#### Overview

### **HP 5120 SI Switch Series**

### Models

HP 5120-48G SI Switch	JE072A
HP 5120-24G SI Switch	JE074A
HP 5120-16G SI Switch	JE073A
HP 5120-24G-PoE+ (370W) SI Switch	JG091A
HP 5120-24G-PoE+ (170W) SI Switch	JG092A

#### Key features

- Full wire-speed, multi-layer switching
- High reliability with redundancy
- Comprehensive security control policies
- Diversified Quality of Service (QoS) policies
- Excellent manageability

### **Product overview**

The HP 5120 SI Switch Series comprises intelligent, fully managed Gigabit Ethernet switches that provide high performance, high port density, and simplified installation to improve the value of your network infrastructure investment. The 5120 SI series is enhanced for the access layer in enterprise networks that require Gigabit Ethernet to the desktop or at the distribution layer in metropolitan area networks (MANs). Wire-speed forwarding delivers more effective throughput and the bandwidth necessary for mission-critical data and high-speed communications. As part of their comprehensive security control, 5120 SI switches employ 802.1X authentication to identify users who attempt to access the network. These switches are highly reliable, providing redundancy while eliminating loops in the network. They also offer a range of management protocols to simplify network administration.

### **Features and benefits**

#### Quality of Service (QoS)

- Broadcast control: allows limitation of broadcast traffic rate to cut down on unwanted network broadcast traffic
- Powerful QoS feature: supports the following congestion actions: strict priority (SP) queuing, SDWRR, and SP+SDWRR
- 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 basis

#### Management

- Friendly port names: allow assignment of descriptive names to ports
- Remote configuration and management: is available through a secure Web browser or a command-line interface (CLI)
- Manager and operator privilege levels: enable read-only (operator) and read/write (manager) access on CLI and Web browser management interfaces
- **Command authorization**: leverages RADIUS 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
- Dual flash images: provide independent primary and secondary operating system files for backup while upgrading
- Multiple configuration files: can be stored 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): automated device discovery protocol provides easy mapping by



#### Overview

network management applications

- Management VLAN: segments traffic to and from management interfaces, including CLI/telnet, a Web browser interface, and SNMP
- **Device Link Detection Protocol** (DLDP): monitors a cable between two switches and shuts down the ports on both ends if the cable is broken, this prevents network problems such as loops

#### Connectivity

- Auto-MDIX: automatically adjusts for straight-through or crossover cables on all 10/100/1000 ports
- **Flow control**: using standard IEEE 802.3x, it provides back pressure to reduce congestion in heavy traffic situations
- Jumbo packet support: supports up to 10k byte frame size to improve performance of large data transfers
- High-density port connectivity: provides up to 48 fixed 10/100/1000BASE-T ports in an entry-level static Layer 3 switch
- Ethernet OAM: provides a Layer 2 link performance and fault detection monitoring tool, which reduces failover and network convergence times
- **Power over Ethernet Plus** (PoE+) **support**: provides 30 W power for connected devices, simplifies deployment, and dramatically reduces installation costs by helping to eliminate the time and cost involved in supplying local power at each access point location
- IPv6:
  - IPv6 Host: enables switches to be managed and deployed at the IPv6 network's edge
  - Dual stack (IPv4 and IPv6 using BIS): allows IPv4 hosts to communicate with IPv6 hosts
  - IPv6 ACL: for filtering IPv6 network traffic

#### Performance

- **Nonblocking architecture**: up to 104 Gbps nonblocking switching fabric provides wire-speed switching with up to 77.4 million pps throughput
- Hardware-based wire-speed access control lists (ACLs): feature-rich ACL implementation (TCAM-based) helps ensure high levels of security and ease of administration without impacting network performance

#### Resiliency and high availability

- Separate data and control paths: increases security and performance
- Spanning Tree/MSTP, RSTP: provides redundant links while preventing network loops
- IEEE 802.3ad Link Aggregation Control Protocol (LACP): supports up to 26 trunks, each with 8 links per trunk; supports static or dynamic groups
- Smart link: allows 50 ms failover between links
- Intelligent Resilient Framework (IRF): creates virtual resilient switching fabrics, where two or more switches perform as a single Layer 2 switch and Layer 3 router; switches do not have to be co-located and can be part of a disaster-recovery system; servers or switches can be attached using standard LACP for automatic load balancing and high availability; simplifies network operation by eliminating the complexity of Spanning Tree Protocol, Equal-Cost Multipath (ECMP), or VRRP

#### Layer 2 switching

- 8K MAC address table: provides access to many Layer 2 devices
- VLAN support and tagging: support IEEE 802.1Q with 4,094 simultaneous VLAN IDs
- IP multicast snooping: automatically prevents flooding of IP multicast traffic
- Internet Group Management Protocol (IGMP) and Multicast Listener Discovery (MLD) protocol snooping: effectively 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; supports static



#### Overview

ARPs; gratuitous ARP allows detection of duplicate IP addresses

- Dynamic Host Configuration Protocol (DHCP): simplifies the management of large IP networks; supports client; DHCP Relay enables DHCP operation across subnets
- **Loopback interface address**: defines an address in Routing Information Protocol (RIP) and OSPF that can always be reachable, improving diagnostic capability

#### Layer 3 routing

• Static IP routing: provides manually configured routing for both IPv4 and IPv6 networks

