A1 SECURITY CAMERAS
The First Name in Security

DATASHEET

UniFi®

Enterprise Wi-Fi System

Models: UAP-IW, UAP, UAP-LR, UAP-PRO, UAP-Outdoor+, UAP-Outdoor5

Unlimited Indoor/Outdoor AP Scalability in a Unified Management System

Reliable Throughput up to 750 Mbps

Intuitive UniFi Controller Software

UBIQUITI® NETWORKS

UniFi®

Datasheet

Scalable and Unified Enterprise Wi-Fi Management

The UniFi® Enterprise Wi-Fi System is a scalable enterprise access point solution designed to be easily deployed and managed. UniFi Access Point (AP) indoor models have a sleek design and can be easily mounted to a ceiling tile or wall using the included mounting hardware. UniFi AP (UAP) outdoor models have a form factor built to last outdoors.

The UniFi Enterprise Wi-Fi System includes the UniFi Controller software. The software installs on any PC, Mac, or Linux machine within the network and is easily accessible through any standard web browser. Using the UniFi Controller software, an Enterprise Wi-Fi network can be quickly configured and administered without any special training. Real-time status, automatic UAP device detection, map loading, and advanced security options are all seamlessly integrated.

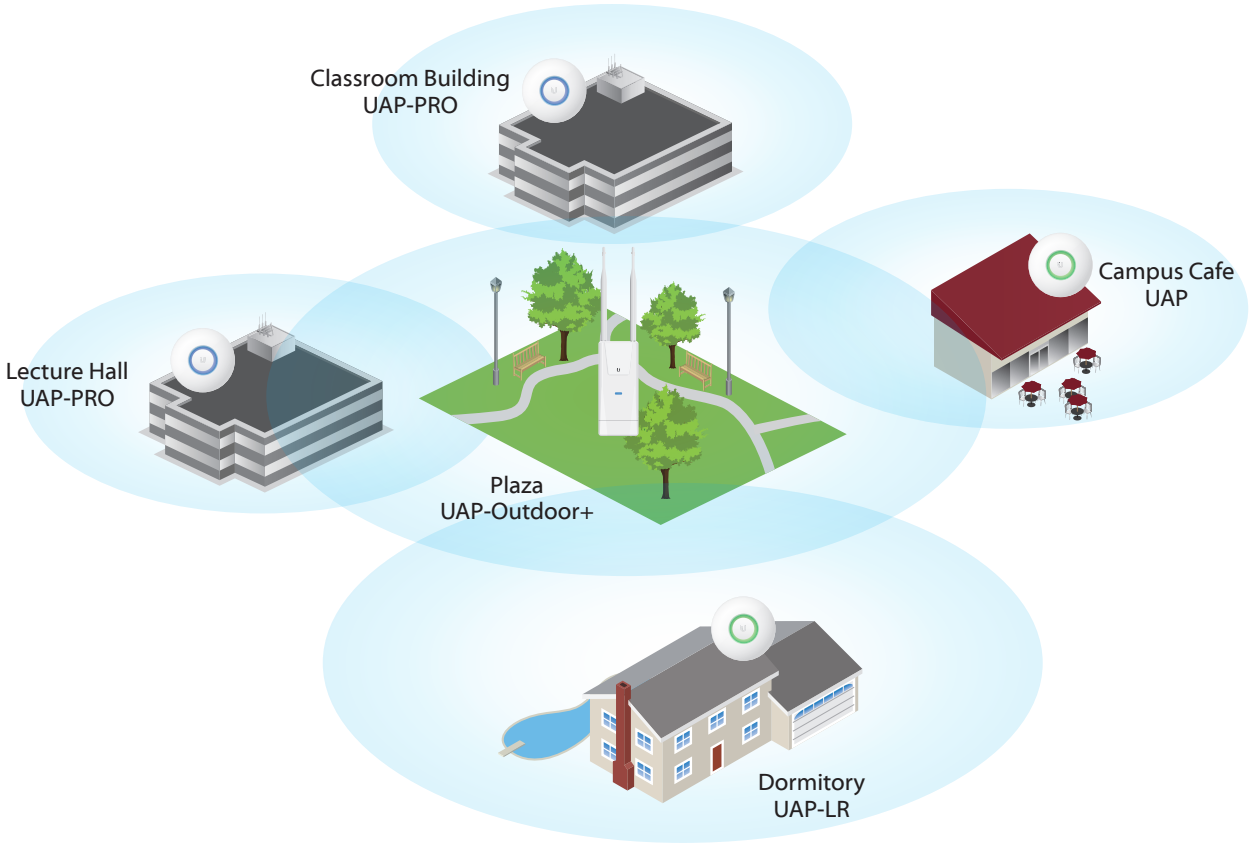
Features

Save money and save time Unlike traditional enterprise Wi-Fi systems that utilize a hardware controller, UniFi comes bundled with a non-dedicated software controller that can be deployed on an on-premise PC, Mac, or Linux machine; in a private cloud; or using a public cloud service.

