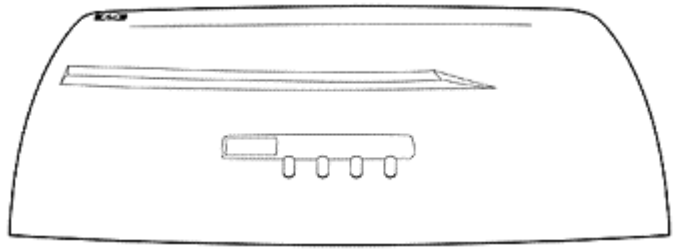
Overview



Models

ProCurve Access Point 530 NA, North America only	J8986A
ProCurve Access Point 530 WW, all other countries	J8987A

Introduction

Ideal for branch or satellite office deployments, the ProCurve Access Point 530 is an intelligent edge, dual-radio access point with simultaneous support for 802.11a and 802.11g standards, as well as dual 802.11g radio operation. The 530 access point offers a comprehensive range of industry-proven user authentication methods and the latest in standards-based wireless security to assure appropriate and secure access to network resources. With built-in support for ProCurve Identity Driven Manager, the ProCurve Access Point 530 enables network administrators to reduce network operating costs by deploying a unified network that offers centralized wired and wireless network policy and device management.

Features and Benefits

Management

- NEW Wireless sFlow support: With the addition of sFlow sampling of wireless traffic, management applications such as ProCurve Manager Plus or other wireless sFlow-capable network analyzers enable unified network visibility into traffic metrics, including wired and wireless network top talkers, top applications, and network connections. Wireless sFlow, when used with ProCurve Network Immunity Manager, provides rapid identification and response to specific network threats on wired and wireless network connections.
- NEW Group configuration: simplifies deployment of configuration updates to many access points in the same subnet. An administrator can securely manage up to twelve access points using SNMP, the browser, or the CLI interface of one member of the group. Each configuration change is securely communicated to other members of the group. New members added to the configuration group automatically receive the latest configuration from a peer within the group.
- RADIUS accounting support: separate RADIUS accounting server support per BSSID provides detailed session, usage, and billing information for each client activity
- Remote configuration and management: through secure Web browser or command-line interface (CLI)
- Multiple configuration files: multiple config files can be stored to flash image
- SCP (Secure Copy Protocol): allows secure file transfer to/from the access point; protects against unwanted file downloads or unauthorized copying of switch configuration file

Connectivity

- Advanced dual-radio design:
  - Simultaneous IEEE 802.11a and IEEE 802.11g radio operation: supports dual-band wireless clients and provides backward compatibility for IEEE 802.11b wireless devices
  - Dual IEEE 802.11b/g radio operation: provides high-capacity IEEE 802.11b/g data and voice wireless LAN coverage

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in networks where support for IEEE 802.11a is not a requirement

- NEW Adaptive Transmit Power Control: The ProCurve Access Point 530 continuously monitors and automatically adjusts beacon or data transmit power to minimize same-channel interference while maximizing channel coverage.
- Antenna flexibility accommodates a wide range of wireless LAN deployments:
  - Per-radio integrated diversity antenna with omnidirectional coverage: provides robust, dual-radio wireless LAN coverage for open office environments
  - Per-radio external diversity antenna support: RP-SMA antenna connectors enable external antenna configurations to extend wireless coverage or wireless bridging between access points
- Wireless Distribution System (WDS):
  - Wireless bridging: Because it expands network connectivity to remote access points located beyond a network's wired infrastructure, wireless bridging is ideal for increasing wireless coverage to adjacent buildings, across large lecture halls, or to outdoor campus environments. Each ProCurve Access Point 530 can support up to six wireless links to remote access points. WPA-PSK encryption secures data on each wireless link. Wireless distribution is supported on 802.11a, b, and g radio modes of operation.
  - Single-radio operation: A wireless link is provided to each remote ProCurve Access Point 530; it also services local wireless clients.
  - Dual-radio operation: One radio provides a wireless link to each remote ProCurve Access Point 530. The second radio provides network connectivity to local wireless clients.
- IEEE 802.11h International Telecommunication Union (ITU) compliant: employs Dynamic Frequency Selection (DFS) and Transmit Power Control (TPC) to automatically select another channel and adjust transmit power to minimize interference with systems such as radar, if detected on that same channel
- International country configuration: select the appropriate country, and the access point will automatically configure operation to match regulatory requirements
- Auto Channel Select (ACS): helps minimize radio co-channel interference by automatically selecting an unoccupied radio channel
- Adjustable output power: controls cell size for high-density access point deployments
- 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
- Link Layer Discovery Protocol (LLDP): enables real-time mapping of nodes to switch ports; LLDP (IEEE 802.1AB) industry-standard discovery protocol automatically populates both the LLDP and proprietary discovery MIBs for net management systems dependent on these MIBs