#### Security

- Access control lists (ACLs): provides IP Layer 2 to Layer 4 traffic filtering; supports global ACL, VLAN ACL, port ACL, and IPv6 ACL
- 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 risk to network security or unauthorized access to sensitive data
  - Automatic VLAN assignment: automatically assigns users to the appropriate VLAN based on their identities
  - Secure management access: securely encrypts 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: similar to IEEE 802.1X, it provides a browser-based environment to authenticated clients
- 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: helps prevent IP spoofing attacks
- Endpoint Admission Defense (EAD): provides security policies to users accessing a network
- **RADIUS/HWTACACS**: eases switch management security administration by using a password authentication server
- **Port security**: allows access only to specified MAC addresses, which can be learned or specified by the administrator
- MAC-based authentication: allows or denies access to the switch based on a client MAC address

#### Convergence

- IEEE 802.1AB Link Layer Discovery Protocol (LLDP): is an automated device discovery protocol that provides easy mapping of network management applications
- 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
- Voice VLAN: automatically assigns VLAN and priority for IP phones, simplifying network configuration and maintenance
- IP multicast snooping (data-driven IGMP): automatically prevents flooding of IP multicast traffic
- Multicast VLAN: reduces network bandwidth demand by eliminating multiple streams to each VLAN

#### Additional information

- **Green IT and power**: use the latest advances in silicon development, shut off unused ports, and use variable-speed fans to improve energy efficiency
- Green initiative support: provides support for RoHS and WEEE regulations

#### Overview

#### Warranty and support

#### Limited Lifetime Warranty v2.0

advance hardware replacement with next-business-day delivery (available in most countries). See www.hp.com/networking/warrantysummary for duration details.

#### • Electronic and telephone support (for Limited Lifetime Warranty 2.0) limited 24x7 telephone support is available from HP for the first 3 years; limited electronic and business hours telephone support is available from HP for the entire warranty period; to reach our support centers, refer to www.hp.com/networking/contact-support; for details on the duration of support provided with your product purchase, refer to www.hp.com/networking/warrantysummary

#### • Software releases

to find software for your product, refer to www.hp.com/networking/support; for details on the software releases available with your product purchase, refer to 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 5120-16G SI Switch 16 RJ-45 autosensing 10/100/1000 ports 4 fixed Gigabit Ethernet SFP ports min=0 \ max=4 SFP Transceivers 1U - Height	JE073A See Configuration Note:1, 2
HP 5120-24G SI Switch 24 RJ-45 autosensing 10/100/1000 ports 4 fixed Gigabit Ethernet SFP ports min=0 \ max=4 SFP Transceivers 1U - Height	JE074A See Configuration Note:1, 2
HP 5120-24G-HPoE SI Switch 24 RJ-45 autosensing 10/100/1000 ports 4 fixed Gigabit Ethernet SFP ports min=0 \ max=4 SFP Transceivers 1U - Height	JG091A See Configuration Note:1, 2
HP 5120-24G-PoE SI Switch 24 RJ-45 autosensing 10/100/1000 ports 4 fixed Gigabit Ethernet SFP ports min=0 \ max=4 SFP Transceivers 1U - Height	JG092A See Configuration Note:1, 2
HP 5120-48G SI Switch • 48 RJ-45 autosensing 10/100/1000 ports • 4 fixed Gigabit Ethernet SFP ports • min=0 \ max=4 SFP Transceivers • 1U - Height	JE072A See Configuration Note:1, 2
Configuration Rules:	
Note 1The following Transceivers install into this Module: HP X125 1G SFP LC LH40 1310nm Transceiver HP X120 1G SFP LC LH40 1550nm Transceiver HP X120 1G SFP LC SX Transceiver HP X120 1G SFP LC LX Transceiver HP X125 1G SFP LC LH70 Transceiver	JD061A JD062A JD118B JD119B JD063B

HP X120 1G SFP LC BX 10-U Transceiver

HP X120 1G SFP LC BX 10-D Transceiver

HP X120 1G SFP RJ45 T Transceiver

JD098B

JD099B

JD089B

### Configuration

Note 2

Localization required. (See Localization Menu for list.)

### Transceivers

#### **SFP Transceivers**

### 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**

#### **External/Redundant Power Supplies**

HP RPS1600 Redundant Power System	JG136A
<ul> <li>Height = 1U</li> <li>includes 1 x c13, 1600w and Power Supply port</li> </ul>	See Configuration Note:2, 3

#### HP RPS1600 1600W AC Power Supply

• Installs into JG136A only

#### **Configuration Rules:**



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JG137A See Configuration

Note:1

### Configuration

- Note 1 If this power supply is selected, The JG136A HP A-RPS1600 Redundant Power System must be on ordered or onsite.
- Note 2 Localization required. (See Localization Menu for list.)
- Note 3 Only 1 JG136A can be connected per switch.

