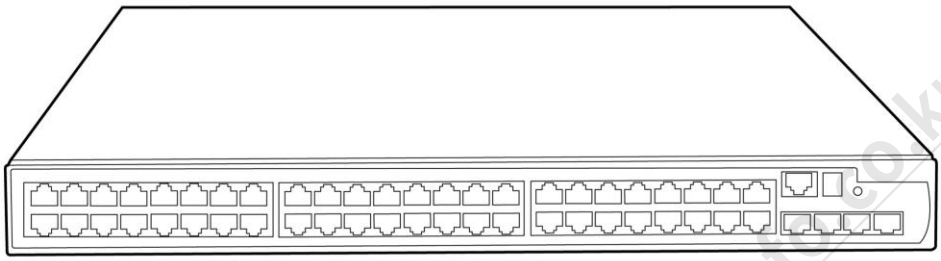
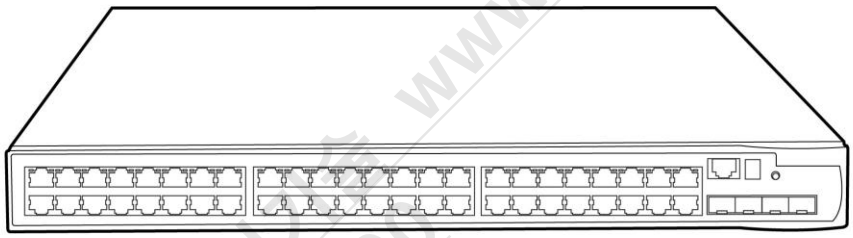
Overview

