## ProCurve Switch 4100gl Series

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


ProCurve Switch 4104gl (J4887A)


ProCurve Switch 4140gl (J8151A)


ProCurve Switch 4160gl (J8152A)


ProCurve Switch 4108gl Bundle (J4861A)


ProCurve Switch 4148gl (J4888A)


ProCurve Switch 4108gl (J4865A)

## Features and benefits

## Performance

- 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


## Resiliency and high availability

- IEEE 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
- IEEE 802.1w Rapid Convergence Spanning Tree Protocol: increases network uptime through faster recovery from failed links
- Optional redundant power supply: provides uninterrupted power; allows hot-swapping of 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


## Layer 2 switching

- VLAN support and tagging: supports the IEEE 802.1Q (4,096 VLAN IDs) and 30 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
- IEEE 802.1X and RADIUS network login and OpenVLAN: control port-based access for authentication and accountability
- 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 management access: all access methods--CLI, GUI, or MIB--are securely encrypted through SSHv2, SSL, and/or SNMPv3


## Convergence

- IEEE 802.1AB Link Layer Discovery Protocol (LLDP): automated device discovery protocol for easy mapping by network management applications
- 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, 3400 cl series, 3500 yl series, 4200 vl series, $6108,6200 \mathrm{yl}-24 \mathrm{G}-\mathrm{mGBIC}$, and 6400 cl series


## Quality of Service (QoS)

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


## 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


## 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 4104gl

-3-year, 4-hour onsite, $13 \times 5$ coverage for hardware (UE241E)

- 3-year, 4-hour onsite, $24 \times 7$ coverage for hardware (UE242E)
- 3-year, 4-hour onsite, $24 \times 7$ coverage for hardware, $24 \times 7$ software phone support (UE243E)
-3-year, 24x7 SW phone support, software updates (UE263E)
- Installation with minimum configuration, system-based pricing (U4827E)
- Installation with HP-provided configuration, system-based pricing (U4831E)


## ProCurve Switch 4108gl Bundle

-3-year, 4-hour onsite, 13x5 coverage for hardware (UE244E)

- 3 -year, 4-hour onsite, $24 \times 7$ coverage for hardware (UE245E)
-3-year, 4-hour onsite, $24 \times 7$ coverage for hardware, $24 \times 7$ software phone support (UE246E)
-3-year, 24x7 SW phone support, software
updates (UF787E)
- Installation with minimum configuration, system-based pricing (U4827E)
- Installation with HP-provided configuration, system-based pricing (U4831E)


## ProCurve Switch 4140gl

-3-year, 4-hour onsite, $13 \times 5$ coverage for hardware (UE241E)
-3-year, 4-hour onsite, $24 \times 7$ coverage for hardware (UE242E)
-3-year, 4-hour onsite, $24 \times 7$ coverage for hardware, $24 \times 7$ software phone support (UE243E)

- 3-year, 24x7 SW phone support, software updates (UE263E)
- Installation with minimum configuration, system-based pricing (U4827E)
- Installation with HP-provided configuration, system-based pricing (U4831E)


## ProCurve Switch 4148gl

-3-year, 4-hour onsite, 13x5 coverage for hardware (UE241E)
-3-year, 4-hour onsite, $24 \times 7$ coverage for hardware (UE242E)

- 3 -year, 4-hour onsite, $24 \times 7$ coverage for hardware, $24 \times 7$ software phone support (UE243E)
-3-year, $24 \times 7$ SW phone support, software updates (UE263E)
- Installation with minimum configuration, system-based pricing (U4827E)
- Installation with HP-provided configuration, system-based pricing (U4831E)


## ProCurve Switch 4160gl

-3-year, 4-hour onsite, $13 \times 5$ coverage for hardware (UE244E)
-3-year, 4-hour onsite, $24 \times 7$ coverage for hardware (UE245E)
-3-year, 4-hour onsite, $24 \times 7$ coverage for hardware, $24 \times 7$ software phone support (UE246E)
-3-year, 24x7 SW phone support, software updates (UF787E)

- Installation with minimum configuration, system-based pricing (U4827E)


## ProCurve Switch 4100gl Series

- Installation with HP-provided configuration, system-based pricing (U4831E)


