

ProCurve Switch 2510 Series

The ProCurve Switch 2510 series consists of managed, Layer 2, 10/100 switches with Gigabit uplinks. The 2510-24 has 24 10/100 ports and 2 Gigabit dual-personality ports for 10/100/1000 or mini-GBIC connectivity. The 2510-48 has 48 10/100 ports and 4 Gigabit ports (2 10/100/1000 ports and 2 open mini-GBIC slots), all of which can operate simultaneously. The 2510-24 is fanless, ensuring quiet operation and making it ideal for deployment in open spaces. With a larger port density, the 2510-48 is more suitable for wiring-closet deployments. Both switches offer a standards-based Layer 2 feature set, including access security and basic traffic prioritization. Designed to cost-effectively meet the needs of small and growing networks, the 2510 series brings commercial-grade quality to all businesses at an affordable price. It is also standards-based, facilitating interoperability with existing infrastructure and making it easy to deploy and manage.



ProCurve Switch 2510-24 (J9019B)



NEW ProCurve Switch 2510-48 (J9020A)

ProCurve Switch 2510 Series

Features and benefits

Industry-leading warranty



Connectivity

- **Gigabit uplinks:** the 2510-24 has two dual-personality ports for either 10/100/1000 or mini-GBIC connectivity; the 2510-48 has four Gigabit ports, which can all be used concurrently with two 10/100/1000 ports and two open mini-GBIC slots
- **ProCurve Auto-MDIX:** automatically adjusts for straight-through or crossover cables on all 10/100 and 10/100/1000 copper ports

Resiliency and high availability

- **IEEE 802.3ad Link Aggregation Control Protocol (LACP) and ProCurve trunking:** support up to 2 10/100 trunks each with 4 links/ports, plus one Gigabit trunk (2510-24) or up to 24 10/100 trunks with 8 links/ports per trunk (2510-48)
- **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

Layer 2 switching

- **VLAN support and tagging:** support up to 64 port-based VLANs and dynamic configuration of IEEE 802.1Q VLAN tagging, providing security between workgroups
- **GARP VLAN Registration Protocol:** allows automatic learning and dynamic assignment of VLANs

Security

- **Protected ports:** provides increased security by allowing specified ports to be isolated from all other ports on the switch; the protected port or ports can only communicate with the uplink
- **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 client's MAC address
- **BPDU port protection:** blocks Bridge Protocol Data Units (BPDU) on ports that do not require BPDUs, preventing forged BPDU attacks
- **Secure management access:** all access methods—CLI, GUI, or MIB—are securely encrypted through SSHv2, SSL, and/or SNMPv3
- **TACACS+:** eases switch management security administration by using a password authentication server

Authentication flexibility

- **Multiple IEEE 802.1X users per port:** provides authentication of up to 2 IEEE 802.1X users per port; prevents user “piggybacking” on another user's IEEE 802.1X authentication

Convergence

- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP):** automated device discovery protocol for easy mapping by network management applications
- **IP multicast (data-driven IGMPv3):** automatically prevents flooding of IP multicast traffic (2510-48 only)

♦ For as long as you own the product, with next-business-day advance replacement (available in most countries). For details, refer to the ProCurve Software Licence, Warranty and Support booklet at www.procurve.eu/warranty.

ProCurve Switch 2510 Series

Quality of Service (QoS)

- **IEEE 802.1p prioritization:** delivers data to devices based on the priority and type of traffic

Manageability

- **RMON:** provides advanced monitoring and reporting capabilities for statistics, history, alarms, and events
- **Friendly port names:** allow assignment of descriptive names to ports
- **Full-featured console:** provides complete control of the switch with a familiar command-line interface (CLI)
- **Web interface:** allows configuration of the switch from any Web browser on the network
- **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, 2810 series, 2900 series, 3400cl series, 3500yl series, 4200vl series, 6108, 6200yl-24G-mGBIC, and 6400cl series
- **Find-Fix-and-Inform:** finds and fixes common network problems automatically, then informs administrator
- **Dual flash images:** provides independent primary and secondary OS files for backup while upgrading
- **Software updates:** free downloads from the Web

Flexibility

- **Fanless design:** reduces noise and distractions when deployed in open spaces (2510-24 only)

Services

ProCurve Switch 2510-24

ProCurve Switch 2510-48

- 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, 4-hour onsite, 24x7 coverage for software (UF792E)

Check www.procurve.eu/services 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 (J4858C)

ProCurve Gigabit-LX-LC Mini-GBIC (J4859C)

