



HP V1810 Switch Series

Data sheet

Product overview

The HP V1810 Switch Series provides reliable, plug-and-play Gigabit network connectivity. As the follow-on to the popular HP Switch 1800 Series, the HP V1810 Switch Series provides additional network security capabilities, enhancements to ease of use, improved energy efficiency, and expanded deployment flexibility. The series consists of 8- and 24-port 10/100/1000 Web-managed switches. The HP V1810-24G Switch offers two dual-personality ports for optional fiber uplinks, while the HP V1810-8G Switch can optionally be powered by an upstream Power over Ethernet (PoE) switch. Both switches offer silent operation and multiple mounting options for flexible installation. The HP V1810 Switch Series offers network security protection against denial-of-service attacks, a theft protection slot for Kensington Lock (not included), and legendary HP quality backed by the HP Lifetime Warranty at an affordable price.

Key features

- Web-managed Layer 2 Gigabit switch
- 8- and 24-port models
- Fanless switch for silent operation
- Two dual-personality mini-GBIC slots (J9450A)
- Powered by IEEE 802.3af PoE (J9449A)



Features and benefits

Quality of Service (QoS)

- **NEW Traffic prioritization (IEEE 802.1p):** allows real-time traffic classification into eight priority levels mapped to four queues

Connectivity

- **Dual-personality ports (V1810-24G Switch):** two 10/100/1000 ports or mini-GBIC slots for optional fiber connectivity such as Gigabit-SX, -LX, or -LH, or 100-FX
- **NEW IEEE 802.3af PoE-powered device option (V1810-8G Switch):** can obtain power from a standard PoE device on Port 1, making the switch ideal for deployments where a power outlet is not available; such flexibility helps you to extend the network to wherever an Ethernet cable can reach
- **Jumbo packet support:** supports up to 9216-byte frame size to improve performance of large data transfers

Resiliency and high availability

- **IEEE 802.3ad Link Aggregation Control Protocol:** provides link-level redundancy with support for up to four trunks on the HP V1810-8G Switch and eight trunks on the HP V1810-24G Switch, each with up to four links (ports) per trunk
- **NEW Loop protection:** Loop Detection and Protection feature prevents network loops and promotes high network availability

Manageability

- **Intuitive Web interface:** enables simple management via an easy-to-use Web browser interface for switch configuration, monitoring, and administration
- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP):** automated device discovery protocol provides easy mapping using network management applications
- **NEW Dual flash images:** provides independent primary and secondary operating system files for backup while upgrading
- **Integration with HP PCM:** enables discovery and mapping via HP PCM, available as a free download from the Web and provided in box with selected manageable HP devices; provides all the basic tools needed to handle a network effectively, along with a 30-day trial version of HP PCM 3.0

- **NEW Energy Savings mode:** automatically places the physical ports in low power mode and LED power down mode to conserve energy

Layer 2 switching

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

Security

- **NEW Secure Sockets Layer (SSL):** encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch
- **NEW 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

Monitor and diagnostics

- **Port mirroring:** enables traffic on a port to be simultaneously sent to a network analyzer for monitoring

Ease of use

- **NEW 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
- **IEEE Auto-MDIX:** automatically adjusts for straight-through or crossover cables on all 10/100/1000 ports

Flexibility

- **Designed with no fan:** enables quiet operation for deployment in open spaces
- **NEW Flexible mounting options:** mounting options include wall, ceiling, tabletop, or under table configuration for flexible installation process
- **NEW IEEE 802.3af PoE-powered device option (V1810-8G Switch):** can obtain power from a standard PoE device on Port 1, making the switch ideal for deployments where a power outlet is not available; such flexibility helps you to extend the network to wherever an Ethernet cable can reach

- **1U Rack-mountable size (V1810-24G Switch):** offers a rack-mounting option
- **NEW Kensington Lock slot:** allows switches to be secured in open-space deployments

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; refer to www.hp.com/networking/warranty for details on the support provided and the period during which support is available
- **Software releases:** refer to www.hp.com/networking/warranty for details on the software releases provided and the period during which software releases are available for your product(s)

*Hardware warranty replacement for as long as you own the product, with next business day advance replacement (available in most countries) with a five-year hardware warranty replacement for the disk drive included with HP AllianceONE Services zI Module, HP Threat Management Services zI Module, HP PCM+ Agent with AllianceONE Services zI Module, and HP E-MSM765 zI Mobility Controller. For details, refer to the HP Software License, Warranty, and Support booklet at www.hp.com/networking/warranty.

