ProCurve Networking
HP Innovation

ProCurve Switch 2510 Series

Designed to provide essential solutions to Small Business Networks, the 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 2510-24, a 24-port 10/100 switch with two dual-personality ports, the 2510 series has expanded to include a higher-density 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 4 dual-personality ports--ideal for businesses that are ready to upgrade to increased network performance.

ProCurve Switch 2510-24
(J9019B)

ProCurve Switch 2510-48
(J9020A)

ProCurve Switch 2510G-24
(J9279A)

ProCurve Switch 2510G-48
(J9280A)

hp invent

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

• **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

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

• **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

• **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

• **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

• **Guest VLAN:** Isolates guest and unauthorized users traffic to a separate VLAN

Convergence

• **IP multicast snooping:** automatically prevents flooding of IP multicast traffic

• **RADIUS VLAN for voice:** uses standard RADIUS attribute and LLDP-MED to automatically configure VLAN for IP phones

Quality of Service (QoS)

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

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

• **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, 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

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

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 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)
• 3-year, 24x7 SW phone support, software updates (UF792E)

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, 24x7 SW phone support, software updates (UF792E)

ProCurve Switch 2510G-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)
• 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)

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)

ProCurve Switch 2510 Series

ProCurve Switch 2510-24 (J9019B)

ProCurve Switch 2510-48 (J9020A)

Specifications

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	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 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	1 RJ-45 serial console port
		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
Physical characteristics		
Dimensions	9.3(d) x 17.42(w) x 1.73(h) in. (23.62 x 44.25 x 4.39 cm) (1U height)	9.3(d) x 17.42(w) x 1.73(h) in. (23.62 x 44.25 x 4.39 cm) (1U height)
Weight	4.89 lb. (2.22 kg), Fully loaded	6.05 lb. (2.74 kg), Fully loaded
Memory and processor		
Processor	MIPS 32 @ 264 MHz, 8 MB flash, 64 MB SDRAM; packet buffer size: 384 KB	MIPS 32 @ 300 MHz, 16 MB flash, 128 MB SDRAM; packet buffer size: 1 MB
Mounting		
	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	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)	< 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	8000 entries	8000 entries
Environment		
Operating temperature	32ºF to 113ºF (0ºC to 45ºC)	32ºF to 113ºF (0ºC to 45ºC)
Operating relative humidity	15% to 95% @ 104ºF (40ºC), non-condensing	15% to 95% @ 104ºF (40ºC), non-condensing
Non-operating/Storage temperature	-40ºF to 158ºF (-40ºC to 70ºC)	-40ºF to 158ºF (-40ºC to 70ºC)
Non-operating/Storage relative humidity	15% to 95% @ 149ºF (65ºC), non-condensing	15% to 90% @ 149ºF (65ºC), non-condensing
Altitude	up to 10000 ft. (3 km)	up to 15000 ft. (4.6 km)
Acoustic	Power: 0 dB no fan	Power: 43.6 dB; DIN 45635T.19 per ISO 7779
Electrical characteristics		

ProCurve Switch 2510 Series

Maximum heat dissipation	68 BTU/hr (71.74 kJ/hr)	92 BTU/hr (97 kJ/hr)
Voltage	100-127 / 200-240 VAC	100-127 / 200-240 VAC
Current	0.75 / 0.4 A	1.2 / 0.7 A
Power consumption	20 W	27 W
Frequency	50 / 60 Hz	50 / 60 Hz
Safety		
	cUL (CSA 22.2 No. 60950); UL 60950-1; IEC 60950; EN 60950	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	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	ProCurve Manager Plus; 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.	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.

