Overview

Models

HP 4800-24G Switch	JD007A
HP 4800-24G-PoE Switch	JD008A
HP 4800-24G-SFP Switch	JD009A
HP 4800-48G Switch	JD010A
HP 4800-48G-PoE Switch	JD011A

Key features

- High expandability for investment protection
- Premium security
- Intelligent Resilient Framework Stacking
- Convergence-ready support
- Powerful, integrated management capabilities

Product overview

TThe HP 4800G Switch Series is a Stackable Gigabit switch family that delivers outstanding security, reliability, and multi-service support capabilities for robust switching at the edge or aggregation layer of large enterprise and campus networks, or in the core layer of medium- and small-sized enterprise networks. The family consists of Layer 2/3/4 Gigabit Ethernet switches that can accommodate the most demanding applications, providing resilient and secure connectivity and the latest traffic-prioritization technologies to optimize applications on converged networks. Designed for maximum flexibility, these switches are available with 24 or 48 Gigabit ports. Power over Ethernet (PoE) and non-PoE models are offered with optional 10 Gigabit expansion capability and small form-factor pluggable (SFP) Gigabit combo ports for fiber flexibility. The all-SFP model with dual power supplies, for highest availability applications, allows for very flexible fiber with copper Gigabit connectivity.

Features and benefits

Quality of Service (QoS)

- Layer 4 prioritization: enables prioritization based on TCP/UDP port numbers
- Traffic prioritization (IEEE 802.1p): allows real-time traffic classification into eight priority levels mapped to eight queues
- Class of Service (CoS): sets the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), Layer 3 protocol, TCP/UDP port number, source port, and DiffServ
- Rate limiting: sets per-port ingress enforced maximums and per-port, per-queue guaranteed minimums
- Bandwidth shaping:
  - Rate limiting: provides per-port, ingress-based enforced bandwidth maximums
  - Guaranteed minimums: provides per-port, per-queue egress-based guaranteed bandwidth minimums
- Broadcast control: allows limitation of broadcast traffic rate to cut down on unwanted broadcast traffic on the network

Management

- IEEE 802.1AB Link Layer Discovery Protocol (LLDP): automated device discovery protocol provides easy mapping by network management applications
- Remote configuration and management: is available through a secure Web browser or a command-line interface (CLI)
- Manager and operator privilege levels: enable read-only (operator) and read-write (manager) access on CLI and Web browser management interfaces
- Management VLAN: segments traffic to and from management interfaces, including CLI/telnet, a Web browser interface, and

Overview

SNMP

- Uni-Directional Link Detection (UDLD): monitors cable between two switches and shuts down the ports on both ends if the cable is broken turning the bi-directional link into uni-directional; this prevents network problems such as loops (may not apply to all models; see specifications for more details)
- Multiple configuration files: can be stored to the flash image
- Dual flash images: provide independent primary and secondary operating system files for backup while upgrading
- Secure Web GUI: provides a secure, easy-to-use graphical interface for configuring the module via HTTPS
- Command-line interface (CLI): provides a secure, easy-to-use command-line interface for configuring the module via SSH or a switch console; provides direct real-time session visibility
- SNMPv1, v2c, and v3: facilitate centralized discovery, monitoring, and secure management of networking devices
- Port mirroring: enables traffic on a port to be simultaneously sent to a network analyzer for monitoring
- sFlow (RFC 3176): provides scalable, ASIC-based wire-speed network monitoring and accounting with no impact on network performance; this allows network operators to gather a variety of sophisticated network statistics and information for capacity planning and real-time network monitoring purposes
- Enterprise network management: is supported by the Web-based, enterprise-class HP Intelligent Management Center (IMC) network management platform and Wireless Service Management (WSM), which effectively integrate traditionally disparate management tools into one easy-to-use interface
- RADIUS accounting: logs all session details that can be used to generate usage reports or interface to a billing system
- DHCP options: DHCP client and snooping

Connectivity

- Auto-MDIX: automatically adjusts for straight-through or crossover cables on all 10/100 and 10/100/1000 ports
- Dual-personality functionality: includes four 10/100/1000 ports or SFP slots for optional fiber connectivity such as Gigabit-SX, -LX, -LH, or 100-FX
- IEEE 802.3af Power over Ethernet (PoE): provides up to 15.4 W per port to IEEE 802.3af-compliant PoE-powered devices such as IP phones, wireless access points, and security cameras
- Optional 10 Gigabit Ethernet ports: allow the addition of 10 Gigabit Ethernet connections for uplinks or high-bandwidth server connections; flexibly supports XFP, SFP+, or CX4 local connections
- High-bandwidth CX4 local stacking: when locally stacked using CX4 local stacking, achieves 12 Gbps per connection, allowing for up to 96 Gbps total stacking bandwidth (full duplex) in a resilient stacking configuration
- IPv6 native support:
  - IPv6 host: enables switches to be managed and deployed at the IPv6 network's edge
  - Dual stack (IPv4 and IPv6): transitions from IPv4 to IPv6, supporting connectivity for both protocols
  - Multicast Listener Discovery (MLD) snooping: forwards IPv6 multicast traffic to the appropriate interface
  - IPv6 ACL/QoS: supports ACL and QoS for IPv6 network traffic, preventing traffic flooding
  - IPv6 routing: supports IPv6 static routes and IPv6 versions of RIP and OSPF routing protocols
- High-density port connectivity: provides up to 48 fixed 10/100/1000BASE-T or 24 SFP 1000BASE-X ports in a Layer 2/Layer 3/Layer 4 stackable switch supporting unique IRF stacking