ProCurve Gigabit-LH-LC Mini-GBIC (J4860C)

ProCurve 100-FX SFP-LC Transceiver (J9054B)

ProCurve Manager 2.3

ProCurve Manager Plus 2.3 upgrade from ProCurve Manager Plus 1.6 or newer (J9056A)

ProCurve Manager Plus 2.3 50-device license (J9057A)

ProCurve Manager Plus 2.3 +100-device license (J9058A)

ProCurve Manager Plus 2.3 unlimited-device license (J9059A)

Specifications



ProCurve Switch 2510-24 (J9019B)



ProCurve Switch 2510-48 (J9020A)

Ports	24 RJ-45 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX) Media type: ProCurve Auto-MDIX Duplex: half or full 2 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	48 RJ-45 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX) Media type: ProCurve Auto-MDIX Duplex: half or full 2 RJ-45 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T) Media type: IEEE Auto-MDI/MDIX Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only 2 open mini-GBIC (SFP) slots 1 RJ-45 serial console port	
Physical characteristics			
Dimensions (D x W x H)	23.62 x 44.25 x 4.39 cm (9.3 x 17.42 x 1.73 in.) (1U height)	23.62 x 44.25 x 4.39 cm (9.3 x 17.42 x 1.73 in.) (1U height)	
Weight (fully loaded)	2.22 kg (4.89 lb.), fully loaded	2.74 kg (6.05 lb.), fully loaded	
Memory and processor			
Processor type and speed	MIPS 32 @ 264 MHz	MIPS 32 @ 300 MHz	
Flash capacity	8 MB	16 MB	
SDRAM	64 MB	128 MB	
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only		
Performance			
Latency			
100 Mb latency	<4.9 µs (64-byte packets)	<4.9 µs (64-byte packets)	
1000 Mb latency	<2.6 µs (64-byte packets)	<2.9 µs (64-byte packets)	
Throughput	Up to 6.5 million pps (64-byte packets)	Up to 13 million pps (64-byte packets)	
Switching capacity	8.8 Gbps	17.6 Gbps	
MAC address table size	8,000 entries	8,000 entries	
Environment			
Operating temperature	0°C to 45°C (32°F to 113°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 90% @ 65°C (149°F), non-condensing	
Altitude	Up to 3 km. (10,000 ft)	Up to 4.6 km (15,000 ft.)	
Acoustic	0 dB, no fan	Power: 43.6 dB; DIN 45635T.19 per ISO 7779	
Electrical characteristics			
Maximum heat dissipation	71.74 kJ/hr (68 BTU/hr)	221.55 kJ/hr (210 BTU/hr)	
Voltage	100-127 VAC/200-240 VAC	100-127 VAC/200-240 VAC	
Current	0.75 A/0.4 A	1.25 A/0.75 A	
Power consumption	20 W	30 W	
Frequency	50/60 Hz	50/60 Hz	
Safety	cUL (CSA 22.2 No. 60950); UL 60950-1; IEC 60950; EN 60950		
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A; IEC/EN 61000-3-2; IEC/EN 61000-3-3		
Immunity			
Generic	EN 55024, CISPR 24	EN 55024, CISPR 24	
ESD	IEC 61000-4-2	IEC 61000-4-2	
Radiated	IEC 61000-4-3	IEC 61000-4-3	
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4	
Surge	IEC 61000-4-5	IEC 61000-4-5	
Conducted	IEC 61000-4-6	IEC 61000-4-6	
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8	
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11	
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2	
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3	
Management	ProCurve Manager Plus; ProCurve Manager; command-line interface; Web browser; out-of-band management (serial RJ-45)		
Notes	When using mini-GBICs with this product, mini-GBICs with revision "B" or later (product number ends with the letter "B" or later, e.g., J4858B, J4859C) are required.		
Standards and protocols	General protocols IEEE 802.1p Priority IEEE 802.1Q VLANs IEEE 802.1s Multiple Spanning Trees IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3x Flow Control IP multicast RFC 3376 IGMPv3	MIBs RFC 1213 MIB II RFC 1493 Bridge MIB RFC 1573 SNMP MIB II Network management IEEE 802.1AB Link Layer Discovery Protocol (LLDP) SNMPv1/v2c/v3	Security IEEE 802.1X Port Based Network Access Control RFC 1492 TACACS+ RFC 2138 RADIUS Authentication RFC 2866 RADIUS Accounting Secure Sockets Layer (SSL) SSHv1/SSHv2 Secure Shell

For more information

To learn more about ProCurve Networking, please visit www.procurve.eu

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