#### **Options for External/Redundant Power Supplies**

HP X290 1000 A JD5 2m RPS Cable

JD187A



## **Technical Specifications**

#### HP 5120-48G SI Switch (JE072A)

48 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only		
4 fixed Gigabit Ethernet SF	P ports	
1 RJ-45 serial console port		
Dimensions	10.24(d) x 17.3(w) x 1.72(h) in. (26.01 x 43.94 x 4.37 cm) (1U height)	
Weight	11.02 lb. (5 kg)	
128 MB flash, 128 MB SDR	AM; packet buffer size: 1 MB	
Mounts in an EIA-standard	19 in. telco rack or equipment cabinet (hardware included)	
1000 Mb Latency	< 3 µs	
Throughput	77.4 million pps	
Routing/Switching capacity	104 Gbps	
Routing table size	32 entries	
Operating temperature	32ºF to 113ºF (0ºC to 45ºC)	
Operating relative humidity	10% to 90%, noncondensing	
Nonoperating/Storage temperature	-40ºF to 158ºF (-40ºC to 70ºC)	
Nonoperating/Storage relative humidity	5% to 95%, noncondensing	
Maximum heat dissipation	189 BTU/hr (199.4 kJ/hr)	
Voltage	100-240 VAC	
Maximum power rating	55.4 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.	
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		
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		
IMC - Intelligent Managem	ent Center; command-line interface; Web browser; SNMP Manager	
<ul> <li>3-year, 4-hour onsite, 13x5 coverage for hardware (UV858E)</li> <li>3-year, 4-hour onsite, 24x7 coverage for hardware (UV861E)</li> <li>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV864E)</li> <li>3-year, 24x7 SW phone support, software updates (UV867E)</li> <li>1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR584E)</li> <li>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR585E)</li> <li>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR585E)</li> <li>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR586E)</li> <li>Installation with minimum configuration, system-based pricing (UX116E)</li> <li>Installation with HP-provided configuration, system-based pricing (UX117E)</li> </ul>		
	IEEE 802.3ab Type 1000B/ 4 fixed Gigabit Ethernet SF 1 RJ-45 serial console port Dimensions Weight 128 MB flash, 128 MB SDR Mounts in an EIA-standard 1000 Mb Latency Throughput Routing/Switching capacity Routing table size Operating relative humidity Nonoperating/Storage temperature Nonoperating/Storage relative humidity Maximum heat dissipation Voltage Maximum power rating Frequency Notes UL 60950-1; EN 60825-15 IEC 60950-1; CAN/CSA-C22 Subchapter J; NOM; ROHS FCC part 15 Class A; VCCI C 2003; ETSI EN 300 386 V1 EN 61000-4-3; EN 61000- 61000-3-3:1995 +A1:2007 IMC - Intelligent Managem 3-year, 4-hour onsite, 13x 3-year, 4-hour onsite, 24x 3-year, 24x7 SW phone su 1-year, post-warranty, 4-H 1-year, post-warranty, 4-H 1-year, post-warranty, 4-H 1-year, post-warranty, 4-H	



## **Technical Specifications**

	<ul> <li>4-year, 4-hour onsite, 13x5 coverage for hardware (UV859E)</li> <li>4-year, 4-hour onsite, 24x7 coverage for hardware (UV862E)</li> <li>4-year, 24x7 SW phone support, software updates (UV868E)</li> <li>5-year, 4-hour onsite, 13x5 coverage for hardware (UV860E)</li> <li>5-year, 4-hour onsite, 13x5 coverage for hardware (UV860E)</li> <li>5-year, 4-hour onsite, 24x7 coverage for hardware (UV860E)</li> <li>5-year, 4-hour onsite, 24x7 coverage for hardware (UV860E)</li> <li>5-year, 4-hour onsite, 24x7 coverage for hardware (UV863E)</li> <li>5-year, 4-hour onsite, 24x7 coverage for hardware (UV863E)</li> <li>5-year, 4-hour onsite, 24x7 coverage for hardware (UV863E)</li> <li>5-year, 24x7 SW phone support, software updates (UV869E)</li> <li>3 Yr 6 hr Call-to-Repair Onsite (UW963E)</li> <li>4 Yr 6 hr Call-to-Repair Onsite (UW963E)</li> <li>1-year, 6 hour Call-To-Repair Onsite for hardware (HR588E)</li> <li>1-year, 24x7 software phone support, software updates (HR587E)</li> <li>1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS682E)</li> <li>4-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS683E)</li> <li>4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS686E)</li> <li>4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS686E)</li> <li>4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS686E)</li> <li>4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS687E)</li> <li>5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS687E)</li> <li>5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS688E)</li> </ul>		
HP 5120-24G SI Switch (JE	E074A)		
Ports	24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only		
	4 fixed Gigabit Ethernet SFP ports		
	1 RJ-45 serial console por		
Physical characteristics	Dimensions	6.3(d) x 17.3(w) x 1.72(h) in. (16 x 43.94 x 4.37 cm) (1U height)	
•	Weight	6.61 lb. (3 kg)	
Memory and processor	-	AM; packet buffer size: 0.5 MB	
Mounting		19 in. telco rack or equipment cabinet (hardware included)	
Performance	1000 Mb Latency	< 3 µs	
-	Throughput	41.7 million pps	
	Routing/Switching capacity	56 Gbps	
	Routing table size	32 entries	
Environment	Operating temperature	32ºF to 113ºF (0ºC to 45ºC)	
	Operating relative	10% to 90%, noncondensing	
	Nonoperating/Storage temperature	-40ºF to 158ºF (-40ºC to 70ºC)	
	Nonoperating/Storage relative humidity	5% to 95%, noncondensing	
Electrical characteristics	Maximum heat	108 BTU/hr (113.94 kJ/hr)	

100-240 VAC

31.5 W



dissipation Voltage

Maximum power rating

### **Technical Specifications**

	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		Safety 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	2003; ETSI EN 300 386 V1 EN 61000-4-3; EN 61000-	Class A; EN 55022 Class A; CISPR 22 Class A; ICES-003 Class A; ANSI C63.4 .3.3; AS/NZS CISPR22 Class A; EN 61000-3-2; EN 61000-3-3; EN 61000-4-2; ·4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-4-11; EN 61000-3-2:2006; EN 1+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A
Management	IMC - Intelligent Managem	ent Center; command-line interface; Web browser; SNMP Manager
Services	3-year, 4-hour onsite, 24× 3-year, 24×7 SW phone su 1-year, post-warranty, 4- 1-year, post-warranty, 4- 1-year, post-warranty, 4- (HR586E) Installation with minimum Installation with HP-provi 4-year, 4-hour onsite, 24× 4-year, 4-hour onsite, 24× 4-year, 4-hour onsite, 24× 5-year, 24×7 SW phone su 3 Yr 6 hr Call-to-Repair Or 4 Yr 6 hr Call-to-Repair Or 1-year, 6 hour Call-To-Rep 1-year, 24×7 software pho (HS682E) 1-year, 24×7 software pho (HS686E) 4-year, 24×7 software pho (HS688E) Refer to the HP website at	hsite (UW964E) hsite (UW965E) pair Onsite for hardware (HR588E) one support, software updates (HR587E) one support, software updates + Next Business Day Hardware Exchange one support, software updates + 4 hour hardware exchange (HS683E) one support, software updates + Next Business Day Hardware Exchange one support, software updates + 4 hour Hardware Exchange (HS687E) one support, software updates + 4 hour Hardware Exchange (HS687E) one support, software updates + 4 hour Hardware Exchange (HS687E) one support, software updates + Next Business Day Hardware Exchange t: www.hp.com/networking/services for details on the service-level numbers. For details about services and response times in your area, please