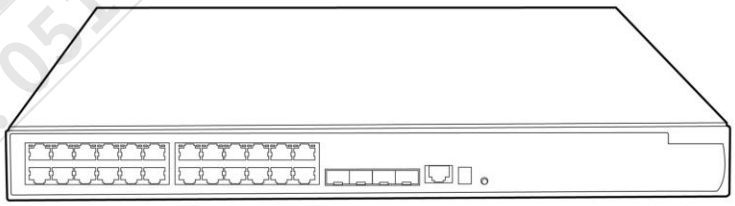
HP 5120 EI Switch Series



HP 5120-48G EI Switch with 2 Interface Slots

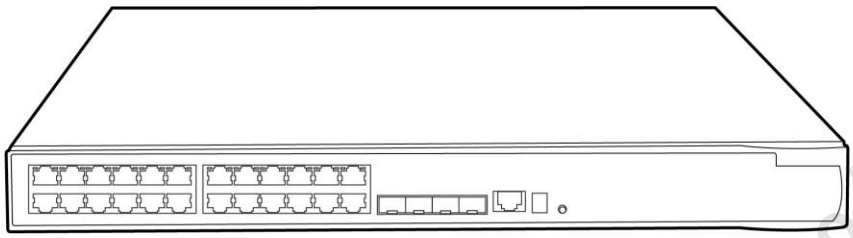


HP 5120-48G EI Switch

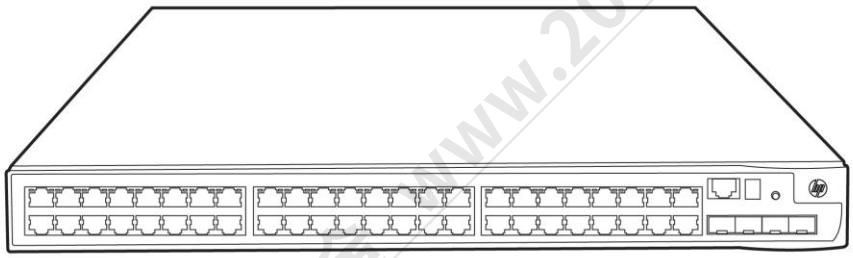


HP 5120-24G EI Switch with 2 Interface Slots

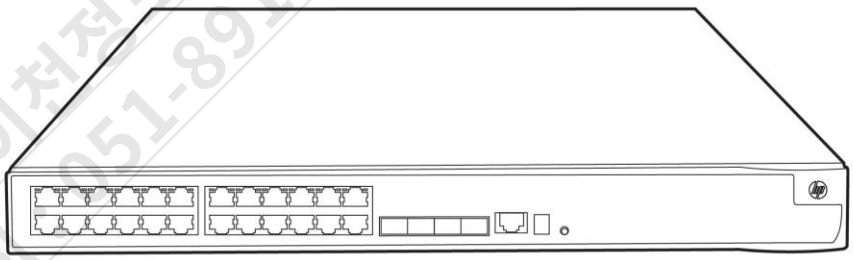
Overview



HP 5120-24G EI Switch



HP 5120-48G-PoE+ EI Switch with 2 Interface Slots



HP 5120-24G-PoE+ EI Switch with 2 Interface Slots

Models

HP 5120-48G EI Switch with 2 Interface Slots	JE069A
HP 5120-48G EI Switch	JE067A
HP 5120-24G EI Switch with 2 Interface Slots	JE068A
HP 5120-24G EI Switch	JE066A
HP 5120-48G-PoE+ EI Switch with 2 Interface Slots	JG237A
HP 5120-24G-PoE+ EI Switch with 2 Interface Slots	JG236A

Overview

Key features

- High scalability for investment protection
- Support for multiple services
- Comprehensive security control policies
- Diversified Quality of Service (QoS) policies
- Excellent manageability

Product overview

The HP 5120 EI Switch Series is comprised of Gigabit Ethernet switches that support static Layer 3 routing, diversified services, and IPv6 forwarding, as well as provide up to four 10-Gigabit Ethernet (10GbE) extended interfaces. Unique Intelligent Resilient Framework (IRF) technology creates a virtual fabric by managing several switches as one logical device, which increases network resilience, performance, and availability, while reducing operational complexity. These switches provide Gigabit Ethernet access and can be used at the edge of a network or to connect server clusters in data centers. High scalability provides investment protection with two expansion slots, each of which can support two-port 10GbE expansion modules. High availability, simplified management, and comprehensive security control policies are among the key features that distinguish this series.

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 port, VLAN, or whole switch
- **Powerful QoS feature**
  supports the following congestion actions: strict priority (SP) queuing, weighted round robin (WRR), and SP+WRR
- **Traffic policing**
  supports Committed Access Rate (CAR) and line rate

Management

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

Overview

- **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
- **sFlow (RFC 3176)**
  provides scalable ASIC-based wirespeed network monitoring and accounting with no impact on network performance; this allows network operators to gather a variety of sophisticated network statistics and information for capacity planning and real-time network monitoring purposes
- **Management VLAN**
  segments traffic to and from management interfaces, including
  CLI/telnet, a Web browser interface, and SNMP
- **Remote intelligent mirroring**
  mirrors ingress/egress ACL-selected traffic from a switch port or VLAN to a local or remote switch port anywhere on the network
- **Device Link Detection Protocol (DLDP)**
  monitors a cable between two switches and shuts down the ports on both ends if the cable is broken, which prevents network problems such as loops
- **IPv6 management**
  provides future-proof networking because the switch is capable of being managed whether the attached network is running IPv4 or IPv6; supports pingv6, tracertv6, Telnetv6, TFTPv6, DNSv6, syslogv6, FTPv6, SNMPv6, DHCPv6, and RADIUS for IPv6
- **Troubleshooting**
  ingress and egress port monitoring enables network problem-solving; virtual cable tests provide visibility into cable problems

Connectivity

- **Auto-MDIX**
  automatically adjusts for straight-through or crossover cables on all 10/100/1000 ports
- **Flow control**
  provides back pressure using standard IEEE 802.3x, reducing congestion in heavy traffic situations
- **Jumbo packet support**
  supports up to 9216-byte frame size to improve the performance of large data transfers
- **High-density connectivity**
  provides up to 48 fixed 10/100/1000BASE-T ports in a Layer 2/Layer 3 switch
- **Optional 10GbE ports**
  deliver, through the use of optional modules, additional 10GbE connections, which are available for uplinks or high-bandwidth server connections; flexibly support copper, XFP, SFP+, or CX4 local connections
- **IEEE 802.3at Power over Ethernet (PoE+) support**
  simplifies deployment and dramatically reduces installation costs by helping to eliminate the time and cost involved in supplying local power at each access point locatio
- **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
- **High-bandwidth CX4 local stacking**
  achieves 12 Gb/s per connection when using local CX4 stacking, allowing for up to 96 Gb/s total stacking bandwidth (full duplex) in a resilient stacking configuration

