

### Overview

## Models

HP 1810-48G Switch	J9660A
HP 1810-24G Switch	J9450A
HP 1810-8G Switch	J9449A

## Key features

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

## Product overview

HP 1810 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 or ceilings, under tables, or desktop operation, and come with an anti-theft protection Kensington Lock slot (lock not included). The 8-port model can optionally be powered by an upstream Power over Ethernet (PoE) switch. HP 1810 switches support QoS traffic prioritization and security features such as denial-of-service prevention. Customizable features include VLANs and link aggregation trunking. HP 1810 switches come with 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 network broadcast traffic

### 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** (1810-48G switch): four true SFP ports for optional fiber connectivity such as Gigabit-SX, -LX, or 100-FX; also support SFP 1G RJ-45 copper connections
- **Dual-personality ports** (1810-24G switch): two Gigabit Ethernet copper ports or SFP slots for optional fiber connectivity such



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as Gigabit-SX and -LX, or 100-FX

- **IEEE 802.3af PoE-powered device option** (1810-8G 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 1810-8G switch has four trunks of four links each, the 1810-24G switch has eight trunks of four links each, and the 1810-48G 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 the 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** (1810-8G 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** (1810-24G and 1810-48G 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



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- **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](http://www.hp.com/networking/warranty) for details on the support provided and the period during which support is available

\* Hardware warranties replacement for as long as you own the product, with next business day advance replacement (available in most countries). The disk drive included with HP Alliance One Advanced Services and Services zl Modules, HP Threat Management Services zl Module, HP AllianceOne Ext zl Mod w/Rvrbd Stlhd, HP E-MSM765zl Mobility Controller and HP Surv Brch Com zl Mod pwrby Msft Lync has a five-year hardware warranty. For details, refer to the Software license and hardware warranty statements at: [www.hp.com/networking/warranty](http://www.hp.com/networking/warranty).



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HP 1810-48G Switch (J9660A)	Ports	<p>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</p> <p>4 SFP 100/1000 Mbps ports</p> <p>Supports a maximum of 48 autosensing 10/100/1000 ports plus 4 SFP ports</p>
	Physical characteristics	<p><b>Dimensions</b> 9.75(d) x 17.4(w) x 1.75(h) in. (24.77 x 44.2 x 4.45 cm) (1U height)</p> <p><b>Weight</b> 6.30 lb. (2.86 kg), Fully loaded</p>
	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 undertable mounting
	Performance	<p><b>100 Mb Latency</b> &lt; 8.4 <math>\mu</math>s (64-byte packets)</p> <p><b>1000 Mb Latency</b> &lt; 3.2 <math>\mu</math>s (64-byte packets)</p> <p><b>Throughput</b> up to 77.4 million pps (64-byte packets)</p> <p><b>Switching capacity</b> 104 Gbps</p> <p><b>MAC address table size</b> 16000 entries</p>
	Environment	<p><b>Operating temperature</b> 32°F to 113°F (0°C to 45°C)</p> <p><b>Operating relative humidity</b> 15% to 95% @ 104°F (40°C), noncondensing</p> <p><b>Nonoperating/Storage temperature</b> -40°F to 158°F (-40°C to 70°C)</p> <p><b>Nonoperating/Storage relative humidity</b> 15% to 90% @ 149°F (65°C), noncondensing</p> <p><b>Altitude</b> up to 10,000 ft. (3 km)</p> <p><b>Acoustic</b> Power: 22 dB single fan</p>
	Electrical characteristics	<p><b>Maximum heat dissipation</b> 204 BTU/hr (215.22 kJ/hr)</p> <p><b>Voltage</b> 100-127/200-240 VAC</p> <p><b>Current</b> 0.9/0.5 A</p> <p><b>Maximum power rating</b> 60 W</p> <p><b>Frequency</b> 50/60 Hz</p> <p><b>Notes</b> 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.</p>
	Safety	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)
	Immunity	<p><b>EN</b> EN 55024, CISPR 24</p> <p><b>ESD</b> IEC 61000-4-2</p>



