



HP PS1810 Switch Series



Key features

- Switch design that works seamlessly with HP ProLiant Gen8 servers
- 8-port switch allows for physical stacking on HP ProLiant MicroServer Gen8 platform
- Built-in HP ProLiant Server Management dashboard
- Fanless design for quiet operation
- Lifetime warranty

Product overview

The HP PS1810 Switch Series consists of smart-managed, fixed-configuration Gigabit Ethernet Layer 2 switches that are purpose built to work with HP ProLiant Gen8 servers. The series switches are designed for small businesses looking for an integrated, easy-to-administer switch that complements the HP ProLiant Gen8 server solution.

The series includes 8- and 24-port models. The 8-port model has an innovative design that allows it to be physically stacked on top of the HP ProLiant MicroServer Gen8 platform. This switch can be powered by an upstream Power over Ethernet (PoE) switch for deployments where no line power is available. The 24-port model ships with a rackmount kit for rack deployments and includes SFP ports for fiber uplink connectivity. Both models have a fanless design, making them ideal for office deployments. Both models support additional flexible mounting options, including wallmount and under-table mounting.

The HP PS1810 Switch Series has a built-in ability to autodiscover and

monitor HP ProLiant Gen8 servers. Monitored ProLiant Gen8 servers report real-time health status to the switch via the HP Integrated Lights-Out (iLO) interface, enabling an integrated single pane-of-glass view for switch and server maintenance. Layer 2 switching features include VLANs, Spanning Tree, and link aggregation trunking. The latest energy-saving capabilities like Energy Efficient Ethernet (EEE) and idle-port power down are also supported on this series. The PS1810 switch models come with an HP lifetime warranty.

Features and benefits

Management

- **NEW HP ProLiant Server Dashboard**
enables autodiscovery of HP ProLiant Gen8 servers in the network; provides up-to-date server health status for up to 10 monitored servers
- **Simple Web management**
allows easy management of devices by even nontechnical users with its intuitive Web GUI
- **Secure Web GUI**
provides a secure, easy-to-use graphical interface for configuring the module via HTTPS
- **SNMPv1, v2c**
enable devices to be discovered and monitored from an SNMP management station
- **Dual flash images**
provides independent primary and secondary operating system files for backup while upgrading
- **Port mirroring**
enables traffic on a port to be simultaneously sent to a network analyzer for monitoring
- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP)**
advertises and receives management information from adjacent devices on a network, facilitating easy mapping by network management applications

Connectivity

- **Auto-MDI/MDIX**
adjusts automatically for straight-through or crossover cables on all ports
- **Packet storm protection**
protects against broadcast, multicast, or unicast storms with user-defined thresholds
- **IEEE 802.3af PoE-powered device option**
obtains power provided by a standard PoE device connected to Port 1; deploys the switch wherever an Ethernet cable can reach as a power outlet is not needed (for the 8-port model only)
- **SFP ports for fiber connectivity**
provides fiber connections for uplinks and other connections across longer distances than what copper cabling can support; "true" SFP ports operate in addition to available copper Ethernet ports, providing a higher total number of available ports (for the 24-port model only)

Layer 2 switching

- **VLAN support and tagging**
supports up to 64 port-based VLANs and dynamic configuration of IEEE 802.1Q VLAN tagging, providing security between workgroups

- **Jumbo packet support**
improves the performance of large data transfers; supports frame size of up to 9220 bytes

Resiliency and high availability

- **IEEE 802.1D Spanning Tree Protocol (STP) and IEEE 802.1W Rapid Spanning Tree Protocol**
provide redundant links while preventing network loops
- **Link Aggregation (trunking or bonding)**
groups ports together automatically using Link Aggregation Control Protocol (LACP), or manually, to form an ultra-high-bandwidth connection to the server or network backbone; bonds together two NIC ports on the ProLiant MicroServer, doubling the speed of services to the server

Security

- **Secure Sockets Layer (SSL)**
encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch
- **Automatic denial-of-service protection**
monitors six types of malicious attacks and protects the network by blocking the attacks
- **Management password**
provides security so that only authorized access to the Web browser interface is allowed

Ease of use

- **Locator LED (switch)**
allows users to set the locator LED on a specific switch to either turn on, blink, or turn off; simplifies troubleshooting by making it easy to locate a particular switch within a rack of similar switches
- **Comprehensive LED display with per-port indicators**
provides an at-a-glance view of status, activity, speed, and full-duplex operation

