



# UniFi<sup>®</sup> AC MESH

802.11AC AP with Plug & Play Mesh

Models: UAP-AC-M, UAP-AC-M-PRO

High-Performance Wide-Area Wi-Fi with UniFi<sup>®</sup> Mesh Technology

Breakthrough Speeds up to 1300 Mbps in the 5 GHz Band

802.3af PoE Compatibility



## Scalable Enterprise Wi-Fi Management

UniFi is the revolutionary Wi-Fi system that combines enterprise performance, unlimited scalability, and a central management controller. The UniFi AC Mesh APs have a refined industrial design and can be easily installed using the included mounting hardware.

Easily accessible through any standard web browser, the UniFi Controller software is a powerful software engine ideal for high-density client deployments requiring low latency and high uptime performance.

Use the UniFi Controller software to quickly configure and administer an enterprise Wi-Fi network – no special training required. RF map and performance features, real-time status, automatic UAP device detection, and advanced security options are all seamlessly integrated.

## Features

**Save money and save time** UniFi comes bundled with a non-dedicated software controller that can be deployed on an on-site PC, Mac, or Linux machine; in a private cloud; or using a public cloud service. You also have the option of using the UniFi Cloud Key with built-in software.

**Powerful Hardware** The UniFi AC Mesh APs feature Wi-Fi 802.11AC with Plug & Play Mesh technology.

**Intuitive UniFi Controller Software** Configure and manage your APs with the easy-to-learn user interface.

**Expandable** Unlimited scalability: build wireless networks as big or small as needed. Start with one and expand to thousands while maintaining a single unified management system.

## Extend Your Coverage

With the UniFi Controller software running in a NOC or in the cloud, administrators can manage multiple sites: multiple distributed deployments and multi-tenancy for managed service providers. Below are some deployment examples.



# UniFi Controller

## Packed with Features

Use the UniFi Controller to provision thousands of UniFi APs, map out networks, quickly manage system traffic, and provision additional UniFi APs.

## Breakthrough RF Map

Use the RF map to monitor and analyze radio frequencies for optimal AP placement, configuration, and troubleshooting.

## Powerful RF Performance Features

Advanced RF performance and configuration features include spectral analysis, airtime fairness, and band steering.

## Detailed Analytics

Use the configurable reporting and analytics to manage large user populations and expedite troubleshooting.

## Wireless Uplink

Wireless Uplink functionality enables wireless connectivity between APs for extended range. One wired UniFi AP uplink supports up to four wireless downlinks on a single operating band, allowing wireless adoption of devices in their default state and real-time changes to network topology.

For devices that support Plug & Play Mesh, this functionality is extended to allow multi-hop wireless uplink – so wirelessly uplinked APs can support uplink to other wirelessly uplinked APs.

## Guest Portal/Hotspot Support

Easy customization options for Guest Portals include authentication, Hotspot setup, and the ability to use your own external portal server. Use UniFi's rate limiting for your Guest Portal/Hotspot package offerings. Apply different bandwidth rates (download/upload), limit total data usage, and limit duration of use.

All UniFi APs include Hotspot functionality:

- Built-in support for billing integration using major credit cards.
- Built-in support for voucher-based authentication.
- Built-in Hotspot Manager for voucher creation, guest management, and payment refund.
- Full customization and branding of Hotspot portal pages.

## Multi-Site Management

A single cloud-based UniFi Controller can manage multiple sites: multiple, distributed deployments and multi-tenancy for managed service providers. Each site is logically separated and has its own configuration, maps, statistics, guest portal, and admin read/write and read-only accounts.

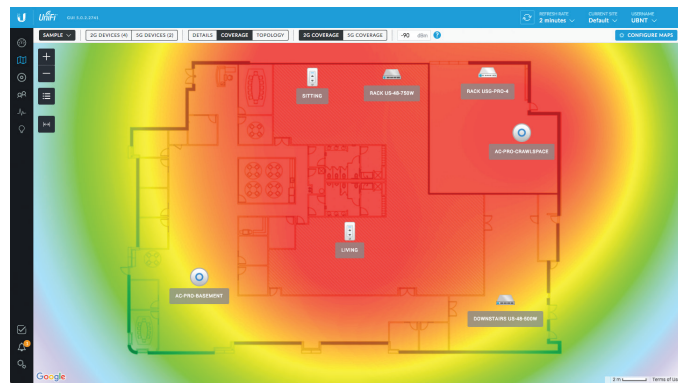
## WLAN Groups

Manage flexible configurations of large deployments. Create multiple WLAN groups and assign them to an AP's radio.



