

## ProCurve Switch 2600 Series

The ProCurve Switch 2600 series is a collection of low-cost, stackable, multi-layer, managed switches with 48, 24, or 8 auto-sensing 10/100 ports and dual-personality ports for 10/100/1000 or mini-GBIC connectivity. The ProCurve Switch 2650-PWR, 2626-PWR, and 2600-8-PWR are IEEE 802.3af-compliant for Power over Ethernet and provide up to 15.4 W per port. A redundant external power supply is also available as an accessory.



ProCurve Switch 2650  
(J4899C)



ProCurve Switch 2650-PWR  
(J8165A)



ProCurve Switch 2626  
(J4900C)



ProCurve Switch 2626-PWR  
(J8164A)



ProCurve Switch 2600-8-PWR  
with Gigabit Uplink (J8762A)

# ProCurve Switch 2600 Series

## Features and benefits

### Connectivity

- **Dual-personality functionality:** two 10/100/1000 ports or mini-GBIC slots for optional fiber connectivity such as Gigabit-SX, -LX, or -LH
- **Power over Ethernet (IEEE 802.3af) compliant (ProCurve 2650-PWR, ProCurve 2626-PWR, ProCurve 2600-8-PWR):** provides up to 15.4 W per port to power IP phones, wireless access points, Web cameras, and more (ProCurve 2650-PWR may require an external power supply to provide full 15.4 W for all 48 PoE-ready ports)

### Performance

- **13.6 Gbps (ProCurve 2650 and 2650-PWR)/9.6 Gbps (ProCurve 2626, 2626-PWR, 2600-8-PWR) backplane:** wire-speed non-blocking architecture for low-latency throughput

### Resiliency and high availability

- **IEEE 802.3ad Link Aggregation Control Protocol (LACP) and ProCurve trunking:** support for up to 6 trunks, each with up to 8 links (ports) per trunk; trunking across modules is supported
- **Spanning Tree Protocol (IEEE 802.1D):** provides redundant links while preventing network loops
- **IEEE 802.1w Rapid Convergence Spanning Tree Protocol:** increases network uptime through faster recovery from failed links
- **IEEE 802.1s Multiple Spanning Tree:** provides high link availability in multiple VLAN environments by allowing multiple spanning trees
- **Optional external redundant power supply (ProCurve 2650-PWR, ProCurve 2626-PWR, ProCurve 2600-8-PWR):** provides uninterrupted power; sold as an accessory

## Layer 2 switching

- **VLAN support and tagging:** support complete IEEE 802.1Q (4,096 VLAN IDs) and 253 VLANs simultaneously
- **GARP VLAN Registration Protocol:** allows automatic learning and dynamic assignment of VLANs

## Layer 3 routing

- **Basic IP routing:** enables automatic routing to the connected VLANs and up to 16 static routes--including one default route--in IP networks

## Security

- **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
  - **IP lockdown:** only allows traffic from a specific IP address to be forwarded
  - **Dynamic ARP protection:** blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or data theft of network data
  - **Multiple user authentication methods:**
    - **IEEE 802.1X:** industry-standard way of user authentication using an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server
    - **Web-based authentication:** similar to IEEE 802.1X, provides a browser-based environment to authenticate clients that do not support the IEEE 802.1X supplicant
    - **MAC-based authentication:** client is authenticated with the RADIUS server based on client's MAC address
- NEW Authentication flexibility:**
- **Multiple IEEE 802.1X users per port:** provides authentication of up to 8 IEEE 802.1X

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users per port; prevents user "piggybacking" on another user's IEEE 802.1X authentication

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

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

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

- **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

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

## Convergence

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

- **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)

- **Traffic prioritization (IEEE 802.1p):** allows real-time ProCurve Switch 2600 series 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

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

## Manageability

- **RMON:** provides advanced monitoring and reporting capabilities for statistics, history, alarms, and events

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

- **ProCurve/IEEE 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 files for backup while upgrading

- **Stacking capability:** single IP address management for a virtual stack of up to 16 switches, including the ProCurve 2500 series, 2510 series, 2600 series, 2800 series, 2810 series, 2900 series, 3400cl series, 3500yl series, 4200vl series, 6108, 6200yl-24G-mGBIC, and 6400cl series

- **Find-Fix-and-Inform:** finds and fixes common network problems automatically, then informs administrator

- **Troubleshooting:** ingress/egress port monitoring enables network problem-solving (ProCurve Switch 2626 and 2626-PWR only)

