

### 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](http://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](http://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:

**BTO is a standalone unit with no integration. BTO 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
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	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
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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

- Height = 1U
- includes 1 x c13, 1600w and Power Supply port

JG136A  
See Configuration  
Note:2, 4

#### HP RPS1600 1600W AC Power Supply

- Installs into JG136A only

JG137A  
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)

<b>I/O ports and slots</b>	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												
<b>Additional ports and slots</b>	1 RJ-45 serial console port												
<b>Physical characteristics</b>	<table border="0"> <tr> <td style="vertical-align: top;"><b>Dimensions</b></td> <td>9.06(w) x 6.3(d) x 1.72(h) in (23.01 x 16 x 4.37 cm) (1U height)</td> </tr> <tr> <td style="vertical-align: top;"><b>Weight</b></td> <td>3.97 lb (1.8 kg)</td> </tr> </table>	<b>Dimensions</b>	9.06(w) x 6.3(d) x 1.72(h) in (23.01 x 16 x 4.37 cm) (1U height)	<b>Weight</b>	3.97 lb (1.8 kg)								
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<b>Weight</b>	3.97 lb (1.8 kg)												
<b>Memory and processor</b>	128 MB SDRAM; Packet buffer size: 384 KB, 16 MB flash												
<b>Mounting and enclosure</b>	Requires angle mounting set if rack mounted (not included)												
<b>Performance</b>	<table border="0"> <tr> <td style="vertical-align: top;"><b>100 Mb Latency</b></td> <td>&lt; 6 <math>\mu</math>s (64-byte packets)</td> </tr> <tr> <td style="vertical-align: top;"><b>1000 Mb Latency</b></td> <td>&lt; 5<math>\mu</math>s (64-byte packets)</td> </tr> <tr> <td style="vertical-align: top;"><b>Throughput</b></td> <td>up to 2.6 Mpps</td> </tr> <tr> <td style="vertical-align: top;"><b>Routing/Switching capacity</b></td> <td>3.6 Gbps</td> </tr> <tr> <td style="vertical-align: top;"><b>Routing table size</b></td> <td>16 entries (IPv4)</td> </tr> <tr> <td style="vertical-align: top;"><b>MAC address table size</b></td> <td>8192 entries</td> </tr> </table>	<b>100 Mb Latency</b>	< 6 $\mu$ s (64-byte packets)	<b>1000 Mb Latency</b>	< 5 $\mu$ s (64-byte packets)	<b>Throughput</b>	up to 2.6 Mpps	<b>Routing/Switching capacity</b>	3.6 Gbps	<b>Routing table size</b>	16 entries (IPv4)	<b>MAC address table size</b>	8192 entries
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<b>Notes</b>	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.												
<b>Safety</b>	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												
<b>Emissions</b>	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												
<b>Management Services</b>	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager Refer to the HP website at: <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.												

