with energy-efficient 802.3af Power over Ethernet
- Sleek design with internal antennas that blends into office environments
- Easy and flexible installation options
- Rated for mounting in plenum spaces

### Rapid, Simple and Flexible Deployment Anywhere You Need Coverage

Sleek industrial design allows the MR11 to be installed in even in the most highly visible locations. A simple, intuitive, and flexible mount system makes secure installation possible within minutes on walls and ceilings without the need for expensive technicians. The MR11 is also UL 2043 compliant, meaning it can be mounted in building plenum spaces in compliance with even the strictest building codes.

Since the MR11 is configured and controlled through the web-based Meraki Cloud Controller, creating a secure and sophisticated network takes just minutes. In addition, the MR11 features Meraki's award-winning, self-healing mesh technology, which can further reduce installation time by enabling rapid extension of your network into areas where laying Ethernet or fiber cabling would be impractical.

### Ease of Management with Limited IT Resources

The Meraki Cloud Controller provides automatic, over-the-air firmware upgrades, hosted branding, and simplified authentication. Network administrators can also remotely monitor and configure their networks from any web-enabled device. The Meraki Cloud Controller also runs network-wide optimizations and frequency-planning to maximize capacity and throughput. With a global view of network health, the Meraki Cloud Controller automatically balances capacity to maximize client throughput across the network.

### The Metric that Matters: ROI

Meraki's hosted network architecture eliminates the need for expensive controller hardware and software, significantly reducing upfront capital expenditures. In addition, for areas where installing Ethernet or fiber cabling is cost-prohibitive, Meraki's mesh technology reduces upfront wiring costs. Also, the MR11's low, fully 802.3af-compliant power consumption means not having to pay to upgrade your switches. But most importantly, Meraki simplifies the network design process, makes installation "plug-and-play" and allows even the largest networks to be managed by a single person from any web browser, substantially reducing the necessary expenditure on IT staff and consultants.

## Recommended Use Cases

### High-Performance Networks

- Provides high-speed access to support bandwidth-intensive applications such as streaming video and audio
- The highest performance is achieved when each MR11 is connected to a wired Ethernet connection

### High User Density Networks

- Provide client access to large number of users per access point

### Networks in Challenging RF Environments

- Areas with high levels of RF noise
- Buildings with large amounts of metal in the structure that can wreak havoc on a/b/g networks

# Specifications

## Radio

- 802.11 a/b/g/n dual-band radio
- Auto-selection of optimal 2.4 GHz or 5 GHz frequencies
- Max radio rate 300 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, 5.470-5.725 GHz (UNII-2)

## 802.11n Capabilities

- 2 x 2 multiple input, multiple output (MIMO) with two spatial streams
- Maximal ratio combining (MRC)
- Beamforming
- 20 and 40 MHz channels
- Packet aggregation
- Cyclic shift diversity (CSD) support

## Power

- Power over Ethernet: 24 - 57 V (802.3af compatible)
- Power consumption: 8.9 W max; 7.5 W typical
- Power over Ethernet injector available separately

## Mounting

### Standard (all hardware included)

- Desktop
- Wall mount
- Ceiling tile rail (9/16, 15/16 or 1 1/2" flush or recessed rails)
- Assorted cable junction boxes

### Optional (additional mounting hardware required)

- Plenum spaces

### Physical Security

- Security screw included
- Kensington lock hard point
- Padlock hard point (Master Lock 120T or equivalent)

## Environment

- Operating temperature: 32° F to 104° F (0° C to 40° C)
- Humidity: 5 to 95% non-condensing

## Physical Dimensions

- 8.5" x 6.6" x 1.7" (216 mm x 168 mm x 43 mm) not including mount
- Weight: 27 oz (0.76 kg)

## Antenna

- Integrated omni-directional antennas
- Gain: 2 dBi @ 2.4 GHz, 4 dBi @ 5 GHz

## Interfaces

- 100/1000 Base-T (RJ45) with 48V DC 802.3af Power over Ethernet

## Security

- WEP, WPA, WPA2 (802.11i)
- TKIP and AES
- 802.1x
- VLAN tagging (802.1q)

