ProCurve Networking
HP Innovation

ProCurve Switch 4100gl Series

The ProCurve Switch 4100gl series is convergence-ready and easy to use, in compact 8-slot and 4-slot modular form factors. Based on ProCurve Fast Path Technology, these switches provide reliable, high-performance, high-density 10 Mbit, 100 Mbit, or Gigabit connectivity for a growing network. The ProCurve 4100gl series is the low-cost, modular alternative to stackable switches and includes a lifetime warranty.

ProCurve Switch
4104gl (J4887A)

ProCurve Switch
4108gl (J4865A)

ProCurve Switch 4108gl
bundle (J4861A)

ProCurve Switch
4140gl (J8151A)

ProCurve Switch
4148gl (J4888A)

ProCurve Switch
4160gl (J8152A)

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Features and benefits

- **Basic IP routing:** enables automatic routing to the connected VLANs and up to 16 static routes--including one default route--in IP networks
- **Traffic prioritization (802.1p):** allows real-time traffic classification into 8 priority levels mapped to 3 queues
- **Fast Path Technology:** wire-speed switching of intra-module traffic for up to 31.9 million pps throughput; fully loaded 8-slot chassis capable of switching 255 million pps
- **Fast switch fabric:** inter-module traffic switching of up to 2.97 million pps
- **Dual flash images:** provide independent primary and secondary OS files for backup while upgrading
- **VLAN support and tagging:** support complete 802.1Q (4,096 VLAN IDs) and 30 VLANs simultaneously
- **Group VLAN Registration Protocol (GVRP):** allows automatic learning and dynamic assignment of VLANs
- **802.1w Rapid Convergence Spanning Tree Protocol *:** increases network uptime through faster recovery from failed links
- **802.3ad Link Aggregation Control Protocol (LACP) and ProCurve trunking:** support up to 6 trunks, each with up to 4 links (ports) per trunk; trunking across modules is supported
- **Cisco Fast EtherChannel® (FEC):** supports Cisco's proprietary FEC trunking protocol
- **Port security:** prevents unauthorized access using MAC address lockdown
- **TACACS+:** eases switch management security administration by using a password authentication server
- **Secure Shell (SSHv2):** encrypts all transmitted data for secure CLI remote 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 access to manage the ProCurve 4100gl series:** all access methods--CLI, GUI, or MIB--are securely encrypted through SSHv2, SSL, and/or SNMPv3
- **Optional redundant power supply:** provides uninterrupted power and allows hot swapping one of the two supplies when installed
- **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
- **Friendly port names:** allows assignment of descriptive names to ports
- **RMON:** provides advanced monitoring and reporting capabilities for statistics, history, alarms, and events
- **ProCurve/IEEE Auto-MDIX:** automatically adjusts for straight-through or crossover cables on all 10/100/1000 ports
- **Stacking capability:** single IP address management for a virtual stack of up to 16 switches, including the ProCurve 2500 series, 2600 series, 2800 series, 3400cl series, 6108, 6400cl series, and 4100gl series
- **Lifetime warranty:** for as long as you own the product, with next-business-day advance replacement (available in most countries)

Services

ProCurve Switch 4104gl

- Installation with HP-provided configuration, system-based pricing (U4831A/E)
- 3-year, 4-hour onsite, 13x5 coverage for hardware (U2855A/E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware

(U2856A/E)

- Installation with minimum configuration, system-based pricing (U4827A/E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (U6304A/E)

ProCurve Switch 4108gl

- Installation with minimum configuration, system-based pricing (U4827A/E)
- 3-year, 4-hour onsite, 13x5 coverage for hardware (H4496A/E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (H2893A/E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (U6319A/E)

ProCurve Switch 4108gl bundle

- Installation with HP-provided configuration, system-based pricing (U4831A/E)
- Installation with minimum configuration, system-based pricing (U4827A/E)
- 3-year, 4-hour onsite, 13x5 coverage for hardware (H4496A/E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (H2893A/E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (U6319A/E)