## ProCurve Switch 4108gl

-3-year, 4-hour onsite, $13 \times 5$ coverage for hardware (UE244E)

- 3-year, 4-hour onsite, $24 \times 7$ coverage for hardware (UE245E)
- 3 -year, 4-hour onsite, $24 \times 7$ coverage for hardware, 24x7 software phone support (UE246E)
-3-year, 24x7 SW phone support, software updates (UF787E)
- Installation with minimum configuration, system-based pricing (U4827E)
- Installation with HP-provided configuration, system-based pricing (U4831E)


## ProCurve Switch 4100gl Series



ProCurve Switch 4104gl (J4887A)


ProCurve Switch 4108gI Bundle (J4861A)


## ProCurve Switch 4140gl

 (J8151A)
## Specifications



## ProCurve Switch 4100gl Series

| Switch fabric speed | 18.3 Gbps | 36.6 Gbps | 18.3 Gbps |
| :---: | :---: | :---: | :---: |
| Routing table size | 8000 entries | 8000 entries | 8000 entries |
| Environment |  |  |  |
| Operating temperature | $32^{\circ} \mathrm{F}$ to $131^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.55^{\circ} \mathrm{C}\right)$ | $32^{\circ} \mathrm{F}$ to $131^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.55^{\circ} \mathrm{C}\right)$ | $32^{\circ} \mathrm{F}$ to $131^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.55^{\circ} \mathrm{C}\right)$ |
| Operating relative humidity | $15 \%$ to $95 \%$ @ $104^{\circ} \mathrm{F}\left(40^{\circ} \mathrm{C}\right)$, non-condensing | $15 \%$ to $95 \%$ @ $104^{\circ} \mathrm{F}\left(40^{\circ} \mathrm{C}\right.$ ), non-condensing | $15 \%$ to $95 \%$ @ $104^{\circ} \mathrm{F}\left(40^{\circ} \mathrm{C}\right)$, non-condensing |
| Non-operating/Storage temperature | $-40^{\circ} \mathrm{F}$ to $158^{\circ} \mathrm{F}\left(-40^{\circ} \mathrm{C}\right.$ to $70^{\circ} \mathrm{C}$ ) | $-40^{\circ} \mathrm{F}$ to $158^{\circ} \mathrm{F}\left(-40^{\circ} \mathrm{C}\right.$ to $70^{\circ} \mathrm{C}$ ) | $-40^{\circ} \mathrm{F}$ to $158{ }^{\circ} \mathrm{F}\left(-40^{\circ} \mathrm{C}\right.$ to $70^{\circ} \mathrm{C}$ ) |
| Non-operating/Storage relative humidity | $15 \%$ to $95 \%$ @ $149^{\circ} \mathrm{F}\left(65^{\circ} \mathrm{C}\right.$ ), non-condensing | $15 \%$ to $95 \%$ @ $149{ }^{\circ} \mathrm{F}\left(65^{\circ} \mathrm{C}\right.$ ), non-condensing | $15 \%$ to $95 \%$ @ $149^{\circ} \mathrm{F}\left(65^{\circ} \mathrm{C}\right)$, non-condensing |
| Altitude | up to 15091 ft . ( 4.6 km ) | up to 15091 ft . ( 4.6 km ) | up to 15091 ft . ( 4.6 km ) |
| Electrical characteristics |  |  |  |
| Maximum heat dissipation | 2152 BTU/hr (2270.36 kJ/hr) | 2152 BTU/hr (2270.36 kJ/hr) | $2152 \mathrm{BTU} / \mathrm{hr}$ (2270.36 kJ/hr) |
| Voltage | 100-127 / 200-240 VAC | 100-127 / 200-240 VAC | 100-127 / 200-240 VAC |
| Current | 8.2 / 3.8 A | 8.2 / 3.8 A | 8.2 / 3.8 A |
| Power consumption | 630 W | 630 W | 630 W |
| Frequency | $50 / 60 \mathrm{~Hz}$ | $50 / 60 \mathrm{~Hz}$ | $50 / 60 \mathrm{~Hz}$ |
| 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; 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 |
| Immunity |  |  |  |
| EN | EN 55024, CISPR 24 | EN 55024, CISPR 24 | EN 55024, CISPR 24 |
| ESD | IEC 61000-4-2; $4 \mathrm{kV} \mathrm{CD}, 8 \mathrm{kV} \mathrm{AD}$ | IEC 61000-4-2; $4 \mathrm{kV} \mathrm{CD}, 8 \mathrm{kV} \mathrm{AD}$ | IEC 61000-4-2; $4 \mathrm{kV} \mathrm{CD}, 8 \mathrm{kV} \mathrm{AD}$ |
| Radiated | IEC 61000-4-3; $3 \mathrm{~V} / \mathrm{m}$ | IEC 61000-4-3; $3 \mathrm{~V} / \mathrm{m}$ | IEC 61000-4-3; $3 \mathrm{~V} / \mathrm{m}$ |
| 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; $1 \mathrm{kV} / 2 \mathrm{kV} \mathrm{AC}$ | IEC 61000-4-5; $1 \mathrm{kV} / 2 \mathrm{kV} \mathrm{AC}$ | IEC 61000-4-5; $1 \mathrm{kV} / 2 \mathrm{kV} \mathrm{AC}$ |
| Conducted | IEC 61000-4-6; 3 V | IEC 61000-4-6; 3 V | IEC 61000-4-6; 3 V |
| Power frequency magnetic field | IEC $61000-4-8 ; 1 \mathrm{~A} / \mathrm{m}, 50$ or 60 Hz | IEC 61000-4-8; $1 \mathrm{~A} / \mathrm{m}, 50$ or 60 Hz | IEC 61000-4-8; $1 \mathrm{~A} / \mathrm{m}$, 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 Switch 4100gl Series

