

Overview

HP 3100 EI Switch Series

Models

HP 3100-8 v2 EI Switch	JD318B
HP 3100-16 v2 EI Switch	JD319B
HP 3100-24 v2 EI Switch	JD320B
HP 3100-24-PoE v2 EI Switch	JD313B
HP 3100-48 v2 Switch	JG315B

Key features

- Comprehensive security control policies
- High reliability with improved backup redundancy
- Simplified deployment and ease of use
- Highly expandable and highly reliable
- Diversified management modes and maintenance

Product overview

HP 3100 EI series switches are Layer 2 Ethernet switches designed for enterprise networks demanding high security and intelligence. They provide 10/100 Mbps downlink and 1000 Mbps uplink Ethernet ports, and serve as access devices for 100 Mbps-to-desktop applications in enterprise networks. In metropolitan area networks or various industry networks, they connect end users or aggregate client devices with 10/100 Mbps connections, converging at a higher-capacity switch with 1000 Mbps interfaces. Features include advanced Quality of Service (QoS), rate limiting, QinQ (virtual LAN [VLAN]/VPN), SSHv2, Multicast VLAN Registration (MVR), Virtual Cable Tester (VCT), HGMP V2, GARP VLAN Registration Protocol (GVRP), access control list (ACL), media access control (MAC)-IP-port binding, Endpoint Admission Defense, voice and protocol-based VLAN, Internet Group Management Protocol snooping, and Power over Ethernet (PoE).

Features and benefits

Quality of Service (QoS)

- **Broadcast control**
allows limitation of broadcast traffic rate to cut down on unwanted network broadcast traffic
- **Advanced classifier-based QoS**
classifies traffic using multiple match criteria based on Layer 2, 3, and 4 information; applies QoS policies such as setting priority level and rate limit to selected traffic on a per-port or per-VLAN basis
- **Powerful QoS feature**
supports the following congestion actions: strict priority queuing (SP), weighted round robin (WRR) queuing, and SP+WRR
- **Traffic policing**
supports Committed Access Rate (CAR) and line rate

Management

- **Friendly port names:**
allow assignment of descriptive names to ports
- **Remote configuration and management:**
enables configuration and management through a secure Web browser or a CLI located on a remote device
- **Manager and operator privilege levels**
provides read-only (operator) and read/write (manager) access on CLI and Web browser management interfaces
- **Command authorization**
leverages HWTACACS to link a custom list of CLI commands to an individual network administrator's login; also provides an audit trail

Overview

- **Secure Web GUI**
provides a secure, easy-to-use graphical interface for configuring the module via HTTPS
- **Multiple configuration files**
stores easily to the flash image
- **Complete session logging**
provides detailed information for problem identification and resolution
- **SNMPv1, v2c, and v3**
facilitate centralized discovery, monitoring, and secure management of networking devices
- **Remote monitoring (RMON)**
uses standard SNMP to monitor essential network functions; supports events, alarm, history, and statistics group plus a private alarm extension group
- **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
- **Management VLAN**
segments traffic to and from management interfaces, including CLI/Telnet, a Web browser interface, and SNMP
- **Local and Remote Intelligent Mirroring**
mirror traffic from a switch port to a local or remote switch port anywhere on the network; mirror ACL-selected traffic to a local switch port
- **Device Link Detection Protocol (DLDP)**
monitors a cable between two switches and shuts down the ports on both ends if the cable is broken, preventing network problems such as loop
- **Troubleshooting**
ingress and egress port monitoring enable network problem solving; virtual cable tests provide visibility into cable problems
- **Stacking capability**
single IP address management for a stack of up to 16 switches

Connectivity

- **NEW IPv6** (on v2 products):
 - **Telnet v6**
to allow IPv6 management
 - **DNSv6 Client**
for IPv6 host management
 - **SNMPv6**
for IPv6 switch management
 - **DHCPv6 Client**
for automatic IPv6 address configuration of a switch
- **Auto-MDIX**
automatically adjusts for straight-through or crossover cables on all 10/100 and 10/100/1000 ports
- **Flow control**
provides back pressure using standard IEEE 802.3x, reducing congestion in heavy traffic situations
- **Gigabit Ethernet uplinks**
are dual-personality ports for either 10/100/1000 or mini-GBIC SFP connectivity for increased connectivity flexibility
- **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
- **Ethernet operations, administration and maintenance (OAM)**
detects data link layer problems that occurred in the "last mile" using the IEEE 802.3ah OAM standard; monitors the status of the link between two devices

Performance

Overview

- **Hardware-based wire-speed access control lists (ACLs)**
help provide high levels of security and ease of administration without impacting network performance with a feature-rich TCAM-based ACL implementation
- **Gigabit Ethernet interface**
provides a connection to the network that eliminates the network as a bottleneck

Resiliency and high availability

- **Separate data and control paths**
increase security and performance
- **External redundant power supply**
provides high reliability
- **Smart link**
allows 50 ms failover between links
- **Spanning Tree/MSTP, RSTP**
provides redundant links while preventing network loops
- **Port trunking**
provides higher switch-to-switch throughput and link-level redundancy, with support for standards-based link aggregation (IEEE 802.3ad); supports up to 13 trunks, each with up to 8 links (ports) per trunk
- **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

Layer 2 switching

- **NEW PVST+ on v2 products**
provides greater interoperability
- **8K MAC addresses**
provide access to many Layer 2 devices
- **VLAN support and tagging**
supports the IEEE 802.1Q, with 4,094 simultaneous VLAN IDs; supports port-based VLANs, MAC-based VLANs, and protocol-based VLANs
- **GARP VLAN Registration Protocol**
allows automatic learning and dynamic assignment of VLANs
- **IEEE 802.1ad QinQ and Selective QinQ**
increase the scalability of an Ethernet network by providing a hierarchical structure; connect multiple LANs on a high-speed campus or metro network
- **Gigabit Ethernet port aggregation**
allows grouping of ports to increase overall data throughput to a remote device
- **Internet Group Management Protocol (IGMP) and Multicast Listener Discovery (MLD) protocol snooping**
control and manage the flooding of multicast packets in a Layer 2 network