Powerful Hardware The UniFi Access Points feature Wi-Fi 802.11n MIMO technology for superior performance in the 2.4 and/or 5 GHz bands, and ranges up to 600 ft.

Intuitive UniFi Controller Software Install, configure, and manage all of your UniFi APs with the intuitive and easy-to-learn UniFi Controller user interface.

Expandable Unlimited scalability. Build wireless networks as big or small as needed. Start with one (or upgrade to a three-pack) and expand to thousands while maintaining a single unified management system.



Example of UniFi deployment on a University Campus

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.

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.

Guest Portal/Hotspot Support

Easy customization and 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

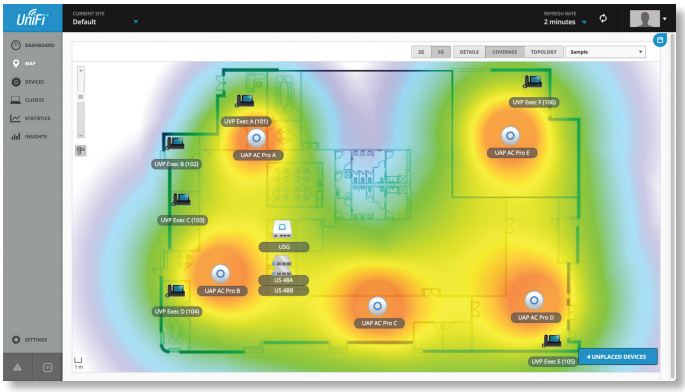
A single UniFi Controller running in the cloud can manage multiple sites: multiple, distributed deployments and multi-tenancy for managed service providers. Each site is logically separated and has its own configuration, maps, statistics, guest portal, and administrator read/write and read-only accounts.

WLAN Groups

The UniFi Controller can manage flexible configurations of large deployments. Create multiple WLAN groups and assign them to an AP's radio.

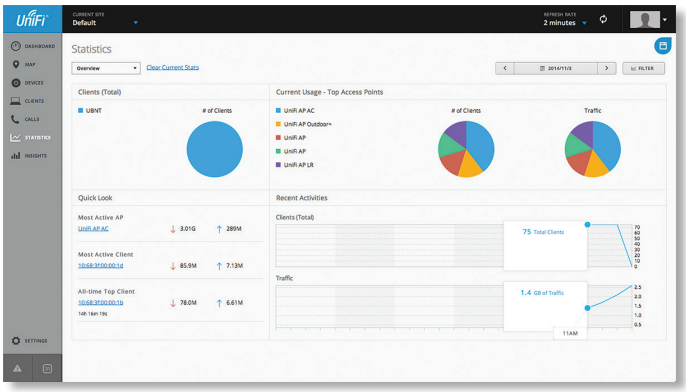
Dashboard

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.