### Technical Specifications

#### HP 3100-16 V2 EI Switch (JD319B)

<b>Ports</b>	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												
<b>Physical characteristics</b>	<table border="0"> <tr> <td style="vertical-align: top;"><b>Dimensions</b></td> <td>14.17(w) x 6.3(d) x 1.72(h) in (35.99 x 16 x 4.37 cm) (1U height)</td> </tr> <tr> <td style="vertical-align: top;"><b>Weight</b></td> <td>5.51 lb (2.5 kg)</td> </tr> </table>	<b>Dimensions</b>	14.17(w) x 6.3(d) x 1.72(h) in (35.99 x 16 x 4.37 cm) (1U height)	<b>Weight</b>	5.51 lb (2.5 kg)								
<b>Dimensions</b>	14.17(w) x 6.3(d) x 1.72(h) in (35.99 x 16 x 4.37 cm) (1U height)												
<b>Weight</b>	5.51 lb (2.5 kg)												
<b>Memory and processor</b>	128 MB SDRAM; Packet buffer size: 384 KB, 16 MB flash												
<b>Mounting</b>	Requires angle mounting set if rack mounted (not included)												
<b>Performance</b>	<table border="0"> <tr> <td style="vertical-align: top;"><b>100 Mb Latency</b></td> <td>&lt; 6 <math>\mu</math>s (64-byte packets)</td> </tr> <tr> <td style="vertical-align: top;"><b>1000 Mb Latency</b></td> <td>&lt; 5<math>\mu</math>s (64-byte packets)</td> </tr> <tr> <td style="vertical-align: top;"><b>Throughput</b></td> <td>up to 5.3 million pps</td> </tr> <tr> <td style="vertical-align: top;"><b>Routing/Switching capacity</b></td> <td>7.2 Gbps</td> </tr> <tr> <td style="vertical-align: top;"><b>Routing table size</b></td> <td>16 entries</td> </tr> <tr> <td style="vertical-align: top;"><b>MAC address table size</b></td> <td>8192 entries</td> </tr> </table>	<b>100 Mb Latency</b>	< 6 $\mu$ s (64-byte packets)	<b>1000 Mb Latency</b>	< 5 $\mu$ s (64-byte packets)	<b>Throughput</b>	up to 5.3 million pps	<b>Routing/Switching capacity</b>	7.2 Gbps	<b>Routing table size</b>	16 entries	<b>MAC address table size</b>	8192 entries
<b>100 Mb Latency</b>	< 6 $\mu$ s (64-byte packets)												
<b>1000 Mb Latency</b>	< 5 $\mu$ s (64-byte packets)												
<b>Throughput</b>	up to 5.3 million pps												
<b>Routing/Switching capacity</b>	7.2 Gbps												
<b>Routing table size</b>	16 entries												
<b>MAC address table size</b>	8192 entries												
<b>Environment</b>	<table border="0"> <tr> <td style="vertical-align: top;"><b>Operating temperature</b></td> <td>32°F to 113°F (0°C to 45°C)</td> </tr> <tr> <td style="vertical-align: top;"><b>Operating relative humidity</b></td> <td>10% to 90%, noncondensing</td> </tr> <tr> <td style="vertical-align: top;"><b>Nonoperating/Storage temperature</b></td> <td>-40°F to 158°F (-40°C to 70°C)</td> </tr> <tr> <td style="vertical-align: top;"><b>Nonoperating/Storage relative humidity</b></td> <td>5% to 95%, noncondensing</td> </tr> <tr> <td style="vertical-align: top;"><b>Acoustic</b></td> <td>N/A (fanless)</td> </tr> </table>	<b>Operating temperature</b>	32°F to 113°F (0°C to 45°C)	<b>Operating relative humidity</b>	10% to 90%, noncondensing	<b>Nonoperating/Storage temperature</b>	-40°F to 158°F (-40°C to 70°C)	<b>Nonoperating/Storage relative humidity</b>	5% to 95%, noncondensing	<b>Acoustic</b>	N/A (fanless)		
<b>Operating temperature</b>	32°F to 113°F (0°C to 45°C)												
<b>Operating relative humidity</b>	10% to 90%, noncondensing												
<b>Nonoperating/Storage temperature</b>	-40°F to 158°F (-40°C to 70°C)												
<b>Nonoperating/Storage relative humidity</b>	5% to 95%, noncondensing												
<b>Acoustic</b>	N/A (fanless)												
<b>Electrical characteristics</b>	<table border="0"> <tr> <td style="vertical-align: top;"><b>Maximum heat dissipation</b></td> <td>41 BTU/hr</td> </tr> <tr> <td style="vertical-align: top;"><b>Voltage</b></td> <td>100 - 240 VAC, rated (depending on power supply chosen)</td> </tr> <tr> <td style="vertical-align: top;"><b>Maximum power rating</b></td> <td>12 W</td> </tr> <tr> <td style="vertical-align: top;"><b>Frequency</b></td> <td>50/60 Hz</td> </tr> <tr> <td style="vertical-align: top;"><b>Notes</b></td> <td>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.</td> </tr> </table>	<b>Maximum heat dissipation</b>	41 BTU/hr	<b>Voltage</b>	100 - 240 VAC, rated (depending on power supply chosen)	<b>Maximum power rating</b>	12 W	<b>Frequency</b>	50/60 Hz	<b>Notes</b>	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.		
<b>Maximum heat dissipation</b>	41 BTU/hr												
<b>Voltage</b>	100 - 240 VAC, rated (depending on power supply chosen)												
<b>Maximum power rating</b>	12 W												
<b>Frequency</b>	50/60 Hz												
<b>Notes</b>	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.												
<b>Safety</b>	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												
<b>Emissions</b>	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												
<b>Management Services</b>	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager Refer to the HP website at: <a href="http://www.hp.com/networking/services">http://www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.												

