Overview

Models

HP WA2612 Single Radio 802.11n Access Point	JD445A
HP WA2620 Dual Radio 802.11n Access Point	JD472A
HP WA2610E Single Radio 802.11n Access Point	JD452A
HP WA2620E Dual Radio 802.11n Plenum Access Point	JD453A

Key features

- High throughput
- Centralized access point management
- Automatic access point version upgrades
- IPv4/IPv6 dual stack
- EAD wireless client access

Product overview

In enterprise headquarters, branch offices, or campus networks, the HP 802.11n Access Point Series is an outstanding choice for secure, reliable radio-based connections. These WLAN access points extend mobile access to wired networks, broadening system capacity and providing seamless integration between wired and wireless networks. The single-radio dual-band HP WA2612 and WA2610E Access Points use the 2.4 or 5 GHz band; the dual-radio dual-band WA2620E and WA2620 access points operate simultaneously on both bands. All of the APs support IEEE 802.11a/b/g/n, and offer data rates up to 300 Mbps when using the 802.11n standard.

Features and benefits

Management

- Centralized access point management: if the WA2600 series access point is used with an AC, most of management and data frames are processed by the AC; the AC controls all Fit APs by using the AP-AC tunnel protocol so that the status of all devices can be clearly known; compared to a traditional Fat AP, a Fit AP and an AC greatly help system administrators manage the whole network
- Automatic access point version upgrades: The WA2600 access points can automatically communicate with the AC in a network, as well as download the latest software versions to the access point; such operations do not require manual intervention, and therefore reduce network maintenance; this feature is especially important to large-sized networks

Connectivity

- Auto Channel Select (ACS): helps reduce radio co-channel interference by automatically selecting an unoccupied radio channel
- IEEE 802.11h International Telecommunication Union (ITU) compliant: employs Dynamic Frequency Selection (DFS) to automatically select another channel and adjust transmit power to reduce interference with systems such as radar, if detected on that same channel

Performance

- High throughput: the WA2600 wireless APs are compatible with latest IEEE 802.11n standard; the single-radio APs support wireless access rates as much as 300 Mbps, which is six times more than that of the traditional IEEE 802.11a/b/g products
- Dual stack: IPv4 and IPv6 support future-proofs the wireless network against obsolescence

Overview

- **Gigabit Ethernet interface**: provides a connection to the network that eliminates the network as a bottleneck
- **QoS and Multimedia**: IEEE 802.11e Wi-Fi Multimedia (WMM) wireless QoS standard—when combined with wired QoS policies—provides end-to-end QoS, delivering different wireless channel competitiveness for different services
- **Local forwarding**: provides efficient data transmission and prevents the controller from being a performance bottleneck
- **Intelligent load balancing**: effectively balances users between APs, increasing the capacity of the radio network

Security

- **Secure user isolation**: virtual AP services enable the network administrator to provide specific services for different user groups, improving bandwidth and system resources, and simplifying network maintenance and management
- **Secure access by location**: location AP-based user access control helps ensure that wireless users can access and authenticate only to preselected APs, enabling system administrators to control the locations where a wireless user can access the network
- **Endpoint Admission Defense**: integrated wired and wireless Endpoint Admission Defense (EAD) helps ensure that only wireless clients who comply with mandated enterprise security policies can access the network, reducing threat levels by infected wireless clients and improving the overall security of the wireless network
- **WPA2**: the latest, toughest standards-based security—with Wi-Fi Protected Access 2 (WPA2), Advanced Encryption Standard (AES) encryption, Temporal Key Integrity Protocol (TKIP), and Wired Equivalency Protocol (WEP) for legacy clients—protects the network from unauthorized user access

Ease of use

- **Ease of deployment**: management via the wireless controller eliminates the need to manage each AP individually
- **Aesthetics**: WA2612 and WA2620 access points designed with embedded antennas expand installation options and improve aesthetics
- **Optional antenna connectors**: provide optional external antenna connections for installations that require further distances or more ideal antenna placement
- **Power over Ethernet**: power via standards-based PoE source eliminates the need to run costly power outlets at the access point; the exception is the WA2620E access point, which requires a PoE+ power supply