Security

- Up to 16 BSSIDs per radio with separate VLAN, security, and authentication: permits network administrators to control user access to network resources based on user authentication and level of trusted security between the client and access point
- Access point authentication: enables secure authentication of the ProCurve Access Point 530 on network ports protected by 802.1X port-based authentication
- Choice of IEEE 802.11i, Wi-Fi Protected Access 2 (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 the wireless traffic
- ProCurve Identity Driven Manager (IDM) security and access control:
  - Per-user ACLs: permit or deny user access to specific network resources based on user identity and time of day, allowing multiple types of users (employees, visitors, temporary workforce) on the same network to access specific network services without risk to network security or unauthorized access to sensitive data
  - Automatic VLAN assignment: automatically assigns users to the appropriate VLAN based on their identity, community, and time of day
  - Rate limits: automatically applies ingress rate limits to user traffic based on identity, community, and time of day
- NEW Web authentication: provides authentication for browser-based wireless clients. Built-in login, welcome, and failure Web pages assist users through the login process.
- IEEE 802.1X: provides port-based user authentication with support for Extensible Authentication Protocol (EAP), TLS, TTLS, SIM, GTC, and PEAP, with choice of AES, TKIP, and static or dynamic WEP encryption for protecting wireless traffic between

Overview

authenticated clients and the access point

- Local RADIUS authentication: enables "enterprise-grade" 802.11i (WPA2) wireless security for small wireless LAN networks; serves as backup authentication in the event primary and secondary network RADIUS servers are unavailable due to network disruption. The local RADIUS authentication feature supports up to 100 user accounts.
- RADIUS-based MAC authentication: a wireless client is authenticated with a RADIUS server based on the MAC address of the client; this is useful for clients that have minimal or no user interface
- Local MAC authentication: deny or allow network access based on wireless client MAC address, which is compared to a database stored on the access point
- NEW MAC address lockout: prevents configured particular MAC addresses from connecting to the network
- Local wireless bridge client traffic filtering: when enabled, prevents communication between wireless devices associated with the same access point
- Neighbor access point (rogue AP) and ad-hoc wireless network detection: Periodic scanning is provided for neighboring access points and ad-hoc wireless networks. Information collected during the scan, including BSSID, SSID, channel, RSSI, security setting, and radio type (IEEE 802.11b, b/g, or a mode), is captured for each wireless device detected. If configured, the access point can enter dedicated scan mode to provide continuous scanning of the surrounding RF environment.
- Closed system: restricts broadcast of SSID as a security measure to conceal presence of the wireless network; access point does not respond to the wireless client probe request of "ANY"
- Secure management access: all access methods--CLI, GUI, or MIB--are securely encrypted through SSHv2, SSL, and/or SNMPv3
- Management VLAN: segments traffic to and from management interfaces, including CLI/telnet, Web browser interface, and SNMP
- Management access control: To provide more security for the access point, management interfaces that are not required can be disabled, including the Web browser, telnet, and Secure Shell (SSH), as well as the serial console port and reset button.

Quality of Service (QoS)

- Wi-Fi WMM support: provides QoS functionality in wireless networks by prioritizing wireless traffic from different applications
- SpectraLink voice priority (SVP) support: prioritizes SpectraLink voice IP packets sent from a SpectraLink NetLink SVP server to SpectraLink wireless voice handsets to help ensure excellent voice quality

Industry-leading warranty

- Lifetime warranty: for as long as you own the product, with next-business-day advance replacement (available in most countries)

Services

ProCurve Access Point 530 NA	
3-year, 4-hour onsite, 13x5 coverage for hardware	U4683E
3-year, 4-hour onsite, 24x7 coverage for hardware	U4835E
3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support	U6321E
3-year, 24x7 SW phone support, software updates	UF792E
ProCurve Access Point 530 WW	
3-year, 4-hour onsite, 13x5 coverage for hardware	U4683E
3-year, 4-hour onsite, 24x7 coverage for hardware	U4835E
3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support	U6321E
3-year, 24x7 SW phone support, software updates	UF792E