|  | 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 | General Protocols IEEE 802.1D MAC Bridges | RFC 2131 DHCP | RFC 2737 Entity MIB (Version 2) RFC 2863 The Interfaces Group |
|  | IEEE 802.1p Priority | IP Multicast | MIB |
|  | IEEE 802.1Q VLANs | RFC 3376 IGMPv3 |  |
|  | IEEE 802.1w Rapid |  | Network Management |
|  | Reconfiguration of Spanning Tree | MIBs | IEEE 802.1AB Link Layer |
|  | IEEE 802.3ad Link Aggregation | RFC 1213 MIB II | Discovery Protocol (LLDP) |
|  | Control Protocol (LACP) | RFC 1493 Bridge MIB | RFC 2665 Ethernet-Like-MIB |
|  | IEEE 802.3x Flow Control | RFC 2021 RMONv2 MIB | SNMPv1/v2c/v3 |
|  | RFC 768 UDP | RFC 2096 IP Forwarding Table |  |
|  | RFC 783 TFTP Protocol (revision | MIB | Security |
|  | 2) | RFC 2613 SMON MIB | IEEE 802.1X Port Based Network |
|  | RFC 792 ICMP | RFC 2618 RADIUS Client MIB | Access Control |
|  | RFC 793 TCP | RFC 2620 RADIUS Accounting | RFC 1492 TACACS+ |
|  | RFC 826 ARP | MIB | RFC 2138 RADIUS Authentication |
|  | RFC 854 TELNET | RFC 2665 Ethernet-Like-MIB | RFC 2866 RADIUS Accounting |
|  | RFC 951 BOOTP | RFC 2668 802.3 MAU MIB | Secure Sockets Layer (SSL) |
|  | RFC 1542 BOOTP Extensions | RFC 2674 802.1p and IEEE | SSHv1/SSHv2 Secure Shell |
|  | RFC 2030 Simple Network Time Protocol (SNTP) v4 | 802.1Q Bridge MIB |  |

## ProCurve Switch 4100gl Series

|  |
| :---: |



ProCurve Switch 4160gI (J8152A)


ProCurve Switch 4108g (J4865A)

