

NEW ProCurve Switch 2810 Series

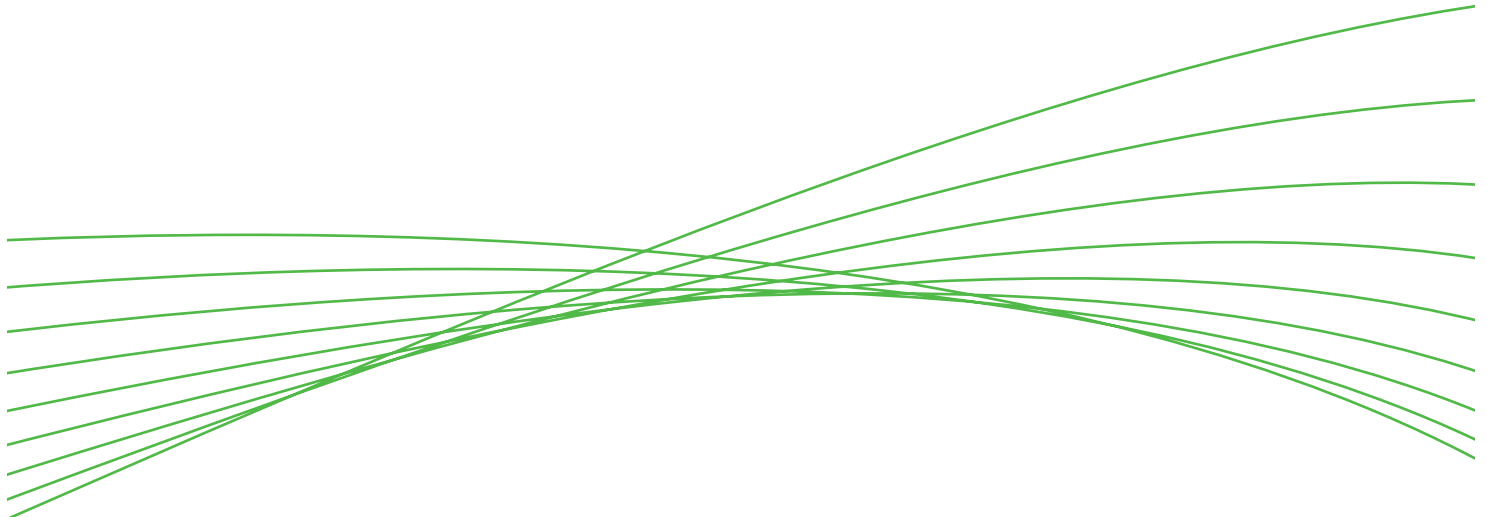
The ProCurve Switch 2810 series consists of two switches: the 24-port ProCurve Switch 2810-24G with 20 10/100/1000 ports, and the 48-port ProCurve Switch 2810-48G with 44 10/100/1000 ports. Each switch also has 4 dual-personality ports for RJ-45 10/100/1000 or mini-GBIC fiber Gigabit connectivity. Ideal for high-performance and secure 10/100 and Gigabit connectivity, the 2810 series offers access security and advanced prioritization and traffic-monitoring capabilities. The 2810 series is cost-effective and easy to use, with a shallow, stackable form factor that provides operational flexibility for use in smaller wiring closets.



NEW ProCurve Switch 2810-24G (J9021A)



NEW ProCurve Switch 2810-48G (J9022A)



ProCurve Switch 2810 Series

Features and benefits

Performance

- **48 Gbps backplane with up to 35.7 million pps (ProCurve Switch 2810-24G) and 96 Gbps backplane with up to 71.4 million pps (ProCurve Switch 2810-48G):** ten times the bandwidth for low-latency throughput

Connectivity

- **Dual-personality functionality:** four 10/100/1000 ports or mini-GBIC slots for optional fiber connectivity such as Gigabit-SX, -LX, or -LH

Resiliency and high availability

- **IEEE 802.3ad Link Aggregation Protocol (LACP) and ProCurve trunking:** support up to 24 trunks, each with up to 8 links (ports) per trunk
- **IEEE 802.1s Multiple Spanning Tree:** provides high link availability in multiple VLAN environments by allowing multiple spanning trees; provides legacy support for IEEE 802.1d and IEEE 802.1w
- **Optional redundant power supply:** provides uninterrupted power (provided by ProCurve 600 RPS/EPS)

Layer 2 switching

- **VLAN support and tagging:** support complete IEEE 802.1Q (4,096 VLAN IDs) and 256 VLANs simultaneously

- **GARP VLAN Registration Protocol:** allows automatic learning and dynamic assignment of VLANs

- **Jumbo packet support:** supports up to 9,216 byte frame size to improve performance of large data transfers