Layer 3 services

- **Address Resolution Protocol (ARP)**
determines the MAC address of another IP host in the same subnet
- **Dynamic Host Configuration Protocol (DHCP)**
simplifies the management of large IP networks and supports client and server
- **Loopback interface address**
defines an address in Routing Information Protocol (RIP) and Open Standard Path First (OSPF), improving diagnostic capability

Overview

Security

- **Access control lists (ACLs)**
provide IP Layer 2 to Layer 4 traffic filtering; support global ACL, VLAN ACL, and IPv6 ACL
- **Multiple user authentication methods:**
 - **IEEE 802.1X**
uses an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server to authenticate in accordance with industry standards
 - **Web-based authentication**
provides a browser-based environment, similar to IEEE 802.1X, to authenticate clients that do not support the IEEE 802.1X supplicant
 - **MAC-based authentication**
authenticates the client with the RADIUS server based on the client's MAC address
- **Identity-driven security and access control:**
 - **Per-user ACLs**
permits or denies user access to specific network resources based on user identity and time of day, allowing multiple types of users on the same network to access specific network services without risking network security or allowing unauthorized access to sensitive data
 - **Automatic VLAN assignment**
automatically assigns users to the appropriate VLAN based on their identities
- **Secure management access**
delivers secure encryption of all access methods (CLI, GUI, or MIB) through SSHv2, SSL, and/or SNMPv3
- **Secure FTP**
allows secure file transfer to and from the switch; protects against unwanted file downloads or unauthorized copying of a switch configuration file
- **Guest VLAN**
provides a browser-based environment to authenticated clients that is similar to IEEE 802.1X
- **Endpoint Admission Defense (EAD)**
provides security policies to users accessing a network
- **Port security**
allows access only to specified MAC addresses, which can be learned or specified by the administrator
- **Port isolation**
secures and adds privacy, and prevents malicious attackers from obtaining user information
- **STP BPDU port protection**
blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks
- **STP Root Guard**
protects the root bridge from malicious attacks or configuration mistakes
- **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
- **IP Source Guard**
filters packets on a per-port basis, which prevents illegal packets from being forwarded
- **RADIUS/HWTACACS**
eases switch management security administration by using a password authentication server

Convergence

- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP)**
facilitates easy mapping using network management applications with LLDP automated device discovery protocol
- **LLDP-MED**
is a standard extension that automatically configures network devices, including LLDP-capable IP phones
- **LLDP-CDP compatibility**
receives and recognizes CDP packets from Cisco's IP phones for seamless interoperation

Overview

- **IEEE 802.3af Power over Ethernet**
provides up to 15.4 W per port to PoE-powered devices such as IP phones, wireless access points, and video cameras
- **PoE allocations**
supports multiple methods (automatic, IEEE 802.3af class, LLDP-MED, or user-specified) to allocate PoE power for more efficient energy savings
- **Voice VLAN**
automatically assigns VLAN and priority for IP phones, simplifying network configuration and maintenance
- **Multicast VLAN**
allows multiple VLANs to receive the same IPv4 or IPv6 multicast traffic, lessening network bandwidth demand by reducing or eliminating multiple streams to each VLAN
- **IGMP/MLD snooping**
effectively controls and manages the flooding of multicast packets in a Layer 2 network

Device support

- **Cisco prestandard PoE support**
detects and provides power to Cisco's prestandard PoE devices such as wireless LAN access points and IP phones

Flexibility

- **Fanless design**
enables quiet operation for deployment in open spaces (selected models)

Additional information

- **Green initiative support**
provides support for RoHS and WEEE regulations
- **Green IT and power**
uses the latest advances in silicon development and shuts off unused ports to improve power efficiency

Warranty and support

- **Limited Lifetime Warranty**
Advance hardware replacement with next-business-day delivery (available in most countries). See <http://www.hp.com/networking/warrantysummary> for duration details.
- **Electronic and telephone support**
limited electronic and business-hours telephone support is available from HP for the entire warranty period; to reach our support centers, refer to www.hp.com/networking/contact-support; for details on the duration of support provided with your product purchase, refer to <http://www.hp.com/networking/warrantysummary>
- **Software releases**
to find software for your product, refer to www.hp.com/networking/support; for details on the software releases available with your product purchase, refer to <http://www.hp.com/networking/warrantysummary>

Configuration

Build To Order:

BT0 is a standalone unit with no integration. BT0 products ship standalone are not part of a CTO or Rack-Shippable solution.

HP 3100-8 v2 EI Switch

- 8 autosensing 10/100 ports
- 1 dual-personality port; auto-sensing
- 10/100/1000BASE-T or SFP
- min=0 \ max=1 SFP Transceiver
- 1U - Height

JD318B

See Configuration
Note:1, 3

HP 3100-16 v2 EI Switch

- 16 autosensing 10/100 ports
- 2 dual-personality port; auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=2 SFP Transceivers
- 1U - Height

JD319B

See Configuration
Note:1, 3

HP 3100-24-PoE v2 EI Switch

- 24 autosensing 10/100 PoE ports
- 2 dual-personality port; auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=2 SFP Transceivers
- 1U - Height

JD313B

See Configuration
Note:1, 3

HP 3100-24 v2 EI Switch

- 24 autosensing 10/100 ports
- 2 dual-personality port; auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=2 SFP Transceivers
- 1U - Height

JD320B

See Configuration
Note:1, 3

HP 3100-48 v2 Switch

- 48 RJ-45 autosensing 10/100 ports
- 2 SFP dual-personality 10/100/1000 ports
- 2 SFP fixed Gigabit Ethernet SFP ports
- min=0 \ max=4 SFP Transceivers
- 1U - Height

