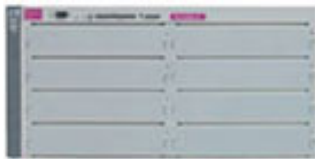


ProCurve Switch 5300xl Series

Designed to accommodate the most demanding network needs, the ProCurve Switch 5300xl series offers scalable Layer 2, 3, and 4 switching in compact 4- or 8-slot modular form factors. These secure, convergence-ready switches provide flexibility, high port density, free software updates, and a lifetime warranty. The easy-to-use ProCurve Switch 5300xl series provides third-generation ASIC technology, with excellent investment protection and return on IT.



ProCurve Switch 5308xl
(J4819A)



ProCurve Switch 5372xl
(J4848B)



ProCurve Switch 5348xl
(J4849B)



ProCurve Switch 5304xl
(J4850A)

ProCurve Switch 5300xl Series

Features and benefits

Performance

- **Architecture:** up to 76.8 Gbps crossbar switching fabric provides wire-speed intra- and inter-module switching with up to 48 million pps throughput built on ProCurve custom-designed ASIC technology

Resiliency and high availability

- **Router redundancy (XRRP):** allows groups of two routers to dynamically back each other up to create highly available routed environments
- **IEEE 802.1s Multiple Spanning Tree:** provides high link availability in multiple VLAN environments by allowing multiple spanning trees
- **IEEE 802.1w Rapid Convergence Spanning Tree Protocol:** increases network uptime through faster recovery from failed links
- **IEEE 802.3ad Link Aggregation Control Protocol (LACP) and ProCurve trunking:** support up to 36 trunks, each with up to 8 links (ports) per trunk; trunking across modules is supported
- **Hot-swappable modules:** permit modules, mini-GBICs, and one of the power supplies in a redundant power supply configuration to be added or swapped without interrupting the network
- **Optional redundant power supply:** provides uninterrupted power; allows hot-swapping of one of the two supplies when installed

Layer 2 switching

- **ProCurve switch meshing:** dynamically load-balances across multiple active redundant links to increase available aggregate bandwidth
- **VLAN support and tagging:** support complete IEEE 802.1Q (4,096 VLAN IDs) and 256 VLANs simultaneously

- **IEEE 802.1v protocol VLANs:** isolate select non-IPv4 protocols automatically into their own VLANs

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

Layer 3 services

- **UDP helper function:** UDP broadcasts can be directed across router interfaces to specific IP unicast or subnet broadcast addresses and prevent server spoofing for UDP services such as DHCP

Layer 3 routing

- **Layer 3 IP routing:** provides routing of IP at media speed; supports static routes, RIP, RIPv2, and OSPF
- **OSPF-ECMP:** enables multiple equal-cost links in OSPF environment to increase link redundancy and scale bandwidth

Security

- **Virus throttling:** detects traffic patterns typical of WORM-type viruses and either throttles or entirely prevents the ability of the virus to spread across the routed VLANs, without requiring external appliances
- **ICMP throttling:** defeats ICMP denial-of-service attacks by enabling any switch port to automatically throttle ICMP traffic
- **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

ProCurve Switch 5300xl Series

the client's MAC address

- **Authentication flexibility:**

- **Multiple IEEE 802.1X users per port:** provides authentication of multiple IEEE 802.1X users per port; prevents user "piggybacking" on another user's IEEE 802.1X authentication

- **Concurrent IEEE 802.1X and Web or MAC authentication schemes per port:** switch port will accept any of IEEE 802.1X and either Web or MAC authentications

- **Access control lists (ACLs):** provide IP Layer 3 filtering based on source/destination IP address/subnet and source/destination TCP/UDP port number

- **Identity-driven ACL:** enables implementation of a highly granular and flexible access security policy specific to each authenticated network user

- **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

- **Source-port filtering:** allows only specified ports to communicate with each other

- **TACACS+:** eases switch management security administration by using a password authentication server

- **Secure Shell (SSHv2):** encrypts all transmitted data for secure, remote command-line interface (CLI) access over IP networks

- **Secure Sockets Layer (SSL):** encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch

- **Secure FTP:** allows secure file transfer to/from the switch; protects against unwanted file downloads or unauthorized copying of switch configuration file

- **Secure access to manage the ProCurve Switch 5300xl series:** all access methods--CLI, GUI, or