#### HP 3100-24 V2 EI Switch (JD320B)

### Technical Specifications

<b>I/O ports and slots</b>	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	
<b>Additional ports and slots</b>	1 RJ-45 serial console port	
<b>Physical characteristics</b>	<b>Dimensions</b>	17.32(w) x 6.3(d) x 1.72(h) in (43.99 x 16 x 4.37 cm) (1U height)
	<b>Weight</b>	7.72 lb (3.5 kg)
<b>Memory and processor</b>	128 MB SDRAM; Packet buffer size: 384 KB, 16 MB flash	
<b>Mounting and enclosure</b>	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	
<b>Performance</b>	<b>1000 Mb Latency</b>	< 6 $\mu$ s (64-byte packets)
	<b>10 Gbps Latency</b>	< 5 $\mu$ s (64-byte packets)
	<b>Throughput</b>	up to 6.5 Mpps
	<b>Routing/Switching capacity</b>	8.8 Gbps
	<b>Routing table size</b>	16 entries (IPv4)
	<b>MAC address table size</b>	8192 entries
<b>Environment</b>	<b>Operating temperature</b>	32°F to 113°F (0°C to 45°C)
	<b>Operating relative humidity</b>	10% to 90%, noncondensing
	<b>Nonoperating/Storage temperature</b>	-40°F to 158°F (-40°C to 70°C)
	<b>Nonoperating/Storage relative humidity</b>	5% to 95%, noncondensing
	<b>Acoustic</b>	N/A (fanless)
<b>Electrical characteristics</b>	<b>Maximum heat dissipation</b>	44 BTU/hr
	<b>Voltage</b>	100 - 240 VAC, rated (depending on power supply chosen)
	<b>Maximum power rating</b>	13 W
	<b>Frequency</b>	50/60 Hz
	<b>Notes</b>	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
<b>Safety</b>	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	
<b>Emissions</b>	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	
<b>Management Services</b>	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

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

<b>I/O ports and slots</b>	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
<b>Additional ports and slots</b>	1 RJ-45 serial console port
<b>Physical characteristics</b>	
<b>Dimensions</b>	17.32(w) x 16.54(d) x 1.72(h) in (44 x 42 x 4.36 cm) (1U height)
<b>Weight</b>	14.33 lb. (6.5 kg)
<b>Memory and processor</b>	128 MB SDRAM; Packet buffer size: 384 KB, 16 MB flash
<b>Mounting and enclosure</b>	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)
<b>Performance</b>	
<b>100 Mb Latency</b>	< 6 $\mu$ s (64-byte packets)
<b>1000 Mb Latency</b>	< 5 $\mu$ s (64-byte packets)
<b>Throughput</b>	up to 6.5 Mpps
<b>Routing/Switching capacity</b>	8.8 Gbps
<b>MAC address table size</b>	8192 entries
<b>Environment</b>	
<b>Operating temperature</b>	32°F to 113°F (0°C to 45°C)
<b>Operating relative humidity</b>	10% to 90%, noncondensing
<b>Nonoperating/Storage temperature</b>	-40°F to 158°F (-40°C to 70°C)
<b>Nonoperating/Storage relative humidity</b>	5% to 95%, noncondensing
<b>Acoustic</b>	Low-speed fan: 42.2 dB, High-speed fan: 51.5 dB
<b>Electrical characteristics</b>	
<b>Maximum heat dissipation</b>	1586 BTU/hr (1673.23 kJ/hr)
<b>Voltage</b>	100 - 240 VAC, rated (depending on power supply chosen)
<b>Maximum power rating</b>	465 W
<b>PoE power</b>	370 W PoE
<b>Frequency</b>	50/60 Hz
<b>Notes</b>	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. 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.
<b>Safety</b>	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
<b>Emissions</b>	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
<b>Management Services</b>	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager Refer to the HP website at: <a href="http://www.hp.com/networking/services">http://www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