Resiliency and high availability

- IEEE 802.1D Spanning Tree Protocol (STP): provides redundant links while preventing network loops
- IEEE 802.1s Multiple Spanning Tree: provides high link availability in multiple VLAN environments by allowing multiple spanning trees
- Virtual Router Redundancy Protocol (VRRP): allows groups of two routers to dynamically back each other up to create highly available routed environments
- Device Link Detection Protocol (DLDP): monitors link connectivity and shuts down ports at both ends if unidirectional traffic is detected, preventing loops in STP-based networks
- Intelligent Resilient Framework (IRF): creates virtual resilient switching fabrics, where two or more switches perform as a single Layer 2 switch, Layer 3 router; switches do not have to be co-located and can be part of a disaster recovery system; servers or switches can be attached using standard LACP for automatic load-balancing and high availability; simplifies network

operation by eliminating the complexity of Spanning Tree, Equal-Cost Multipath (ECMP), or VRRP
- Rapid Ring Protection Protocol (RRPP): connects multiple switches in a high-performance ring using standard Ethernet technology; traffic can be rerouted around the ring in less than 50 ms, reducing the impact on traffic and applications

Manageability

- Advanced IRF technology stacking:
  - Locally connect up to nine E4800G switches using 10 Gigabit or CX4 local connections
  - Improve resiliency by spreading aggregated links across multiple stacked units
  - See faster performance through a distributed routing architecture where locally bound traffic is handled at each unit
  - Simplify management with single IP management and a unified control interface per stack
- RMON (remote monitoring): provides advanced monitoring and reporting capabilities for statistics, history, alarms, and events
- Dual flash images: provides independent primary and secondary operating system files for backup while upgrading
- Full-featured console: provides complete control of the switch with a familiar command-line interface (CLI)
- Web interface: allows configuration of the switch from any Web browser on the network
- Multiple configuration files: allow multiple configuration files to be stored to flash image
- Software updates: free downloads from the Web
- sFlow (RFC 3176): wire-speed traffic accounting and monitoring
- IEEE 802.1AB Link Layer Discovery Protocol (LLDP): automated device discovery protocol provides easy mapping using network management applications
- Virtual stacking capability: single IP address management for a virtual stack of up to 255 Comware-based 3Com legacy devices, including HP E4XXX and E55XX series switches
- Troubleshooting:
  - Ingress and egress port monitoring enable network problem solving
  - Tracert and Ping enable testing of network connectivity
  - Virtual Cable Tests provide visibility to cable problems

Layer 2 switching

- VLAN support and tagging: support IEEE 802.1Q, with 4094 simultaneous VLAN IDs
- GARP VLAN Registration Protocol (GVRP): allows automatic learning and dynamic assignment of VLANs
- IP multicast snooping and data-driven IGMP: automatically prevents flooding of IP multicast traffic
- Jumbo packet support: supports up to 9220-byte frame size to improve performance of large data transfers
- IEEE 802.1ad QinQ: increases the scalability of an Ethernet network by providing a hierarchical structure; connects multiple LANs on a high-speed campus or metro network

Layer 3 services

- Address Resolution Protocol (ARP): determines the MAC address of another IP host in the same subnet; supports static ARPs; gratuitous ARP allows detection of duplicate IP addresses; proxy ARP allows normal ARP operation between subnets or when subnets are separated by a Layer 2 network
- User Datagram Protocol (UDP) helper: redirects UDP broadcasts to specific IP subnets to prevent server spoofing
- Dynamic Host Configuration Protocol (DHCP): simplifies the management of large IP networks and supports client and server; DHCP Relay enables DHCP operation across subnets

Layer 3 routing

- IPv4 Routing Protocols: support static routes, RIP, ISIS, OSPF, BGP-4
- IPv6 Routing Protocols: provide routing of IPv6 at wire speed support static routes, RIPng, OSPFv3, IS-ISv6, and BGP4+
- OSPF-ECMP (Equal-Cost Multipath): enables multiple equal-cost links in OSPF environment to increase link redundancy and scale bandwidth
- OSPF: provides OSPFv2 for IPv4 and OSPFv3 for IPv6 routing
- Multicast Routing PIM Dense and Sparse modes: provides robust support of multicast protocols

Overview

- **Border Gateway Protocol 4** (BGP-4): Exterior Gateway Protocol (EGP) with path vector protocol uses TCP for enhanced reliability for the route discovery process, reduces bandwidth consumption by advertising only incremental updates, and supports extensive policies for increased flexibility, as well as scales to very large networks
- **IGMPv1, v2, and v3**: allow individual hosts to be registered on a particular VLAN
- **PIM-SSM, PIM-DM, and PIM-SM** (for IPv4 and IPv6): support IP Multicast address management and inhibition of DoS attacks
- **IPv6 tunneling**: allows a smooth transition from IPv4 to IPv6 by encapsulating IPv6 traffic over an existing IPv4 infrastructure