Technical features

- **Radio technology**: IEEE 802.11a/n and 802.11g/n standards enable high-speed access from IEEE 802.11a/b/g/n clients at data rates up to 300 Mbps and cover a wide coverage area
- **Radio flexibility**: single and dual radio access points allow customers to deploy what fits their needs
- **Interoperability**: Wi-Fi Alliance certification prevents multivendor interoperability problems
- **Backwards compatibility**: supports high speeds while protecting existing investments
- **Multiple-Input Multiple-Output** (MIMO): advanced Multiple Input Multiple Output (MIMO) technology provides enhanced wireless range and coverage area for improved roaming and performance
- **Virtual Access Point** (VAP): VAP services enable network administrators to provide specific services for different user groups, improving bandwidth and system resources

Warranty and support

- **1-year warranty**: with advance replacement and 30-calendar-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)

HP WA2612 Single Radio 802.11n Access Point (JD445A)

Ports	1 RJ-45 autosensing 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); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 1 RJ-45 serial console (only for debugging) port	
AP characteristics	**Radios**	Single (a/b/g/n)
	Radio operation modes	Controlled
	Wi-Fi Alliance Certification*	a/b/g/n Wi-Fi Certified
	* 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 preformed by the Wi-Fi Alliance Organization. See the Specifications section of this series for more information.	
Physical characteristics	**Dimensions**	2.36(h) in. (6 cm)
	Weight	1.1 lb. (0.5 kg)
	Base diameter	7.48 in. (19 cm)
	Enclosure	Indoor
Memory and processor	128 MB SDRAM, 16 MB flash	
Environment	**Operating temperature**	14°F to 131°F (-10°C to 55°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
Electrical characteristics	**Maximum heat dissipation**	34 BTU/hr (35.87 kJ/hr)
	Maximum power rating	10 W
	Power Inputs	IEEE 802.3af PoE compliant for Gigabit Ethernet port
	Antenna connector	none
	Antenna	Three built-in dual-band antennas (3 x 3 MIMO). Gain 5.5 dBi, 2.4 GHz; Gain 5.1 dBi, 5.2 GHz; Gain 8.0 dBi, 5.8 GHz
	Number of internal antennas	3
	Number of external antennas	0
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers.
Frequency band and operating channels	**FCC**	2.412 - 2.472 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 - 116, 132, 136 140 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) 5.260 - 5.320 GHz (52 - 64 channels) 5.500 - 5.700 GHz (100 - 140 channels)
Radio	FCC Part 15.247; EN 300 328; EN 301 893 (EU); RSS-210, Issue 7; RSS-Gen, Issue 2; FCC Part 15.407	
Safety	UL 60950-1; EN 60950-1; IEC 60950-1:2001 (with CB Report); CAN/CSA-C22.2 No. 60950-1	
Emissions	ANSI C63.4; FCC Part 15	
Immunity	EN	EN 301 489-1; EN 301 489-17
Medical	EN60601-1-2	
RF Exposure	FCC Bulletin OET-65C; RSS-102; EN 50385	
Management	The 11n FIT APs can be managed by A series access controllers.	
Notes	Maximum transmit power varies by country.	
Services	3-year, parts only, global next-day advance exchange (UW931E) 3-year, 4-hour onsite, 13x5 coverage for hardware (UW932E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UW935E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UW938E) 3-year, 24x7 SW phone support, software updates (UW941E) 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR715E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR716E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR717E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UW933E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UW936E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW939E) 4-year, 24x7 SW phone support, software updates (UW942E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UW934E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UW937E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW940E) 5-year, 24x7 SW phone support, software updates (UW943E) 3 Yr 6 hr Call-to-Repair Onsite (UW944E) 4 Yr 6 hr Call-to-Repair Onsite (UW945E) 5 Yr 6 hr Call-to-Repair Onsite (UW946E) 1-year, 6 hour Call-To-Repair Onsite for hardware (HR719E) 1-year, 24x7 software phone support, software updates (HR718E) 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.	

Technical Specifications

Radio characteristics: IEEE 802.11b/g/n, IEEE 802.11a/n (WA2612 access point)

Modulation: OFDM: BPSK @ 6/9 Mbps, QPSK @ 12/18 Mbps, 16-QAM @ 24 Mbps, 64-QAM @ 48/54 Mbps DSSS: DBPSK @ 1 Mbps, DQPSK @ 2 Mbps, and CCK @ 5.5/11 Mbps MIMO-OFDM: BPSK, QPSK, 16QAM, and 64QAM