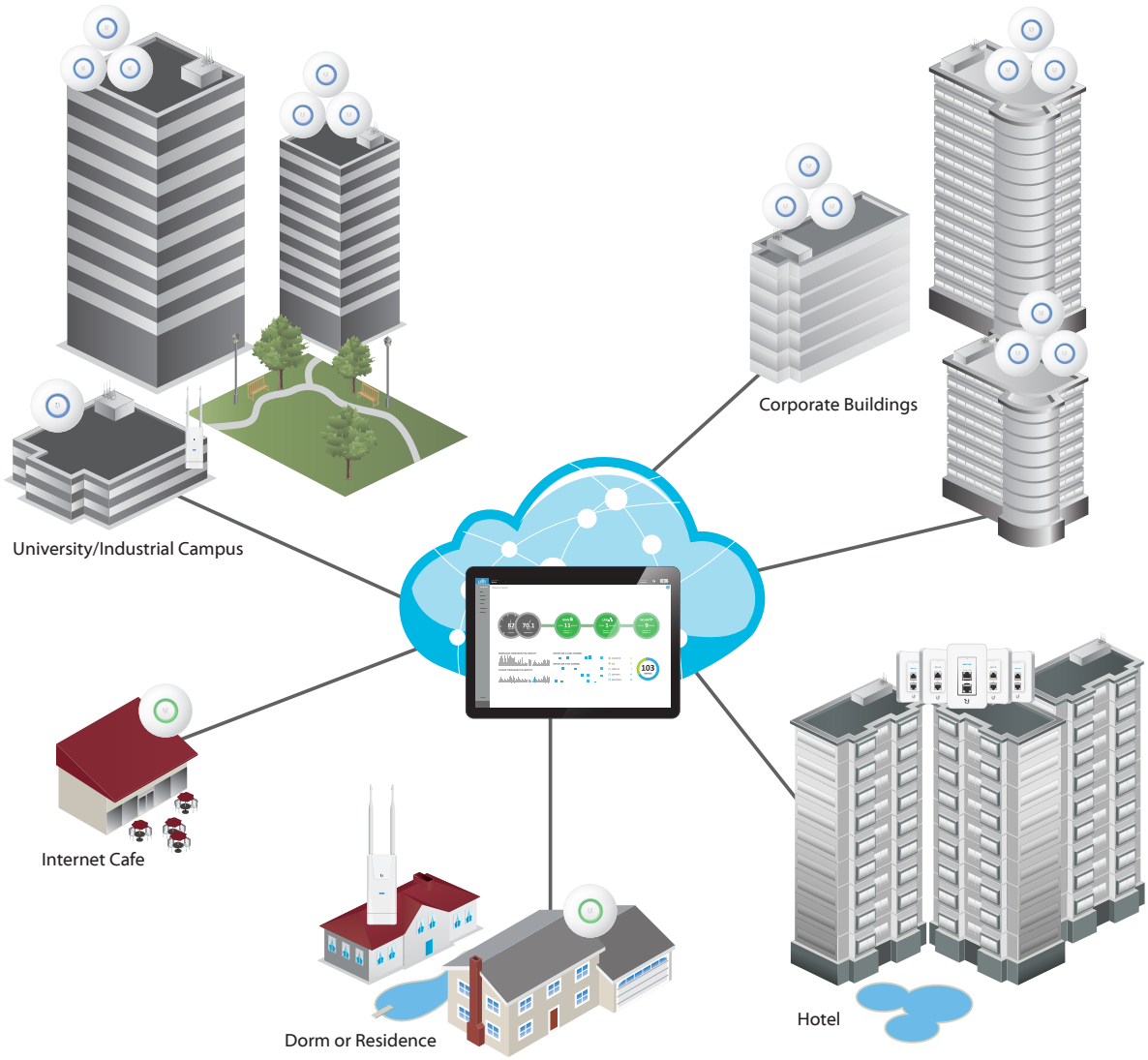
Statistics

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

Extend Your Coverage

With the UniFi Controller software running in a NOC or in the cloud, administrators can extend and centrally manage wide areas of indoor and outdoor coverage using any combination of UniFi APs.

Below are some examples of how UniFi APs can be deployed.



5 or more UAP-IW

3 or more UAP/UAP-LR/UAP-PRO

UAP-IW

UAP/UAP-LR/UAP-PRO

UAP-Outdoor+/ UAP-Outdoor5

Increase Capacity and Throughput

Innovative Multi-Lane RF Technology

Wireless client devices in high-density areas experience significant interference and noise stemming from multiple APs using the same operating band.

With the launch of the UniFi AP-Outdoor+, Ubiquiti Networks introduces our patented Multi-Lane™ RF technology, which optimizes the operating channel and rejects interference using specialized circuitry, the High-Selectivity Receiver (HSR).

Our innovative Multi-Lane RF technology isolates signals on the operating channel and removes adjacent channel interference. Wireless capacity and throughput are increased in high-density areas, and multiple APs can operate in close proximity.