ProCurve Switch 4140gl

- Installation with HP-provided configuration, system-based pricing (U4831A/E)
- 3-year, 4-hour onsite, 13x5 coverage for hardware (U2855A/E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (U2856A/E)
- Installation with minimum configuration, system-based pricing (U4827A/E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (U6304A/E)

ProCurve Switch 4148gl

- Installation with HP-provided configuration, system-based pricing (U4831A/E)
- 3-year, 4-hour onsite, 13x5 coverage for hardware (U2855A/E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (U2856A/E)
- Installation with minimum configuration, system-based pricing (U4827A/E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (U6304A/E)

ProCurve Switch 4160gl

- Installation with HP-provided configuration, system-based pricing (U4831A/E)
- Installation with minimum configuration, system-based pricing (U4827A/E)
- 3-year, 4-hour onsite, 13x5 coverage for hardware (H4496A/E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (H2893A/E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (U6319A/E)

ProCurve Switch 4100gl Series



Specifications

	ProCurve Switch 4104gl	ProCurve Switch 4108gl	ProCurve Switch 4108gl bundle
Ports	4 open module slots	8 open module slots	4 open module slots 72 10/100 ports 3 transceiver ports
Maximum ports	1 RS-232C DB-9 console port Supports a maximum of 96 10/100 ports or 80 Gigabit ports or 8 mini-GBICs.	1 RS-232C DB-9 console port Supports a maximum of 192 10/100 ports or 160 Gigabit ports or 16 mini-GBICs, or a combination	1 RS-232C DB-9 console port Supports a maximum of 192 10/100 ports or 160 Gigabit ports or 16 mini-GBICs, or a combination
Physical characteristics			
Dimensions	17.4(d) x 15.3(w) x 5.25(h) in. (44.2 x 38.86 x 13.34 cm) (3U height)	17.4(d) x 15.3(w) x 8.75(h) in. (44.2 x 38.86 x 22.23 cm) (5U height)	17.4(d) x 15.3(w) x 8.75(h) in. (44.2 x 38.86 x 22.23 cm) (5U height)
Weight	14.75 lb. (6.64 kg), fully loaded	20.7 lb. (9.32 kg), fully loaded	22.9 lb. (10.31 kg), fully loaded
Memory and processor			
Fabric Module	Motorola PowerPC @ 200 MHz, 8 MB flash, 32 MB SDRAM	Motorola PowerPC @ 200 MHz, 8 MB flash, 32 MB SDRAM	Motorola PowerPC @ 200 MHz, 8 MB flash, 32 MB SDRAM
Module	IDT MIPS32 @ 125 MHz, 512 KB flash Packet buffer size: 512 KB	IDT MIPS32 @ 125 MHz, 512 KB flash, 512 KB SRAM Packet buffer size: 1 MB	IDT MIPS32 @ 125 MHz, 512 KB flash, 512 KB SRAM Packet buffer size: 1 MB
SDRAM	8 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	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only
Performance			
Latency	< 10.2 µs (FIFO 64-byte packets)	< 10.2 µs (FIFO 64-byte packets)	< 10.2 µs (FIFO 64-byte packets)
Throughput	up to 35.7 million pps	up to 71.4 million pps	up to 71.4 million pps
Switch fabric speed	18.3 Gbps	36.6 Gbps	36.6 Gbps
Routing table size	8,000 entries	8,000 entries	8,000 entries
Environment			
Operating temperature	32 °F to 131 °F (0 °C to 55 °C)	32 °F to 131 °F (0 °C to 55 °C)	32 °F to 131 °F (0 °C to 55 °C)
Operating relative humidity	15 % to 95 % at 104 °F (40 °C), non-condensing	15 % to 95 % at 104 °F (40 °C), non-condensing	15 % to 95 % at 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 humidty	15 % to 95 % at 149 °F (65 °C), non-condensing	15 % to 95 % at 149 °F (65 °C), non-condensing	15 % to 95 % at 149 °F (65 °C), non-condensing
Altitude	up to 15,091 ft (4.6 km)	up to 15,091 ft (4.6 km)	up to 15,091 ft (4.6 km)
Electrical characteristics			
Maximum Heat Dissipation	2,152 BTU/hr	2,152 BTU/hr	2,152 BTU/hr
Voltage	100-127 VAC/200-240 VAC	100-127 VAC/200-240 VAC	100-127 VAC/200-240 VAC
Current	8.2 A /3.8 A	8.2 A /3.8 A	8.2 A /3.8 A
Power consumption	630 W	630 W	630 W
Frequency	50/60 Hz	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	cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition
Emissions	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A
Immunity			
EN	55024/CISPR-24	55024/CISPR-24	55024/CISPR-24

