# HP M210 802.11n Access Point Series





# **Key features**

- IEEE 802.11a/b/g/n Access Point (AP)
- Single-radio, dual-band (2.4GHz or 5GHz)
- Simplified wireless LAN administration with clustering technology
- Powered by IEEE 802.3af PoE or included power supply
- Limited Lifetime Warranty 2.0

# **Product overview**

Ideal for small businesses, the HP M210 802.11n Access Points Series are dual-band, single-radio devices supporting high-speed wireless networking at 5GHz or 2.4GHz. Dual-band operation gives you flexibility to use the less congested 5.0GHz spectrum for better wireless performance, better user experience and faster delivery of mobile applications. They are fully compatible with the high-speed IEEE 802.11n wireless standard and backward-compatible for legacy IEEE 802.11a/b/g support.

HP M210 802.11n Access Points support standalone operation ideal for smaller sites, with "clustering" of up to 4 M210 Access Points, should additional access pointed be desired for better coverage. Clustering technology propagates wireless network configurations across all access points for consistent security and uninterrupted wireless client roaming. It simplifies network set-up for a small site should a second or third access point be installed to improve wireless connectivity. Clustering technology requires no wireless controller or additional hardware, enabling you to keep your network easily accessible.

HP M210 802.11n Access Points come with the Limited Lifetime Warranty 2.0. This warranty provides next-business-day advance hardware replacement (in most countries), limited 24x7 telephone support is available from HP for the first 3 years, and limited electronic and business hours telephone support is available from HP for the entire warranty period.

# **Features and benefits**

#### Management

- Centralized wireless LAN management
- Simplified access point management

Configuration parameters enabled on one AP pass to all members (up to 4 APs) of the cluster, reducing the need to configure each AP individually.

- Auto channel planning

APs in a cluster are automatically assigned to a channel that reduces interference between adjacent APs.

- Client connection list

Access any member of the cluster to view information about clients connected to any clustered AP.

- Secure and easy-to-use Web UI
- Quick setup page

Consolidates key settings into one page for simple and rapid configuration for common deployment scenarios.

– HTTPS secured management sessions

Prevent management sessions from being observed on the network.

#### Connectivity

- Fully IEEE 802.11n-compliant dual-band access point
- 2.4 GHz frequency band support

Uses your IEEE 802.11n wireless clients alongside legacy IEEE 802.11b/g devices.

– 5 GHz frequency band support

Operates your IEEE 802.11n and 802.11a devices in the 5 GHz spectrum, which has less interference from microwave ovens, Bluetooth® devices, and cordless phones.

• IEEE 802.3af PoE-powered device (PD) option

Simplifies deployment and dramatically reduces installation costs by helping to reduce the time and cost involved in supplying local power at each AP location.

• Spanning Tree Protocol (IEEE 802.1D)

Prevents network loops.

• IPv6 support

The M210 Access Point provides native support for IPv6, the newest version of the Internet Protocol (IP), as well as the previous IPv4 standard.

#### Mobility

- Service-class segmentation
- Up to 4 SSIDs

Allows administrator to identify multiple service sets for clients to access.

- Up to 4 VLANs

IEEE 802.1Q VLAN tagging provides security and traffic control between workgroups.

- SSID to VLAN mapping

Permits segmenting traffic on each SSID to a specific VLAN.

Auto channel select

Helps reduce radio co-channel interference by automatically selecting an unoccupied radio channel.

• 2x3:2 MIMO support

Provides up to 300 Mbps performance and supports a maximum of 32 wireless clients per AP.

• Two internal MIMO omni-directional antennas

Provides excellent coverage through use of embedded high-gain antennas (4.56 dBi antenna at 2.4 GHz and 5.43 dBi antenna at 5 GHz); no need for the added cost of external antennas.

Wireless Distribution System (WDS)

Allows the M210 802.11n Access Point to connect wirelessly to other HP M210 802.11n Access Points without a wired backbone; this is useful for extending the network across areas where no wired infrastructure exists.

Interoperability

Meets Wi-Fi Alliance certifications, including IEEE 802.11n Wi-Fi and WPA2 to help provide multivendor interoperability.

### Security

• Rogue AP detection

Identifies all APs in range; known or trusted APs can be saved, allowing network administrators to identify unauthorized APs.

Secure Sockets Layer (SSL)

Encrypts all HTTP traffic, allowing secure access to the browser-based management interface of the AP.

• Management password

Provides security so that only authorized access to the Web browser interface is allowed.

RADIUS-based user authentication

Authenticates a user with a RADIUS server based on user credentials.

