

Overview

Models

HP PS1810-8G Switch
HP PS1810-24G Switch

J9833A
J9834A

Key features

- Switches designed to work seamlessly with HP ProLiant Gen8 Servers
- 8-port switch allows for physical stacking on HP ProLiant MicroServer Gen8
- Built-in HP ProLiant Server Management dashboard
- Fanless design for quiet operation
- Lifetime warranty

Product overview

The HP PS1810 Switch Series are smart-managed, fixed-configuration Gigabit Layer 2 switches that are purpose-built to work with HP ProLiant Gen8 servers. They are designed for small businesses looking for an integrated, easy-to-administer switch which complements the HP ProLiant Gen8 server solution.

The series includes 8- and 24-port models. The 8-port model has an innovative design that allows it to be physically stacked on top of the HP ProLiant MicroServer Gen8; this switch can be powered by an upstream Power over Ethernet (PoE) switch for deployment where no line power is available. The 24-port model ships with rackmount kit for rack deployments; this switch includes SFP ports for fiber uplink connectivity. Both models have a fanless design making them ideal for office deployments. Both models support additional flexible mounting options including wallmount and undertable mounting.

The HP PS1810 Switch Series has, built-in, the ability to auto-discover and monitor HP ProLiant Gen8 servers. Monitored ProLiant Gen8 Server report real time Health status to the Switch via iLo interface; enabling an integrated single pane of glass view for the Switch and Server maintenance. Layer 2 switching features include VLANs, Spanning Tree, and link aggregation trunking. The latest energy-saving capabilities like Energy Efficient Ethernet (EEE) and idle-port power down are also supported on this Series. The HP PS1810 Switch models come with HP lifetime warranty.

Features and benefits

Management

- **NEW HP ProLiant Server Dashboard**
enables autodiscovery of HP ProLiant Gen8 servers in the network; provides up-to-date server health status for up to ten monitored servers
- **Simple web management**
allows easy management of device 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**
provides 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

Overview

- **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

Connectivity

- **Auto-MDI/MDIX**
adjusts automatically 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 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 (24-port model only)

Layer 2 switching

- **VLAN support and tagging**
supports up to 64 port-based VLANs and dynamic configuration of IEEE 802.1Q VLAN tagging, providing security between workgroups
- **Jumbo packet support**
improves the performance of large data transfers; supports frame size of up to 9220-bytes

Resiliency and high availability

- **IEEE 802.1D Spanning Tree Protocol (STP) and IEEE 802.1W Rapid Spanning Tree Protocol**
provides redundant links while preventing network loops
- **Link Aggregation (trunking or bonding)**
groups ports together automatically using Link Aggregation Control Protocol (LACP) or manually, to form an ultra-high-bandwidth connection to the server or network backbone; bonds together two NIC ports on the ProLiant MicroServer doubling the speed of services to the server

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

Overview

Flexibility

- **NEW Flexible mounting options**
stacks physically on top of an HP ProLiant MicroServer Gen8 due to the unique design of the switch (8-port model); 24-port model ships with rackmount kit; both switches support desktop, wall mount, and under table mounting option
- **Rack mountable (24-port models)**
offers a rack-mounting option with included hardware
- **Kensington lock slot**
allows switches to be physically secured in open-space deployments

Additional information

- **Energy savings**
utilizes Energy Efficient Ethernet (EEE) IEEE 802.3az standard for lower power consumption
- **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

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 Differentiated Services Code Point (DSCP)**
delivers data to devices based on the priority and type of traffic using DSCP
- **Broadcast control**
allows limitation of broadcast traffic rate to cut down on unwanted network broadcast traffic

Warranty and support

- **Lifetime warranty**
for as long as you own the product with advance replacement and next-business-day delivery (available in most countries)†
- **Electronic and telephone support**
limited electronic and telephone support is available from HP; 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

†HP warranty includes repair or replacement of hardware for as long as you own the product, with next business day advance replacement (available in most countries). The disk drive included with HP AllianceOne Advanced Services and Services zL Modules, HP Threat Management Services zL Module, HP AllianceOne Extended zL Module with Riverbed Steelhead, HP MSM765zL Mobility Controller and HP Survivable Branch Communication zL Module powered by Microsoft Lync has a five-year hardware warranty. For details, refer to the Software license and hardware warranty statements at www.hp.com/networking/warranty.

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 PS1810-8G Switch

- 8 RJ-45 autosensing 10/100/1000 ports
- 1U - Height

J9833A

See Configuration Note:2

HP PS1810-8G Switch

- 8 RJ-45 autosensing 10/100/1000 ports
- 1U - Height

J9833AB01

See Configuration Note:2, 3

HP PS1810-24G Switch

- 24 RJ-45 autosensing 10/100/1000 ports
- 2 SFP 100/1000 ports
- 1U - Height

J9834A

See Configuration Note:1, 2

HP PS1810-24G Switch

- 24 RJ-45 autosensing 10/100/1000 ports
- 2 SFP 100/1000 ports
- 1U - Height

J9834A B01

See Configuration Note:1, 2, 3

Configuration Rules

Note 1

The following Transceivers install into this switch:

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

Note 2

Localization required. (See Localization Menu for list.)

