# QuickSpecs

#### Overview

# **HPE FlexNetwork 3100 EI Switch Series**

#### **Models**

HPE 3100 48 v2 Switch	JG315B
HPE 3100 8 v2 El Switch	JD318B
HPE 3100 16 v2 EI Switch	JD319B
HPE 3100 24 v2 EI Switch	JD320B
HPE 3100 24 PoE v2 EI Switch	JD313B

#### **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**

HPE FlexNetwork 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

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- **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
- 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

- **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

- 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 STPbased 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 highspeed 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

#### 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
- 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

see **http://www.hpe.com/networking/warrantysummary** for warranty and support information included with your product purchase.

#### • Software releases

to find software for your product, refer to <u>http://www.hpe.com/networking/support</u>; for details on the software releases available with your product purchase, refer to <u>http://www.hpe.com/networking/warrantysummary</u>

# **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.

HPE 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 <b>NOTE:1, 3</b>
<ul> <li>No Power Cord</li> <li>No Localized Power Cord Selected</li> </ul>	JD318B#AC3
<ul> <li>HPE 3100 16 v2 EI Switch</li> <li>16 autosensing 10/100 ports</li> <li>2 dual-personality port; auto-sensing 10/100/1000Base-T or SFP</li> <li>min=0 \ max=2 SFP Transceivers</li> <li>1U - Height</li> </ul>	JD319B See Configuration <b>NOTE:1, 3</b>
<ul> <li>No Power Cord</li> <li>No Localized Power Cord Selected</li> </ul>	JD319B#AC3
<ul> <li>HPE 3100 24 PoE v2 EI Switch</li> <li>24 autosensing 10/100 PoE ports</li> <li>2 dual-personality port; auto-sensing 10/100/1000Base-T or SFP</li> <li>min=0 \ max=2 SFP Transceivers</li> <li>1U - Height</li> </ul>	JD313B See Configuration <b>NOTE:1, 3</b>
<ul><li>No Power Cord</li><li>No Localized Power Cord Selected</li></ul>	JD313B#AC3
<ul> <li>HPE 3100 24 v2 EI Switch</li> <li>24 autosensing 10/100 ports</li> <li>2 dual-personality port; auto-sensing 10/100/1000Base-T or SFP</li> <li>min=0 \ max=2 SFP Transceivers</li> <li>1U - Height</li> </ul>	JD320B See Configuration <b>NOTE:1, 3</b>
<ul><li>No Power Cord</li><li>No Localized Power Cord Selected</li></ul>	JD320B#AC3
<ul> <li>HPE 3100 48 v2 Switch</li> <li>48 RJ-45 autosensing 10/100 ports</li> <li>2 SFP dual-personality 10/100/1000 ports</li> <li>2 SFP fixed Gigabit Ethernet SFP ports</li> <li>min=0 \ max=4 SFP Transceivers</li> <li>1U - Height</li> </ul>	JG315B See Configuration <b>NOTE:4, 5, 6</b>

<ul> <li>PDU Cable NA/MEX/TW/JP</li> <li>C15 PDU Jumper Cord (NA/MEX/TW/JP)</li> </ul>	JG315B#B2B
<ul><li>PDU Cable ROW</li><li>C15 PDU Jumper Cord (ROW)</li></ul>	JG315B#B2C
<ul><li>High Volt Switch/Router to Wall Power Cord</li><li>NEMA L6-20P Cord (NA/MEX/JP/TW)</li></ul>	JG315B#B2E