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	<b>Radiated</b>	IEC 61000-4-3
	<b>EFT/Burst</b>	IEC 61000-4-4
	<b>Surge</b>	IEC 61000-4-5
	<b>Conducted</b>	IEC 61000-4-6
	<b>Power frequency magnetic field</b>	IEC 61000-4-8
	<b>Voltage dips and interruptions</b>	IEC 61000-4-11
	<b>Harmonics</b>	IEC 61000-3-2
	<b>Flicker</b>	IEC 61000-3-3
<b>Management</b>	HP PCM; Web browser	
<b>Notes</b>	Use only supported genuine HP mini-GBICs with your switch.	
<b>Services</b>	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, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E) 3-year, 24x7 SW phone support, software updates (HS859E) 3-year, 24x7 SW phone support, software updates (UF792E) 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) 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 (HS862E) 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 (HS864E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HS866E) 4-year, 24x7 SW phone support, software updates (UR951E) 4-year, 24x7 SW phone support, software updates (HS867E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E) 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 (UR953E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HS874E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E) 5-year, 24x7 SW phone support, software updates (HS875E) 5-year, 24x7 SW phone support, software updates (UR955E) 3 Yr 6 hr Call-to-Repair Onsite (UW368E) 3 Yr 6 hr Call-to-Repair Onsite (HS860E) 4 Yr 6 hr Call-to-Repair Onsite (HS868E)	



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4 Yr 6 hr Call-to-Repair Onsite (UW369E)  
 5 Yr 6 hr Call-to-Repair Onsite (UW370E)  
 5 Yr 6 hr 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: [www.hp.com/networking/services](http://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.

<b>HP 1810-24G Switch (J9450A)</b>	<b>Ports</b>	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)
	<b>Physical characteristics</b>	<b>Dimensions</b> 6.74(d) x 17.42(w) x 1.73(h) in. (17.12 x 44.25 x 4.39 cm) (1U height)  <b>Weight</b> 4.32 lb. (1.96 kg), Fully loaded
	<b>Memory and processor</b>	8 MB flash, 16 MB SDRAM; packet buffer size: 512 KB
	<b>Mounting</b>	Mounts in an EIA-standard 19 in. telco rack (hardware included); wall, desktop, tabletop, and undertable mounting
	<b>Performance</b>	<b>100 Mb Latency</b> < 7.4 $\mu$ s (64-byte packets) <b>1000 Mb Latency</b> < 3.0 $\mu$ s (64-byte packets) <b>Throughput</b> up to 35.7 million pps (64-byte packets) <b>Switching capacity</b> 48 Gbps <b>MAC address table size</b> 8000 entries
	<b>Environment</b>	<b>Operating temperature</b> 32°F to 104°F (0°C to 40°C) <b>Operating relative humidity</b> 15% to 95% @ 104°F (40°C), noncondensing <b>Nonoperating/Storage temperature</b> -40°F to 158°F (-40°C to 70°C) <b>Nonoperating/Storage relative humidity</b> 15% to 90% @ 149°F (65°C), noncondensing <b>Altitude</b> up to 10,000 ft. (3 km) <b>Acoustic</b> Power: 0 dB no fan
	<b>Electrical characteristics</b>	<b>Maximum heat dissipation</b> 102 BTU/hr (107.61 kJ/hr) <b>Voltage</b> 100-127/200-240 VAC <b>Current</b> 0.7/0.4 A <b>Maximum power rating</b> 30 W <b>Frequency</b> 50/60 Hz



### Technical Specifications

	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.
<b>Safety</b>	CSA 22.2 No. 60950; EN 60950/IEC 60950; UL 60950	
<b>Emissions</b>	FCC Rules Part 15, Subpart B Class A; EN 55022; VCCI; ICES-003 (Canada)	
<b>Immunity</b>	<b>EN</b>	EN 55024, CISPR 24
	<b>ESD</b>	IEC 61000-4-2
	<b>Radiated</b>	IEC 61000-4-3
	<b>EFT/Burst</b>	IEC 61000-4-4
	<b>Surge</b>	IEC 61000-4-5
	<b>Conducted</b>	IEC 61000-4-6
	<b>Power frequency magnetic field</b>	IEC 61000-4-8
	<b>Voltage dips and interruptions</b>	IEC 61000-4-11
	<b>Harmonics</b>	IEC 61000-3-2
	<b>Flicker</b>	IEC 61000-3-3
<b>Management</b>	HP PCM; Web browser	
<b>Notes</b>	Use only supported genuine HP mini-GBICs with your switch.	
<b>Services</b>	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)	



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1-year, 24x7 software phone support, software updates (HR852E)  
 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](http://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.

