UniFi® 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® Mesh Technology

Breakthrough Speeds up to 1300 Mbps in the 5 GHz Band

802.3af PoE Compatibility

UBIQUITI®
N E T W O R K S

UniFi®

AC MESH

UniFi®

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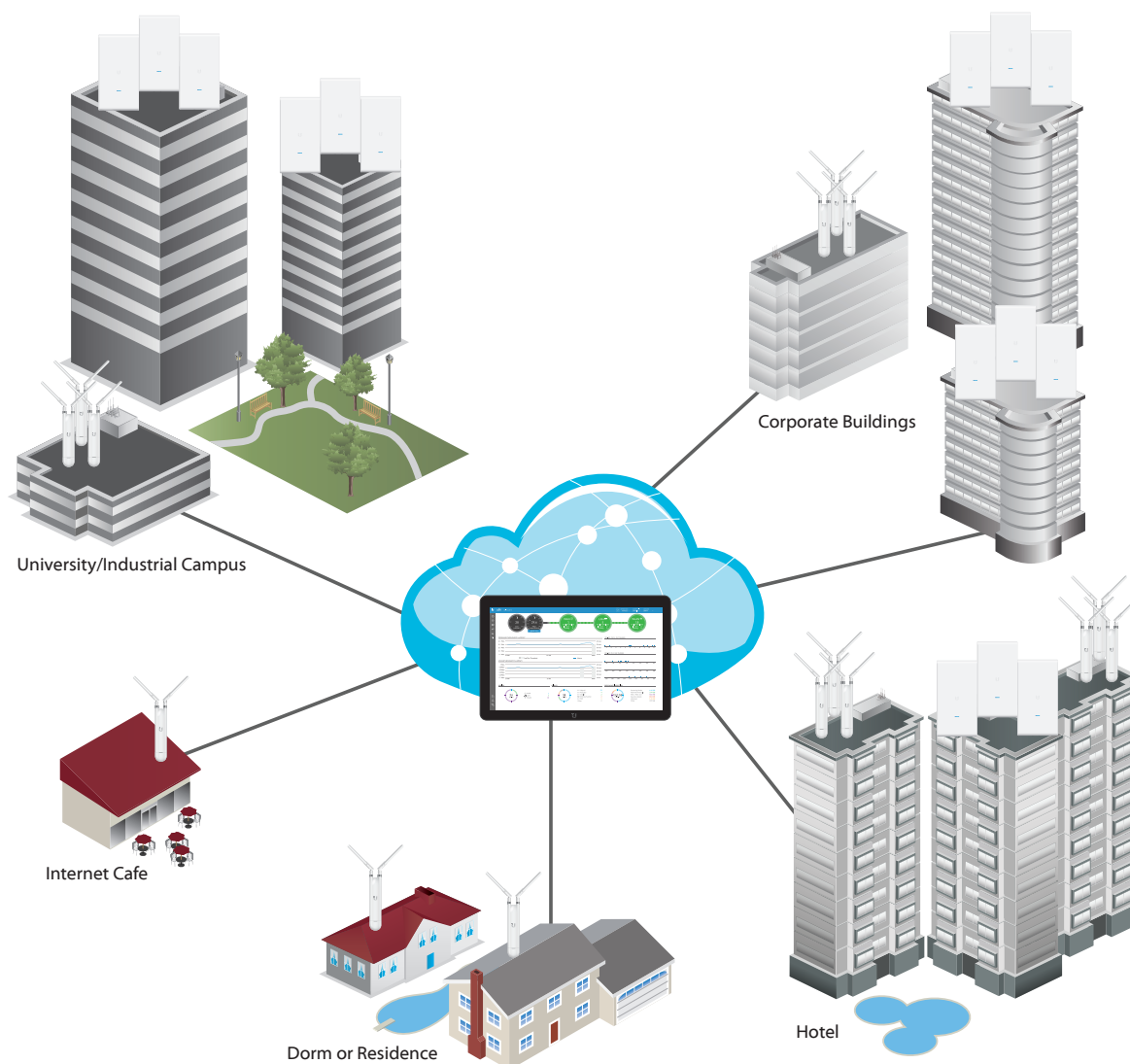
Powerful Hardware The UniFi AC Mesh APs feature Wi-Fi 802.11AC with Plug & Play Mesh technology.

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.