Note 3

This is a Ship-Along with specific ISS Servers only. See ISS Menu for further details.

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

Configuration

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

Technical Specifications

HP PS1810-8G Switch (J9833A)

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	
Physical characteristics	Dimensions	9.06(w) x 4.65(d) x 1.73(h) in (23 x 24.5 x 4.39 cm) (1U height)
	Weight	2.71 lb (1.23 kg)
Memory and processor	128 MB RAM, 8 MB flash; packet buffer size: 512 KB	
Mounting	Mounts on HP Proliant MicroServer Gen8, desktop, wall and under table mounting	
Performance	100 Mb Latency	< 3.3 μ s (64-byte packets)
	1000 Mb Latency	< 2.3 μ s (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	Frequency	50/60 Hz
	Voltage	100-240 VAC
	Current	.5 A
	Maximum power rating	7.2 W
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
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	EN 61000-4-2
	Radiated	EN 61000-4-3
	EFT/Burst	EN 61000-4-4
	Surge	EN 61000-4-5
	Conducted	EN 61000-4-6
	Power frequency magnetic field	IEC 61000-4-8

Technical Specifications

Voltage dips and interruptions	EN 61000-4-11
Harmonics	EN 61000-3-2
Flicker	EN 61000-3-3

Management IMC - Intelligent Management Center; Web browser; HTTPS

Notes Use only supported genuine HP SFPs with your switch.
Link aggregation support: 4 trunks of 4 links each

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)
- Installation with HP-provided configuration, system-based pricing (U4830E)
- 4-year, 4-hour onsite, 13x5 coverage for hardware (UR846E)
- 4-year, 4-hour onsite, 24x7 coverage for hardware (UR847E)
- 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR848E)
- 4-year, 24x7 SW phone support, software updates (UR849E)
- 5-year, 4-hour onsite, 13x5 coverage for hardware (UR850E)
- 5-year, 4-hour onsite, 24x7 coverage for hardware (UR851E)
- 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR852E)
- 5-year, 24x7 SW phone support, software updates (UR853E)
- 3 Yr 6 hr Call-to-Repair Onsite (UW383E)
- 4 Yr 6 hr Call-to-Repair Onsite (UW384E)
- 5 Yr 6 hr Call-to-Repair Onsite (UW385E)
- 1-year, 4-hour onsite, 13x5 coverage for hardware (HR899E)
- 1-year, 4-hour onsite, 24x7 coverage for hardware (HR900E)
- 1-year, 6 hour Call-To-Repair Onsite for hardware (HR903E)
- 1-year, 24x7 software phone support, software updates (HR902E)
- 1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR901E)
- 1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HU347E)
- 1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HU348E)
- 3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HU349E)
- 3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HU350E)
- 4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS810E)
- 4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS811E)
- 5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS812E)
- 5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS813E)

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 PS1810-24G Switch (J9834A)



Technical Specifications

Ports	24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 2 SFP 100/1000 Mbps ports Supports a maximum of 24 autosensing 10/100/1000 ports plus 2 SFP ports, or a combination	
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 (1.15 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	< 3.4 μ s (64-byte packets)
	1000 Mb Latency	< 2.2 μ s (64-byte packets)
	Throughput	up to 38.7 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	Frequency	50/60 Hz
	Voltage	100-127/200-240 VAC
	Current	.4/.3 A
	Maximum power rating	22 W
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
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	EN 61000-4-2
	Radiated	EN 61000-4-3
	EFT/Burst	EN 61000-4-4
	Surge	EN 61000-4-5
	Conducted	EN 61000-4-6
	Power frequency magnetic field	IEC 61000-4-8

Technical Specifications

Voltage dips and interruptions	EN 61000-4-11
Harmonics	EN 61000-3-2
Flicker	EN 61000-3-3

Management IMC - Intelligent Management Center; Web browser; HTTPS

Notes Use only supported genuine HP SFPs with your switch.
Link aggregation support: 4 trunks of 4 links each

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)
- 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.