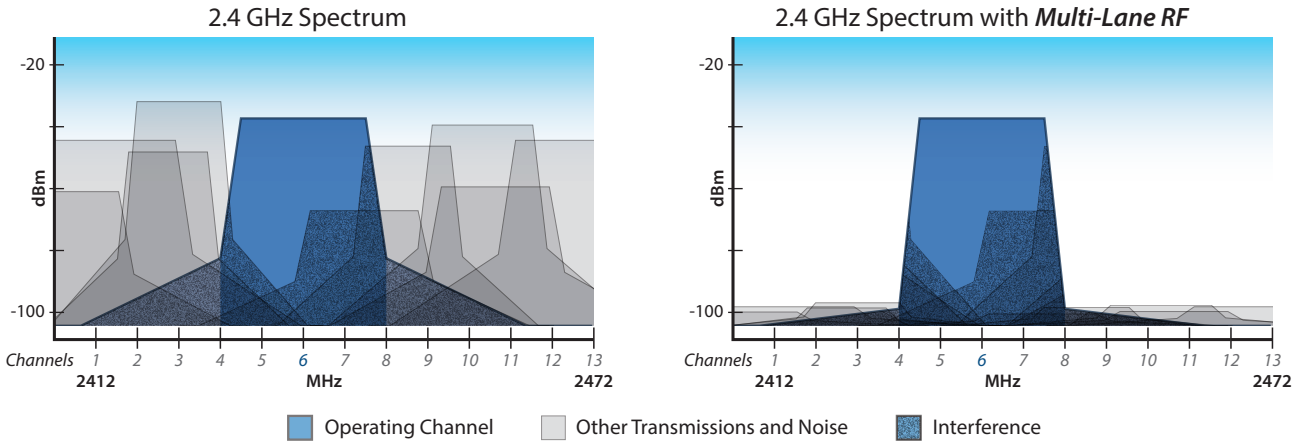
Typical AP Performance

Although theoretically channels 1, 6, and 11 of the 2.4 GHz operating band shouldn't overlap, in practice there is cross-channel interference that affects performance, especially in noisy, high-density environments. For example, with a typical AP operating on channel 6, it also hears RF from channels 1 and 11, because the typical AP has a generic filter that only filters out any non-2.4 GHz interference – all 2.4 GHz frequencies are still allowed in.

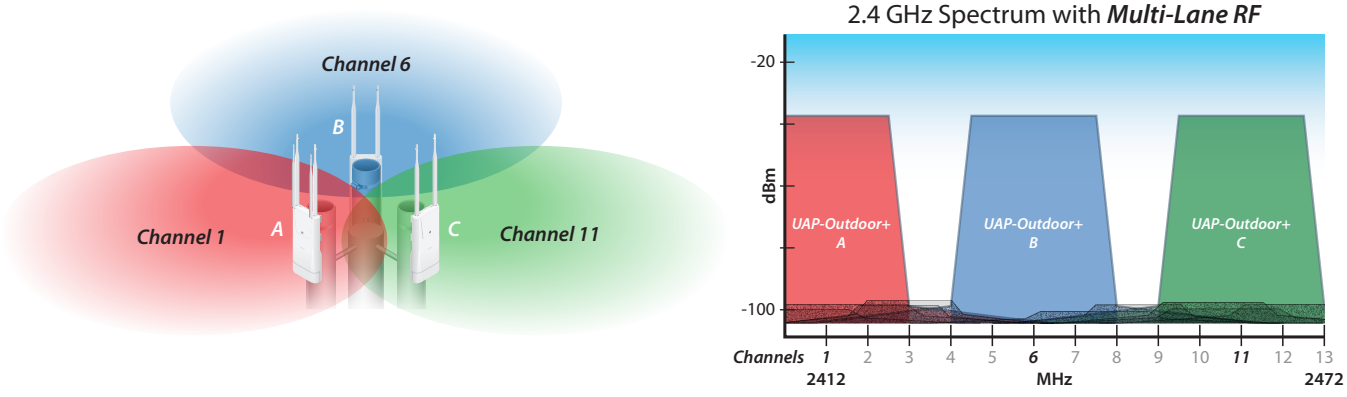
Superior UniFi AP-Outdoor+ Performance

When the UniFi AP-Outdoor+ operates on channel 6, its HSR filter specifically eliminates all non-channel 6 frequencies, creating a clean spectrum with minimal noise. So with Multi-Lane RF technology, you truly have three high-speed, multi-lane channels (1, 6, and 11) available for superior capacity and throughput.

Generic Filter versus Proprietary Filter of UniFi AP-Outdoor+



Co-Located UniFi AP-Outdoor+ Access Points



Indoor Models

Features

Easy Mounting Sleek wall or ceiling mount design (all accessories included).

Design Aesthetic industrial design with a unique LED provisioning ring or square, which provides administrator location tracking and alerts for each device.

Power over Ethernet (PoE) Includes Power over Ethernet (PoE) functionality, which allows both power and data to be carried over a single Ethernet cable to the device.

The UAP, UAP-LR, and UAP-PRO can be powered using the included PoE injector or powered by a UniFi Switch or TOUGHSwitch™ PoE PRO (both sold separately). The UAP-PRO can be powered by an 802.3af compliant switch.

The UAP-IW can be powered by a UniFi Switch. The UAP-IW cannot be powered by a passive PoE source such as a PoE injector or the TOUGHSwitch.

UniFi indoor models are available in single-packs and multi-packs.

Except for the UAP-IW, all UniFi APs include:

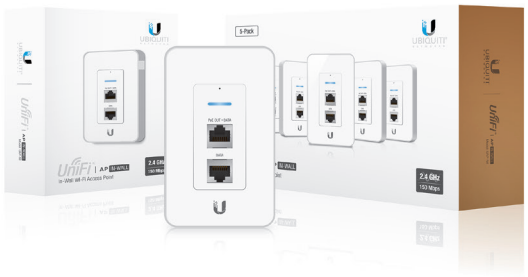
- Wall and Ceiling Mount Kit
- Power over Ethernet Adapter

Indoor Model Comparison

	UAP-IW	UAP	UAP-LR	UAP-PRO
2.4 GHz Speed[1]	150 Mbps	300 Mbps	300 Mbps	450 Mbps
5 GHz Speed[1]				300 Mbps
Range[1]	25 m (82 ft)	122 m (400 ft)	183 m (600 ft)	122 m (400 ft)
Gigabit Ethernet				✓
Secondary Ethernet Port	✓			✓
Wi-Fi Standards	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n	802.11 a/b/g/n
2.4 GHz	✓	✓	✓	✓
5 GHz				✓
Simultaneous Dual-Band				✓
Ubiquiti Passive PoE		✓	✓	✓
802.3af PoE	✓[2]			✓
Security Lock	✓	✓	✓	✓

[1] *Speed* and *Range* values may vary and are based on optimal environments.