MIB--are securely encrypted through SSHv2, SSL, and/or SNMPv3

- **Switch management logon security:** can require either RADIUS or TACACS+ authentication for secure switch CLI logon

Convergence

- **IP multicast routing (PIM Dense):** routes IP multicast traffic using the PIM Dense routing protocol

- **IP multicast snooping and data-driven IGMP:** automatically prevents flooding of IP multicast traffic

- **LLDP-MED (Media Endpoint Discovery):** a standard extension of LLDP that stores values for parameters such as QoS and VLAN to automatically configure network devices such as IP phones

Quality of Service (QoS)

- **Layer 4 prioritization:** enables prioritization based on TCP/UDP port numbers

- **Traffic prioritization (IEEE 802.1p):** allows real-time traffic classification into 8 priority levels mapped to 4 queues

- **Class of Service (CoS):** sets the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), L3 protocol, TCP/UDP port number, source port, and DiffServ

- **Bandwidth shaping:**

- **Rate limiting:** per-port ingress-based enforced bandwidth maximums

- **Guaranteed minimums:** per-port, per-queue egress-based guaranteed bandwidth minimums

Manageability

- **User-driven port configuration support:** switch port configuration responds to RADIUS-stored user attributes for QoS and rate limiting when that user authenticates; these attributes are then

ProCurve Switch 5300xl Series

determined by the user, not the switch port

- **RMON, XRMON, and sFlow:** provide advanced monitoring and reporting capabilities for statistics, history, alarms, and events

- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP):** automated device discovery protocol for easy mapping by network management applications

- **Friendly port names:** allow assignment of descriptive names to ports

- **Auto-MDIX:** automatically adjusts for straight-through or crossover cables on all 10/100/1000 ports

- **Dual flash images:** provides independent primary and secondary OS and configuration files for backup while upgrading or fine-tuning the switch configuration

- **Multiple configuration files:** allow a config file to be stored for each flash image

- **Troubleshooting:** ingress/egress port monitoring enables network problem-solving

- **Custom banner:** displays security policy when users log in to the switch

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 5308xl

- 3-year, 4-hour onsite, 13x5 coverage for hardware (UE244E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (UE245E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UE246E)
- 3-year, 24x7 SW phone support, software updates (UF787E)

- Installation with minimum configuration, system-based pricing (U4828E)
- Installation with HP-provided configuration, system-based pricing (U4832E)

ProCurve Switch 5372xl

- 3-year, 4-hour onsite, 13x5 coverage for hardware (UE244E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (UE245E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UE246E)
- 3-year, 24x7 SW phone support, software updates (UF787E)
- Installation with minimum configuration, system-based pricing (U4828E)
- Installation with HP-provided configuration, system-based pricing (U4832E)

ProCurve Switch 5348xl

- 3-year, 4-hour onsite, 13x5 coverage for hardware (UE241E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (UE242E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UE243E)
- 3-year, 24x7 SW phone support, software updates (UE263E)
- Installation with minimum configuration, system-based pricing (U4828E)
- Installation with HP-provided configuration, system-based pricing (U4832E)

ProCurve Switch 5304xl

- 3-year, 4-hour onsite, 13x5 coverage for hardware (UE241E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (UE242E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UE243E)
- 3-year, 24x7 SW phone support, software updates (UE263E)
- Installation with minimum configuration, system-based pricing (U4828E)

ProCurve Switch 5300xl Series

- Installation with HP-provided configuration, system-based pricing (U4832E)

ProCurve Switch 5300xl Series



ProCurve Switch 5308xl (J4819A)



ProCurve Switch 5372xl (J4848B)

Specifications

Included accessories

3 ProCurve Switch xl 24-Port 10/100-TX Module (J4820B)

Ports

8 open module slots
Supports a maximum of 192 auto-sensing 10/100 ports or 128 auto-sensing 10/100/1000 ports

5 open module slots
Supports a maximum of 192 auto-sensing 10/100 ports or 128 auto-sensing 10/100/1000 ports
72 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

Power supplies

includes: 1 x J4839A
1 open power supply slots

includes: 1 x J4839A
1 open power supply slots

Physical characteristics

Dimensions 15.3(d) x 17.4(w) x 8.75(h) in. (38.86 x 44.2 x 22.23 cm) (5U height)

Dimensions 15.3(d) x 17.4(w) x 8.75(h) in. (38.86 x 44.2 x 22.23 cm) (5U height)

