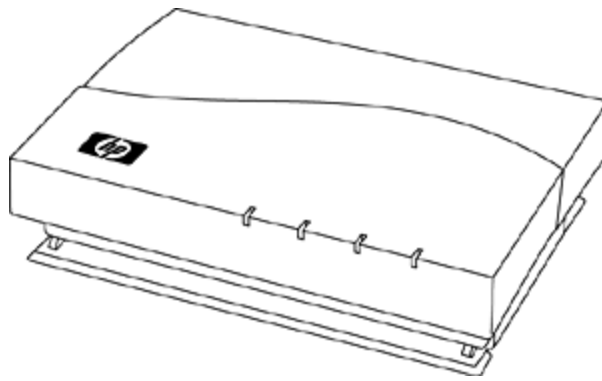


Overview

ProCurve Wireless Access Point 520wl



Models

J8133A

Introduction

The ProCurve Wireless Access Point 520wl extends the range of your cabled environment to an entire building or campus by providing easy network access for mobile users or for hard-to-wire locations, such as conference rooms. The ProCurve Access Point 520wl is a high-performance bridge that features roaming, automatic channel selection, and Web-based configuration and management. It cost-effectively responds to the growing demands of enterprise and small-business users for anytime, anywhere access to files, e-mail, and the Internet. The ProCurve Access Point 520wl supports up to 250 wireless clients per radio slot and 64- and 128-bit RC4 Wired Equivalent Privacy (WEP) encryption.

Features and Benefits

- **High-speed (54 Mbps) IEEE 802.11g support:** allows for selecting either IEEE 802.11b, 802.11g, or 802.11g with fallback support for 802.11b; requires ProCurve 802.11g Access Point Card 170wl
- **Investment protection:** the 520wl dual-slot, cardbus architecture provides users with the ability to support simultaneous, tri-mode (802.11 a, b, and g) operation by simply adding the appropriate ProCurve Access Point card
- **Secure mobility:**
 - **802.1X port-based access control:** secure yet flexible user authentication safeguards access to the wireless network; 802.1X support includes MD5, TLS, TTLS, and PEAP
 - **Enhanced encryption management:** per-user/per-session dynamic WEP key assignment and automatic key replacement significantly enhance wireless data privacy*
 - **16 VLANs and SSID support per radio card:** 802.1Q-compliant VLAN assignment based on SSID association controls user access to network resources*
 - **Wi-Fi Protected Access:** combines 802.1X user authentication with enhanced, industry-compatible encryption (TKIP) to secure network access and wireless data traffic*
- **Unauthorized access point detection (rogue AP):** The access point employs both active and passive scanning to detect and report all active access points operating within range of the access point. Data from each scan is stored in the access point, available for query, or sent to a management console using SNMP traps. Between user-configurable wireless network scans, SNMP traps are immediately generated upon detection of a new access point.**
- **Wireless (bridge) access point repeating:** up to six wireless links are supported in each access point 520wl, with two configurations possible:
 - **Single-radio configuration:** supports wireless traffic to additional wireless bridge relay 520wl access points and local wireless clients within the cell
 - **Dual-radio configuration:** one radio supports wireless traffic to other wireless bridge relay 520wl access points; the second radio supports local wireless clients within the cell
 - Wireless bridging supported on IEEE 802.11a, b, and g ProCurve Access Point radios
- **Auto Channel Select (ACS):** ACS tests available channels and selects one based on signal strength. The available channel range is set by the regulatory agency responsible for your geographic region. The ProCurve Access Point 520wl scans appropriate channels and selects the radio frequency channel with the best signal-to-noise ratio (in other words, signal strength).
- **Local wireless bridge filter:** when enabled, prevents communication between wireless devices associated with the same access point
- **Adjustable output power:** controls cell size for high-density deployments*
- **External antenna connector:** supports the ProCurve family of 2.4 GHz wireless LAN external antennas and accessories to enhance wireless LAN deployments
- **Dual flash images:** enable auto-recovery upon unsuccessful access point software download

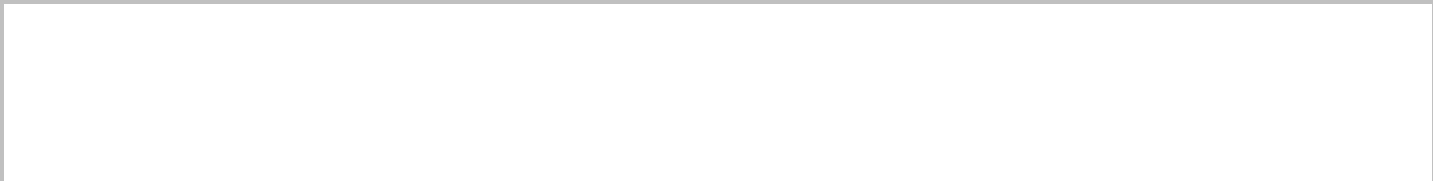
- **Remote configuration and management:** SNMPv3 and SSL protect unauthorized access to the management interface
- **Quality of service:** support for quality of service protocol on Spectralink-based applications***
- **Software updates:** free downloads are available from the Web
- **Lifetime warranty:** for as long as you own the product, with next-business-day advance replacement (available in most countries)