Security

- **Access control lists** (ACLs): provide IP Layer 3 filtering based on source/destination IP address/subnet and source/destination TCP/UDP port number
- **RADIUS/TACACS+**: eases switch management security administration by using a password authentication server
- **Secure Shell** (SSHv2): encrypts all transmitted data for secure, remote command-line interface (CLI) access over IP networks
- **IEEE 802.1X and RADIUS network logins**: control port-based access for authentication and accountability
- **Port security**: allows access only to specified MAC addresses, which can be learned or specified by the administrator
- **MAC address lockout**: prevents particular configured MAC addresses from connecting to the network
- **Secure File Transfer Protocol** (FTP): allows secure file transfer to and from the switch; protects against unwanted file downloads or unauthorized copying of a switch configuration file
- **Switch management logon security**: can require either RADIUS or TACACS+ authentication for secure switch CLI logon
- **Secure management access**: securely encrypts all access methods (CLI, GUI, or MIB) through SSHv2, SSL, and/or SNMPv3
- **Custom banner**: displays security policy when users log in to the switch
- **Automatic VLAN assignment**: automatically assigns users to the appropriate VLAN based on their identity and location and the time of day
- **Management password**: provides security so that only authorized access to the Web browser interface is allowed
- **IP lockdown**: restricts incoming traffic on a port to a specific IP address/subnet, and denies all other traffic on that port
- **STP BPDU port protection**: blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks
- **Dynamic IP lockdown**: works with DHCP protection to block traffic from unauthorized hosts, preventing IP source address spoofing
- **DHCP protection**: blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks
- **Dynamic ARP protection**: blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data
- **STP Root Guard**: protects the root bridge from malicious attack or configuration mistakes

Convergence

- **LLDP-MED** (Media Endpoint Discovery): is a standard extension of LLDP that stores values for parameters such as QoS and VLAN to automatically configure network devices such as IP phones
- **IP multicast routing** (PIM Dense): routes IP multicast traffic using the PIM Dense routing protocol
- **Automated voice VLAN assignment**: recognizes IP phones and automatically assigns voice traffic to a dedicated VLAN for IP phones

Monitor and diagnostics

- **Port mirroring**: enables traffic on a port to be simultaneously sent to a network analyzer for monitoring
- **Software updates**: free downloads from the Web

Warranty and support

- **Lifetime warranty**: for as long as you own the product with advance replacement and next-business-day delivery (available in most countries)*
- **Electronic and telephone support**: limited electronic and telephone support is available from HP; refer to: www.hp.com/networking/warranty for details on the support provided and the period during which support is available
- **Software releases**: refer to: www.hp.com/networking/warranty for details on the software releases provided and the period

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during which software releases are available for your product(s)

* Hardware warranty replacement for as long as you own the product, with next business day advance replacement (available in most countries) with a five-year hardware warranty replacement for the disk drive included with HP AllianceONE Services zl Module, HP Threat Management Services zl Module, HP PCM+ Agent with AllianceONE Services zl Module, and HP E-MSM765 zl Mobility Controller. For details, refer to the HP Software License, Warranty, and Support booklet at: www.hp.com/networking/warranty.

HP 4800-24G Switch (JD007A)

Ports	2 module slots	
	20 auto-negotiating 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T)	
	4 dual-personality 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); 10/100/1000	
	Supports a maximum of 4 10-GbE ports	
Physical characteristics	**Dimensions**	11.8(d) x 17.4(w) x 1.7(h) in. (29.97 x 44.2 x 4.32 cm) (1U height)
	Weight	8.8 lb. (3.99 kg)
Memory and processor	**Module**	MPC8349 @ 533 MHz, 256 MB RAM, 32 MB flash; packet buffer size: 2 MB
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	
Performance	**100 Mb Latency**	< 10 μs
	Throughput	107.2 million pps
	Routing/Switching capacity	144 Gbps
	Routing table size	12,000 entries
Environment	**Operating temperature**	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	10% to 90%, non-condensing
Electrical characteristics	**Voltage**	100-240 VAC
Achieved Miercom Certified Green Award	**Frequency**	50 / 60 Hz
Safety	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03	
Emissions	FCC part 15 Class A; VCCI Class A; CISPR 22 Class A; EN 55024; EN 55022 1998 Class A; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A	
Management	IMC - Intelligent Management Center; command-line interface; Web browser; out-of-band management (serial RS-232C); SNMP Manager; Telnet; HTTPS; IEEE 802.3 Ethernet MIB	
Notes	Supports a maximum of four 10-GbE ports	
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UV906E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV909E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV912E) 3-year, 24x7 SW phone support, software updates (UV915E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV907E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV910E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV913E) 4-year, 24x7 SW phone support, software updates (UV916E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV908E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV911E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV914E) 5-year, 24x7 SW phone support, software updates (UV917E) 3 Yr 6 hr Call-to-Repair Onsite (UW975E) 4 Yr 6 hr Call-to-Repair Onsite (UW976E) 5 Yr 6 hr Call-to-Repair Onsite (UW977E)	