Weight 26.65 lb. (12.0 kg), Fully loaded

Weight 31.05 lb. (14.08 kg), Fully loaded

Memory and processor

Fabric Motorola PowerPC @ 200 MHz, 12 MB flash, 32 MB SDRAM; packet buffer size: 36 MB

Fabric Motorola PowerPC @ 200 MHz, 12 MB flash, 32 MB SDRAM

Module

ARM7 @ 66 MHz, 128 KB flash, 128 KB SRAM, 18 MB RDRAM; packet buffer size: 36 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 < 6 μ s (FIFO)

Latency < 6 μ s (FIFO)

Throughput up to 48 million pps

Throughput up to 48 million pps

Switch fabric speed 76.8 Gbps

Switch fabric speed 76.8 Gbps

Routing table size 10000 entries

Routing table size 10000 entries

Environment

Operating temperature 32°F to 104°F (0°C to 40°C)

Operating temperature 32°F to 104°F (0°C to 40°C)

Operating relative humidity 15% to 95% @ 104°F (40°C), non-condensing

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 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

Non-operating/Storage relative humidity 15% to 95% @ 149°F (65°C), non-condensing

Altitude up to 15000 ft. (4.6 km)

Altitude up to 15000 ft. (4.6 km)

Electrical characteristics

Maximum heat dissipation 2152 BTU/hr (2270 kJ/hr)

Maximum heat dissipation 2152 BTU/hr (2270 kJ/hr)

Voltage 100-127 / 200-240 VAC

Voltage 100-127 / 200-240 VAC

ProCurve Switch 5300xl Series

Current	8.2 / 3.8 A	8.2 / 3.8 A
Power consumption	630 W	630 W
Frequency	50 / 60 Hz	50 / 60 Hz
Safety		
	cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition	cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition
Emissions		
	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A
Immunity		
EN	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2; 4 kV CD, 8 kV AD	IEC 61000-4-2; 4 kV CD, 8 kV AD
Radiated	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m
EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
Surge	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC
Conducted	IEC 61000-4-6; 3 V	IEC 61000-4-6; 3 V
Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
Voltage dips and interruptions	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods
Harmonics	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 (included); command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)	ProCurve Manager Plus; ProCurve Manager (included); command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)

ProCurve Switch 5300xl Series

Standards and Protocols

Device Management

HTML and telnet management

General Protocols

IEEE 802.1D MAC Bridges

IEEE 802.1p Priority

IEEE 802.1Q VLANs

IEEE 802.1s Multiple Spanning Trees

IEEE 802.1w Rapid Reconfiguration of Spanning Tree

IEEE 802.3ad Link Aggregation

Control Protocol (LACP)

IEEE 802.3af Power over

Ethernet

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 1058 RIPv1

RFC 1542 BOOTP Extensions

RFC 2030 Simple Network Time

Protocol (SNTP) v4

RFC 2131 DHCP

RFC 2453 RIPv2

RFC 3046 DHCP Relay Agent Information Option

IP Multicast

RFC 3376 IGMPv3

RFC 3973 PIM Dense Mode

MIBs

RFC 1213 MIB II

RFC 1493 Bridge MIB

RFC 1724 RIPv2 MIB

RFC 1850 OSPFv2 MIB

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)

RFC 3176 sFlow

ANSI/TIA-1057 LLDP Media

Endpoint Discovery (LLDP-MED)

SNMPv1/v2c/v3

XRMON

OSPF

RFC 2328 OSPFv2

QoS/Cos

RFC 2474 DiffServ Precedence, including 8 queues/port

RFC 2597 DiffServ Assured

Forwarding (AF)

RFC 2598 DiffServ Expedited

Forwarding (EF)

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 5300xl Series



ProCurve Switch 5348xl (J4849B)



ProCurve Switch 5304xl (J4850A)

Specifications

Included accessories

2 ProCurve Switch xl 24-Port 10/100-TX Module (J4820B)

Ports

2 open module slots
 48 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
 Supports a maximum of 96 auto-sensing 10/100 ports or 64 auto-sensing 10/100/1000 ports

4 open module slots
 Supports a maximum of 96 auto-sensing 10/100 ports or 64 auto-sensing 10/100/1000 ports

