Overview

Models

HP 517 Single Radio 802.11ac (AM) Unified Wired-WLAN Walljack	J9841A
HP 517 Single Radio 802.11ac (WW) Unified Wired-WLAN Walljack	J9842A
HP 517 Single Radio 802.11ac (JP) Unified Wired-WLAN Walljack	J9843A
HP 517 Single Radio 802.11ac (IL) Unified Wired-WLAN Walljack	J9844A

Key features

- 802.11ac dual band, single radio walljack with four Gigabit Ethernet (GbE) front facing ports
- Three high gain embedded antennas providing extended coverage and high-speed connectivity
- A single GbE PoE cable drop, reducing cabling, switch ports and local power
- Passthrough port as well as PoE out, reducing addional power needs to IP-based VoIP phone
- Include Lifetime hardware Warranty 2.0 with 24x7 phone support for three years at no additional cost

Product overview

HP 517 802.11ac Unified Walljack is a single radio-dual band unified wired-wireless access point and Gigabit Ethernet switch that works in sync with HP MSM controllers, delivers high-performance networking solutions. The enhanced controller architecture scales to IEEE 802.11ac—without requiring a controller replacement. The controllers provide advanced radio resource management (RRM).

HP 517 Unified Walljack provides four Gigabit Ethernet ports, a dual band 802.11a/b/g/n/ac wireless access point and a pass through RJ-45 connection to support a range of service and user connectivity options. One of the front panel Ethernet ports can be configured as an IEEE 802.3af-compliant PoE forwarding port to enable devices such as IP telephones to be powered directly from the walljack.

The HP 517 802.11ac Unified Walljack uses a single Power over Ethernet (PoE) cable drop, reducing cabling, switch ports, and power sourcing equipment. The HP 517 provides unified wired-wireless connectivity into a low-profile design that can be quickly, easily and discretely installed in a standard wall outlet box. The HP 517 is designed to provide wireless coverage for one or more rooms.

Features and benefits

Management

- **Wi-Fi Clear Connect**
  - provides a system-wide approach to improving WLAN reliability by proactively determining and adjusting to changing RF conditions and making decisions at a system-wide level
- **Advanced radio resource management**
  - Automatic radio power adjustments include real-time power adjustments based on changing environmental conditions and signal coverage adjustment
  - Automatic radio channel provides intelligent channel switching and real-time Interference detection
- **HP Intelligent Management Center and Wireless Services Manager**
  - provides central management for discovery, logging, status, and configuration management
- **Enhanced AP survivability**
  - continues to operate using the existing configuration while the AP searches for a new controller
- **Compatible with HP MSM Controllers**
  - Refer to the HP Access Point—Controller Compatibility Matrix at: http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=4AA5-0345ENW&cc=us&lc=en

QuickSpecs

Overview

Quality of Service (QoS)

- **Rate limiting**
  - supports per-wireless client ingress-enforced maximums and per-wireless client, per-queue guaranteed minimums
- **Centralized traffic**
  - maintains Layer 2 and Layer 3 QoS settings when using centralized traffic or guest access
- **IEEE 802.1p prioritization**
  delivers data to devices based on the priority and type of traffic
- **Wireless**
  - L2/L3/L4 classification IEEE 802.1p VLAN priority and DiffServ
  - Virtual Service Community (VSC) Wi-Fi MultiMedia (WMM), IEEE 802.11e EDCF, and Service-Aware priority

Connectivity

- **IEEE 802.3af Power over Ethernet 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. Unit can be powered by 802.3af or PoE+ source
- **Power Forwarding**
  PoE Class 1/2 when powered by 802.3at (PoE+) or class 1/2/3 when powered via the local AC/DC power supply
- **Auto-MDIX**
  automatically adjusts for straight-through or crossover cables on all Ethernet interfaces

Mobility

- **Three spatial stream MIMO technology**
  - provides the latest in Wi-Fi technology, which allows for 1.3Gb/s in the 5GHz frequency band and 450 Mb/s in the 2.4GHz band of signaling
- **Interoperability**
  - meets Wi-Fi Alliance Certifications, including IEEE 802.11b/g/n and 802.11a/n/ac and WPA2, to help ensure multivendor interoperability
- **Virtual Service Communities** (VSCs)
  - Up to 16 SSIDs, each with unique MAC address, configurable SSID broadcasts
  - Individual security and QoS 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**
  - offers IEEE 802.1X authentication using EAP-SIM, EAP-FAST, EAP-TLS, EAP-TTLS, and PEAP
  - delivers MAC address authentication using local or RADIUS access lists
  - provides RADIUS AAA using EAP-MD5, PAP, CHAP, and MS-CHAPv2
  - supports RADIUS Client (RFC 2865 and 2866) with location-aware support
  - provides Layer 2 wireless client isolation