ProCurve Switch 4100gl Series

ESD	IEC 61000-4-2, 4kV CD, 8 kV AD	IEC 61000-4-2, 4kV CD, 8 kV AD	IEC 61000-4-2, 4kV CD, 8 kV AD
Radiated	IEC 61000-4-3, 3V/m	IEC 61000-4-3, 3V/m	IEC 61000-4-3, 3V/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, 3V	IEC 61000-4-6, 3V	IEC 61000-4-6, 3V
Power frequency magnetic field	IEC 61000-4-8, 1A/m, 50 or 60 Hz	IEC 61000-4-8, 1A/m, 50 or 60 Hz	IEC 61000-4-8, 1A/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)
Standards and protocols	RFC 783 TFTP; RFC 951 BootP; RFC 1542 BootP; RFC 854 Telnet; RFC 768 UDP; RFC 792 ICMP; RFC 793 TCP; RFC 826 ARP; RFC 2030 Simple Network Time Protocol; IEEE 802.3x Flow Control; DHCP Relay; RFC 2236 IGMP v1/v2/v3; IEEE 802.1D Spanning Tree; IEEE 802.1w Rapid Convergence Spanning Tree; IEEE 802.3ad Link Aggregation Control Protocol; Cisco Fast EtherChannel® (FEC); RFC 1492 TACACS+; RFC 2138 RADIUS; RFC 2866 RADIUS accounting; SSHv1/SSHv2 Secure Shell; Secure Sockets Layer (SSL); IEEE 802.1X Network Login; IEEE 802.1Q VLAN tagging; IEEE 802.1Q GVRP; IEEE 802.1p Priority; SNMPv1/v2c/v3; HTML and telnet management; RFC 1493 Bridge MIB; RFC 1213 MIB II; RFC 2096 IP Forwarding Table MIB; RFC 2737 Entity MIB; RFC 2863 Evolution of Interface; RFC 2665 Ethernet MIB; RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm), and 9 (events); RFC 2021 RMON probe configuration (RMON v2); RFC 2668 802.3 MAU MIB; RFC 2613 SMON; RFC 2674 802.1p and IEEE 802.1Q Bridge MIB; RFC 2618 RADIUS Client MIB; RFC 2620 RADIUS Accounting MIB	RFC 783 TFTP; RFC 951 BootP; RFC 1542 BootP; RFC 854 Telnet; RFC 768 UDP; RFC 792 ICMP; RFC 793 TCP; RFC 826 ARP; RFC 2030 Simple Network Time Protocol; IEEE 802.3x Flow Control; DHCP Relay; RFC 2236 IGMP v1/v2/v3; IEEE 802.1D Spanning Tree; IEEE 802.1w Rapid Convergence Spanning Tree; IEEE 802.3ad Link Aggregation Control Protocol; Cisco Fast EtherChannel® (FEC); RFC 1492 TACACS+; RFC 2138 RADIUS; RFC 2866 RADIUS accounting; SSHv1/SSHv2 Secure Shell; Secure Sockets Layer (SSL); IEEE 802.1X Network Login; IEEE 802.1Q VLAN tagging; IEEE 802.1Q GVRP; IEEE 802.1p Priority; SNMPv1/v2c/v3; HTML and telnet management; RFC 1493 Bridge MIB; RFC 1213 MIB II; RFC 2096 IP Forwarding Table MIB; RFC 2737 Entity MIB; RFC 2863 Evolution of Interface; RFC 2665 Ethernet MIB; RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm), and 9 (events); RFC 2021 RMON probe configuration (RMON v2); RFC 2668 802.3 MAU MIB; RFC 2613 SMON; RFC 2674 802.1p and IEEE 802.1Q Bridge MIB; RFC 2618 RADIUS Client MIB; RFC 2620 RADIUS Accounting MIB	RFC 783 TFTP; RFC 951 BootP; RFC 1542 BootP; RFC 854 Telnet; RFC 768 UDP; RFC 792 ICMP; RFC 793 TCP; RFC 826 ARP; RFC 2030 Simple Network Time Protocol; IEEE 802.3x Flow Control; DHCP Relay; RFC 2236 IGMP v1/v2/v3; IEEE 802.1D Spanning Tree; IEEE 802.1w Rapid Convergence Spanning Tree; IEEE 802.3ad Link Aggregation Control Protocol; Cisco Fast EtherChannel® (FEC); RFC 1492 TACACS+; RFC 2138 RADIUS; RFC 2866 RADIUS accounting; SSHv1/SSHv2 Secure Shell; Secure Sockets Layer (SSL); IEEE 802.1X Network Login; IEEE 802.1Q VLAN tagging; IEEE 802.1Q GVRP; IEEE 802.1p Priority; SNMPv1/v2c/v3; HTML and telnet management; RFC 1493 Bridge MIB; RFC 1213 MIB II; RFC 2096 IP Forwarding Table MIB; RFC 2737 Entity MIB; RFC 2863 Evolution of Interface; RFC 2665 Ethernet MIB; RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm), and 9 (events); RFC 2021 RMON probe configuration (RMON v2); RFC 2668 802.3 MAU MIB; RFC 2613 SMON; RFC 2674 802.1p and IEEE 802.1Q Bridge MIB; RFC 2618 RADIUS Client MIB; RFC 2620 RADIUS Accounting MIB