Data rate	IEEE 802.11n 5 GHz @ 20 MHz-MCS0 Mbps	IEEE 802.11n 5 GHz @ 20 MHz-MCS7	IEEE 802.11n 5 GHz @ 20 MHz-MCS8 Mbps	IEEE 802.11n 5 GHz @ 20 MHz-MCS15 Mbps	IEEE 802.11n 5 GHz @ 40 MHz-MCS0 Mbps	IEEE 802.11n 5 GHz @ 40 MHz-MCS7 Mbps
Receiver sensitivity	-94 dBm	-74 dBm	-94 dBm	-74 dBm	-88 dBm	-72 dBm
Transmit power	17 dBm	10 dBm	17 dBm	10 dBm	17 dBm	10 dBm
Data rate	IEEE 802.11n 5 GHz @ 40 MHz-MCS8 Mbps	IEEE 802.11n 5 GHz @ 40 MHz-MCS15 Mbps	IEEE 802.11n 2.4 GHz @ 20 MHz-MCS0 Mbps	IEEE 802.11n 2.4 GHz @ 20 MHz-MCS7 Mbps	IEEE 802.11n 2.4 GHz @ 20 MHz-MCS8 Mbps	IEEE 802.11n 2.4 GHz @ 20 MHz-MCS15 Mbps
Receiver sensitivity	-88 dBm	-72 dBm	-94 dBm	-74 dBm	-94 dBm	-74 dBm
Transmit power	17 dBm	10 dBm	19 dBm	11 dBm	19 dBm	11 dBm

Data rate	IEEE 802.11n 2.4 GHz @ 40 MHz-MCS0 Mbps	IEEE 802.11n 2.4 GHz @ 40 MHz-MCS7 Mbps	IEEE 802.11n 2.4 GHz @ 40 MHz-MCS8 Mbps	IEEE 802.11n 2.4 GHz @ 40 MHz-MCS15 Mbps	IEEE 802.11a-6 Mbps
Receiver sensitivity	-88 dBm	-72 dBm	-88 dBm	-72 dBm	-92 dBm
Transmit power	19 dBm	11 dBm	19 dBm	11 dBm	17 dBm

Data rate	IEEE 802.11a-54 Mbps	IEEE 802.11b-1 Mbps	IEEE 802.11b-11 Mbps	IEEE 802.11g-6 Mbps	IEEE 802.11g-54 Mbps
Receiver sensitivity	-76 dBm	-94 dBm	-88 dBm	-92 dBm	-76 dBm
Transmit power	13 dBm	19 dBm	19 dBm	17 dBm	15 dBm

HP WA2620 Dual Radio 802.11n Access Point (JD472A)

Ports	1 RJ-45 autosensing 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); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	
	1 RJ-45 serial console (only for debugging) port	
AP characteristics	Radios	Dual (a/b/g/n)
	Radio operation modes	Controlled
	Wi-Fi Alliance Certification*	a/b/g/n Wi-Fi Certified
	* 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 preformed by the Wi-Fi Alliance Organization. See the Specifications section of this series for more information.	
Physical characteristics	Dimensions	7.76(d) x 7.76(w) x 1.77(h) in. (19.7 x 19.7 x 4.5 cm)
	Weight	2.2 lb. (1 kg)
	Enclosure	Indoor
Memory and processor	128 MB SDRAM, 16 MB flash	
Environment	Operating temperature	32°F to 113°F (0°C to 45°C)

Technical Specifications

	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
Electrical characteristics	Maximum heat dissipation	44 BTU/hr (46.42 kJ/hr)
	Maximum power rating	13 W
	Power Inputs	IEEE 802.3af PoE compliant for Gigabit Ethernet port
	Antenna connector	3 RP-SMA (optional for JD455A)
	Antenna	2 x 3 MIMO. Gain 4.0 dBi, 2.4 GHz; Gain 3.3dBi, 5.2 GHz; Gain 3.0 dBi, 5.8 GHz
	Number of internal antennas	6
	Number of external antennas	0
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers.
Frequency band and operating channels	FCC	2.412 - 2.472 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 - 116, 132, 136 140 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) 5.260 - 5.320 GHz (52 - 64 channels) 5.500 - 5.700 GHz (100 - 140 channels)
Radio	FCC Part 15.247; EN 300 328; EN 301 893 (EU); RSS-210, Issue 7; RSS-Gen, Issue 2; FCC Part 15.407	
Safety	UL 60950-1; EN 60950-1; IEC 60950-1:2001 (with CB Report); CAN/CSA-C22.2 No. 60950-1	
Emissions	ANSI C63.4; FCC Part 15	
Immunity	EN	EN 301 489-1; EN 301 489-17
Medical	EN60601-1-2	
RF Exposure	FCC Bulletin OET-65C; RSS-102; EN 50385	
Management	The 11n FIT APs can be managed by A series access controllers.	
Notes	Maximum transmit power varies by country.	
Services	3-year, parts only, global next-day advance exchange (UW931E) 3-year, 4-hour onsite, 13x5 coverage for hardware (UW932E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UW935E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UW938E) 3-year, 24x7 SW phone support, software updates (UW941E) 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR715E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR716E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR717E)	

