

### Overview

### HPE 517 802.11ac Unified Walljack Access Device Series

#### 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

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#### 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 additional power needs to IP-based VoIP phone
  - Lifetime Lifetime Warranty
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#### Product overview

The HPE 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 HPE 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).

The 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 HPE 517 802.11ac Unified Walljack uses a single Power over Ethernet (PoE) cable drop, reducing cabling, switch ports, and power sourcing equipment. The HPE 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 HPE 517 is designed to provide wireless coverage for one or more rooms.

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#### 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
- **HPE Intelligent Management Center and Wireless Services Manager**
  - provides central management for discovery, logging, status, and configuration management
- **Enhanced AP survivability**

## Overview

- continues to operate using the existing configuration while the AP searches for a new controller
- **Compatible with HPE MSM Controllers**
  - Refer to the HPE Access Point—Controller Compatibility Matrix at:  
<http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=4AA5-0345ENW&cc=us&lc=en>

## 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

## Overview

- o 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

- **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

- **Limited Lifetime Warranty**

see <http://www.hpe.com/networking/warrantysummary> for warranty and support information included with your product purchase.

- **Software releases**

to find software for your product, refer to <http://www.hpe.com/networking/support>; for details on the software releases available with your product purchase, refer to <http://www.hpe.com/networking/warrantysummary>

## 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

- 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

J9841A

See Configuration **NOTE:1**

### HP 517 802.11ac (WW) Unified Walljack

- 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

J9842A

See Configuration **NOTE:2**

### HP 517 802.11ac (JP) Unified Walljack

- 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

J9843A

See Configuration **NOTE:4**

#### 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

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

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
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HP 517 802.11ac (JP) Unified Walljack	J9843A

## 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)

<b>I/O ports and slots</b>	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	
<b>AP characteristics</b>	<b>Radios (built-in)</b>	802.11a/b/g/n/ac
	<b>Radio operation modes</b>	Client access, Packet capture
	<b>AP operation modes</b>	Controlled
	<b>Wi-Fi Alliance Certification</b>	a/b/g/n/ac Wi-Fi Certified
	<b>Antenna</b>	Internal omnidirectional antenna
	<b>Number of internal antennas</b>	3
<b>Physical characteristics</b>	<b>Dimensions</b>	3.54(w) x 1.5(d) x 6.1(h) in (9 x 3.8 x 15.49 cm)
	<b>Weight</b>	0.73 lb (0.33 kg)
<b>Mounting and enclosure</b>	Indoor; Designed for mounting in a standard wall outlet box or on optional Flush Mount / Desktop Mount kit.	
<b>Environment</b>	<b>Operating temperature</b>	32°F to 104°F (0°C to 40°C)
	<b>Operating relative humidity</b>	5% to 90%, noncondensing
	<b>Nonoperating/Storage temperature</b>	-4°F to 158°F (-20°C to 70°C)
	<b>Nonoperating/Storage relative humidity</b>	5% to 95%, noncondensing
<b>Electrical characteristics</b>	<b>Description</b>	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.
	<b>Notes</b>	Power Consumption is 12W (with no device attached to designated PoE port).
<b>Frequency band and Operating channels</b>	<b>Americas</b>	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)
	<b>European Union</b>	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)
	<b>Taiwan</b>	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)
	<b>Japan</b>	2.412 - 2.472 GHz (1 - 13 channels)

## Technical Specifications

		5.180 - 5.320 GHz (36 - 64 channels)
		5.500 - 5.700 GHz (100 - 140 channels)
	<b>Israel</b>	2.412 - 2.472 GHz (1 - 13 channels)
		5.180 - 5.320 GHz (36 - 64 channels)
	<b>Rest of World</b> (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)
<b>Radio</b>	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)	
<b>Safety</b>	UL 60950-1; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1	
<b>Medical</b>	EN60601-1-2	
<b>RF Exposure</b>	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.	
<b>Revise Series Specs</b> (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	
<b>Emissions</b>	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	
<b>Notes</b>	<p>Supported data rates</p> <ul style="list-style-type: none"> <li>• 802.11b: 1, 2, 5.5, 11 Mbps</li> <li>• 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps</li> <li>• 802.11n: 6.5 to 450 Mbps (MCS0 to MCS23, 1 to 3 spatial streams)</li> <li>• 802.11n high-throughput (HT) 20/40MHz Bandwidths</li> <li>• 802.11ac: 6.5 to 1300 Mbps (MCS0 to MCS9, 1 to 3 spatial streams)</li> <li>• 802.11ac very high throughput (VHT) 20/40/80MHz Bandwidths</li> <li>• 802.11n/ac packet aggregation A-MPDU and A-MSDU</li> </ul> <p>The HPE 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</p>	
<b>Services</b>	Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">http://www.hpe.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise 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.

<b>IEEE 802.11ac 5GHz @ 80MHz channel</b>	Data rate	MCS9 - 1300 Mbps	MCS0 - 97.5 Mbps
	Receiver sensitivity	-65 dBm	-92 dBm
	Transmit power	23 dBm	28 dBm
<b>IEEE 802.11n 5GHz @</b>	Data rate	MCS23 - 450 Mbps	MCS16 - 45 Mbps

## Technical Specifications

<b>40MHz channel</b>	Receiver sensitivity	-74 dBm	-96 dBm		
	Transmit power	25 dBm	28 dBm		
<b>IEEE 802.11n 5GHz @ 20MHz channel</b>	Data rate	MCS23 - 216 Mbps	MCS16 - 21.7 Mbps		
	Receiver sensitivity	-77 dBm	-99 dBm		
	Transmit power	25 dBm	28 dBm		
<b>IEEE 802.11n 2.4GHz @ 40MHz channel</b>	Data rate	MCS23 - 450 Mbps	MCS16 - 45 Mbps		
	Receiver sensitivity	-73 dBm	-95 dBm		
	Transmit power	25 dBm	25 dBm		
<b>IEEE 802.11n 2.4GHz @ 20MHz channel</b>	Data rate	MCS23 - 216 Mbps	MCS16 - 21.7 Mbps		
	Receiver sensitivity	-76 dBm	-98 dBm		
	Transmit power	27 dBm	28 dBm		
<b>IEEE 802.11a 5GHz</b>	Data rate	54 Mbps	6 Mbps		
	Receiver sensitivity	-81 dBm	-98 dBm		
	Transmit power	27 dBm	28 dBm		
<b>IEEE 802.11b/g 2.4GHz</b>	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****HPE 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
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## Summary of Changes

Date	Version History	Action	Description of Change:
01-Dec-2015	From Version 3 to 4	Changed	Overview and Technical Specifications updated
01-Dec-2014	From Version 2 to 3	Changed	Warranty and support updated
28-May-2014	From Version 1 to 2	Changed	Updated several items in the Configuration section.



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To learn more, visit: <http://www.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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