HP 5120-16G SI Switch (JE073A)

#### Ports

16 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 4 fixed Gigabit Ethernet SFP ports



## **Technical Specifications**

	1 RJ-45 serial console port	
Physical characteristics	Dimensions	6.3(d) x 17.3(w) x 1.72(h) in. (16 x 43.94 x 4.37 cm) (1U height)
	Weight	6.61 lb. (3 kg)
Memory and processor	128 MB flash, 128 MB SDRA	AM; packet buffer size: 0.5 MB
Mounting	Mounts in an EIA-standard	19 in. telco rack or equipment cabinet (hardware included)
Performance	1000 Mb Latency	< 3 µs
	Throughput	29.8 million pps
	Routing/Switching capacity	40 Gbps
	Routing table size	32 entries
Environment	Operating temperature	32ºF to 113ºF (0ºC to 45ºC)
	Operating relative humidity	10% to 90%, noncondensing
	Nonoperating/Storage temperature	-40ºF to 158ºF (-40ºC to 70ºC)
	Nonoperating/Storage relative humidity	5% to 95%, noncondensing
Electrical characteristics	Maximum heat dissipation	76 BTU/hr (80.18 kJ/hr)
	Voltage	100-240 VAC
	Maximum power rating	22.4 W
	Frequency	50/60 Hz
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; ROHS Compliance	
Emissions	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; ICES-003 Class A; ANSI C63.4 2003; ETSI EN 300 386 V1.3.3; AS/NZS CISPR22 Class A; EN 61000-3-2; EN 61000-3-3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-4-11; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A	
Management	IMC - Intelligent Manageme	ent Center; command-line interface; Web browser; SNMP Manager
Services	<ul> <li>3-year, 4-hour onsite, 13x5 coverage for hardware (UV858E)</li> <li>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV864E)</li> <li>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV864E)</li> <li>3-year, 24x7 SW phone support, software updates (UV867E)</li> <li>1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR584E)</li> <li>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR585E)</li> <li>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR586E)</li> <li>Installation with minimum configuration, system-based pricing (UX116E)</li> <li>Installation with HP-provided configuration, system-based pricing (UX117E)</li> <li>4-year, 4-hour onsite, 24x7 coverage for hardware (UV859E)</li> <li>4-year, 4-hour onsite, 24x7 coverage for hardware (UV862E)</li> <li>4-year, 4-hour onsite, 24x7 coverage for hardware (UV862E)</li> <li>4-year, 24x7 SW phone support, software updates (UV868E)</li> <li>5-year, 4-hour onsite, 13x5 coverage for hardware (UV860E)</li> <li>5-year, 4-hour onsite, 24x7 coverage for hardware (UV863E)</li> </ul>	



## **Technical Specifications**

	<ul> <li>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV866E)</li> <li>5-year, 24x7 SW phone support, software updates (UV869E)</li> <li>3 Yr 6 hr Call-to-Repair Onsite (UW963E)</li> <li>4 Yr 6 hr Call-to-Repair Onsite (UW964E)</li> <li>5 Yr 6 hr Call-to-Repair Onsite (UW965E)</li> <li>1-year, 6 hour Call-To-Repair Onsite for hardware (HR588E)</li> <li>1-year, 24x7 software phone support, software updates (HR587E)</li> <li>1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS682E)</li> <li>1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS683E)</li> <li>4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS686E)</li> <li>4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS686E)</li> <li>4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS686E)</li> <li>4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS686E)</li> <li>4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS686E)</li> <li>4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS687E)</li> <li>5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS687E)</li> </ul>		
	Refer to the HP website at: <a href="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 5120-24G-PoE+ (370W	<b>I) SI Switch</b> (JG091A)		
Ports	24 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only		
	4 fixed Gigabit Ethernet SFP ports		
	1 RJ-45 serial console port		
Physical characteristics	Dimensions	16.54(d) x 17.32(w) x 1.72(h) in. (42 x 44.0 x 4.36 cm) (1U height)	
	Weight	15.43 lb. (7 kg)	
Memory and processor	128 MB flash, 128 MB SDR	AM; packet buffer size: 0.5 MB	
Mounting	Mounts in an EIA-standard	19 in. telco rack or equipment cabinet (hardware included)	
Performance	1000 Mb Latency	< 3 µs	
	Throughput	41.7 million pps	
	Routing/Switching capacity	56 Gbps	
	Routing table size	32 entries	
Environment	Operating temperature	32ºF to 113ºF (0ºC to 45ºC)	
	Operating relative humidity	10% to 90%, noncondensing	
	Nonoperating/Storage temperature	-40ºF to 158ºF (-40ºC to 70ºC)	
	Nonoperating/Storage relative humidity	5% to 95%, noncondensing	
Electrical characteristics	Maximum heat dissipation	539 BTU/hr (568.65 kJ/hr)	
	Voltage	100-240 VAC	
	DC Voltage	-52 to -55 VDC	
	Maximum power rating	832 W	