Security

- **Port security:** allows access only to specified MAC addresses, which can be learned or specified by the user
- **MAC address lockout:** prevents configured particular MAC addresses from connecting to the network
- **Multiple user authentication methods:**
 - **IEEE 802.1X:** industry-standard way of user authentication using an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server
 - **Web-based authentication:** similar to IEEE 802.1X, provides a browser-based environment to authenticate clients that do not support the IEEE 802.1X supplicant
 - **MAC-based authentication:** client is authenticated with the RADIUS server based on the MAC address of the client
- **Secure FTP:** allows secure file transfer to/from the switch; protects against unwanted file downloads or unauthorized copying of switch configuration file

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- **TACACS+**: eases switch management security administration by using a password authentication server
- **Source-port filtering**: allows only specified ports to communicate with each other
- **Secure Shell (SSHv2)**: encrypts all transmitted data for secure, remote command-line interface (CLI) access over IP networks
- **Secure Sockets Layer (SSL)**: encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch
- **Switch management logon security**: can require either RADIUS or TACACS+ authentication for secure switch CLI logon

Quality of Service (QoS)

- **Traffic prioritization (IEEE 802.1p)**: allows real-time traffic classification into 8 priority levels mapped to 4 queues
- **Class of Service (CoS)**: sets IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), L3 protocol, TCP/UDP port number, source port, and DiffServ
- **Layer 4 prioritization**: enables prioritization based on TCP/UDP port numbers

Manageability

- **sFlow (RFC 3176)**: provides wire-speed traffic accounting and monitoring
- **RMON**: provides advanced monitoring and reporting capabilities for statistics, history, alarms, and events
- **Friendly port names**: allow assignment of descriptive names to ports
- **ProCurve/IEEE Auto-MDIX**: automatically adjusts for straight-through or crossover cables on all 10/100/1000 ports
- **Dual flash images**: provide independent primary and secondary OS files for backup while upgrading
- **Stacking capability**: single IP address management for a virtual stack of up to 16 switches, including the ProCurve 2500 series, 2510 series, 2600 series, 2800 series, 3400cl series, 6108, 6400cl series, 4200vl series, and 4100gl series
- **Find-Fix-and-Inform**: finds and fixes common network problems automatically, then informs administrator
- **Troubleshooting**: ingress/egress port monitoring enables network problem-solving
- **Multiple configuration files**: allow multiple config files to be stored to flash image

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Convergence

- **IP multicast snooping and data-driven IGMP:** automatically prevents flooding of IP multicast traffic
- **IEEE 802.1ab LLDP discovery:** advertises and receives management information from adjacent devices on a network
- **Per-port broadcast throttling:** selectively configure broadcast control on heavy traffic port uplinks

Industry-leading warranty

- **Software updates:** free downloads from the Web
- **Lifetime warranty:** for as long as you own the product, with next-business-day advance replacement (available in most countries)

Services

Check 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.

Accessories

ProCurve Gigabit-SX-LC Mini-GBIC (J4858B)

ProCurve Gigabit-LX-LC Mini-GBIC (J4859B)

ProCurve Gigabit-LH-LC Mini-GBIC (J4860B)

ProCurve 600 Redundant External Power Supply (J8168A)

ProCurve Manager 2.1

ProCurve Manager Plus 2.1 100 device limited version (J8778A)

ProCurve Manager Plus 2.1 upgrade to unlimited license (J8779A)

ProCurve Manager Plus 2.1 100 device Upgrade (J8991A)

ProCurve Manager Plus 2.1 unlimited license (J9009A)

ProCurve Identity Driven Manager 2.0 base product (500 user license) (J9012A)

ProCurve Identity Driven Manager 2.0 base product (upgrade from 1.0) (J9013A)

ProCurve Identity Driven Manager 2.0 Add 2000 users license (J9014A)

