



HP V1810 Switch Series

Data sheet

Product overview

HP V1810 Switch Series devices are basic smart managed fixed-configuration Gigabit Ethernet Layer 2 switches designed for small businesses looking for key features in an easy-to-administer solution. The series has three models: 8-, 24-, and 48-port 10/100/1000 switches. The 24-port model includes two dual-purpose combo SFP ports, and the 48-port model has four additional true Gigabit Ethernet SFP ports (52 total active ports) for fiber connectivity. All models support flexible deployment options, including mounting on walls, ceilings, under tables, or desktop operation, and come with an anti-theft protection Kensington Lock slot (not included). The 8-port model can optionally be powered by an upstream Power over Ethernet (PoE) switch. The V1810 switches support QoS traffic prioritization and security features such as denial-of-service prevention. Customizable features include VLANs and link aggregation trunking. The V1810 switches come with the comprehensive HP lifetime warranty.

Key features

- Customized operation using intuitive Web interface
- Flexible connection and deployment options
- Layer 2 operation at wire speeds
- VLANs and link aggregation support
- HP lifetime warranty



Features and benefits

Quality of Service (QoS)

- **Traffic prioritization (IEEE 802.1p):** allows real-time traffic classification with eight priority levels mapped to four queues
- **Broadcast control:** allows limitation of broadcast traffic rate to cut down on unwanted broadcast traffic on the network

Management

- **Simple Web management:** intuitive Web GUI allows for easy management of device by even nontechnical users
- **Secure Web GUI:** provides a secure, easy-to-use graphical interface for configuring the module via HTTPS
- **SNMPv1, v2c:** devices can be discovered and monitored from an SNMP management station
- **Dual flash images:** provide 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):** automated device discovery protocol provides easy mapping by network management applications
- **HP PCM:** provides central management through HP PCM+ for discovery, logging, and status management

Connectivity

- **Auto-MDI/MDIX:** automatically adjusts for straight-through or crossover cables on all 10/100/1000 ports
- **NEW Non-shared SFP ports (V1810-48G switch):** four true SFP mini-GBIC ports for optional fiber connectivity such as Gigabit-SX, -LX, or 100-FX; also support SFP 1G RJ-45 copper connections
- **Dual-personality ports (V1810-24G switch):** two Gigabit Ethernet copper ports or mini-GBIC slots for optional fiber connectivity such as Gigabit-SX and -LX, or 100-FX

- **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
- **Packet storm protection:** protects against broadcast, multicast, or unicast storms with user-defined thresholds

Performance

- **Half-/Full-duplex auto-negotiating capability on every port:** doubles the throughput of every port
- **Link aggregation (trunking):** brings together groups of ports automatically using Link Aggregation Control Protocol (LACP), or manually, to form an ultra-high-bandwidth connection to the network backbone; helps prevent traffic bottlenecks; the V1810-8G switch has four trunks of four links each, the V1810-24G switch has eight trunks of four links each, and the V1810-48G switch has 16 trunks of eight links each
- **Fiber uplink:** available on 24- and 48-port models; provides greater distance connectivity using Gigabit Ethernet fiber uplinks

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
- **Jumbo packet support:** supports up to 9220-byte frame size to improve performance of large data transfers

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

- **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
- **Flexible mounting options:** mounting options include wall, ceiling, tabletop, or under table configuration for flexible installation process
- **Rack mountable (V1810-24G and V1810-48G switches):** offers a rack-mounting option with included hardware
- **Kensington Lock slot:** allows switches to be secured in open-space deployments

Additional information

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

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

*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 z1 Module, HP Threat Management Services z1 Module, HP PCM+ Agent with AllianceONE Services z1 Module, and HP E-MSM765 z1 Mobility Controller. For details, refer to the HP Software License, Warranty, and Support booklet at www.hp.com/networking/warranty.

HP V1810 Switch Series

Specifications



HP V1810-48G Switch (J9660A)



HP V1810-24G Switch (J9450A)



HP V1810-8G Switch (J9449A)

