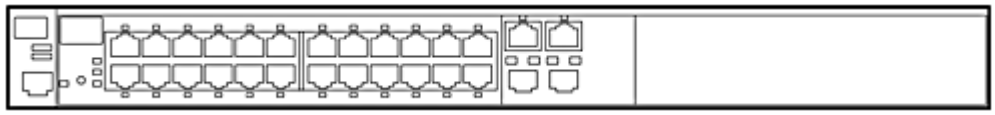
Overview



HP ProCurve Switch 2510-24

Models

HP ProCurve Switch 2510-24	J9019B
HP ProCurve Switch 2510-48	J9020A
HP ProCurve Switch 2510G-24	J9279A
HP ProCurve Switch 2510G-48	J9280A

Key features

- Managed Layer 2 feature set
- 24 or 48 10/100 or Gigabit ports
- Two mini-GBIC slots for fiber connectivity
- Quiet fanless design (J9019B)
- Industry-leading warranty

Introduction

Designed to provide essential solutions to small and medium businesses, the HP ProCurve Switch 2510 Series consists of four Layer 2 managed switches that provide reliable 10/100 and 10/100/1000 connectivity. Building off of the popularity of the HP ProCurve Switch 2510-24, a 24-port 10/100 switch with two dual-personality ports, the 2510 series has expanded to include a higher-density HP ProCurve Switch 2510-48, with 48 10/100 ports and four Gigabit uplinks. Additionally, the 2510G switches add Gigabit to the 2510 series, with the 2510G-24 and 2510G-48, 24- and 48-port 10/100/1000 switches, each with four dual-personality ports--ideal for businesses that are ready to upgrade to increased network performance.

Features and Benefits

Connectivity

- NEW 10/100 and 10/100/1000 connectivity: provides customers with the choice to select the network connectivity speed that best meets their needs, with a consistent user experience
- Gigabit uplinks:
  - 2510-24 and 2510-48: 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
  - 2510G-24 and 2510G-48: four dual personality for 10/100/1000 or SFP ports for optional fiber connectivity such as Gigabit-SX, -LX, -LH, or 100-FX
- 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 802.1s 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

Overview

- IEEE 802.3ad Link Aggregation Control Protocol (LACP) and ProCurve trunking:
  - 2510-24 supports up to two 10/100 trunks each with four links/ports plus one Gigabit trunk
  - 2510-48 supports up to 24 10/100 trunks with eight links/ports per trunk
  - 2510G switches support up to 24 trunks with eight links/ports per trunk

Manageability

- IEEE 802.1AB Link Layer Discovery Protocol (LLDP): automated device discovery protocol for easy mapping by network management applications
- RMON: provides advanced monitoring and reporting capabilities for statistics, history, alarms, and events
- 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 HP ProCurve Switch 2500 Series, 2510 Series, 2600 Series, 2610 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 operating system files for backup while upgrading
- Software updates: free downloads from the Web
- Friendly port names: allow assignment of descriptive names to ports

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

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 uplinks or shared resources
- 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 client's MAC address
- Guest VLAN: Isolates guest and unauthorized users traffic to a separate VLAN
- Port security: allows access only to specified MAC addresses, which can be learned or specified by the administrator
- MAC address lockout: prevents configured particular MAC addresses from connecting to the network
- Multiple IEEE 802.1X users per port: provides authentication of up to two IEEE 802.1X users per port; prevents user "piggybacking" on another user's IEEE 802.1X authentication
- STP BPDU port protection: blocks Bridge Protocol Data Units (BPDUs) 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

Convergence

- IP multicast snooping: automatically prevents flooding of IP multicast traffic

Quality of Service (QoS)

Overview

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

Flexibility

- **Fanless design**: reduces noise and distractions when deployed in open spaces (2510-24 only)
- **NEW Multiple port density and connectivity speed options**: provide choice and flexibility with a consistent user experience

Warranty and support*

- ProCurve Lifetime Warranty: for as long as you own the product, with next-business-day advance replacement (available in most countries).
- Electronic and telephone support: limited electronic and telephone support is available from HP. Refer to the HP Web site at www.procurve.com/support for details on the support provided and the period during which support is available.
- Software releases: refer to the HP Web site at www.procurve.com/support for details on the software releases provided and the period during which software releases are available.

