

HP 1810 Switch Series



Key features

- Customized operation using intuitive Web interface
- Flexible connection and deployment options
- Layer 2 operation at wire speeds
- Fanless design for quiet operation
- Limited lifetime warranty

Product overview

HP 1810 Switch Series devices are smart-managed, fixed-configuration Gigabit Ethernet and Fast Ethernet Layer 2 switches designed for small businesses looking for key features in an easy-to-administer solution.

The series includes 8- and 24-port Gigabit Ethernet and Fast Ethernet models and a 48-port Gigabit Ethernet switch. Some models include SFP ports for fiber connectivity and some are fanless, making them ideal for office deployments. All HP 1810 Switch Series support flexible installation options, including mounting on walls, under tables, or on desktops. The 8-port Gigabit Ethernet model can be powered by an upstream Power over Ethernet (PoE) switch for environments where no line power is available.

Customizable features include VLANs, Spanning Tree, and link aggregation trunking; 8- and 24-port switches offer Rapid Spanning Tree Protocol (RSTP) and DSCP QoS policies. The 8- and 24-port models also include the latest energy-saving capabilities, including Energy Efficient Ethernet (EEE) and idle-port power down. HP 1810 switches are covered by a limited lifetime warranty with limited 24x7 telephone support for the first three years.

Features and benefits

Connectivity

- Auto-MDI/MDIX

Automatically adjusts 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 (8-port GbE model only)

- SFP ports for fiber connectivity

Provides fiber connections for uplinks and other connections across longer distances than copper cabling can support; “true” SFP ports operate in addition to available copper Ethernet ports, providing a higher total number of available ports vs. “combo” ports, which are either a copper or fiber connection

Performance

- Half- or 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; 8-port models have four trunks of four links each, the 24-port models have eight trunks of four links each, and HP 1810-48G Switch has 16 trunks of eight links each

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 DSCP

Delivers data from the switch to devices based on the priority and type of traffic using Differentiated Services Code Point (DSCP); available only with v2 switch models

- Broadcast control

Allows limitation of broadcast traffic rate to cut down on unwanted network broadcast traffic

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 (RSTP)

Provide redundant links while preventing network loops; available only with v2 switch models

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 installation
 - Allows mounting on wall, desktop, or under-table
- Rack mountable (24- and 48-port models)
 - Offers a rack-mounting option with included hardware
- Kensington lock slot
 - Allows switches to be physically secured in open-space deployments

Management

- Simple Web management
 - Allows easy management of devices by 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
 - 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)
 - Advertises and receives management information from adjacent devices on a network, facilitating easy mapping by network management applications

Additional information

- Energy savings
 - Utilizes Energy Efficient Ethernet (EEE) IEEE 802.3az standard for lower power consumption; available only with v2 switch models
- 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

Warranty and support

- Limited Lifetime Warranty 2.0
 - Advance hardware replacement with next-business-day delivery (available in most countries). See hp.com/networking/warrantysummary for duration details
- Electronic and telephone support (for Limited Lifetime Warranty 2.0)
 - Limited 24x7 telephone support is available from HP for the first three years; limited electronic and business hours telephone support is available from HP for the entire warranty period; to reach our support centers, refer to hp.com/networking/contact-support; for details on the duration of support provided with your product purchase, refer to hp.com/networking/warrantysummary

HP 1810 Switch Series

Specifications



	HP 1810-24G v2 Switch (J9803A)	HP 1810-48G Switch (J9660A)	HP 1810-8 v2 Switch (J9800A)
I/O ports and slots	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	48 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 4 SFP 100/1000 Mbps ports Supports a maximum of 48 autosensing 10/100/1000 ports plus 4 SFP ports	7 RJ-45 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Duplex: half or full 1 RJ-45 autosensing 10/100/1000 port (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 Supports a maximum of 7 autosensing 10/100 ports plus 1 autosensing 10/100/1000 ports
Physical characteristics			
Dimensions	12.99(w) x 6.81(d) x 1.73(h) in (32.99 x 17.3 x 4.39 cm) (1U height)	17.4(w) x 9.75(d) x 1.75(h) in (44.2 x 24.77 x 4.45 cm) (1U height)	7.93(w) x 4.65(d) x 1.73(h) in (20.14 x 11.81 x 4.39 cm) (1U height)
Weight	2.54 lb (1.15 kg)	6.31 lb (2.86 kg)	0.77 lb (.35 kg)
Memory and processor	128 MB RAM, 8 MB flash; packet buffer size: 512 KB	64 MB RAM, 8 MB flash; packet buffer size: 1.5 MB	128 MB RAM, 8 MB flash; packet buffer size: 512 KB
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack (hardware included); horizontal surface, wall, and under-table mounting	Mounts in an EIA-standard 19 in. telco rack (hardware included); wall, desktop, tabletop, and under-table mounting	wall, desktop, and under-table mounting
Performance			
100 Mb Latency	< 3.3 μ s (64-byte packets)	< 8.4 μ s (64-byte packets)	< 3.3 μ s (64-byte packets)
1000 Mb Latency	< 2.2 μ s (64-byte packets)	< 3.2 μ s (64-byte packets)	
Throughput	up to 38.7 Mpps	up to 77.4 Mpps	up to 2.5 Mpps
Switching capacity	52 Gbps	104 Gbps	3.4 Gbps
MAC address table size	8000 entries	16000 entries	8000 entries
Environment			
Operating temperature	32°F to 104°F (0°C to 40°C)	32°F to 113°F (0°C to 45°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), noncondensing	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)	-40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage relative humidity	15% to 95% @ 140°F (60°C)	15% to 90% @ 149°F (65°C), noncondensing	15% to 95% @ 140°F (60°C)
Altitude	up to 10,000 ft (3 km)	up to 10,000 ft (3 km)	up to 10,000 ft (3 km)
Acoustic	Power: 0 dB no fan	Power: 22 dB single fan	Power: 0 dB no fan
Electrical characteristics			
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Maximum heat dissipation		204 BTU/hr (215.22 kJ/hr)	
AC voltage	100 - 127 / 200 - 240 VAC	100 - 127 / 200 - 240 VAC	100 - 240 VAC
Current	.4/3 A	0.9/0.5 A	.5 A
Maximum power rating	22 W	60 W	4.8 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.	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.