<b>HP 1810-8G Switch</b> (J9449A)	<b>Ports</b>	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		
	<b>Physical characteristics</b>	<b>Dimensions</b>	4.58(d) x 7.73(w) x 1.73(h) in. (11.63 x 19.63 x 4.39 cm) (1U height)	
		<b>Weight</b>	1.19 lb. (0.54 kg), Fully loaded	
	<b>Memory and processor</b>	8 MB flash, 16 MB SDRAM; packet buffer size: 512 KB		
	<b>Mounting</b>	Wall, ceiling, desktop, and under-table mounting		
	<b>Performance</b>	<b>100 Mb Latency</b>	< 3.9 $\mu$ s (64-byte packets)	
		<b>1000 Mb Latency</b>	< 2.1 $\mu$ s (64-byte packets)	
		<b>Throughput</b>	up to 11.9 million pps (64-byte packets)	
		<b>Switching capacity</b>	16 Gbps	
		<b>MAC address table size</b>	8000 entries	
	<b>Environment</b>	<b>Operating temperature</b>	32°F to 104°F (0°C to 40°C)	
		<b>Operating relative humidity</b>	15% to 95% @ 104°F (40°C), noncondensing	
		<b>Nonoperating/Storage temperature</b>	-40°F to 158°F (-40°C to 70°C)	
		<b>Nonoperating/Storage relative humidity</b>	15% to 90% @ 149°F (65°C), noncondensing	
		<b>Altitude</b>	up to 10,000 ft. (3 km)	
<b>Electrical characteristics</b>	<b>Acoustic</b>	Power: 0 dB no fan		
	<b>Maximum heat dissipation</b>	51 BTU/hr (53.81 kJ/hr)		
	<b>Voltage</b>	100-240 VAC		
	<b>Current</b>	0.5 A		
	<b>Maximum power rating</b>	15 W		





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	<b>Frequency</b>	50/60 Hz
	<b>Notes</b>	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.
<b>Safety</b>	CSA 22.2 No. 60950; EN 60950/IEC 60950; UL 60950	
<b>Emissions</b>	FCC Rules Part 15, Subpart B Class A; EN 55022; VCCI; ICES-003 (Canada)	
<b>Immunity</b>	<b>EN</b>	EN 55024, CISPR 24
	<b>ESD</b>	IEC 61000-4-2
	<b>Radiated</b>	IEC 61000-4-3
	<b>EFT/Burst</b>	IEC 61000-4-4
	<b>Surge</b>	IEC 61000-4-5
	<b>Conducted</b>	IEC 61000-4-6
	<b>Power frequency magnetic field</b>	IEC 61000-4-8
	<b>Voltage dips and interruptions</b>	IEC 61000-4-11
	<b>Harmonics</b>	IEC 61000-3-2
	<b>Flicker</b>	IEC 61000-3-3
<b>Management</b>	HP PCM; Web browser	
<b>Notes</b>	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	
<b>Services</b>	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) Installation with HP-provided configuration, system-based pricing (U4830E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UR846E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UR847E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR848E) 4-year, 24x7 SW phone support, software updates (UR849E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UR850E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UR851E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR852E) 5-year, 24x7 SW phone support, software updates (UR853E)	



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3 Yr 6 hr Call-to-Repair Onsite (UW383E)

4 Yr 6 hr Call-to-Repair Onsite (UW384E)

5 Yr 6 hr Call-to-Repair Onsite (UW385E)

Refer to the HP website at: [www.hp.com/networking/services](http://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**  
(applies to all products in series)

**Denial of service protection**

CPU DoS Protection

**General protocols**

IEEE 802.1p Priority

IEEE 802.1Q VLANs

IEEE 802.3ad 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 1810 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
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##### 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 1810-24G 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



### Accessory Product Details

**NOTE:** Details are not available for all accessories. The following specifications were available at the time of publication.

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

#### Cabling

#### Cable type:

50/125  $\mu\text{m}$  (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  $\mu\text{m}$  fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter:  $50 \pm 3.0\mu\text{m}$  Cladding diameter:  $125 \pm 2.0\mu\text{m}$  Coating diameter:  $245 \pm 10\mu\text{m}$
- 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 zipcord graded index 50/125 $\mu\text{m}$  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](http://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.