JG315B

See Configuration
Note:4, 5, 6

PDU Cable NA/MEX/TW/JP

- C15 PDU Jumper Cord (NA/MEX/TW/JP)

JG315B#B2B

PDU Cable ROW

- C15 PDU Jumper Cord (ROW)

JG315B#B2C

High Volt Switch/Router to Wall Power Cord

- NEMA L6-20P Cord (NA/MEX/JP/TW)

JG315B#B2E

Configuration Rules:

Note 1 The following Transceivers install into this switch:

HP X115 100M SFP LC BX 10-U Transceiver

JD100A

HP X115 100M SFP LC BX 10-D Transceiver

JD101A

HP X115 100M SFP LC FX Transceiver

JD102B

Configuration

HP X110 100M SFP LC LX Transceiver	JD120B
HP X120 1G SFP LC BX 10-U Transceiver	JD098B
HP X120 1G SFP LC BX 10-D Transceiver	JD099B
HP X120 1G SFP LC SX Transceiver	JD118B
HP X120 1G SFP LC LX Transceiver	JD119B

Note 3 Localization required. (See Localization Menu for list.)

Note 4 The following Transceivers install into this switch: (SFP 1000 Mbps ports only)

HP X125 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 RJ45 T Transceiver	JD089B
HP X120 1G SFP LC BX 10-U Transceiver	JD098B
HP X120 1G SFP LC BX 10-D Transceiver	JD099B
HP X120 1G SFP LC SX Transceiver	JD118B
HP X120 1G SFP LC LX Transceiver	JD119B

Note 5 Localization (Wall Power Cord) required on orders without #B2B, #B2C (PDU Power Cord) or #B2E. (See Localization Menu)

Note 6 #B2E is Offered only in NA, Mexico, Taiwan and Japan.

Remarks:

Drop down under power supply should offer the following options and results:
 Switch/Router/Power Supply to PDU Power Cord - #B2B in North America, Mexico, Taiwan, and Japan or #B2C ROW. (Watson Default B2B or B2C for Rack Level CTO)
 Switch/Router/Power Supply to Wall Power Cord - Localized Option (Watson Default for BTO and Box Level CTO)
 High Volt Switch/Router/Power Supply to Wall Power Cord - #B2E Option. (Offered only in North America, Mexico, Taiwan, and Japan)

Rack Level Integration CTO Models

Switch Chassis

HP 3100-48 v2 Switch

- 48 RJ-45 autosensing 10/100 ports
- 2 SFP dual-personality 10/100/1000 ports
- 2 SFP fixed Gigabit Ethernet SFP ports
- min=0 \ max=4 SFP Transceivers
- 1U - Height

JG315B
 See Configuration
 Note:1, 3, 4, 5

PDU Cable NA/MEX/TW/JP

- C15 PDU Jumper Cord (NA/MEX/TW/JP)

JG315B#B2B

PDU Cable ROW

- C15 PDU Jumper Cord (ROW)

JG315B#B2C

Configuration

Configuration Rules:

- Note 1** The following Transceivers install into this switch: (SFP 1000 Mbps ports only)
- | | |
|---|--------|
| HP X125 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 RJ45 T Transceiver | JD089B |
| HP X120 1G SFP LC BX 10-U Transceiver | JD098B |
| HP X120 1G SFP LC BX 10-D Transceiver | JD099B |
| HP X120 1G SFP LC SX Transceiver | JD118B |
| HP X120 1G SFP LC LX Transceiver | JD119B |
- Note 3** When Switches are Factory Racked, Then #B2B, or #B2C should be the Defaulted Power Cable option on the Switches.
- Note 4** Localization (Wall Power Cord) required on orders without #B2B, #B2C (PDU Power Cord). (See Localization Menu)
- Note 5** If the CTO Switch Chassis needs to be racked, Then the CTO Base Model needs to integrate (with #0D1) to the HP Network Rack.

Remarks:

Drop down under power supply should offer the following options and results:
 Switch/Router/Power Supply to PDU Power Cord - #B2B in North America, Mexico, Taiwan, and Japan or #B2C ROW. (Watson Default B2B or B2C for Rack Level CTO)
 Switch/Router/Power Supply to Wall Power Cord - Localized Option (Watson Default for BTO and Box Level CTO)

Transceivers

SFP Transceivers

HP X125 1G SFP LC LH40 1310nm XCVR	JD061A
HP X120 1G SFP LC LH40 1550nm XCVR	JD062A
HP X125 1G SFP LC LH70 Transceiver	JD063B
HP X120 1G SFP RJ45 T Transceiver	JD089B
HP X120 1G SFP LC BX 10-U Transceiver	JD098B
HP X120 1G SFP LC BX 10-D Transceiver	JD099B
HP X120 1G SFP LC SX Transceiver	JD118B
HP X120 1G SFP LC LX Transceiver	JD119B
HP X110 100M SFP LC BX 10-U Transceiver	JD100A
HP X110 100M SFP LC BX 10-D Transceiver	JD101A
HP X115 100M SFP LC FX Transceiver	JD102B
HP X110 100M SFP LC LX Transceiver	JD120B

Internal Power Supplies

No Power supplies



Configuration

Cables

Multi-Mode Cables

HP .5m Multi-mode OM3 LC/LC FC Cable	AJ833A
HP 1m Multi-mode OM3 LC/LC FC Cable	AJ834A
HP 2 m Multimode OM3 LC/LC FC Cable	AJ835A
HP 5 m Multimode OM3 LC/LC FC Cable	AJ836A
HP 15 m Multimode OM3 LC/LC FC Cable	AJ837A
HP 30 m Multimode OM3 LC/LC FC Cable	AJ838A
HP 50 m Multimode OM3 LC/LC FC Cable	AJ839A
HP Premier Flex LC/LC OM4 2f 1m Cbl	QK732A
HP Premier Flex LC/LC OM4 2f 2m Cbl	QK733A
HP Premier Flex LC/LC OM4 2f 5m Cbl	QK734A
HP Premier Flex LC/LC OM4 2f 15m Cbl	QK735A
HP Premier Flex LC/LC OM4 2f 30m Cbl	QK736A
HP Premier Flex LC/LC OM4 2f 50m Cbl	QK737A

