

Overview

Models

HP 501 Wireless Client Bridge

J9835A

Key features

- Link up to 15 Ethernet device or an RS232 serial device to a wireless network at Gigabit speeds
 - Dual-band three spatial stream MIMO radio running up to 1.3Gb/s
 - Supports IEEE 802.11b/g/n and 802.11a/n/ac WLAN networks
 - Fast roaming between access points
 - Web-based configuration as well as managed via HP Intelligent Management Center
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Product overview

Devices with no native wireless support can be easily integrated into a wireless LAN (WLAN) using the HP 501 Wireless Client Bridge. The HP 501 Wireless Client Bridge can bridge up to 15 Ethernet client device running a legacy networking protocol to the WLAN, extending wireless network access to a wide range of protocols. An integrated serial to TCP/IP converter enables a RS-232 asynchronous terminal device to communicate with a compatible station on the network. Strong enterprise-class layered security features, including an IEEE 802.1X supplicant, protect the network from intrusions.

Hardware-accelerated encryption provides high performance when using WPA2/AES security.

It enables organizations to unwire a broad range of computing devices and realize the benefits of mobility. Electronic cash registers, scales, servers, printers, medical equipment, manufacturing machinery and other devices can be deployed in any location where a WLAN signal is available, eliminating the time and expense of installing Ethernet cable for network access.

The HP 501 Wireless Client Bridge integrates into the HP Mobility System and it is interoperable with any IEEE 802.11b/g/n or 802.11a/n/ac WLAN network infrastructure from HP or any other vendor.

Features and benefits

Quality of Service (QoS)

- **Network management**
 - SNMP v2c, SNMP v3, MIB-II with Traps, and RADIUS Authentication Client MIB (RFC 2618)
 - Embedded HTML management tool with secure access
 - Scheduled configuration and firmware upgrades via network management station
- **Diagnostic**
 - RSSI logging
 - Email alert tool
- **QoS**
 - supports DSCP and WMM

Connectivity

- **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 client bridge
 - **Auto-MDIX**
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Overview

- provides automatic adjustments for straight-through or crossover cables on all 10/100/1000 ports
- **IEEE 802.11h International Telecommunication Union (ITU) compliant**
 - automatically selects the channel based on the access point it associates to and avoids Dynamic Frequency Selection (DFS) issues by following the access point to a clear channel

Mobility

- **Anywhere, anytime wireless coverage**
 - provides single IEEE 802.11a/b/g/n/ac radio client bridge
 - offers radio software-selectable configuration of frequency bands
 - utilizes IEEE 802.3af PoE or local power supply
- **Interoperability**
 - meets Wi-Fi Alliance Certifications, including IEEE 802.11a/b/g/n/ac and WPA2, to help ensure multivendor interoperability
- **Supported devices**
 - support Windows-based PCs equipped with Ethernet cards; point-of-sale devices, scales, network printers, thin clients, Mac/Apple machines, Linux/Unix workstations, Ethernet-enabled appliances, medical equipment, manufacturing machinery and/or mix of all devices listed
 - connects RS232 asynchronous terminal devices to the wireless network
- **Multiple devices**
connects up to 15 Ethernet-enabled devices via a multiport switch

Security

- **IEEE 802.1X support**
 - provides user authentication with support for Extensible Authentication Protocol (EAP) TLS and PEAP with choice of AES, TKIP, and WEP encryption for protecting wireless traffic between authenticated clients and the access point
- **Choice of IEEE WPA2, WPA or WEP**
 - robust Advanced Encryption Standard (AES) or Temporal Key Integrity Protocol (TKIP) encryption secures the data integrity of wireless traffic

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
- **Software releases**
to find software for your product, refer to www.hp.com/networking/support; for details on the software releases available 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 501 Wireless Client Bridge J9835A
• 1 RJ-45 autosensing 10/100/1000 port

WLAN Options

External Power Supplies

HP MSM31x/MSM32x Power Supply J9405B
See Configuration Note:1

HP 1-port Power Injector J9407B
See Configuration Note:1

Configuration Rules:

Note 1 Localization required. (See Localization Menu)