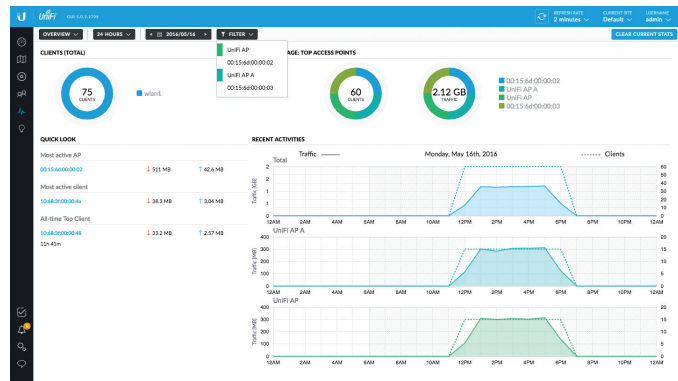
## Dashboard

UniFi provides a visual representation of your network's status and delivers basic information about each network segment.



## RF Map

Monitor UniFi APs and analyze the surrounding RF environment.



## Statistics

UniFi organizes and visualizes network traffic in clear and easy-to-read graphs.

# Model Comparison



	UAP-AC-M	UAP-AC-M-PRO
Environment	Indoor/Outdoor	Outdoor
Simultaneous Dual-Band	✓	✓
2.4 GHz Radio Rate	300 Mbps	450 Mbps
2.4 GHz MIMO	2x2	3 x 3
5 GHz Radio Rate	867 Mbps	1300 Mbps
5 GHz MIMO	2x2	3 x 3
Range <sup>1</sup>	183 m (600 ft)	183 m (600 ft)
Secondary Ethernet Port		✓
PoE Mode	24V Passive PoE 802.3af PoE: Alternative A	802.3af PoE
Wall Mount	✓	✓
Pole Mount	✓	✓
Fast Mount	✓	

<sup>1</sup> Range values may vary and are based on optimal environments.

# Use Cases

**Mesh Multi-Hop** A large outdoor area, such as a park with minimal infrastructure, can take advantage of a mesh network comprised of the UniFi AC Mesh models.

**Omnidirectional Coverage, Indoors or Outdoors** The UAP-AC-M includes adjustable dual-band omni antennas.

You have the option to use a 5 GHz omni antenna<sup>2</sup> for spot-beam coverage in high-density locations with numerous APs and clients, like a conference hall or event center.

**Directional Coverage, Outdoors** The UAP-AC-M is versatile.

You have the option to use a 5 GHz sector antenna<sup>2</sup> (wide beam in the azimuth plane and narrow in the elevation plane) for broad outdoor coverage.

**Maximum Coverage, Outdoors** The UAP-AC-M-PRO is ideal for applications requiring 3x3 MIMO data rates for close-in omni coverage.

**Temporary Installations** Deploy the UniFi AC Mesh models for outdoor installations requiring quick setup and takedown, such as a street fair, music festival, or concert venue.

<sup>2</sup> Different antenna gains are allowed for each regulatory domain or country. It is the installer's responsibility to check local regulations.

## Application Example



Both UniFi AC Mesh models provide wireless coverage for a street fair in a city plaza.

# Hardware Overview

## Model: UAP-AC-M

The UAP-AC-M provides simultaneous, dual-band, 2x2 MIMO technology and is available in single- and five-packs<sup>1</sup>.

**Compact Form Factor** The UAP-AC-M discreetly integrates into any environment.

**Weather-Resistant Enclosure** The UAP-AC-M can be used indoors or outdoors.

**Versatile Mounting** The UAP-AC-M can be mounted on a wall, pole, or fast-mount of an optional Ubiquiti high-gain antenna<sup>2</sup>. (All accessories are included.)