Switch Enclosure Options

Stacking Cable kit

HP 3600 Switch SFP Stacking Kit	JD324B
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Mounting Kits

HP 3100/4210-16 Rack Mount Kit	JD321A See Configuration Note:1
HP 3100/4210-9 Rack Mount Kit	JD322A See Configuration Note:2

Configuration Rules:

Note 1	The following switches require this kit when mounting into a rack: HP 3100-16 v2 EI Switch	JD319B
Note 2	The following switches require this kit when mounting into a rack: HP 3100-8 v2 EI Switch	JD318B

Remark:

The 24 and 48 port devices come with rack mount ears.

External Redundant Power Supplies

System (std 0 // max 1) User Selection (min 0 / max 1) per Switch

Configuration

HP RPS1600 Redundant Power System	JG136A
<ul style="list-style-type: none">Height = 1Uincludes 1 x c13, 1600w and Power Supply port	See Configuration Note:2, 4
HP RPS1600 1600W AC Power Supply	JG137A
<ul style="list-style-type: none">Installs into JG136A only	See Configuration Note:3

Configuration Rules:

Note 2	This power supply is support only on the following switches: JD313B - HP 3100-24-PoE v2 EI Switch JG315B - HP 3100-48 v2 Switch HP 3100-24-PoE v2 EI Switch	JD313B
Note 3	If this power supply is selected, The JG136A - HP A-RPS1600 Redundant Power System must be on order or onsite.	
Note 4	Localization required. (See Localization Menu for list.)	

External Redundant Power Cables

System (std 0 // max 1) User Selection (min 0 / max 1) per RPS

HP X290 1000 A JD5 2m RPS Cable	JD187A
HP X290 500 C 1m RPS Cable	JD184A

Technical Specifications

HP 3100-8 V2 EI Switch (JD318B)

I/O ports and slots	8 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Duplex: half or full 1 dual-personality port; auto-sensing 10/100/1000Base-T or SFP 1 RJ-45 serial console port		
Additional ports and slots	1 RJ-45 serial console port		
Physical characteristics	Dimensions	9.06(w) x 6.3(d) x 1.72(h) in (23.01 x 16 x 4.37 cm) (1U height)	
	Weight	3.97 lb (1.8 kg)	
Memory and processor	128 MB SDRAM; Packet buffer size: 384 KB, 16 MB flash		
Mounting and enclosure	Requires angle mounting set if rack mounted (not included)		
Performance	100 Mb Latency	< 6 μs (64-byte packets)	
	1000 Mb Latency	< 5μs (64-byte packets)	
	Throughput	up to 2.6 Mpps	
	Routing/Switching capacity	3.6 Gbps	
	Routing table size	16 entries (IPv4)	
	MAC address table size	8192 entries	
Environment	Operating temperature	32°F to 113°F (0°C to 45°C)	
	Operating relative humidity	10% to 90%, noncondensing	
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	
	Nonoperating/Storage relative humidity	5% to 95%, noncondensing	
	Acoustic	N/A (fanless)	
Electrical characteristics	Maximum heat dissipation	31 BTU/hr	
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)	
	Maximum power rating	9 W	
	Frequency	50/60 Hz	
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; ROHS Compliance		
Emissions	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; ICES-003 Class A; ANSI C63.4 2003; ETSI EN 300 386 V1.3.3; AS/NZS CISPR22 Class A; EN 61000-3-2; EN 61000-3-3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-4-11; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A		
Management	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager		
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.		

Technical Specifications

HP 3100-16 V2 EI Switch (JD319B)

Ports	16 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Duplex: half or full 2 dual-personality ports; auto-sensing 10/100/1000Base-T or SFP 1 RJ-45 serial console port	
Physical characteristics	Dimensions	14.17(w) x 6.3(d) x 1.72(h) in (35.99 x 16 x 4.37 cm) (1U height)
	Weight	5.51 lb (2.5 kg)
Memory and processor	128 MB SDRAM; Packet buffer size: 384 KB, 16 MB flash	
Mounting	Requires angle mounting set if rack mounted (not included)	
Performance	100 Mb Latency	< 6 µs (64-byte packets)
	1000 Mb Latency	< 5µs (64-byte packets)
	Throughput	up to 5.3 million pps
	Routing/Switching capacity	7.2 Gbps
	Routing table size	16 entries
	MAC address table size	8192 entries
	Operating temperature	32°F to 113°F (0°C to 45°C)
Environment	Operating relative humidity	10% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 95%, noncondensing
	Acoustic	N/A (fanless)
Electrical characteristics	Maximum heat dissipation	41 BTU/hr
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	12 W
	Frequency	50/60 Hz
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; ROHS Compliance	
Emissions	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; ICES-003 Class A; ANSI C63.4 2003; ETSI EN 300 386 V1.3.3; AS/NZS CISPR22 Class A; EN 61000-3-2; EN 61000-3-3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-4-11; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A	
Management Services	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager Refer to the HP website at: http://www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

HP 3100-24 V2 EI Switch (JD320B)

