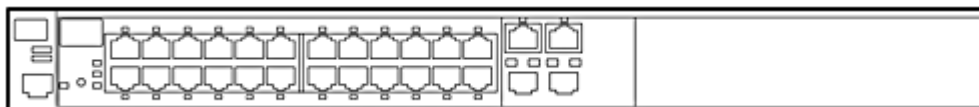


Overview



ProCurve Switch 2510-24

Models

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

Introduction

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.

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:** support up to two 10/100 trunks, each with four links/ports plus one Gigabit trunk (2510-24), up to 24 10/100 trunks with eight links/ports per trunk (2510-48), or support up to 24 trunks with eight links/ports per trunk (2510G switches)

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

Overview

- **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
- **BPDU port protection:** blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDUs 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 (data-driven IGMPv3):** automatically prevents flooding of IP multicast traffic (except 2510-24)

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)

Overview

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 |

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 |

Technical Specifications

ProCurve Switch 2510-24 Ports J9019B

| | |
|-----------------------------------|---|
| | 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 |
| 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 μ s (64-byte packets) 1000 MB latency <2.6 μ s (64-byte packets) Throughput up to 6.5 million pps (64-byte packets) Switching capacity 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 |
| 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 |

Technical Specifications

| | | |
|--------------------------------|---|--|
| | 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 | ProCurve Manager Plus; ProCurve Manager; command-line interface; Web browser; out-of-band management (serial RS-232C) | |
| 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)

Technical Specifications

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

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.

ProCurve Switch 2510-48 Ports (J9020A)

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

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 (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: 1 MB

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 μ s (64-byte packets)

1000 MB latency <2.6 μ s (64-byte packets)

Throughput up to 13 million pps (64-byte packets)

Routing/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

Technical Specifications

| | | | |
|----------------------------|--|---|---|
| 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 | |
| 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 | ProCurve Manager Plus; ProCurve Manager; command-line interface; Web browser; out-of-band management (serial RS-232C) | |
| | 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 | |

Technical Specifications

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

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.

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)

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

Technical Specifications

| | | |
|----------------------------|---|---|
| Performance | Latency | < 5.6 μ s (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) |
| Electrical characteristics | Acoustic | Power: 40.3 dB |
| | 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); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 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 | ProCurve Manager Plus; ProCurve Manager; command-line interface; Web browser; out-of-band management | |
| 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 | |

Technical Specifications

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

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.

ProCurve Switch 2510G- Ports
48 (J9280A)

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



Technical Specifications

| | | | | | | | | | | | | | | | |
|---|--|---------------------------------|--|------------------------------------|---|---|--------------------------------|---|---|------------------|------------------------|------------------|----------------|---------------------------------------|---------------|
| | 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 | <table border="0"> <tr> <td>Dimensions (DxWxH)</td> <td>12.7 x 17.4 x 1.7 in. (32.26 x 44.2 x 4.32 cm) (1U height)</td> </tr> <tr> <td>Weight</td> <td>8.6 lb. (3.9 kg)</td> </tr> </table> | 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) | | | | | | | | | | |
| 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 | <table border="0"> <tr> <td>Latency</td> <td>< 5.4 μs (FIFO 64-byte packets)</td> </tr> <tr> <td>Throughput</td> <td>up to 71.4 million pps</td> </tr> <tr> <td>Switching capacity</td> <td>96 Gbps</td> </tr> <tr> <td>MAC address table size</td> <td>8000 entries</td> </tr> </table> | Latency | < 5.4 μ s (FIFO 64-byte packets) | Throughput | up to 71.4 million pps | Switching capacity | 96 Gbps | MAC address table size | 8000 entries | | | | | | |
| Latency | < 5.4 μ s (FIFO 64-byte packets) | | | | | | | | | | | | | | |
| Throughput | up to 71.4 million pps | | | | | | | | | | | | | | |
| Switching capacity | 96 Gbps | | | | | | | | | | | | | | |
| MAC address table size | 8000 entries | | | | | | | | | | | | | | |
| Environment | <table border="0"> <tr> <td>Operating temperature</td> <td>32°F to 113°F (0°C to 45°C)</td> </tr> <tr> <td>Operating relative humidity</td> <td>15% to 95% @ 104°F (40°C), non-condensing</td> </tr> <tr> <td>Non-operating/ Storage temperature</td> <td>-40°F to 158°F (-40°C to 70°C)</td> </tr> <tr> <td>Non-operating/ Storage relative humidity</td> <td>15% to 90% @ 149°F (65°C), non-condensing</td> </tr> <tr> <td>Altitude</td> <td>up to 10000 ft. (3 km)</td> </tr> <tr> <td>Acoustic</td> <td>Power: 40.5 dB</td> </tr> </table> | 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 | | |
| 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 | <table border="0"> <tr> <td>Maximum heat dissipation</td> <td>341 BTU/hr (360 kJ/hr)</td> </tr> <tr> <td>Voltage</td> <td>100-127 / 200-240 VAC</td> </tr> <tr> <td>Current</td> <td>1.5 A</td> </tr> <tr> <td>Power consumption</td> <td>92 W</td> </tr> <tr> <td>Frequency</td> <td>50 / 60 Hz</td> </tr> </table> | 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 | | | | |
| 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); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 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 | <table border="0"> <tr> <td>Generic</td> <td>EN 55024, CISPR 24</td> </tr> <tr> <td>ESD</td> <td>IEC 61000-4-2</td> </tr> <tr> <td>Radiated</td> <td>IEC 61000-4-3</td> </tr> <tr> <td>EFT/Burst</td> <td>IEC 61000-4-4</td> </tr> <tr> <td>Surge</td> <td>IEC 61000-4-5</td> </tr> <tr> <td>Conducted</td> <td>IEC 61000-4-6</td> </tr> <tr> <td>Power frequency magnetic field</td> <td>IEC 61000-4-8</td> </tr> </table> | 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 |
| 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 | | | | | | | | | | | | | | |