Flexibility

- **NEW Flexible mounting options**
switches stack physically on top of an HP ProLiant MicroServer Gen8 platform due to their unique design (the 8-port model); the 24-port model ships with a rackmount kit; both switches support desktop, wallmount, and under-table mounting options
- **Rack mountable (24-port models)**
offers a rack-mounting option with included hardware
- **Kensington lock slot**
allows switches to be physically secured in open-space deployments

Additional information

- **Energy savings**
utilizes Energy Efficient Ethernet (EEE) IEEE 802.3az standard for lower power consumption

- **Green IT and power**
places inactive ports automatically in low power mode and its LED in power-down mode to conserve energy
- **Green initiative support**
provides support for RoHS and WEEE regulations

Quality of Service (QoS)

- **Traffic prioritization (IEEE 802.1p)**
allows real-time traffic classification with eight priority levels mapped to four queues
- **IEEE 802.1p prioritization with Differentiated Services Code Point (DSCP)**
delivers data to devices based on the priority and type of traffic using DSCP
- **Broadcast control**
allows limitation of broadcast traffic rate to cut down on unwanted network broadcast traffic

Warranty and support

- **Lifetime warranty**
for as long as you own the product with advance replacement and next-business-day delivery (available in most countries)†
- **Electronic and telephone support**
limited electronic and telephone support is available from HP; to reach our support centers, refer to www.hp.com/networking/contact-support; for details on the duration of support provided with your product purchase, refer to www.hp.com/networking/warrantysummary

†HP warranty includes repair or replacement of hardware for as long as you own the product, with next business day advance replacement (available in most countries). The disk drive included with HP AllianceOne Advanced Services and Services z1 Modules, HP Threat Management Services z1 Module, HP AllianceOne Extended z1 Module with Riverbed Steelhead, HP MSM765z1 Mobility Controller and HP Survivable Branch Communication z1 Module powered by Microsoft Lync has a five-year hardware warranty. For details, refer to the Software license and hardware warranty statements at www.hp.com/networking/warranty.

HP PS1810 Switch Series

Specifications



HP PS1810-8G Switch (J9833A)



HP PS1810-24G Switch (J9834A)

Ports	8 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 2 SFP 100/1000 Mbps ports Supports a maximum of 24 autosensing 10/100/1000 ports plus 2 SFP ports, or a combination
Physical characteristics	9.06(w) x 4.65(d) x 1.73(h) in (23 x 24.5 x 4.39 cm) (1U height)	12.99(w) x 6.81(d) x 1.73(h) in (32.99 x 17.3 x 4.39 cm) (1U height)
Weight	2.71 lb (1.23 kg)	2.2 lb (1.15 kg)
Memory and processor	128 MB RAM, 8 MB flash; packet buffer size: 512 KB	128 MB RAM, 8 MB flash; packet buffer size: 512 KB
Mounting	Mounts on HP ProLiant MicroServer Gen8; desktop, wall, and under-table mounting	Mounts in an EIA-standard 19-inch telco rack (hardware included); horizontal surface, wall, and under-table mounting
Performance		
100 Mb Latency	< 3.3 μs (64-byte packets)	< 3.4 μs (64-byte packets)
1000 Mb Latency	< 2.3 μs (64-byte packets)	< 2.2 μs (64-byte packets)
Throughput	up to 11.9 million pps	up to 38.7 million pps
Switching capacity	16 Gbps	52 Gbps
MAC address table size	8000 entries	8000 entries
Environment		
Operating temperature	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)
Operating relative humidity	15% to 95% @ 104°F (40°C)	15% to 95% @ 104°F (40°C)
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage relative humidity	15% to 95% @ 140°F (60°C)	15% to 95% @ 140°F (60°C)
Altitude	up to 10,000 ft (3 km)	up to 10,000 ft (3 km)
Acoustic	Power: 0 dB no fan	Power: 0 dB no fan
Electrical characteristics		
Frequency	50/60 Hz	50/60 Hz
Voltage	100-240 VAC	100-127/200-240 VAC
Current	.5 A	.4/.3 A
Maximum power rating	7.2 W	22 W
Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	UL 60950-1; IEC 60950; EN 60950	UL 60950-1; IEC 60950; EN 60950
Emissions	EN 55022 Class A; CISPR 22 Class A; VCCI V-3; FCC (CFR 47, Part 15) Subpart B Class A; VCCI V-4	EN 55022 Class A; CISPR 22 Class A; VCCI V-3; FCC (CFR 47, Part 15) Subpart B Class A; VCCI V-4
Immunity		
ESD	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3	IEC 61000-4-3
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4
Surge	IEC 61000-4-5	IEC 61000-4-5
Conducted	IEC 61000-4-6	IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11
Harmonics	EN 61000-3-2	EN 61000-3-2
Flicker	EN 61000-3-3	EN 61000-3-3
Management	IMC - Intelligent Management Center; Web browser; HTTPS	IMC - Intelligent Management Center; Web browser; HTTPS
Notes	Use only supported genuine HP SFPs with your switch. Link aggregation support: 4 trunks of 4 links each	Use only supported genuine HP SFPs with your switch. Link aggregation support: 8 trunks of 4 links each
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UE256E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UE257E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UE258E)	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 SW phone support and SW updates (U6321E)