- **Software updates:** free downloads from the Web

## 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 2600 Series

## **ProCurve Switch 2650**

- 3-year, 4-hour onsite, 13x5 coverage for hardware (H5481E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (U6303E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (U6302E)
- 3-year, 24x7 SW phone support, software updates (UE261E)
- Installation with minimum configuration, system-based pricing (U4826E)
- Installation with HP-provided configuration, system-based pricing (U4830E)

## **ProCurve Switch 2650-PWR**

- 3-year, 4-hour onsite, 13x5 coverage for hardware (H4496E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (H2893E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (U6319E)
- 3-year, 24x7 SW phone support, software updates (UE264E)
- Installation with minimum configuration, system-based pricing (U4826E)
- Installation with HP-provided configuration, system-based pricing (U4830E)

## **ProCurve Switch 2626**

- 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 2626-PWR**

- 3-year, 4-hour onsite, 13x5 coverage for

hardware (U2855E)

- 3-year, 4-hour onsite, 24x7 coverage for hardware (U2856E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (U6304E)
- 3-year, 24x7 SW phone support, software updates (UE262E)
- Installation with minimum configuration, system-based pricing (U4826E)
- Installation with HP-provided configuration, system-based pricing (U4830E)

## **ProCurve Switch 2600-8-PWR with Gigabit Uplink**

- 3-year, 4-hour onsite, 13x5 coverage for hardware (UD537E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (UD538E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UD539E)
- 3-year, 24x7 SW phone support, software updates (UF793E)
- Installation with minimum configuration, system-based pricing (U4826E)
- Installation with HP-provided configuration, system-based pricing (U4830E)

# ProCurve Switch 2600 Series



**ProCurve Switch 2650  
(J4899C)**

**ProCurve Switch 2650-PWR  
(J8165A)**

**ProCurve Switch 2626  
(J4900C)**

## Specifications

	ProCurve Switch 2650 (J4899C)	ProCurve Switch 2650-PWR (J8165A)	ProCurve Switch 2626 (J4900C)
<b>Ports</b>			
	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	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	24 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 RS-232C DB-9 console port	1 RS-232C DB-9 console port	1 RS-232C DB-9 console port
	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)	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)	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)
<b>Physical characteristics</b>			
Dimensions	12.8(d) x 17.32(w) x 1.75(h) in. (32.51 x 43.99 x 4.45 cm) (1U height)	18.03(d) x 17.42(w) x 1.75(h) in. (45.8 x 44.25 x 4.45 cm) (1U height)	12.8(d) x 17.32(w) x 1.73(h) in. (32.51 x 43.99 x 4.39 cm) (1U height)
Weight	9.78 lb. (4.44 kg), Fully loaded	16.31 lb. (7.4 kg), Fully loaded	9.15 lb. (4.15 kg), Fully loaded
<b>Memory and processor</b>			
Processor	Motorola PowerPC MPC8245 @ 266 MHz, 8 MB flash, 32 MB SDRAM	Motorola PowerPC MPC8245 @ 266 MHz, 8 MB flash, 32 MB SDRAM	Motorola PowerPC MPC8245 @ 266 MHz, 8 MB flash, 32 MB SDRAM
<b>Mounting</b>			
	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	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only
<b>Performance</b>			
Latency	< 13.3 $\mu$ s (LIFO)	< 12 $\mu$ s (LIFO)	< 13.3 $\mu$ s (LIFO)
Throughput	up to 10.1 million pps	up to 10.1 million pps	up to 6.6 million pps
Routing/Switching capacity	13.6 Gbps	13.6 Gbps	9.6 Gbps
MAC address table size	8000 entries	8000 entries	8000 entries
<b>Environment</b>			
Operating temperature	32°F to 131°F (0°C to 55°C)	32°F to 122°F (0°C to 50°C)	32°F to 122°F (0°C to 50°C)
Operating relative humidity	15% to 95% @ 104°F (40°C), non-condensing	15% to 95% @ 104°F (40°C), non-condensing	15% to 95% @ 104°F (40°C), non-condensing
Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Non-operating/Storage relative humidity	15% to 95% @ 149°F (65°C), non-condensing	15% to 95% @ 149°F (65°C), non-condensing	15% to 95% @ 149°F (65°C), non-condensing
Altitude	up to 15000 ft. (4.6 km)	up to 15000 ft. (4.6 km)	up to 15000 ft. (4.6 km)
Acoustic	Power: 50 dB; DIN 45635T.19 per ISO 7779	Power: 53 dB; DIN 45635T.19 per ISO 7779	Power: 50 dB; DIN 45635T.19 per ISO 7779