[2] UniFi Switch Support Only



UniFi AP In-Wall (UAP-IW)

The UAP-IW is ideal for retrofitting an existing in-wall wired Ethernet jack to a wireless access point. It also provides one RJ45 data port and one PoE port to connect devices like a VoIP phone. The UAP-IW is capable of speeds of up to 150 Mbps with a range of up to 25 m (82 ft).

UniFi AP (UAP)

This is our standard model 802.11n MIMO UniFi AP. It is capable of speeds of up to 300 Mbps with a range of up to 122 m (400 ft).

UniFi AP-Long Range (UAP-LR)

The UAP-LR has a longer range than the base model UAP with a range of up to 183 m (600 ft). It also offers 802.11n MIMO, with speeds of up to 300 Mbps.

UniFi AP-PRO (UAP-PRO)

The UAP-PRO supports speeds of up to 300 Mbps in the 5 GHz radio band and up to 450 Mbps in the 2.4 GHz radio band. The UAP-PRO offers simultaneous dual-band operation with 2x2 and 3x3 MIMO technology. It has a range of up to 122 m (400 ft) and two Gigabit Ethernet ports.

Outdoor Models

All the same features packed in the indoor UniFi models, but in a form factor built to last outdoors.

Features

Easy Mounting Sleek wall or pole mount design (all accessories included).

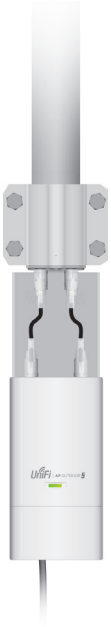
Designed for the Great Outdoors The weather-resistant case is designed specifically for outdoor installations. Dual, omni-directional antennas on the UAP-Outdoor+ and UAP-Outdoor5 provide 360° wireless coverage.

2G or 5G Models Choose the frequency best suited to your environment – 2.4 GHz (UAP-Outdoor+) or 5 GHz (UAP-Outdoor5).

Power over Ethernet (PoE) Includes Power over Ethernet (PoE) functionality. Each UniFi model includes a Power over Ethernet adapter, and it can also be powered by a UniFi Switch or TOUGHSwitch PoE (sold separately).

The UniFi AP-Outdoor+ is compatible with an 802.3af compliant switch.

Installation Options External antennas are included. You can also connect the UAP-Outdoor+ or UAP-Outdoor5 to a dual-polarity antenna – an airMAX® Sector or Omni Antenna – to increase gain.



Outdoor Model Comparison Chart

	 UniFi AP-Outdoor+ (UAP-Outdoor+)	 UniFi AP-Outdoor 5G (UAP-Outdoor5)
2.4 GHz Speed[1]	300 Mbps	
5 GHz Speed[1]		300 Mbps
Range[1]	183 m (600 ft)	183 m (600 ft)
Multi-Lane RF	✓	
Secondary Ethernet Port	✓	✓
Gigabit Ethernet		
Wi-Fi Standards	802.11 b/g/n	802.11 a/n
2.4 GHz	✓	
5 GHz		✓
Simultaneous Dual-Band		
Ubiquiti PoE	✓	✓
802.3af PoE	✓	
External Antennas	✓	✓

[1] *Speed* and *Range* values may vary and are based on optimal environments.

UniFi outdoor models are available in single-packs.

Included with the UAP-Outdoor+ or UAP-Outdoor5:

- External Antennas
- Wall and Pole Mount Kit
- Power over Ethernet Adapter

UniFi AP-Outdoor+ (UAP-Outdoor+)

Designed for noisy, high-density environments, the UAP-Outdoor+ utilizes our innovative Multi-Lane RF technology to provide superior capacity and throughput. The UAP-Outdoor+ includes two external antennas and a secondary Ethernet port for bridging. It supports 802.11n MIMO, with speeds of up to 300 Mbps and a range of up to 183 m (600 ft).

UniFi AP-Outdoor 5G (UAP-Outdoor5)

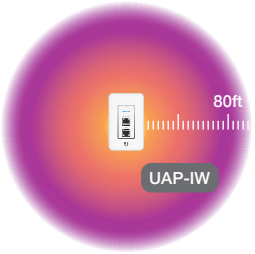
This outdoor model operates in the 5 GHz frequency spectrum. The UAP-Outdoor5 includes two external omni antennas and a secondary Ethernet port for bridging. It supports 802.11n MIMO, with speeds of up to 300 Mbps and a range of up to 183 m (600 ft).