Technical Specifications

| | | |
|--------------------------------|--|--|
| | 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 | ProCurve Manager Plus; ProCurve Manager; command-line interface; Web browser; out-of-band management | |
| 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: <ul style="list-style-type: none">• 1 (statistics), 2 (history), 3 (alarm) and 9 (events) SNMPv1/v2c/v3 |

Technical Specifications

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

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.

Accessories

| | | |
|--|---------------------------------|--|
| ProCurve Gigabit-SX-LC Mini-GBIC (J4858C) | Ports | 1 LC 1000Base-SX port (IEEE 802.3z Type 1000Base-SX) Duplex: full only |
| A small form factor pluggable (SFP) gigabit SX transceiver that provides a full-duplex gigabit solution up to 550 meters on multimode fiber. | Physical characteristics | Dimensions: (DxWxH) 2.24 x 0.54 x 0.486 in. (5.69 x 1.37 x 1.23 cm) Weight: 0.04 lb. (0.02 kg) |
| | Cabling | Type: <ul style="list-style-type: none">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: <ul style="list-style-type: none">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) | Ports | 1 LC 1000Base-LX port (IEEE 802.3z Type 1000Base-LX) Duplex: full only |
| 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). | Physical characteristics | Dimensions: (DxWxH) 2.24 x 0.54 x 0.486 in. (5.69 x 1.37 x 1.23 cm) Weight: 0.04 lb. (0.02 kg) |
| | Cabling | Type: <ul style="list-style-type: none">Either single mode or multimode62.5/125 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, respectivelyLow metal content, single-mode fiber-optic, complying with ITU-T G.652 and ISO/IEC 793-2 Type B1 Maximum distance: <ul style="list-style-type: none">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. |

Accessories

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| <p>ProCurve Gigabit-LH-LC Mini-GBIC (J4860C)</p> <p>A small form factor pluggable (SFP) gigabit LH transceiver that provides a full-duplex gigabit solution up to 70 km on singlemode fiber.</p> | <p>Ports</p> <p>1 LC 1000Base-LH port (no IEEE standard exists for 1550 nm optics) Duplex: full only</p> <p>Physical characteristics</p> <p>Dimensions: (DxWxH) 2.17 x 0.60 x 0.46 in. (5.5 x 1.53 x 1.18 cm)</p> <p>Weight: 0.04 lb. (0.02 kg)</p> <p>Cabling</p> <p>Type:</p> <ul style="list-style-type: none"> • Low metal content, single-mode fiber-optic, complying with ITU-T G.652 and ISO/IEC 793-2 Type B1 <p>Maximum distance:</p> <ul style="list-style-type: none"> • 10-70,000 m (singlemode fiber) <p>Notes</p> <p>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.</p> |
| <p>ProCurve 100-FX SFP-LC Transceiver (J9054B)</p> <p>A small form-factor pluggable (SFP) 100Base-FX transceiver that provides 100 Mbps full-duplex connectivity up to 2 km on multimode fiber.</p> | <p>Ports</p> <p>1 LC 100Base-FX port (IEEE 802.3u Type 100Base-FX) Duplex: half or full</p> <p>Physical Characteristics</p> <p>Dimensions: (DxWxH) 2.7 x 0.54 x 0.48in. (6.86 x 1.38 x 1.22 cm)</p> <p>Weight: 0.06 lb. (0.03 kg)</p> <p>Environment</p> <p>Operating temperature: 32°F to 158°F (0°C to 70°C)</p> <p>Operating relative humidity: 5% to 95%</p> <p>Non-operating/Storage temperature: -40°F to 185°F (-40°C to 85°C)</p> <p>Non-operating/Storage relative humidity: 5% to 85%</p> <p>Altitude: up to 10,000 ft. (3 km)</p> <p>Cabling</p> <p>Type:</p> <ul style="list-style-type: none"> • 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 <p>Maximum distance:</p> <ul style="list-style-type: none"> • 2 km (full duplex) or 412 m (half duplex) <p>Notes</p> <p>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.</p> |

Accessories

ProCurve Manager 2.3 (-) For networks having 50 to 250 managed devices, ProCurve recommends the following:

| | | |
|---|------------------------------------|--|
| Windows Server-based network management for ProCurve LAN products | 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 | Microsoft Windows 2003 Server Windows XP SP2 Windows XP Professional SP2 |

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 | Microsoft Windows 2003 Server Windows XP SP2 Windows XP Professional SP2 |
| | 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.

Accessories

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