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## Electrical characteristics

Maximum heat dissipation	342 BTU/hr (360.81 kJ/hr)	2155 BTU/hr (2273.53 kJ/hr)	342 BTU/hr (360.81 kJ/hr)
Voltage	100-240 VAC	100-240 VAC	100-240 VAC
Current	1.5 A	7.5 / 3.5 A	1.5 A
Power consumption	100 W	631 W	100 W
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz

## Safety

CSA 22.2 No. 950; cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition; UL 60950	CSA 22.2 No. 950; cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition; UL 60950	CSA 22.2 No. 950; cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition; UL 60950
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## 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	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A
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## Immunity

Generic	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
EN	EN 55024, CISPR 24	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	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	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)	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	IEC 61000-4-5; 1 kV/2 kV AC
Conducted	IEC 61000-4-6; 3 V	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	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	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	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	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 Manager Plus; ProCurve Manager (included); command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)
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# ProCurve Switch 2600 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 1542 BOOTP Extensions

RFC 2030 Simple Network Time

Protocol (SNTP) v4

RFC 3046 DHCP Relay Agent

Information Option

### IP Multicast

RFC 2236 IGMPv2

### MIBs

RFC 1213 MIB II

RFC 1493 Bridge MIB

RFC 2021 RMONv2 MIB

RFC 2096 IP Forwarding Table

MIB

RFC 2613 SMON MIB

RFC 2618 RADIUS Client 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 3164 BSD syslog Protocol

ANSI/TIA-1057 LLDP Media

Endpoint Discovery (LLDP-MED)

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 2600 Series



**ProCurve Switch 2626-PWR (J8164A)**

**ProCurve Switch 2600-8-PWR with Gigabit Uplink (J8762A)**

## Specifications

### Ports

24 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 RS-232C DB-9 console port

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)

8 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 RS-232C DB-9 console port

1 dual-personality port; 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)

Supports a maximum of 8 auto-sensing 10/100 ports

### Physical characteristics

Dimensions 18.03(d) x 17.42(w) x 1.75(h) in. (45.8 x 44.25 x 4.45 cm) (1U height)

Weight 15.01 lb. (6.81 kg), Fully loaded

Dimensions 8.86(d) x 17.44(w) x 1.73(h) in. (22.5 x 44.3 x 4.39 cm) (1U height)

Weight 7.5 lb. (3.4 kg)

### Memory and processor

Processor Motorola PowerPC MPC8245 @ 266 MHz, 8 MB flash, 32 MB SDRAM

Processor Motorola PowerPC MPC8245 @ 266 MHz, 8 MB flash, 32 MB SDRAM

### 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 < 12  $\mu$ s (LIFO)

Throughput up to 6.6 million pps

Routing/Switching capacity 9.6 Gbps

MAC address table size 8000 entries

Latency < 12  $\mu$ s (LIFO)

Throughput up to 6.6 million pps

Routing/Switching capacity 9.6 Gbps

MAC address table size 8000 entries

### 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 Power: 53 dB; DIN 45635T.19 per ISO 7779

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 Power: 57 dB; DIN 45635T.19 per ISO 7779

### Electrical characteristics

Maximum heat dissipation 2155 BTU/hr (2273.53 kJ/hr)

Voltage 100-240 VAC

Current 7.5 / 3.5 A

649 BTU/hr (685 kJ/hr), including the switch and attached PoE devices; switch only: 228 BTU/hr (241 kJ/hr)

Voltage 100-240 VAC

Current 3.3 / 1.7 A

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Power consumption	631 W	190 W
Frequency	50 / 60 Hz	50 / 60 Hz
<b>Safety</b>		
	CSA 22.2 No. 950; cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition; UL 60950	CSA 22.2 No. 950; cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition; UL 60950
<b>Emissions</b>		
	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A
<b>Immunity</b>		
Generic	EN 55024, CISPR 24	EN 55024, CISPR 24
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
<b>Management</b>		
	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 2600 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 1542 BOOTP Extensions