#### **Configuration Rules:**

Note 1	The following Transceivers install into this switch:	
	HPE X115 100M SFP LC BX 10-U Transceiver	JD100A
	HPE X115 100M SFP LC BX 10-D Transceiver	JD101A
	HPE X115 100M SFP LC FX Transceiver	JD102B
	HPE X110 100M SFP LC LX Transceiver	JD120B
	HPE X120 1G SFP LC BX 10-U Transceiver	JD098B
	HPE X120 1G SFP LC BX 10-D Transceiver	JD099B
	HPE X120 1G SFP LC SX Transceiver HPE X120 1G SFP LC LX Transceiver	JD118B JD119B
	HPE XIZO IG SFP LC LX Transceiver	JD11AR
Note 3	Localization required. (See Localization Menu for list.)	
Note 4	The following Transceivers install into this switch: (SFP 1000 Mbps ports only)	
	HPE X125 1G SFP LC LH40 1310nm Transceiver	JD061A
	HPE X120 1G SFP LC LH40 1550nm Transceiver	JD062A
	HPE X125 1G SFP LC LH70 Transceiver	JD063B
	HPE X120 1G SFP RJ45 T Transceiver	JD089B
	HPE X120 1G SFP LC BX 10-U Transceiver	JD098B
	HPE X120 1G SFP LC BX 10-D Transceiver	JD099B
	HPE X120 1G SFP LC SX Transceiver	JD118B
	HPE 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 fo	r
	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

<ul> <li>HPE 3100 48 v2 Switch</li> <li>48 RJ-45 autosensing 10/100 ports</li> <li>2 SFP dual-personality 10/100/1000 ports</li> <li>2 SFP fixed Gigabit Ethernet SFP ports</li> <li>min=0 \ max=4 SFP Transceivers</li> <li>1U - Height</li> </ul>	JG315B See Configuration <b>NOTE:1, 3, 4, 5</b>
<ul><li>PDU Cable NA/MEX/TW/JP</li><li>C15 PDU Jumper Cord (NA/MEX/TW/JP)</li></ul>	JG315B#B2B
<ul><li>PDU Cable ROW</li><li>C15 PDU Jumper Cord (ROW)</li></ul>	JG315B#B2C

#### Configuration Rules:

Note 1	The following Transceivers install into this switch: (SFP 1000 Mbps ports only) HPE X125 1G SFP LC LH40 1310nm Transceiver HPE X120 1G SFP LC LH40 1550nm Transceiver HPE X125 1G SFP LC LH70 Transceiver HPE X120 1G SFP RJ45 T Transceiver HPE X120 1G SFP LC BX 10-U Transceiver HPE X120 1G SFP LC BX 10-D Transceiver HPE X120 1G SFP LC SX Transceiver HPE X120 1G SFP LC SX Transceiver	JD061A JD062A JD063B JD089B JD098B JD099B JD099B JD118B JD119B
Note 3	When Switches are Factory Racked, Then #B2B, or #B2C should be the Defaulted Powe Cable option on the Switches.	r
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 HPE 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)	ır

#### Transceivers

#### SFP Transceivers

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

#### **Internal Power Supplies**

No Power supplies

#### Cables

#### **Multi-Mode Cables**

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

#### **Switch Enclosure Options**

#### **Stacking Cable kit**

HPE FlexNetwork 3600 Switch SFP Stacking Kit	JD324B
Mounting Kits	
HPE 3100/4210 16 Rackmount Kit	JD321A See Configuration <b>NOTE:1</b>
HPE 3100/4210 9 Rackmount Kit	JD322A

**HPE FlexNetwork 3100 EI Switch Series** 

JD322A See Configuration **NOTE:2** 

#### **Configuration Rules:**

Note 1	The following switches require this kit when mounting into a rack: HPE 3100 16 v2 EI Switch	JD319B	
Note 2	<b>The following switches require this kit when mounting into a rack:</b> HPE 3100 8 v2 EI Switch	JD318B	
Remark:	The 24 and 48 port devices come with rack mount ears.		
	Indant Power Supplies 9 // max 1) User Selection (min 0 / max 1) per Switch		
• Heigh	Redundant Power System t = 1U es 1 x c13, 1600w and Power Supply port	JG136A See Configuration <b>NOTE:2, 4</b>	
	1600W AC Power Supply s into JG136A only	JG137A See Configuration <b>NOTE:3</b>	
Configuration Rules:			
Note 2	<b>This power supply is support only on the following switches:</b> HPE 3100 24 PoE v2 EI Switch	JD313B	
Note 3	If this power supply is selected, The JG136A - HPE A-RPS1600 Redundant Power System must be on order or onsite.		
Note 4	Localization required. (See Localization Menu for list.)		
<b>External Redundant Power Cables</b> System (std 0 // max 1) User Selection (min 0 / max 1) per RPS			
HPE X290 100	0 A JD5 2m RPS Cable	JD187A	
HPE X290 500	JD184A		