Performance

- **Nonblocking architecture**
  up to 192 Gb/s nonblocking switching fabric provides wirespeed switching with up to 143 million pps throughput
- **Hardware-based wirespeed 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

Resiliency and high availability

- **Separate data and control paths**
  separates control from services and keeps service processing isolated; increases 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
- **Rapid Ring Protection Protocol (RRPP)**
  connects multiple switches in a high-performance ring using standard Ethernet technology; traffic can be rerouted around the ring in less than 50 ms, reducing the impact on traffic and applications
- **Intelligent Resilient Framework (IRF)**
  creates virtual resilient switching fabrics, where two or more switches perform as a single L2 switch and L3 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; can eliminate the need for complex protocols like Spanning Tree Protocol, Equal-Cost Multipath (ECMP), or VRRP, thereby simplifying network operation

Layer 2 switching

- **16K MAC address table**
  provides access to many Layer 2 devices
- **VLAN support and tagging**
  supports IEEE 802.1Q with 4,094 simultaneous VLAN IDs
- **GARP VLAN Registration Protocol**
  allows automatic learning and dynamic assignment of VLANs
- **IEEE 802.1ad QinQ and selective QinQ**
  increase the scalability of an Ethernet network by providing a hierarchical structure; connect multiple LANs on a high-speed
  campus or metro network
- **10GbE 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**
  controls and manages the flooding of multicast packets in a Layer 2 network
- **Per-VLAN Spanning Tree Plus (PVST+)**
  allows each VLAN to build a separate spanning tree to improve link bandwidth usage in network environments with multiple VLANs

Layer 3 services

- **Address Resolution Protocol (ARP)**
  determines the MAC address of another IP host in the same subnet; supports static ARPs; gratuitous ARP allows detection of duplicate IP addresses; proxy ARP allows normal ARP operation between subnets or when subnets are separated by a Layer 2 network
- **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 that can always be reachable, improving diagnostic capability
- **User Datagram Protocol (UDP) helper function**
  allows UDP broadcasts to be directed across router interfaces to specific IP unicast or subnet broadcast addresses and

Overview

prevents server spoofing for UDP services such as DHCP

- **Route maps**
  provide more control during route redistribution; allow filtering and altering of route metrics

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
- **IEEE 802.1X**
  industry-standard method of user authentication using an IEEE 802.1X supplicant on the client in conjunction with a RADIUS erver
- **MAC-based authentication**
  client is authenticated 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 providing 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
- **IP source guard**
  helps prevent IP spoofing attacks
- **Dynamic ARP protection**
  blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data
- **RADIUS/HWTACACS**
  eases switch management security administration by using a password authentication server

Convergence

Overview

- **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
- **IP multicast snooping (data-driven IGMP)**
  prevents flooding of IP multicast traffic

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

Additional information

- **Green IT and power**
  improves energy efficiency through the use of the latest advances in silicon development; shuts off unused ports and utilizes
  variable-speed fans, reducing energy costs
- **Green initiative support**
  provides support for RoHS and WEEE regulations

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.

Standard Switch Chassis

HP 5120-24G EI Switch — JE066A

- 24 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=4 SFP Transceivers
- 0 port expansion module slots
- Power supply included
- 1U - Height

See Configuration Note:1, 3

PDU Cable NA/MEX/TW/JP — JE066A#B2B

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

PDU Cable ROW — JE066A#B2C

- C15 PDU Jumper Cord (ROW)

HP 5120-24G EI Switch with 2 Slots — JE068A

- 24 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=4 SFP Transceivers
- 2 port expansion module slots
- Power supply included
- 1U - Height

See Configuration Note:1, 3

PDU Cable NA/MEX/TW/JP — JE068A#B2B

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

PDU Cable ROW — JE068A#B2C

- C15 PDU Jumper Cord (ROW)