* **NOTE:** Feature requires use of ProCurve 802.11g Access Point Card 170wl
** **NOTE:** Feature requires use of ProCurve 802.11a Access Point Card 160wl or 802.11g Access Point Card 170wl
*** **NOTE:** Feature requires use of ProCurve 802.11b Access Point Card 150wl

Services	3-year, 4-hour onsite, 13x5 coverage for hardware	U4683A/E
	3-year, 4-hour onsite, 24x7 coverage for hardware	U4835A/E
	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support	U6321A/E
NOTE: Installation services for ProCurve Wireless Access Point 520wl products are sold directly by ProCurve. Contact your ProCurve Networking sales representative for details.		
NOTE: Check: http://www.hp.com/go/procurveservices for part numbers and service-level descriptions. For details about services and response times in your area, please contact your local HP sales office.		

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Technical Specifications

Ports	1 10/100 port (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX)	
	1 RS-232C DB-9 console port	
	2 CardBus slots support the following access point cards:	
	• ProCurve Wireless 802.11a • ProCurve Wireless 802.11b • ProCurve Wireless 802.11g	
Physical characteristics	Dimensions	2.0 x 7.8 x 10.2 in. (5.08 x 19.81 x 25.91 cm)
	Weight	3.86 lb. (1.74 kg)
	SDRAM	16 MB
	Flash ROM	8 MB

	Processor	Intel SA100 @ 233 MHz	
Mounting	Includes metal mounting plate for placement on wall, ceiling, or table		
Environment	Operating	Temperature	32❖ to 104❖ F (0❖ to 40❖ C)
		Relative humidity	0% to 95%, non-condensing
	Non-operating/ Storage	Temperature	14❖ to 122❖ F (❖10❖ to 50❖ C)
		Relative humidity	0% to 95%, non-condensing
Web interface	Microsoft❖ Internet Explorer 5.5 or higher Netscape Navigator 6.0 or higher		
Electrical characteristics	Current	0.7A	
	Voltage	100-240 VAC	
	Frequency	47/63 Hz	
Safety	UL 2043 EN60950/IEC 60950 UL 60950		
	Emissions	FCC CFR 47 Part 15, Class B AS/NZS 3548, Class B EN 55022, Class B	
		EN: 55024, CISPR 24	
Standards and protocols		RFC 783 TFTP RFC 951 BootP RFC 1542 BootP RFC 854 Telnet RFC 768 UDP RFC 792 ICMP RFC 793 TCP RFC 826 ARP IEEE 802.1D Spanning Tree RFC 2138 RADIUS RFC 2866 RADIUS accounting Secure Sockets Layer (SSL) IEEE 802.1X Network Login IEEE 802.1Q VLANs IEEE 802.1Q VLAN tagging SNMPv1/v2c/v3 HTML and telnet management RFC 1493 Bridge MIB RFC 1213 MIB II RFC 3164 Syslog IAPP (draft standard)	
	Features	Common to 802.11a, 802.11b, and 802.11g networks: • HTTP, HTTPS interface for configuration and management • Telnet/CLI • SNMPv1, SNMPv2c, secure SNMPv3 management • TFTP support • 2-user VLAN support • DHCP client • DHCP server • 802.1X support for MD5, TLS, PEAP, and TTLS • MAC address control table • Automatic channel select • Roaming • 64- and 128-bit WEP encryption • Multiple RADIUS authentication server support (primary and secondary) • 802.1d bridging with static MAC address filtering • Network protocol filtering • Proxy ARP • Multicast/Broadcast storm threshold filtering • TCP/UDP port filtering • Intra-cell traffic filtering • Spanning Tree support	

- Standard and Orinoco traps
- Orinoco MIB, Etherlike MIB, 802.11 MIB, Bridge MIB, MIB-II ◆ Syslog
- ICMP echo response
- Link integrity
- Wireless (repeater) bridging over IEEE 802.11a, b, and g networks
- Station monitoring statistics
- Emergency reset to default configuration, hardware watchdog timer
- Closed system
- Plenum rated

Additionally, applicable to the 802.11g network:

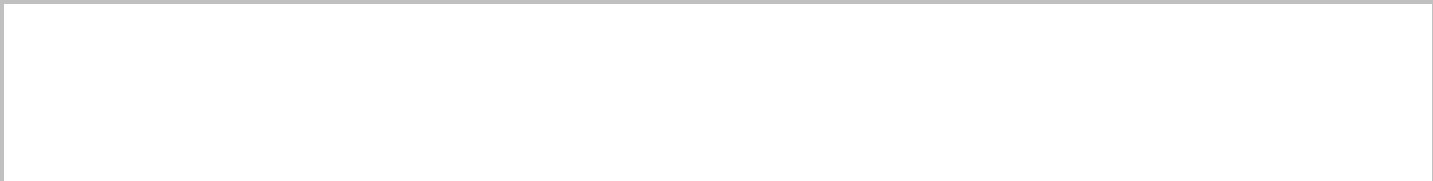
- Wi-Fi Protected Access (WPA) support
- Per-user/per-session keying
- Supports up to 16 SSID/VLANs
- Separate management VLAN
- Rogue access point detection
- Adjustable transmit power control

Additionally, applicable to the 802.11a network:

- Fragmentation support for 802.11a network
- Up to 50 stations per radio control
- 802.1X with per user/per session keying
- Rogue access point detection

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Accessories

ProCurve Wireless 802.11b Access Point Card 150wl 13 CH (J8136A) with 13-channel support; for use in Europe and Asia only (except Japan)	Physical characteristics Regulatory compliance	Dimensions Weight U.S. Canada EU Japan	4.64 x 2.12 x 0.34 in. (11.79 x 5.38 x 0.86 cm) 0.10 lb. (45.36 g) FCC Part 15.247 RSS-210 EN 300 328-1, EN 300 328-2 ARIB STD-33, ARIB STD-T66
ProCurve Wireless 802.11b Access Point Card 150wl 14 CH (J8137A)	Radio characteristics	802.11b Modulation technique Spreading	direct sequence spread spectrum (CCK, DQPSK, DBPSK) 11-chip Barker Sequence

with 14-channel support;
for use in Japan only

Media Access Protocol	CSMA/CA (Collision Avoidance) with ACK			
Bit error rate (BER)	better than 10 ⁻⁵			
Nominal output power	15 dBm			
Data rate	11 Mbps	5.5 Mbps	2 Mbps	1 Mbps
Receiver sensitivity	−82 dBm	−87 dBm	−91 dBm	−94 dBm
NOTE: The ProCurve Wireless 802.11b Access Point Card 150wl is only supported in the ProCurve Wireless Access Point 520wl.				

ProCurve Wireless 802.11a Access Point Kit 160wl—North America, Australia (J8138A) for use in North America and Australia	Physical characteristics	Dimensions	11.0 x 9.5 x 1.0 in. (27.94 x 24.13 x 2.54 cm)			
	Antenna	Weight	0.5 lb. (226.8 g)			
	Regulatory compliance		Two integral omnidirectional 5 dBi antennae with diversity			
		0–180 degrees articulation				
U.S.		FCC Part 15.407				
ProCurve Wireless 802.11a Access Point Kit 160wl—Singapore (J8148A) for use in Singapore only	Radio characteristics	Canada	RSS-210			
		EU	EN 301 893			
		Japan	ARIB STD-T71			
ProCurve Wireless 802.11a Access Point Kit 160wl—Europe (J8149A) for use in selected European countries only	Radio characteristics	802.11a	Modulation technique			
			Orthogonal Frequency Division Multiplexing (OFDM) 64 QAM, QPSK, BPSK with rate fallback			
			Media Access Protocol			
ProCurve Wireless 802.11a Access Point Kit 160wl—Japan (J8150A) for use in Japan only	Radio characteristics		CSMA/CA (Collision Avoidance) with ACK			
			Output power			
			will vary with data rate by region (FCC, TELEC, ETSI)			
ProCurve Wireless 802.11a Access Point Kit 160wl—Japan (J8150A) for use in Japan only	Radio characteristics	Data rate	54 Mbps	48 Mbps	36 Mbps	24 Mbps
		Receiver sensitivity	–65 dBm	–69 dBm	–73 dBm	–77 dBm
		Data rate	18 Mbps	12 Mbps	9 Mbps	6 Mbps
ProCurve Wireless 802.11a Access Point Kit 160wl—Japan (J8150A) for use in Japan only	Radio characteristics	Receiver sensitivity	–80 dBm	–82 dBm	–84 dBm	–85 dBm
		NOTE: The ProCurve Wireless 802.11a Access Point Kit 160wl is only supported in the ProCurve Wireless Access Point 520wl.				