#### 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
<b>Additional ports and slots</b>	1 RJ-45 serial console port
<b>Physical characteristics</b>	<b>Dimensions</b> 17.32(w) x 10.24(d) x 1.72(h) in (43.99 x 26.01 x 4.37 cm) (1U height)
	<b>Weight</b> 7.72 lb (3.5 kg)
<b>Memory and processor</b>	256 MB SDRAM, 128 MB flash; Packet buffer size: 4 MB
<b>Mounting and enclosure</b> □	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)
<b>Performance</b>	<b>100 Mb Latency</b> < 6 μs (64-byte packets)
	<b>1000 Mb Latency</b> < 5 μs (64-byte packets)
	<b>Throughput</b> up to 13.1 Mpps
	<b>Routing/Switching capacity</b> 17.6 Gbps
	<b>Routing table size</b> 32 entries (IPv4)
	<b>MAC address table size</b> 32000 entries
<b>Environment</b>	<b>Operating temperature</b> 32°F to 113°F (0°C to 45°C)
	<b>Operating relative humidity</b> 10% to 90%, noncondensing
	<b>Nonoperating/Storage temperature</b> -40°F to 158°F (-40°C to 70°C)
	<b>Nonoperating/Storage relative humidity</b> 5% to 95%, noncondensing
	<b>Acoustic</b> Low-speed fan: 43.2 dB, High-speed fan: 50.0 dB
<b>Electrical characteristics</b>	<b>Maximum heat dissipation</b> 140 BTU/hr
	<b>Voltage</b> 100 - 240 VAC, rated (depending on power supply chosen) □
	<b>Maximum power rating</b> 41 W
	<b>Frequency</b> 50/60 Hz
	<b>Notes</b> Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
<b>Safety</b>	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
<b>Emissions</b>	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
<b>Management Services</b>	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager
	Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptins and product numbers. For details about services and response times in your area, please contact your local HP sales office.
<b>Standards and protocols</b> (applies to all products in series)	<b>General protocols</b> 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  
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RFC 2573 SNMP-Notification MIB  
RFC 2618 RADIUS Authentication Client MIB  
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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

Tel: 051-891-2000  
www.2000info.co.kr

### Accessories

<b>HP 3100 EI Switch Series accessories</b>	<b>Transceivers</b>	
	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
	<b>Cables</b>	
	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
	<b>Power Supply</b>	
	HP RPS1600 Redundant Power System	JG136A
	HP RPS1600 1600W AC Power Supply	JG137A
	<b>Mounting Kit</b>	
	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
<b>Power cords</b>		
HP X290 500 C 1m RPS Cable	JD184A	
HP X290 1000 A JD5 2m RPS Cable	JD187A	
<b>HP 3100-24-PoE v2 EI Switch (JD313B)</b>		
HP X115 100M SFP LC FX Transceiver	JD102B	
HP X110 100M SFP LC LX Transceiver	JD120B	
<b>HP 3100-48 V2 Switch (JG315B)</b>		
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.