Security

- **IEEE 802.1X support**
  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

Overview

- **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 access point

Additional information

- **RFC Support**
  refer to the "Mobility Specification Sheet" for a list of RFCs and other industry standards supported by the MSM solution at:
  http://h17007.www1.hp.com/docs/mobility/4AA3-3883ENW.pdf

Warranty and support

- **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 Lifetime Warranty 2.0)
  limited 24x7 telephone support is available from HP for the first 3 years; limited electronic and business hours telephone support is available from HP for the entire warranty period; to reach our support centers, refer to:
  www.hp.com/networking/contact-support; for details on the duration of support provided with your product purchase, refer to:
  www.hp.com/networking/warrantysummary

†HP warranty includes repair or replacement of hardware for as long as you own the product, with next business day advance replacement (available in most countries). The disk drive included with HP AllianceOne Advanced Services and Services zl Modules, HP Threat Management Services zl Module, HP AllianceOne Extended zl Module with Riverbed Steelhead, HP MSM765 zl Mobility Controller and HP Survivable Branch Communication zl Module powered by Microsoft® Lync has a five-year hardware warranty. For details, refer to the Software license and hardware warranty statements at: www.hp.com/networking/warranty.

Configuration

Build To Order: BTO is a standalone unit with no integration. BTO products ship standalone are not part of a CTO or Rack-Shippable solution.

HP 517 802.11ac (AM) Unified Walljack | J9841A
- 1 RJ-45 autosensing 10/100/1000 WAN port
- 4 RJ-45 autosensing 10/100/1000 LAN ports
- Wireless - 802.11 a/b/g/n/ac

See Configuration Note:1

HP 517 802.11ac (WW) Unified Walljack | J9842A
- 1 RJ-45 autosensing 10/100/1000 WAN port
- 4 RJ-45 autosensing 10/100/1000 LAN ports
- Wireless - 802.11 a/b/g/n/ac

See Configuration Note:2

HP 517 802.11ac (JP) Unified Walljack | J9843A
- 1 RJ-45 autosensing 10/100/1000 WAN port
- 4 RJ-45 autosensing 10/100/1000 LAN ports
- Wireless - 802.11 a/b/g/n/ac

See Configuration Note:4

HP 517 802.11ac (IL) Unified Walljack | J9844A
- 1 RJ-45 autosensing 10/100/1000 WAN port
- 4 RJ-45 autosensing 10/100/1000 LAN ports
- Wireless - 802.11 a/b/g/n/ac

See Configuration Note:3

Configuration Rules:

Note 1   Only available in AMS. (Warning in Clic only)

Note 2   Not available in AMS, Japan or Israel. (Warning in Clic only)

Note 3   Only available in Israel. (Warning in Clic only)

Note 4   Only available in Japan. (Warning in Clic only)

517 Unified Walljack Options

External Power Supplies

HP Gigabit IntelliJack 48V Power Supply | JD055B

See Configuration Note:1, 5

HP Single-PRT 802.3at Gig PoE PS | J9867A

See Configuration Note:1, 5

HP 1-port Power Injector | J9407B

See Configuration Note:4, 5

Configuration

Configuration Rules:

Note 1	This power supply is supported on the following Walljacks:	
	HP 517 802.11ac (AM) Unified Walljack	J9841A
	HP 517 802.11ac (WW) Unified Walljack	J9842A
	HP 517 802.11ac (JP) Unified Walljack	J9843A
	HP 517 802.11ac (IL) Unified Walljack	J9844A
Note 4	Using this 1-port Power Injector will disable the PoE Output port on the HP 517. It is recommended you use the J9867A - HP Single-PRT 802.3at Gig PoE PS instead:	
	HP 517 802.11ac (AM) Unified Walljack	J9841A
	HP 517 802.11ac (WW) Unified Walljack	J9842A
	HP 517 802.11ac (JP) Unified Walljack	J9843A
	HP 517 802.11ac (IL) Unified Walljack	J9844A
Note 5	Localization required. (See Localization Menu)	

Mounting Kit

HP Unified Walljack Table Mount Kit	JL022A
	See Configuration Note:1

Configuration Rules:

Note 1	This Mounting Kit is supported on the following Walljacks:	
	HP 517 802.11ac (AM) Unified Walljack	J9841A
	HP 517 802.11ac (WW) Unified Walljack	J9842A
	HP 517 802.11ac (JP) Unified Walljack	J9843A
	HP 517 802.11ac (IL) Unified Walljack	J9844A