RFC 2030 Simple Network Time Protocol (SNTP) v4

RFC 3046 DHCP Relay Agent Information Option

### IP Multicast

RFC 2236 IGMPv2

### MIBs

RFC 1213 MIB II

RFC 1493 Bridge MIB

RFC 2021 RMONv2 MIB

RFC 2096 IP Forwarding Table MIB

RFC 2613 SMON MIB

RFC 2618 RADIUS Client 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 3164 BSD syslog Protocol

ANSI/TIA-1057 LLDP Media

Endpoint Discovery (LLDP-MED)

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 2600 Series

## Accessories

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**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 meters 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  $\mu\text{m}$  or 50/125  $\mu\text{m}$  (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:  
• 220 m (62.5  $\mu\text{m}$  core diameter, 160 MHz\*km bandwidth)  
• 275 m (62.5  $\mu\text{m}$  core diameter, 200 MHz\*km bandwidth)  
• 500 m (50  $\mu\text{m}$  core diameter, 400 MHz\*km bandwidth)  
• 550 m (50  $\mu\text{m}$  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  $\mu\text{m}$  or 50/125  $\mu\text{m}$  (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:  
• 10 km (single mode) or 550 m (multimode)

**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:  
• 70 km

# ProCurve Switch 2600 Series

## 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 2800 series, ProCurve Switch 5300xl series, ProCurve Switch 3400cl series, ProCurve Switch 6400cl series, ProCurve Secure Router 7000dl series

# ProCurve Switch 2600 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 5300xl series

# ProCurve Switch 2600 Series

## 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

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

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## ProCurve Identity Driven Manager 2.2 base product--500-user license (J9012A)

ProCurve Identity Driven Manager is a plug-in to ProCurve Manager Plus that dynamically applies security and performance settings based on user, device, location, time, and client system state -- 500 user license

### System requirements

Please see ProCurve Manager Plus for system requirements.

### Required platforms

### Supported platforms

### RADIUS server support

Free RADIUS  
Funk Steelbelted RADIUS Server  
Microsoft IAS

### Features

Intuitive Explorer-style interface  
OpenView NNM integration  
Application of policies by user identity  
- Auto VLAN assignment

- Auto set quality of service by user
- Auto set bandwidth assignment by user
- Rule-based access rights deployment
- Dynamic rights assignment based on:
  - Time
  - Location
  - User system
- Auto-discovery of:
  - RADIUS servers
  - Realms
  - Users

### Notes

The base product for Identity Driven Manager allows for managing up to 500 users. Customers may add users in quantities of 2,000 by purchasing J9014A.

**ProCurve Identity Driven Manager 2.2 base product (upgrade from 1.0) (J9013A)**

Identity Driven Manager 2.2 500-user upgrade from 1.0 allows existing 1.0 customers to get the features of 2.0, with a 500-user limitation.

**System requirements**

Please see ProCurve Manager Plus for system requirements.

**Required platforms**

**Supported platforms**

**RADIUS server support**

FreeRADIUS (on Red Hat ES3 or ES4 or SuSe Linux 9)  
Funk Steelbeltd RADIUS Server  
Microsoft IAS

**Features**

Intuitive Explorer-style interface  
OpenView NNM integration  
Application of policies by user identity  
- Auto VLAN assignment

- Auto set quality of service by user
- Auto set bandwidth assignment by user
- Rule-based access rights deployment
- Dynamic rights assignment based on:
  - Time
  - Location
  - User system
- Auto-discovery of:
  - RADIUS servers
  - Realms
  - Users

**Notes**

This upgrade provides Identity Driven Manager 2.0, which allows for managing up to 500 users. Customers may add users in quantities of 2,000 by purchasing J9014A.

**ProCurve Identity Driven Manager 2.2--add 2,000 users license (J9014A)**

Adds support for 2,000 additional users to the base Identity Driven Manager 2.2 product

**System requirements**

This license adds support for an additional 2,000 users to the IDM base products of J9012A or J9013A

**Recommended software**

**Browsers**

**Required platforms**

**RADIUS server support**

Free RADIUS  
Funk Steelbeltd RADIUS Server  
Microsoft IAS

**Features**

Intuitive Explorer-style interface  
OpenView NNM integration  
Application of policies by user identity  
- Auto VLAN assignment  
- Auto set quality of service by user  
- Auto set bandwidth assignment by user  
Rule-based access rights deployment  
Dynamic rights assignment based on:

- Time
- Location
- User system

Auto-discovery of:

- RADIUS servers
- Realms
- Users

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