HP E-M110 Access Point Series

Data sheet

Product overview

HP E-M110 Access Point is an entry-level, single IEEE 802.11a/b/g radio device that can be configured to operate as an access point, a wireless distribution system (WDS) bridge, or a full-spectrum IEEE 802.11 wireless LAN (WLAN) monitor. The E-M110 Access Point supports up to two Virtual Service Communities, each with independent VLAN and wireless security profiles. It is plenum-rated and powered by an IEEE 802.3af(PoE)source. The M110 access point is Wi-Fi Certified for WPA2, WPA, and WEP security and has hardware-assisted AES and RC4 encryption.

Key features

• Entry-level access point
• Single radio
• IEEE 802.11a/b/g
• Autonomous mode
• Two external antennas

Features and benefits

Quality of Service (QoS)

- **IEEE 802.1p prioritization:** delivers data to devices based on the priority and type of traffic

- **Diagnostic:**
  - Client event log records association, authentication, and DHCP events
  - Packet capture tool for Ethernet and IEEE 802.11 interfaces (PCAP format)
  - Data rate matrix

- **RF management:**
  - Automatically selects channel on power-up and continuously improves channel selection based on background interference scan
  - Configurable background rogue scanning
  - Automatically adjusts transmit power to reduce interference

- **Network management:** SNMP v2c, SNMP v3, MIB-II with Traps, and RADIUS Authentication Client MIB (RFC 2618) Embedded HTML management tool with secure access (SSL and VPN) Scheduled configuration and firmware upgrades from central server

Connectivity

- **Auto-MDIX:** automatically adjusts for straight-through or crossover cables on all 10/100 ports

- **IEEE 802.3af Power over Ethernet (PoE) support:** simplifies deployment and dramatically reduces installation costs by helping to eliminate the time and cost involved in supplying local power at each access point location

Mobility

- **Interoperability:** Wi-Fi Alliance certifications, including IEEE 802.11g Wi-Fi and WPA2 to help ensure multivendor interoperability

- **Virtual Service Communities (VSCs):**
  - Up to 2 SSIDs, each with a unique MAC address, and configurable SSID broadcasts
  - Individual security profiles per VSC
  - Configurable DTIM and minimum data rate per VSC
  - Each VSC mapped to separate IEEE 802.1Q VLANs
  - WMM and/or WMM-PS
  - Security filter
  - IP filter

- **AP client access control functions:**
  - IEEE 802.1X authentication using EAP-SIM, EAP-FAST, EAP-TLS, EAP-TTLS, and PEAP
  - MAC address authentication using local or RADIUS access lists
  - RADIUS AAA using EAP-MD5, PAP, CHAP, and MS-CHAPv2
  - RADIUS Client (RFC 2865 and 2866) with location-aware support
  - Layer 2 wireless client isolation

- **Enhanced Security:**
  - Configurable Ethernet MAC and protocol filters
  - WPA2, WPA, and WEP
  - IEEE 802.1X PEAP WLAN authentication
  - Hardware-assisted AES and RC4 encryption

- **Location flexibility:**
  - 100 mW radio and antenna diversity provide excellent range
  - Configurable IEEE 802.11 a/b/g radio with external antenna connectors
  - Plenum rated
  - Centrally manageable

Security

- **Choice of IEEE 802.11i, Wi-Fi Protected Access 2 (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 the wireless traffic

- **Local wireless bridge client traffic filtering:** when enabled, prevents communication between wireless devices associated with the same access point

- **IEEE 802.1X:** provides port-based user authentication with support for Extensible Authentication Protocol (EAP) MD5, TLS, TTLS, and PEAP with choice of AES, TKIP, and static or dynamic WEP encryption for protecting wireless traffic between authenticated clients and the access point

Warranty and support

- **Lifetime warranty:** for as long as you own the product with advance replacement and next-business-day delivery (available in most countries)*

- **Electronic and telephone support:** limited electronic and telephone support is available from HP; refer to www.hp.com/networking/warranty for details on the support provided and the period during which support is available

- **Software releases:** refer to www.hp.com/networking/warranty for details on the software releases provided and the period during which software releases are available for your product(s)

*Hardware warranty replacement for as long as you own the product, with next business day advance replacement (available in most countries) with a five-year hardware warranty replacement for the disk drive included with HP AllianceONE Services zl Module, HP Threat Management Services zl Module, HP PCM+ Agent with AllianceONE Services zl Module, and HP E-MSM765 zl Mobility Controller. For details, refer to the HP Software License, Warranty, and Support booklet at www.hp.com/networking/warranty.