ProCurve Switch 4100gl Series



Specifications

	ProCurve Switch 4140gl	ProCurve Switch 4148gl	ProCurve Switch 4160gl
Ports	2 open module slots	2 open module slots	5 open module slots
		48 10/100 ports	
	40 10/100/1000 ports		60 10/100/1000 ports
	4 mini-GBIC slots		6 mini-GBIC slots
	1 RS-232C DB-9 console port	1 RS-232C DB-9 console port	1 RS-232C DB-9 console port
Maximum ports	Supports a maximum of 96 10/100 ports or 80 Gigabit ports or 8 mini-GBICs.	Supports a maximum of 96 10/100 ports or 80 Gigabit ports or 8 mini-GBICs.	Supports a maximum of 192 10/100 ports or 160 Gigabit ports or 16 mini-GBICs, or a combination
Physical characteristics			
Dimensions	17.4(d) x 15.3(w) x 5.25(h) in. (44.2 x 38.86 x 13.34 cm) (3U height)	17.4(d) x 15.3(w) x 5.25(h) in. (44.2 x 38.86 x 13.34 cm) (3U height)	17.4(d) x 15.3(w) x 8.75(h) in. (44.2 x 38.86 x 22.23 cm) (5U height)
Weight	22.9 lb. (10.31 kg), fully loaded	15.84 lb. (7.13 kg), fully loaded	30.6 lb. (13.77 kg), fully loaded
Memory and processor			
Fabric Module	Motorola PowerPC @ 200 MHz, 8 MB flash, 32 MB SDRAM	Motorola PowerPC @ 200 MHz, 8 MB flash, 32 MB SDRAM	Motorola PowerPC @ 200 MHz, 8 MB flash, 32 MB SDRAM
Module	IDT MIPS32 @ 125 MHz, 512 KB flash	IDT MIPS32 @ 125 MHz, 512 KB flash	IDT MIPS32 @ 125 MHz, 512 KB flash, 512 KB SRAM
	Packet buffer size: 512 KB	Packet buffer size: 512 KB	Packet buffer size: 1 MB
SDRAM	8 MB	8 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	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only
Performance			
Latency	< 10.2 µs (FIFO 64-byte packets)	< 10.2 µs (FIFO 64-byte packets)	< 10.2 µs (FIFO 64-byte packets)
Throughput	up to 35.7 million pps	up to 35.7 million pps	up to 71.4 million pps
Switch fabric speed	18.3 Gbps	18.3 Gbps	36.6 Gbps
Routing table size	8,000 entries	8,000 entries	8,000 entries
Environment			
Operating temperature	32 °F to 131 °F (0 °C to 55 °C)	32 °F to 131 °F (0 °C to 55 °C)	32 °F to 131 °F (0 °C to 55 °C)
Operating relative humidity	15 % to 95 % at 104 °F (40 °C), non-condensing	15 % to 95 % at 104 °F (40 °C), non-condensing	15 % to 95 % at 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 humidty	15 % to 95 % at 149 °F (65 °C), non-condensing	15 % to 95 % at 149 °F (65 °C), non-condensing	15 % to 95 % at 149 °F (65 °C), non-condensing
Altitude	up to 15,091 ft (4.6 km)	up to 15,091 ft (4.6 km)	up to 15,091 ft (4.6 km)
Electrical characteristics			
Maximum Heat Dissipation	2,152 BTU/hr	2,152 BTU/hr	2,152 BTU/hr
Voltage	100-127 VAC/200-240 VAC	100-127 VAC/200-240 VAC	100-127 VAC/200-240 VAC
Current	8.2 A /3.8 A	8.2 A /3.8 A	8.2 A /3.8 A
Power consumption	630 W	630 W	630 W
Frequency	50/60 Hz	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	cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition
Emissions	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A
Immunity			