Technical Specifications

	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 4800-24G-PoE Switch (JD008A)		
Ports	2 module slots	
	20 auto-negotiating 10/100/1000 PoE ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3af PoE)	
	4 dual-personality 10/100/1000 PoE ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3af PoE)	
	Supports a maximum of 4 10-GbE ports	
Physical characteristics	**Dimensions**	16.5(d) x 17.4(w) x 1.7(h) in. (41.91 x 44.2 x 4.32 cm) (13.2U height)
	Weight	13.23 lb. (6 kg)
Memory and processor	**Module**	MPC8349 @ 533 MHz, 256 MB RAM, 32 MB flash; packet buffer size: 2 MB
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	
Performance	**100 Mb Latency**	< 10 μs
	Throughput	107.2 million pps
	Routing/Switching capacity	144 Gbps
	Routing table size	12,000 entries
Environment	**Operating temperature**	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	10% to 90%, non-condensing
Electrical characteristics	**Voltage**	100-240 VAC
	Frequency	50 / 60 Hz
Safety	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03	
Emissions	FCC part 15 Class A; VCCI Class A; CISPR 22 Class A; EN 55024; EN 55022 1998 Class A; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A	
Management	IMC - Intelligent Management Center; command-line interface; Web browser; out-of-band management (serial RS-232C); SNMP Manager; Telnet; HTTPS; IEEE 802.3 Ethernet MIB	
Notes	Supports a maximum of four 10-GbE ports	
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UV906E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV909E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV912E) 3-year, 24x7 SW phone support, software updates (UV915E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV907E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV910E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV913E) 4-year, 24x7 SW phone support, software updates (UV916E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV908E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV911E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV914E) 5-year, 24x7 SW phone support, software updates (UV917E) 3 Yr 6 hr Call-to-Repair Onsite (UW975E) 4 Yr 6 hr Call-to-Repair Onsite (UW976E)	

5 Yr 6 hr Call-to-Repair Onsite (UW977E)

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 4800-24G-SFP Switch (JD009A)		
Ports	2 module slots	
	10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T)	
	dual-personality 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T)	
	Supports a maximum of 4 10-GbE ports	
Power supplies	2 power-supply slots	
	1 minimum power-supplies required	
	includes: 1 x JD362AHP A5500 150 W AC Power Supply	
Physical characteristics	**Dimensions**	14.17(d) x 17.32(w) x 1.72(h) in. (36.00 x 44 x 4.36 cm) (1U height)
	Weight	13.89 lb. (6.3 kg)
Memory and processor	**Module**	MPC8349 @ 533 MHz, 256 MB RAM, 32 MB flash; packet buffer size: 2 MB
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	
Performance	**100 Mb Latency**	< 10 μs
	Throughput	107.2 million pps
	Routing/Switching capacity	144 Gbps
	Routing table size	12,000 entries
Environment	**Operating temperature**	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	10% to 90%, non-condensing
Electrical characteristics	**Voltage**	100-240 VAC
	Frequency	50 / 60 Hz
Safety	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03	
Emissions	FCC part 15 Class A; VCCI Class A; CISPR 22 Class A; EN 55024; EN 55022 1998 Class A; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A	
Management	IMC - Intelligent Management Center; command-line interface; Web browser; out-of-band management (serial RS-232C); SNMP Manager; Telnet; HTTPS; IEEE 802.3 Ethernet MIB	
Notes	Supports a maximum of four 10-GbE ports	
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UV906E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV909E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV912E) 3-year, 24x7 SW phone support, software updates (UV915E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV907E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV910E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV913E)	

4-year, 24x7 SW phone support, software updates (UV916E)
5-year, 4-hour onsite, 13x5 coverage for hardware (UV908E)
5-year, 4-hour onsite, 24x7 coverage for hardware (UV911E)
5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV914E)
5-year, 24x7 SW phone support, software updates (UV917E)
3 Yr 6 hr Call-to-Repair Onsite (UW975E)
4 Yr 6 hr Call-to-Repair Onsite (UW976E)
5 Yr 6 hr Call-to-Repair Onsite (UW977E)

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 4800-48G Switch (JD010A)

Ports	2 module slots	
	44 auto-negotiating 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T)	
	4 dual-personality 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T)	
	Supports a maximum of 4 10-GbE ports	
Physical characteristics	Dimensions	11.8(d) x 17.4(w) x 1.7(h) in. (29.97 x 44.2 x 4.32 cm) (1U height)
	Weight	9.9 lb. (4.49 kg)
Memory and processor	Module	MPC8349 @ 533 MHz, 256 MB RAM, 32 MB flash; packet buffer size: 4 MB
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	
Performance	100 Mb Latency	< 10 μs
	Throughput	142.9 million pps
	Routing/Switching capacity	192 Gbps
	Routing table size	12,000 entries
Environment	Operating temperature	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	10% to 90%, non-condensing
Electrical characteristics Achieved Miercom Certified Green Award	Voltage	100-240 VAC
	Frequency	50 / 60 Hz
Safety	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03	
Emissions	FCC part 15 Class A; VCCI Class A; CISPR 22 Class A; EN 55024; EN 55022 1998 Class A; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A	
Management	IMC - Intelligent Management Center; command-line interface; Web browser; out-of-band management (serial RS-232C); SNMP Manager; Telnet; HTTPS; IEEE 802.3 Ethernet MIB	
Notes	Supports a maximum of four 10-GbE ports	
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UV906E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV909E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV912E)	