Technical Specifications

ProCurve Access Point 530 NA (J8986A)

Ports	1 auto-sensing 10/100 port (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Media Type: Auto-MDIX; Duplex: half or full		
	1 RS-232C DB-9 console port		
Physical characteristics	Dimensions	6.8(d) x 9.8(w) x 1.2(h) in. (17.27 x 24.89 x 3.05 cm)	
	Weight	1.6 lb. (0.73 kg)mounting bracket	
Memory and processor	Processor	PowerPC MPC8248 @ 400 MHz, 32 MB SDRAM, 16 MB flash ROM	
Mounting	Ceiling mount to suspended ceiling T-bar, or wall mount		
Environment	Operating	Temperature	32°F to 122°F (0°C to 50°C); PoE mode
		Relative humidity	5% to 95%, non-condensing
	Non-operating/ Storage	Temperature	-40°F to 158°F (-40°C to 70°C)
		Relative humidity	5% to 95%, non-condensing
	Altitude	up to 10,000 ft. (3 km)	
Wireless interface	Microsoft Internet Explorer 5.5 or higher		
Electrical characteristics	Description	Voltage: 48 VDC (PoE)	
	Maximum heat dissipation	43 BTU/hr (45 kJ/hr)	
	Current	0.260 A	
	Power consumption	12.5 W	
Radio	FCC Part 15.247; FCC Part 15.407 (US); RSS-210 (Canada); EN 300 328; EN 301 893 (Europe); ARIB STD-T66; ARIB STD-T71; ARIB STD-33		
Safety	UL 2043; UL 60950-1; CAN/CSA 22.2 No. 60950-1; IEC 60950-1; EN 60950-1		
Emissions	EN 60601-1-2; EN 301 489-1; EN 301 489-17; FCC Part 15.107; FCC Part 15.109; ICES-003 Class B		
RF exposure	FCC Bulletin OET-65C; IEEE C95.1; RSS-102		

Radio characteristics: IEEE 802.11g

Data rate	54 Mbps	48 Mbps	36 Mbps	24 Mbps	18 Mbps	12 Mbps	9 Mbps	6 Mbps
Receiver sensitivity	–74 dBm	–75 dBm	–80 dBm	–83 dBm	–87 dBm	–88 dBm	–89 dBm	–90 dBm
Transmit power	23.5 dBm	23.5 dBm	23.5 dBm	23.5 dBm	23.5 dBm	23.5 dBm	23.5 dBm	23.5 dBm

Radio characteristics: IEEE 802.11b

Data rate	11 Mbps	5.5 Mbps	2 Mbps	1 Mbps
Receiver sensitivity	–88 dBm	–91 dBm	–92 dBm	–96 dBm
Transmit power	24 dBm	24 dBm	24 dBm	24 dBm

Radio characteristics: IEEE 802.11a

Data rate	54 Mbps	48 Mbps	36 Mbps	24 Mbps	18 Mbps	12 Mbps	9 Mbps	6 Mbps
Receiver sensitivity	–70 dBm	–72 dBm	–78 dBm	–82 dBm	–85 dBm	–87 dBm	–89 dBm	–90 dBm
Transmit power	22 dBm	23 dBm	23 dBm	23 dBm	23 dBm	23 dBm	23 dBm	23 dBm