HP 5120-24G-PoE+ EI Switch w/2 Intf Slts — JG236A

- 24 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=4 SFP Transceivers
- 2 port expansion module slots
- Power supply included
- 1U - Height

See Configuration Note:1, 3

Configuration

PDU Cable NA/MEX/TW/JP — JG236A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW — JG236A#B2C
- C15 PDU Jumper Cord (ROW)

HP 5120-48G EI Switch — JE067A
- 48 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=4 SFP Transceivers
- 0 port expansion module slots
- Power supply included
- 1U - Height

See Configuration Note:1, 3

PDU Cable NA/MEX/TW/JP — JE067A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW — JE067A#B2C
- C15 PDU Jumper Cord (ROW)

HP 5120-48G EI Switch with 2 Slots — JE069A
- 48 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=4 SFP Transceivers
- 2 port expansion module slots
- Power supply included
- 1U - Height

See Configuration Note:1, 3

PDU Cable NA/MEX/TW/JP — JE069A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW — JE069A#B2C
- C15 PDU Jumper Cord (ROW)

HP 5120-48G-PoE+ EI Switch w/2 Intf Slts — JG237A
- 48 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=4 SFP Transceivers
- 2 port expansion module slots
- Power supply included

See Configuration Note:1, 3

Configuration

- 1U - Height

PDU Cable NA/MEX/TW/JP JG237A#B2B

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

PDU Cable ROW JG237A#B2C

- C15 PDU Jumper Cord (ROW)

Configuration Rules:

Note 1	The following Transceivers install into this Switch	
	HP X120 1G SFP LC SX Transceiver	JD118B
	HP X120 1G SFP LC LX Transceiver	JD119B
	HP X120 1G SFP RJ45 T Transceiver	JD089B
	HP X120 1G SFP LC BX 10-U Transceiver	JD098B
	HP X120 1G SFP LC BX 10-D Transceiver	JD099B
	HP 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
Note 3	Localization (Wall Power Cord) required on orders without #B2B, #B2C (PDU Power Cord) or #B2E. (See Localization Menu)	
Remark	Drop down under power supply should offer the following options and results: Switch/Router/Power Supply to PDU Power Cord - #B2B in North America, Mexico, Taiwan, and Japan or #B2C ROW. (Watson Default B2B or B2C for Rack Level CTO) Switch/Router/Power Supply to Wall Power Cord - Localized Option (Watson Default for BTO and Box Level CTO) High Volt Switch/Router/Power Supply to Wall Power Cord - #B2E Option. (Offered only in North America, Mexico, Taiwan, and Japan)	

Box Level Integration CTO Models

CTO Solution Sku

HP 51xx CTO Switch Solution JG706A

- SSP trigger sku

CTO Switch Chassis

HP 5120-24G EI Switch - CTO JE066A

See Configuration Note:1, 3, 5,7

- 24 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=4 SFP Transceivers
- 0 port expansion module slots
- 1 - Power Supply Included

Configuration

- 1U - Height

PDU Cable NA/MEX/TW/JP — JE066A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW — JE066A#B2C
- C15 PDU Jumper Cord (ROW)

HP 5120-24G EI Switch with 2 Slots - CTO — JE068A
- 24 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=4 SFP Transceivers
- 2 - port expansion module slots
- 1 - Power Supply Included
- 1U - Height

See Configuration Note:1, 3, 5,7

PDU Cable NA/MEX/TW/JP — JE068A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW — JE068A#B2C
- C15 PDU Jumper Cord (ROW)

HP 5120-24G-PoE+ EI Switch w/2 Intf Slts - CTO — JG236A
- 24 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=4 SFP Transceivers
- 2 - port expansion module slots
- 1 - Power Supply Included
- 1U - Height

See Configuration Note:1, 3, 5,7

PDU Cable NA/MEX/TW/JP — JG236A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW — JG236A#B2C
- C15 PDU Jumper Cord (ROW)

HP 5120-48G EI Switch - CTO — JE067A
- 48 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=4 SFP Transceivers