3-year, 24x7 SW phone support, software updates (UV915E)
Installation with minimum configuration, system-based pricing (UW451E)
4-year, 4-hour onsite, 13x5 coverage for hardware (UV907E)
4-year, 4-hour onsite, 24x7 coverage for hardware (UV910E)
4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV913E)
4-year, 24x7 SW phone support, software updates (UV916E)
5-year, 4-hour onsite, 13x5 coverage for hardware (UV908E)
5-year, 4-hour onsite, 24x7 coverage for hardware (UV911E)
5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV914E)
5-year, 24x7 SW phone support, software updates (UV917E)
3 Yr 6 hr Call-to-Repair Onsite (UW975E)
4 Yr 6 hr Call-to-Repair Onsite (UW976E)
5 Yr 6 hr Call-to-Repair Onsite (UW977E)

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 4800-48G-PoE Switch (JD011A)		
Ports	2 module slots	
	44 auto-negotiating 10/100/1000 PoE ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3af PoE)	
	4 dual-personality 10/100/1000 PoE ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3af PoE)	
	Supports a maximum of 4 10-GbE ports	
Physical characteristics	Dimensions	16.5(d) x 17.4(w) x 1.7(h) in. (41.91 x 44.2 x 4.32 cm) (1U height)
	Weight	14.3 lb. (6.49 kg)
Memory and processor	Module	MPC8349 @ 533 MHz, 256 MB RAM, 32 MB flash; packet buffer size: 4 MB
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	
Performance	100 Mb Latency	< 10 μs
	Throughput	142.9 million pps
	Routing/Switching capacity	192 Gbps
	Routing table size	12,000 entries
Environment	Operating temperature	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	10% to 90%, non-condensing
Electrical characteristics	Maximum heat dissipation	100 / 240 BTU/hr (105.5 / 253.2 kJ/hr)
	Voltage	100-240 VAC
	Frequency	50 / 60 Hz
Safety	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03	
Emissions	FCC part 15 Class A; VCCI Class A; CISPR 22 Class A; EN 55024; EN 55022 1998 Class A; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A	

Technical Specifications

Management	IMC - Intelligent Management Center; command-line interface; Web browser; out-of-band management (serial RS-232C); SNMP Manager; Telnet; HTTPS; IEEE 802.3 Ethernet MIB
Notes	Supports a maximum of four 10-GbE ports
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UV906E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV909E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV912E) 3-year, 24x7 SW phone support, software updates (UV915E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV907E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV910E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV913E) 4-year, 24x7 SW phone support, software updates (UV916E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV908E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV911E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV914E) 5-year, 24x7 SW phone support, software updates (UV917E) 3 Yr 6 hr Call-to-Repair Onsite (UW975E) 4 Yr 6 hr Call-to-Repair Onsite (UW976E) 5 Yr 6 hr Call-to-Repair Onsite (UW977E) Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

Standards and protocols (applies to all products in series)

BGP
RFC 1657 Definitions of Managed Objects for BGPv4
RFC 1771 BGPv4
RFC 2858 BGP-4 Multi-Protocol Extensions

Device management
RFC 1157 SNMPv1/v2c
RFC 2452 MIB for TCP6
RFC 2454 MIB for UDP6

General protocols
IEEE 802.1D MAC Bridges
IEEE 802.1p Priority
IEEE 802.1Q (GVRP)
IEEE 802.1Q VLANs
IEEE 802.1s (MSTP)
IEEE 802.1s Multiple Spanning Trees
IEEE 802.1v VLAN classification by Protocol and Port
IEEE 802.1w Rapid Reconfiguration of Spanning Tree
IEEE 802.1X PAE
IEEE 802.3ab 1000BASE-T
IEEE 802.3ac (VLAN Tagging Extension)
IEEE 802.3ad Link Aggregation (LAG)
IEEE 802.3ae 10-Gigabit Ethernet
IEEE 802.3af Power over Ethernet
RFC 2464 Transmission of IPv6 over Ethernet Networks
RFC 2475 IPv6 DiffServ Architecture
RFC 2526 Reserved IPv6 Subnet Anycast Addresses
RFC 2710 Multicast Listener Discovery (MLD) for IPv6
RFC 2740 OSPFv3 for IPv6
RFC 3056 Connection of IPv6 Domains via IPv4 Clouds
RFC 3306 Unicast-Prefix-based IPv6 Multicast Addresses
RFC 3307 IPv6 Multicast Address Allocation
RFC 3484 Default Address Selection for IPv6
RFC 3493 Basic Socket Interface Extensions for IPv6
RFC 3513 IPv6 Addressing Architecture
RFC 3542 Advanced Sockets API for IPv6
RFC 3587 IPv6 Global Unicast Address Format
RFC 3596 DNS Extension for IPv6
RFC 3810 MLDv2 for IPv6
RFC 4443 ICMPv6

MIBs
IEEE8021-PAE-MIB
IEEE8023-LAG-MIB
RFC 1212 Concise MIB Definitions
RFC 1213 MIB II
RFC 1493 Bridge MIB