#### HPE 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); Duplex: half or full		
	2 SFP dual-personality 10/ TX, IEEE 802.3ab Type 10	'100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE- 00BASE-T)	
	4 SFP fixed Gigabit Etherr	net 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 fl	ash; Packet buffer size: 4 MB	
Mounting and enclosure	Mounts in an EIA-standard	d 19 in. telco rack or equipment cabinet (hardware included)	
Performance	100 Mb Latency	< 6 $\mu$ s (64-byte packets)	
	1000 Mb Latency	< 5 $\mu$ s (64-byte packets)	
	Throughput	up to 13.1 Mpps	
	<b>Routing/Switching</b>	17.6 Gbps	
	capacity		
	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	
	Maximum power rating	41 W	
	Frequency	50/60 Hz	
	Notes	Maximum power rating and maximum heat dissipation are the worst-case	
	Notes	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		Mexico; EN 60950: 2000, ZB and ZC Deviations; IEC 60950: 1999, I 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 Managem	nent Center; command-line interface; Web browser; SNMP Manager	

Services

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

HPE 3100 8 v2 El 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; aut	to-sensing 10/100/1000Base-T or SFP
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 bu	iffer size: 384 KB, 16 MB flash
Mounting and enclosure	Requires angle mounting s	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
	<b>Routing/Switching</b>	3.6 Gbps
	capacity	
	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
	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;	

Management	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 IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager
Services	Refer to the Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

#### HPE 3100 16 v2 El Switch (JD319B)

I/O ports and slots	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		
Additional ports and slots	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 bu	ffer size: 384 KB, 16 MB flash	
Mounting and enclosure	Requires angle mounting s	et 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 Mpps	
	Routing/Switching capacity	7.2 Gbps	
	Routing table size	16 entries	
	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	41 BTU/hr	
	Voltage	100 - 240 VAC, rated	
	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		afety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; 2.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR 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 Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

#### HPE 3100 24 v2 El Switch (JD320B)

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 au	uto-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 bu	uffer size: 384 KB, 16 MB flash
Mounting and enclosure	Mounts in an EIA-standard	d 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
	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	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager
Services	Refer to the Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

#### HPE 3100 24 PoE v2 El 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	
	2 dual-personality ports; au	uto-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 bu	ffer 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 µs (64-byte packets)
	1000 Mb Latency	< 5 µs (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
	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 Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

#### Standards and protocols (applies to all products in series)

Device Management	RFC 1157 SNMPv1/v2c RFC 1901-1907 SNMPv2c, SMIv2 and Revised MIB-II RFC 2573 (SNMPv3 Applications) RFC 2578-2580 SMIv2 RFC 2819 (RMON groups Alarm, Event, History and Statistics only) RFC 3410 (Management Framework) RFC 3416 (SNMP Protocol Operations v2) RFC 3417 (SNMP Transport Mappings) HTML and telnet management Multiple Configuration Files SNMP v3 and RMON RFC support SSHv1/SSHv2 Secure Shell
General Protocols	IEEE 802.1ad Q-in-Q IEEE 802.1ag Service Layer OAM IEEE 802.1D MAC Bridges IEEE 802.1p Priority IEEE 802.1Q VLANs 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 802.3af Power over Ethernet IEEE 802.3u 100BASE-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

IPv6

MIBs

# **Technical Specifications**

RFC 951 BOOTP RFC 959 File Transfer Protocol (FTP
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)
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 4291 IP Version 6 Addressing Architecture
RFC 4443 ICMPv6 (v2 models only) RFC 4841 IPv6 Najabbar Discovery
RFC 4861 IPv6 Neighbor Discovery RFC 4862 IPv6 Stateless Address Auto-configuration
RFC 5095 Deprecation of Type 0 Routing Headers in IPv6
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 3414 SNMP-User based-SM MIB