Technical Specifications

I/O ports and slots	24 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Duplex: half or full		
	2 dual-personality ports; auto-sensing 10/100/1000BASE-T or SFP		
Additional ports and slots	1 RJ-45 serial console port		
Physical characteristics	Dimensions	17.32(w) x 6.3(d) x 1.72(h) in (43.99 x 16 x 4.37 cm) (1U height)	
	Weight	7.72 lb (3.5 kg)	
Memory and processor	128 MB SDRAM; Packet buffer size: 384 KB, 16 MB flash		
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)		
Performance	1000 Mb Latency	< 6 μs (64-byte packets)	
	10 Gbps Latency	< 5 μs (64-byte packets)	
	Throughput	up to 6.5 Mpps	
	Routing/Switching capacity	8.8 Gbps	
	Routing table size	16 entries (IPv4)	
	MAC address table size	8192 entries	
Environment	Operating temperature	32°F to 113°F (0°C to 45°C)	
	Operating relative humidity	10% to 90%, noncondensing	
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	
	Nonoperating/Storage relative humidity	5% to 95%, noncondensing	
	Acoustic	N/A (fanless)	
Electrical characteristics	Maximum heat dissipation	44 BTU/hr	
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)	
	Maximum power rating	13 W	
	Frequency	50/60 Hz	
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	
Safety	UL 60950; NOM-019-SCFI Mexico; EN 60950: 2000, ZB and ZC Deviations; IEC 60950: 1999, Corr Feb 2000, all national deviations; AS/NZS 60950: 2000 Australia, Russian GOST Safety Approval		
Emissions	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; ICES-003 Class A; ANSI C63.4 2003; ETSI EN 300 386 V1.3.3; AS/NZS CISPR22 Class A; EN 61000-3-2; EN 61000-3-3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-4-11; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A		
Management Services	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager		
	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 3100-24-PoE v2 EI Switch (JD313B)

I/O ports and slots	24 autosensing 10/100 PoE ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3af PoE); Duplex: half or full
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Technical Specifications

	2 dual-personality ports; auto-sensing 10/100/1000BASE-T or SFP	
Additional ports and slots	1 RJ-45 serial console port	
Physical characteristics	Dimensions	17.32(w) x 16.54(d) x 1.72(h) in (44 x 42 x 4.36 cm) (1U height)
	Weight	14.33 lb. (6.5 kg)
Memory and processor	128 MB SDRAM; Packet buffer size: 384 KB, 16 MB flash	
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	
Performance	100 Mb Latency	< 6 μ s (64-byte packets)
	1000 Mb Latency	< 5 μ s (64-byte packets)
	Throughput	up to 6.5 Mpps
	Routing/Switching capacity	8.8 Gbps
	MAC address table size	8192 entries
Environment	Operating temperature	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	10% to 90%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 95%, noncondensing
	Acoustic	Low-speed fan: 42.2 dB, High-speed fan: 51.5 dB
Electrical characteristics	Maximum heat dissipation	1586 BTU/hr (1673.23 kJ/hr)
	Voltage	100 - 240 VAC, rated (depending on power supply chosen)
	Maximum power rating	465 W
	PoE power	370 W PoE
	Frequency	50/60 Hz
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the power supplied by the internal power supply. It is dependent on the type and quantity of power supplies and may be supplemented with the use of an external power supply (EPS). With DC input, the maximum power is 400 W; PoE power is 370 W.
Safety	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; ROHS Compliance	
Emissions	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; ICES-003 Class A; ANSI C63.4 2003; ETSI EN 300 386 V1.3.3; AS/NZS CISPR22 Class A; EN 61000-3-2; EN 61000-3-3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-4-11; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A	
Management	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager	
Services	Refer to the HP website at: http://www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

HP 3100-48 V2 Switch (JG315B)

I/O ports and slots 48 RJ-45 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX);



Technical Specifications

	Duplex: half or full
	2 SFP dual-personality 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T)
	4 SFP fixed Gigabit Ethernet SFP ports
Additional ports and slots	1 RJ-45 serial console port
Physical characteristics	Dimensions 17.32(w) x 10.24(d) x 1.72(h) in (43.99 x 26.01 x 4.37 cm) (1U height) Weight 7.72 lb (3.5 kg)
Memory and processor	256 MB SDRAM, 128 MB flash; Packet buffer size: 4 MB
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)
Performance	100 Mb Latency < 6 μ s (64-byte packets) 1000 Mb Latency < 5 μ s (64-byte packets) Throughput up to 13.1 Mpps Routing/Switching capacity 17.6 Gbps Routing table size 32 entries (IPv4) MAC address table size 32000 entries
Environment	Operating temperature 32°F to 113°F (0°C to 45°C) Operating relative humidity 10% to 90%, noncondensing Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C) Nonoperating/Storage relative humidity 5% to 95%, noncondensing Acoustic Low-speed fan: 43.2 dB, High-speed fan: 50.0 dB
Electrical characteristics	Maximum heat dissipation 140 BTU/hr Voltage 100 - 240 VAC, rated (depending on power supply chosen) Maximum power rating 41 W Frequency 50/60 Hz Notes Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	UL 60950; NOM-019-SCFI Mexico; EN 60950: 2000, ZB and ZC Deviations; IEC 60950: 1999, Corr Feb 2000, all national deviations; AS/NZS 60950: 2000 Australia, Russian GOST Safety Approval
Emissions	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; ICES-003 Class A; ANSI C63.4 2003; ETSI EN 300 386 V1.3.3; AS/NZS CISPR22 Class A; EN 61000-3-2; EN 61000-3-3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-4-11; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A
Management	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager
Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptins 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)	General protocols IEEE 802.1ad Q-in-Q IEEE 802.1ag Service Layer OAM

Technical Specifications

IEEE 802.1D MAC Bridges
IEEE 802.1p Priority
IEEE 802.1Q VLANs
IEEE 802.1s (MSTP)
IEEE 802.1w Rapid Reconfiguration of Spanning Tree
IEEE 802.1X PAE
IEEE 802.3ad Link Aggregation Control Protocol (LACP)
IEEE 802.3af Power over Ethernet
IEEE 802.3i 10BASE-T
IEEE 802.3u 100BASE-X
IEEE 802.3x Flow Control
IEEE 802.3z 1000BASE-X
RFC 768 UDP
RFC 783 TFTP Protocol (revision 2)
RFC 791 IP
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 854 TELNET
RFC 951 BOOTP
RFC 959 File Transfer Protocol (FTP)