Technical Specifications

HP 517 Single Radio 802.11ac (AM) Unified Wired-WLAN Walljack (J9841A)
HP 517 Single Radio 802.11ac (WW) Unified Wired-WLAN Walljack (J9842A)
HP 517 Single Radio 802.11ac (JP) Unified Wired-WLAN Walljack (J9843A)
HP 517 Single Radio 802.11ac (IL) Unified Wired-WLAN Walljack (J9844A)

I/O ports and slots	4 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 1 RJ-45 pass through port	
AP characteristics	**Radios (built-in)**	802.11a/b/g/n/ac
	Radio operation modes	Client access, Packet capture
	AP operation modes	Controlled
	Wi-Fi Alliance Certification	a/b/g/n/ac Wi-Fi Certified
	Antenna	Internal omnidirectional antenna
	Number of internal antennas	3
Physical characteristics	**Dimensions**	3.54(w) x 1.5(d) x 6.1(h) in (9 x 3.8 x 15.49 cm)
	Weight	0.73 lb (0.33 kg)
Mounting and enclosure	Indoor; Designed for mounting in a standard wall outlet box or on optional Flush Mount / Desktop Mount kit.	
Environment	**Operating temperature**	32°F to 104°F (0°C to 40°C)
	Operating relative humidity	5% to 90%, noncondensing
	Nonoperating/Storage temperature	-4°F to 158°F (-20°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 95%, noncondensing
Electrical characteristics	**Description**	Powered Device (PD): The device will be powered by any standard IEEE 802.3af PoE source. To provide PoE output, the unit must be powered via IEEE 802.3at PoE+ or via local power.
	Notes	Power Consumption is 12W (with no device attached to designated PoE port).
Frequency band and Operating channels	**Americas**	2.412 - 2.462 GHz (1 - 11 channels) 5.180 - 5.320 GHz (36 - 64 channels) 5.500 - 5.700 GHz (100 - 144 [excluding 5600-5670 MHz] channels) 5.745 - 5.825 GHz (149 - 165 channels)
	European Union	2.412 - 2.472 GHz (1 - 13 channels) 5.180 - 5.320 GHz (36 - 64 channels) 5.500 - 5.700 GHz (100 - 140 [excluding 5600-5670 MHz] channels)
	Taiwan	2.412 - 2.472 GHz (1 - 13 channels) 5.280 - 5.320 GHz (56 - 64 channels) 5.500 - 5.700 GHz (100 - 144 [excluding 5600-5670 MHz] channels) 5.745 - 5.825 GHz (149 - 165 channels)
	Japan	2.412 - 2.472 GHz (1 - 13 channels) 5.180 - 5.320 GHz (36 - 64 channels) 5.500 - 5.700 GHz (100 - 140 channels)

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	Israel	2.412 - 2.472 GHz (1 - 13 channels) 5.180 - 5.320 GHz (36 - 64 channels)
	Rest of World (Actual channels designated by selecting country in UI)	2.412 - 2.472 GHz (1 - 13 channels) 5.180 - 5.320 GHz (36 - 64 channels) 5.500 - 5.700 GHz (100 - 144 channels) 5.745 - 5.825 GHz (149 - 165 channels)

Radio
FCC Part 15.247; FCC Part 15.407 (US); RSS-210 (Canada); EN 300 328; EN 301-489-1; EN 301-489-17; ARIB STD-T66; RSS-Gen (Canada); OFTA (Hong Kong); DSPR (Japan); IDA Registration (Singapore); MIC approval (Korea); RCR STD-33; ARIB STD-T71 (Japan); EN 301 893 (EU); KCC approval (Korea)

Safety
UL 60950-1; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1

Medical
EN60601-1-2

RF Exposure
FCC Bulletin OET-65C; RSS-102; CFR 47, Part 2, Subpart J; ANSI/IEEE C95.1 (99); Ministry of Health Safety Code 6; Australian Radiation Protection Std.

Revise Series Specs (Web only)
4 RJ-45 autosensing 10/100/1000 ports 1 RJ-45 pass through port
802.11a/b/g/n/ac
IEEE 802.11 a/b/g/n/ac
Internal omnidirectional antenna
3

Emissions
EN 55022 Class B; EN 60601-1-2; EN 301 489-1; EN 301 489-17; ICES-003 Class B; FCC Part 15, Class B

Notes
Supported data rates
• 802.11b: 1, 2, 5.5, 11 Mbps
• 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
• 802.11n: 6.5 to 450 Mbps (MCS0 to MCS23, 1 to 3 spatial streams)
• 802.11n high-throughput (HT) 20/40MHz Bandwidths
• 802.11ac: 6.5 to 1300 Mbps (MCS0 to MCS9, 1 to 3 spatial streams)
• 802.11ac very high throughput (VHT) 20/40/80MHz Bandwidths
• 802.11n/ac packet aggregation A-MPDU and A-MSDU
The HP 517 unified Walljack's power information listed includes the embedded antenna. The software will automatically adjust the maximum power levels based on the country of operation.
Three spatial stream AP, supporting 450Mbps on the 2.4GHz band and 1.3Gbps on the 5GHz band.
Maximum transmit power varies by country.
Regulatory model number MRLBB-1305

