HP 1810 Switch Series

Models

HP 1810-8G v2 Switch	J9802A
HP 1810-24G v2 Switch	J9803A
HP 1810-48G Switch	J9660A
HP 1810-8 v2 Switch	A0086f
HP 1810-24 v2 Switch	J9801A

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 1810 Switches 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—Energy Efficient Ethernet (EEE) and idle-port power down. The HP 1810 Switch Series have a limited lifetime warranty.

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; deploy 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 what 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-/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 8-port models have four trunks of four links each, the 24-port models have eight trunks of four links each, and the 1810-48G switch has 16



Overview

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 support 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 (RSTP) provides 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



Overview

Management

- 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 enables 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 v2.0 Advance hardware replacement with next-business-day delivery (available in most countries). See www.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 3 years; limited electronic and business hours telephone support is available from HP for the entire warranty period; 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



Configuration

Build To Order:

BTO is a standalone unit with no integration. BTO products ship standalone are not part of a CTO or Rack-Shippable solution.

HP 1810-8 v2 Switch • 7 RJ-45 autosensing 10/100 ports • 1 RJ-45 autosensing 10/100/1000 port • 1U - Height	J9800A See Configuration Note:2
HP 1810-8G v2 Switch • 8 RJ-45 autosensing 10/100/1000 ports • 1U - Height	J9802A See Configuration Note:2
HP 1810-24 v 2 Switch 22 RJ-45 autosensing 10/100 ports 2 RJ-45 autosensing 10/100/1000 ports 2 SFP autosensing 100/1000 ports 1U - Height	J9801A See Configuration Note:1, 3
PDU Cable NA/MX/TW/JP • C15 PDU Jumper Cord (NA/MX/TW/JP)	J9801A#B2B
PDU Cable ROW C15 PDU Jumper Cord (ROW) 	J9801A#B2C
HP 1810-24G v2 Switch • 24 RJ-45 autosensing 10/100/1000 ports • 2 SFP 100/1000 ports • 1U - Height	J9803A See Configuration Note:1, 3
 24 RJ-45 autosensing 10/100/1000 ports 2 SFP 100/1000 ports 	See Configuration
 24 RJ-45 autosensing 10/100/1000 ports 2 SFP 100/1000 ports 1U - Height PDU Cable NA/MX/TW/JP	See Configuration Note:1, 3

• 1U - Height



Configuration

PDU Cable NA/M • C15 PDL	K/TW/JP J Jumper Cord (NA/MX/TW/JP)	J9660A#B2B
PDU Cable ROW • C15 PDL	J Jumper Cord (ROW)	J9660A#B2C
Configuration Ru	les:	
Note 1	The following Transceivers install into this switch: HP X121 1G SFP LC SX Transceiver HP X121 1G SFP LC LX Transceiver HP X111 100M SFP LC FX Transceiver HP X121 1G SFP RJ45 T Transceiver	J4858C J4859C J9054C J8177C
Note 2	Localization required. (See Localization Menu for list.)	
Note 3	Localization (Wall Power Cord) required on orders without #B2B or #B2C (PDU Power Cord). (Menu)	See Localization
CTO Models		
HP 1810-48G Switch • 48 autosensing 10/100 ports • 4 SFP 100/1000 Mbps ports • 1U - Height		J9660A See Configuration Note:1, 2, 3
PDU Cable NA/M • C15 PDL	K/TW/JP J Jumper Cord (NA/MX/TW/JP)	J9660A#B2B
PDU Cable ROW • C15 PDL	J Jumper Cord (ROW)	J9660A#B2C
Configuration Ru	les:	
Note 1	The following Transceivers install into this switch: HP X121 1G SFP LC SX Transceiver HP X121 1G SFP LC LX Transceiver HP X111 100M SFP LC FX Transceiver HP X121 1G SFP RJ45 T Transceiver	J4858C J4859C J9054C J8177C
Note 2	Localization (Wall Power Cord) required on orders without #B2B or #B2C (PDU Power Cord). (See Localization Menu)	



Configuration

Note 3

If this switch is factory installed in HP Universal Racks, Then the J9583A#0D1 is required. EMEA then J9583A#0D1 is required. APD, Japan and China then J9583A#0D1 is required.

CLIC Only - Allow the J9583AZ in all regions.

Internal or External Power Supplies (Model Dependant)

Power supplies Included

Enter the following menu selections as integrated to the CTO Model X server above if order is factory built.