Ports	48 autosensing 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 4 SFP 100/1000 Mbps ports Supports a maximum of 48 autosensing 10/100/1000 ports plus 4 SFP ports	22 autosensing 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 autosensing 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	9.75(d) x 17.4(w) x 1.75(h) in. (24.77 x 44.2 x 4.45 cm) (1U height)	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	6.30 lb. (2.86 kg), Fully loaded	4.32 lb. (1.96 kg), Fully loaded	1.19 lb. (0.54 kg), Fully loaded
Memory and processor	8 MB flash, 64 MB SDRAM; packet buffer size: 1.5 MB	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	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	< 8.4 μ s (64-byte packets)	< 7.4 μ s (64-byte packets)	< 3.9 μ s (64-byte packets)
1000 Mb Latency	< 3.2 μ s (64-byte packets)	< 3.0 μ s (64-byte packets)	< 2.1 μ s (64-byte packets)
Throughput	up to 77.4 million pps (64-byte packets)	up to 35.7 million pps (64-byte packets)	up to 11.9 million pps (64-byte packets)
Switching capacity	104 Gbps	48 Gbps	16 Gbps
MAC address table size	16000 entries	8000 entries	8000 entries
Environment			
Operating temperature	32°F to 113°F (0°C to 45°C)	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), noncondensing	15% to 95% @ 104°F (40°C), noncondensing	15% to 95% @ 104°F (40°C), noncondensing
Nonoperating/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)
Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing	15% to 90% @ 149°F (65°C), noncondensing	15% to 90% @ 149°F (65°C), noncondensing
Altitude	up to 10,000 ft. (3 km)	up to 10,000 ft. (3 km)	up to 10,000 ft. (3 km)
Acoustic	Power: 22 dB single fan	Power: 0 dB no fan	Power: 0 dB no fan
Electrical characteristics			
Maximum heat dissipation	204 BTU/hr (215.22 kJ/hr)	102 BTU/hr (107.61 kJ/hr)	51 BTU/hr (53.81 kJ/hr)
Voltage	100-127/200-240 VAC	100-127/200-240 VAC	100-240 VAC
Current	0.9/0.5 A	0.7/0.4 A	0.5 A
Maximum power rating	60 W	30 W	15 W
Frequency	50/60 Hz	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.	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	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)	FCC Rules Part 15, Subpart B Class A; EN 55022; VCCI; ICES-003 (Canada)
Immunity			
EN	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3	IEC 61000-4-3	IEC 61000-4-3
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4	IEC 61000-4-4
Surge	IEC 61000-4-5	IEC 61000-4-5	IEC 61000-4-5
Conducted	IEC 61000-4-6	IEC 61000-4-6	IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8	IEC 61000-4-8
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11	IEC 61000-4-11
Harmonics	IEC 61000-3-2	IEC 61000-3-2	IEC 61000-3-2
Flicker	IEC 61000-3-3	IEC 61000-3-3	IEC 61000-3-3

HP V1810 Switch Series

Specifications (continued)

	HP V1810-48G Switch (J9660A)	HP V1810-24G Switch (J9450A)	HP V1810-8G Switch (J9449A)
Management	HP PCM; Web browser	HP PCM; Web browser	HP PCM; Web browser
Notes	Use only supported genuine HP mini-GBICs with your switch. Use only supported genuine HP mini-GBICs with your switch	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
Services	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E)</p> <p>3-year, 24x7 SW phone support, software updates (UF792E)</p> <p>Installation with minimum configuration, system-based pricing (U4826E)</p> <p>Installation with HP-provided configuration, system-based pricing (U4830E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)</p> <p>4-year, 24x7 SW phone support, software updates (UR951E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)</p> <p>5-year, 24x7 SW phone support, software updates (UR955E)</p> <p>3 Yr 6 hr Call-to-Repair Onsite (UW368E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (UW369E)</p> <p>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 (U4683E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E)</p> <p>3-year, 24x7 SW phone support, software updates (UF792E)</p> <p>Installation with minimum configuration, system-based pricing (U4826E)</p> <p>Installation with HP-provided configuration, system-based pricing (U4830E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)</p> <p>4-year, 24x7 SW phone support, software updates (UR951E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)</p> <p>5-year, 24x7 SW phone support, software updates (UR955E)</p> <p>3 Yr 6 hr Call-to-Repair Onsite (UW368E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (UW369E)</p> <p>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)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UE257E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UE258E)</p> <p>3-year, 24x7 SW phone support, software updates (UE260E)</p> <p>Installation with minimum configuration, system-based pricing (U4826E)</p> <p>Installation with HP-provided configuration, system-based pricing (U4830E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UR846E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UR847E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR848E)</p> <p>4-year, 24x7 SW phone support, software updates (UR849E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UR850E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UR851E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR852E)</p> <p>5-year, 24x7 SW phone support, software updates (UR853E)</p> <p>3 Yr 6 hr Call-to-Repair Onsite (UW383E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (UW384E)</p> <p>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</p> <p>CPU DoS Protection</p> <p>General protocols</p> <p>IEEE 802.1p Priority</p> <p>IEEE 802.1Q VLANs</p>	<p>IEEE 802.3ad Link Aggregation Control Protocol (LACP)</p> <p>IEEE 802.3x Flow Control</p> <p>RFC 1534 DHCP/BOOTP Interoperation</p> <p>RFC 2030 Simple Network Time Protocol (SNTP) v4</p>	<p>Network management</p> <p>IEEE 802.1AB Link Layer Discovery Protocol (LLDP)</p>

HP V1810 Switch Series accessories

Cables

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)

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

NEW HP 1 m PremierFlex OM3+ LC/LC Optical Cable (BK838A)

NEW HP 2 m PremierFlex OM3+ LC/LC Optical Cable (BK839A)

NEW HP 5 m PremierFlex OM3+ LC/LC Optical Cable (BK840A)

NEW HP 15 m PremierFlex OM3+ LC/LC Optical Cable (BK841A)

NEW HP 30 m PremierFlex OM3+ LC/LC Optical Cable (BK842A)

NEW HP 50 m PremierFlex OM3+ LC/LC Optical Cable (BK843A)

Mounting Kit

HP X410 E-Series 1U Universal 4-Post Rack Mounting Kit (J9583A)

HP V1810-48G Switch (J9660A)

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 V1810-24G Switch (J9450A)

HP X111 100M SFP LC FX Transceiver (J9054C)

HP X121 1G SFP LC SX Transceiver (J4858C)

HP X121 1G SFP LC LX Transceiver (J4859C)

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

© Copyright 2009-2011 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set 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.

4AA2-6799ENW, Created June 2009; Updated June 2011, Rev. 3