Technical Specifications

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 802.1W Rapid Spanning Tree Protocol

IEEE 802.3ad Link Aggregation Control Protocol (LACP)

IEEE 802.3az Energy Efficient Ethernet

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 PS1810 Switch Series accessories

HP PS1810-24G Switch (J9834A)

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 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
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

Accessory Product Details

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

Transceivers

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: <ul style="list-style-type: none"> • 2 km (full duplex) or 412 m (half duplex)
	Notes	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.
	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 X121 1G SFP LC SX Transceiver (J4858C)	Ports Physical characteristics	1 LC 1000BASE-SX port; Duplex: full only 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)
A small form-factor pluggable (SFP) Gigabit SX transceiver that provides a full-duplex Gigabit solution up to 550 m on multimode fiber.	Environment	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) Altitude: up to 10,000 ft. (3 km)
	Electrical characteristics	Power consumption typical: 0.4 W Power consumption maximum: 0.7 W
	Cabling	Type: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 2-220 m (62.5 μm core diameter, 160 MHz*km bandwidth)

Accessory Product Details

- 2-275 m (62.5 μ m core diameter, 200 MHz*km bandwidth)
- 2-500 m (50 μ m core diameter, 400 MHz*km bandwidth)
- 2-550 m (50 μ m core diameter, 500 MHz*km bandwidth)

Cable length: 2-550m

Fiber type: Multi Mode

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 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 μ m or 50/125 μ 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 μ m core diameter, 500 MHz*km bandwidth)
- 2-550 m (multimode 50 μ m core diameter, 400 MHz*km bandwidth)
- 2-550 m (multimode 50 μ 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 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 X121 1G SFP RJ45 T Transceiver (J8177C)	Ports	1 RJ-45 1000BASE-T port (IEEE 802.3ab Type 1000BASE-T); Duplex: full only
	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)
HP X121 1G SFP RJ45 T Transceiver: An SFP format gigabit transceiver with RJ45 connectors using 1000BaseT technology.	Environment	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)
	Cabling	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">• 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.

Cables

Accessory Product Details

**HP Premier Flex LC/LC
Multi-mode OM4 2 fiber
1m Cable (QK732A)** **Notes**

Graded-index, "bendable" fiber optic multimode OM4 50/125um duplex cable and Ethernet assembly with LC/MPO duplex connectors on each end; RoHS compliant

- Core diameter: 50um ±3um
- Cladding diameter: 125um ±2um
- Bandwidth: 4700 MHz-km @ 850nm (laser)
- Jacket color: blue
- Jacket material: OFNR (optical fiber, nonconductive, riser) LSZH (low smoke zero halogen) thermoplastic
- Optical clarity-attenuation (total loss, including connectors): 0.202 db
- Minimum recommended bend radius: 2 mm

Approximate loss @ bend radius (850 nm):

- < 0.05 db @ 35.7 mm (2 turns)
- < 0.1 db @ 15 mm (2 turns)
- < 0.2 db @ 7.5 mm (2 turns)

Maximum reach (no bend):

- 125 m (14.025Gb SW)
- 380 m (10GbE)
- 190 m (8.5Gb FC)
- 400 m (4.25Gb FC)

Cable length: 1m (3.3 ft)

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**

Graded-index, "bendable" fiber optic multimode OM4 50/125um duplex cable and Ethernet assembly with LC/MPO duplex connectors on each end; RoHS compliant

- Core diameter: 50um ±3um
- Cladding diameter: 125um ±2um
- Bandwidth: 4700 MHz-km @ 850nm (laser)
- Jacket color: blue
- Jacket material: OFNR (optical fiber, nonconductive, riser) LSZH (low smoke zero halogen) thermoplastic
- Optical clarity-attenuation (total loss, including connectors): 0.205 db
- Minimum recommended bend radius: 2 mm

Approximate loss @ bend radius (850 nm):

- < 0.05 db @ 35.7 mm (2 turns)
- < 0.1 db @ 15 mm (2 turns)
- < 0.2 db @ 7.5 mm (2 turns)

Maximum reach (no bend):

Accessory Product Details

- 125 m (14.025Gb SW)
- 380 m (10GbE)
- 190 m (8.5Gb FC)
- 400 m (4.25Gb FC)

Cable length: 2m (6.6 ft)

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

Graded-index, "bendable" fiber optic multimode OM4 50/125um duplex cable and Ethernet assembly with LC/MPO duplex connectors on each end; RoHS compliant

- Core diameter: 50um ±3um
- Cladding diameter: 125um ±2um
- Bandwidth: 4700 MHz-km @ 850nm (laser)
- Jacket color: blue
- Jacket material: OFNR (optical fiber, nonconductive, riser) LSZH (low smoke zero halogen) thermoplastic
- Optical clarity-attenuation (total loss, including connectors): 0.212 db
- Minimum recommended bend radius: 2 mm

Approximate loss @ bend radius (850 nm):

- < 0.05 db @ 35.7 mm (2 turns)
- < 0.1 db @ 15 mm (2 turns)
- < 0.2 db @ 7.5 mm (2 turns)

Maximum reach (no bend):

- 125 m (14.025Gb SW)
- 380 m (10GbE)
- 190 m (8.5Gb FC)
- 400 m (4.25Gb FC)

Cable length: 5m (16.4 ft)

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.