Transceivers

SFP Transceivers HP X121 1G SFP LC SX Transceiver J4858C HP X121 1G SFP LC LX Transceiver J4859C HP X111 100M SFP LC FX Transceiver J9054C HP X121 1G SFP RJ45 T Transceiver J8177C Cables **Multi-Mode Cables** HP .5m Multi-mode OM3 LC/LC FC Cable AJ833A HP 1m Multi-mode OM3 LC/LC FC Cable AJ834A HP 2 m Multimode OM3 LC/LC FC Cable AJ835A HP 5 m Multimode OM3 LC/LC FC Cable AJ836A HP 15 m Multimode OM3 LC/LC FC Cable AJ837A HP 30 m Multimode OM3 LC/LC FC Cable AJ838A HP 50 m Multimode OM3 LC/LC FC Cable AJ839A **OM4** Cables HP Premier Flex LC/LC OM4 2f 1m Cbl QK732A HP Premier Flex LC/LC OM4 2f 2m Cbl QK733A HP Premier Flex LC/LC OM4 2f 5m Cbl QK734A



Configuration

HP Premier Flex LC/LC OM4 2f 15m Cbl	QK735A
HP Premier Flex LC/LC OM4 2f 30m Cbl	QK736A
HP Premier Flex LC/LC OM4 2f 50m Cbl	QK737A
HP Premier Flex LC/LC OM4 2f 1m Cbl	QK732A
HP Premier Flex LC/LC OM4 2f 2m Cbl	QK733A
HP Premier Flex LC/LC OM4 2f 5m Cbl	QK734A
HP Premier Flex LC/LC OM4 2f 15m Cbl	QK735A
HP Premier Flex LC/LC OM4 2f 30m Cbl	QK736A
HP Premier Flex LC/LC 0M4 2f 50m Cbl	QK737A

Switch Enclosure Options

Rack Mount Kit

HP X410 1U Univ 4-post Rack Mnt Kit	J9583A
	See Configuration Note:1

Configuration Rules:

Note 1 If this Mounting Kit is order with #0D1 then it integrates to the HP Universal Rack. (not the switch)



Technical Specifications

HP 1810-8G v2 Switch (J9802A)	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	7.93(w) x 4.65(d) x 1.73(h) in (20.14 x 11.81 x 4.39 cm) (1U height)
		Weight	0.84 lb (.38 kg)
	Memory and processor	128 MB RAM, 8 MB flash; p	acket buffer size: 512 KB
	Mounting	wall, desktop and under ta	able mounting
	Performance	100 Mb Latency	< 3.3 µs (64-byte packets)
		1000 Mb Latency	< 2.3 µs (64-byte packets)
		Throughput	up to 11.9 million pps
		Switching capacity	16 Gbps
		MAC address table size	8000 entries
	Environment	Operating temperature	32°F to 104°F (0°C to 40°C)
		Operating relative humidity	15% to 95% @ 104°F (40°C)
		Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
		Nonoperating/Storage relative humidity	15% to 95% @ 140°F (60°C)
		Altitude	up to 10,000 ft. (3 km)
		Acoustic	Power: 0 dB no fan
	Electrical characteristics	Voltage	100-127/200-240 VAC
		Current	0.5 A
		Maximum power rating	7.2 W
		Frequency	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.
	Safety	UL 60950-1; IEC 60950; EN 60950	
	Emissions	EN 55022 Class A; CISPR 2 B Class A; VCCI V-4	2 Class A; VCCI V-3; FCC (CFR 47, Part 15) Subpart
	Immunity	ESD	IEC 61000-4-2
		Radiated	IEC 61000-4-3
		EFT/Burst	IEC 61000-4-4
		Surge	IEC 61000-4-5
		Conducted	IEC 61000-4-6
		Power frequency magnetic field	IEC 61000-4-8
		Voltage dips and interruptions	IEC 61000-4-11
		Harmonics	IEC 61000-3-2