RFC 3418 MIB for SNMPv3	
RFC 3621 Power Ethernet MIB	
RFC 3826 AES for SNMP's USN	1 MIB
RFC 4133 Entity MIB (Version 3	3)
LLDP-EXT-DOT1-MIB	
LLDP-EXT-DOT3-MIB	
LLDP-MIB	

# Network ManagementIEEE 802.1AB Link Layer Discovery Protocol (LLDP)<br/>RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events)<br/>ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)<br/>SNMPv1/v2c/v3

QoS/CoS IEEE 802.1p (CoS) RFC 2474 DSCP DiffServ

# Accessories

# HPE FlexNetwork 3100 El Switch Series accessories

#### Transceivers

HPE X120 1G SFP LC BX 10-U Transceiver	JD098B
HPE X120 1G SFP LC BX 10-D Transceiver	JD099B
HPE X120 1G SFP LC SX Transceiver	JD118B
HPE X120 1G SFP LC LX Transceiver	JD119B
HPE X120 1G SFP RJ45 T Transceiver	JD089B
Cables	
HPE FlexNetwork 3600 Switch SFP Stacking Kit	JD324B
HPE LC to LC Multi-mode OM3 2-Fiber 0.5m 1-Pack Fiber Optic Cable	AJ833A

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

#### **Power Supply**

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

#### **Mounting Kit**

HPE 3100/4210 16 Rackmount Kit	JD321A
HPE 3100/4210 9 Rackmount Kit	JD322A
HPE 3100/4210 16/8 PoE Rackmount Kit	JD323A

# Power Cords and Adapters

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

#### HPE 3100 48 v2 Switch (JG315B)

HPE X125 1G SFP LC LH40 1310nm Transceiver	JD061A
HPE X120 1G SFP LC LH40 1550nm Transceiver	JD062A
HPE X125 1G SFP LC LH70 Transceiver	JD063B

# Accessories

HPE X120 1G SFP RJ45 T Transceiver	JD089B
HPE 3100 24 PoE v2 El Switch (JD313B)	
HPE X115 100M SFP LC FX Transceiver	JD102B
HPE X110 100M SFP LC LX Transceiver	JD120B

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

HPE X120 1G SFP LC BX 10-U Transceiver	Ports	1 LC 1000BASE-BX10 por Duplex: full only	t (IEEE 802.3ah Type 1000BASE-BX10-U);
(JD098B)	Connectivity	Connector type	LC
A small form-factor	Physical characteristics	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
pluggable (SFP) Gigabit LX-BX10-U transceiver that provides a full duplex		Full configuration weight	0.04 lb. (0.02 kg)
Gigabit solution up to 10km on a single mode cable.	Electrical characteristics	Power consumption typical	0.8 W
Cabic.		Power consumption maximum	1.0 W
	Cabling	Maximum distance: • 10km	
	Notes	Fiber type TX 1310nm RX 1490nm	Single Mode
	Services	Refer to the Hewlett Pack at <b>http://www.hpe.com</b> /	ard Enterprise website /networking/services for details on the service-
		level descriptions and pro	ea, please contact your local Hewlett Packard
HPE X120 1G SFP LC BX 10-D Transceiver	Ports	1 LC 1000BASE-BX10 por Duplex: full only	rt (IEEE 802.3ah Type 1000BASE-BX10-D);
(JD099B)	Connectivity	Connector type	LC
A small form-factor	Physical characteristics	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
pluggable (SFP) Gigabit LX-BX10-D transceiver that provides a full duplex		Full configuration weight	0.04 lb. (0.02 kg)
Gigabit solution up to 10km on a single mode cable.	Electrical characteristics	Power consumption typical	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Maximum distance: • Up to 10km	
	Notes	Fiber type TX 1490nm RX 1310nm	Single Mode
	Services	level descriptions and pro	ard Enterprise website /networking/services iduct numbers. For details about services and ea, please contact your local Hewlett Packard