4-year, 4-hour onsite, 13x5 coverage for hardware (UW933E)
4-year, 4-hour onsite, 24x7 coverage for hardware (UW936E)
4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW939E)
4-year, 24x7 SW phone support, software updates (UW942E)
5-year, 4-hour onsite, 13x5 coverage for hardware (UW934E)
5-year, 4-hour onsite, 24x7 coverage for hardware (UW937E)
5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW940E)
5-year, 24x7 SW phone support, software updates (UW943E)
3 Yr 6 hr Call-to-Repair Onsite (UW944E)
4 Yr 6 hr Call-to-Repair Onsite (UW945E)
5 Yr 6 hr Call-to-Repair Onsite (UW946E)
1-year, 6 hour Call-To-Repair Onsite for hardware (HR719E)
1-year, 24x7 software phone support, software updates (HR718E)

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: IEEE 802.11b/g/n, IEEE 802.11a/n (WA2620 access point)

Modulation: OFDM: BPSK @ 6/9 Mbps, QPSK @ 12/18 Mbps, 16-QAM @ 24 Mbps, 64-QAM @ 48/54 Mbps DSSS: DBPSK @ 1 Mbps, DQPSK @ 2 Mbps, and CCK @ 5.5/11 Mbps MIMO-OFDM: BPSK, QPSK, 16QAM, and 64QAM

Data rate	IEEE 802.11n 5 GHz @ 20 MHz-MCS0 Mbps	IEEE 802.11n 5 GHz @ 20 MHz-MCS7 Mbps	IEEE 802.11n 5 GHz @ 20 MHz-MCS8 Mbps	IEEE 802.11n 5 GHz @ 20 MHz-MCS15 Mbps	IEEE 802.11n 5 GHz @ 40 MHz-MCS0 Mbps	IEEE 802.11n 5 GHz @ 40 MHz-MCS7 Mbps
Receiver sensitivity	-94 dBm	-74 dBm	-94 dBm	-74 dBm	-88 dBm	-72 dBm
Transmit power	18 dBm	16 dBm	18 dBm	16 dBm	18 dBm	16 dBm
Data rate	IEEE 802.11n 5 GHz @ 40 MHz-MCS8 Mbps	IEEE 802.11n 5 GHz @ 40 MHz-MCS15 Mbps	IEEE 802.11n 2.4 GHz @ 20 MHz-MCS0 Mbps	IEEE 802.11n 2.4 GHz @ 20 MHz-MCS7 Mbps	IEEE 802.11n 2.4 GHz @ 20 MHz-MCS8 Mbps	IEEE 802.11n 2.4 GHz @ 20 MHz-MCS15 Mbps
Receiver sensitivity	-88 dBm	-72 dBm	-94 dBm	-74 dBm	-94 dBm	-74 dBm
Transmit power	18 dBm	16 dBm	19 dBm	17 dBm	19 dBm	17 dBm

Data rate	IEEE 802.11n 2.4 GHz @ 40 MHz-MCS0 Mbps	IEEE 802.11n 2.4 GHz @ 40 MHz-MCS7 Mbps	IEEE 802.11n 2.4 GHz @ 40 MHz-MCS8 Mbps	IEEE 802.11n 2.4 GHz @ 40 MHz-MCS15 Mbps	IEEE 802.11a-6 Mbps
Receiver sensitivity	-88 dBm	-72 dBm	-88 dBm	-72 dBm	-92 dBm
Transmit power	19 dBm	17 dBm	19 dBm	17 dBm	21 dBm

Data rate	IEEE 802.11a-54 Mbps	IEEE 802.11b-1 Mbps	IEEE 802.11b-11 Mbps	IEEE 802.11g-6 Mbps	IEEE 802.11g-54 Mbps
Receiver sensitivity	-76 dBm	-94 dBm	-86 dBm	-92 dBm	-76 dBm
Transmit power	19 dBm	22 dBm	22 dBm	22 dBm	20 dBm