Technical Specifications

		Flicker	IEC 61000-3-3	
	Management	Web browser		
	Notes	Use only support	Use only supported genuine HP mini-GBICs with your switch.	
	Notes Services	3-year, 4-hour or 3-year, 4-hour or 3-year, 4-hour or support and SW u 3-year, 24x7 SW u Installation with u Installation with u (U4830E) 4-year, 4-hour or 4-year, 4-hour or 4-year, 4-hour or 5-year, 4-hour or 5-year, 4-hour or 5-year, 4-hour or 5-year, 4-hour or 5-year, 4-hour or 5-year, 24x7 SW u 3 Yr 6 hr Call-to-F 4 Yr 6 hr Call-to-F 1-year, 4-hour or 1-year, 4-hour or 1-year, 4-hour or 1-year, 4-hour or 1-year, 24x7 soft 1-year, 24x7 soft Day Hardware Ex 3-year, 24x7 soft Day Hardware Ex 3-year, 24x7 soft Exchange (HU350 4-year, 24x7 soft Day Hardware Ex 4-year, 24x7 soft Day Hardware Ex 5-year, 24x7 soft Day Hardware Ex 5-year, 24x7 soft Day Hardware Ex 5-year, 24x7 soft Day Hardware Ex 4-year, 24x7 soft Exchange (HS811 5-year, 24x7 soft Day Hardware Ex	site, 13x5 coverage for hardware (UE256E) site, 24x7 coverage for hardware, 24x7 SW phone pdates (UE258E) phone support, software updates (UE260E) minimum configuration, system-based pricing (U4826E) HP-provided configuration, system-based pricing site, 13x5 coverage for hardware (UR846E) site, 24x7 coverage for hardware (UR846E) site, 24x7 coverage for hardware (UR847E) site, 24x7 coverage for hardware, 24x7 software phone phone support, software updates (UR850E) site, 24x7 coverage for hardware (UR850E) site, 24x7 coverage for hardware (UR851E) site, 24x7 coverage for hardware, 24x7 software phone phone support, software updates (UR853E) Repair Onsite (UW383E) site, 13x5 coverage for hardware (HR893E) site, 24x7 coverage for hardware (HR893E) liste, 13x5 coverage for hardware (HR902E) site, 24x7 coverage for hardware (HR902E) site, 24x7 coverage for hardware (HR903E) ware phone support, software updates (HR902E) site, 24x7 coverage for hardware (HR903E) ware phone support, software updates + Next Business change (HU347E) ware phone support, software updates + 4 hour hardware (E) ware phone support, software updates + 4 hour Hardware (E)	
		the service-level des	ebsite at: www.hp.com/networking/services for details on criptions and product numbers. For details about services es in your area, please contact your local HP sales office.	
HP 1810-24G v2 Switch (J9803A)	Ports	24 RJ-45 autoser 802.3u Type 100	ising 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: SE-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		
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)	
	Weight	2.54 lb (1.15 kg)	
Memory and processor	128 MB RAM, 8 MB flash; packet buffer size: 512 KB		
Mounting	Mounts in an EIA-standard 19 in. telco rack (hardware included), horizontal surface, wall and under table mounting		
Performance	100 Mb Latency	< 3.3µs (64-byte packets)	
	1000 Mb Latency	< 2.2µs (64-byte packets)	
	Throughput	up to 38.7 million pps	
	Switching capacity	52 Gbps	
	MAC address table size	8000 entries	
Environment	Operating temperature	32°F to 104°F (0°C to 40°C)	
	Operating relative humidity	15% to 95% @ 104°F (40°C)	
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	
	Nonoperating/Storage relative humidity	15% to 95% @ 140°F (60°C)	
	Altitude	up to 10,000 ft. (3 km)	
	Acoustic	Power: 0 dB no fan	
Electrical characteristics	Voltage	100-127/200-240 VAC	
	Current	0.4/0.3 A	
	Maximum power rating	22 W	
	Frequency	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.	
Safety	UL 60950-1; IEC 60950; EN	160950	
Emissions	EN 55022 Class A; CISPR 2 B Class A; VCCI V-4	2 Class A; VCCI V-3; FCC (CFR 47, Part 15) Subpart	
Immunity	ESD	IEC 61000-4-2	
	Radiated	IEC 61000-4-3	
	EFT/Burst	IEC 61000-4-4	
	Surge	IEC 61000-4-5	
	Conducted	IEC 61000-4-6	
	Power frequency magnetic field	IEC 61000-4-8	
	Voltage dips and interruptions	IEC 61000-4-11	
	Harmonics	IEC 61000-3-2	
	Flicker	IEC 61000-3-3	



Management	Web browser
Notes	Use only supported genuine HP mini-GBICs with your switch.
Services	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)
	3-year, 24x7 SW phone support, software updates (UF792E)
	1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR849E)
	1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR850E)
	1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR851E)
	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, 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.



Technical Specifica	itions			
HP 1810-48G Switch (J9660A)	Ports	48 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEE 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 por		
		Supports a maximum of 48 autosensing 10/100/1000 ports plus 4 ports		
	Physical characteristics	Dimensions	17.4(w) x 9.75(d) x 1.75(h) in (44.2 x 24.77 x 4.45 cm) (1U height)	
		Weight	6.31 lb (2.86 kg)	
	Memory and processor	8 MB flash, 64 MB SDRAM;	; packet buffer size: 1.5 MB	
	Mounting	Mounts in an EIA-standard 19 in. telco rack (hardware included); wall, desktop, tabletop, and under-table mounting		
	Performance	100 Mb Latency	< 8.4 µs (64-byte packets)	
		1000 Mb Latency	< 3.2 µs (64-byte packets)	
		Throughput	up to 77.4 million pps (64-byte packets)	
		Switching capacity	104 Gbps	
		MAC address table size	16000 entries	
	Environment	Operating temperature	32°F to 113°F (0°C to 45°C)	
		Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing	
		Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	
		Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing	
		Altitude	up to 10,000 ft. (3 km)	
		Acoustic	Power: 22 dB single fan	
	Electrical characteristics	Maximum heat dissipation	204 BTU/hr (215.22 kJ/hr)	
		Voltage	100-127/200-240 VAC	
		Current	0.9/0.5 A	
		Maximum power rating	60 W	
		Frequency	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.	
	Safety	CSA 22.2 No. 60950; EN 6	0950/IEC 60950; UL 60950	
	Emissions	EN 55022 Class A; CISPR 22 Class A; VCCI V-3; FCC (CFR 47, Part 15) B Class A; VCCI V-4		
	Immunity	ESD	IEC 61000-4-2	
	-	Radiated	IEC 61000-4-3	
		EFT/Burst	IEC 61000-4-4	
		Surge	IEC 61000-4-5	
		Conducted	IEC 61000-4-6	
		Power frequency magnetic field	IEC 61000-4-8	