Technical Specifications

Frequency band and operating channels	FCC (U.S. & Canada)	2.412 - 2.462 GHz (11 channels) 5.150 - 5.250 GHz (4 channels) 5.725 - 5.825 GHz (4 channels)
	Mexico	2.412 - 2.462 GHz (11 channels) 5.150 - 5.350 GHz (8 channels) 5.725 - 5.825 GHz (4 channels)
	Taiwan	2.412 - 2.462 GHz (11 channels) 5.250 - 5.350 GHz (4 channels) 5.725 - 5.825 GHz (4 channels)
Management	ProCurve Manager Plus; ProCurve Manager; command-line interface; Web browser; out-of-band management (DB-9 serial port console); IEEE 802.3 Ethernet MIB	
Notes	Radio specifications for J8986A: FCC Part 15.247; FCC Part 15.407 (U.S.); RSS-210 (Canada)	
Standards and protocols	Device Management	RFC 1305 NTPv3 RFC 1945 Hypertext Transfer Protocol -- HTTP/1.0 HTML and telnet management
	General Protocols	IEEE 802.1D MAC Bridges IEEE 802.1Q VLANs IEEE 802.3af Power over Ethernet RFC 768 UDP RFC 791 IP RFC 792 ICMP RFC 793 TCP RFC 826 ARP RFC 854 TELNET RFC 894 IP over Ethernet RFC 1042 IP Datagrams RFC 1350 TFTP Protocol (revision 2) RFC 1541 DHCP
	MIBs	RFC 1213 MIB II RFC 1493 Bridge MIB RFC 2233 Interface MIB RFC 3418 MIB for SNMPv3
	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 802.11g Further Higher Data Rate Extension in the 2.4 GHz Band IEEE 802.11i Medium Access Control (MAC) Security Enhancements
	Network Management	RFC 1157 SNMPv1 RFC 3164 BSD syslog Protocol SNMPv1/v2c/v3
	Security	IEEE 802.1X Port Based Network Access Control RFC 1321 The MD5 Message-Digest Algorithm RFC 2104 Keyed-Hashing for Message Authentication RFC 2138 RADIUS Authentication RFC 2459 Internet X.509 Public Key Infrastructure Certificate and CRL Profile RFC 2548 Microsoft

Vendor-specific RADIUS Attributes
RFC 2716 PPP EAP TLS
Authentication Protocol
RFC 2818 HTTP Over TLS
RFC 2865 RADIUS Authentication
RFC 2866 RADIUS Accounting
RFC 2868 RADIUS Attributes for Tunnel Protocol Support
RFC 2869 RADIUS Extensions
RFC 3394 Advanced Encryption
Standard (AES) Key Wrap Algorithm
RFC 3579 RADIUS Support For Extensible Authentication Protocol (EAP)
SSHv2 Secure Shell

ProCurve Access Point 530 WW (J8987A)

Ports	1 auto-sensing 10/100 port (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Media Type: Auto-MDIX; Duplex: half or full		
	1 RS-232C DB-9 console port		
Physical characteristics	Dimensions	6.8(d) x 9.8(w) x 1.2(h) in. (17.27 x 24.89 x 3.05 cm)	
	Weight	1.6 lb. (0.73 kg)mounting bracket	
Memory and processor	Processor	PowerPC MPC8248 @ 400 MHz, 32 MB SDRAM, 16 MB flash ROM	
Mounting	Ceiling mount to suspended ceiling T-bar, or wall mount		
Environment	Operating	Temperature	32°F to 122°F (0°C to 50°C); PoE mode
		Relative humidity	5% to 95%, non-condensing
	Non-operating/ Storage	Temperature	-40°F to 158°F (-40°C to 70°C)
		Relative humidity	5% to 95%, non-condensing
	Altitude	up to 10,000 ft. (3 km)	
Wireless interface	Microsoft Internet Explorer 5.5 or higher		
Electrical characteristics	Description	Voltage: 48 VDC (PoE)	
	Maximum heat dissipation	43 BTU/hr (45 kJ/hr)	
	Current	0.260 A	
	Power consumption	12.5 W	
Radio	FCC Part 15.247; FCC Part 15.407 (US); RSS-210 (Canada); EN 300 328; EN 301 893 (Europe); ARIB STD-T66; ARIB STD-T71; ARIB STD-33		
Safety	UL 60950-1; CAN/CSA 22.2 No. 60950-1; IEC 60950-1; EN 60950-1		
Emissions	EN 60601-1-2; EN 301 489-1; EN 301 489-17; FCC Part 15.107; FCC Part 15.109; ICES-003 Class B		
RF exposure	IEEE C95.1		

Technical Specifications

Radio characteristics: IEEE 802.11b

Maximum transmit power: 17.5 dBm (EIRP)

Data rate	11 Mbps	5.5 Mbps	2 Mbps	1 Mbps
Receiver sensitivity	–89 dBm	–91 dBm	–92 dBm	–96 dBm
Transmit power	17.5 dBm	17.5 dBm	17.5 dBm	17.5 dBm

Radio characteristics: IEEE 802.11g

Data rate	54 Mbps	48 Mbps	36 Mbps	24 Mbps	18 Mbps	12 Mbps	9 Mbps	6 Mbps
Receiver sensitivity	–73 dBm	–76 dBm	–80 dBm	–83 dBm	–87 dBm	–89 dBm	–90 dBm	–91 dBm
Transmit power	19 dBm	19 dBm	19 dBm	19 dBm	19 dBm	19 dBm	19 dBm	19 dBm