IEEE 802.3ag Ethernet OAM
IEEE 802.3ah Ethernet in First Mile over Point to Point Fiber - EFMF
IEEE 802.3i 10BASE-T
IEEE 802.3u 100BASE-X
IEEE 802.3x Flow Control
IEEE 802.3z 1000BASE-X
RFC 768 UDP
RFC 791 IP
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 854 TELNET
RFC 856 TELNET
RFC 925 Multi-LAN Address Resolution
RFC 950 Internet Standard Subnetting Procedure
RFC 951 BOOTP
RFC 1058 RIPv1
RFC 1122 Host Requirements
RFC 1141 Incremental updating of the Internet checksum
RFC 1253 (OSPF v2)
RFC 1305 NTPv3
RFC 1350 TFTP Protocol (revision 2)
RFC 1389 RIPv2 MIB Extension
RFC 1519 CIDR
RFC 1542 BOOTP Extensions
RFC 1723 RIP v2
RFC 1812 IPv4 Routing
RFC 2131 DHCP
RFC 2236 IGMP Snooping
RFC 2284 EAP over LAN
RFC 2616 HTTP Compatibility v1.1
RFC 2644 Directed Broadcast Control
RFC 2767 Dual Stacks IPv4 & IPv6
RFC 3246 Expedited Forwarding PHB
RFC 3410 Applicability Statements for SNMP
RFC 3416 Protocol Operations for SNMP
RFC 3417 Transport Mappings for the Simple Network Management Protocol (SNMP)
RFC 3623 Graceful OSPF Restart
RFC 3704 Unicast Reverse Path Forwarding (URPF)
RFC 3768 VRRP
RFC 4213 Basic IPv6 Transition Mechanisms

IPv6

RFC 1886 DNS Extension for IPv6
RFC 1887 IPv6 Unicast Address Allocation Architecture
RFC 1981 IPv6 Path MTU Discovery
RFC 2080 RIPng for IPv6
RFC 2373 IPv6 Addressing Architecture
RFC 1657 BGP-4 MIB
RFC 1724 RIPv2 MIB
RFC 1907 SNMPv2 MIB
RFC 2012 SNMPv2 MIB for TCP
RFC 2233 Interfaces MIB
RFC 2465 IPv6 MIB
RFC 2466 ICMPv6 MIB
RFC 2571 SNMP Framework MIB
RFC 2572 SNMP-MPD MIB
RFC 2573 SNMP-Notification MIB
RFC 2573 SNMP-Target MIB
RFC 2574 SNMP USM MIB
RFC 2618 RADIUS Client MIB
RFC 2620 RADIUS Accounting MIB
RFC 2819 RMON MIB
RFC 2925 Ping MIB
RFC 3414 SNMP-User based-SM MIB
RFC 3415 SNMP-View based-ACM MIB
RFC 4113 UDP MIB

Network management

IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
IEEE 802.1D (STP)
RFC 1157 SNMPv1
RFC 1215 SNMP Generic traps
RFC 1757 RMON 4 groups: Stats, History, Alarms and Events
RFC 1901 SNMPv2 Introduction
RFC 1918 Private Internet Address Allocation
RFC 2575 VACM for SNMP
RFC 2576 Coexistence between SNMP versions
RFC 2578 SMIv2
RFC 2581 TCP6

OSPF

RFC 1253 OSPFv2 MIB
RFC 1587 OSPF NSSA
RFC 1850 OSPFv2 Management Information Base (MIB), traps
RFC 2328 OSPFv2

QoS/CoS

IEEE 802.1P (CoS)
RFC 2474 DSCP DiffServ
RFC 2597 DiffServ Assured Forwarding (AF)
RFC 2598 DiffServ Expedited Forwarding (EF)

Security

RFC 1492 TACACS+

IPsec

RFC 2401 IP Security Architecture

RFC 2375 IPv6 Multicast Address Assignments
RFC 2460 IPv6 Specification
RFC 2461 IPv6 Neighbor Discovery
RFC 2462 IPv6 Stateless Address Auto-configuration
RFC 2463 ICMPv6
RFC 2402 IP Authentication Header
RFC 2406 IP Encapsulating Security Payload
RFC 2409 - The Internet Key Exchange
RFC 2865 - Remote Authentication Dial In User Service (RADIUS)

HP 4800G Switch Series accessories	Modules	
	HP 5500/4800 2-port GbE SFP Module	JD367A
	HP 5500/5120 2-port 10GbE SFP+ Module	JD368B
	HP 4500/4800 2-port 10GbE XFP Module	JE049A
	HP 4500/4800 1-port 10GbE XFP Module	JE053A
	HP 4500/4800 2-port 10GbE LCM Module	JE051A
	HP 5500 2-port 10GbE Local Connect Module	JD360B
	Transceivers	
	HP X130 SFP+ LC SR Transceiver	JD092B
	HP X130 SFP+ LC LRM Transceiver	JD093B
	HP X130 SFP+ LC LR Transceiver	JD094B
	HP X124 1G SFP LC SX Transceiver	JD493A
	HP X124 1G SFP LC LX Transceiver	JD494A
	HP X125 1G SFP RJ45 T Transceiver	JD089B
	HP X124 1G SFP LC LH40 1310nm Transceiver	JD061A
	HP X120 1G SFP LC LH40 1550nm Transceiver	JD062A
	HP X125 1G SFP LC LH70 Transceiver	JD063B
	HP X120 1G SFP LC BX 10-U Transceiver	JD098B
	HP X120 1G SFP LC BX 10-D Transceiver	JD099B
	HP X125 1G SFP LC SX Transceiver	JD118B
	HP X120 1G SFP LC LX Transceiver	JD119B
	HP X110 100M SFP LC LX Transceiver	JD120B
	HP X110 100M SFP LC FX Dual Mode Transceiver	JD497A
	HP X110 100M SFP LC LX10 Transceiver	JD498A
	HP X110 100M SFP LC LH40 Transceiver	JD090A
	HP X110 100M SFP LC LH80 Transceiver	JD091A
	HP X110 100M SFP LC FX Transceiver	JD102B
	HP X130 SC LR XFP Transceiver	JD108B
	HP X130 LC SR XFP Transceiver	JD117B
	HP X135 LC ER XFP Transceiver	JD121A
	HP X130 CX4 XFP Transceiver	JD506A
	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
	HP 50 cm CX4 Cable	JE054A
	HP 100 cm CX4 Cable	JE055A
	HP 300 cm CX4 Cable	JE056A
	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