**Multiple Power Options** The UAP-AC-M is compatible with 802.3af PoE Alternative A and 24V passive PoE. You can power it with the included Gigabit PoE adapter<sup>1</sup> or an 802.3af Alternative A compatible switch, such as the UniFi PoE Switch or EdgePoint™ EP-R6.

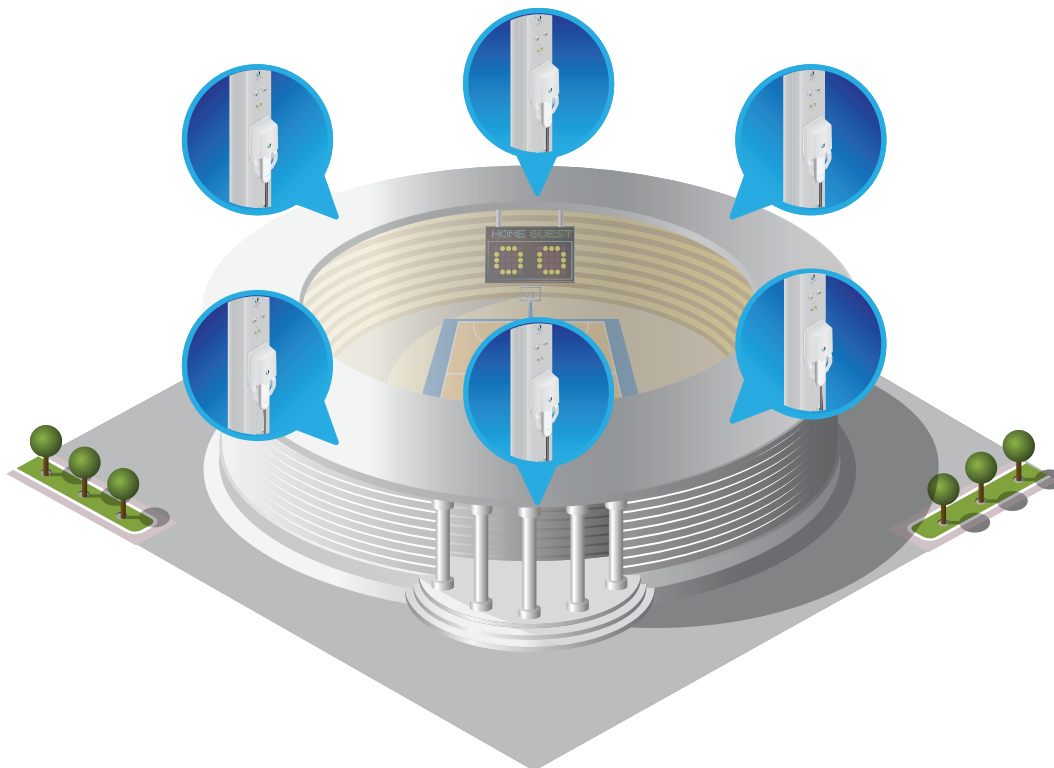
**Antenna Options** Use the included omni antennas, or use the included fast-mount adapter to install the AP on an optional connectorized antenna<sup>2</sup> for expanded range coverage and customized pattern shaping.

<sup>1</sup> Five-packs do not ship with PoE adapters; we recommend powering the UniFi APs with the UniFi PoE Switch instead.

<sup>2</sup> Different antenna gains are allowed for each regulatory domain or country. It is the installer's responsibility to check local regulations.



## Application Example



*The UAP-AC-M utilizes the same antenna connector technology as airMAX antennas.<sup>2</sup>*

# Hardware Overview

## Model: UAP-AC-M-PRO

The UAP-AC-M-PRO provides simultaneous, dual-band, 3x3 MIMO technology and is available in single- and five-packs\*.

**Weather-Resistant Form Factor** The enclosure of the UAP-AC-M-PRO is designed to withstand the elements, making it ideal for outdoor deployment.

**Powerful Coverage** Built-in dual-band omnidirectional antennas deliver expanded range coverage outdoors.

**Mounting Flexibility** The UAP-AC-M-PRO can be mounted on a wall or pole. (All accessories are included.)

**Dual Gigabit Ethernet Ports** The primary port is for data and PoE; the secondary port is for bridging.

**Multiple Power Options** You can power the UAP-AC-M-PRO with an 802.3af compatible switch, UniFi PoE Switch, or the included Gigabit PoE adapter\*.