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Specifications



HP V1810-24G Switch (J9450A)



HP V1810-8G Switch (J9449A)

Ports	22 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: Auto-MDIX; Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only 2 dual-personality ports; each port can be used as either an RJ-45 10/100/1000 port or an open mini-GBIC slot (for use with mini-GBIC transceivers)	8 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: Auto-MDIX; Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only
Physical characteristics		
Dimensions	6.74(d) x 17.42(w) x 1.73(h) in. (17.12 x 44.25 x 4.39 cm) (1U height)	4.58(d) x 7.73(w) x 1.73(h) in. (11.63 x 19.63 x 4.39 cm) (1U height)
Weight	4.32 lb. (1.96 kg), Fully loaded	1.19 lb. (0.54 kg), Fully loaded
Memory and processor	8 MB flash, 16 MB SDRAM; packet buffer size: 512 KB	8 MB flash, 16 MB SDRAM; packet buffer size: 512 KB
Mounting	Mounts in an EIA-standard 19 in. telco rack (hardware included); wall, desktop, tabletop, and undertable mounting	Wall, ceiling, desktop, and undertable mounting
Performance		
100 Mb Latency	< 4.7 μ s (64-byte packets)	< 3.9 μ s (64-byte packets)
1000 Mb Latency	< 3.0 μ s (64-byte packets)	< 2.1 μ s (64-byte packets)
Throughput	up to 35.7 million pps (64-byte packets)	up to 11.9 million pps (64-byte packets)
Switching capacity	48 Gbps	16 Gbps
MAC address table size	8,000 entries	8,000 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), 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)
Non-operating/Storage relative humidity	15% to 90% @ 149°F (65°C), non-condensing	15% to 90% @ 149°F (65°C), non-condensing
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		
Maximum heat dissipation	102 BTU/hr (107.61 kJ/hr)	51 BTU/hr (53.81 kJ/hr)
Voltage	100-127 / 200-240 VAC	100-240 VAC
Current	0.7 / 0.4 A	0.5 A
Maximum power rating	30 W	15 W
Frequency	50 / 60 Hz	50 / 60 Hz
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. The exact input voltage and frequency rating are determined by the specific power adapter part number ordered. Please select the correct power adapter country option.
Safety	CSA 22.2 No. 60950; EN 60950/IEC 60950; UL 60950	CSA 22.2 No. 60950; EN 60950/IEC 60950; UL 60950
Emissions	FCC Rules Part 15, Subpart B Class A; EN 55022; VCCI; ICES-003 (Canada)	FCC Rules Part 15, Subpart B Class A; EN 55022; VCCI; ICES-003 (Canada)
Immunity		
EN	EN 55024, CISPR 24	EN 55024, CISPR 24
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	IEC 61000-3-2	IEC 61000-3-2
Flicker	IEC 61000-3-3	IEC 61000-3-3
Management	HP PCM; Web browser	HP PCM; Web browser
Notes	Use only supported genuine HP mini-GBICs with your switch. Use only supported genuine ProCurve mini-GBICs with your switch	Use only supported genuine HP mini-GBICs with your switch. Power: external AC power adapter and IEEE 802.3af-compatible PoE-PD, class 3 on Port 1

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Specifications (continued)

	HP V1810-24G Switch (J9450A)	HP V1810-8G Switch (J9449A)
Services	<p>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) 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)</p> <p>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, 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 software phone support (UE258E) 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)</p> <p>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>
Standards and protocols (applies to all products in series)	<p>Denial of service protection CPU DoS Protection</p> <p>General protocols IEEE 802.1p Priority IEEE 802.1Q VLANs</p>	<p>IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3x Flow Control RFC 1534 DHCP/BOOTP Interoperation RFC 2030 Simple Network Time Protocol (SNTP) v4</p> <p>Network management IEEE 802.1AB Link Layer Discovery Protocol (LLDP)</p>

HP V1810 Switch Series accessories

Cables

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

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

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

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

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

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

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

NEW HP 0.5 m PremierFlex OM3+ LC/LC Optical Cable (BK837A)

HP V1810-24G Switch (J9450A)

HP X111 100M SFP LC FX Transceiver (J9054B)

HP X112 100M SFP LC BX-D Transceiver (J9099B)

HP X112 100M SFP LC BX-U Transceiver (J9100B)

HP X121 1G SFP LC LH Transceiver (J4860C)

HP X121 1G SFP LC SX Transceiver (J4858C)

HP X121 1G SFP LC LX Transceiver (J4859C)

To learn more, visit www.hp.com/networking

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