## Specifications



## ProCurve Switch 4100gl Series

| Environment |  |  |  |
| :---: | :---: | :---: | :---: |
| Operating temperature | $32^{\circ} \mathrm{F}$ to $131^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.55^{\circ} \mathrm{C}\right)$ | $32^{\circ} \mathrm{F}$ to $131^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.55^{\circ} \mathrm{C}\right)$ | $32^{\circ} \mathrm{F}$ to $131{ }^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.55^{\circ} \mathrm{C}\right)$ |
| Operating relative humidity | $15 \%$ to $95 \%$ @ $104^{\circ} \mathrm{F}\left(40^{\circ} \mathrm{C}\right)$, non-condensing | $15 \%$ to $95 \%$ @ $104^{\circ} \mathrm{F}\left(40^{\circ} \mathrm{C}\right.$ ), non-condensing | $\begin{aligned} & 15 \% \text { to } 95 \% @ 104^{\circ} \mathrm{F}\left(40^{\circ} \mathrm{C}\right) \text {, } \\ & \text { non-condensing } \end{aligned}$ |
| Non-operating/Storage temperature | $-40^{\circ} \mathrm{F}$ to $158^{\circ} \mathrm{F}\left(-40^{\circ} \mathrm{C}\right.$ to $\left.70^{\circ} \mathrm{C}\right)$ | $-40^{\circ} \mathrm{F}$ to $158{ }^{\circ} \mathrm{F}\left(-40^{\circ} \mathrm{C}\right.$ to $70^{\circ} \mathrm{C}$ ) | $-40^{\circ} \mathrm{F}$ to $158{ }^{\circ} \mathrm{F}\left(-40^{\circ} \mathrm{C}\right.$ to $\left.70^{\circ} \mathrm{C}\right)$ |
| Non-operating/Storage relative humidity | $15 \%$ to $95 \%$ @ $149{ }^{\circ} \mathrm{F}\left(65^{\circ} \mathrm{C}\right.$ ), non-condensing | $15 \%$ to $95 \%$ @ $149^{\circ} \mathrm{F}\left(65^{\circ} \mathrm{C}\right.$ ), non-condensing | $15 \%$ to $95 \%$ @ $149{ }^{\circ} \mathrm{F}\left(65^{\circ} \mathrm{C}\right.$ ), non-condensing |
| Altitude | up to 15091 ft . ( 4.6 km ) | up to 15091 ft . ( 4.6 km ) | up to 15091 ft . ( 4.6 km ) |
| Electrical characteristics |  |  |  |
| Maximum heat dissipation | 2152 BTU/hr (2270.36 kJ/hr) | 2152 BTU/hr (2270.36 kJ/hr) | 2152 BTU/hr (2270.36 kJ/hr) |
| Voltage | 100-127 / 200-240 VAC | 100-127 / 200-240 VAC | 100-127 / 200-240 VAC |
| Current | 8.2 / 3.8 A | 8.2 / 3.8 A | 8.2 / 3.8 A |
| Power consumption | 630 W | 630 W | 630 W |
| Frequency | $50 / 60 \mathrm{~Hz}$ | $50 / 60 \mathrm{~Hz}$ | $50 / 60 \mathrm{~Hz}$ |
| 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; 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 |
| Immunity |  |  |  |
| EN | EN 55024, CISPR 24 | EN 55024, CISPR 24 | EN 55024, CISPR 24 |
| ESD | IEC 61000-4-2; $4 \mathrm{kV} \mathrm{CD}$,8 kV AD | IEC 61000-4-2; $4 \mathrm{kV} \mathrm{CD}, 8 \mathrm{kV} \mathrm{AD}$ | IEC 61000-4-2; $4 \mathrm{kV} \mathrm{CD}, 8 \mathrm{kV} \mathrm{AD}$ |
| Radiated | IEC 61000-4-3; $3 \mathrm{~V} / \mathrm{m}$ | IEC 61000-4-3; $3 \mathrm{~V} / \mathrm{m}$ | IEC 61000-4-3; $3 \mathrm{~V} / \mathrm{m}$ |
| 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; $1 \mathrm{kV} / 2 \mathrm{kV} \mathrm{AC}$ | IEC 61000-4-5; $1 \mathrm{kV} / 2 \mathrm{kV} \mathrm{AC}$ | IEC 61000-4-5; $1 \mathrm{kV} / 2 \mathrm{kV} \mathrm{AC}$ |
| 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; $1 \mathrm{~A} / \mathrm{m}, 50$ or 60 Hz | IEC 61000-4-8; $1 \mathrm{~A} / \mathrm{m}, 50$ or 60 Hz | IEC 61000-4-8; $1 \mathrm{~A} / \mathrm{m}, 50$ 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) |