Radio characteristics: IEEE 802.11a

Data rate	54 Mbps	48 Mbps	36 Mbps	24 Mbps	18 Mbps	12 Mbps	9 Mbps	6 Mbps
Receiver sensitivity	–70 dBm	–72 dBm	–79 dBm	–82 dBm	–85 dBm	–88 dBm	–90 dBm	–91 dBm
Transmit power	22 dBm	23 dBm	24 dBm	24 dBm	24 dBm	24 dBm	24 dBm	24 dBm

Frequency band and operating channels	**European Union**	2.412 - 2.472 GHz (13 channels) 5.150 - 5.350 GHz (8 channels)
	Japan	2.412 - 2.484 GHz (14 channels) 5.150 - 5.350 GHz (8 channels)
	China	2.412 - 2.472 GHz (13 channels) 5.725 - 5.825 GHz (4 channels)
	Singapore	2.412 - 2.472 GHz (13 channels) 5.150 - 5.350 GHz (8 channels) 5.725 - 5.825 GHz (4 channels)
	Korea	2.412 - 2.472 GHz (13 channels) 5.150 - 5.350 GHz (8 channels) 5.470 - 5.650 GHz (8 channels) 5.725 - 5.825 GHz (4 channels)
	Australia	2.412 - 2.472 GHz (13 channels) 5.150 - 5.350 GHz (8 channels) 5.725 - 5.825 GHz (4 channels)
Management	ProCurve Manager Plus; ProCurve Manager; command-line interface; Web browser; out-of-band management (DB-9 serial port console); IEEE 802.3 Ethernet MIB	
Notes	Radio specifications for J8987A: EN 300 328; EN 301 893 (Europe); ARIB STD-T66; ARIB STD-T71; ARIB STD-33	
Standards and protocols	**Device Management**	RFC 1305 NTPv3 RFC 1945 Hypertext Transfer Protocol -- HTTP/1.0 HTML and telnet management
	General Protocols	IEEE 802.1D MAC Bridges IEEE 802.1Q VLANs IEEE 802.3af Power over Ethernet RFC 768 UDP RFC 791 IP RFC 792 ICMP

	RFC 793 TCP RFC 826 ARP RFC 854 TELNET RFC 894 IP over Ethernet RFC 1042 IP Datagrams RFC 1350 TFTP Protocol (revision 2) RFC 1541 DHCP
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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 802.11g Further Higher Data Rate Extension in the 2.4 GHz Band IEEE 802.11i Medium Access Control (MAC) Security Enhancements
Network Management	RFC 1157 SNMPv1 RFC 3164 BSD syslog Protocol SNMPv1/v2c/v3
Security	IEEE 802.1X Port Based Network Access Control RFC 1321 The MD5 Message-Digest Algorithm RFC 2104 Keyed-Hashing for Message Authentication RFC 2138 RADIUS Authentication RFC 2459 Internet X.509 Public Key Infrastructure Certificate and CRL Profile RFC 2548 Microsoft Vendor-specific RADIUS Attributes RFC 2716 PPP EAP TLS Authentication Protocol RFC 2818 HTTP Over TLS RFC 2865 RADIUS Authentication RFC 2866 RADIUS Accounting RFC 2868 RADIUS Attributes for Tunnel Protocol Support RFC 2869 RADIUS Extensions RFC 3394 Advanced Encryption Standard (AES) Key Wrap Algorithm RFC 3579 RADIUS Support For Extensible Authentication Protocol (EAP) SSHv2 Secure Shell

Accessories

ProCurve 14 dBi Yagi Antenna (J8448B) 14 dBi Yagi Antenna enables extended 2.4 GHz point-to-point wireless LAN links between ProCurve access points	**Electrical characteristics**	Frequency range 1: 2400 - 2500 Gain 1 dBi (with antenna cable): 13.8 VSWR max: 1.7:1 E-Plane (3 dB beamwidth): 30 degrees H-Plane (3 dB beamwidth): 34 degrees Impedance (Ohms): 50 RF connector: N-Type (female) Cable length: 1.7 ft. (0.52 m)
	Physical characteristics	Dimensions: 26.5(d) x 3.75(w) x 1.5(h) in. (67.31 x 9.53 x 3.81 cm) Wind surface area: 0.70 sq. ft. (0.07 sq. m) Wind survival: 100 mph (160.9 km/hr) Weight: 1.25 lb. (0.57 kg) Mounting style: Wall or mast mount Enclosure: Polycarbonate Front-to-back ratio (dB): 18
	Environment	Operating temperature: -22°F to 131°F (-30°C to 55°C) Non-operating/Storage temperature: -40°F to 149°F (-40°C to 65°C)