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HPE X120 1G SFP LC SX	Ports	1 LC 1000BASE-SX port	
Transceiver (JD118B)	Connectivity	Connector type	LC
A small form-factor		Wavelength	850 nm
pluggable (SFP) Gigabit SX transceiver that	Physical characteristics	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
provides a full-duplex Gigabit solution up to		Full configuration weight	0.04 lb. (0.02 kg)
550m on a Multimode fiber.	Electrical characteristics	Power consumption typical	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Maximum distance: • FDDI Grade distance = 1 • OM1 = 275m • OM2 = 500m • OM3 = Not Specified by	
		Cable length	up to 550m
		Fiber type	Multi Mode
	Services	level descriptions and pro	kard Enterprise website <b>D/networking/services</b> for details on the service- oduct numbers. For details about services and rea, please contact your local Hewlett Packard
HPE X120 1G SFP LC LX	Ports	1 SFP 1000BASE-LX port (IEEE 802.3z Type 1000BASE-LX)	
Transceiver (JD119B)	Connectivity	Connector type	LC
		Wavelength	1300 nm
A small form-factor pluggable (SFP) Gigabig LX transceiver that	Physical characteristics	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
provides a full duplex Gigabit solution up to		Full configuration weight	0.04 lb. (0.02 kg)
550m on MMF or 10Km on SMF	Electrical characteristics	Power consumption typical	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Cable type: Either single mode or mu	ltimode;
		Maximum distance: • 550m for Multimode • 10km for Singlemode	
		Fiber type	Both
	Services	Refer to the Hewlett Pacl	
		level descriptions and pro	n/networking/services for details on the service- oduct numbers. For details about services and rea, please contact your local Hewlett Packard

HPE LC to LC Multi- mode OM3 2-Fiber 0.5m 1-Pack Fiber Optic Cable (AJ833A)	Cabling	Cable type: 50/125 $\mu m$ (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		
		<b>Maximum distance</b> : 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.		
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical glass: Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>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.</li> <li>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.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>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.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul>		
	Services	Refer to the Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service- level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.		
HPE LC to LC Multi- mode OM3 2-Fiber 1.0m 1-Pack Fiber Optic Cable (AJ834A)	Cabling	Cable type: 50/125 $\mu m$ (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	<ul> <li>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.</li> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> </ul>		

		<ul> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>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.</li> <li>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.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>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.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul>
	Services	Refer to the Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service- level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE LC to LC Multi- mode OM3 2-Fiber 2.0m 1-Pack Fiber Optic Cable (AJ835A)	Cabling	Cable type: $50/125 \mu$ m (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		Maximum distance:
		10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>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.</li> <li>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.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> </ul>

Accessory Product Details		
		<ul> <li>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.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul>
	Services	Refer to the Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service- level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE LC to LC Multi- mode OM3 2-Fiber 5.0m 1-Pack Fiber Optic Cable (AJ836A)	Cabling	Cable type: 50/125 $\mu\text{m}$ 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;
		<b>Maximum distance</b> : 10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: This specification defines the detail requirements for a tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>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.</li> <li>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.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>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.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul>
	Services	Refer to the Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service- level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
	Cabling	Cable type: 50/125 $\mu\text{m}$ (core/cladding) diameter, mulitimode fiber optic, with effective

HPE LC to LC Multi- mode OM3 2-Fiber		modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
<b>15.0m 1-Pack Fiber Opt</b> <b>Cable</b> (AJ837A)	ric	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.
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>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.</li> <li>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.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>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.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul>
	Services	Refer to the Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service- level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE LC to LC Multi- mode OM3 2-Fiber 30.0m 1-Pack Fiber Optic Cable (AJ838A)	Cabling	Cable type: $50/125 \ \mu m$ (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;
		<b>Maximum distance</b> : 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.
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> </ul>

		<ul> <li>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.</li> <li>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.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>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.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul>
	Services	Refer to the Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service- level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE LC to LC Multi- mode OM3 2-Fiber 50.0m 1-Pack Fiber Optic Cable (AJ839A)	Cabling	Cable type: 50/125 $\mu m$ (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		Maximum distance:
		10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>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.</li> <li>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.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>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.</li> </ul>