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Specifications

	HP E-M110 Access Point US (J9385B)	HP E-M110 Access Point WW (J9388B)
Ports	1 RJ-45 auto-sensing 10/100 port (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Duplex: half or full	1 RJ-45 auto-sensing 10/100 port (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Duplex: half or full
AP characteristics		
Radios	Single (a/b/g)	Single (a/b/g)
Radio operation modes	Client access	Client access
AP operation modes	Autonomous	Autonomous
Wi-Fi Alliance Certification	a/b/g Wi-Fi Certified	a/b/g Wi-Fi Certified
Physical characteristics		
Dimensions	5(d) x 5.5(w) x 1.3(h) in. (12.7 x 13.97 x 3.3 cm)	5(d) x 5.5(w) x 1.3(h) in. (12.7 x 13.97 x 3.3 cm)
Weight	2.0 lb. (0.91 kg)	2.0 lb. (0.91 kg)
Enclosure	Indoor, plenum rated	Indoor, plenum rated
Environment		
Operating temperature	32°F to 122°F (0°C to 50°C)	32°F to 122°F (0°C to 50°C)
Operating relative humidity	5% to 95%, non-condensing	5% to 95%, non-condensing
Non-operating/Storage temperature	-40°F to 176°F (-40°C to 80°C)	-40°F to 176°F (-40°C to 80°C)
Non-operating/Storage relative humidity	5% to 95%, non-condensing	5% to 95%, non-condensing
Shock and vibration	EN61373	EN61373
Electrical characteristics		
Description	IEEE 802.3af PoE compliant or 5 VDC from available AC power supply	IEEE 802.3af PoE compliant or 5 VDC from available AC power supply
Maximum power rating	5 W	5 W
Antenna Connector	(2) RP-SMA with diversity	(2) RP-SMA with diversity
Antenna	(2) 2 dBi dual-band 2.4/5 GHz	(2) 2 dBi dual-band 2.4/5 GHz
Number of external antennas	2	2
Frequency band and Operating channels		
FCC	2.412 - 2.462 GHz (1-11 channels) 5.180 - 5.240 GHz (36-48 channels) 5.745 - 5.825 GHz (149-165 channels)	2.412 - 2.462 GHz (1-11 channels) 5.180 - 5.240 GHz (36-48 channels) 5.745 - 5.825 GHz (149-165 channels)
EN	2.412 - 2.472 GHz (1-13 channels) 5.180 - 5.240 GHz (36-48 channels)	2.412 - 2.472 GHz (1-13 channels) 5.180 - 5.240 GHz (36-48 channels)
Radio	FCC Part 15.247; FCC Part 15.407 (US)	FCC Part 15.247; FCC Part 15.407 (US); RSS-210 (Canada); EN 300 328; ARIB STD-T66; IDA Registration (Singapore); MIC approval (Korea); RCR STD-33; ARIB STD-T71 (Japan); EN 301 893 (EU)
Safety	UL 2043; UL 60950-1; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1	UL 2043; UL 60950-1; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1
Emissions	EN 55022 Class B; EN 301 489-1; EN 301 489-17; ICES-003 Class B; FCC Part 15, Class B	EN 55022 Class B; EN 301 489-1; EN 301 489-17; ICES-003 Class B; FCC Part 15, Class B
RF Exposure	FCC Bulletin OET-65C; RSS-102; EN 50385	FCC Bulletin OET-65C; RSS-102; EN 50385
Notes	Maximum transmit power varies by country.	Maximum transmit power varies by country.
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UN691E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UN692E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UN694E) 3-year, 24x7 SW phone support, software updates (UN693E) 4-year, 4-hour onsite, 13x5 coverage for hardware (US029E) 4-year, 4-hour onsite, 24x7 coverage for hardware (US030E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (US031E) 4-year, 24x7 SW phone support, software updates (US032E) 5-year, 4-hour onsite, 13x5 coverage for hardware (US033E) 5-year, 4-hour onsite, 24x7 coverage for hardware (US034E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (US035E) 5-year, 24x7 SW phone support, software updates (US036E) 3 Yr 6 hr Call-to-Repair Onsite (UW422E) 4 Yr 6 hr Call-to-Repair Onsite (UW423E) 5 Yr 6 hr Call-to-Repair Onsite (UW424E) Refer to the HP website at www.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.	3-year, 4-hour onsite, 13x5 coverage for hardware (UN691E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UN692E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UN694E) 3-year, 24x7 SW phone support, software updates (UN693E) 4-year, 4-hour onsite, 13x5 coverage for hardware (US029E) 4-year, 4-hour onsite, 24x7 coverage for hardware (US030E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (US031E) 4-year, 24x7 SW phone support, software updates (US032E) 5-year, 4-hour onsite, 13x5 coverage for hardware (US033E) 5-year, 4-hour onsite, 24x7 coverage for hardware (US034E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (US035E) 5-year, 24x7 SW phone support, software updates (US036E) 3 Yr 6 hr Call-to-Repair Onsite (UW422E) 4 Yr 6 hr Call-to-Repair Onsite (UW423E) 5 Yr 6 hr Call-to-Repair Onsite (UW424E) Refer to the HP website at www.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.

Specifications (continued)

	HP E-M110 Access Point US (J9385B)		HP E-M110 Access Point WW (J9388B)
Radio characteristics: **IEEE 802.11a**			
Data rate	6 Mbps	54 Mbps	
Receiver sensitivity	-90 dBm	-72 dBm	
Transmit power	20 dBm	16 dBm	
IEEE 802.11b			
Data rate	1 Mbps	11 Mbps	
Receiver sensitivity	-90 dBm	-90 dBm	
Transmit power	20 dBm	20 dBm	
IEEE 802.11g			
Data rate	6 Mbps	54 Mbps	
Receiver sensitivity	-92 dBm	-72 dBm	
Transmit power	20 dBm	16 dBm	

Standards and protocols
(applies to all products in series)

Mobility
IEEE 802.11a High Speed Physical Layer in the 5 GHz Band
IEEE 802.11b Higher-Speed Physical Layer Extension in the 2.4 GHz Band

IEEE 802.11g Further Higher Data Rate Extension in the 2.4 GHz Band
IEEE 802.11i Medium Access Control (MAC) Security Enhancements

Power Supply

HP E-MSM31x and E-MSM32x Power Supply (J9405A)

HP 1-Port Power Injector (J9407A)

External Antenna

HP 5 dBi @2.4GHz Indoor/Outdoor Omnidir Antenna (J8441A)

HP 8 dBi @ 2.4GHz Outdoor Omnidirectional Antenna (J8444A)

HP 3 dBi Dual-Band Diversity Antenna (J8997A)

HP 7 dBi Dual-Band Directional Antenna (J8999A)

To learn more, visit www.hp.com/networking