EN	55024/CISPR-24	55024/CISPR-24	55024/CISPR-24
ESD	IEC 61000-4-2, 4kV CD, 8 kV AD	IEC 61000-4-2, 4kV CD, 8 kV AD	IEC 61000-4-2, 4kV CD, 8 kV AD
Radiated	IEC 61000-4-3, 3V/m	IEC 61000-4-3, 3V/m	IEC 61000-4-3, 3V/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, 3V	IEC 61000-4-6, 3V	IEC 61000-4-6, 3V
Power frequency magnetic field	IEC 61000-4-8, 1A/m, 50 or 60 Hz	IEC 61000-4-8, 1A/m, 50 or 60 Hz	IEC 61000-4-8, 1A/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)
Standards and protocols	RFC 783 TFTP; RFC 951 BootP; RFC 1542 BootP; RFC 854 Telnet; RFC 768 UDP; RFC 792 ICMP; RFC 793 TCP; RFC 826 ARP; RFC 2030 Simple Network Time Protocol; IEEE 802.3x Flow Control; DHCP Relay; RFC 2236 IGMP v1/v2/v3; IEEE 802.1D Spanning Tree; IEEE 802.1w Rapid Convergence Spanning Tree; IEEE 802.3ad Link Aggregation Control Protocol; Cisco Fast EtherChannel® (FEC); RFC 1492 TACACS+; RFC 2138 RADIUS; RFC 2866 RADIUS accounting; SSHv1/SSHv2 Secure Shell; Secure Sockets Layer (SSL); IEEE 802.1X Network Login; IEEE 802.1Q VLAN tagging; IEEE 802.1Q GVRP; IEEE 802.1p Priority; SNMPv1/v2c/v3; HTML and telnet management; RFC 1493 Bridge MIB; RFC 1213 MIB II; RFC 2096 IP Forwarding Table MIB; RFC 2737 Entity MIB; RFC 2863 Evolution of Interface; RFC 2665 Ethernet MIB; RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm), and 9 (events); RFC 2021 RMON probe configuration (RMON v2); RFC 2668 802.3 MAU MIB; RFC 2613 SMON; RFC 2674 802.1p and IEEE 802.1Q Bridge MIB; RFC 2618 RADIUS Client MIB; RFC 2620 RADIUS Accounting MIB	RFC 783 TFTP; RFC 951 BootP; RFC 1542 BootP; RFC 854 Telnet; RFC 768 UDP; RFC 792 ICMP; RFC 793 TCP; RFC 826 ARP; RFC 2030 Simple Network Time Protocol; IEEE 802.3x Flow Control; DHCP Relay; RFC 2236 IGMP v1/v2/v3; IEEE 802.1D Spanning Tree; IEEE 802.1w Rapid