Accessory Product Details		
	• Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg	
Services	Refer to the Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service- level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	
HPE Premier Flex LC/LC Notes Multi-mode OM4 2 fiber 1m Cable (QK732A)	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.	
	<ul> <li>Core Diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um</li> <li>Bandwidth: 3000 MHz-km @ 850nm (Laser)</li> <li>Jacket Color: Blue</li> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic</li> <li>Boot Color: White</li> <li>Outer Jacket Print: HPE 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.</li> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths &gt;30m</li> <li>Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45</li> </ul>	
Services	Refer to the Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service- level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	
HPE Premier Flex LC/LC Notes Multi-mode OM4 2 fiber 2m Cable (QK733A)	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.	
	<ul> <li>Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um</li> <li>Bandwidth: 3000 MHz-km @ 850nm (Laser)</li> <li>Jacket Color: Blue</li> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic</li> <li>Boot Color: White</li> <li>Outer Jacket Print: HPE 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.</li> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths &gt;30m</li> </ul>	

Accessory Product I	Details		
		<ul> <li>Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45</li> </ul>	
	Services	Refer to the Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service- level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	
HPE 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.	
		<ul> <li>Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um</li> <li>Bandwidth: 3000 MHz-km @ 850nm (Laser)</li> <li>Jacket Color: Blue</li> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic</li> <li>Boot Color: White</li> <li>Outer Jacket Print: HPE 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.</li> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths &gt;30m</li> <li>Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45</li> </ul>	
	Services	Refer to the Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service- level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	
HPE 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.	
		<ul> <li>Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um</li> <li>Bandwidth: 3000 MHz-km @ 850nm (Laser)</li> <li>Jacket Color: Blue</li> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic</li> <li>Boot Color: White</li> <li>Outer Jacket Print: HPE 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.</li> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths &gt;30m</li> </ul>	

Accessory Product I	Details		
		<ul> <li>Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45</li> </ul>	
	Services	Refer to the Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service- level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	
HPE 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 connector on each end.	
		<ul> <li>Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um</li> <li>Bandwidth: 3000 MHz-km @ 850nm (Laser)</li> <li>Jacket Color: Blue</li> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic</li> <li>Boot Color: White</li> <li>Outer Jacket Print: HPE 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.</li> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths &gt;30m</li> <li>Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45</li> </ul>	
	Services	Refer to the Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	
HPE 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.	
		<ul> <li>Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um</li> <li>Bandwidth: 3000 MHz-km @ 850nm (Laser)</li> <li>Jacket Color: Blue</li> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic</li> <li>Boot Color: White</li> <li>Outer Jacket Print: HPE 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.</li> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths &gt;30m</li> </ul>	

Accessory Product	t Details			
			Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ as tested in accordance with EIA 455-45	
	Services	Refer to the Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service- level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.		
HPE RPS1600 Redundant Power	Ports	8 redundant power supply ports Restrictions: two -56V/25A DC(PoE); six -56V/8A DC(non-PoE)		
System (JG136A)	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	
	<b>Electrical characteristics</b>	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	
		ΡοΕ	-55 V	
		Frequency	50/60 Hz	
		Notes	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.	

Accessory Product	Details			
	Safety		EC 60950-1; ICES-003; FCC Part 15, Subpart B; EU 0-1/A11; C-Tick; VCCI Class A; ROHS Compliance;	
	Services	Refer to the Hewlett Packard Enterprise website at <u>http://www.hpe.com/networking/services</u> for details on the service- level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.		
HPE RPS1600 1600W AC Power Supply	Physical characteristics	Dimensions	8.19(d) x 4.96(w) x 1.63(h) in. (20.8 x 12.6 x 4.15 cm)	
(JG137A)		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%	
	<b>Electrical characteristics</b>	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 Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the service level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.		
HPE X125 1G SFP LC	Ports	1 LC 1000Base-LH port (n	o IEEE standard exists for 1550 nm optics)	
LH40 1310nm	Connectivity	Connector type	LC	
Transceiver (JD061A)		Wavelength	1310 nm	
A small form-factor pluggable SFP Gigabit	Physical characteristics	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)	
LH40 transceiver that provides a full duplex Gigabit solution up to 40km on a single-mode	Electrical characteristics	Full configuration weight Power consumption typica Power consumption maximum	0.04 lb. (0.02 kg) l 0.8 W 1.0 W	
fiber.	Cabling	Cable type: Single-mode fiber optic, co	mplying with ITU-T G.652;	