ProCurve Antenna Lightning Arrester (J8996A) helps protect access points from damage upon lightning strike to an outdoor access point antenna	**Electrical characteristics**	VSWR max.: 1.4:1
	Physical characteristics	Dimensions: 2.4(d) x 0.9(w) x 1.2(h) in. (6.1 x 2.29 x 3.05 cm)
	Notes	Input RF power, 100 MHz/6000 MHz: 250 W/10 W 50 Meg Ohm insulation resistance Maximum insertion loss of 0.4 dB

External Antenna

ProCurve 5 dBi Indoor/Outdoor Omnidirectional Antenna (J8441A) 5 dBi indoor/outdoor high-gain omnidirectional antenna with ceiling T-bar, I-beam, and mast mount	**Electrical characteristics**	Frequency range 1: 2400 - 2500 Gain 1 dBi (with antenna cable): 4.4 VSWR max: 1.7:1 E-Plane (3 dB beamwidth): 31 degrees H-Plane (3 dB beamwidth): Omnidirectional Polarization: Linear (vertical) Impedance (Ohms): 50 RF connector: Reverse SMA (male) Cable length: 2.75 ft. (0.84 m)
	Physical characteristics	Dimensions: 11.5(h) in. (29.21 cm) Wind surface area: 0.08 sq. ft. (0.01 sq. m) Wind survival: 125.1 mph (201.13 km/hr) Weight: 0.30 lb. (0.14 kg) Mounting style: Ceiling T-bar, I-beam, or mast Enclosure: Polycarbonate
	Environment	Operating temperature: -22°F to 131°F (-30°C to 55°C) Non-operating/Storage temperature: -40°F to 149°F (-40°C to 65°C)

Accessories

ProCurve 8 dBi Outdoor Omnidirectional Antenna (J8444A) 8 dBi outdoor omnidirectional antenna	**Electrical characteristics**	Frequency range 1: 2400 - 2500 Gain 1 dBi (with antenna cable): 7.4 VSWR max: 1.5:1 E-Plane (3 dB beamwidth): 12 degrees H-Plane (3 dB beamwidth): Omnidirectional Polarization: Linear (vertical) Impedance (Ohms): 50 RF connector: Reverse SMA (male) Cable length: 2.75 ft. (0.84 m)
	Physical characteristics	Dimensions: 25.25(h) in. (64.14 cm) Wind surface area: 0.11 sq. ft. (0.01 sq. m) Wind survival: 125 mph (201.13 km/hr) Weight: 0.5 lb. (0.23 kg) Mounting style: Mast Enclosure: Polycarbonate
	Environment	Operating temperature: -22°F to 131°F (-30°C to 55°C) Non-operating/Storage temperature: -40°F to 149°F (-40°C to 65°C)
ProCurve 3 dBi Dual Band Diversity Antenna (J8997A) 3 dBi multi-band diversity ceiling-mount antenna	**Electrical characteristics**	Frequency range 1: 2400 - 2500 Gain 1 dBi (with antenna cable): 3 Frequency range 2: 4900 - 5990 Gain 2 dBi (with antenna cable): 4 VSWR max: 2.0:1 E-Plane (3 dB beamwidth): 60 degrees E-plane radiation plots: J8997A_2-45Ghz-E-plane.jpg H-Plane (3 dB beamwidth): Omnidirectional H-plane radiation plots: J8997A_2-45Ghz-H-plane.jpg Impedance (Ohms): 50 Grounding: DC RF connector: Reverse SMA (male) Cable length: 2.75 ft. (0.84 m)
	Physical characteristics	Dimensions: 6.16(d) x 3.66(w) x 0.89(h) in. (15.65 x 9.3 x 2.26 cm) Weight: 0.5 lb. (0.23 kg) Mounting style: Ceiling grid Enclosure: PVC/Acrylic
	Environment	Operating temperature: -22°F to 131°F (-30°C to 55°C) Non-operating/Storage temperature: -40°F to 149°F (-40°C to 65°C)