Convergence Spanning Tree; IEEE 802.3ad Link Aggregation Control Protocol; Cisco Fast EtherChannel® (FEC); RFC 1492 TACACS+; RFC 2138 RADIUS; RFC 2866 RADIUS accounting; SSHv1/SSHv2 Secure Shell; Secure Sockets Layer (SSL); IEEE 802.1X Network Login; IEEE 802.1Q VLAN tagging; IEEE 802.1Q GVRP; IEEE 802.1p Priority; SNMPv1/v2c/v3; HTML and telnet management; RFC 1493 Bridge MIB; RFC 1213 MIB II; RFC 2096 IP Forwarding Table MIB; RFC 2737 Entity MIB; RFC 2863 Evolution of Interface; RFC 2665 Ethernet MIB; RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm), and 9 (events); RFC 2021 RMON probe configuration (RMON v2); RFC 2668 802.3 MAU MIB; RFC 2613 SMON; RFC 2674 802.1p and IEEE 802.1Q Bridge MIB; RFC 2618 RADIUS Client MIB; RFC 2620 RADIUS Accounting MIB	RFC 783 TFTP; RFC 951 BootP; RFC 1542 BootP; RFC 854 Telnet; RFC 768 UDP; RFC 792 ICMP; RFC 793 TCP; RFC 826 ARP; RFC 2030 Simple Network Time Protocol; IEEE 802.3x Flow Control; DHCP Relay; RFC 2236 IGMP v1/v2/v3; IEEE 802.1D Spanning Tree; IEEE 802.1w Rapid Convergence Spanning Tree; IEEE 802.3ad Link Aggregation Control Protocol; Cisco Fast EtherChannel® (FEC); RFC 1492 TACACS+; RFC 2138 RADIUS; RFC 2866 RADIUS accounting; SSHv1/SSHv2 Secure Shell; Secure Sockets Layer (SSL); IEEE 802.1X Network Login; IEEE 802.1Q VLAN tagging; IEEE 802.1Q GVRP; IEEE 802.1p Priority; SNMPv1/v2c/v3; HTML and telnet management; RFC 1493 Bridge MIB; RFC 1213 MIB II; RFC 2096 IP Forwarding Table MIB; RFC 2737 Entity MIB; RFC 2863 Evolution of Interface; RFC 2665 Ethernet MIB; RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm), and 9 (events); RFC 2021 RMON probe configuration (RMON v2); RFC 2668 802.3 MAU MIB; RFC 2613 SMON; RFC 2674 802.1p and IEEE 802.1Q Bridge MIB; RFC 2618 RADIUS Client MIB; RFC 2620 RADIUS Accounting MIB