HP WA2610E Single Radio 802.11n Access Point (JD452A)

Technical Specifications

Ports	1 RJ-45 autosensing 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); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	
	1 RJ-45 serial console (only for debugging) port	
AP characteristics	Radios	Single (a/b/g/n)
	Radio operation modes	Controlled
	Wi-Fi Alliance Certification*	a/b/g/n Wi-Fi Certified
	* 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 preformed by the Wi-Fi Alliance Organization. See the Specifications section of this series for more information.	
Physical characteristics	Dimensions	8.27(d) x 5.91(w) x 1.38(h) in. (21 x 15 x 3.5 cm)
	Weight	2.65 lb. (1.2 kg)
	Enclosure	Indoor, plenum
Memory and processor	128 MB SDRAM, 16 MB flash	
Environment	Operating temperature	14°F to 149°F (-10°C to 65°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
Electrical characteristics	Maximum heat dissipation	44 BTU/hr (46.42 kJ/hr)
	Maximum power rating	13 W
	Power Inputs	IEEE 802.3af PoE compliant for Gigabit Ethernet port
	Antenna connector	3 RP-SMA
	Antenna	3 x 3 MIMO. Gain 2 dBi, 2.4 GHz; Gain 3 dBi, 5.2 GHz; Gain 3 dBi, 5.8 GHz omnidirectional
	Number of external antennas	3
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers.
Frequency band and operating channels	FCC	2.412 - 2.472 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 - 116, 132, 136 140 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) 5.260 - 5.320 GHz (52 - 64 channels) 5.500 - 5.700 GHz (100 - 140 channels)
Radio	FCC Part 15.247; EN 300 328; EN 301 893 (EU); RSS-210, Issue 7; RSS-Gen, Issue 2; FCC Part 15.407	
Safety	UL 2043; UL 60950-1; EN 60950-1; IEC 60950-1:2001 (with CB Report); CAN/CSA-C22.2 No. 60950-1	

Technical Specifications

Emissions	ANSI C63.4; FCC Part 15
Immunity	EN EN 301 489-1; EN 301 489-17
Medical	EN60601-1-2
RF Exposure	FCC Bulletin OET-65C; RSS-102
Management	The 11n FIT APs can be managed by A series access controllers.
Notes	Maximum transmit power varies by country.
Services	3-year, parts only, global next-day advance exchange (UW931E) 3-year, 4-hour onsite, 13x5 coverage for hardware (UW932E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UW935E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UW938E) 3-year, 24x7 SW phone support, software updates (UW941E) 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR715E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR716E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR717E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UW933E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UW936E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW939E) 4-year, 24x7 SW phone support, software updates (UW942E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UW934E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UW937E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW940E) 5-year, 24x7 SW phone support, software updates (UW943E) 3 Yr 6 hr Call-to-Repair Onsite (UW944E) 4 Yr 6 hr Call-to-Repair Onsite (UW945E) 5 Yr 6 hr Call-to-Repair Onsite (UW946E) 1-year, 6 hour Call-To-Repair Onsite for hardware (HR719E) 1-year, 24x7 software phone support, software updates (HR718E) 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: IEEE 802.11b/g/n, IEEE 802.11a/n (WA2610E access point)

Modulation: OFDM: BPSK @ 6/9 Mbps, QPSK @ 12/18 Mbps, 16-QAM @ 24 Mbps, 64-QAM @ 48/54 Mbps DSSS: DBPSK @ 1 Mbps, DQPSK @ 2 Mbps, and CCK @ 5.5/11 Mbps MIMO-OFDM: BPSK, QPSK, 16QAM, and 64QAM

Data rate	IEEE 802.11n 5 GHz @ 20 MHz-MCS0 Mbps	IEEE 802.11n 5 GHz @ 20 MHz-MCS7 Mbps	IEEE 802.11n 5 GHz @ 20 MHz-MCS8 Mbps	IEEE 802.11n 5 GHz @ 20 MHz-MCS15 Mbps	IEEE 802.11n 5 GHz @ 40 MHz-MCS0 Mbps	IEEE 802.11n 5 GHz @ 40 MHz-MCS7 Mbps
Receiver sensitivity	-94 dBm	-76 dBm	-92 dBm	-74 dBm	-90 dBm	-74 dBm
Transmit power	23 dBm	17 dBm	23 dBm	17 dBm	23 dBm	17 dBm