Specifications (UAP-IW)

UniFi AP In-Wall	
Dimensions	114.6 x 70.6 x 28.5 mm (4.51 x 2.78 x 1.12 in)
Weight	117 g (4.127 oz)
Networking Interface	(3) 10/100 Ethernet Ports
Buttons	Reset
Operating Band	2.4 GHz
Antenna Gain	1 dBi
Wi-Fi Standards	802.11 b/g/n
Power Method	UniFi Switch
PoE Out	48V Pass-Through (Pins 1, 2+; 3, 6-)
Maximum Power Consumption	6W
Maximum TX Power	17 dBm
BSSID	Up to Four Per Radio
Power Save	Supported
Wireless Security	WEP, WPA-PSK, WPA-Enterprise (WPA/WPA2, TKIP/AES)
Certifications	CE, FCC, IC
Mounting	1-Gang Electrical Wall Box (Not Included)
Operating Temperature	-10 to 70° C (14 to 158° F)
Operating Humidity	5 to 95% Noncondensing

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	100+

Supported Data Rates (Mbps)	
Standard	Data Rates
802.11n	6.5 Mbps to 150 Mbps (MCS0 - MCS7, HT 20/40)
802.11b	1, 2, 5.5, 11 Mbps
802.11g	6, 9, 12, 18, 24, 36, 48, 54 Mbps

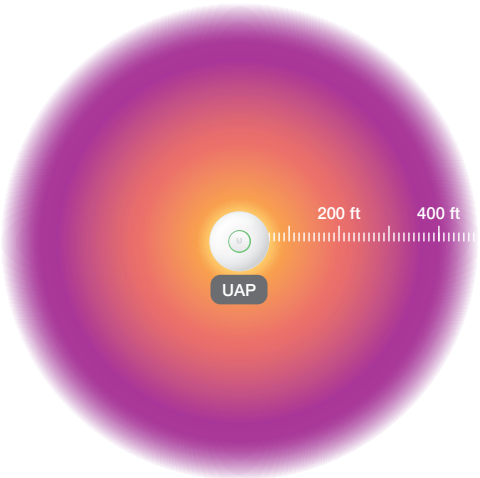


Specifications (UAP)

UniFi AP	
Dimensions	200 x 200 x 36.5 mm (7.87 x 7.87 x 1.44 in)
Weight	290 g (10.23 oz) without Mounting Kits 430 g (15.17 oz) with Mounting Kits
Networking Interface	(1) 10/100 Ethernet Port
Buttons	Reset
Operating Band	2.4 GHz
Antennas	Integrated 3 dBi Omni (Supports 2x2 MIMO with Spatial Diversity)
Wi-Fi Standards	802.11 b/g/n
Power Method	Passive Power over Ethernet (12-24V)
Power Supply	24V, 0.5A PoE Adapter Included
Maximum Power Consumption	4W
Maximum TX Power	20 dBm
BSSID	Up to Four Per Radio
Power Save	Supported
Wireless Security	WEP, WPA-PSK, WPA-Enterprise (WPA/WPA2, TKIP/AES)
Certifications	CE, FCC, IC
Mounting	Wall/Ceiling (Kits Included)
Operating Temperature	-10 to 70° C (14 to 158° F)
Operating Humidity	5 - 80% Noncondensing