ProCurve Switch 4100gl Series

Accessories

ProCurve Gigabit 1000Base-T Mini-GBIC (J8177B)
Pluggable Gigabit transceiver (RJ-45) for up to 100m over Cat 5 cable or better.

Ports
Connectors: RJ-45
Duplex: full

Physical characteristics
Dimensions: 2.56 (d) x 0.55 (w) x 0.57 (h) in. (6.5 x 1.4 x 1.46 cm)
Weight: 0.05 lb. (0.02 kg)

Environment
Operating temperature: 32° to 158°F (0° to 70°C)
Operating relative humidity: 5% to 95%
Non-operating/Storage temperature -40° to 167°F (-40° to 75°C)
Non-operating/Storage relative humidity: 5% to 95%

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

Maximum Distance
100m

Notes
For use with J4885A, J4894A, J4878A, J4893A, J8684A, and J4908A.
When used in the ProCurve Switch gl 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.
Requires specific code version for support:
For use with 9300 series modules, requires code 7.08.00a or greater
For use with 5300 series modules, requires code E.09.11 or greater (excluding E.09.21)
For use with 4100 series modules, requires code G.07.69 or greater
Not supported on dual personality ports.

ProCurve Switch gl 20-Port 10/100/1000 Module (J4908A)
with 20 10/100/1000 ports and 2 mini-GBIC slots

Ports
2 open mini-GBIC slots
20 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T; 802.3u Type 100Base-TX; 802.3ab Type 1000Base-T)
ProCurve Auto-MDIX: yes
Connectors: RJ-45
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: 1.25 lb. (0.56 kg)

Mini-GBICs supported (ordered seperately)

ProCurve Gigabit-SX-LC Mini-GBIC
ProCurve Gigabit-LX-LC Mini-GBIC
ProCurve Gigabit-LH-LC Mini-GBIC
ProCurve Gigabit 1000Base-T Mini-GBIC

Cabling
10Base-T: Category 3 (or better) 100 ohm 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 ohm 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 ohm 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 4100gl Series

ProCurve Switch gl 6-Port Mini-GBIC Module (J4893A)
with 6 open mini-GBIC slots

Ports
6 open mini-GBIC 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: 0.96 lb. (0.43 kg)

Mini-GBICs supported (ordered seperately)
ProCurve Gigabit-SX-LC Mini-GBIC
ProCurve Gigabit-LX-LC Mini-GBIC
ProCurve Gigabit-LH-LC Mini-GBIC
ProCurve Gigabit 1000Base-T Mini-GBIC

ProCurve Switch gl 12-Port 100-FX MTRJ Module (J4892A)
with 12 100Base-FX MTRJ ports

Ports
12 100Base-FX ports (IEEE 802.3u Type 100Base-FX)
Connectors: MTRJ
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: 1.45 lb. (0.65 kg)

Cabling
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 gl Transceiver Module (J4864A)
with 3 open transceiver slots

Ports
3 open transceiver 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: 1.16 lb. (0.52 kg)

Transceivers supported (ordered seperately)
ProCurve Switch Gigabit Stacking Kit
ProCurve Gigabit-SX Transceiver
ProCurve Gigabit-LX Transceiver
ProCurve 100/1000-T Transceiver
ProCurve 100-FX SC Transceiver

ProCurve Switch gl 6-Port 100/1000-T Module (J4863A)
with 6 auto-sensing 100/1000 ports

Ports
6 auto-sensing 10/1000 ports (802.3u Type 100Base-TX; 802.3ab Type 1000Base-T)
ProCurve Auto-MDIX: yes
Connectors: RJ-45
Duplex: 100Base-TX: half or full
Duplex: 1000Base-T: 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: 1.0 lb. (0.45 kg)

Cabling
100Base-TX: Category 5 (or better), 100 ohm 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 ohm 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 4100gl Series

ProCurve Switch gl 24-Port 10/100-TX Module (J4862B)
with 24 auto-sensing 10/100 ports

Ports
24 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T; 802.3u Type 100Base-TX)
ProCurve Auto-MDIX: yes
Connectors: RJ-45
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: 1.24 lb. (0.56 kg)

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

Maximum Distance
100 m

ProCurve Switch gl/xl Redundant Power Supply (J4839A)
with 14 auto-sensing 10/100/1000 ports and 2 dual-personality ports (10/100/1000 or mini-GBIC

Physical characteristics
Dimensions: 7.9 (d) x 6.3 (w) x 5.0 (h) in. (20.07 x 16 x 12.7 cm)
Weight: 5.55 lb. (2.5 kg)