	HP 1810-24G v2 Switch (J9803A)	HP 1810-48G Switch (J9660A)	HP 1810-8 v2 Switch (J9800A)
Safety	UL 60950-1; IEC 60950; EN 60950	CSA 22.2 No. 60950; EN 60950/IEC 60950; UL 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	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	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	EN 61000-3-2	EN 61000-3-2	EN 61000-3-2
Flicker	EN 61000-3-3	EN 61000-3-3	EN 61000-3-3
Management	Web browser	Web browser	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.
Services	Refer to the HP website at 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.	3-year, 4-hour onsite, 13x5 coverage for hardware (HS854E) 3-year, 4-hour onsite, 24x7 coverage for hardware (HS856E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (HS858E) 3-year, 24x7 SW phone support, software updates (HS859E) 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HS846E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HS848E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HS850E) 4-year, 4-hour onsite, 13x5 coverage for hardware (HS862E) 4-year, 4-hour onsite, 24x7 coverage for hardware (HS864E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HS866E) 4-year, 24x7 SW phone support, software updates (HS867E) 5-year, 4-hour onsite, 13x5 coverage for hardware (HS870E) 5-year, 4-hour onsite, 24x7 coverage for hardware (HS872E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HS874E) 5-year, 24x7 SW phone support, software updates (HS875E) 3-year, 6-hour Call-to-Repair Onsite (HS860E) 4-year, 6-hour Call-to-Repair Onsite (HS868E) 5-year, 6-hour Call-to-Repair Onsite (HS876E) 1-year, 6 hour Call-To-Repair Onsite for hardware (HS852E) 1-year, 24x7 software phone support, software updates (HS851E) Refer to the HP website at 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.	Refer to the HP website at 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.

HP 1810 Switch Series

Specifications (continued)



	HP 1810-24 v2 Switch (J9801A)	HP 1810-8G v2 Switch (J9802A)
I/O ports and slots	22 RJ-45 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Duplex: half or full 2 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 22 autosensing 10/100 ports plus 2 autosensing 10/100/1000 ports plus 2 SFP 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 Supports a maximum of 8 autosensing 10/100/1000 ports
Physical characteristics		
Dimensions	12.99(w) x 6.81(d) x 1.73(h) in (32.99 x 17.3 x 4.39 cm) (1U height)	7.93(w) x 4.65(d) x 1.73(h) in (20.14 x 11.81 x 4.39 cm) (1U height)
Weight	2.2 lb (1 kg)	0.84 lb (.38 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 in an EIA-standard 19 in. telco rack (hardware included); horizontal surface, wall, and under-table mounting	wall, desktop, and under-table mounting
Performance		
100 Mb Latency	< 3.4 μ s (64-byte packets)	< 3.3 μ s (64-byte packets)
1000 Mb Latency		< 2.3 μ s (64-byte packets)
Throughput	up to 9.2 Mpps	up to 11.9 Mpps
Switching capacity	12.4 Gbps	16 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
AC voltage	100 - 127 / 200 - 240 VAC	100 - 240 VAC
Current	.4/3 A	.5 A
Maximum power rating	22 W	7.2 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.

	HP 1810-24 v2 Switch (J9801A)	HP 1810-8G v2 Switch (J9802A)
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	Web browser	Web browser
Notes	Use only supported genuine HP mini-GBICs with your switch.	Use only supported genuine HP mini-GBICs with your switch.
Services	Refer to the HP website at 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.	Refer to the HP website at 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.

Standards and Protocols

(applies to all products in series)

Denial of service protection

CPU DoS Protection

General protocolsIEEE 802.1p Priority
IEEE 802.1Q VLANsIEEE 802.3ad Link Aggregation Control
Protocol (LACP)
IEEE 802.3x Flow ControlRFC 1534 DHCP/BOOTP Interoperation
RFC 2030 Simple Network Time Protocol
(SNTP) v4**Network management**IEEE 802.1AB Link Layer Discovery
Protocol (LLDP)

HP 1810 Switch Series accessories

Cables

HP 0.5 m Multi-mode OM3 LC/LC Optical Cable (AJ833A)
HP 1 m Multi-mode OM3 LC/LC Optical Cable (AJ834A)
HP 2 m Multi-mode OM3 LC/LC Optical Cable (AJ835A)
HP 5 m Multi-mode OM3 LC/LC Optical Cable (AJ836A)
HP 15 m Multi-mode OM3 LC/LC Optical Cable (AJ837A)
HP 30 m Multi-mode OM3 LC/LC Optical Cable (AJ838A)
HP 50 m Multi-mode OM3 LC/LC Optical Cable (AJ839A)
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)

Mounting kit

HP X410 1U Universal 4-post Rack Mounting Kit (J9583A)

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