HPE PS1810 Switch Series

Key features

- Switch design that works seamlessly with HPE ProLiant Gen8 servers

- 8-port switch allows for physical stacking on HPE ProLiant MicroServer Gen8 platform

- Built-in HPE ProLiant Server Management dashboard

- Fanless design for quiet operation

- Limited Lifetime warranty

Product overview

The HPE PS1810 Switch Series consists of smart-managed, fixed-configuration Gigabit Ethernet Layer 2 switches that are purpose built to work with HPE ProLiant Gen8 servers. The switches are designed for small businesses looking for an integrated, easy-to-administer switch that complements the HPE 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 HPE 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 rack-mount 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 wall-mount and under-table mounting.

The HPE PS1810 Switch Series has a built-in ability to auto-discover and monitor HPE ProLiant Gen8 servers. Monitored ProLiant Gen8 servers report real-time health status to the switch via the Hewlett Packard Enterprise 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 a Limited Lifetime warranty.

Features and benefits

Management
• HPE ProLiant Server Management dashboard

Enables auto-discovery of HPE 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 9,220 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. The 8-port model supports four trunks of four links each; the 24-port model supports eight trunks of four links each

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

• Flexible mounting options

Switches stack physically on top of an HPE ProLiant MicroServer Gen8 platform due to their unique design (the 8-port model); the 24-port model ships with a rack-mount kit; both switches support desktop, wall-mount, 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
- Limited Lifetime Warranty

  See hpe.com/networking/warrantysummary for warranty and support information included with your product purchase.

HPE PS1810 Switch Series

SPECIFICATIONS	HPE PS1810-8G Switch (J9833A)	HPE PS1810-24G Switch (J9834A)
I/O ports and slots	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 Dimensions Weight	 9.06(w) x 9.65(d) x 1.73(h) in. (23.01 x 24.51x 4.39 cm) (1U height) 2.71 lb (1.23 kg)	 12.99(w) x 6.81(d) x 1.73(h) in (32.99 x 17.3 x 4.39 cm) (1U height) 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 and enclosure	Mounts on HPE 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 1000 Mb Latency Throughput Switching capacity MAC address table size	 < 3.3 µs (64-byte packets) < 2.3 (64-byte packets) up to 11.9 million pps 16 Gbps 8000 entries	 < 3.4 µs (64-byte packets) < 2.2 (64-byte packets) up to 38.7 million pps 52 Gbps 8000 entries
Environment Operating temperature Operating relative humidity Nonoperating/Storage temperature Nonoperating/Storage relative humidity Altitude Acoustic	 32°F to 104°F (0°C to 40°C) 15% to 95% @ 104°F (40°C) -40°F to 158°F (-40°C to 70°C) 15% to 95% @ 140°F (60°C) up to 10,000 ft (3 km) Power: 0 dB no fan	 32°F to 104°F (0°C to 40°C) 15% to 95% @ 104°F (40°C) -40°F to 158°F (-40°C to 70°C) 15% to 95% @ 140°F (60°C) up to 10,000 ft (3 km) Power: 0 dB no fan
Electrical characteristics Frequency AC voltage Current Maximum power rating	 50/60 Hz 100 - 240 VAC .5 A 7.2 W	 50/60 Hz 100 - 127 / 200 - 240 VAC .4/.3 A 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.

SPECIFICATIONS	HPE PS1810-8G Switch (J9833A)	HPE PS1810-24G Switch (J9834A)
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 Radiated EFT/Burst Surge Conducted Power frequency magnetic field Voltage dips and interruptions Harmonics Flicker	 IEC 61000-4-2 IEC 61000-4-3 IEC 61000-4-4 IEC 61000-4-5 IEC 61000-4-6 IEC 61000-4-8 IEC 61000-4-11 EN 61000-3-2 EN 61000-3-3	 IEC 61000-4-2 IEC 61000-4-3 IEC 61000-4-4 IEC 61000-4-5 IEC 61000-4-6 IEC 61000-4-8 IEC 61000-4-11 EN 61000-3-2 EN 61000-3-3
Management	IMC—Intelligent Management Center; Web browser; HTTPS	IMC—Intelligent Management Center; Web browser; HTTPS
Notes	Use only supported genuine HPE SFPs with your switch. Link aggregation support: 4 trunks of 4 links each	Use only supported genuine HPE SFPs with your switch. Link aggregation support: 8 trunks of 4 links each
Services	Refer to the Hewlett Packard Enterprise website at hpe.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 Hewlett Packard Enterprise sales office.	Refer to the Hewlett Packard Enterprise website at hpe.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 Hewlett Packard Enterprise sales office.

STANDARDS AND PROTOCOLS
(applies to all products in series)

Denial of service protection		CPU DoS Protection	
General protocols	IEEE 802.1p Priority IEEE 802.1Q VLANs IEEE 802.1W Rapid Spanning Tree Protocol	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
Network management		IEEE 802.1AB Link Layer Discovery Protocol (LLDP)	

HPE PS1810 Switch Series accessories

HPE PS1810-24G Switch (J9834A)	HPE 2 m Multimode OM3 LC/LC Optical Cable (AJ835A) HPE 5 m Multimode OM3 LC/LC Optical Cable (AJ836A) HPE 15 m Multimode OM3 LC/LC Optical Cable (AJ837A) HPE 30 m Multimode OM3 LC/LC Optical Cable (AJ838A) HPE 50 m Multimode OM3 LC/LC Optical Cable (AJ839A)

Learn more at
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