MIBs

IEEE 8021-PAE-MIB
IEEE 8023-LAG-MIB
RFC 1213 MIB II
RFC 1493 Bridge MIB
RFC 2011 SNMPv2 MIB for IP
RFC 2013 SNMPv2 MIB for UDP
RFC 2233 Interface MIB
RFC 2273 SNMP-NOTIFICATION-MIB
RFC 2571 SNMP Framework MIB
RFC 2572 SNMP-MPD MIB
RFC 2573 SNMP-Notification MIB
RFC 2618 RADIUS Authentication Client MIB
RFC 2620 RADIUS Accounting Client MIB
RFC 2665 Ethernet-Like-MIB
RFC 2674 802.1p and IEEE 802.1Q Bridge MIB
RFC 2819 RMON MIB
RFC 2925 Ping MIB
RFC 3414 SNMP-User based-SM MIB
RFC 3418 MIB for SNMPv3
RFC 3621 Power Ethernet MIB
RFC 3826 AES for SNMP's USM MIB
RFC 4133 Entity MIB (Version 3)
LLDP-EXT-DOT1-MIB
LLDP-EXT-DOT3-MIB
LLDP-MIB

IPv6

RFC 1881 IPv6 Address Allocation Management (v2 models only)
RFC 1887 IPv6 Unicast Address Allocation Architecture (v2 models only)
RFC 1981 IPv6 Path MTU Discovery (v2 models only)
RFC 2080 RIPng for IPv6 (v2 models only)
RFC 2373 IPv6 Addressing Architecture (v2 models only)
RFC 2375 IPv6 Multicast Address Assignments (v2 models only)

Technical Specifications

RFC 2460 IPv6 Specification (v2 models only)
RFC 2461 IPv6 Neighbor Discovery (v2 models only)
RFC 2462 IPv6 Stateless Address Auto-configuration (v2 models only)
RFC 2463 ICMPv6 (v2 models only)
RFC 2464 Transmission of IPv6 over Ethernet Networks (v2 models only)
RFC 2475 IPv6 DiffServ Architecture (v2 models only)
RFC 2893 Transition Mechanisms for IPv6 Hosts and Routers (v2 models only)
RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations (Ping only) (v2 models only)
RFC 2925 Remote Operations MIB (Ping only) (v2 models only)
RFC 3056 Connection of IPv6 Domains via IPv4 Clouds (v2 models only)
RFC 3162 RADIUS and IPv6 (v2 models only)
RFC 3306 Unicast-Prefix-based IPv6 Multicast Addresses (v2 models only)
RFC 3307 IPv6 Multicast Address Allocation (v2 models only)
RFC 3315 DHCPv6 (client and relay) (v2 models only)
RFC 3484 Default Address Selection for IPv6 (v2 models only)
RFC 3493 Basic Socket Interface Extensions for IPv6 (v2 models only)
RFC 3513 IPv6 Addressing Architecture (v2 models only)
RFC 3542 Advanced Sockets API for IPv6 (v2 models only)
RFC 3587 IPv6 Global Unicast Address Format (v2 models only)
RFC 3596 DNS Extension for IPv6 (v2 models only)
RFC 4113 MIB for UDP (v2 models only)
RFC 4443 ICMPv6 (v2 models only)

MIBs

IEEE 8021-PAE-MIB
IEEE 8023-LAG-MIB
RFC 1213 MIB II
RFC 1493 Bridge MIB
RFC 2011 SNMPv2 MIB for IP
RFC 2013 SNMPv2 MIB for UDP
RFC 2233 Interface MIB
RFC 2273 SNMP-NOTIFICATION-MIB
RFC 2571 SNMP Framework MIB
RFC 2572 SNMP-MPD MIB
RFC 2573 SNMP-Notification MIB
RFC 2618 RADIUS Authentication Client MIB
RFC 2620 RADIUS Accounting Client MIB
RFC 2665 Ethernet-Like-MIB
RFC 2674 802.1p and IEEE 802.1Q Bridge MIB
RFC 2819 RMON MIB
RFC 2925 Ping MIB
RFC 3414 SNMP-User based-SM MIB
RFC 3418 MIB for SNMPv3
RFC 3621 Power Ethernet MIB
RFC 3826 AES for SNMP's USM MIB
RFC 4133 Entity MIB (Version 3)
LLDP-EXT-DOT1-MIB
LLDP-EXT-DOT3-MIB
LLDP-MIB

Network management

IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events)
ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)

Technical Specifications

SNMPv1/v2c/v3

QoS/CoS

IEEE 802.1P (CoS)

RFC 2474 DSCP DiffServ

Accessories

HP 3100 EI Switch Series accessories

Transceivers

HP X120 1G SFP LC BX 10-U Transceiver	JD098B
HP X120 1G SFP LC BX 10-D Transceiver	JD099B
HP X120 1G SFP LC SX Transceiver	JD118B
HP X120 1G SFP LC LX Transceiver	JD119B
HP X120 1G SFP RJ45 T Transceiver	JD089B

Cables

HP 3600 Switch SFP Stacking Kit	JD324B
HP LC to LC Multi-mode OM3 2-Fiber 0.5m 1-Pack Fiber Optic Cable	AJ833A
HP LC to LC Multi-mode OM3 2-Fiber 1.0m 1-Pack Fiber Optic Cable	AJ834A
HP LC to LC Multi-mode OM3 2-Fiber 2.0m 1-Pack Fiber Optic Cable	AJ835A
HP LC to LC Multi-mode OM3 2-Fiber 5.0m 1-Pack Fiber Optic Cable	AJ836A
HP LC to LC Multi-mode OM3 2-Fiber 15.0m 1-Pack Fiber Optic Cable	AJ837A
HP LC to LC Multi-mode OM3 2-Fiber 30.0m 1-Pack Fiber Optic Cable	AJ838A
HP LC to LC Multi-mode OM3 2-Fiber 50.0m 1-Pack Fiber Optic Cable	AJ839A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable	QK732A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable	QK733A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable	QK734A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable	QK735A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable	QK736A
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable	QK737A