Services
3-year, parts only, global next-day advance exchange (UQ569E)
3-year, 4-hour onsite, 13x5 coverage for hardware (UQ570E)
3-year, 4-hour onsite, 24x7 coverage for hardware (UQ568E)
3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UQ571E)
1-year, post-warranty, parts only, global next-day advance exchange (UQ572PE)
1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR949E)
1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (UQ585PE)
1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (UQ586PE)
1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR950E)
1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UQ587PE)
1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR951E)
4-year, 4-hour onsite, 13x5 coverage for hardware (UX038E)
4-year, 4-hour onsite, 24x7 coverage for hardware (UX040E)
4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UX042E)

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5-year, 4-hour onsite, 13x5 coverage for hardware (UX039E)
5-year, 4-hour onsite, 24x7 coverage for hardware (UX041E)
5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UX043E)
3 Yr 6 hr Call-to-Repair Onsite (UW319E)
4 Yr 6 hr Call-to-Repair Onsite (UX044E)
1-year, 6 hour Call-To-Repair Onsite for hardware (HR953E)
1-year, 24x7 software phone support, software updates (HR952E)

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.

Radio characteristics

NOTE: This transmit power data is EIRP and includes the embedded antennas. The receiver sensitivity also includes the antenna gain. Maximum power levels will vary by channel and country of operation.

IEEE 802.11ac 5GHz @ 80MHz channel	Data rate	MCS9 - 1300 Mbps	MCS0 - 97.5 Mbps
	Receiver sensitivity	-65 dBm	-92 dBm
	Transmit power	23 dBm	28 dBm
IEEE 802.11n 5GHz @ 40MHz channel	Data rate	MCS23 - 450 Mbps	MCS16 - 45 Mbps
	Receiver sensitivity	-74 dBm	-96 dBm
	Transmit power	25 dBm	28 dBm
IEEE 802.11n 5GHz @ 20MHz channel	Data rate	MCS23 - 216 Mbps	MCS16 - 21.7 Mbps
	Receiver sensitivity	-77 dBm	-99 dBm
	Transmit power	25 dBm	28 dBm
IEEE 802.11n 2.4GHz @ 40MHz channel	Data rate	MCS23 - 450 Mbps	MCS16 - 45 Mbps
	Receiver sensitivity	-73 dBm	-95 dBm
	Transmit power	25 dBm	25 dBm
IEEE 802.11n 2.4GHz @ 20MHz channel	Data rate	MCS23 - 216 Mbps	MCS16 - 21.7 Mbps
	Receiver sensitivity	-76 dBm	-98 dBm
	Transmit power	27 dBm	28 dBm
IEEE 802.11a 5GHz	Data rate	54 Mbps	6 Mbps
	Receiver sensitivity	-81 dBm	-98 dBm
	Transmit power	27 dBm	28 dBm

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IEEE 802.11b/g 2.4GHz	Data rate	54 Mbps	11 Mbps	6 Mbps	1 Mbps
	Receiver sensitivity	-80 dBm	-93 dBm	-98 dBm	-100 dBm
	Transmit power	27 dBm	29 dBm	30 dBm	30 dBm

Standards and Protocols

(applies to all products in series)

Mobility

IEEE 802.11a High Speed Physical Layer in the 5 GHz Band
IEEE 802.11ac WLAN Enhancements for Very High Throughput
IEEE 802.11b Higher-Speed Physical Layer Extension in the 2.4 GHz Band
IEEE 802.11d Global Harmonization
IEEE 802.11g Further Higher Data Rate Extension in the 2.4 GHz Band
IEEE 802.11h Dynamic Frequency Selection
IEEE 802.11i Medium Access Control (MAC) Security Enhancements
IEEE 802.11n Dual Band WLAN Enhancements for Higher Throughput
NOTE: All of the above standards are now included in IEEE 802.11-2012

Accessories

HP 517 802.11ac Unified Walljack Access Device Series accessories

Power Supply

HP 1-port Power Injector	J9407B
HP Single-Port 802.3at Gigabit PoE In-Line Power Supply	J9867A
HP Gigabit IntelliJack 48V Power Supply	JD055B

Mounting Kit

HP Unified Wired-WLAN Walljack Table / Flush Wall Mount Kit	JL022A

To learn more, visit: 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.