Power supplies

includes: 1 x J4839A
 1 open power supply slots

includes: 1 x J4839A
 1 open power supply slots

Physical characteristics

Dimensions 15.3(d) x 17.4(w) x 5.25(h) in. (38.86 x 44.2 x 13.34 cm) (3U height)
 Weight 24.65 lb. (11.2 kg), Fully loaded

Dimensions 15.3(d) x 17.4(w) x 5.25(h) in. (38.86 x 44.2 x 13.34 cm) (3U height)
 Weight 21.71 lb. (9.85 kg), Fully loaded

Memory and processor

Fabric Motorola PowerPC @ 200 MHz, 12 MB flash, 32 MB SDRAM
 Module ARM7 @ 66 MHz, 128 KB flash, 128 KB SRAM, 18 MB RDRAM; packet buffer size: 36 MB

Motorola PowerPC @ 200 MHz, 12 MB flash, 32 MB SDRAM; packet buffer size: 36 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 < 6 μ s (FIFO)
 Throughput up to 24 million pps
 Switch fabric speed 38.4 Gbps
 Routing table size 10000 entries

< 6 μ s (FIFO)
 up to 24 million pps
 38.4 Gbps
 10000 entries

Environment

Operating temperature 32°F to 104°F (0°C to 40°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 15000 ft. (4.6 km)

32°F to 104°F (0°C to 40°C)
 15% to 95% @ 104°F (40°C), non-condensing
 -40°F to 158°F (-40°C to 70°C)
 15% to 95% @ 149°F (65°C), non-condensing
 up to 15000 ft. (4.6 km)

Electrical characteristics

Maximum heat dissipation 2152 BTU/hr (2270 kJ/hr)
 Voltage 100-127 / 200-240 VAC

2152 BTU/hr (2270 kJ/hr)
 100-127 / 200-240 VAC

ProCurve Switch 5300xl Series

Current	8.2 / 3.8 A	8.2 / 3.8 A
Power consumption	630 W	630 W
Frequency	50 / 60 Hz	50 / 60 Hz
Safety		
	cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition	cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition
Emissions		
	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A
Immunity		
EN	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2; 4 kV CD, 8 kV AD	IEC 61000-4-2; 4 kV CD, 8 kV AD
Radiated	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m
EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
Surge	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC
Conducted	IEC 61000-4-6; 3 V	IEC 61000-4-6; 3 V
Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
Voltage dips and interruptions	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods
Harmonics	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 (included); command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)	ProCurve Manager Plus; ProCurve Manager (included); command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)

ProCurve Switch 5300xl Series

Standards and Protocols

Device Management

HTML and telnet management

General Protocols

IEEE 802.1D MAC Bridges

IEEE 802.1p Priority

IEEE 802.1Q VLANs

IEEE 802.1s Multiple Spanning Trees

IEEE 802.1w Rapid Reconfiguration of Spanning Tree

IEEE 802.3ad Link Aggregation Control Protocol (LACP)

IEEE 802.3af Power over Ethernet

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 1058 RIPv1

RFC 1542 BOOTP Extensions

RFC 2030 Simple Network Time Protocol (SNTP) v4

RFC 2131 DHCP

RFC 2453 RIPv2

RFC 3046 DHCP Relay Agent Information Option

IP Multicast

RFC 3376 IGMPv3

RFC 3973 PIM Dense Mode

MIBs

RFC 1213 MIB II

RFC 1493 Bridge MIB

RFC 1724 RIPv2 MIB

RFC 1850 OSPFv2 MIB

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)

RFC 3176 sFlow

ANSI/TIA-1057 LLDP Media

Endpoint Discovery (LLDP-MED)

SNMPv1/v2c/v3

XRMON

OSPF

RFC 2328 OSPFv2

QoS/Cos

RFC 2474 DiffServ Precedence,

including 8 queues/port

RFC 2597 DiffServ Assured

Forwarding (AF)

RFC 2598 DiffServ Expedited

Forwarding (EF)

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 5300xl Series

Accessories

ProCurve Switch gl/xl/vl Redundant Power Supply (J4839A)

Redundant power supply for gl/xl/vl switches.

Physical characteristics

Dimensions: 7.9(d) x 6.3(w) x 5.0(h) in.
(20.07 x 16.0 x 12.7 cm)
Weight: 5.55 lb. (2.5 kg)

Electrical characteristics

Voltage: 100-127 / 200-240 VAC
Current: 8.2 / 3.8 A
Frequency: 50 / 60 Hz

Notes

For additional RPS specification information, see the data sheet for the product in which the RPS is being installed.