* For as long as you own the product, with next-business-day advance replacement (available in most countries). The following hardware products and their related series modules have a one-year hardware warranty with extensions available: HP ProCurve Routing Switch 9300m Series, HP ProCurve Switch 8100fl Series, HP ProCurve Network Access Controller 800, and HP ProCurve DCM Controller. The following hardware mobility products have a one-year hardware warranty with extensions available: HP ProCurve M111 Client Bridge, HP ProCurve MSM3xx-R Access Points, HP ProCurve MSM7xx Mobility and Access Controllers, HP ProCurve RF Manager IDS/IPS Systems, HP ProCurve MSM Power Supplies, HP ProCurve 1-Port Power Injector, and HP ProCurve CNMS Appliances. Disk drives in the HP ProCurve ONE Services zl Modules have a five year hardware warranty. Standalone software, upgrades, or licenses may have a different warranty duration. For details, refer to the ProCurve Software License, Warranty, and Support booklet at: www.procurve.com/warranty.

Services

HP ProCurve Switch 2510-24

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
Installation with minimum configuration, system-based pricing	U4826E
Installation with HP-provided configuration, system-based pricing	U4830E

NOTE: Refer to the HP Web site at: www.procurve.com/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.

HP 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
Installation with minimum configuration, system-based pricing	U4826E
Installation with HP-provided configuration, system-based pricing	U4830E

NOTE: Refer to the HP Web site at: www.procurve.com/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.

HP ProCurve Switch 2510G-24

3-year, 4-hour onsite, 13x5 coverage for hardware	U4683E
3-year, 4-hour onsite, 24x7 coverage for hardware	U4835E

Overview

3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support	U6321E
3-year, 24x7 SW phone support, software updates	UF792E
Installation with minimum configuration, system-based pricing	U4826E
Installation with HP-provided configuration, system-based pricing	U4830E

NOTE: Refer to the HP Web site at: www.procurve.com/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.

HP ProCurve Switch 2510G-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, 24x7 SW phone support, software updates	UF792E
Installation with minimum configuration, system-based pricing	U4826E
Installation with HP-provided configuration, system-based pricing	U4830E

NOTE: Refer to the HP Web site at: www.procurve.com/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.

HP ProCurve Switch 2510-24 J9019B	**Ports**	24 RJ-45 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Media Type: 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	
	Physical characteristics	**Dimensions** (DxWxH)	9.3 x 17.42 x 1.73 in. (23.62 x 44.25 x 4.39 cm) (1U height)
		Weight	4.89 lb. (2.22 kg), Fully loaded
	Memory and processor	MIPS 32 @ 264 MHz, 8 MB flash, 64 MB SDRAM packet buffer size: 384 KB	
	Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	
	Performance	**100 Mb Latency**	<4.9 µs (64-byte packets)
		1000 MB latency	<2.6 µs (64-byte packets)
		Throughput	up to 6.5 million pps (64-byte packets)
		Switching capcity	8.8 Gbps
		MAC address table size	8000 entries
	Environment	**Operating temperature**	32°F to 113°F (0°C to 45°C)
		Operating relative humidity	15% to 95% @ 104°F (40°C), non-condensing
		Non-operating/ Storage temperature	-40°F to 158°F (-40°C to 70°C)
		Non-operating/ Storage relative humidity	15% to 95% @ 149°F (65°C), non-condensing
		Altitude	up to 10000 ft. (3 km)
		Acoustic	Power: 0 dB No Fan
	Electrical characteristics	**Maximum heat dissipation**	68. BTU/hr (71.74 kJ/hr)
		Voltage	100-127 / 200-240 VAC
		Current	0.75 / 0.4 A
		Power consumption	20 W
		Frequency	50 / 60 Hz
		Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
	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

	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3
	EFT/Burst	IEC 61000-4-4
	Surge	IEC 61000-4-5
	Conducted	IEC 61000-4-6
	Power frequency magnetic field	IEC 61000-4-8
	Voltage dips and interruptions	IEC 61000-4-11
	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3

Management: HP ProCurve Manager Plus; HP ProCurve Manager; command-line interface; Web browser; out-of-band management

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

Device Management
HTML and telnet management

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
RFC 768 UDP
RFC 783 TFTP Protocol (revision 2)
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 854 TELNET
RFC 951 BOOTP
RFC 1542 BOOTP Extensions
RFC 2030 Simple Network Time Protocol (SNTP) v4

IP Multicast
RFC 3376 IGMPv3

MIBs
RFC 1213 MIB II
RFC 1493 Bridge MIB
RFC 1573 SNMP MIB II
RFC 2021 RMONv2 MIB
RFC 2096 IP Forwarding Table MIB
RFC 2613 SMON MIB
RFC 2618 RADIUS Client MIB
RFC 2620 RADIUS Accounting MIB
RFC 2665 Ethernet-Like-MIB
RFC 2668 802.3 MAU MIB

RFC 2674 802.1p and IEEE 802.1Q Bridge MIB
RFC 2737 Entity MIB (Version 2)
RFC 2863 The Interfaces Group MIB

Network Management
IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
RFC 2819 Four groups of RMON:

- 1 (statistics), 2 (history), 3 (alarm) and 9 (events)