See Configuration Note:1, 3, 4, 5,7

Configuration

- 0 - port expansion module slots
- 1 - Power Supply Included
- 1U - Height

PDU Cable NA/MEX/TW/JP — JE067A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW — JE067A#B2C
- C15 PDU Jumper Cord (ROW)

HP 5120-48G EI Switch with 2 Slots - CTO — JE069A
- 48 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=4 SFP Transceivers
- 2 - port expansion module slots
- 1 - Power Supply Included
- 1U - Height

See Configuration Note:1, 3, 5,7

PDU Cable NA/MEX/TW/JP — JE069A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW — JE069A#B2C
- C15 PDU Jumper Cord (ROW)

HP 5120-48G-PoE+ EI Switch w/2 Intf Slts - CTO — JG237A
- 48 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=4 SFP Transceivers
- 2 - port expansion module slots
- 1 - Power Supply Included
- 1U - Height

See Configuration Note:1, 3, 5,7

PDU Cable NA/MEX/TW/JP — JG237A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW — JG237A#B2C
- C15 PDU Jumper Cord (ROW)

Configuration Rules:

Configuration

Note 1	The following Transceivers install into this Switch: (Use #0D1 if switch is CTO)	
	HP X120 1G SFP LC SX Transceiver	JD118B
	HP X120 1G SFP LC LX Transceiver	JD119B
	HP X120 1G SFP RJ45 T Transceiver	JD089B
	HP X120 1G SFP LC BX 10-U Transceiver	JD098B
	HP X120 1G SFP LC BX 10-D Transceiver	JD099B
	HP 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

Note 3 Localization (Wall Power Cord) required on orders without #B2B, #B2C (PDU Power Cord) or #B2E. (See Localization Menu)

Note 5 If this Switch is selected, Then a Minimum of 1 factory integrated accessory must be ordered and integrated to CTO chassis. See Menu below, option must have a #0D1 to be integrated to the CTO Chassis.

Note 7 If the Switch Chassis is to be Box Level Factory Integrated (CTO), Then the #0D1 is required on the Switch Chassis and integrated to the JG706A - HP 51xx CTO Enablement. (Min 1/Max 1 Switch per SSP)

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

Rack Level Integration CTO Models

Switch Chassis

HP 5120-24G EI Switch — JE066A

See Configuration Note:1, 3, 10

- 24 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=4 SFP Transceivers
- 0 port expansion module slots
- Power supply included
- 1U - Height

PDU Cable NA/MEX/TW/JP — JE066A#B2B

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

PDU Cable ROW — JE066A#B2C

- C15 PDU Jumper Cord (ROW)

HP 5120-24G EI Switch with 2 Slots — JE068A

See Configuration

- 24 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP

Configuration

- min=0 \ max=4 SFP Transceivers
- 2 port expansion module slots
- Power supply included
- 1U - Height

Note:1, 3, 10

PDU Cable NA/MEX/TW/JP — JE068A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW — JE068A#B2C
- C15 PDU Jumper Cord (ROW)

HP 5120-24G-PoE+ EI Switch w/2 Intf Slts — JG236A
- 24 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=4 SFP Transceivers
- 2 port expansion module slots
- Power supply included
- 1U - Height

See Configuration
Note:1, 3, 10

PDU Cable NA/MEX/TW/JP — JG236A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW — JG236A#B2C
- C15 PDU Jumper Cord (ROW)

HP 5120-48G EI Switch — JE067A
- 48 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=4 SFP Transceivers
- 0 port expansion module slots
- Power supply included
- 1U - Height

See Configuration
Note:1, 3, 10

PDU Cable NA/MEX/TW/JP — JE067A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW — JE067A#B2C
- C15 PDU Jumper Cord (ROW)

HP 5120-48G EI Switch with 2 Slots — JE069A

Configuration

- 48 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=4 SFP Transceivers
- 2 port expansion module slots
- Power supply included
- 1U - Height

See Configuration Note:1, 3, 10

PDU Cable NA/MEX/TW/JP — JE069A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW — JE069A#B2C
- C15 PDU Jumper Cord (ROW)