### Accessory Product Details

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

**Cable type:**

50/125  $\mu\text{m}$  (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  $\mu\text{m}$  fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter:  $50 \pm 3.0\mu\text{m}$  Cladding diameter:  $125 \pm 2.0\mu\text{m}$  Coating diameter:  $245 \pm 10\mu\text{m}$
- 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 zipcord graded index 50/125 $\mu\text{m}$  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](http://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.



### Accessory Product Details

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

**Cable type:**

50/125  $\mu\text{m}$  (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  $\mu\text{m}$  fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter:  $50 \pm 3.0\mu\text{m}$  Cladding diameter:  $125 \pm 2.0\mu\text{m}$  Coating diameter:  $245 \pm 10\mu\text{m}$
- 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 zipcord graded index 50/125 $\mu\text{m}$  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](http://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.



### Accessory Product Details

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

#### Cable type:

50/125  $\mu\text{m}$  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  $\mu\text{m}$  fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter:  $50 \pm 3.0\mu\text{m}$  Cladding diameter:  $125 \pm 2.0\mu\text{m}$  Coating diameter:  $245 \pm 10\mu\text{m}$
- 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 zipcord graded index 50/125 $\mu\text{m}$  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](http://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.



### Accessory Product Details

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

#### Cabling

#### Cable type:

50/125  $\mu\text{m}$  (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  $\mu\text{m}$  fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter:  $50 \pm 3.0\mu\text{m}$  Cladding diameter:  $125 \pm 2.0\mu\text{m}$  Coating diameter:  $245 \pm 10\mu\text{m}$
- 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 zipcord graded index 50/125 $\mu\text{m}$  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](http://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.





### Accessory Product Details

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

#### Cabling

#### Cable type:

50/125  $\mu\text{m}$  (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  $\mu\text{m}$  fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter:  $50 \pm 3.0\mu\text{m}$  Cladding diameter:  $125 \pm 2.0\mu\text{m}$  Coating diameter:  $245 \pm 10\mu\text{m}$
- 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 zipcord graded index 50/125 $\mu\text{m}$  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](http://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.



### Accessory Product Details

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

#### Cabling

#### Cable type:

50/125  $\mu\text{m}$  (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  $\mu\text{m}$  fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter:  $50 \pm 3.0\mu\text{m}$  Cladding diameter:  $125 \pm 2.0\mu\text{m}$  Coating diameter:  $245 \pm 10\mu\text{m}$
- 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 zipcord graded index 50/125 $\mu\text{m}$  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](http://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.



### Accessory Product Details

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

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  $\pm$  3um; Cladding diameter: 125um  $\pm$  2um; Coating diameter: 245  $\pm$  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 @ 1310 nm @ 23°C as tested in accordance with EIA 455-46

Services

Refer to the HP website at [www.hp.com/networking/services](http://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 PremierFlex  
OM3+ LC/LC Optical  
Cable (BK838A)

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  $\pm$ 3um, Cladding diameter: 125um  $\pm$ 2um; Coating diameter: 245  $\pm$  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](http://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.



### Accessory Product Details

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

#### 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  $\pm$ 3um, Cladding diameter: 125um  $\pm$ 2um; Coating diameter: 245  $\pm$  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](http://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 PremierFlex  
OM3+ LC/LC Optical  
Cable (BK840A)

#### 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  $\pm$ 3um, Cladding diameter: 125um  $\pm$ 2um; Coating diameter: 245  $\pm$  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](http://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.



### Accessory Product Details

**HP 15 m PremierFlex OM3+ LC/LC Optical Cable (BK841A)**      **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  $\pm$ 3um, Cladding diameter: 125um  $\pm$ 2um; Coating diameter: 245  $\pm$  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](http://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.

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**HP 30 m PremierFlex OM3+ LC/LC Optical Cable (BK842A)**      **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  $\pm$ 3um, Cladding diameter: 125um  $\pm$ 2um; Coating diameter: 245  $\pm$  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](http://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.



### Accessory Product Details

**HP 50 m PremierFlex OM3+ LC/LC Optical Cable (BK843A)**      **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  $\pm$ 3um, Cladding diameter: 125um  $\pm$ 2um; Coating diameter: 245  $\pm$  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](http://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.