\* Five-packs do not ship with PoE adapters; we recommend powering the UniFi APs with the UniFi PoE Switch instead.



## Application Example



*The UniFi AC M Pro APs cover the quad and park on a university campus.*

# UAP-AC-M Specifications

UAP-AC-M	
Dimensions	353 x 46 x 34.4 mm (13.9 x 1.81 x 1.35")
Weight	152 g (5.36 oz) with Antennas
Networking Interface	(1) 10/100/1000 Ethernet Port
Buttons	Reset
Power Method	24V Passive PoE (Pairs 4, 5+; 7, 8 Return); 802.3af Alternative A (Pairs 1, 2+; 3, 6 Return) (Supported Voltage Range: 44 to 57VDC)
Power Supply	24V, 0.5A Gigabit PoE Adapter*
Power Save	Supported
Maximum Power Consumption	8.5W
Maximum TX Power	
2.4 GHz	20 dBm
5 GHz	20 dBm
Antennas	(2) External Dual-Band Omni Antennas
2.4 GHz	3 dBi
5 GHz	4 dBi
Wi-Fi Standards	802.11 a/b/g/n/ac
Wireless Security	WEP, WPA-PSK, WPA-Enterprise (WPA/WPA2, TKIP/AES)
BSSID	Up to Four per Radio
Mounting	Wall/Pole/Fast-Mount (Kits Included)
Operating Temperature	-30 to 70° C (-22 to 158° F)
Operating Humidity	5 to 95% Noncondensing
Certifications	CE, FCC, IC

\* Only the single-pack of the UAP-AC-M includes a PoE adapter.

Advanced Traffic Management	
VLAN	802.1Q
Advanced QoS	Per-User Rate Limiting
Guest Traffic Isolation	Supported
WMM	Voice, Video, Best Effort, and Background
Concurrent Clients	250+

Supported Data Rates (Mbps)	
Standard	Data Rates
802.11ac	6.5 Mbps to 867 Mbps (MCS0 - MCS9 NSS1/2, VHT 20/40/80)
802.11n	6.5 Mbps to 300 Mbps (MCS0 - MCS15, HT 20/40)
802.11a	6, 9, 12, 18, 24, 36, 48, 54 Mbps
802.11g	6, 9, 12, 18, 24, 36, 48, 54 Mbps
802.11b	1, 2, 5.5, 11 Mbps

# UAP-AC-M-PRO Specifications

UAP-AC-M-PRO	
Dimensions	343.2 x 181.2 x 60.2 mm (13.51 x 7.13 x 2.37")
Weight	633 g (1.40 lb)
Networking Interface	(2) 10/100/1000 Ethernet Ports
Buttons	Reset
Power Method	802.3af PoE (Supported Voltage Range: 44 to 57VDC)
Power Supply	48V, 0.5A PoE Gigabit Adapter*
Power Save	Supported
Maximum Power Consumption	9W
Maximum TX Power	
2.4 GHz	22 dBm
5 GHz	22 dBm
Antennas	(3) Internal Dual-Band Antennas 8 dBi
Wi-Fi Standards	802.11 a/b/g/n/ac
Wireless Security	WEP, WPA-PSK, WPA-Enterprise (WPA/WPA2, TKIP/AES)
BSSID	Up to Four per Radio
Mounting	Wall/Pole (Pole Kit Included)
Operating Temperature	-40 to 70° C (-40 to 158° F)
Operating Humidity	5 to 95% Noncondensing
Certifications	CE, FCC, IC

\* Only the single-pack of the UAP-AC-M-PRO includes a PoE adapter.

Advanced Traffic Management	
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Supported Data Rates (Mbps)	
Standard	Data Rates
802.11ac	6.5 Mbps to 1300 Mbps (MCS0 - MCS9 NSS1/2/3, VHT 20/40/80)
802.11n	6.5 Mbps to 450 Mbps (MCS0 - MCS23, HT 20/40)
802.11a	6, 9, 12, 18, 24, 36, 48, 54 Mbps
802.11g	6, 9, 12, 18, 24, 36, 48, 54 Mbps
802.11b	1, 2, 5.5, 11 Mbps