HP 5120-48G-PoE+ EI Switch w/2 Intf Slts — JG237A
- 48 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP
- min=0 \ max=4 SFP Transceivers
- 2 port expansion module slots
- Power supply included
- 1U - Height

See Configuration Note:1, 3, 10

PDU Cable NA/MEX/TW/JP — JG237A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW — JG237A#B2C
- C15 PDU Jumper Cord (ROW)

Configuration Rules:

Note 1 The following Transceivers install into this Switch:

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

Note 3 Localization (Wall Power Cord) required on orders without #B2B, #B2C (PDU Power Cord) . (See Localization Menu) REMARK: When Switches/Routers are Factory Racked, Then #B2B, or #B2C should be the Defaulted Power Cable option on the Switches/Routers.

Note 10 If HP CTO Switch Chassis is selected for Rack Level Integration, Then the Switch needs to integrate (with #0D1) to the

Configuration

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)

Switch Enclosure Options

External/Redundant Power Supplies

HP RPS 800 Redundant Power Supply • Height = 1U • includes 1 x c13, 800w	JD183A See Configuration Note:2, 3
HP RPS1600 Redundant Power System • Height = 1U • includes 1 x c13, 1600w and Power Supply port	JG136A See Configuration Note:2, 3
HP RPS1600 1600W AC Power Supply • Installs into JG136A only	JG137A See Configuration Note:1

Configuration Rules:

Note 1 If this power supply is selected, The JG136A - HP A-RPS1600 Redundant Power System must be on order or onsite.

Note 2 Localization required. (See Localization Menu for list.)

Note 3 Only 1 JD183A or JG136A can be connected per switch.

External/Redundant Power Cables

HP X290 1000 A JD5 2m RPS Cable	JD187A
HP X290 500/800 1m RPS Cable	JD190A

Enter the following menu selections as integrated to the CTO Model X above if order is factory built.

Modules

(Switch JE066x and JE067x) No Modules supported

(All other Switches) System (std 0 // max 2) User Selection (min 0 // max 2)

HP 5500 2-port 10GbE XFP Module	JD359B

Configuration

• min=0 \ max=2 XFP Transceivers	See Configuration Note:2, 5, 6
HP 5500 2-port 10GbE Local Connect Mod	JD360B
• min=0 \ max=2 CX4 Cables	See Configuration Note:4, 5, 6
HP 5500 1-port 10GbE XFP Module	JD361B
• min=0 \ max=1 XFP Transceivers	See Configuration Note:2, 5, 6
HP 5500/5120 2-port 10GbE SFP+ Module	JD368B
• min=0 \ max=2 SFP+ Transceivers	See Configuration Note:1, 5, 6
HP 5500/4800 2-port GbE SFP Module	JD367A
• min=0 \ max=2 SFP Transceivers	See Configuration Note:3, 5, 6
HP 5500/5120 2p 10GBASE-T Module	JG535A
• No Transceivers	See Configuration Note:5, 6

Configuration Rules:

Note 1	The following Transceivers install into this Module: (Use #0D1 if switch is CTO)	
	HP X130 10G SFP+ LC ER 40km Transceiver	JG234A
	HP X130 10G SFP+ LC SR Transceiver	JD092B
	HP X130 10G SFP+ LC LRM Transceiver	JD093B
	HP X130 10G SFP+ LC LR Transceiver	JD094B
	HP X240 10G SFP+ to SFP+ 0.65m Direct Attach Copper Cable	JD095C
	HP X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable	JD096C
	HP X240 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	JD097C
	HP X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable	JC784C
	HP X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable	JG081C
	HP X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable	JC784C
Note 2	The following Transceivers install into this Module: (Use #0D1 if switch is CTO)	
	HP X135 10G XFP LC ER Transceiver	JD121A
	HP X130 10G XFP LC LR Single Mode 10km 1310nm Transceiver	JD108B
	HP X130 10G XFP LC SR Transceiver	JD117B
Note 3	The following Transceivers install into this Module: (Use #0D1 if switch is CTO)	
	HP X120 1G SFP LC SX Transceiver	JD118B
	HP X120 1G SFP LC LX Transceiver	JD119B
	HP X120 1G SFP RJ45 T Transceiver	JD089B
	HP X120 1G SFP LC BX 10-U Transceiver	JD098B
	HP X120 1G SFP LC BX 10-D Transceiver	JD099B
	HP X125 1G SFP LC LH40 1310nm Transceiver	JD061A