<p><b>HP X120 1G SFP LC BX 10-U Transceiver (JD098B)</b></p> <p>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.</p>	<p><b>Ports</b></p> <p>1 LC 1000BASE-BX10 port (IEEE 802.3ah Type 1000BASE-BX10-U); Duplex: full only</p> <p><b>Connectivity</b></p> <p><b>Connector type</b> LC</p> <p><b>Physical characteristics</b></p> <p><b>Dimensions</b> 2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)</p> <p><b>Full configuration weight</b> 0.04 lb. (0.02 kg)</p> <p><b>Electrical characteristics</b></p> <p><b>Power consumption typical</b> 0.8 W</p> <p><b>Power consumption maximum</b> 1.0 W</p> <p><b>Cabling</b></p> <p>Maximum distance: • 10km</p> <p>Fiber type Single Mode</p> <p><b>Notes</b></p> <p>TX 1310nm RX 1490nm</p> <p><b>Services</b></p> <p>Refer to the HP website at: <a href="http://www.hp.com/networking/services">http://www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.</p>
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<p><b>HP X120 1G SFP LC BX 10-D Transceiver (JD099B)</b></p> <p>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.</p>	<p><b>Ports</b></p> <p>1 LC 1000BASE-BX10 port (IEEE 802.3ah Type 1000BASE-BX10-D); Duplex: full only</p> <p><b>Connectivity</b></p> <p><b>Connector type</b> LC</p> <p><b>Physical characteristics</b></p> <p><b>Dimensions</b> 2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)</p> <p><b>Full configuration weight</b> 0.04 lb. (0.02 kg)</p> <p><b>Electrical characteristics</b></p> <p><b>Power consumption typical</b> 0.8 W</p> <p><b>Power consumption maximum</b> 1.0 W</p> <p><b>Cabling</b></p> <p>Maximum distance: • Up to 10km</p> <p>Fiber type Single Mode</p> <p><b>Notes</b></p> <p>TX 1490nm RX 1310nm</p> <p><b>Services</b></p> <p>Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.</p>
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<p><b>HP X120 1G SFP LC SX Transceiver (JD118B)</b></p> <p>A small form-factor pluggable (SFP) Gigabit SX transceiver that provides a full-duplex Gigabit solution up to 550m on a</p>	<p><b>Ports</b></p> <p>1 LC 1000BASE-SX port</p> <p><b>Connectivity</b></p> <p><b>Connector type</b> LC</p> <p><b>Wavelength</b> 850 nm</p> <p><b>Physical characteristics</b></p> <p><b>Dimensions</b> 2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)</p> <p><b>Full configuration weight</b> 0.04 lb. (0.02 kg)</p> <p><b>Electrical characteristics</b></p> <p><b>Power consumption typical</b> 0.8 W</p>
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### Accessory Product Details

Multimode fiber.		<b>Power consumption maximum</b>	1.0 W
	<b>Cabling</b>	Maximum distance:	
		• FDDI Grade distance = 220m	
		• OM1 = 275m	
		• OM2 = 500m	
		• OM3 = Not Specified by standard	
		Cable length	up to 550m
		Fiber type	Multi Mode
	<b>Services</b>	Refer to the HP website at: <a href="http://www.hp.com/networking/services">http://www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

<b>HP X120 1G SFP LC LX Transceiver (JD119B)</b>	<b>Ports Connectivity</b>	1 SFP 1000BASE-LX port (IEEE 802.3z Type 1000BASE-LX)	
		<b>Connector type</b>	LC
		<b>Wavelength</b>	1300 nm
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	<b>Physical characteristics</b>	<b>Dimensions</b>	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		<b>Full configuration weight</b>	0.04 lb. (0.02 kg)
	<b>Electrical characteristics</b>	<b>Power consumption typical</b>	0.8 W
		<b>Power consumption maximum</b>	1.0 W
	<b>Cabling</b>	Cable type:	Either single mode or multimode;
		Maximum distance:	
		• 550m for Multimode	
		• 10km for Singlemode	
		Fiber type	Both
	<b>Services</b>	Refer to the HP website at: <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

<b>HP 0.5 m Multimode OM3 LC/LC Optical Cable (AJ833A)</b>	<b>Cabling</b>	<b>Cable type:</b>	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
		<b>Maximum distance:</b>	10Gbps Transfer Rate (Ethernet): 300m
	<b>Notes</b>	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"> <li>• Dimensions: Core diameter: 50 ± 3.0μm Cladding diameter: 125 ± 2.0μm Coating diameter: 245 ± 10μm</li> <li>• Optical glass: Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> </ul>	

### 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](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 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)

#### Cabling

##### Cable type:

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

##### Maximum distance:

10Gbps Transfer Rate (Ethernet): 300m

#### Notes

Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125  $\mu\text{m}$  fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter:  $50 \pm 3.0\mu\text{m}$  Cladding diameter:  $125 \pm 2.0\mu\text{m}$  Coating diameter:  $245 \pm 10\mu\text{m}$
- Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.
- Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.
- CABLE: The cable is duplex zipcord graded index 50/125um 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 5 m Multimode OM3 LC/LC Optical Cable (AJ836A)

#### Cabling

##### Cable type:

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

##### Maximum distance:

10Gbps Transfer Rate (Ethernet): 300m

#### Notes

Cable Specs: This specification defines the detail requirements for a tight buffered duplex fiber optic multimode OM3 50/125  $\mu\text{m}$  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:  $50 \pm 3.0\mu\text{m}$  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 [www.hp.com/networking/services](http://www.hp.com/networking/services) for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

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

#### Cable type:

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

#### Maximum distance:

10Gbps Transfer Rate (Ethernet): 300m

#### Notes

Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125  $\mu\text{m}$  fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter:  $50 \pm 3.0\mu\text{m}$  Cladding diameter:  $125 \pm 2.0\mu\text{m}$  Coating diameter:  $245 \pm 10\mu\text{m}$
- Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.
- Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.
- CABLE: The cable is duplex zipcord graded index 50/125um 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](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 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 ± 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 <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: 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 @

### 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](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 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.