ProCurve Switch 2510 Series

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

ProCurve Switch 2510 Series

ProCurve Switch 2510G-24 (J9279A)

ProCurve Switch 2510G-48 (J9280A)

Specifications

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	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	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)	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	12.7(d) x 17.4(w) x 1.7(h) in. (32.26 x 44.2 x 4.32 cm) (1U height)	12.7(d) x 17.4(w) x 1.7(h) in. (32.26 x 44.2 x 4.32 cm) (1U height)
Weight	7.21 lb. (3.27 kg)	8.6 lb. (3.9 kg)
Memory and processor		
Processor	MIPS @ 264 MHz, 16 MB flash, 64 MB SDRAM; packet buffer size: 0.75 MB	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	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	up to 71.4 million pps
Switching capacity	48 Gbps	96 Gbps
MAC address table size	8000 entries	8000 entries
Environment		
Operating temperature	32ºF to 113ºF (0ºC to 45ºC)	32ºF to 113ºF (0ºC to 45ºC)
Operating relative humidity	15% to 95% @ 104ºF (40ºC), non-condensing	15% to 95% @ 104ºF (40ºC), non-condensing
Non-operating/Storage temperature	-40ºF to 158ºF (-40ºC to 70ºC)	-40ºF to 158ºF (-40ºC to 70ºC)
Non-operating/Storage relative humidity	15% to 95% @ 149ºF (65ºC), non-condensing	15% to 90% @ 149ºF (65ºC), non-condensing
Altitude	up to 10000 ft. (3 km)	up to 10000 ft. (3 km)
Acoustic	Power: 40.3 dB	Power: 40.5 dB
Electrical characteristics		
Maximum heat dissipation	164 BTU/hr (173 kJ/hr)	341 BTU/hr (360 kJ/hr)
Voltage	100-127 / 200-240 VAC	100-127 / 200-240 VAC
Current	1.0 A	1.5 A
Power output	48 W	92 W
Frequency	50 / 60 Hz	50 / 60 Hz

ProCurve Switch 2510 Series

Safety		
	cUL (CSA 22.2 No. 60950); UL 60950-1; IEC 60950; EN 60950	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	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	ProCurve Manager Plus; 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.	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.

ProCurve Switch 2510 Series

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

Accessories

ProCurve Gigabit-SX-LC Mini-GBIC (J4858C)
A small form-factor pluggable (SFP) Gigabit SX transceiver that provides a full-duplex Gigabit solution up to 550 m on multimode fiber.

Ports
1 LC 1000Base-SX port (IEEE 802.3z Type 1000Base-SX)
Duplex: full only

Physical characteristics
Dimensions: 2.24(d) x 0.54(w) x 0.486(h) in. (5.69 x 1.37 x 1.23 cm)
Weight: 0.04 lb. (0.02 kg)

Cabling

Type:
• 62.5/125 µm or 50/125 µm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively

Maximum distance:
• 2-220 m (62.5 µm core diameter, 160 MHz*km bandwidth)• 2-275 m (62.5 µm core diameter, 200 MHz*km bandwidth)• 2-500 m (50 µm core diameter, 400 MHz*km bandwidth)• 2-550 m (50 µm core diameter, 500 MHz*km bandwidth)

ProCurve Gigabit-LX-LC Mini-GBIC (J4859C)
A small form-factor pluggable (SFP) Gigabit LX transceiver that provides a full-duplex Gigabit solution up to 10 km (singlemode) or 550 m (multimode).

Ports
1 LC 1000Base-LX port (IEEE 802.3z Type 1000Base-LX)
Duplex: full only

Physical characteristics
Dimensions: 2.24(d) x 0.54(w) x 0.486(h) in. (5.69 x 1.37 x 1.23 cm)
Weight: 0.04 lb. (0.02 kg)

Cabling

Type:
• Either single mode or multimode
• 62.5/125 µm or 50/125 µm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively
• Low metal content, single-mode fiber-optic, complying with ITU-T G.652 and ISO/IEC 793-2 Type B1

Maximum distance:
• 2-550 m (multimode 62.5 µm core diameter, 500 MHz*km bandwidth)• 2-550 m (multimode 50 µm core diameter, 400 MHz*km bandwidth)• 2-550 m (multimode 50 µm core diameter, 500 MHz*km bandwidth)• 2-10,000 m (singlemode fiber)

Notes
A mode conditioning patch cord may be needed in some multimode fiber installations.

ProCurve Gigabit-LH-LC Mini-GBIC (J4860C)
A small form-factor pluggable (SFP) Gigabit LH transceiver that provides a full-duplex Gigabit solution up to 70 km on singlemode fiber.