ProCurve Wireless 802.11g Access Point Card 170wl 11 CH (J8432A) IEEE 802.11g radio card for 520wl Wireless Access Points, 11-channel; for use in North America	Physical characteristics	Dimensions	4.75 x 2.0 x 0.25 in. (12.07 x 5.08 x 0.64 cm)				
	Antenna	Weight	0.25 lb. (113.4 g)				
	Regulatory compliance	Integrated diversity antenna with MC Card connector for external antenna use					
		U.S.	FCC Part 15.247				
		Canada	RSS-210				
ProCurve Wireless 802.11g Access Point Card 170wl 13 CH (J8430A) IEEE 802.11g radio card for 520wl Wireless Access Points, 13-channel; for use in Europe and Asia, not Japan	Radio characteristics	EU	EN 300 328-1, EN 300 328-2				
		Japan	ARIB STD-33, ARIB STD-T66				
		802.11g	Modulation technique				
		Orthogonal Frequency Division Multiplexing (OFDM) 64 QAM, 16 QAM, QPSK, BPSK with rate fallback					
		Media Access Protocol		CSMA/CA (Collision Avoidance) with ACK			
ProCurve Wireless 802.11g Access Point Card 170wl 14 CH (J8431A) IEEE 802.11g radio card	Radio characteristics	Nominal output power		17 dBm			
		Data rate	54 Mbps	48 Mbps	36 Mbps	24 Mbps	
		Receiver sensitivity		−68 dBm	−70 dBm	−75 dBm	−80 dBm
		Data rate	18 Mbps	9 Mbps	6 Mbps		
		Receiver sensitivity		−84 dBm	−88 dBm	−89 dBm	
ProCurve Wireless 802.11g Access Point Card 170wl 14 CH (J8431A) IEEE 802.11g radio card	Radio characteristics	802.11b	Modulation technique				
		802.11b Direct Sequence Spread Spectrum (CCK, DQPSK, DBPSK)					
		Media Access Protocol		CSMA/CA (Collision Avoidance) with ACK			

for 520wl Wireless Access Points, 14-channel; for use in Japan only

Nominal output power	15 dBm			
Data rate	11 Mbps	5.5 Mbps	2 Mbps	1 Mbps
Receiver sensitivity	−83 dBm	−85 dBm	−86 dBm	−90 dBm

NOTE: The ProCurve Wireless 802.11g Access Point Card 170wl is only supported in the ProCurve Wireless Access Point 520wl.

ProCurve Wireless Range Extender Antenna 100wl (J8134A) with 2.5 dBi indoor omnidirectional antenna For use with ProCurve Access Point Card 170wl	Physical characteristics	Dimensions	9.1 x 1.0 x 0.3 in. (23.11 x 2.54 x 0.76 cm)	
		Weight	0.3 lb. (136.08 g)	
		Base diameter	2.8 in. (7.11 cm)	
	Mounting	Table stand and wall-mounting bracket		
	Cable length	59 in. (1.5 m)		
	Connector	Proprietary (FCC compliant)		
	Performance	Open office: 50% increase over standard range		
		Antenna pattern: omnidirectional		
		Semi-open office: 15% increase over standard range		
		Antenna diversity: yes		
Environment	Operating	Temperature	32❖ to 131❖F (0❖ to 55❖C)	
		Relative humidity	10% to 90%, non-condensing	
	Non-operating/Storage	Temperature	14❖ to 140❖F (❖10❖ to 60❖C)	
		Relative humidity	0% to 90%, non-condensing	
	Gain	2.5 dBi		
	Frequency range	2400❖2484 MHz		

Additional accessories	ProCurve 5 dBi Indoor/Outdoor Omnidirectional Antenna	J8441A
	ProCurve 7 dBi Indoor/Outdoor Directional Antenna	J8443A
	ProCurve 8 dBi Outdoor Omnidirectional Antenna	J8444A
	ProCurve 11 dBi Indoor/Outdoor Wide Angle Directional Antenna	J8446A
	ProCurve MC-Card to R-SMA Cable	J8447A
	ProCurve 14 dBi Yagi Antenna	J8448A

NOTE: See the ProCurve External Access Point Antennas [QuickSpec](#) for details.

Additional accessories	ProCurve 5 dBi Indoor/Outdoor Omnidirectional Antenna	J8441A
	ProCurve 7 dBi Indoor/Outdoor Directional Antenna	J8443A
	ProCurve 8 dBi Outdoor Omnidirectional Antenna	J8444A
	ProCurve 11 dBi Indoor/Outdoor Wide Angle Directional Antenna	J8446A
	ProCurve MC-Card to R-SMA Cable	J8447A
	ProCurve 14 dBi Yagi Antenna	J8448A

NOTE: See the ProCurve External Access Point Antennas [QuickSpec](#) for details.

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