## Quality of Service

- Wireless Quality of Service (WMM/802.11e)
- Advanced Power Save (U-APSD)

## LED Indicators

- 4 signal strength
- 1 Ethernet connectivity
- 1 Power/booting/firmware upgrade status

## Regulatory

### Product Safety Certifications

- IEC / EN60950-1
- UL2043 (Plenum rating)
- RoHS

### Radio Certifications

- FCC (US)
- IC (Canada)
- CE (Europe) with DFS

## Warranty

- 1 year hardware warranty included

## RF Performance Table

Operating Band	Operating Mode	Data Rate	Max TX Power	RX Sensitivity
2.4 GHz	802.11b	1Mb/s	18.4	-95
		2Mb/s	19.4	-95
		5.5Mb/s	19.9	-95
		11Mb/s	19.9	-91
2.4 GHz	802.11g	6Mb/s	22.6	-94
		9Mb/s	22.7	-94
		12Mb/s	22.7	-94
		18Mb/s	22.8	-93
		24Mb/s	22.7	-90
		36Mb/s	21.6	-86
		48Mb/s	20.5	-82
		54Mb/s	18.5	-80
2.4 GHz	802.11n Draft 2.0 (HT20)	MCS0 HT20	20.6	-95
		MCS1 HT20	20.6	-94
		MCS2 HT20	20.6	-92
		MCS3 HT20	20.5	-89
		MCS4 HT20	20.5	-85
		MCS5 HT20	20.6	-81
		MCS6 HT20	18.7	-79
MCS7 HT20	16.6	-78		
2.4 GHz	802.11n Draft 2.0 (HT40)	MCS8 HT40	20.1	-90
		MCS9 HT40	19.9	-90
		MCS10 HT40	19.9	-89
		MCS11 HT40	19.9	-85
		MCS12 HT40	19.0	-83
		MCS13 HT40	19.2	-78
		MCS14 HT40	17.9	-77
MCS15 HT40	15.9	-74		
5 GHz	802.11a	6Mb/s	20.4	-95
		9Mb/s	20.5	-94
		12Mb/s	20.5	-93
		18Mb/s	20.5	-91
		24Mb/s	20.4	-87
		36Mb/s	19.6	-84
		48Mb/s	18.6	-80
		54Mb/s	16.2	-79
5 GHz	802.11n Draft 2.0 (HT20)	MCS0 HT20	19.7	-94
		MCS1 HT20	19.8	-92
		MCS2 HT20	19.7	-90
		MCS3 HT20	19.1	-86
		MCS4 HT20	19.1	-83
		MCS5 HT20	19.2	-80
		MCS6 HT20	18.1	-78
MCS7 HT20	14.3	-76		
5 GHz	802.11n Draft 2.0 (HT40)	MCS8 HT40	18.0	-91
		MCS9 HT40	18.0	-89
		MCS10 HT40	18.0	-87
		MCS11 HT40	17.9	-84
		MCS12 HT40	18.0	-81
		MCS13 HT40	18.0	-77
		MCS14 HT40	17.1	-76

- Maximum hardware capability shown above. Maximum transmit power is limited by local regulatory settings and is configurable in increments of 1 dBm through the Meraki Cloud Controller.

## Ordering Information

MR11-HW	Meraki MR11 Cloud-Managed Single-Radio 802.11n Access Point
POE-INJ-3-US	Meraki 802.3af Power over Ethernet Injector (US Plug)
POE-INJ-3-EU	Meraki 802.3af Power over Ethernet Injector (EU Plug)
POE-INJ-3-UK	Meraki 802.3af Power over Ethernet Injector (UK Plug)
POE-INJ-3-AU	Meraki 802.3af Power over Ethernet Injector (AU Plug)

Note: Meraki Cloud Controller license required.