Accessories

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
Power Supply	
HP A5800/A5500 150W AC Power	JD362A
HP A5800/A5500 150W DC Power Supply	JD366A

Accessory Product Details

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

HP 2-Port SFP A5500/E4800 Module (JD367A)	**Ports**	2 SFP 1000 Mbps ports	
	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 4500/4800 2-port 10GbE XFP Module (JE049A)	**Ports**	2 XFP 10-GbE ports; Duplex: full only	
	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 4500/4800 1-port 10GbE XFP Module (JE053A)	**Ports**	1 XFP 10-GbE port; Duplex: full only	
	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 4500/4800 2-port 10GbE LCM Module (JE051A)	**Ports**	2 CX4 10-GbE ports; Duplex: full only	
	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 X124 1G SFP LC SX Transceiver (JD493A) JD493A HP X124 1G SFP LC SX Transceiver that provides a full duplex Gigabit solution up to 550m on Multi Mode fiber.	**Ports**	1 LC 1000BASE-SX port	
	Connectivity	**Connector type**	LC
		Wavelength	850 nm
	Physical characteristics	**Dimensions**	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Maximum distance: • 220m-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.	

Accessory Product Details

HP X124 1G SFP LC LX Transceiver (JD494A) A small form-factor pluggable (SFP) Gigabig LX transceiver that provides a full duplex Gigabit solution up to 550m on MMF or 10Km on SMF	**Ports**		1 LC 1000BASE-LX port (IEEE 802.3z Type 1000BASE-LX)
	Connectivity	**Connector type**	LC
		Wavelength	1300 nm
	Physical characteristics	**Dimensions**	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
		Transceiver form factor	SFP
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling		Maximum distance: • 500m for Multimode • 10km for Singlemode
	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 X125 1G SFP RJ45 T Transceiver (JD089B) A small form factor pluggable (SFP) Gigabit 1000Base-T transceiver that provides a full duplex Gigabit solution up to 100m on a Cat-5+ cable.	**Ports**		1 RJ-45 1000BASE-T port (IEEE 802.3ab Type 1000BASE-T)
	Connectivity	**Connector type**	RJ-45
	Physical characteristics	**Dimensions**	2.71(d) x 0.54(w) x 0.55(h) in. (6.88 x 1.37 x 1.4 cm)
		Full configuration weight	0.07 lb. (0.03 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling		Cable type: 1000BASE-T: Category 5 (5E or better recommended), 100 Ù differential 4-pair unshielded twisted pair (UTP) or shielded twisted pair (STP) balanced, complying with IEEE 802.3ab 1000BASE-T; Maximum distance: • 100m
	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 X124 1G SFP LC LH40 1310nm Transceiver (JD061A)

A small form-factor pluggable SFP Gigabit LH40 transceiver that provides a full duplex Gigabit solution up to 40km on a single-mode fiber.

Ports		1 LC 1000Base-LH port (no IEEE standard exists for 1550 nm optics)
Connectivity	Connector type	LC
	Wavelength	1310 nm
Physical characteristics	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
	Full configuration weight	0.04 lb. (0.02 kg)
Electrical characteristics	Power consumption typical	0.8 W
	Power consumption maximum	1.0 W
Cabling	Cable type: Single-mode fiber optic, complying with ITU-T G.652; Maximum distance: • 40km distance	
	Fiber type	Single 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 X120 1G SFP LC LH40 1550nm Transceiver (JD062A)

A small form-factor pluggable (SFP) Gigabit LH40 transceiver that provides a full-duplex Gigabit solution up to 40 km on a single mode fiber.

Ports		1 LC 1000BASE-LH port (no IEEE standard exists for 1550 nm optics)
Connectivity	Connector type	LC
	Wavelength	1550 nm
Physical characteristics	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
	Full configuration weight	0.04 lb. (0.02 kg)
Electrical characteristics	Power consumption typical	0.8 W
	Power consumption maximum	1.0 W
Cabling	Cable type: Single-mode fiber optic, complying with ITU-T G.652; Maximum distance: • 40km distance	
	Fiber type	Single 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.	