Accessories

ProCurve 6 dBi 5 GHz Omnidirectional Antenna (J8998A) 5 GHz omnidirectional antenna provides high gain performance for IEEE 802.11a radio of either the ProCurve Access Point 530 or Radio Port 220	**Electrical characteristics**	Frequency range 1: 5150 - 5875 Gain 1 dBi (with antenna cable): 6.3 VSWR max: 2.0:1 E-Plane (3 dB beamwidth): 17 degrees E-plane radiation plots: J8998A-5-5Ghz-E-plane1.jpg H-Plane (3 dB beamwidth): Omnidirectional H-plane radiation plots: J8998A-5-5Ghz-H-plane1.jpg Polarization: Linear (vertical) Impedance (Ohms): 50 RF connector: Reverse SMA (male) Cable length: 2.75 ft. (0.84 m)
	Physical characteristics	Dimensions: 11.56(h) in. (29.36 cm) Wind surface area: 0.09 sq. ft. (0.01 sq. m) Wind survival: 120 mph (193.08 km/hr) Weight: 0.3 lb. (0.14 kg) Mounting style: Ceiling T-bar, I-beam, or mast Enclosure: Polycarbonate
	Environment	Operating temperature: -22°F to 131°F (-30°C to 55°C) Non-operating/Storage temperature: -40°F to 149°F (-40°C to 65°C)
ProCurve 7 dBi Dual Band Directional Antenna (J8999A) 7 dBi multi-band directional antenna for use with 2.4 GHz or 5 GHz radios of the ProCurve Access Point 530 or Radio Port 220	**Electrical characteristics**	Frequency range 1: 2400 - 2500 Gain 1 dBi (with antenna cable): 6.9 Frequency range 2: 4900 - 5990 Gain 2 dBi (with antenna cable): 7.7 VSWR max: 2.0:1 E-Plane (3 dB beamwidth): 66 degrees E-plane radiation plots: J8999A-2-45Ghz_E-plane.jpg H-Plane (3 dB beamwidth): 68 degrees H-plane radiation plots: J8999A-2-45Ghz_Hplane.jpg Polarization: Linear (vertical) Impedance (Ohms): 50 RF connector: Reverse SMA (male) Cable length: 2.75 ft. (0.84 m)
	Physical characteristics	Dimensions: 5.16(d) x 5.16(w) x 1.37(h) in. (13.11 x 13.11 x 3.48 cm) Wind surface area: 0.12 sq. ft. (0.01 sq. m) Wind survival: 120 mph (193.08 km/hr) Weight: 0.5 lb. (0.23 kg) Mounting style: Flush wall mount, articulating wall, or mast Enclosure: PVC/Acrylic Front-to-back ratio (dB): 10
	Environment	Operating temperature: -22°F to 131°F (-30°C to 55°C) Non-operating/Storage temperature: -40°F to 149°F (-40°C to 65°C)

Accessories

ProCurve 14 dBi 5 GHz Directional Antenna (J9000A) indoor/outdoor 14 dBi 5 GHz wide-band, high-gain directional antenna extends IEEE 802.11a coverage for point-to-point or point-to-multi-point wireless bridging	**Electrical characteristics**	Frequency range 1: 5150 - 5875 Gain 1 dBi (with antenna cable): 13.3 VSWR max: 2.0:1 E-Plane (3 dB beamwidth): 27 degrees E-plane radiation plots: J9000A-5-5Ghz_E_Plane.jpg H-Plane (3 dB beamwidth): 29 degrees H-plane radiation plots: J9000A-5-5Ghz_H_Plane.jpg Polarization: Linear (vertical) Impedance (Ohms): 50 Grounding: DC RF connector: Reverse SMA (male) Cable length: 2.75 ft. (0.84 m)
	Physical characteristics	Dimensions: 4.16(d) x 4.16(w) x 1.37(h) in. (10.57 x 10.57 x 3.48 cm) Wind surface area: 0.12 sq. ft. (0.01 sq. m) Wind survival: 120 mph (193.08 km/hr) Weight: 0.7 lb. (0.32 kg) Mounting style: Flush wall mount, articulating wall, or mast Enclosure: PVC/Acrylic Front-to-back ratio (dB): 17
	Environment	Operating temperature: -22°F to 131°F (-30°C to 55°C) Non-operating/Storage temperature: -40°F to 149°F (-40°C to 65°C)

To learn more, visit www.procurve.com
Information is subject to change without notice