ProCurve 600 Redundant External Power Supply (J8168A)

The ProCurve 600 Redundant and External Power Supply (RPS/EPS) has 6 RPS ports and 2 EPS ports and supplies backup and Power over Ethernet power.

Ports

6 redundant power supply ports
Restrictions: Each port can provide redundant +12 V power to a connected switch; only one port can provide power at a given time
2 external power supply ports
Restrictions: Provides +50 VDC external PoE to up to two switch devices; provides max. of 408 W full power to one device, and half power (204 W each) if connected to two devices

Physical characteristics

Dimensions: 12.83(d) x 17.44(w) x 1.73(h) in. (32.59 x 44.3 x 4.39 cm) (1U height)
Weight: 11.78 lb. (5.34 kg), Fully loaded

Mounting

1U rack-mountable and wall-mountable enclosure using standard mounting hardware

Environment

Operating temperature: 32°F to 131°F (0°C to 55°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 15000 ft. (4.6 km)
Acoustic: Noise emission LwA=59.2 dB at virtual workspace, according to DIN 45635 T.19

Electrical characteristics

Description: The unit automatically adjusts to any voltage between 100-240 V and either 50 or 60 Hz
Voltage: 100-240 VAC
Current: 9 / 5 A
Power consumption: 800 W

RPS power: 180 W
PoE power: 408 W
Frequency: 50 / 60 Hz

Safety

CSA 22.2 No. 60950
EN 60950/IEC 60950
UL 60950

Emissions

FCC Class A
VCCI Class A
EN 55022/CISPR 22 Class A

Immunity

EN: EN 55024, CISPR 24
ESD: IEC 61000-4-2; 4 kV CD, 8 kV AD
Radiated: IEC 61000-4-3; 3 V/m
EFT/Burst: IEC 61000-4-4; 1.0 kV (power line), 0.05 kV (signal line)
Surge: IEC 61000-4-5; 1 kV/2 kV AC
Conducted: IEC 61000-4-6; 3 V
Power frequency magnetic field: IEC 61000-4-8; 1 A/m, 50 or 60 Hz
Voltage dips and interruptions: IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods
Harmonics: EN 61000-3-2, IEC 61000-3-2
Flicker: EN 61000-3-3, IEC 61000-3-3

Management

Provides information via port interfaces of attached devices

Notes

Supported devices
• ProCurve Switch 2600-PWR series, ProCurve Switch 2610 series, ProCurve Switch 2610-PWR series, ProCurve Switch 2800 series, ProCurve Switch 2810 series, ProCurve Switch 5300xl series, ProCurve Switch 3400cl series, ProCurve Switch 6400cl series, ProCurve Secure Router 7000dl series

ProCurve Switch 5300xl Series

ProCurve 610 External Power Supply (J8169A)

The ProCurve 610 External Power Supply (EPS) has 4 EPS ports and provides power to connected Switch xl 10/100-TX PoE modules.

Ports

4 external power supply ports
Restrictions: Provides +50 VDC external PoE power to up to four switch devices; each pair of EPS ports provides max. of 408 W full power to one device, and half power (204 W each) if connected to two devices; total 816 W of power

Physical characteristics

Dimensions: 19.02(d) x 17.3(w) x 1.73(h) in. (48.31 x 43.94 x 4.39 cm) (1U height)
Weight: 16.44 lb. (7.46 kg), Fully loaded

Mounting

1U rack-mountable and wall-mountable enclosure using standard mounting hardware

Environment

Operating temperature: 32°F to 122°F (0°C to 50°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 15000 ft. (4.6 km)
Acoustic: Noise emission LwA=58 dB at virtual workspace, according to DIN 45635 T.19

Electrical characteristics

Description: The unit automatically adjusts to any voltage between 110-240 V and either 50 or 60 Hz
Voltage: 110-240 VAC
Current: 11 / 6 A
Power consumption: 1000 W
PoE power: 816 W

Frequency: 50 / 60 Hz

Notes: For Japan, the unit only operates at 200 V, 50 Hz, and 6 A.