Maximum power rating and maximum heat dissipation are the worst-case

720 W 50/60 Hz



**PoE power** 

Frequency Notes

## **Technical Specifications**

		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 a External Power Supply (EPS). With AC input, the Max power consumption is 523W (370W for PoE)	
Safety		Safety 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 Managem	ent Center; command-line interface; Web browser; SNMP Manager	
Services	<ul> <li>3-year, 4-hour onsite, 13x5 coverage for hardware (UV858E)</li> <li>3-year, 4-hour onsite, 24x7 coverage for hardware (UV861E)</li> <li>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV864E)</li> <li>3-year, 24x7 SW phone support, software updates (UV867E)</li> <li>4-year, 4-hour onsite, 13x5 coverage for hardware (UV859E)</li> <li>4-year, 4-hour onsite, 24x7 coverage for hardware (UV862E)</li> <li>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV865E)</li> <li>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV865E)</li> <li>4-year, 24x7 SW phone support, software updates (UV868E)</li> <li>5-year, 4-hour onsite, 13x5 coverage for hardware (UV860E)</li> <li>5-year, 4-hour onsite, 24x7 coverage for hardware (UV863E)</li> <li>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV866E)</li> <li>5-year, 24x7 SW phone support, software updates (UV863E)</li> <li>5-year, 24x7 SW phone support, software updates (UV869E)</li> <li>3 Yr 6 hr Call-to-Repair Onsite (UW963E)</li> <li>4 Yr 6 hr Call-to-Repair Onsite (UW964E)</li> <li>5 Yr 6 hr Call-to-Repair Onsite (UW965E)</li> </ul>		
	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 5120-24G-PoE+ (170)	<b>V) SI Switch</b> (JG092A)		
Ports	24 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only		
	4 fixed Gigabit Ethernet SFP ports		
	1 RJ-45 serial console por		
Physical characteristics	Dimensions	16.54(d) x 17.32(w) x 1.72(h) in. (42 x 44.0 x 4.36 cm) (1U height)	
	Weight	15.43 lb. (7 kg)	
Memory and processor		AM; packet buffer size: 0.5 MB	
Mounting		l 19 in. telco rack or equipment cabinet (hardware included)	
Performance	1000 Mb Latency	< 3 µs	
	Throughput	41.7 million pps	
	Routing/Switching capacity	56 Gbps	
	Routing table size	32 entries	
Environment	Operating temperature	32ºF to 113ºF (0ºC to 45ºC)	



### **Technical Specifications**

	Operating relative humidity	10% to 90%, nonconde	nsing
	Nonoperating/Storage temperature	-40ºF to 158ºF (-40ºC t	o 70ºC)
	Nonoperating/Storage relative humidity	5% to 95%, nonconden	sing
Electrical characteristics	-	290 BTU/hr (305.95 kJ/	/hr)
	Voltage	100-240 VAC	
	Maximum power rating	255 W	
	PoE power	170 W	
	Frequency	50/60 Hz	
	Notes	Maximum power rating theoretical maximum n with fully loaded PoE (i all modules populated. PoE Power is the power dependent on the type	and maximum heat dissipation are the worst-case numbers provided for planning the infrastructure f equipped), 100% traffic, all ports plugged in, and r supplied by the internal power supply, it is and quantity of power supplies and may be use of a External Power Supply (EPS).
Safety		2.2 No. 60950-1; Anatel;	Part 1; EN 60825-2 Safety of Laser Products-Part 2; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR
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	<ul> <li>3-year, 4-hour onsite, 13x5 coverage for hardware (UV858E)</li> <li>3-year, 4-hour onsite, 24x7 coverage for hardware (UV861E)</li> <li>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV864E)</li> <li>3-year, 24x7 SW phone support, software updates (UV867E)</li> <li>4-year, 4-hour onsite, 13x5 coverage for hardware (UV859E)</li> <li>4-year, 4-hour onsite, 24x7 coverage for hardware (UV862E)</li> <li>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV865E)</li> <li>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV865E)</li> <li>4-year, 24x7 SW phone support, software updates (UV868E)</li> <li>5-year, 4-hour onsite, 13x5 coverage for hardware (UV860E)</li> <li>5-year, 4-hour onsite, 24x7 coverage for hardware (UV863E)</li> <li>5-year, 24x7 SW phone support, software updates (UV869E)</li> <li>3 Yr 6 hr Call-to-Repair Onsite (UW963E)</li> <li>4 Yr 6 hr Call-to-Repair Onsite (UW963E)</li> <li>5 Yr 6 hr Call-to-Repair Onsite (UW965E)</li> </ul>		
		umbers. For details abou	ng/services for details on the service-level ut services and response times in your area, please
<b>Standards and protocols</b> (applies to all products in series)	General protocols IEEE 802.1D MAC Bridges IEEE 802.1p Priority IEEE 802.1Q VLANs IEEE 802.1s Multiple Spann IEEE 802.1w Rapid Reconfi	-	RFC 3513 IPv6 Addressing Architecture RFC 3542 Advanced Sockets API for IPv6 RFC 3587 IPv6 Global Unicast Address Format RFC 3596 DNS Extension for IPv6 RFC 3736 Stateless Dynamic Host Configuration Protocol (DHCP) Service for IPv6



### **HP 5120 SI Switch Series**

### Technical Specifications

Tree **IEEE 802.1X PAE** IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3x Flow Control IEEE 802.3z 1000BASE-X Gigabit Ethernet over fiber **RFC 768 UDP** RFC 792 ICMP **RFC 793 TCP** RFC 826 ARP **RFC 854 TELNET RFC 951 BOOTP** RFC 1350 TFTP Protocol (revision 2) RFC 2131 DHCP **RFC 2865 Remote Authentication Dial In User** Service (RADIUS) **RFC 2866 RADIUS Accounting** 