Technical Specifications

		Voltage dips and interruptions	IEC 61000-4-11
		Harmonics	IEC 61000-3-2
		Flicker	IEC 61000-3-3
	Management	Web browser	
	Notes		ne HP mini-GBICs with your switch.
	Services		<pre>coverage for hardware (HS854E)</pre>
		3-year, 4-hour onsite, 24x 3-year, 4-hour onsite, 24x support and SW updates (3-year, 4-hour onsite, 24x support and SW updates (3-year, 24x7 SW phone su 3-year, 24x7 SW phone su 1-year, post-warranty, 4-	(7 coverage for hardware (HS856E) (7 coverage for hardware, 24x7 SW phone U6321E) (7 coverage for hardware, 24x7 SW phone
		(HS846E) 1-year, post-warranty, 4- (HS848E)	hour onsite, 24x7 coverage for hardware
		1-year, post-warranty, 4- software phone support (I Installation with minimum Installation with HP-provi (U4830E) 4-year, 4-hour onsite, 13x 4-year, 4-hour onsite, 24x 4-year, 4-hour onsite, 24x (HS866E) 4-year, 24x7 SW phone su 5-year, 4-hour onsite, 13x 5-year, 4-hour onsite, 24x 5-year, 4-hour onsite, 24x 5-year, 4-hour onsite, 24x 5-year, 4-hour onsite, 24x (HS874E) 5-year, 24x7 SW phone su 3 Yr 6 hr Call-to-Repair Or 3 Yr 6 hr Call-to-Repair Or 1-year, 6 hour Call-To-Rep 1-year, 24x7 software pho Refer to the HP website at the service-level descriptions	a configuration, system-based pricing (U4826E) ded configuration, system-based pricing (5 coverage for hardware (HS862E) (7 coverage for hardware, 24x7 software phone (7 coverage for hardware, 24x7 software phone (5 coverage for hardware, 24x7 software phone (5 coverage for hardware (HS870E) (5 coverage for hardware (HS870E) (7 coverage for hardware, 24x7 software phone (HS870E) (7 coverage for hardware, 24x7 software phone (HS870E) (8 coverage for hardware, 24x7 software phone (HS860E) (9 coverage for hardware, 24x7 software phone (HS868E) (9 coverage for hardware, 24x7 software phone (HS868E) (9 coverage for hardware, 24x7 software phone (HS868E) (9 coverage for hardware, 24x7 software phone (HS852E) (1 coverage for hardware, 24x7 software phone (HS852E) (1 coverage for hardware, 24x7 software phone (HS852E) (1 coverage for hardware, 24x7 software phone (HS8531E) (1 coverage for hardware, 24x7 software, 24x7 software
HP 1810-8 v2 Switch (J9800A)	Ports		rr area, please contact your local HP sales office. 00 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u x: half or full
		1 RJ-45 autosensing 10/1 802.3u Type 100BASE-TX 10BASE-T/100BASE-TX: h	00/1000 port (IEEE 802.3 Type 10BASE-T, IEEE , IEEE 802.3ab Type 1000BASE-T); Duplex: alf or full; 1000BASE-T: full only autosensing 10/100 ports plus 1 autosensing
	Physical characteristics	Dimensions	7.93(w) x 4.65(d) x 1.73(h) in (20.14 x 11.81 x 4.39 cm) (1U height)



	Weight	0.77 lb (.35 kg)	
Memory and processor	128 MB RAM, 8 MB flash; packet buffer size: 512 KB		
Mounting	wall, desktop and under ta	able mounting	
Performance	100 Mb Latency < 3.3 μs (64-byte packets)		
	Throughput	up to 2.5 million pps	
	Switching capacity	3.4 Gbps	
	MAC address table size	8000 entries	
Environment	Operating temperature	32°F to 104°F (0°C to 40°C)	
	Operating relative humidity	15% to 95% @ 104°F (40°C)	
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	
	Nonoperating/Storage relative humidity	15% to 95% @ 140°F (60°C)	
	Altitude	up to 10,000 ft. (3 km)	
	Acoustic	Power: 0 dB no fan	
Electrical characteristics	Voltage	100-240 VAC	
	Current	0.5 A	
	Maximum power rating	4.8 W	
	Frequency	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.	
Safety	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		
Immunity	ESD	IEC 61000-4-2	
	Radiated	IEC 61000-4-3	
	EFT/Burst	IEC 61000-4-4	
	Surge	IEC 61000-4-5	
	Conducted	IEC 61000-4-6	
	Power frequency magnetic field	IEC 61000-4-8	
	Voltage dips and interruptions	IEC 61000-4-11	
	Harmonics	IEC 61000-3-2	
	Flicker	IEC 61000-3-3	
Management	Web browser		
Notes	Use only supported genuine HP mini-GBICs with your switch.		
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, 24x7 SW phone support, software updates (UE260E) Installation with minimum configuration, system-based pricing (U4826E)		