Data rate	IEEE 802.11n 5 GHz @ 40 MHz-MCS8 Mbps	IEEE 802.11n 5 GHz @ 40 MHz-MCS15 Mbps	IEEE 802.11n 2.4 GHz @ 20 MHz-MCS0 Mbps	IEEE 802.11n 2.4 GHz @ 20 MHz-MCS7 Mbps	IEEE 802.11n 2.4 GHz @ 20 MHz-MCS8 Mbps	IEEE 802.11n 2.4 GHz @ 20 MHz-MCS15 Mbps
Receiver sensitivity	-89 dBm	-70 dBm	-95 dBm	-78 dBm	-94 dBm	-76 dBm
Transmit power	23 dBm	17 dBm	23 dBm	16 dBm	23 dBm	16 dBm

Technical Specifications

Data rate	IEEE 802.11n 2.4 GHz @ 40 MHz-MCS0 Mbps	IEEE 802.11n 2.4 GHz @ 40 MHz-MCS7 Mbps	IEEE 802.11n 2.4 GHz @ 40 MHz-MCS8 Mbps	IEEE 802.11n 2.4 GHz @ 40 MHz-MCS15 Mbps	IEEE 802.11a-6 Mbps
Receiver sensitivity	-89 dBm	-74 dBm	-89 dBm	-72 dBm	-94 dBm
Transmit power	23 dBm	16 dBm	23 dBm	16 dBm	22 dBm
Data rate	IEEE 802.11a-54 Mbps	IEEE 802.11b-1 Mbps	IEEE 802.11b-11 Mbps	IEEE 802.11g-6 Mbps	IEEE 802.11g-54 Mbps
Receiver sensitivity	-81 dBm	-95 dBm	-90 dBm	-95 dBm	-82 dBm
Transmit power	19 dBm	23 dBm	23 dBm	23 dBm	20 dBm

HP WA2620E Dual Radio 802.11n Plenum Access Point (JD453A)

Ports	1 RJ-45 auto-negotiating 10/100/1000 port (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 serial console (only for debugging) port	
AP characteristics	Radios	Dual (a/b/g/n)
	Radio operation modes	Controlled
	Wi-Fi Alliance Certification*	a/b/g/n Wi-Fi Certified
	* 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 preformed by the Wi-Fi Alliance Organization. See the Specifications section of this series for more information.	
Physical characteristics	Dimensions	8.27(d) x 5.91(w) x 1.38(h) in. (21 x 15 x 3.5 cm)
	Weight	2.87 lb. (1.3 kg)
	Enclosure	Indoor, plenum
Memory and processor	128 MB SDRAM, 16 MB flash	
Environment	Operating temperature	14°F to 149°F (-10°C to 65°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
Electrical characteristics	Maximum heat dissipation	55 BTU/hr (58.03 kJ/hr)
	Maximum power rating	16 W
	Power Inputs	IEEE 802.3at (draft 2) PoE+ compliant for Gigabit Ethernet port
	Antenna connector	6 RP-SMA
	Antenna	3 x 3 MIMO. Gain 2 dBi, 2.4 GHz; Gain 3 dBi, 5.2 GHz; Gain 3 dBi, 5.8 GHz omnidirectional
	Number of external antennas	6

	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers.
Frequency band and operating channels	FCC	2.412 - 2.472 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 - 116, 132, 136 140 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) 5.260 - 5.320 GHz (52 - 64 channels) 5.500 - 5.700 GHz (100 - 140 channels)
Radio	FCC Part 15.247; EN 300 328; EN 301 893 (EU); RSS-210, Issue 7; RSS-Gen, Issue 2; FCC Part 15.407	
Safety	UL 2043; UL 60950-1; EN 60950-1; IEC 60950-1:2001 (with CB Report); CAN/CSA-C22.2 No. 60950-1	
Emissions	ANSI C63.4; FCC Part 15	
Immunity	EN	EN 301 489-1; EN 301 489-17
Medical	EN60601-1-2	
RF Exposure	FCC Bulletin OET-65C; RSS-102	
Management	The 11n FIT APs can be managed by A series access controllers.	
Notes	Maximum transmit power varies by country.	
Services	3-year, parts only, global next-day advance exchange (UW931E) 3-year, 4-hour onsite, 13x5 coverage for hardware (UW932E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UW935E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UW938E) 3-year, 24x7 SW phone support, software updates (UW941E) 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR715E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR716E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR717E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UW933E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UW936E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW939E) 4-year, 24x7 SW phone support, software updates (UW942E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UW934E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UW937E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UW940E) 5-year, 24x7 SW phone support, software updates (UW943E) 3 Yr 6 hr Call-to-Repair Onsite (UW944E) 4 Yr 6 hr Call-to-Repair Onsite (UW945E) 5 Yr 6 hr Call-to-Repair Onsite (UW946E) 1-year, 6 hour Call-To-Repair Onsite for hardware (HR719E) 1-year, 24x7 software phone support, software updates (HR718E) 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.	