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**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](http://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.

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### Accessory Product Details

<b>HP X111 100M SFP LC FX Transceiver (J9054C)</b>	<b>Physical characteristics</b>	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.	<b>Environment</b>	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)
	<b>Cabling</b>	Cable type: 62.5/125 $\mu\text{m}$ or 50/125 $\mu\text{m}$ (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: <ul style="list-style-type: none"><li>• 2 km (full duplex) or 412 m (half duplex)</li></ul>
	<b>Notes</b>	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 J9054B 100-FX SFP-LC Transceiver" on the "ProCurve Mini-GBICs and SFPs" Manuals Web page.
	<b>Services</b>	Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> 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.

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<b>HP X121 1G SFP LC SX Transceiver (J4858C)</b>	<b>Ports</b>	1 LC 1000BASE-SX port; Duplex: full only
A small form-factor pluggable (SFP) Gigabit SX transceiver that provides a full-duplex Gigabit solution up to 550 m on multimode fiber.	<b>Physical characteristics</b>	Dimensions: 2.24(d) x 0.54(w) x 0.48(h) in. (5.69 x 1.37 x 1.22 cm) Weight: 0.04 lb. (0.02 kg) Transceiver form factor: SFP
	<b>Environment</b>	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) Altitude: up to 10,000 ft. (3 km)
	<b>Electrical characteristics</b>	Power consumption typical: 0.4 W Power consumption maximum: 0.7 W
	<b>Cabling</b>	Type: <ul style="list-style-type: none"><li>• 62.5/125 <math>\mu\text{m}</math> or 50/125 <math>\mu\text{m}</math> (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;</li></ul> Maximum distance: <ul style="list-style-type: none"><li>• 2-220 m (62.5 <math>\mu\text{m}</math> core diameter, 160 MHz*km bandwidth)</li><li>• 2-275 m (62.5 <math>\mu\text{m}</math> core diameter, 200 MHz*km bandwidth)</li><li>• 2-500 m (50 <math>\mu\text{m}</math> core diameter, 400 MHz*km bandwidth)</li><li>• 2-550 m (50 <math>\mu\text{m}</math> core diameter, 500 MHz*km bandwidth)</li></ul> Cable length: 2-550m Fiber type: Multi Mode



### Accessory Product Details

#### Services

Refer to the HP website at [www.hp.com/networking/services](http://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

1 LC 1000BASE-LX port (IEEE 802.3z Type 1000BASE-LX); Duplex: full only

#### Physical characteristics

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 technology.

#### Environment

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)

#### Cabling

Type:

- Either single mode or multimode; 62.5/125  $\mu\text{m}$  or 50/125  $\mu\text{m}$  (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  $\mu\text{m}$  core diameter, 500 MHz\*km bandwidth)
- 2-550 m (multimode 50  $\mu\text{m}$  core diameter, 400 MHz\*km bandwidth)
- 2-550 m (multimode 50  $\mu\text{m}$  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

Power Consumption: < 500mW Typical

#### Services

Refer to the HP website at [www.hp.com/networking/services](http://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.





### Accessory Product Details

<b>HP X121 1G SFP RJ45 T Transceiver (J8177C)</b>	<b>Ports</b>	1 RJ-45 1000BASE-T port (IEEE 802.3ab Type 1000BASE-T); Duplex: full only
<b>HP X121 1G SFP RJ45 T Transceiver: An SFP format gigabit transceiver with RJ45 connectors using 1000BaseT technology.</b>	<b>Physical characteristics</b>	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)
	<b>Environment</b>	Operating temperature: 32°F to 158°F (0°C to 70°C); with 100 LFM airflow over the SFP module) 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)
	<b>Cabling</b>	Cable type: 1000BASE-T: Category 5 (5E or better recommended), 100 Ω differential 4-pair unshielded twisted pair (UTP) or shielded twisted pair (STP) balanced, complying with IEEE 802.3ab 1000BASE-T; Maximum distance: <ul style="list-style-type: none"><li>• 100 m</li></ul>
	<b>Notes</b>	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.
	<b>Services</b>	Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> 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.

To learn more, visit: [www.hp.com/networking](http://www.hp.com/networking)

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