Power Supply

HP RPS1600 Redundant Power System	JG136A
HP RPS1600 1600W AC Power Supply	JG137A

Mounting Kit

HP 3100/4210-16 Rack Mount Kit	JD321A
HP 3100/4210-9 Rack Mount Kit	JD322A
HP 3100/4210-16/-8 PoE Rack Mount Kit	JD323A

Power cords

HP X290 500 C 1m RPS Cable	JD184A
HP X290 1000 A JD5 2m RPS Cable	JD187A

HP 3100-24-PoE v2 EI Switch (JD313B)

HP X115 100M SFP LC FX Transceiver	JD102B
HP X110 100M SFP LC LX Transceiver	JD120B

HP 3100-48 V2 Switch (JG315B)

HP X125 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 RJ45 T Transceiver	JD089B

Accessory Product Details

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

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)
	Electrical characteristics	Full configuration weight	0.04 lb. (0.02 kg)
		Power consumption typical	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Maximum distance: • 10km Fiber type Single Mode	
	Notes Services	TX 1310nm RX 1490nm Refer to the HP website at: http://www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

HP 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)
	Electrical characteristics	Full configuration weight	0.04 lb. (0.02 kg)
		Power consumption typical	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Maximum distance: • Up to 10km Fiber type Single Mode	
	Notes Services	TX 1490nm RX 1310nm 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	Ports	1 LC 1000BASE-SX port	
	Connectivity	Connector type	LC
	Physical characteristics	Wavelength	850 nm
		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

Accessory Product Details

Multimode fiber.		Power consumption maximum	1.0 W
	Cabling	Maximum distance: <ul style="list-style-type: none">• 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: http://www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	
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HP X120 1G SFP LC LX Transceiver (JD119B) A small form-factor pluggable (SFP) Gigabit 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
	Physical characteristics	Wavelength	1300 nm
		Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
	Electrical characteristics	Full configuration weight	0.04 lb. (0.02 kg)
		Power consumption typical	0.8 W
	Cabling	Power consumption maximum	1.0 W
		Cable type:	Either single mode or multimode;
		Maximum distance: <ul style="list-style-type: none">• 550m for Multimode• 10km for Singlemode	
	Services	Fiber type	Both
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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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	
	Notes	Maximum distance: 10Gbps Transfer Rate (Ethernet): 300m	
		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. <ul style="list-style-type: none">• 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.	

Accessory Product Details

- 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 <http://www.hp.com/networking/services> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

HP 1 m 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 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.

Accessory Product Details

- Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg

Services

Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

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

Cabling

Cable type:

50/125 μ m (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;

Maximum distance:

10Gbps Transfer Rate (Ethernet): 300m

Notes

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

- Dimensions: Core diameter: 50 \pm 3.0 μ m Cladding diameter: 125 \pm 2.0 μ m Coating diameter: 245 \pm 10 μ m
- Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.
- Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.
- CABLE: The cable is duplex zipcord graded index 50/125 μ m multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows.
- BULK CABLE & CABLE ASSEMBLY CONFIGURATION:
- Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.
- Jacket Color: Aqua for OM3 multimode per TIA 598
- Boot Color: White
- Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters.
- Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.
- Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg

Services

Refer to the HP website at <http://www.hp.com/networking/services> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

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

Cabling

Cable type:

50/125 μ m core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;

Maximum distance:

10Gbps Transfer Rate (Ethernet): 300m

Notes

Cable Specs: This specification defines the detail requirements for a tight buffered duplex fiber optic multimode OM3 50/125 μ m fiber optic cable

Accessory Product Details

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.

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

Cabling

Cable type:

50/125 µm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;

Maximum distance:

10Gbps Transfer Rate (Ethernet): 300m

Notes

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

- Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um
- Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.
- Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.
- CABLE: The cable is duplex 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.

Accessory Product Details

- 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 <http://www.hp.com/networking/services> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

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

Cabling

Cable type:

50/125 µm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;

Maximum distance:

10Gbps Transfer Rate (Ethernet): 300m

Notes

Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 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.

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

Cabling

Cable type:

50/125 µm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for

Accessory Product Details

distances of up to 300 m;

Notes

Maximum distance:

10Gbps Transfer Rate (Ethernet): 300m

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

- Dimensions: Core diameter: $50 \pm 3.0\mu\text{m}$ Cladding diameter: $125 \pm 2.0\mu\text{m}$ Coating diameter: $245 \pm 10\mu\text{m}$
- Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.
- Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.
- CABLE: The cable is duplex zipcord graded index 50/125um 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 <http://www.hp.com/networking/services> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

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

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: $50\mu\text{m} \pm 3\mu\text{m}$, Cladding diameter: $125\mu\text{m} \pm 2\mu\text{m}$; Coating diameter: $245 \pm 10\mu\text{m}$
- 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 @

Accessory Product Details

1310nm @ 23°C as tested in accordance with EIA 455-45

Services

Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

HP Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable (QK733A)

Notes

Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.

- Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um
- Bandwidth: 3000 MHz-km @ 850nm (Laser)
- Jacket Color: Blue
- Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic
- Boot Color: White
- Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.
- Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m
- Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45

Services

Refer to the HP website at <http://www.hp.com/networking/services> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

HP Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable (QK734A)

Notes

Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.

- Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um
- Bandwidth: 3000 MHz-km @ 850nm (Laser)
- Jacket Color: Blue
- Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic
- 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

Accessory Product Details

the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

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

Notes

Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.