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	100+

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

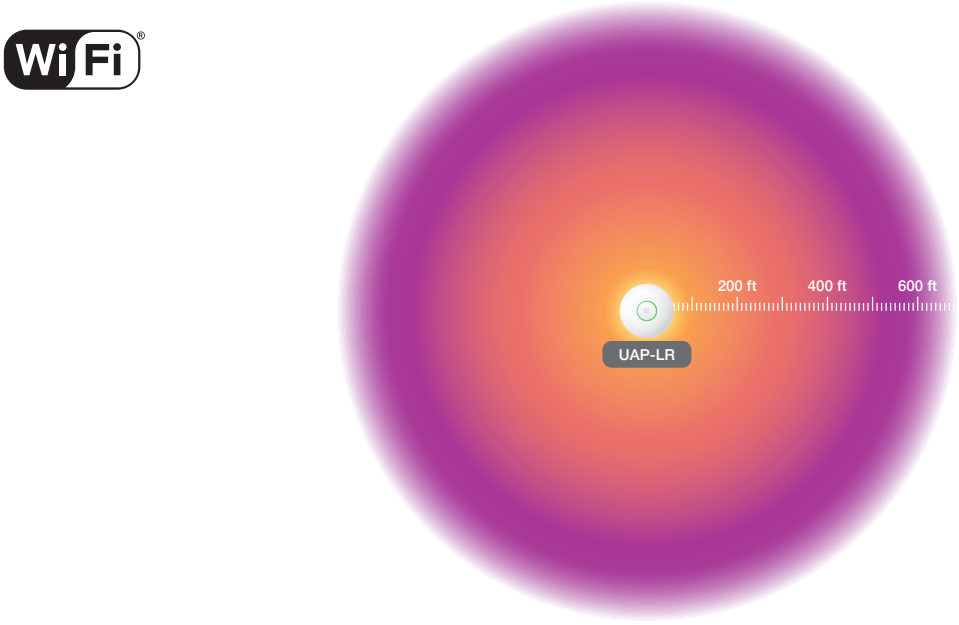


Specifications (UAP-LR)

UniFi AP Long-Range	
Dimensions	200 x 200 x 36.5 mm (7.87 x 7.87 x 1.44 in)
Weight	290 g (10.23 oz) without Mounting Kits 430 g (15.17 oz) with Mounting Kits
Networking Interface	(1) 10/100 Ethernet Port
Buttons	Reset
Operating Band	2.4 GHz
Antennas	Integrated 3 dBi Omni (Supports 2x2 MIMO with Spatial Diversity)
Wi-Fi Standards	802.11 b/g/n
Power Method	Passive Power over Ethernet (12-24V)
Power Supply	24V, 0.5A PoE Adapter Included
Maximum Power Consumption	6W
Maximum TX Power	27 dBm
BSSID	Up to Four Per Radio
Power Save	Supported
Wireless Security	WEP, WPA-PSK, WPA-Enterprise (WPA/WPA2, TKIP/AES)
Certifications	CE, FCC, IC
Mounting	Wall/Ceiling (Kits Included)
Operating Temperature	-10 to 70° C (14 to 158° F)
Operating Humidity	5 - 80% Noncondensing

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	100+

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

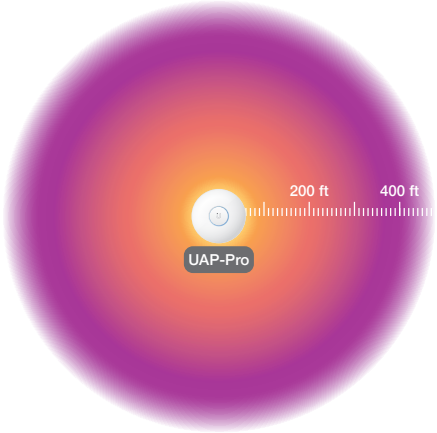


Specifications (UAP-PRO)

UniFi AP PRO	
Dimensions	200 x 200 x 36.5 mm (7.87 x 7.87 x 1.44 in)
Weight	298 g (10.51 oz) without Mounting Kits 358 g (12.63 oz) with Mounting Kits
Networking Interface	(2) 10/100/1000 Ethernet Ports
Buttons	Reset
Operating Bands	Simultaneous Dual Band 2.4 GHz and 5 GHz
Antennas 2.4 GHz 5 GHz	 Integrated 5 dBi Omni (Supports 3x3 MIMO with Spatial Diversity) Integrated 4 dBi Omni (Supports 2x2 MIMO with Spatial Diversity)
Wi-Fi Standards	802.11 a/b/g/n
Power Method	Passive Power over Ethernet (48V), 802.3af Supported
Power Supply	48V, 0.5A PoE Gigabit Adapter (Included)
Maximum Power Consumption	12W
Maximum TX Power 2.4 GHz 5 GHz	 30 dBm 22 dBm
BSSID	Up to Four Per Radio
Power Save	Supported
Wireless Security	WEP, WPA-PSK, WPA-Enterprise (WPA/WPA2, TKIP/AES)
Certifications	CE, FCC, IC
Mounting	Wall/Ceiling (Kits Included)
Operating Temperature	-10 to 70° C (14 to 158° F)
Operating Humidity	5 - 80% Noncondensing

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	200+

Supported Data Rates (Mbps)	
Standard	Data Rates
802.11n	6.5 Mbps to 450 Mbps (MCS0 - MCS23, HT 20/40)
802.11a	6, 9, 12, 18, 24, 36, 48, 54 Mbps
802.11b	1, 2, 5.5, 11 Mbps
802.11g	6, 9, 12, 18, 24, 36, 48, 54 Mbps