#### IPv6

RFC 1350 TFTP RFC 1886 DNS Extension for IPv6 RFC 1887 IPv6 Unicast Address Allocation Architecture RFC 1981 IPv6 Path MTU Discovery RFC 2292 Advanced Sockets API for IPv6 RFC 2373 IPv6 Addressing Architecture RFC 2460 IPv6 Specification RFC 2461 IPv6 Neighbor Discovery RFC 2462 IPv6 Stateless Address Autoconfiguration RFC 2463 ICMPv6 RFC 2464 Transmission of IPv6 over Ethernet Networks RFC 2465 Management Information Base for IP Version 6: Textual Conventions and General Group(partially support, only "IPv6 Interface Statistics table") RFC 2475 IPv6 DiffServ Architecture RFC 2553 Basic Socket Interface Extensions for IPv6 RFC 2711 IPv6 Router Alert Option RFC 2893 Transition Mechanisms for IPv6 Hosts and Routers RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations (Ping only) RFC 2925 Remote Operations MIB (Ping only) RFC 3056 Connection of IPv6 Domains via IPv4 Clouds RFC 3162 RADIUS and IPv6 RFC 3363 DNS support RFC 3484 Default Address Selection for IPv6

RFC 4007 IPv6 Scoped Address Architecture RFC 4022 MIB for TCP RFC 4113 MIB for UDP RFC 4251 SSHv6 Architecture RFC 4252 SSHv6 Authentication RFC 4253 SSHv6 Transport Layer RFC 4254 SSHv6 Connection RFC 4291 IP Version 6 Addressing Architecture RFC 4293 MIB for IP RFC 4419 Key Exchange for SSH **RFC 4443 ICMPv6** RFC 4541 IGMP & MLD Snooping Switch RFC 4861 IPv6 Neighbor Discovery RFC 4862 IPv6 Stateless Address Autoconfiguration RFC 5095 Deprecation of Type 0 Routing Headers in IPv6 RFC 5722 Handling of Overlapping IPv6 Fragments

#### MIBs

IEEE8021-PAE-MIB IEEE8023-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 2571 SNMP Framework MIB** RFC 2572 SNMP-MPD MIB RFC 2573 SNMP-Target MIB **RFC 2618 RADIUS Authentication Client MIB RFC 2620 RADIUS Accounting Client MIB** RFC 2665 Ethernet-Like-MIB RFC 2668 802.3 MAU 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 3415 SNMP-View based-ACM MIB RFC 3418 MIB for SNMPv3 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) ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED) SNMPv1/v2c/v3



RFC 3493 Basic Socket Interface Extensions for IPv6

### Accessories

HP 5120 SI Switch Series	Transceivers	
accessories	HP X120 1G SFP LC SX Transceiver	JD118B
	HP X120 1G SFP LC LX Transceiver	JD119B
	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 LC BX 10-U Transceiver	JD098B
	HP X120 1G SFP LC BX 10-D Transceiver	JD099B
	HP X120 1G SFP RJ45 T Transceiver	JD089B
	Cables	
	HP 0.5 m Multimode OM3 LC/LC Optical Cable	AJ833A
	HP 1 m Multimode OM3 LC/LC Optical Cable	AJ834A
	HP 2 m Multimode OM3 LC/LC Optical Cable	AJ835A
	HP 5 m Multimode OM3 LC/LC Optical Cable	AJ836A
	HP 15 m Multimode OM3 LC/LC Optical Cable	AJ837A
	HP 30 m Multimode OM3 LC/LC Optical Cable	AJ838A
	HP 50 m Multimode OM3 LC/LC Optical Cable	AJ839A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable	QK732A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable	QK733A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable	QK734A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable	QK735A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable	QK736A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable	QK737A
	HP 3600 Switch SFP Stacking Kit	JD324B
	Power Supply	
	HP RPS1600 Redundant Power System	JG136A
	HP RPS1600 1600W AC Power Supply	JG137A
	Power cords	
	HP X290 1000 A JD5 2m RPS Cable	JD187A

## **Accessory Product Details**

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

(JD061A)		Wavelength	1310 nm
HP X125 1G SFP LC LH40 1310nm Transceiver	Ports Connectivity	1 LC 1000Base-LH port (n Connector type	no IEEE standard exists for 1550 nm optics) LC
	Services	the service-level descript	t www.hp.com/networking/services for details on ions and product numbers. For details about nes in your area, please contact your local HP
		Maximum distance: • 550m for Multimode • 10km for Singlemode Fiber type	Both
	Cabling	Cable type: Either single mode or mu	ltimode;
		Power consumption maximum	1.0 W
solution up to 550m on MMF or 10Km on SMF	Electrical characteristics	Power consumption typical	0.8 W
a full duplex Gigabit		Full configuration weigh	<b>it</b> 0.04 lb. (0.02 kg)
A small form-factor pluggable (SFP) Gigabit LX transceiver that provides	Physical characteristics	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Wavelength	1300 nm
Transceiver (JD119B)	Connectivity	Connector type	LC
HP X120 1G SFP LC LX	Ports	sales office.	(IEEE 802.3z Type 1000BASE-LX)
	Services	the service-level descript	t www.hp.com/networking/services for details on ions and product numbers. For details about nes in your area, please contact your local HP
		Fiber type	Multi Mode
		Cable length	up to 550m
	Cabling	Maximum distance: • FDDI Grade distance = 2 • OM1 = 275m • OM2 = 500m • OM3 = Not Specified by	
SMF.		Power consumption maximum	1.0 W
Gigabit solution up to 550m on MMF or 10Km on	Electrical characteristics	Power consumption typical	0.8 W
that provides a full duplex		Full configuration weigh	<b>it</b> 0.04 lb. (0.02 kg)
pluggable (SFP) Gigabit Ethernet LX transceiver	Physical characteristics	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
A small form-factor		Wavelength	850 nm
Transceiver (JD118B)	Connectivity	Connector type	LC
	Ports	· · · · · · · · · · · · · · · · · ·	EEE 802.3z Type 1000BASE-SX)