		(U4830E)	ided configuration, system-based pricing
			x5 coverage for hardware (UR846E) x7 coverage for hardware (UR847E)
			x7 coverage for hardware, 24x7 software phone
		(UR848E)	
			upport, software updates (UR849E)
			x5 coverage for hardware (UR850E)
			x7 coverage for hardware (UR851E)
		5-year, 4-hour onsite, 24 (UR852E)	x7 coverage for hardware, 24x7 software phone
			upport, software updates (UR853E)
		3 Yr 6 hr Call-to-Repair O	
		4 Yr 6 hr Call-to-Repair O	
		5 Yr 6 hr Call-to-Repair O	nsite (UW385E)
		1-year, 4-hour onsite, 13	x5 coverage for hardware (HR899E)
			x7 coverage for hardware (HR900E)
			pair Onsite for hardware (HR903E)
			one support, software updates (HR902E)
		support and software up	
			ione support, software updates + Next Business
		Day Hardware Exchange	
		exchange (HU348E)	one support, software updates + 4 hour hardware
		Day Hardware Exchange	
		3-year, 24x7 software ph Exchange (HU350E)	one support, software updates + 4 hour Hardware
		4-year, 24x7 software ph Day Hardware Exchange	one support, software updates + Next Business (HS810E)
		4-year, 24x7 software ph Exchange (HS811E)	one support, software updates + 4 hour Hardware
		5-year, 24x7 software ph Day Hardware Exchange	one support, software updates + Next Business (HS812E)
			one support, software updates + 4 hour Hardware
		Refer to the HP website a the	t: www.hp.com/networking/services for details on
		service-level descriptions	s and product numbers. For details about services ur area, please contact your local HP sales office.
HP 1810-24 v2 Switch	Ports		
(J9801A)	Ports	802.3u Type 100BASE-T	/100 ports (IEEE 802.3 Type 10BASE-T, IEEE (): Duploy: balf or full
(J500TA)			100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE
		802.3u Type 100BASE-T>	K, IEEE 802.3ab Type 1000BASE-T); Duplex: half or full; 1000BASE-T: full only
		2 SFP 100/1000 Mbps po	· · ·
			22 autosensing 10/100 ports plus 2 autosensing
	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)
		Weight	2.2 lb (1 kg)



HP 1810 Switch Series

Memory and processor	128 MB RAM 8 MB flach n	acket huffer size: 512 KB	
Mounting	128 MB RAM, 8 MB flash; packet buffer size: 512 KB Mounts in an EIA-standard 19 in. telco rack (hardware included), horizontal		
nounting	surface, wall and under table mounting		
Performance	100 Mb Latency	< 3.4µs (64-byte packets)	
	Throughput	up to 9.2 million pps	
	Switching capacity	12.4 Gbps	
	MAC address table size	8000 entries	
Environment	Operating temperature	32°F to 104°F (0°C to 40°C)	
	Operating relative humidity	15% to 95% @ 104°F (40°C)	
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	
	Nonoperating/Storage relative humidity	15% to 95% @ 140°F (60°C)	
	Altitude	up to 10,000 ft. (3 km)	
	Acoustic	Power: 0 dB no fan	
Electrical characteristics	Voltage	100-127/200-240 VAC	
	Current	0.4/0.3 A	
	Maximum power rating	22 W	
	Frequency	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.	
Safety	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		
Immunity	ESD	IEC 61000-4-2	
	Radiated	IEC 61000-4-3	
	EFT/Burst	IEC 61000-4-4	
	Surge	IEC 61000-4-5	
	Conducted	IEC 61000-4-6	
	Power frequency magnetic field	IEC 61000-4-8	
	Voltage dips and interruptions	IEC 61000-4-11	
	Harmonics	IEC 61000-3-2	
	Flicker	IEC 61000-3-3	
Management	Web browser		
Notes	Use only supported genuine HP mini-GBICs with your switch.		
Services	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) 3-year, 24x7 SW phone support, software updates (UF792E) Installation with minimum configuration, system-based pricing (U4826E)		



Technical Specifications

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.