Ports
1 LC 1000Base-LH port (no IEEE standard exists for 1550 nm optics)
Duplex: full only

Physical characteristics
Dimensions: 2.17(d) x 0.60(w) x 0.46(h) in. (5.5 x 1.53 x 1.18 cm)
Weight: 0.04 lb. (0.02 kg)

Cabling

Type:
• Low metal content, single-mode fiber-optic, complying with ITU-T G.652 and ISO/IEC 793-2 Type B1

Maximum distance:
• 10-70,000 m (singlemode fiber)

Notes
For distances less than 20 km, a 10 dB attenuator must be used.

For distances between 20 km and 40 km, a 5 dB attenuator must be used.

Attenuators can be purchased from most cable vendors.

ProCurve Switch 2510 Series

ProCurve 100-FX SFP-LC Transceiver (J9054B)
A small form-factor pluggable (SFP) 100Base-FX transceiver that provides 100 Mbps full-duplex connectivity up to 2 km on multimode fiber.

Ports
1 LC 100Base-FX port (IEEE 802.3u Type 100Base-FX)
Duplex: half or full

Physical characteristics
Dimensions: 2.7(d) x 0.54(w) x 0.48(h) in. (6.86 x 1.38 x 1.22 cm)
Weight: 0.06 lb. (0.03 kg)

Environment
Operating temperature: 32ºF to 158ºF (0ºC to 70ºC)
Operating relative humidity: 5% to 95%
Non-operating/Storage temperature: -40ºF to 185ºF (-40ºC to 85ºC)
Non-operating/Storage relative humidity: 5% to 85%
Altitude: up to 10000 ft. (3 km)

Cabling

Type:
• 62.5/125 µm or 50/125 µm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively

Maximum distance:
• 2 km (full duplex) or 412 m (half duplex)

Notes
See the document titled "Support for the J9054B 100-FX SFP-LC Transceiver," located on the "ProCurve Mini-GBICs and SFPs" Manuals Web page, for supported platforms and minimum software requirements to support this product.

ProCurve Manager 2.3 (-)
Windows Server-based network management for ProCurve LAN products

System requirements

For networks having 50 to 250 managed devices, ProCurve recommends the following:
Minimum system hardware
2.0 GHz Intel Pentium 4 or equivalent processor
2 GB RAM memory
10 GB storage
1000 MB NIC
for PCM+ as a standalone application, assuming a dedicated server
Recommended system hardware
3.0 GHz Intel Pentium 4 or equivalent processor
3 GB RAM memory
40 GB storage
1000 MB NIC
for PCM+ assuming a dedicated server, and including ProCurve Identity Driven Manager, Mobility Manager, and Network Immunity Manager on the same server
Recommended software
Windows XP SP2
Windows XP Professional SP2
Microsoft Windows 2003 Server (32-bit)

For networks having 250 to 2,000 managed devices, ProCurve recommends the following:
Minimum system hardware
3.0 GHz Intel Pentium 4 or equivalent processor
3 GB RAM memory
40 GB storage
1000 MB NIC
for PCM+ as a standalone application, assuming a dedicated server
Recommended system hardware
Intel Xeon or equivalent processor
4 GB RAM memory
80 GB storage
1000 MB NIC
for PCM+ assuming a dedicated server, and including ProCurve Identity Driven Manager, Mobility Manager, and Network Immunity Manager on the same server
Recommended software
Windows XP SP2
Windows XP Professional SP2
Microsoft Windows 2003 Server (32-bit)

Browsers
Microsoft Internet Explorer version 5.0 or later

Supported platforms
HP OpenView Network Node Manager version 6.41 or 7.01 or 7.5 (optional)

Additional requirements
NOTE: ProCurve Network Immunity Manager when loaded on PCM+ 2.3 can sample up to 500 managed ports using sFlow or XRMON.

Notes
Unlimited license means that ProCurve does not impose a limit on the number of devices attached to the network as a condition of the license. Some degradation in performance may be expected the greater the number of devices attached to the network.

Specifications subject to change.

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