- Core diameter: 50um \pm 3um, Cladding diameter: 125um \pm 2um; Coating diameter: 245 \pm 10um
- Bandwidth: 3000 MHz-km @ 850nm (Laser)
- Jacket Color: Blue
- Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic
- Boot Color: White
- Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.
- Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m
- Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45

Services

Refer to the HP website at <http://www.hp.com/networking/services> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

HP Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable (QK736A)

Notes

Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.

- Core diameter: 50um \pm 3um, Cladding diameter: 125um \pm 2um; Coating diameter: 245 \pm 10um
- Bandwidth: 3000 MHz-km @ 850nm (Laser)
- Jacket Color: Blue
- Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic
- Boot Color: White
- Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.
- Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m
- Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45

Services

Refer to the HP website at www.hp.com/networking/services 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 50m Cable (QK737A)

Notes

Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.

- Core diameter: 50um \pm 3um, Cladding diameter: 125um \pm 2um; Coating diameter: 245 \pm 10um
- Bandwidth: 3000 MHz-km @ 850nm (Laser)
- Jacket Color: Blue
- Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic
- Boot Color: White
- Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.
- Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m
- Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45

Services

Refer to the HP website at <http://www.hp.com/networking/services> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

HP RPS1600 Redundant Power System (JG136A)

Ports

8 redundant power supply ports
Restrictions: two -56V/25A DC(PoE); six -56V/8A DC(non-PoE)

Physical characteristics

Dimensions

15.63(d) x 17.32(w) x 1.74(h) in. (39.7 x 44 x 4.42 cm)

Weight

14.11 lb. (6.4 kg)

Full configuration weight

16.75 lb. (7.6 kg)

Environment

Operating temperature

14°F to 122°F (-10°C to 50°C)

Operating relative humidity

5% to 95%

Nonoperating/Storage temperature

-40°F to 158°F (-40°C to 70°C)

Nonoperating/Storage relative humidity

5% to 95%

Altitude

up to 13,123 ft. (4 km)

Acoustic

Pressure: 53 dB; ISO 7779, ISO 9296

Electrical characteristics

Voltage

100-120/200-240 VAC

Current

30/60 A

Idle power

38 W

Maximum power rating

3550 W

RPS power

3200 W

PoE power

2800 W

RPS

-55 V

PoE

-55 V

Frequency

50/60 Hz

Accessory Product Details

	Notes	<p>Idle power is the actual power consumption of the device with no ports connected.</p> <p>Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.</p> <p>With one RPS1600 Power Supply, the PRS1600 Redundant Power System can provide 1600W power output; With two PRS1600 Power Supplies, the output power is 3200W.</p>
Safety	CE Labeled; UL 60950-1; IEC 60950-1; ICES-003; FCC Part 15, Subpart B; EU RoHS Compliant; EN 60950-1/A11; C-Tick; VCCI Class A; ROHS Compliance; EN 300386	
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 RPS1600 1600W AC Power Supply (JG137A)	Physical characteristics	Dimensions	8.19(d) x 4.96(w) x 1.63(h) in. (20.8 x 12.6 x 4.15 cm)
		Weight	3.02 lb. (1.37 kg)
	Environment	Operating temperature	14°F to 122°F (-10°C to 50°C)
		Operating relative humidity	5% to 95%
		Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
		Nonoperating/Storage relative humidity	5% to 95%
	Electrical characteristics	Voltage	100-120/200-240 VAC
		Current	15/30 A
		Maximum power rating	1600 W
		Frequency	50/60 Hz
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	
	Services	Refer to the HP website at: http://www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

HP X125 1G SFP LC LH40 1310nm Transceiver (JD061A)	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)
A small form-factor pluggable SFP Gigabit		Full configuration weight 0.04 lb. (0.02 kg)

Accessory Product Details

LH40 transceiver that provides a full duplex Gigabit solution up to 40km on a single-mode fiber.

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:	
	<ul style="list-style-type: none">• 40km distance	
Services	Fiber type	Single Mode
	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

HP 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
	Cable type:	Single-mode fiber optic, complying with ITU-T G.652;
Cabling	Maximum distance:	<ul style="list-style-type: none">• 40km distance
	Fiber type	Single Mode
Services	Refer to the HP website at: http://www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

HP 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:

Accessory Product Details

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 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

Cabling

Power consumption maximum

1.0 W

Cable type:

1000BASE-T: Category 5 (5E or better recommended), 100 ÷ 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: <http://www.hp.com/networking/services> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

Summary of Changes

Date	Version History	Action	Description of Change:
21-Aug-2015	From Version 15 to 16	Changed	Configuration menu updated
29-May-2015	From Version 14 to 15	Changed	Configuration menu updated
20-Apr-2015	From Version 13 to 14	Added	Added Configuration section
		Changed	Updated Features and benefits, Technical Specifications and Accessories Updated model JG315A to JG315B
01-Dec-2014	From Version 12 to 13	Changed	Warranty and support updated
10-Jun-2013	From Version 10 to 11	Added	OM4 cables were added.
25-Oct-2012	From Version 9 to 10	Removed	Removed the information for two models.
18-Oct-2012	From Version 8 to 9	Changed	Updated Features and Benefits and also added the Mac address table size to the specifications for several models.
30-Jul-2012	From Version 7 to 8	Changed	Minor updates were made to the specifications for each model, the list of models supported in the series and Accessories.
22-Jun-2012	From Version 6 to 7	Changed	Updated the models (JD313B), Introduction, Features and Benefits, Specifications (for JD313B) and Accessories (also for JD313B).
04-Apr-2012	From Version 5 to 6	Changed	Updated the ports for JG315A.
26-Mar-2012	From Version 4 to 5	Changed	The document was revised throughout, including adding some new models.
07-Nov-2011	From Version 3 to 4	Changed	The product name was updated throughout the document.
28-Sep-2011	From Version 2 to 3	Added	Accessory Product Details was added.
16-Mar-2011	From Version 1 to 2	Changed	Specifications were revised.

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