Standards and protocols Denial of service protection

(applies to all products in CPU DoS Protection series)

General protocols

IEEE 802.1p Priority IEEE 802.1Q VLANs 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

Network management

IEEE 802.1AB Link Layer Discovery Protocol (LLDP)



accessories

HP 1	810 9	Switch	Series	Cables

HP LC to LC Multi-mode OM3 2-Fiber 0.5m 1-Pack Fiber Optic Cable	AJ833A
HP LC to LC Multi-mode OM3 2-Fiber 1.0m 1-Pack Fiber Optic Cable	AJ834A
HP LC to LC Multi-mode OM3 2-Fiber 2.0m 1-Pack Fiber Optic Cable	AJ835A
HP LC to LC Multi-mode OM3 2-Fiber 5.0m 1-Pack Fiber Optic Cable	AJ836A
HP LC to LC Multi-mode OM3 2-Fiber 15.0m 1-Pack Fiber Optic Cable	AJ837A
HP LC to LC Multi-mode OM3 2-Fiber 30.0m 1-Pack Fiber Optic Cable	AJ838A
HP LC to LC Multi-mode OM3 2-Fiber 50.0m 1-Pack Fiber Optic 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
HP 1810-24G v2 Switch (J9803A)	
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 1810-48G 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 1810-24 v2 Switch (J9801A)	
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 0.5 m Multimode OM3 LC/LC Optical Cable (AJ833A)	Cabling	Cable type : 50/125 µm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m
	Notes	Maximum distance : 10Gbps Transfer Rate (Ethernet): 300m Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.
		 Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um Optical glass: Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. Optical glass: Bandwidth: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. CABLE: The cable is duplex zip cord graded index 50/125um multimode optical fiber and designed to work in both the 850 and 1300 nm wavelength windows. BULK CABLE & CABLE ASSEMBLY CONFIGURATION: Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. Jacket Color: Aqua for OM3 multimode per TIA 598 Boot Color: White Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	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.
HP 1 m Multimode OM3 LC/LC Optical Cable (AJ834A)	Cabling	Cable type : 50/125 μm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m
	Notes	 Maximum distance: 10Gbps Transfer Rate (Ethernet): 300m Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um

		 Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. CABLE: The cable is duplex zip cord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. BULK CABLE & CABLE ASSEMBLY CONFIGURATION: Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. Jacket Color: Aqua for OM3 multimode per TIA 598 Boot Color: White Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	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.
HP 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)	Cabling	Cable type : 50/125 μm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		Maximum distance:
	Notes	10Gbps Transfer Rate (Ethernet): 300m Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.
		 Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. CABLE: The cable is duplex zip cord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. BULK CABLE & CABLE ASSEMBLY CONFIGURATION: Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. Jacket Color: Aqua for OM3 multimode per TIA 598 Boot Color: White Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @



Accessory Product	Details	
		 1310 nm @ 23°C as tested in accordance with EIA 455-46. Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	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.
HP 5 m Multimode OM3 LC/LC Optical Cable (AJ836A)	Cabling	Cable type : 50/125 μm core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		Maximum distance : 10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: This specification defines the detail requirements for a tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.
		 Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. CABLE: The cable is duplex zip cord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. BULK CABLE & CABLE ASSEMBLY CONFIGURATION: Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. Jacket Color: Aqua for OM3 multimode per TIA 598 Boot Color: White Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	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.
HP 15 m Multimode OM3 LC/LC Optical Cable (AJ837A)	Cabling	Cable type : 50/125 μm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		Maximum distance : 10Gbps Transfer Rate (Ethernet): 300m



	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.
		 Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. CABLE: The cable is duplex zip cord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. BULK CABLE & CABLE ASSEMBLY CONFIGURATION: Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. Jacket Color: Aqua for OM3 multimode per TIA 598 Boot Color: White Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.
	Services	• Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg 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.
HP 30 m Multimode OM3 LC/LC Optical Cable (AJ838A)	Cabling	Cable type : 50/125 μm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		Maximum distance : 10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.
		 Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. CABLE: The cable is duplex zip cord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. BULK CABLE & CABLE ASSEMBLY CONFIGURATION: Jacket Material: Riser Grade - Low Smoke Zero Halogen



		 thermoplastic. Jacket Color: Aqua for OM3 multimode per TIA 598 Boot Color: White Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	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.
HP 50 m Multimode OM3 LC/LC Optical Cable (AJ839A)	Cabling	Cable type : 50/125 μm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		Maximum distance:
	Notes	10Gbps Transfer Rate (Ethernet): 300m Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.
		 Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. CABLE: The cable is duplex zip cord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. BULK CABLE & CABLE ASSEMBLY CONFIGURATION: Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. Jacket Color: Aqua for OM3 multimode per TIA 598 Boot Color: White Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	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.
HP Premier Flex LC/LC Multi-mode OM4 2 fiber	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors



Accessory Product [Details	
1m Cable (QK732A)		on each end.
		 Core Diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um Bandwidth: 3000 MHz-km @ 850nm (Laser) Jacket Color: Blue Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic Boot Color: White Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	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.
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable (QK733A)	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.
		 Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um Bandwidth: 3000 MHz-km @ 850nm (Laser) Jacket Color: Blue Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic Boot Color: White Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	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.
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable (QK734A)	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.
		 Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um Bandwidth: 3000 MHz-km @ 850nm (Laser) Jacket Color: Blue Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic



Accessory Product Details				
		 Boot Color: White Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45 		
	Services	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.		
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable (QK735A)	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.		
	Services	 Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um Bandwidth: 3000 MHz-km @ 850nm (Laser) Jacket Color: Blue Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic Boot Color: White Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45 Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about 		
 HP Premier Flex LC/LC	Notes	services and response times in your area, please contact your local HP sales office. Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+		
Multi-mode OM4 2 fiber 30m Cable (QK736A)		 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um Bandwidth: 3000 MHz-km @ 850nm (Laser) Jacket Color: Blue Jacket Color: Blue Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic Boot Color: White Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45 		



HP 1810 Switch Series

	Services	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.
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable (QK737A)	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.
		 Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um Bandwidth: 3000 MHz-km @ 850nm (Laser) Jacket Color: Blue Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic Boot Color: White
		 Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	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.
HP X410 1U Universal 4- post Rack Mounting Kit (J9583A)	Notes	The rack mounting kit supports the 1U, full width switches in the following switch series and the power supply: V1810 Series, E2510 Series, E2520 Series, E2610 Series, E2810 Series, E2910 Series, E3500 Series, and the E620 Power Supply This universal rack mounting kit is design to fit the following racks: HP 10K 10642, HP 10K 10842, Panduit CN, Panduit CS, Wrightline Vantage S2, APC Netshelter 600mm, and APC Netshelter 800mm. It may well fit many other brands and models too.
	Services	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.
HP X111 100M SFP LC FX Transceiver (J9054C)	Ports Physical characteristics	1 LC 100BASE-FX port (IEEE 802.3u Type 100BASE-FX); Duplex: half or full Dimensions: 2.7(d) x 0.54(w) x 0.48(h) in. (6.86 x 1.38 x 1.22 cm) Weight: 0.06 lb. (0.03 kg)
HP X111 100M SFP LC FX Transceiver: An SFP format 100-megabit transceiver with LC connectors using FX technology.	Environment	Operating temperature: 32°F to 158°F (0°C to 70°C) Operating relative humidity: 5% to 95% Nonoperating/Storage temperature: -40°F to 185°F (-40°C to 85°C) Nonoperating/Storage relative humidity: 5% to 85% Altitude: up to 10,000 ft. (3 km)
	Cabling	Cable type: 62.5/125 µm or 50/125 µm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively; Maximum distance: • 2 km (full duplex) or 412 m (half duplex)



	Notes Services	Transmitter wavelength: 1310nm Power consumption is 1.1 watt maximum. For supported platforms and minimum software requirements to support this product, see the document titled "Support for the J9054C 100-FX SFP- LC Transceiver" on the "ProCurve Mini-GBICs and SFPs" Manuals Web page. 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.	
HP X121 1G SFP LC SX	Ports	1 LC 1000BASE-SX port; Duplex: full only	
Transceiver (J4858C)	Physical characteristics	Dimensions: 2.24(d) x 0.54(w) x 0.48(h) in. (5.69 x 1.37 x 1.22 cm)	
A small form-factor pluggable (SFP) Gigabit SX transceiver that provides a full-duplex Gigabit		Weight: 0.04 lb. (0.02 kg) Transceiver form factor: SFP Operating temperature: 32°F to 158°F (0°C to 70°C) Operating relative humidity: 5% to 85%, noncondensing Nonoperating/Storage temperature: -40°F to 203°F (-40°C to 85°C)	
solution up to 550 m on multimode		Altitude: up to 10,000 ft. (3 km)	
fiber.	Electrical characteristics	Power consumption typical: 0.4 W	
	Cabling	Power consumption maximum: 0.7 W Type:	
		 62.5/125 μm or 50/125 μm (core/cladding) diameter, graded- index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively; Maximum distance: 2-220 m (62.5 μm core diameter, 160 MHz*km bandwidth 2-275 m (62.5 μm core diameter, 200 MHz*km bandwidth 2-500 m (50 μm core diameter, 400 MHz*km bandwidth) 2-550 m (50 μm core diameter, 500 MHz*km bandwidth) 	
	Services	Cable length: 2-550m Fiber type: Multi Mode 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.	
HP X121 1G SFP LC LX Transceiver (J4859C)	Ports Physical characteristics	1 LC 1000BASE-LX port (IEEE 802.3z Type 1000BASE-LX); Duplex: full only Dimensions: 2.24(d) x 0.54(w) x 0.486(h) in. (5.69 x 1.37 x 1.23 cm) Weight:0.04 lb. (0.02 kg)	
HP X121 1G SFP LC LX Transceiver: An SFP format gigabit transceiver with LC connectors using LX		Operating temperature: 32°F to 158°F (0°C to 70°C) Operating relative humidity: 0% to 85%, noncondensing Nonoperating/Storage temperature: -40°F to 212°F (-40°C to 100°C) Altitude: up to 10,000 ft. (3 km)	
technology.	Cabling	Туре:	
		 Either single mode or multimode; 62.5/125 μm or 50/125 μm 	