Accessory Product Details

**HP Premier Flex LC/LC
Multi-mode OM4 2 fiber
15m Cable (QK735A)** **Notes**

Graded-index, "bendable" fiber optic multimode OM4 50/125um duplex cable and Ethernet assembly with LC/MPO duplex connectors on each end; RoHS compliant

- Core diameter: 50um ±3um
- Cladding diameter: 125um ±2um
- Bandwidth: 4700 MHz-km @ 850nm (laser)
- Jacket color: blue
- Jacket material: OFNR (optical fiber, nonconductive, riser) LSZH (low smoke zero halogen) thermoplastic
- Optical clarity-attenuation (total loss, including connectors): 0.235 db
- Minimum recommended bend radius: 2 mm

Approximate loss @ bend radius (850 nm):

- < 0.05 db @ 35.7 mm (2 turns)
- < 0.1 db @ 15 mm (2 turns)
- < 0.2 db @ 7.5 mm (2 turns)

Maximum reach (no bend):

- 125 m (14.025Gb SW)
- 380 m (10GbE)
- 190 m (8.5Gb FC)
- 400 m (4.25Gb FC)

Cable length: 15m (49.2ft)

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
30m Cable (QK736A)** **Notes**

Graded-index, "bendable" fiber optic multimode OM4 50/125um duplex cable and Ethernet assembly with LC/MPO duplex connectors on each end; RoHS compliant

- Core diameter: 50um ±3um
- Cladding diameter: 125um ±2um
- Bandwidth: 4700 MHz-km @ 850nm (laser)
- Jacket color: blue
- Jacket material: OFNR (optical fiber, nonconductive, riser) LSZH (low smoke zero halogen) thermoplastic
- Optical clarity-attenuation (total loss, including connectors): 0.269 db
- Minimum recommended bend radius: 2 mm

Approximate loss @ bend radius (850 nm):

- < 0.05 db @ 35.7 mm (2 turns)
- < 0.1 db @ 15 mm (2 turns)
- < 0.2 db @ 7.5 mm (2 turns)

Maximum reach (no bend):

Accessory Product Details

- 125 m (14.025Gb SW)
- 380 m (10GbE)
- 190 m (8.5Gb FC)
- 400 m (4.25Gb FC)

Cable length: 30m (98.4ft)

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

Graded-index, "bendable" fiber optic multimode OM4 50/125um duplex cable and Ethernet assembly with LC/MPO duplex connectors on each end; RoHS compliant

- Core diameter: 50um ±3um
- Cladding diameter: 125um ±2um
- Bandwidth: 4700 MHz-km @ 850nm (laser)
- Jacket color: blue
- Jacket material: OFNR (optical fiber, nonconductive, riser) LSZH (low smoke zero halogen) thermoplastic
- Optical clarity-attenuation (total loss, including connectors): 0.315 db
- Minimum recommended bend radius: 2 mm

Approximate loss @ bend radius (850 nm):

- < 0.05 db @ 35.7 mm (2 turns)
- < 0.1 db @ 15 mm (2 turns)
- < 0.2 db @ 7.5 mm (2 turns)

Maximum reach (no bend):

- 125 m (14.025Gb SW)
- 380 m (10GbE)
- 190 m (8.5Gb FC)
- 400 m (4.25Gb FC)

Cable length: 50m (164.0ft)

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.

Accessory Product Details

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

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 µm fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter: 50 ± 3.0µm Cladding diameter: 125 ± 2.0µm Coating diameter: 245 ± 10µm
- 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 50/125µm 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.

Accessory Product Details

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

Maximum distance:

10Gbps Transfer Rate (Ethernet): 300m

Notes

Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 µm fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter: 50 ± 3.0µm Cladding diameter: 125 ± 2.0µm Coating diameter: 245 ± 10µm
- 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 50/125µm 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.

Accessory Product Details

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:

10Gbps Transfer Rate (Ethernet): 300m

Notes

Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 µm fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter: 50 ± 3.0µm Cladding diameter: 125 ± 2.0µm Coating diameter: 245 ± 10µm
- 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 50/125µm 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.

Accessory Product Details

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 zipcord 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.

Accessory Product Details

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

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 µm fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter: 50 ± 3.0µm Cladding diameter: 125 ± 2.0µm Coating diameter: 245 ± 10µm
- 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 50/125µm 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.

Accessory Product Details

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

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 µm fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter: 50 ± 3.0µm Cladding diameter: 125 ± 2.0µm Coating diameter: 245 ± 10µm
- 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 50/125µm 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.

Accessory Product Details

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

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 µm fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter: 50 ± 3.0µm Cladding diameter: 125 ± 2.0µm Coating diameter: 245 ± 10µm
- 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 50/125µm 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.

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