## ProCurve Switch 4100gl Series

Standards and Protocols

| General Protocols | RFC 2131 DHCP |
| :--- | :--- |
| IEEE 802.1D MAC Bridges |  |
| IEEE 802.1p Priority | IP Multicast |
| IEEE 802.1Q VLANs | RFC 3376 IGMPv3 |
| IEEE 802.1w Rapid |  |
| Reconfiguration of Spanning Tree | MIBs |
| IEEE 802.3ad Link Aggregation | RFC 1213 MIB II |
| Control Protocol (LACP) | RFC 1493 Bridge MIB |
| IEEE 802.3x Flow Control | RFC 2021 RMONv2 MIB |
| RFC 768 UDP | RFC 2096 IP Forwarding Table |
| RFC 783 TFTP Protocol (revision | MIB |
| 2) | RFC 2613 SMON MIB |
| RFC 792 ICMP | RFC 2618 RADIUS Client MIB |
| RFC 793 TCP | RFC 2620 RADIUS Accounting |
| RFC 826 ARP | MIB |
| RFC 854 TELNET | RFC 2665 Ethernet-Like-MIB |
| RFC 951 BOOTP | RFC 2668 802.3 MAU MIB |
| RFC 1542 BOOTP Extensions | RFC 2674 802.1p and IEEE |
| RFC 2030 Simple Network Time | 802.1Q Bridge MIB |
| Protocol (SNTP) v4 |  |

RFC 2737 Entity MIB (Version 2) RFC 2863 The Interfaces Group MIB

## Network Management

IEEE 802.1AB Link Layer
Discovery Protocol (LLDP) RFC 2665 Ethernet-Like-MIB 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 4100gl Series

## Accessories



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 (SFP) slots
20 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: IEEE Auto-MDIX
Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only

## Physical characteristics

Dimensions: 8.97(d) $\times 8.0(\mathrm{w}) \times 1.75(\mathrm{~h})$
in. $(22.78 \times 20.32 \times 4.45 \mathrm{~cm})$
Weight: $1.25 \mathrm{lb} .(0.56 \mathrm{~kg})$

## Cabling

Type:

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

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


ProCurve Switch gl 24-Port 10/100-TX Module (J4862B)
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: ProCurve Auto-MDIX
Duplex: half or full
Physical characteristics
Dimensions: 8.97(d) x 8.0(w) x 1.75(h)
in. $(22.78 \times 20.32 \times 4.45 \mathrm{~cm})$
Weight: $1.24 \mathrm{lb} .(0.56 \mathrm{~kg})$

## Cabling

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

Maximum distance:

- 100 m

Type:


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

## Ports

6 open mini-GBIC (SFP) slots
Physical characteristics
Dimensions: 8.97(d) $\times 8.0(\mathrm{w}) \times 1.75(\mathrm{~h})$
in. $(22.78 \times 20.32 \times 4.45 \mathrm{~cm})$
Weight: $0.96 \mathrm{lb} .(0.43 \mathrm{~kg})$

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


## Notes

## ProCurve Switch 4100gl Series



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

## Ports

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

Media Type: IEEE Auto-MDIX
Duplex: 100Base-TX: half or full;
1000Base-T: full only
Physical characteristics
Dimensions: $8.97(\mathrm{~d}) \times 8.0(\mathrm{w}) \times 1.75(\mathrm{~h})$
in. $(22.78 \times 20.32 \times 4.45 \mathrm{~cm})$
Weight: $1.0 \mathrm{lb} .(0.45 \mathrm{~kg})$

## Cabling

Type:

- 100Base-TX: Category 5 (or better), $100 \Omega$ 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), $100 \Omega$ 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 gl Transceiver Module (J4864A) with 3 open transceiver slots

## Ports

3 open transceiver slots
Physical characteristics

Dimensions: $8.97(\mathrm{~d}) \times 8.0(\mathrm{w}) \times 1.75(\mathrm{~h})$
in. $(22.78 \times 20.32 \times 4.45 \mathrm{~cm})$
Weight: $1.16 \mathrm{lb} .(0.52 \mathrm{~kg})$