Accessory Product Details

HP X125 1G SFP LC LH70 Transceiver (JD063B) A small form-factor pluggable (SFP) Gigabit LH70 transceiver that provides a full-duplex Gigabit solution up to 70km on a single-mode fiber.	**Ports**	1 LC 1000BASE-LH port (no IEEE standard exists for 1550 nm optics)	
	Connectivity	**Connector type**	LC
		Wavelength	1550 nm
	Physical characteristics	**Dimensions**	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Cable type: Single-mode fiber optic, complying with ITU-T G.652; Maximum distance: • 70km	
		Fiber type	Single 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 X120 1G SFP LC BX 10-U Transceiver (JD098B) A small form-factor pluggable (SFP) Gigabit LX-BX10-U transceiver that provides a full duplex Gigabit solution up to 10km on a single mode cable.	**Ports**	1 LC 1000BASE-BX10 port (IEEE 802.3ah Type 1000BASE-BX10-U); Duplex: full only	
	Connectivity	**Connector type**	LC
	Physical characteristics	**Dimensions**	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Maximum distance: • 10km	
		Fiber type	Single Mode
	Notes	TX 1310nm RX 1490nm	
	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 X120 1G SFP LC BX 10-D Transceiver (JD099B) A small form-factor pluggable (SFP) Gigabit LX-BX10-D transceiver that provides a full duplex Gigabit solution up to 10km on a single mode cable.	**Ports**	1 LC 1000BASE-BX10 port (IEEE 802.3ah Type 1000BASE-BX10-D); Duplex: full only	
	Connectivity	**Connector type**	LC
	Physical characteristics	**Dimensions**	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Maximum distance: • Up to 10km	
		Fiber type	Single Mode
	Notes	TX 1490nm RX 1310nm	
	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 X120 1G SFP LC SX Transceiver (JD118B) A small form-factor pluggable (SFP) Gigabit SX transceiver that provides a full-duplex Gigabit solution up to 550m on a Multimode fiber.	**Ports**	1 LC 1000BASE-SX port	
	Connectivity	**Connector type**	LC
		Wavelength	850 nm
	Physical characteristics	**Dimensions**	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Maximum distance: • FDDI Grade distance = 220m • OM1 = 275m • OM2 = 500m • OM3 = Not Specified by standard	
		Cable length	up to 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.	

Accessory Product Details

HP X120 1G SFP LC LX Transceiver (JD119B) A small form-factor pluggable (SFP) Gigabig LX transceiver that provides a full duplex Gigabit solution up to 550m on MMF or 10Km on SMF	**Ports**	1 SFP 1000BASE-LX port (IEEE 802.3z Type 1000BASE-LX)	
	Connectivity	**Connector type**	LC
		Wavelength	1300 nm
	Physical characteristics	**Dimensions**	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Cable type: Either single mode or multimode; Maximum distance: • 550m for Multimode • 10km for Singlemode	
		Fiber type	Both
	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 X110 100M SFP LC FX Dual Mode Transceiver(JD497A) A small form-factor pluggable (SFP) 100 MB/s Dual mode transceiver that provides a full duplex 100Mb/s solution up to 2km on a multi mode fiber.	**Ports**	1 LC 100 Mbps port	
	Connectivity	**Connector type**	LC
		Wavelength	1310 nm
	Physical characteristics	**Dimensions**	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling	**Cable length**	2km
		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.	

Accessory Product Details

HP X110 100M SFP LC LX10 Transceiver(JD498A) A small form-factor pluggable (SFP) 100Mb/s transceiver that provides a full duplex 100Mb/s solution for up to 10km on a single mode cable.	**Ports**	1 LC 100 Mbps port	
	Connectivity	**Connector type**	LC
		Wavelength	1310 nm
	Physical characteristics	**Dimensions**	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling	**Cable length**	10km
		Fiber type	Single 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 X130 10G XFP CX4 Transceiver (JD506A) An XFP 10 Gigabit CX4 transceiver that provides full duplex 10G solution using CX4 cabling.	**Ports**	1 CX4 10-GbE port; Duplex: full only	
	Connectivity	**Connector type**	CX4
	Cabling	**Cable length**	15m Max CX4 cables
	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 0.5 m Multimode OM3 LC/LC Optical Cable (AJ833A)	**Cabling**	**Cable type**: 50/125 μm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m **Maximum distance**: 10Gbps Transfer Rate (Ethernet): 300m	
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical glass: Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical glass: 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 50/125um multimode optical fiber and designed to work in both the 850 and 1300 nm wavelength windows.	

		• BULK CABLE & CABLE ASSEMBLY CONFIGURATION: • Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. • Jacket Color: Aqua for OM3 multimode per TIA 598 • Boot Color: White • Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. • Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. • Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 1 m Multimode OM3 LC/LC Optical Cable (AJ834A)	Cabling	Cable type: 50/125 μm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m Maximum distance: 10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex 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 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)	Cabling	Cable type: 50/125 μm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m; Maximum distance: 10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex 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 5 m Multimode OM3 LC/LC Optical Cable (AJ836A)	Cabling	Cable type: 50/125 μm core/cladding) diameter, mulitimode 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)	Cabling	Cable type: 50/125 μm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m; Maximum distance: 10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex 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 30 m Multimode OM3 LC/LC Optical Cable (AJ838A)	Cabling	Cable type: 50/125 μm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m; Maximum distance: 10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex 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 50 m Multimode OM3 LC/LC Optical Cable (AJ839A)	Cabling	Cable type: 50/125 μm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m; Maximum distance: 10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex 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 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 ± 3um; Cladding diameter: 125um ± 2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade - Low Smoke Zero Halogen (LSZH) thermoplastic. • Boot Color: White • Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL OFN FT4, ROHS. Cable also has a longitudal 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 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 ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

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

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

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

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