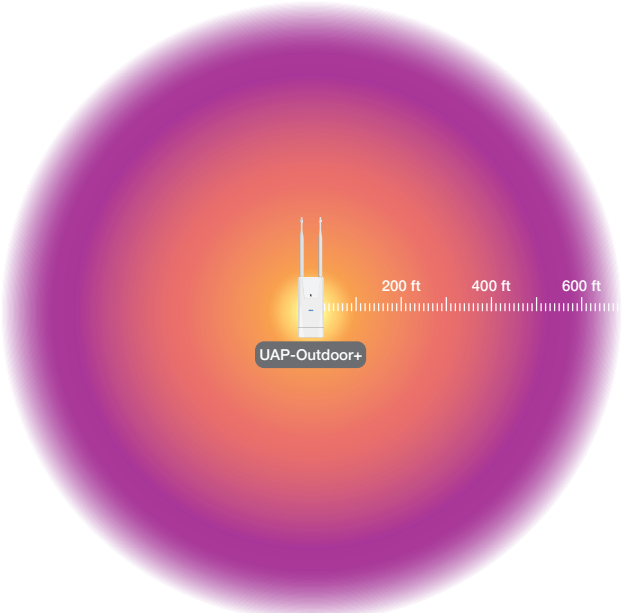


Specifications (UAP-Outdoor+)

UniFi AP Outdoor+	
Dimensions	205 x 83 x 37 mm (8.07 x 3.27 x 1.46 in)
Weight	250 g (8.82 oz) without Antennas 294 g (10.37 oz) with Antennas
Networking Interface	(2) 10/100 Ethernet Ports
Buttons	Reset
Operating Band	2.4 GHz
Antennas	(2) External 5 dBi Omni Antennas Included 191 mm (Length), 13 mm (Diameter)
Wi-Fi Standards	802.11 b/g/n
Power Method	Passive Power over Ethernet (48V), 802.3af Supported
Power Supply	48V, 0.5A PoE Adapter (Included)
Maximum Power Consumption	8W
Maximum TX Power	28 dBm
BSSID	Up to Four Per Radio
Power Save	Supported
Wireless Security	WEP, WPA-PSK, WPA-Enterprise (WPA/WPA2, TKIP/AES)
Certifications	CE, FCC, IC
Mounting	Wall/Ceiling (Kits Included)
Operating Temperature	-30 to 65° C (-22 to 149° F)
Operating Humidity	5 - 95% Noncondensing

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	100+

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

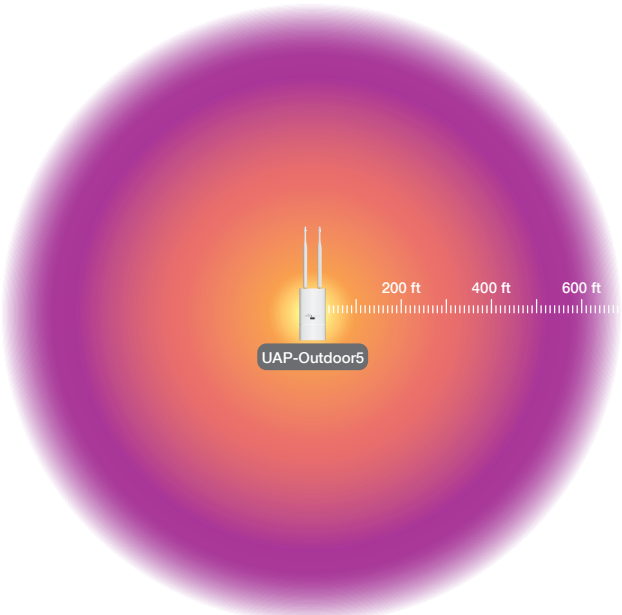


Specifications (UAP-Outdoor5)

UniFi AP Outdoor 5	
Dimensions	170 x 80 x 30 mm (6.69 x 3.15 x 1.18 in)
Weight	230 g (8.11 oz) without Antennas 274 g (9.67 oz) with Antennas
Networking Interface	(2) 10/100 Ethernet Ports
Buttons	Reset
Operating Band	5 GHz
Antennas	(2) External 6 dBi Omni Antennas Included 191 mm (Length), 13 mm (Diameter)
Wi-Fi Standards	802.11a/n
Power Method	Passive Power over Ethernet (12-24V)
Power Supply	24V, 1A PoE Adapter Included
Maximum Power Consumption	6.5W
Maximum TX Power	27 dBm
BSSID	Up to Four Per Radio
Power Save	Supported
Wireless Security	WEP, WPA-PSK, WPA-Enterprise (WPA/WPA2, TKIP/AES)
Certifications	CE, FCC, IC
Mounting	Wall and Pole (Kits Included)
Operating Temperature	-30 to 75° C (-22 to 167° F)
Operating Humidity	5 to 95% Noncondensing

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	100+

Supported Data Rates (Mbps)	
Standard	Data Rates
802.11n	6.5 Mbps to 300 Mbps (MCS0 - MCS15, HT 20/40)
802.11a	6, 9, 12, 18, 24, 36, 48, 54 Mbps



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