Accessory Product	Details				
		Maximum distance:			
		• 40km distance			
	Services		Single Mode ard Enterprise website Inetworking/services for details on the service- duct numbers. For details about services and		
			ea, please contact your local Hewlett Packard		
HPE X120 1G SFP LC	Ports	1 LC 1000BASE-LH port (	no IEEE standard exists for 1550 nm optics)		
LH40 1550nm	Connectivity	Connector type	LC		
Transceiver (JD062A)	-	Wavelength	1550 nm		
A small form-factor	Physical characteristics	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)		
pluggable (SFP) Gigabit LH40 transceiver that		Full configuration weight	0.04 lb. (0.02 kg)		
provides a full-duplex	Electrical characteristics	Power consumption typica			
Gigabit solution up to 40		Power consumption	1.0 W		
km on a single mode fiber.		maximum Cable type:			
	Cabling	Cable type: Single-mode fiber optic, complying with ITU-T G.652; Maximum distance: • 40km distance			
		Fiber type	Single Mode		
	Services	Refer to the Hewlett Packard Enterprise website at <b>http://www.hpe.com/networking/services</b> for details on the s level descriptions and product numbers. For details about services a response times in your area, please contact your local Hewlett Packa Enterprise sales office.			
HPE X125 1G SFP LC	Ports	1 LC 1000BASE-LH port (no IEEE standard exists for 1550 nm optics)			
LH70 Transceiver	Connectivity	Connector type	LC		
(JD063B)		Wavelength	1550 nm		
A small form-factor pluggable (SFP) Gigabit LH70 transceiver that provides a full-duplex	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)		
Gigabit solution up to	Electrical characteristics	-	0.8 W		
70km on a single-mode fiber.		typical			
		Power consumption maximum	1.0 W		
	Cabling	Cable type:	omplying with ITU-T G.652;		

Accessory Product Details				
		Maxim	num distance:	
		•	70km	
	Services	at <b>htt</b> level c respoi	to the Hewlett P p://www.hpe.c descriptions and	Single Mode Packard Enterprise website <b>om/networking/services</b> for details on the service- product numbers. For details about services and r area, please contact your local Hewlett Packard
HPE X120 1G Ports		1 RJ-45 1000BASE-T p	ort (IEEE 802.3a	b Type 1000BASE-T)
SFP RJ45 T	Connectivity	Connector type		RJ-45
Transceiver	Physical	Dimensions		2.71(d) x 0.54(w) x 0.55(h) in. (6.88 x 1.37 x 1.4 cm)
(JD089B)	characteristics	Full configuration we	ight	0.07 lb. (0.03 kg)
A small form	Electrical	Power consumption t	ypical	0.8 W
factor pluggable	characteristics	Power consumption r	naximum	1.0 W
(SFP) Gigabit 1000Base-T <b>Cabling</b> transceiver that provides a full duplex Gigabit solution up to 100m on a Cat- 5+ cable.		Cable type: 1000BASE-T: Category 5 (5E or better recommended), 100 Ù differential 4-pair unshielded twisted pair (UTP) or shielded twisted pair (STP) balanced, complying with IEEE 802.3ab 1000BASE-T; Maximum distance:		
		• 100m		
	Services		<b>om/networking</b> For details abou <sup>-</sup>	<b>/services</b> for details on the service-level descriptions t services and response times in your area, please

# **Summary of Changes**

Date	Version History	Action	Description of Change:
01-Aug-2016	From Version 18 to 19	Changed	Adding #AC3 Option on the Configuration section
27-May-2016	From Version 17 to 18	Changed	Document name changed to HPE FlexNetwork 3100 EI Switch Series. Technical Specifications, Overview and product descriptions updated.
01-Dec-2015	From Version 16 to 17	Changed	Overview and Technical Specifications updated
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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