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

## Ports

12 MTRJ 100Base-FX ports (IEEE 802.3u
Type 100Base-FX)
Duplex: half or full
Physical characteristics
Dimensions: 8.97(d) $\times 8.0(\mathrm{w}) \times 1.75(\mathrm{~h})$
in. $(22.78 \times 20.32 \times 4.45 \mathrm{~cm})$
Weight: $1.45 \mathrm{lb} .(0.65 \mathrm{~kg})$

## Cabling

- $62.5 / 125 \mu \mathrm{~m}$ or $50 / 125 \mu \mathrm{~m}$ (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:

- 2 km (full duplex) or 412 m (half duplex)

Type:

ProCurve Switch gl/xI/vl Redundant Power Supply (J4839A)
Redundant power supply for $\mathrm{gl} / \mathrm{xl} / \mathrm{vl}$ switches.

Physical characteristics
Dimensions: 7.9(d) x 6.3(w) $\times 5.0(\mathrm{~h}) \mathrm{in}$.
$(20.07 \times 16.0 \times 12.7 \mathrm{~cm})$
Weight: $5.55 \mathrm{lb} .(2.5 \mathrm{~kg})$
Electrical characteristics
Voltage: 100-127 / 200-240 VAC
Current: 8.2 / 3.8 A
Frequency: $50 / 60 \mathrm{~Hz}$

## Notes

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

## ProCurve Switch 4100gl 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 meters on multimode fiber.

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-SX port (IEEE $802.3 z$
Type 1000Base-SX)
Duplex: full only
Physical characteristics
Dimensions: $2.24(\mathrm{~d}) \times 0.54(\mathrm{w}) \mathrm{x}$
$0.486(\mathrm{~h})$ in. ( $5.69 \times 1.37 \times 1.23 \mathrm{~cm}$ )
Weight: $0.04 \mathrm{lb} .(0.02 \mathrm{~kg})$

## Cabling

Type:

- $62.5 / 125 \mu \mathrm{~m}$ or $50 / 125 \mu \mathrm{~m}$
(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 ( $62.5 \mu \mathrm{~m}$ core diameter, 160 $\mathrm{MHz} / \mathrm{km}$ bandwidth) $\cdot 275 \mathrm{~m}$ ( $62.5 \mu \mathrm{~m}$ core diameter, $200 \mathrm{MHz} / \mathrm{km}$ bandwidth) $\cdot 500 \mathrm{~m}(50 \mu \mathrm{~m}$ core diameter, $400 \mathrm{MHz} / \mathrm{km}$ bandwidth)• 550 $\mathrm{m}(50 \mu \mathrm{~m}$ core diameter, $500 \mathrm{MHz} / \mathrm{km}$ bandwidth)


## Ports

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

## Physical characteristics

Dimensions: 2.24(d) $\times 0.54(\mathrm{w}) \times$
$0.486(\mathrm{~h})$ in. ( $5.69 \times 1.37 \times 1.23 \mathrm{~cm}$ )
Weight: $0.04 \mathrm{lb} .(0.02 \mathrm{~kg})$

## Cabling

Type:

- Either single mode or multimode
- $62.5 / 125 \mu \mathrm{~m}$ or $50 / 125 \mu \mathrm{~m}$
(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 Type:
exists for 1550 nm optics)
Duplex: full only

## Physical characteristics

Dimensions: 2.17 (d) $\times 0.60(\mathrm{w}) \times 0.46(\mathrm{~h})$
in. $(5.5 \times 1.53 \times 1.18 \mathrm{~cm})$
Weight: $0.04 \mathrm{lb} .(0.02 \mathrm{~kg})$

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

Maximum distance:

- 70 km


## Cabling



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 meters 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) $\times 0.54(\mathrm{w}) \times 0.55(\mathrm{~h})$
in. $(6.88 \times 1.37 \times 1.4 \mathrm{~cm})$
Weight: . $06 \mathrm{lb} .(0.03 \mathrm{~kg})$

## Cabling

Type:

- 1000Base-T: Category 5 (5E or better
recommended), $100 \Omega$ differential 4-pair unshielded twisted pair (UTP) or shielded twisted pair (STP) balanced, complying with IEEE 802.3ab 1000Base-T
- 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 38177 B gigabit copper mini-GBIC is not supported on dual-personality ports. forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

