



HP 417 802.11n Unified Walljack Access Device Series



Key features

- 802.11n single radio walljack with one Gigabit Ethernet (GbE) uplink and three 100BASE-T ports
- Two high-gain embedded antennas providing extended coverage and high-speed connectivity
- A single GbE Power over Ethernet (PoE) cable drop, reducing cabling, switch ports, and local power
- Pass-through port as well as PoE out, reducing additional power needs to IP-based VoIP phone
- Include Limited Lifetime Warranty 2.0 with 24x7 phone support for three years at no additional cost

Product overview

HP 417 802.11n Unified Walljack is a single 2.4 GHz radio unified wired-wireless access point and 100BASE-T Ethernet switch that works in sync with HP Unified controllers, delivers high-performance networking solutions. The controllers provide advanced radio resource management (RRM).

HP 417 802.11n Unified Walljack provides one GbE uplink port, three 100BASE-T Ethernet ports, one 802.11b/g/n 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 417 802.11n Unified Walljack uses a single PoE cable drop, reducing cabling, switch ports, and power sourcing equipment. The HP 417 802.11n Unified Walljack 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 417 802.11n Unified Walljack is designed to provide wireless coverage for one room.

Features and benefits

Management

- HP Wi-Fi Clear Connect
 - Provides a system-wide approach to improving WLAN reliability by proactively determining and adjusting to changing RF conditions; helps optimize WLAN performance by detecting interference from Wi-Fi and non-Wi-Fi sources using spectrum analysis capabilities built into the walljack, identifying rogue activity, 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
 - Intelligent client load balancing
 - Determines number of clients across neighboring APs and adjusts client allocation to balance the load
 - Airtime fairness
 - Provides equal RF transmission time for wireless clients
- Spectrum analysis
 - Power/Frequency spectrum analysis
 - Measures noise from IEEE 802.11 remote sources
 - Signal detection/classification
 - Identifies source of RF interference, for example, Bluetooth®, cordless phones, and microwave ovens
 - Evaluation of channel quality
 - Helps detect severe channel degradation and improve the reporting of poor RF performance
- Integrated wireless IDS/IPS
 - Detects, locates, and mitigates unknown and rogue devices (see controller datasheet for details)
- 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 Unified Controllers
 - Refer to the HP Access Point—Controller compatibility matrix at 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 (Multiple SSIDs per radio)
 - 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 eliminate the time and cost involved in supplying local power at each access point location. Unit can be powered by IEEE 802.3af or IEEE 802.3at (PoE+) source
- Power forwarding
 - PoE class 1/2 when powered by IEEE 802.3af or class 1/2/3 when powered via IEEE 802.3at (PoE+)
- Auto-MDIX
 - Automatically adjusts for straight-through or crossover cables on all Ethernet interfaces

Mobility

- Two spatial stream MIMO technology
 - 2x2 MIMO
 - Provides 802.11b/g/n Wi-Fi technology, which allows for 300 Mbps of signaling
 - Embedded antenna
 - Provides excellent coverage through use of a 3.3 dBi embedded; no need for the added cost of external antennas
- Interoperability
 - Meets Wi-Fi Alliance certifications, including IEEE 802.11b/g/n to help ensure multivendor interoperability
- Multiple SSIDs
 - Up to 16 SSIDs, each with unique MAC address, configurable SSID broadcasts
 - Individual security and QoS profiles
 - Configurable DTIM and minimum data rate
 - Each 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 Advanced Encryption Standard (AES), Temporal Key Integrity Protocol (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 AES or 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 controller datasheet for specific RFCs and other industry standards supported

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 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 hp.com/networking/contact-support; for details on the duration of support provided with your product purchase, refer to hp.com/networking/warrantysummary