Safety

CSA 22.2 No. 60950
EN 60950/IEC 60950
UL 60950

Emissions

FCC Class A
VCCI Class A
EN 55022/CISPR 22 Class A

Immunity

EN: EN 55024, CISPR 24
ESD: IEC 61000-4-2; 4 kV CD, 8 kV AD
Radiated: IEC 61000-4-3; 3 V/m
EFT/Burst: IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
Surge: IEC 61000-4-5; 1 kV/2 kV AC
Conducted: IEC 61000-4-6; 3 V
Power frequency magnetic field: IEC 61000-4-8; 1 A/m, 50 or 60 Hz
Voltage dips and interruptions: IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods
Harmonics: EN 61000-3-2, IEC 61000-3-2
Flicker: EN 61000-3-3, IEC 61000-3-3

Management

Unmanaged power supply; provides information via LEDs or through port interfaces of attached devices

Notes

Supported devices: ProCurve Switch 2600-PWR series, ProCurve Switch 2610-PWR series, ProCurve Switch 5300xl series



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 Switch 5300xl Series



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 Wireless Services Module 12 RP License (J9002A)

The ProCurve Wireless Services Module 12 RP License provides support for 12 additional ProCurve radio ports on a Wireless Edge Services xl Module, for a maximum of 48 radio ports per module.

ProCurve Switch 5300xl Series



ProCurve Gigabit 1000Base-T Mini-GBIC (J8177B)
A small form-factor pluggable (SFP) Gigabit copper transceiver that provides a full-duplex Gigabit solution up to 100 m on Category 5 or better cable.

Ports

1 RJ-45 1000Base-T port (IEEE 802.3ab Type 1000Base-T)
Duplex: full only

Physical characteristics

Dimensions: 2.71(d) x 0.54(w) x 0.55(h) in. (6.88 x 1.37 x 1.4 cm)
Weight: 0.06 lb. (0.03 kg)

Cabling

Type:

- 1000Base-T: Category 5 (5E or better recommended), 100 Ω differential 4-pair unshielded twisted pair (UTP) or shielded twisted pair (STP) balanced, complying with IEEE 802.3ab 1000Base-T

Maximum distance:

- 100 m

Notes

When used in the ProCurve Switch gl 20-Port 10/100/1000 Module (J4908A), the J8177B mini-GBIC can be installed in either the upper or lower mini-GBIC port, but will block access to the other port.

See the document titled "Support for the J8177B 1000Base-T Mini-GBIC," on the "ProCurve Mini-GBICs and SFPs" Manuals Web page, for supported platforms and minimum software requirements to support this product.

The J8177B gigabit copper mini-GBIC is not supported on dual-personality ports.

Wireless Access Controllers



ProCurve Switch xl Access Controller Module (J8162A)

The ProCurve Switch xl Access Controller Module gives mobile users appropriate access to network services without compromising network security.

Physical characteristics

Dimensions: 8.97(d) x 8.0(w) x 1.75(h) in. (22.78 x 20.32 x 4.45 cm)
Weight: 1.9 lb. (0.86 kg)

Environment

Operating temperature: 41°F to 104°F (5°C to 40°C)
Operating relative humidity: 15% to 80% @ 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: 20% to 90% @ 149°F (65°C), non-condensing
Altitude: up to 15000 ft. (4.6 km)

Safety

EN 60950/IEC 60950
UL 60950

Emissions

EN 55022/CISPR 22 Class A

Immunity

EN: EN 55024, CISPR 24
ESD: IEC 61000-4-2
Radiated: IEC 61000-4-3
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

Features

Network
Network address translation
Custom NAT range

Port address translation
Real IP mode
HTTP/HTTP proxy support
DHCP client
DHCP server (in NAT mode)
DHCP relay (in Real IP mode)
VPN client compatibility: Certicom, Mac OS X, Microsoft, NetScreen, PGP, SafeNet
Security
MPPE 40, 128-bit encryption
Security
IKE and ESP tunnel mode
SHA-1, MD5, HMAC-SHA-1, HMAC-MD5
Diffie-Hellman, Groups 1, 2, 5
MS CHAP, MS CHAP v2
Session redirects
X.509 certificate support
Session timer
Linger timer
Roaming denial
Secure, Web-based GUI
CLI
System management
Remote CLI access via SSH
Secure, digitally signed software upgrades, TFTP, FTP, HTTP
System management
Centralized configuration backup and restore
SNMP MIB II compliant
Session logging
Syslog server interface
Session duration
Logging and monitoring
Logging and monitoring
Source/Destination address
Bytes transmitted/received

ProCurve Switch 5300xl Series

Wireless Access Controllers

ProCurve Wireless Edge Services xl Module (J9001A)

Working in conjunction with ProCurve radio ports, the ProCurve Wireless Edge Services xl Module provides centralized wireless LAN management of advanced wireless services, enabling a resilient, highly secure, mobile, multi-service network.