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#### 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](http://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.

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

	<b>Services</b>
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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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<b>HP Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable (QK736A)</b>	<b>Notes</b>
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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

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

### Accessory Product Details

**HP Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable (QK737A)**      **Notes**

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

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

**Services**

Refer to the HP website at <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

	<b>Notes</b>	Idle power is the actual power consumption of the device with no ports connected. 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. 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.
<b>Safety</b>	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	
<b>Services</b>	Refer to the HP website at: <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

<b>HP RPS1600 1600W AC Power Supply (JG137A)</b>	<b>Physical characteristics</b>	<b>Dimensions</b>	8.19(d) x 4.96(w) x 1.63(h) in. (20.8 x 12.6 x 4.15 cm)
		<b>Weight</b>	3.02 lb. (1.37 kg)
	<b>Environment</b>	<b>Operating temperature</b>	14°F to 122°F (-10°C to 50°C)
		<b>Operating relative humidity</b>	5% to 95%
		<b>Nonoperating/Storage temperature</b>	-40°F to 158°F (-40°C to 70°C)
		<b>Nonoperating/Storage relative humidity</b>	5% to 95%
	<b>Electrical characteristics</b>	<b>Voltage</b>	100-120/200-240 VAC
		<b>Current</b>	15/30 A
		<b>Maximum power rating</b>	1600 W
		<b>Frequency</b>	50/60 Hz
	<b>Notes</b>	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	
<b>Services</b>	Refer to the HP website at: <a href="http://www.hp.com/networking/services">http://www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.		

<b>HP X125 1G SFP LC LH40 1310nm Transceiver (JD061A)</b>  A small form-factor pluggable SFP Gigabit	<b>Ports</b>	1 LC 1000Base-LH port (no IEEE standard exists for 1550 nm optics)
	<b>Connectivity</b>	Connector type Wavelength
		LC 1310 nm
	<b>Physical characteristics</b>	Dimensions Full configuration weight
		2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm) 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.

<b>Electrical characteristics</b>	Power consumption typical	0.8 W
	Power consumption maximum	1.0 W
<b>Cabling</b>	Cable type:	Single-mode fiber optic, complying with ITU-T G.652;
	Maximum distance:	<ul style="list-style-type: none"> <li>40km distance</li> </ul>
<b>Services</b>	Fiber type	Single Mode
	Refer to the HP website at: <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

#### 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.

<b>Ports</b>	1 LC 1000BASE-LH port (no IEEE standard exists for 1550 nm optics)	
	<b>Connectivity</b>	Connector type
<b>Physical characteristics</b>	Wavelength	1550 nm
	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
<b>Electrical characteristics</b>	Full configuration weight	0.04 lb. (0.02 kg)
	Power consumption typical	0.8 W
<b>Cabling</b>	Power consumption maximum	1.0 W
	Cable type:	Single-mode fiber optic, complying with ITU-T G.652;
<b>Services</b>	Maximum distance:	<ul style="list-style-type: none"> <li>40km distance</li> </ul>
	Fiber type	Single Mode
Refer to the HP website at: <a href="http://www.hp.com/networking/services">http://www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.		

#### 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.

<b>Ports</b>	1 LC 1000BASE-LH port (no IEEE standard exists for 1550 nm optics)	
	<b>Connectivity</b>	Connector type
<b>Physical characteristics</b>	Wavelength	1550 nm
	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
<b>Electrical characteristics</b>	Full configuration weight	0.04 lb. (0.02 kg)
	Power consumption typical	0.8 W
<b>Cabling</b>	Power consumption maximum	1.0 W
	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](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 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 Û 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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