RADIUS-based MAC authentication

Authenticates a wireless client with a RADIUS server based on the MAC address of the client; this is useful for clients with minimal or no user interface.

• RADIUS-based VLAN assignment

Places wireless client on RADIUS-assigned VLAN.

Closed system

Restricts broadcast of SSID as a security measure to conceal presence of the wireless network.

• Wired Equivalent Privacy (WEP) using 64- and 128-bit encryption

Provides backward compatibility for legacy clients.

• Choice of IEEE 802.11i, WPA2, or WPA

Locks out unauthorized wireless access by authenticating users prior to granting network access; robust Advanced Encryption Standard (AES) or Temporal Key Integrity Protocol (TKIP) encryption secures the data integrity of wireless traffic.

• Local wireless bridge client traffic filtering

Prevents communication between wireless devices associated with the same AP.

## **Warranty and support**

• Limited Lifetime Warranty 2.0

Advance hardware replacement for as long as you own the product with next-business-day delivery (available in most countries).

• Electronic and telephone support (for Limited Lifetime Warranty 2.0)

Limited 24x7 telephone support is available from HP for the first three years; limited electronic and business hours telephone support is available from HP for the entire warranty period. To reach our support centers, refer to <a href="hp.com/networking/contact-support">hp.com/networking/contact-support</a>; for details on the duration of support provided with your product purchase, refer to <a href="hp.com/networking/warrantysummary">hp.com/networking/warrantysummary</a>.

# **HP M210 802.11n Access Point Series**

# Specifications





	HP M210 802.11n (AM) Access Point (JL023A)	HP M210 802.11n (WW) Access Point (JL024A)	
I/O ports and slots	1 RJ-45 autosensing 10/100/1000 port (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	1 RJ-45 autosensing 10/100/1000 port (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Media Type: Auto-MDIX Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	
AP characteristics			
Radios (built-in)	802.11a/b/g/n	802.11a/b/g/n	
Radio operation modes	Client access, Client bridge	Client access, Client bridge	
AP operation modes	Autonomous	Autonomous	
Wi-Fi Alliance Certification	a/b/g/n Wi-Fi Certified	a/b/g/n Wi-Fi Certified	
Antenna	Internal 2.4/5 GHz MIMO omni-directional antennas	Internal 2.4/5 GHz MIMO omni-directional antennas	
Number of internal antennas	2	2	
Physical characteristics			
Dimensions	7.62(w) x 5(d) x 1.5(h) in (19.35 x 12.7 x 3.81 cm)	7.62(w) x 5(d) x 1.5(h) in (19.35 x 12.7 x 3.81 cm)	
Weight	0.75 lb (0.34 kg)	0.75 lb (0.34 kg)	
Mounting and enclosure	Indoor	Indoor	
Environment			
Operating temperature	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)	
Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing	15% to 95% @ 104°F (40°C), noncondensing	
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)	
Nonoperating/Storage relative humidity	15% to 95% @ 149°F (65°C), noncondensing	15% to 95% @ 149°F (65°C), noncondensing	
Altitude	up to 15,000 ft (4.6 km)	up to 15,000 ft (4.6 km)	
Acoustic	Low-speed fan: 0 dB, High-speed fan: 0 dB (no fan)	Low-speed fan: 0 dB, High-speed fan: 0 dB (no fan)	

	HP M210 802.11n (AM) Access Point (JL023A)	HP M210 802.11n (WW) Access Point (JL024A)	
Electrical characteristics			
Description	IEEE 802.3af PoE Compliant or included 110-240 V 50/60 Hz external power supply	IEEE 802.3af PoE Compliant or included 110-240 V 50/60 Hz external power supply	
AC voltage	100 - 240 VAC	100 - 240 VAC	
Current	0.4 A	0.4 A	
Maximum power rating	5.3 W	5.3 W	
PoE power	7 W PoE	7 W PoE	
	Notes		
	PoE Power is the power supplied by the internal power supply, it is dependent on the type and quantity of power supplies and may be supplemented with the use of a External Power Supply (EPS).	PoE Power is the power supplied by the internal power supply, it is dependent on the type and quantity of powe supplies and may be supplemented with the use of a External Power Supply (EPS).	
	5.3 watts is the maximum power draw when the device is used with the included power adapter.	5.3 watts is the maximum power draw when the device i used with the included power adapter.	
Frequency band and operating channels			
US	2.412 - 2.462 GHz (11 channels)		
	5.180 - 5.240 GHz (4 channels)		
	5.745 - 5.825 GHz (5 channels)		
European Union		2.412 - 2.472 GHz (13 channels)	
		5.180 - 5.240 GHz (4 channels)	
		5.500 - 5.700 GHz (8 channels)	
Rest of World (Actual channels designated		2.412 - 2.472 GHz (13 channels)	
by selecting country in UI)		5.180 - 5.240 GHz (4 channels)	
		5.260 - 5.320 GHz (4 channels)	
		5.500 - 5.700 GHz (11 channels)	
		5.745 - 5.825 GHz (5 channels)	
Radio	FCC Part 15.247; FCC Part 15.407 (no DFS); RSS-210, Issue 8; RSS-Gen, Issue 3	EN 300 328; EN 301-489-1; EN 301-489-17; EN 301 893 (EU); NCCLP0002 (Taiwan)	
Safety	UL 60950-1 2nd Edition; CSA C22.2 No. 60950-1-07 2nd Edition	EN 60950-1; IEC 60950-1 (ed.2); IEC 60950-1 (ed.2): am1	
RF Exposure	Canada RSS-102; FCC Bulletin OET-65 Supplement C	EN 50385	
Services	Refer to the HP website at hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