Technical Specifications

Radio characteristics: IEEE 802.11b/g/n, IEEE 802.11a/n (WA2620E access point)

Modulation: OFDM: BPSK @ 6/9 Mbps, QPSK @ 12/18 Mbps, 16-QAM @ 24 Mbps, 64-QAM @ 48/54 Mbps DSSS: DBPSK @ 1 Mbps, DQPSK @ 2 Mbps, and CCK @ 5.5/11 Mbps MIMO-OFDM: BPSK, QPSK, 16QAM, and 64QAM

Data rate	IEEE 802.11n 5 GHz @ 20 MHz-MCS0 Mbps	IEEE 802.11n 5 GHz @ 20 MHz-MCS7 Mbps	IEEE 802.11n 5 GHz @ 20 MHz-MCS8 Mbps	IEEE 802.11n 5 GHz @ 20 MHz-MCS15 Mbps	IEEE 802.11n 5 GHz @ 40 MHz-MCS0 Mbps	IEEE 802.11n 5 GHz @ 40 MHz-MCS7 Mbps
Receiver sensitivity	-94 dBm	-76 dBm	-92 dBm	-74 dBm	-90 dBm	-74 dBm
Transmit power	23 dBm	17 dBm	23 dBm	17 dBm	23 dBm	17 dBm
Data rate	IEEE 802.11n 5 GHz @ 40 MHz-MCS8 Mbps	IEEE 802.11n 5 GHz @ 40 MHz-MCS15 Mbps	IEEE 802.11n 2.4 GHz @ 20 MHz-MCS0 Mbps	IEEE 802.11n 2.4 GHz @ 20 MHz-MCS7 Mbps	IEEE 802.11n 2.4 GHz @ 20 MHz-MCS8 Mbps	IEEE 802.11n 2.4 GHz @ 20 MHz-MCS15 Mbps
Receiver sensitivity	-89 dBm	-70 dBm	-95 dBm	-78 dBm	-94 dBm	-76 dBm
Transmit power	23 dBm	17 dBm	23 dBm	16 dBm	23 dBm	16 dBm

Data rate	IEEE 802.11n 2.4 GHz @ 40 MHz-MCS0 Mbps	IEEE 802.11n 2.4 GHz @ 40 MHz-MCS7 Mbps	IEEE 802.11n 2.4 GHz @ 40 MHz-MCS8 Mbps	IEEE 802.11n 2.4 GHz @ 40 MHz-MCS15 Mbps	IEEE 802.11a-6 Mbps
Receiver sensitivity	-89 dBm	-74 dBm	-89 dBm	-72 dBm	-94 dBm
Transmit power	23 dBm	16 dBm	23 dBm	16 dBm	22 dBm
Data rate	IEEE 802.11a-54 Mbps	IEEE 802.11b-1 Mbps	IEEE 802.11b-11 Mbps	IEEE 802.11g-6 Mbps	IEEE 802.11g-54 Mbps
Receiver sensitivity	-81 dBm	-95 dBm	-90 dBm	-95 dBm	-82 dBm
Transmit power	19 dBm	23 dBm	23 dBm	23 dBm	20 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 802.11d Global Harmonization
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 WLAN Enhancements for Higher Throughput

Accessories

HP WA-802.11n Access Point Series accessories	HP WA2620 Dual Radio 802.11n Access Point (JD472A)	
	HP 2/5GHz Ceiling MIMO 3 Antenna	JD455A
	HP WA2610E Single Radio 802.11n Access Point (JD452A)	
	HP 2/5GHz Ceiling MIMO 3 Antenna	JD455A
	HP WA2620E Dual Radio 802.11n Plenum Access Point (JD453A)	
	HP 2/5GHz Ceiling MIMO 6 Antenna	JD454A

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