Physical characteristics

Dimensions: 8.97(d) x 8.0(w) x 1.75(h) in. (22.78 x 20.32 x 4.45 cm)
Weight: 1.9 lb. (0.86 kg)

Environment

Operating temperature: 41°F to 104°F (5°C to 40°C)
Operating relative humidity: 15% to 80% @ 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: 20% to 90% @ 149°F (65°C), non-condensing
Altitude: up to 15000 ft. (4.6 km)

Wireless interface

Microsoft Internet Explorer 5.5 or higher

Safety

EN 60950/IEC 60950
UL 60950

Emissions

EN 55022/CISPR 22 Class A

Immunity

EN: EN 55024, CISPR 24
ESD: IEC 61000-4-2
Radiated: IEC 61000-4-3
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

Standards and protocols

Device Management: RFC 2068 Hypertext Transfer Protocol -- HTTP/1.1
HTML and telnet management
General Protocols: IEEE 802.1p Priority
IEEE 802.1Q VLANs
RFC 768 UDP
RFC 783 TFTP Protocol (revision 2)
RFC 791 IP
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 854 TELNET

RFC 894 IP over Ethernet
RFC 959 File Transfer Protocol (FTP)
RFC 1541 DHCP
RFC 2030 Simple Network Time Protocol (SNTP) v4
RFC 2784 Generic Routing Encapsulation (GRE)
RFC 3046 DHCP Relay Agent Information Option
IPv6: RFC 3162 RADIUS and IPv6
MIBs: RFC 1213 MIB II
RFC 1493 Bridge MIB
Mobility: IEEE 802.11a High Speed Physical Layer in the 5 GHz Band
IEEE 802.11b Higher-Speed Physical Layer Extension in the 2.4 GHz Band
IEEE 802.11g Further Higher Data Rate Extension in the 2.4 GHz Band
IEEE 802.11i Medium Access Control (MAC) Security Enhancements
Network Management: RFC 3164 BSD syslog Protocol
RFC 3176 sFlow
SNMPv1/v2c/v3
Security: IEEE 802.1X Port Based Network Access Control
RFC 2138 RADIUS Authentication
RFC 2548 Microsoft Vendor-specific RADIUS Attributes
RFC 2809 L2TP Compulsory Tunneling via RADIUS
RFC 2865 RADIUS Authentication
RFC 2866 RADIUS Accounting
RFC 2867 RADIUS Accounting Modifications for Tunnel Protocol Support
RFC 2868 RADIUS Attributes for Tunnel Protocol Support
RFC 2869 RADIUS Extensions
RFC 2882 NAS Requirements: Extended RADIUS Practices
RFC 3576 Dynamic Authorization Extensions to RADIUS
RFC 3579 RADIUS Support For Extensible Authentication Protocol (EAP)
RFC 3580 IEEE 802.1X RADIUS
RFC 4590 RADIUS Extension for Digest Authentication
Secure Sockets Layer (SSL)
SSHv2 Secure Shell
WPA (Wi-Fi Protected Access)

xl Modules

ProCurve Switch 5300xl Series

xl Modules (continued)



ProCurve Switch xl 24-Port 10/100-TX Module (J4820B)

with 24 auto-sensing 10/100 ports

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

Physical characteristics

Dimensions: 8.97(d) x 8.0(w) x 1.75(h)
in. (22.78 x 20.32 x 4.45 cm)
Weight: 1.76 lb. (0.79 kg)

Cabling

Type:

- 10Base-T: Category 3 (or better) 100 Ω differential unshielded twisted pair (UTP) or shielded twisted pair (STP), complying with IEEE 802.3 Type 10Base-T
- 100Base-TX: Category 5 (or better), 100 Ω differential unshielded twisted pair (UTP) or shielded twisted pair (STP), complying with IEEE 802.3u 100Base-TX

Maximum distance:

- 100 m



ProCurve Switch xl 4-Port 100/1000-T Module (J4821B)

with 4 auto-sensing 100/1000 ports

Ports

4 RJ-45 auto-sensing 100/1000 ports (IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T)

Media Type: Auto-MDIX
Duplex: 100Base-TX: half or full;
1000Base-T: full only

Physical characteristics

Dimensions: 8.97(d) x 8.0(w) x 1.75(h)
in. (22.78 x 20.32 x 4.45 cm)
Weight: 1.5 lb. (0.68 kg)

Cabling

Type:

- 100Base-TX: Category 5 (or better), 100 Ω differential unshielded twisted pair (UTP) or shielded twisted pair (STP), complying with IEEE 802.3u 100Base-TX
- 1000Base-T: Category 5 (5E or better recommended), 100 Ω differential 4-pair unshielded twisted pair (UTP) or shielded twisted pair (STP) balanced, complying with IEEE 802.3ab 1000Base-T

Maximum distance:

- 100 m



ProCurve Switch xl 4-Port Mini-GBIC Module (J4878B)

with 4 open mini-GBIC slots

Ports

4 open mini-GBIC (SFP) slots

Physical characteristics

Dimensions: 8.97(d) x 8.0(w) x 1.75(h)
in. (22.78 x 20.32 x 4.45 cm)
Weight: 1.44 lb. (0.65 kg)

Notes

Other mini-GBICs supported

- J4858A ProCurve Gigabit-SX-LC Mini-GBIC
- J4859A ProCurve Gigabit-LX-LC Mini-GBIC
- J4860A ProCurve Gigabit-LH-LC Mini-GBIC

Maximum distance:

- 100 m



ProCurve Switch xl 12-Port 100-FX MTRJ Module (J4852A)

with 12 100Base-FX MTRJ ports

Ports

12 100Base-FX ports (IEEE 802.3u Type 100Base-FX)

Duplex: half or full

Physical characteristics

Dimensions: 8.97(d) x 8.0(w) x 1.75(h)
in. (22.78 x 20.32 x 4.45 cm)
Weight: 1.8 lb. (0.81 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 km (full duplex) or 412 m (half duplex)



ProCurve Switch xl 24-Port 10/100-TX PoE Module (J8161A)
with 24 auto-sensing 10/100 IEEE 802.3af PoE-ready ports

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

Physical characteristics
Dimensions: 8.97(d) x 8.0(w) x 1.75(h)

in. (22.78 x 20.32 x 4.45 cm)
Weight: 2.2 lb. (1 kg)

Notes
Requires ProCurve 600 EPS/RPS or 610 EPS to supply PoE power



ProCurve Switch xl 16-Port 10/100/1000 Module (J4907A)
with 14 auto-sensing 10/100/1000 ports and 2 dual-personality ports (10/100/1000 or mini-GBIC)

Ports
14 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 RJ-45 dual-personality ports

Ports
14 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 RJ-45 dual-personality ports

Physical characteristics
Dimensions: 8.98(d) x 7.99(w) x 1.75(h)

in. (22.8 x 20.3 x 4.45 cm)
Weight: 1.55 lb. (0.7 kg)

Cabling

Type:
• 10Base-T: Category 3 (or better) 100 Ω differential unshielded twisted pair (UTP) or shielded twisted pair (STP), complying with IEEE 802.3 Type 10Base-T
• 100Base-TX: Category 5 (or better), 100 Ω differential unshielded twisted pair (UTP) or shielded twisted pair (STP), complying with IEEE 802.3u 100Base-TX
• 1000Base-T: Category 5 (5E or better recommended), 100 Ω differential 4-pair unshielded twisted pair (UTP) or shielded twisted pair (STP) balanced, complying with IEEE 802.3ab 1000Base-T



ProCurve Switch xl 1-Port 10-GbE X2 Module (J8988A)
1-port 10-GbE X2 module for xl series switches

Ports
1 open 10-GbE X2 transceiver slot

Physical characteristics
Dimensions: 8.97(d) x 8(w) x 1.75(h) in. (22.78 x 20.32 x 4.45 cm)
Weight: 1 lb. (0.45 kg)

Environment
Operating temperature: 32°F to 104°F (0°C to 40°C)

Notes
Expected throughput is 2.5 to 7 Gbps, depending on packet size. Traffic from single MAC SA to single MAC DA will be at most 1 Gbps. The 5300xl chassis can support up to 4 modules. 2 10G ports can be trunked together, cannot include other port speeds.