Either single mode or multimode; 62.5/125 μm or 50/125 μm (core/cladding) diameter, graded-index, low metal content,



		multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively; Low metal content, single- mode fiber-optic, complying with ITU-T G.652 and ISO/IEC 793-2 Type B1;	
		Maximum distance:	
		 2-550 m (multimode 62.5 μm core diameter, 500 MHz*km bandwidth) 2-550 m (multimode 50 μm core diameter, 400 MHz*km bandwidth) 2-550 m (multimode 50 μm core diameter, 500 MHz*km bandwidth) 2-10,000 m (single-mode fiber) 	
	Notes	A mode conditioning patch cord may be needed in some multimode fiber installations. Wavelength: 1310nm Deven Generations of E00mbil Turking	
	Services	Power Consumption: < 500mW Typical Refer to the HP website at www.hp.com/networking/services for details of the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sa office.	
HP X121 1G SFP RJ45 T Transceiver (J8177C)	Ports	1 RJ-45 1000BASE-T port (IEEE 802.3ab Type 1000BASE-T); Duplex: full only	
HP X121 1G SFP RJ45 T	Physical characteristics	Dimensions: 2.71(d) x 0.54(w) x 0.55(h) in. (6.88 x 1.37 x 1.4 cm) Weight: 0.06 lb. (0.03 kg)	
Transceiver: An SFP format gigabit transceiver	Environment	Operating temperature: 32°F to 158°F (0°C to 70°C); with 100 LFM airflow over the SFP module)	
with RJ45 connectors using 1000BaseT technology.		Operating relative humidity: 0% to 95% @ 75°F (25°C), noncondensing Nonoperating/Storage temperature: -40°F to 185°F (-40°C to 85°C) Nonoperating/Storage relative humidity: 0% to 95% @ 77°F (25°C), noncondensing Altitude: up to 10,000 ft. (3000 km)	
	Cabling	Cable type: 1000BASE-T: Category 5 (5E or better recommended), 100 Ù differential 4- pair unshielded twisted pair (UTP) or shielded twisted pair (STP) balanced, complying with IEEE 802.3ab 1000BASE-T; Maximum distance: • 100 m	
	Notes	Power consumption is nominally 1 watt. For supported platforms and minimum software requirements to support this product, see the document titled "Support for the J8177C 1000Base-T Mini-GBIC" on the "ProCurve Mini-GBICs and SFPs" Manuals Web page. The J8177C Gigabit copper mini-GBIC is not supported on dual-personality ports. The J8177C is capable of 100 Mb operation. This is supported on only the HP ProCurve Switch 8200zl, 5400zl, and 6200yl Series using software version K.12.21 or later. Use the "auto-100" port setting to enable 100 Mb operation. Important: The earlier J8177B does not support 100 Mb operation. When used in the ProCurve Switch gl 20-Port 10/100/1000 Module (J4908A), the J8177C mini-GBIC can be installed in either the upper or lower	



	mini-GBIC port, but will block access to the other port.
Services	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.



Summary of Changes

Date	Version History	Action	Description of Change:
01-Dec-2014	From Version 19 to 20	Changed	Warranty and support updated
06-0ct-2014	From Version 18 to 19	Changed	SKU descriptions updated, minor changes on Technical Specifications
17-Jan-2014	From Version 17 to 18	Changed	CTO Models and Switch Enclosure Options were revised.
09-Dec-2013	From Version 16 to 17	Changed	Changes made throughout the Configuration section.
04-Nov-2013	From Version 15 to 16	Added	OM4 Cables were added to Configuration.
12-Jul-2013	From Version 14 to 15	Added	Configuration was added.
28-Jun-2013	From Version 13 to 14	Changed	Product overview, Features and benefits, and Ports throughout Technical Specifications were revised.
10-Jun-2013	From Version 12 to 13	Added	OM4 cables were added.
31-Jan-2013	From Version 11 to 12	Changed	Updated the Key Features, Product overview, Features and Benefits, Models, and Standards and Protocols.
18-0ct-2012	From Version 10 to 11	Changed	The dimensions for several models were updated.
24-Sep-2012	From Version 9 to 10	Changed	The QuickSpec was completely revised, including adding several new models.
28-0ct-2011	From Version 8 to 9	Changed	The QuickSpec was completely revised, including changing the title.
27-Sep-2011	From Version 5 to 8	Added	Accessory Product Details was added.
20-Jun-2011	From Version 4 to 5	Changed	The QuickSpec was completely revised, including adding a model.
15-Apr-2011	From Version 3 to 4	Removed	Removed the remaining mentions of ProCurve from the QS.
10-Sept-2010	From Version 2 to 3	Changed	The QuickSpec was completely revised, including changing the title.
11-Jan-2010	From Version 1 to 2	Changed	Updated the Introduction and Key Features sections.

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