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Specifications



	ProCurve Switch 2810-24G (J9021A)	ProCurve Switch 2810-48G (J9022A)
Ports	20 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab 1000Base-T Gigabit Ethernet) 4 dual-personality ports—each port can be used as either an RJ-45 10/100/1000 port (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab 1000Base-T Gigabit Ethernet) or an open mini-GBIC slot (for use with mini-GBIC transceivers) 1 RJ-45 serial console port	44 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab 1000Base-T Gigabit Ethernet) 4 dual-personality ports—each port can be used as either an RJ-45 10/100/1000 port (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab 1000Base-T Gigabit Ethernet) or an open mini-GBIC slot (for use with mini-GBIC transceivers) 1 RJ-45 serial console port
Physical characteristics		
Dimensions (D x W x H)	32.26 x 44.2 x 4.32 cm (12.7 x 17.4 x 1.7 in.) (1U height)	32.26 x 44.2 x 4.32 cm (12.7 x 17.4 x 1.7 in.) (1U height)
Weight	3.27 kg (7.21 lb.)	3.9 kg (8.6 lb.)
Memory and processor		
Processor type and speed	MIPS BCM5836 @ 264 MHz	MIPS BCM5836 @ 264 MHz
Packet buffer size	0.75 MB	1.5 MB
Flash capacity	16 MB	16 MB
SDRAM	64 MB	64 MB
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	
Performance		
Latency	<5.6 μs (FIFO 64-byte packets)	<5.4 μs (FIFO 64-byte packets)
Throughput	Up to 35.7 million pps (64-byte packets)	Up to 71.4 million pps (64-byte packets)
Switching capacity	48 Gbps	96 Gbps
MAC address table size	8,000 entries	8,000 entries
Environment		
Operating temperature	0°C to 40°C (32°F to 104°F)	0°C to 45°C (32°F to 113°F)
Operating relative humidity	15% to 95% @ 40°C (104°F), non-condensing	15% to 95% @ 40°C (104°F), non-condensing
Non-operating/Storage temperature	–40°C to 70°C (–40°F to 158°F)	–40°C to 70°C (–40°F to 158°F)
Non-operating/Storage relative humidity	15% to 95% @ 65°C (149°F), non-condensing	15% to 95% @ 65°C (149°F), non-condensing
Altitude	Up to 3 km (10,000 ft.)	Up to 3 km (10,000 ft.)
Electrical characteristics		
Maximum heat dissipation	164 BTU/hr	341 BTU/hr
Voltage	100–127 VAC/200–240 VAC	100–127 VAC/200–240 VAC
Current	1.25 A/0.75 A	2.0 A/1.0 A
Power output	60 W	100 W
Frequency	50/60 Hz	50/60 Hz
Acoustic	40.3 dB	40.5 dB
Safety	cUL (CSA 22.2 No. 60950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 60950	
Emissions	FCC Class A; EN55022/CISPR-22 Class A; VCCI Class A; IEC/EN61000-3-2; IEC/EN61000-3-3	
Immunity		
EN	EN55024, CISPR 24	EN55024, CISPR 24
ESD	IEC 61000-4-2; 4 kV CD, 8kV AD	IEC 61000-4-2; 4 kV CD, 8kV AD
Radiated	IEC 61000-4-3; 3V/m	IEC 61000-4-3; 3V/m
EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
Surge	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC
Conducted	IEC 61000-4-6; 3V	IEC 61000-4-6; 3V
Power frequency magnetic field	IEC 61000-4-8; 1A/m, 50 or 60 Hz	IEC 61000-4-8; 1A/m, 50 or 60 Hz
Voltage dips and interruptions	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods
Harmonics	EN61000-3-2, IEC61000-3-2	EN61000-3-2, IEC61000-3-2
Flicker	EN61000-3-3, IEC61000-3-3	EN61000-3-3, IEC61000-3-3
Management	ProCurve Manager; ProCurve Manager Plus; command-line interface; Web browser; configuration menu; out-of-band management	
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; RFC 2030 Simple Network Time Protocol; IEEE 802.3x Flow Control; RFC 3376 IGMPv1/v2/v3; IEEE 802.1D Spanning Tree; IEEE 802.1w Rapid Convergence Spanning Tree; IEEE 802.1s Multiple Spanning Trees; IEEE 802.3ad Link Aggregation Control Protocol; RFC 1492 TACACS+; RFC 2138 RADIUS; RFC 2866 RADIUS accounting; SSHv2 Secure Shell; Secure Sockets Layer (SSL); IEEE 802.1X Network Login; IEEE 802.1Q VLANs; IEEE 802.1Q GVRP; IEEE 802.1p Priority; SNMPv1/v2c/v3; HTML and telnet management; RFC 1493 Bridge MIB; RFC 1213 MIB II; RFC 2096 IP Forwarding Table MIB; RFC 2737 Entity MIB; RFC 2863 Evolution of Interface; RFC 2665 Ethernet MIB; RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events); RFC 2021 RMON probe configuration (RMON v2); RFC 2668 IEEE 802.3 MAU MIB; RFC 2613 SMON; RFC 2674 IEEE 802.1p and IEEE 802.1Q Bridge MIB; RFC 2618 RADIUS Client MIB; RFC 2620 RADIUS Accounting MIB; RFC 3176 sFlow	
Notes	When using mini-GBICs with this product, mini-GBICs with revision “B” (product number ends with the letter “B”; e.g., J4858B, J4859B) or later are required.	

For more information

To learn more about ProCurve
Networking, please visit
www.hp.com/eur/procurve

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