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 provides a full duplex	Electrical characteristics	Full configuration weight Power consumption typical	0.04 lb. (0.02 kg) 0.8 W
Gigabit solution up to 40km on a single-mode fiber.	Cabling	Power consumption maximum Cable type: Single-mode fiber optic, co	1.0 W omplying with ITU-T G.652;
		Maximum distance:	
		• 40km distance	
	Services	the service-level description	Single Mode www.hp.com/networking/services for details on ons and product numbers. For details about es in your area, please contact your local HP sales
HP X120 1G SFP LC LH40 1550nm Transceiver (JD062A)	Ports Connectivity	1 LC 1000BASE-LH port (no Connector type Wavelength	DIEEE standard exists for 1550 nm optics) LC 1550 nm
A small form-factor	Physical characteristics	Dimensions	1550 nm 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 provides a full-duplex Gigabit solution up to 40	Electrical characteristics	Full configuration weight Power consumption typical	0.04 lb. (0.02 kg) 0.8 W
km on a single mode fiber.	Cabling	Power consumption maximum Cable type: Single-mode fiber optic, co	1.0 W omplying with ITU-T G.652;
		Maximum distance:	
		• 40km distance	
	Services	the service-level description	Single Mode www.hp.com/networking/services for details on ons and product numbers. For details about es in your area, please contact your local HP sales
HP X125 1G SFP LC LH70 Transceiver (JD063B)	Ports	-	DIEEE standard exists for 1550 nm optics)
	Connectivity	Connector type Wavelength	LC 1550 nm
A small form-factor pluggable (SFP) Gigabit LH70 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 70km on a single-mode	Electrical characteristics	Full configuration weight Power consumption typical	0.04 lb. (0.02 kg) 0.8 W



Accessory Product Details

#### fiber. **Power consumption** 1.0 W maximum Cabling Cable type: Single-mode fiber optic, complying with ITU-T G.652; Maximum distance: • 70km Fiber type Single Mode Services Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office. HP X120 1G SFP LC BX 10- Ports 1 LC 1000BASE-BX10 port (IEEE 802.3ah Type 1000BASE-BX10-U); Duplex: **U Transceiver** (JD098B) full only 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 pluggable (SFP) Gigabit cm) LX-BX10-U transceiver Full configuration weight 0.04 lb. (0.02 kg) that provides a full duplex Electrical characteristics Power consumption 0.8 W Gigabit solution up to typical 10km on a single mode cable. **Power consumption** 1.0 W maximum Cabling Maximum distance: • 10km Fiber type Single Mode Notes TX 1310nm RX 1490nm Services Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office. HP X120 1G SFP LC BX 10- Ports 1 LC 1000BASE-BX10 port (IEEE 802.3ah Type 1000BASE-BX10-D); Duplex: D Transceiver (JD099B) full only 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 pluggable (SFP) Gigabit cm) LX-BX10-D transceiver Full configuration weight 0.04 lb. (0.02 kg) that provides a full duplex **Electrical characteristics Power consumption** 0.8 W Gigabit solution up to typical 10km on a single mode cable. **Power consumption** 1.0 W maximum Cabling Maximum distance: • Up to 10km Fiber type Single Mode Notes TX 1490nm RX 1310nm Services Refer to the HP website at www.hp.com/networking/services for details on



sales office.

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

### **Accessory Product Details**

HP X120 1G SFP Ports		1 RJ-45 1000BASE-T port (IEEE 8	02.3ab Type 1000BASE-T)
RJ45 T	Connectivity	Connector type	RJ-45
<b>Fransceiver</b> JD089B)	Physical	Dimensions	2.71(d) x 0.54(w) x 0.55(h) in. (6.88 x 1.37 x 1.4 cm)
100050)	characteristics	Full configuration weight	0.07 lb. (0.03 kg)
A small form	Electrical	Power consumption typical	0.8 W
actor pluggable	characteristics	Power consumption maximum	1.0 W
(SFP) Gigabit 1000Base-T transceiver that provides a full duplex Gigabit solution up to	Cabling		etter recommended), 100 Ù differential 4-pair unshielded isted pair (STP) balanced, complying with IEEE 802.3ab
100m on a Cat- 5+ cable.		• 100m	
S · Cubic.	Services		np.com/networking/services for details on the service- imbers. For details about services and response times in cal HP sales office.
<b>HP 0.5 m Multim</b> L <b>C/LC Optical Cal</b> (AJ833A)	ode OM3 Cabling ble		/cladding) diameter, mulitimode fiber optic, with effective n of 2000 MHz/km as detailed in TIA-492AAAC for o 300 m
		<b>Maximum distan</b> 10Gbps Transfer	i <b>ce</b> : Rate (Ethernet): 300m
	Notes	fiber optic cable	nt buffered duplex fiber optic multimode OM3 50/125 um and Ethernet assembly with LC duplex connectors on one ex connectors on other end.
		2.0um C	ons: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± oating diameter: 245 ± 10um
		<ul> <li>Optical <u>0</u> @850/1</li> </ul>	glass: Bandwidth: For LED sources: 1500/500 MHz-km
		• Optical 0 @850/1 @850/1	glass: Bandwidth: For Laser sources: 2000/500 MHz-km 300nm. VCSEL Laser sources: 600 / 600 meters 300nm for Gigabit Ethernet compliant links.
		multimo 1300 nn	The cable is duplex zipcord graded index 50/125um ode optical fiber and designed to work in both the 850 and n wavelength windows. BLE & CABLE ASSEMBLY CONFIGURATION:
		Jacket M     thermore	1aterial: Riser Grade - Low Smoke Zero Halogen olastic.
			olor: Aqua for OM3 multimode per TIA 598 lor: White
		Insertion	n Loss: less than 0.5 dB @ 850 with LED source, 0.003 Ided for lengths > 30 meters.
		Maximu     1310 nn	m Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ n @ 23°C as tested in accordance with EIA 455-46. Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services		vebsite at www.hp.com/networking/services for details o descriptions and product numbers. For details about