Corporate Buildings

University/Industrial Campus

Internet Cafe

Dorm or Residence

Hotel

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.
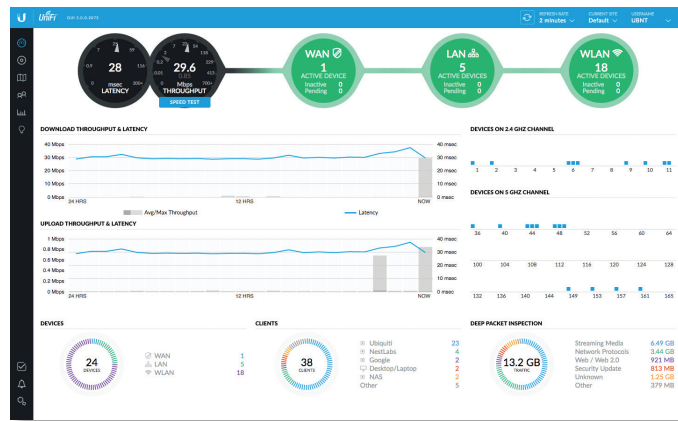
All UniFi APs include Hotspot functionality:

• 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.
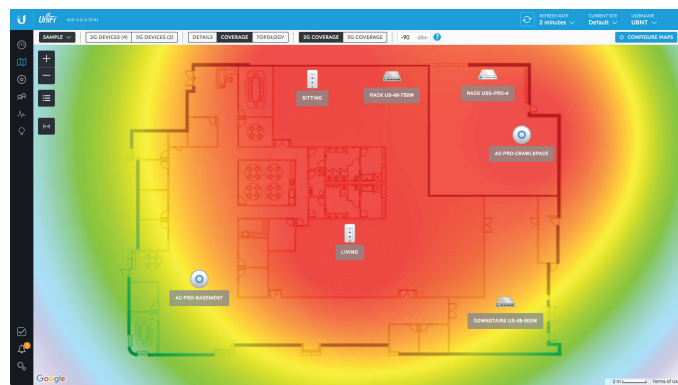
WLAN Groups

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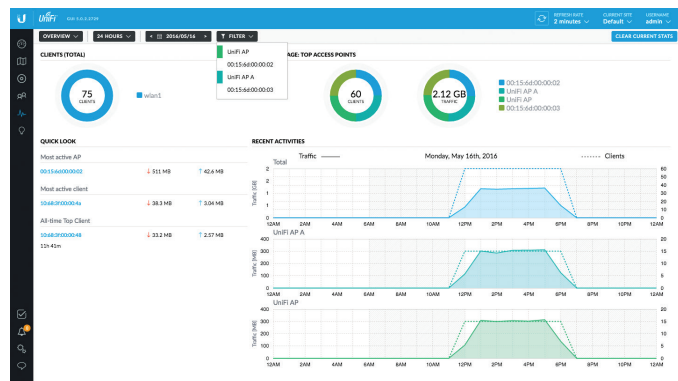

Dashboard

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

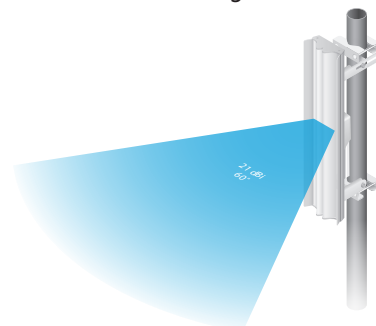|	UAP-AC-M	UAP-AC-M-PRO
Environment	Indoor/Outdoor	Outdoor
Simultaneous Dual-Band	✓	✓
2.4 GHz Speed*	300 Mbps	450 Mbps
2.4 GHz MIMO	2x2	3 x 3
5 GHz Speed*	867 Mbps	1300 Mbps
5 GHz MIMO	2x2	3 x 3
Range*	183 m (600 ft)	183 m (600 ft)
Secondary Ethernet Port		✓
PoE Mode	24V Passive PoE 802.3af PoE: Alternative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

* *Speed* and *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/Outdoors The UniFi AC Mesh AP includes adjustable dual-band omni antennas, and you have the option to use any 5 GHz omni antenna for spot-beam coverage in high-density locations with numerous APs and clients, like a conference hall.

Directional Coverage, Outdoors The UniFi AC Mesh AP is versatile; you can use any 5 GHz sector antenna (wide beam in the azimuth plane and narrow in the elevation plane) for broad outdoor coverage.

airMAX® ac Sector, model AM-5AC21-60

Maximum Coverage, Outdoors The UniFi AC Mesh Pro AP 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 music festival or concert venue.