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

HP ProCurve Switch 2510-48 (J9020A)	Ports	48 RJ-45 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Media Type: 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: Auto-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 (DxWxH)	9.3 x 17.42 x 1.73 in. (23.62 x 44.25 x 4.39 cm) (1U height)
		Weight	6.05 lb. (2.74 kg), Fully loaded
	Memory and processor	MIPS 32 @ 300 MHz, 16 MB flash, 128 MB SDRAM	
		packet buffer size: 512 KB	
	Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	
	Performance	100 Mb Latency	<4.9 µs (64-byte packets)
		1000 MB latency	<2.9 µs (64-byte packets)
		Throughput	up to 13 million pps (64-byte packets)
		Switching capacity	17.6 Gbps
		MAC address table size	8000 entries
	Environment	Operating temperature	32°F to 113°F (0°C to 45°C)
		Operating relative humidity	15% to 95% @ 104°F (40°C), non-condensing
		Non-operating/ Storage temperature	-40°F to 158°F (-40°C to 70°C)
		Non-operating/ Storage relative humidity	15% to 90% @ 149°F (65°C), non-condensing

	Altitude	up to 15000 ft. (4.6 km)
	Acoustic	Power: 43.6 dB; DIN 45635T.19 per ISO 7779
Electrical characteristics	Maximum heat dissipation	92 BTU/hr (97 kJ/hr)
	Voltage	100-127 / 200-240 VAC
	Current	1.2 / 0.7 A
	Power consumption	27 W
	Frequency	50 / 60 Hz
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
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
	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3
	EFT/Burst	IEC 61000-4-4
	Surge	IEC 61000-4-5
	Conducted	IEC 61000-4-6
	Power frequency magnetic field	IEC 61000-4-8
	Voltage dips and interruptions	IEC 61000-4-11
	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
Management	HP ProCurve Manager Plus; HP ProCurve Manager; command-line interface; Web browser; out-of-band management	
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	Device Management HTML and telnet management 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 RFC 768 UDP RFC 783 TFTP Protocol (revision 2) RFC 792 ICMP RFC 793 TCP	

RFC 826 ARP
RFC 854 TELNET
RFC 951 BOOTP
RFC 1542 BOOTP Extensions
RFC 2030 Simple Network Time Protocol (SNTP) v4

IP Multicast
RFC 3376 IGMPv3

MIBs
RFC 1213 MIB II
RFC 1493 Bridge MIB
RFC 1573 SNMP MIB II
RFC 2021 RMONv2 MIB
RFC 2096 IP Forwarding Table MIB
RFC 2613 SMON MIB
RFC 2618 RADIUS Client MIB
RFC 2620 RADIUS Accounting MIB
RFC 2665 Ethernet-Like-MIB
RFC 2668 802.3 MAU MIB
RFC 2674 802.1p and IEEE 802.1Q Bridge MIB
RFC 2737 Entity MIB (Version 2)
RFC 2863 The Interfaces Group MIB

Network Management
IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
RFC 2819 Four groups of RMON:

- 1 (statistics), 2 (history), 3 (alarm) and 9 (events)

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

HP ProCurve Switch 2510G-24 (J9279A)	Ports	20 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: Auto-MDIX; Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only 1 RJ-45 serial console port 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)

Technical Specifications

Physical characteristics	Dimensions (DxWxH)	12.7 x 17.4 x 1.7 in. (32.26 x 44.2 x 4.32 cm) (1U height)
	Weight	7.21 lb. (3.27 kg)
Memory and processor	MIPS @ 264 MHz, 16 MB flash, 64 MB SDRAM	
	packet buffer size: 0.75 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)
	Throughput	up to 35.7 million pps
	Switching capacity	48 Gbps
	MAC address table size	8000 entries
Environment	Operating temperature	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	15% to 95% @ 104°F (40°C), non-condensing
	Non-operating/ Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/ Storage relative humidity	15% to 95% @ 149°F (65°C), non-condensing
	Altitude	up to 10000 ft. (3 km)
	Acoustic	Power: 40.3 dB
Electrical characteristics	Maximum heat dissipation	164 BTU/hr (173 kJ/hr)
	Voltage	100-127 / 200-240 VAC
	Current	1.0 A
	Power consumption	48 W
	Frequency	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
	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3
	EFT/Burst	IEC 61000-4-4
	Surge	IEC 61000-4-5
	Conducted	IEC 61000-4-6
	Power frequency magnetic field	IEC 61000-4-8
	Voltage dips and interruptions	IEC 61000-4-11
	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
Management	HP ProCurve Manager Plus; HP ProCurve Manager; command-line interface; Web browser; out-of-band management	