(IP)

		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	<b>Cable type</b> : 50/125 μm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m
		<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: 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 HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)	Cabling	<b>Cable type</b> : 50/125 μm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
	Notes	<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 HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 5 m Multimode OM3 LC/LC Optical Cable (AJ836A)	Cabling	<b>Cable type</b> : 50/125 µm core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		Maximum distance:
	Notes	10Gbps Transfer Rate (Ethernet): 300m 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> </ul>



		<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 HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 15 m Multimode OM3 LC/LC Optical Cable (AJ837A)	Cabling	<b>Cable type</b> : 50/125 μm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		Maximum distance:
		10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.
		<ul> <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> </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> </ul>
		<ul> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> </ul>
		Jacket Color: Aqua for OM3 multimode per TIA 598
		<ul> <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>
		<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 HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 30 m Multimode OM3 LC/LC Optical Cable (AJ838A)	Cabling	<b>Cable type</b> : 50/125 μm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		<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: 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 HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 50 m Multimode OM3 LC/LC Optical Cable (AJ839A)	Cabling	<b>Cable type</b> : 50/125 μm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		<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: 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</li> </ul>



	Services	<ul> <li>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>
		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
		<ul> <li>Boot Color: White</li> <li>Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um,</li> </ul>
		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
	Services	@ 23°C as tested in accordance with EIA 455-45 Refer to the HP website at <u>www.hp.com/networking/services</u> for details on
	Services	the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable (QK733A)	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.
		<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> </ul>
		• Jacket Color. Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White
		<ul> <li>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.</li> <li>Insertion Loss: Loss than 0.5dB @ 850nm with LED course. 0.002dB/m</li> </ul>
		<ul> <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</li> </ul>



Accessory Product	Details	
	Services	@ 23°C as tested in accordance with EIA 455-45 Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable (QK734A)	Notes	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> </ul>
		<ul> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic</li> <li>Boot Color: White</li> <li>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.</li> </ul>
		<ul> <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 HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 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> </ul>
		• Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White
		<ul> <li>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.</li> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m</li> </ul>
		added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP Premier Flex LC/LC Multi-mode OM4 2 fiber	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors



Accessory Product	Details		
<b>30m Cable</b> (QK736A)		on each end.	
diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Ha thermoplastic • Boot Color: White • Outer Jacket Print: HP PremierFlex OM3+ Fiber Op Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable al white stripe that runs the entire length of the cable • Insertion Loss: Less than 0.5dB @ 850nm with LEE added for lengths >30m		<ul> <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: 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.</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</li> </ul>	
		ons and product numbers. For details about	
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 conne on each end.	
	Services	<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: 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.</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 HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	
HP RPS1600 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)
		<b>Operating relative</b> 5% to 95% humidity	



## HP 5120 SI Switch Series

		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	
		PoE	-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.	
	Safety	CE Labeled; UL 60950-1; IEC 60950-1; ICES-003; FCC Part 15, Subpart B; EU RoHS Compliant; EN 60950-1/A11; C-Tick; VCCI Class A; ROHS Compliance; EN 300386		
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.		
HP RPS1600 1600W AC Power Supply (JG137A)	Physical characteristics	Dimensions	8.19(d) x 4.96(w) x 1.63(h) in. (20.8 x 12.6 x 4.15 cm)	
		Weight	3.02 lb. (1.37 kg)	
	Environment	Operating temperature	14°F to 122°F (-10°C to 50°C)	
		Operating relative humidity	5% to 95%	
		Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	
		Nonoperating/Storage relative humidity	5% to 95%	
	Electrical characteristics	Voltage	100-120/200-240 VAC	
		Current	15/30 A	
		Maximum power rating	1600 W	
		Frequency	50/60 Hz	



	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	
Services	the service-level d	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	



## Summary of Changes

Date	Version History	Action	Description of Change:
01-Dec-2014	From Version 12 to	Changed	Warranty and support updated
	13		
12-Nov-2013	From Version 11 to	Added	Configuration were added.
	12		
18-Jul-2013	From Version 10 to	Changed	Standards and protocols was revised.
	11		
16-Jul-2013	From Version 9 to 10	Changed	Updated the specifications and description for JD118B.
10-Jun-2013	From Version 8 to 9	Added	OM4 cables were added.
30-Mar-2012	From Version 7 to 8	Changed	Model names and Features and benefits were revised.
20-Mar-2012	From Version 5 to 7	Changed	Model names were revised.
01-Dec-2011	From Version 3 to 5	Changed	Features and Benefits and Standards and Protocols were
			revised.
30-Sep-2011	From Version 2 to 3	Added	Accessory Product Details was added.
16-Mar-2011	From Version 1 to 2	Added	HP A5120-24G-PoE+ SI Switch and HP A5120-24G-PPoE+
			SI Switch Models were added.

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