		НР	M210 802.11n (AM) Acce	ess Point (JL023A)	HP M210 802.11n (WW) Access Point (JL024A)
Radio characteristic HP M210 802.11n (AM HP M210 802.11n (W	M) Access Point (JLO				
IEEE 802.11n 5 GHz @	9 20 MHz				
Data rate Receiver sensitivity Transmit power	MCS 0 Mbps -86 dBm 15 dBm	MSC 7 Mbps -67 dBm 11 dBm	MSC 8 Mbps -86 dBm 15 dBm	MSC 15 Mbps -68 dBm 11 dBm	
IEEE 802.11n 5 GHz @	9 40 MHz				
Data rate Receiver sensitivity Transmit power	MCS 0 Mbps -83 dBm 15 dBm	MCS 7 Mbps -64 dBm 11 dBm	MCS 8 Mbps -84 dBm 15 dBm	MCS 15 Mbps -65 dBm 11 dBm	
IEEE 802.11n 2.4 GHz	z @ 20 MHz				
Data rate Receiver sensitivity Transmit power	MCS 0 Mbps -87 dBm 17 dBm	MCS 7 Mbps -69 dBm 13 dBm	MCS 8 Mbps -86 dBm 17 dBm	MCS 15 Mbps -68 dBm 13 dBm	
IEEE 802.11n 2.4 GHZ	Z @ 40 MHz				
Data rate Receiver sensitivity Transmit power	MCS 0 Mbps -84 dBm 17 dBm	MCS 7 Mbps -65 dBm 13 dBm	MCS 8 Mbps -84 dBm 17 dBm	MCS 15 Mbps -65 dBm 13 dBm	
IEEE 802.11a					
Data rate Receiver sensitivity Transmit power	6 Mbps -86 dBm 15 dBm	54 Mbps -71 dBm 11 dBm			
IEEE 802.11b					
Data rate Receiver sensitivity Transmit power	1 Mbps -96 dBm 17 dBm	11 Mbps -87 dBm 17 dBm			
IEEE 802.11g					
Data rate Receiver sensitivity Transmit power	6 Mbps -87 dBm 17 dBm	54 Mbps -72 dBm 13 dBm			

#### HP M210 802.11n (AM) Access Point (JL023A)

HP M210 802.11n (WW) Access Point (JL024A)

### HP M210 802.11n (AM) Access Point (JL023A) HP M210 802.11n (WW) Access Point (JL024A)

MCS Index	800	) nS	400 nS		
	20 MHz Rate (Mbps)	40 MHz Rate (Mbps)	20 MHz Rate (Mbps)	40 MHz Rate (Mbps)	
0	6.5	13.5	7.2	15	
1	13	27	14.4	30	
2	19.5	40.5	21.7	45	
3	26	54	28.9	60	
4	39	81	43.3	90	
5	52	108	57.8	120	
6	58.5	121.5	65	135	
7	65	135	72.2	157.5	
8	13	27	14.4	30	
9	26	54	28.9	60	
10	39	81	43.3	90	
11	52	108	57.8	120	
12	78	162	86.7	180	
13	104	216	115.6	240	
14	117	243	130	270	
15	130	270	144.4	300	

## Learn more at

hp.com/networking



HP access points and access devices are Wi-Fi Certified, providing our customers with the assurance that these products have met and passed the rigorous interoperability testing performed by the Wi-Fi Alliance Organization. See the Specifications section of this series for more information.

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