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 UniFi AC Mesh AP provides simultaneous, dual-band, 2x2 MIMO technology and is available in single- and five-packs*.

Compact Form Factor The UniFi AC Mesh AP discreetly integrates into any environment.

Weather-Resistant Enclosure The UniFi AC Mesh AP can be used indoors or outdoors.

Versatile Mounting The UniFi AC Mesh AP can be mounted on a wall, pole, or fast-mount of a Ubiquiti high-gain antenna. (All accessories are included.)

Multiple Power Options The UniFi AC Mesh AP is compatible with 802.3af PoE Alternative A and 24V passive PoE. You can power it with an 802.3af Alternative A compatible switch, EdgePoint™ EP-R6, UniFi PoE Switch, or the included Gigabit PoE adapter*.
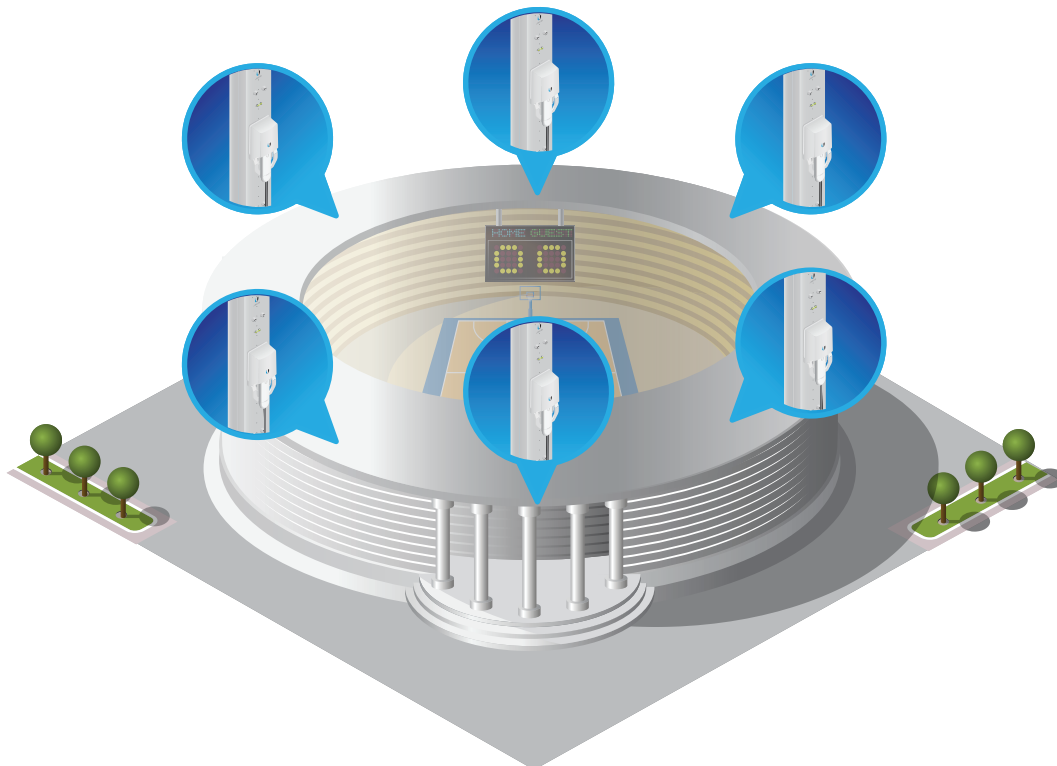
Antenna Options Use the included omni antennas, or use the included fast-mount adapter to install the AP on an optional connectorized antenna for expanded range coverage and customized pattern shaping.

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

The included fast-mount adapter attaches to the radio mount of an optional airMAX antenna.

Application Example

Pair the UniFi AC Mesh APs with airMAX 5 GHz sector antennas for directional coverage of an indoor stadium.

Hardware Overview

Model: UAP-AC-M-PRO

The UniFi AC Mesh Pro AP provides simultaneous, dual-band, 3x3 MIMO technology and is available in single- and five-packs*.

Weather-Resistant Form Factor The enclosure of the UniFi AC Mesh Pro AP 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 UniFi AC Mesh Pro AP 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 UniFi AC Mesh Pro AP 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
  5 GHz
	
	20 dBm
	20 dBm

Antennas
  2.4 GHz
  5 GHz
	(2) External Dual-Band Omni Antennas
	3 dBi
	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
  5 GHz
	
	22 dBm
	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.

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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

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