Configuration

	HP X120 1G SFP LC LH40 1550nm Transceiver	JD062A
	HP X125 1G SFP LC LH70 Transceiver	JD063B
Note 4	The following Cables install into this Module: (Use #B01 if switch is CTO)	
	HP X230 Local Connect 50cm CX4 Cable	JD363B
	HP X230 Local Connect 100cm CX4 Cable	JD364B
	HP X230 CX4 to CX4 3m Cable	JD365A
	Note: Two JD365A - HP X230 CX4 to CX4 3m Cable should be added by default if Module is selected.	
Note 5	If factory intergrated into the switch, This Module must be ordered as #0D1 when the switch is not Factory Racked	
Note 6	If factory intergrated into the switch, This Module must be ordered as #B01 when the switch is Factory Racked (Rack Level Integration CTO).	

Transceivers

SFP Transceivers

HP X120 1G SFP LC SX Transceiver	JD118B
HP X120 1G SFP LC LX Transceiver	JD119B
HP X120 1G SFP RJ45 T Transceiver	JD089B
HP X120 1G SFP LC BX 10-U Transceiver	JD098B
HP X120 1G SFP LC BX 10-D Transceiver	JD099B
HP X120 1G SFP LC LH40 1550nm XCVR	JD062A
HP X125 1G SFP LC LH40 1310nm Transceiver	JD061A
HP X125 1G SFP LC LH70 Transceiver	JD063B

SFP+ Transceivers

HP X130 10G SFP+ LC ER 40km Transceiver	JG234A
HP X130 10G SFP+ LC SR Transceiver	JD092B
HP X130 10G SFP+ LC LRM Transceiver	JD093B
HP X130 10G SFP+ LC LR Transceiver	JD094B
HP X240 10G SFP+ to SFP+ 0.65m Direct Attach Copper Cable	JD095C
HP X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable	JD096C

Configuration

HP X240 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	JD097C
HP X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable	JG081C
HP X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable	JC784C

XFP Transceivers

HP X130 10G XFP LC LR Single Mode 10km 1310nm Transceiver	JD108B
HP X130 LC SR XFP Transceiver	JD117B
HP X135 10G XFP LC ER Transceiver	JD121A

Cables

Local Connect Cables

HP X230 Local Connect 50cm CX4 Cable	JD363B
HP X230 Local Connect 100cm CX4 Cable	JD364B
HP X230 CX4 to CX4 3m Cable	JD365A
HP X230 Local Connect 50cm CX4 Cable	JD363B
HP X230 Local Connect 100cm CX4 Cable	JD364B
HP X230 CX4 to CX4 3m Cable	JD365A

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

Configuration

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

Opacity Shield Kit

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

HP 5500/5120 Gig-T EI Opcty Shld Kit • Supported on JG245A, JG246A	JG557A See Configuration Note:1
HP 5500/5120 Gig-T PoE EI Opcty Shld Kit • Supported on JG247A, JG248A	JG559A See Configuration Note:1

Configuration Rules:

Note 1 If selected with a CTO Switch Solution, Quantity 1 of JG585A#B01 must also be ordered.

Tamper Evidence Labels

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

HP 12mm x 60mm Tmpr-Evidence (30) Lbl • Supported on JG557A or JG559A	JG585A See Configuration Note:1

Configuration Rules:

Note 1 If selected with a CTO Switch Solution, Quantity 1 of JG557A#B01 or JG559A#B01 must also be ordered.