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	Device Management HTML and telnet management 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 RFC 768 UDP RFC 783 TFTP Protocol (revision 2) RFC 792 ICMP RFC 793 TCP RFC 826 ARP RFC 854 TELNET RFC 951 BOOTP RFC 1542 BOOTP Extensions RFC 2030 Simple Network Time Protocol (SNTP) v4 IP Multicast RFC 3376 IGMPv3 MIBs RFC 1213 MIB II RFC 1493 Bridge MIB RFC 1573 SNMP MIB II RFC 2021 RMONv2 MIB RFC 2096 IP Forwarding Table MIB RFC 2613 SMON MIB RFC 2618 RADIUS Client MIB RFC 2620 RADIUS Accounting MIB RFC 2665 Ethernet-Like-MIB RFC 2668 802.3 MAU MIB RFC 2674 802.1p and IEEE 802.1Q Bridge MIB RFC 2737 Entity MIB (Version 2) RFC 2863 The Interfaces Group MIB Network Management IEEE 802.1AB Link Layer Discovery Protocol (LLDP) RFC 2819 Four groups of RMON: • 1 (statistics), 2 (history), 3 (alarm) and 9 (events) 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
HP ProCurve Switch 2510G-48 (J9280A)	Ports		44 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: Auto-MDIX; Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only 1 RJ-45 serial console port 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)
	Physical characteristics	Dimensions (DxWxH)	12.7 x 17.4 x 1.7 in. (32.26 x 44.2 x 4.32 cm) (1U height)
		Weight	8.6 lb. (3.9 kg)
	Memory and processor		MIPS @ 264 MHz, 16 MB flash, 64 MB SDRAM packet buffer size: 1.5 MB
	Mounting		Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only
	Performance	Latency	< 5.4 µs (FIFO 64-byte packets)
		Throughput	up to 71.4 million pps
		Switching capacity	96 Gbps
		MAC address table size	8000 entries
	Environment	Operating temperature	32°F to 113°F (0°C to 45°C)
		Operating relative humidity	15% to 95% @ 104°F (40°C), non-condensing
		Non-operating/ Storage temperature	-40°F to 158°F (-40°C to 70°C)
		Non-operating/ Storage relative humidity	15% to 90% @ 149°F (65°C), non-condensing
		Altitude	up to 10000 ft. (3 km)
		Acoustic	Power: 40.5 dB
	Electrical characteristics (Achieved Miercom Certified Green Award)	Maximum heat dissipation	341 BTU/hr (360 kJ/hr)
		Voltage	100-127 / 200-240 VAC
		Current	1.5 A
		Power consumption	92 W
		Frequency	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
		ESD	IEC 61000-4-2
		Radiated	IEC 61000-4-3

	EFT/Burst	IEC 61000-4-4
	Surge	IEC 61000-4-5
	Conducted	IEC 61000-4-6
	Power frequency magnetic field	IEC 61000-4-8
	Voltage dips and interruptions	IEC 61000-4-11
	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3

Management
HP ProCurve Manager Plus; HP ProCurve Manager; command-line interface; Web browser; out-of-band management

Notes
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RFC 1573 SNMP MIB II
RFC 2021 RMONv2 MIB
RFC 2096 IP Forwarding Table MIB
RFC 2613 SMON MIB
RFC 2618 RADIUS Client MIB
RFC 2620 RADIUS Accounting MIB
RFC 2665 Ethernet-Like-MIB
RFC 2668 802.3 MAU MIB
RFC 2674 802.1p and IEEE 802.1Q Bridge MIB
RFC 2737 Entity MIB (Version 2)
RFC 2863 The Interfaces Group MIB

Network Management
IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
RFC 2819 Four groups of RMON:

- 1 (statistics), 2 (history), 3 (alarm) and 9 (events)

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

HP ProCurve Switch 2510 Series accessories

Transceivers	HP ProCurve 100-FX SFP-LC Transceiver	J9054B
	NEW HP ProCurve 100-BX-D SFP-LC Transceiver	J9099B
	NEW HP ProCurve 100-BX-U SFP-LC Transceiver	J9100B
Mini-GBICs	HP ProCurve Gigabit-SX-LC Mini-GBIC	J4858C
	HP ProCurve Gigabit-LX-LC Mini-GBIC	J4859C
	HP ProCurve Gigabit-LH-LC Mini-GBIC	J4860C
	HP ProCurve Gigabit 1000Base-T Mini-GBIC	J8177C
	HP ProCurve 1000-BX-D SFP-LC Mini-GBIC	J9142B
	HP ProCurve 1000-BX-U SFP-LC Mini-GBIC	J9143B
Software	HP ProCurve Manager 2.3	
HP ProCurve Switch 2510-48 (J9020A)		
	HP ProCurve Gigabit 1000Base-T Mini-GBIC	J8177C

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