Electrical characteristics

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

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

ProCurve Gigabit-LH-LC Mini-GBIC (J4860B)
with one 1000Base-LH port

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

Physical characteristics

Dimensions: 2.28 (d) x 0.51 (w) x 0.51 (h) in. (5.79 x 1.3 x 1.3 cm)
Weight: 0.04 lb. (0.02 kg)

Cabling
9/125 µm (core/cladding) diameter, 1310 nm, 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 Gigabit-LX-LC Mini-GBIC (J4859B)
with one 1000Base-LX port

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

Physical characteristics
Dimensions: 2.28 (d) x 0.51 (w) x 0.51 (h) in. (5.79 x 1.3 x 1.3 cm)
Weight: 0.04 lb. (0.02 kg)

Cabling
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
9/125 µm (core/cladding) diameter, 1310 nm, 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 Switch 4100gl Series

ProCurve Gigabit-SX-LC Mini-GBIC (J4858B)
with one 1000Base-SX port

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

Physical characteristics
Dimensions: 2.28 (d) x 0.51 (w) x 0.51 (h) in. (5.79 x 1.3 x 1.3 cm)
Weight: 0.04 lb. (0.02 kg)

Cabling
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
220 m (62.5 µm core diameter, 160 MHz/km bandwidth)
275 m (62.5 µm core diameter, 200 MHz/km bandwidth)
500 m (50 µm core diameter, 400 MHz/km bandwidth)
550 m (50 µm core diameter, 500 MHz/km bandwidth)

ProCurve 100-FX SC Transceiver (J4853A)
with one 100Base-FX port

Ports
1 100Base-FX ports (IEEE 802.3u Type 100Base-FX)
Connectors: SC
Duplex: half or full (full duplex only when installed in
Duplex: unmanaged switches and 2500 series

Physical characteristics
Dimensions: 3.8 (d) x 2.05 (w) x 0.95 (h) in. (9.65 x 5.21 x 2.41 cm)
Weight: 0.09 lb. (0.04 kg)

Cabling
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 100/1000-T Transceiver (J4834A)
with one 100/1000 auto-sensing port

Ports
1 auto-sensing 10/1000 ports (802.3u Type 100Base-TX; 802.3ab Type 1000Base-T)
Connectors: RJ-45
Duplex: 100Base-TX: half or full
Duplex: 1000Base-T: full

Physical characteristics
Dimensions: 3.8 (d) x 2.05 (w) x 0.95 (h) in. (9.65 x 5.21 x 2.41 cm)
Weight: 0.11 lb. (0.05 kg)

Cabling
100Base-TX: Category 5 (or better), 100 ohm 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 ohm 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 4100gl Series

ProCurve Gigabit-LX Transceiver (J4132A)
with one 1000Base-LX port

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

Physical characteristics
Dimensions: 3.8 (d) x 2.05 (w) x 0.95 (h) in. (9.65 x 5.21 x 2.41 cm)
Weight: 0.09 lb. (0.04 kg)

Cabling
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
9/125 µm (core/cladding) diameter, 1310 nm, 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-SX Transceiver (J4131B)
with one 1000Base-SX port

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

Physical characteristics
Dimensions: 3.8 (d) x 2.05 (w) x 0.95 (h) in. (9.65 x 5.21 x 2.41 cm)
Weight: 0.09 lb. (0.04 kg)

Cabling
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
220 m (62.5 µm core diameter, 160 MHz/km bandwidth)
275 m (62.5 µm core diameter, 200 MHz/km bandwidth)
500 m (50 µm core diameter, 400 MHz/km bandwidth)
550 m (50 µm core diameter, 500 MHz/km bandwidth)

ProCurve Switch Gigabit Stacking Kit (J4116A)
with 2 Gigabit transceivers plus interconnecting cable

Ports
2 Gigabit transceivers (1 HSSDC port each)
Connectors: HSSDC
Duplex: full

Physical characteristics
Dimensions: 3.8 (d) x 2.05 (w) x 0.95 (h) in. (9.65 x 5.21 x 2.41 cm)
Weight: 0.09 lb. (0.04 kg)

Cabling
Included with product

Maximum Distance
23.5 inches