Technical Specifications

HP 501 Wireless Client Bridge (J9835A)

I/O ports and slots	1 RJ-45 autosensing 10/100/1000 port; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) 1 RS-232C serial console port	
AP characteristics	Radios (built-in)	802.11 a/b/g/n/ac
	Radio operation modes	Client bridge
	AP operation modes	Autonomous
	Wi-Fi Alliance Certification	a/b/g/n/ac Wi-Fi Certified
	Antenna connector	Three RP-SMA
	Antenna	2 dBi dual-band omnidirection
	Number of external antennas	3
Physical characteristics	Dimensions	5.5(w) x 1.3(d) x 5.0(h) in (13.97 x 3.3 x 12.7 cm)
	Weight	2.01 lb (0.91 kg)
Environment	Operating temperature	32°F to 122°F (0°C to 50°C)
	Operating relative humidity	5% to 95%, non-condensing
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/Storage relative humidity	5% to 95%, non-condensing
	Shock and vibration	EN 61373
	Altitude	up to 9,842 ft (3 km)
Electrical characteristics	Description	IEEE 802.3af PoE compliant or 5-15 VDC from available AC power supply
	DC voltage	Powered by PoE
	Maximum power rating	9 W
	PoE power	11 W PoE
Frequency band and operating channels	FCC	2.412 - 2.462 GHz (1 - 11 channels) 5.180 - 5.240 GHz (36 - 48 channels) 5.260 - 5.320 GHz (52 - 64 channels) 5.500 - 5.700 GHz (100 - 144 channels) 5.745 - 5.825 GHz (149 - 165 channels)
	European Union	2.412 - 2.472 GHz (1 - 13 channels) 5.180 - 5.240 GHz (36 - 48 channels) 5.260 - 5.320 GHz (52 - 64 channels) 5.500 - 5.700 GHz (100 - 140 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)

Technical Specifications

Taiwan	2.412 - 2.462 GHz (1 - 11 channels)
	5.280 - 5.320 GHz (56 - 64 channels)
	5.500 - 5.700 GHz (100 - 144 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)
	5.550 - 5.700 GHz (100 - 140 channels)
Israel	2.412 - 2.472 GHz (1 - 13 channels)
	5.180 - 5.320 GHz (36 - 64 channels)

Radio	FCC Part 15.247; EN 300 328; FCC Part 15.407; MIC Notice No. 88, App. 43 & 45; EN 301 893; RSS-2
Safety	UL 2043; UL 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950
RF Exposure	FCC Bulletin OET-65C; RSS-102; EN 62311
Features	Single IEEE 802.11a/b/g/n/ac radio for 802.11ac high-throughput applications and IEEE 802.11a/b/g/n for legacy support applications - Three spatial streams for up to 1.3Gbps PHY rates - Three RP-SMA connectors for a range of antenna options (NOTE: when using outdoor antennas, customer must supply RP-SMA to Type N adapter) - Operates via PoE or local power
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	Maximum transmit power varies by country. 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) • 802.11ac: 6.5 Mbps to 1.3Gbps (MCS0 to MCS9, 1 to 3 spatial streams) The HP 501 Wireless Client Bridge EIRP information listed includes the 2dBi dipole antenna that is included. Review the HP documentation to understand the maximum output setting for your client bridge based on your country's regulation. Maximum transmit power varies by country. Regulatory model number: MRLBB-1302
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UOEL0E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UOEL1E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UOEL2E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UOEL4E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UOEL5E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UOEL7E) 4-year, 24x7 SW phone support, software updates (UOEJ6E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UOEL9E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UOEM1E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UOEM3E) 5-year, 24x7 SW phone support, software updates (UOEJ9E) 3 Yr 6 hr Call-to-Repair Onsite (UOEM2E) 4 Yr 6 hr Call-to-Repair Onsite (UOEM7E) 5 Yr 6 hr Call-to-Repair Onsite (UOEN0E) 1-year, 4-hour onsite, 13x5 coverage for hardware (UOEK6E) 1-year, 4-hour onsite, 24x7 coverage for hardware (UOEK7E) 1-year, 6 hour Call-To-Repair Onsite for hardware (UOEK9E) 1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates

Technical Specifications

- (UOEK8E)
- 1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (UOEJ7E)
- 1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (UOEJ8E)
- 3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (UOEK0E)
- 3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (UOEK2E)
- 4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (UOEK1E)
- 4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (UOEK3E)
- 5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (UOEK4E)
- 5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (UOEK5E)
- 3 Yr NBD Onsite Proactive Care (UOEL3E)
- 4 Yr NBD Onsite Proactive Care (UOEL8E)
- 5 Yr NBD Onsite Proactive Care (UOEM4E)
- 3 Yr 4hr/24x7 Proactive Care (UOEM0E)
- 4 Yr 4hr/24x7 Proactive Care (UOEM5E)
- 5 Yr 4hr/24x7 Proactive Care (UOEM8E)
- 3 Yr 6hr CTR Proactive Care (UOEM6E)
- 4 Yr 6hr CTR Proactive Care (UOEN1E)
- 5 Yr 6hrCTR Proactive Care (UOEN2E)

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:

HP 501 Wireless Client Bridge (J9835A)

Note: This transmit power data is EIRP and includes the dipole antenna that ships with the HP 501 Wireless Client Bridge. The receiver sensitivity also includes the dipole antenna gain.

IEEE 802.11ac 5GHz @ 80MHz channel	Data rate	MCS9 - 1300 Mbps	MCS0 - 97.5 Mbps
	Receiver sensitivity	-59 dBm	-86 dBm
	Transmit power	18 dBm	25 dBm

IEEE 802.11n 5GHz @ 40MHz channe	Data rate	MCS23 - 450 Mbps	MCS16 - 45 Mbps
	Receiver sensitivity	-68 dBm	-90 dBm
	Transmit power	20 dBm	25 dBm

IEEE 802.11n 5GHz @ 20MHz channel	Data rate	MCS23 - 144.4 Mbps	MCS16 - 14.4 Mbps
	Receiver sensitivity	-71 dBm	-93 dBm
	Transmit power	20 dBm	23 dBm

Technical Specifications

IEEE 802.11n 2.4GHz @ 40MHz channel	Data rate	MCS23 - 450 Mbps	MCS16 - 14.4 Mbps		
	Receiver sensitivity	-68 dBm	-90 dBm		
	Transmit power	19 dBm	19 dB		
IEEE 802.11n 2.4GHz @ 20MHz channel	Data rate	MCS23 - 144.4 Mbps	MCS16 - 14.4 Mbps		
	Receiver sensitivity	-71 dBm	-93 dBm		
	Transmit power	21 dBm	26 dBm		
IEEE 802.11a 5GHz	Data rate	54 Mbps	6 Mbps		
	Receiver sensitivity	-75 dBm	-92 dBm		
	Transmit power	24 dBm	25 dBm		
IEEE 802.11b/g 2.4GHz	Data rate	54 Mbps	11 Mbps	6 Mbps	1 Mbps
	Receiver sensitivity	-75 dBm	-88 dBm	-93 dBm	-96 dBm
	Transmit power	24 dBm	26 dBm	26 dBm	26 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 802.11e QoS enhancements
IEEE 802.11g Further Higher Data Rate Extension in the 2.4 GHz Band
IEEE 802.11i Medium Access Control (MAC) Security Enhancements
IEEE 802.11n Dual Band WLAN Enhancements for Higher Throughput

Accessories

HP 501 Wireless Client Bridge Series accessories

Power Supply

HP MSM31x/MSM32x Power Supply	J9405B
HP 1-port Power Injector	J9407B

External Antenna

HP Antenna Lightning Arrester	J8996A
HP Outdoor Omnidirectional 6dBi at 2.4GHz MIMO 3 Element Antenna	J9719A
HP Outdoor Omnidirectional 8dBi at 5GHz MIMO 3 Element Antenna	J9720A
HP Indoor-Outdoor Point-to-Point Dual Band 10/13dBi MIMO 3 Element Antenna	J9170A

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

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