HP 417 802.11n Unified Walljack Access Device Series

Specifications



HP 417 Single Radio 802.11n (AM) Unified Wired-WLAN Walljack (JG971A)
HP 417 Single Radio 802.11n (WW) Unified Wired-WLAN Walljack (JG972A)
HP 417 Single Radio 802.11n (AM) 20-unit Eco-pack Unified Wired-WLAN Walljack (JG973A)
HP 417 Single Radio 802.11n (WW) 20-unit Eco-pack Unified Wired-WLAN Walljack (JG974A)

I/O ports and slots

1 RJ-45 auto-negotiating 10/100/1000 PoE port (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3af PoE)
2 RJ-45 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Duplex: half or full
1 RJ-45 autosensing 10/100 PoE port (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3af PoE); Duplex: half or full
1 RJ-45 pass through port

AP characteristics

Radios (built-in) 802.11b/g/n
Radio operation modes Client access, Packet capture
AP operation modes Controlled
Wi-Fi Alliance Certification b/g/n Wi-Fi Certified
Antenna Internal omnidirectional antenna
Number of internal antennas 2

Physical characteristics

Dimensions 3.39(w) x 0.98(d) x 4.72(h) in (8.6 x 2.49 x 12 cm)
Weight 0.42 lb (0.19 kg)

Memory and processor

Single core @ 560 MHz, 128 MB flash, 128 MB SDRAM

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 113°F (0°C to 45°C)
Operating relative humidity 5% to 95%, noncondensing
Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage relative humidity 5% to 95%, noncondensing
Altitude up to 13,123 ft (4 km)

Electrical characteristics

Description Powered Device (PD): The device will be powered by any standard IEEE 802.3af PoE source and with PoE it will provide Class 1 or 2 on port 3. To provide Class 3 PoE output on port 3, the unit must be powered via IEEE 802.3at PoE+ power.
DC voltage Powered by PoE
Maximum power rating 6 W

Notes

Power Consumption is 6W (with no device attached to designated PoE port).

Frequency band and operating channels

Americas 2.412 - 2.462 GHz (1 - 11 channels)
Rest of World (non Americas countries) 2.412 - 2.472 GHz (1 - 13 channels)

Radio

EN 300 328; ARIB STD-T66; RSS-Gen (Canada); IDA (Singapore); OFTA (Hong Kong); DSPP (Japan); RCR STD-33; RSS-210; FCC Parts 15.207, 15.209 & 15.247 (US); MSIP (Korea).

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Safety	UL 60950-1; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1
Medical	EN60601-1-2
RF Exposure	FCC Bulletin OET-65C; RSS-102; EN 50385; CFR 47, Part 2, Subpart J; ANSI/IEEE C95.1 (99); Ministry of Health Safety Code 6; Australian Radiation Protection Std.
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 • 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11n: 6.5 to 300 Mbps (MCS0 to MCS15, 1 and 2 spatial streams) • 802.11n high-throughput (HT) 20/40MHz Bandwidths • 802.11n packet aggregation A-MPDU and A-MSDU The HP 417 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. Two spatial stream AP, supporting 300Mbps Maximum transmit power varies by country. Regulatory model number BJNGA-FB0003
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) 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-year, 6-hour Call-to-Repair Onsite (UW319E) 4-year, 6-hour 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 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.

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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 802.11n 2.4GHz @ 40MHz channel

Data rate	MCS15 - 300 Mbps	MCS8 - 30 Mbps
Receiver sensitivity	-71 dBm	-86 dBm
Transmit power	21 dBm	23 dBm

IEEE 802.11n 2.4GHz @ 20MHz channel

Data rate	MCS15 - 144 Mbps	MCS8 - 14.4 Mbps
Receiver sensitivity	-74 dBm	-89 dBm
Transmit power	21 dBm	23 dBm

IEEE 802.11b/g 2.4GHz

Data rate	54 Mbps	11 Mbps	6 Mbps	1 Mbps
Receiver sensitivity	-76 dBm	-91 dBm	-88 dBm	-97 dBm
Transmit power	21 dBm	23 dBm	23 dBm	23 dBm

Standards and Protocols

(applies to all products in series)

Mobility

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

HP 417 802.11n 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)

Mounting Kit

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

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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