HP PS1810 Switch Series

Specifications (continued)

	HP PS1810-8G Switch (J9833A)	HP PS1810-24G Switch (J9834A)
	<p>3-year, 24x7 SW phone support, software updates (UE260E) Installation with minimum configuration, system-based pricing (U4826E) Installation with HP-provided configuration, system-based pricing (U4830E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UR846E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UR847E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR848E) 4-year, 24x7 SW phone support, software updates (UR849E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UR850E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UR851E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR852E) 5-year, 24x7 SW phone support, software updates (UR853E) 3 Yr 6 hr Call-to-Repair Onsite (UW383E) 4 Yr 6 hr Call-to-Repair Onsite (UW384E) 5 Yr 6 hr Call-to-Repair Onsite (UW385E) 1-year, 4-hour onsite, 13x5 coverage for hardware (HR899E) 1-year, 4-hour onsite, 24x7 coverage for hardware (HR900E) 1-year, 6 hour Call-To-Repair Onsite for hardware (HR903E) 1-year, 24x7 software phone support, software updates (HR902E) 1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR901E) 1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HU347E) 1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HU348E) 3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HU349E) 3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HU350E) 4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HSB10E) 4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HSB11E) 5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HSB12E) 5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HSB13E) Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.</p>	<p>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) 4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E) 4-year, 24x7 SW phone support, software updates (UR951E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E) 5-year, 24x7 SW phone support, software updates (UR955E) 3 Yr 6 hr Call-to-Repair Onsite (UW368E) 4 Yr 6 hr Call-to-Repair Onsite (UW369E) 5 Yr 6 hr Call-to-Repair Onsite (UW370E) 1-year, 4-hour onsite, 13x5 coverage for hardware (HR849E) 1-year, 4-hour onsite, 24x7 coverage for hardware (HR850E) 1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E) 1-year, 24x7 software phone support, software updates (HR852E) 1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR851E) 1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E) 1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS555E) 3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS556E) 3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS557E) 4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS558E) 4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS559E) 5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS560E) 5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS561E) Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.</p>
<p>Standards and protocols (applies to all products in series)</p>	<p>Denial of service protection CPU DoS Protection</p> <p>General protocols IEEE 802.1p Priority IEEE 802.1Q VLANs IEEE 802.1W Rapid Spanning Tree Protocol</p>	<p>Network management IEEE 802.1AB Link Layer Discovery Protocol (LLDP)</p> <p>IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3az Energy Efficient Ethernet IEEE 802.3x Flow Control RFC 1534 DHCP/BOOTP Interoperation RFC 2030 Simple Network Time Protocol (SNTP) v4</p>

HP PS1810 Switch Series accessories

HP PS1810-24G Switch (J9834A)

HP X111 100M SFP LC FX Transceiver (J9054C)

HP X121 1G SFP LC SX Transceiver (J4858C)

HP X121 1G SFP LC LX Transceiver (J4859C)

HP X121 1G SFP RJ45 T Transceiver (J8177C)

HP Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable (QK732A)

HP Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable (QK733A)

HP Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable (QK734A)

HP Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable (QK735A)

HP Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable (QK736A)

HP Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable (QK737A)

HP 0.5 m Multimode OM3 LC/LC Optical Cable (AJ833A)

HP 1 m Multimode OM3 LC/LC Optical Cable (AJ834A)

HP 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)

HP 5 m Multimode OM3 LC/LC Optical Cable (AJ836A)

HP 15 m Multimode OM3 LC/LC Optical Cable (AJ837A)

HP 30 m Multimode OM3 LC/LC Optical Cable (AJ838A)

HP 50 m Multimode OM3 LC/LC Optical Cable (AJ839A)

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