Remarks: Each JG557A or JG559A would use 1 of JG585A

Technical Specifications

HP 5120-48G EI Switch with 2 Interface Slots (JE069A)

Ports	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); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	
	4 dual-personality ports; auto-sensing 10/100/1000Base-T or SFP	
	2 port expansion module slots	
	1 RJ-45 serial console port	
	Supports a maximum of 48 autosensing 10/100/1000 ports	
Physical characteristics	**Dimensions**	17.32(w) x 11.81(d) x 1.72(h) in (44 x 30 x 4.36 cm) (1U height)
	Weight	11.02 lb. (5 kg)
Memory and processor	128 MB SDRAM, 16 MB flash; packet buffer size: 4 MB	
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	
Performance	**1000 Mb Latency**	< 3.2 µs
	10 Gbps Latency	< 2.6 µs
	Throughput	142.9 million pps
	Routing/Switching capacity	192 Gbps
	Routing table size	32 entries (IPv4)
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	ISO 7779
Electrical characteristics	**Maximum heat dissipation**	495 BTU/hr (522.23 kJ/hr)
	Voltage	100-240 VAC
	Idle power	55 W
	Maximum power rating	145 W
	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.
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; ROHS Compliance	
Emissions	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; ICES-003 Class A; ANSI C63.4 2003; ETSI EN 300 386 V1.3.3; AS/NZS CISPR22 Class A; EN 61000-3-2; EN 61000-3-3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-4-11; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A	
Management	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager	
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UV858E)	

Technical Specifications

3-year, 4-hour onsite, 24x7 coverage for hardware (UV861E)
3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UV864E)
3-year, 24x7 SW phone support, software updates (UV867E)
1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR584E)
1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR585E)
1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR586E)
4-year, 4-hour onsite, 13x5 coverage for hardware (UV859E)
4-year, 4-hour onsite, 24x7 coverage for hardware (UV862E)
4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV865E)
4-year, 24x7 SW phone support, software updates (UV868E)
5-year, 4-hour onsite, 13x5 coverage for hardware (UV860E)
5-year, 4-hour onsite, 24x7 coverage for hardware (UV863E)
5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV866E)
5-year, 24x7 SW phone support, software updates (UV869E)
3 Yr 6 hr Call-to-Repair Onsite (UW963E)
4 Yr 6 hr Call-to-Repair Onsite (UW964E)
5 Yr 6 hr Call-to-Repair Onsite (UW965E)
1-year, 6 hour Call-To-Repair Onsite for hardware (HR588E)
1-year, 24x7 software phone support, software updates (HR587E)
1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS682E)
1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS683E)
4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS686E)
4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS687E)
5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS688E)

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 5120-48G EI Switch (JE067A)

Ports	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); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	
	4 dual-personality ports; auto-sensing 10/100/1000Base-T or SFP	
	1 RJ-45 serial console port	
	Supports a maximum of 48 autosensing 10/100/1000 ports	
Physical characteristics	**Dimensions**	17.32(w) x 11.81(d) x 1.72(h) in (44 x 30 x 4.37 cm) (1U height)
	Weight	11.02 lb. (5 kg)
Memory and processor	128 MB SRAM, 16 MB flash; packet buffer size: 4 MB	
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	
Performance	**1000 Mb Latency**	< 3.2 µs
	Throughput	71.4 million pps
	Routing/Switching capacity	96 Gbps
	Routing table size	32 entries (IPv4)
Environment	**Operating temperature**	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	10% to 90%, noncondensing

Technical Specifications

	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	5% to 95%, noncondensing
	Acoustic	ISO 7779
Electrical characteristics	**Maximum heat dissipation**	375 BTU/hr (395.63 kJ/hr)
	Voltage	100-240 VAC
	Idle power	54 W
	Maximum power rating	110 W
	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.
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; ROHS Compliance	
Emissions	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; ICES-003 Class A; ANSI C63.4 2003; ETSI EN 300 386 V1.3.3; AS/NZS CISPR22 Class A; EN 61000-3-2; EN 61000-3-3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-4-11; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A	
Management	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager	

Technical Specifications

Services

3-year, 4-hour onsite, 13x5 coverage for hardware (UV858E)
3-year, 4-hour onsite, 24x7 coverage for hardware (UV861E)
3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UV864E)
3-year, 24x7 SW phone support, software updates (UV867E)
1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR584E)
1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR585E)
1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR586E)
4-year, 4-hour onsite, 13x5 coverage for hardware (UV859E)
4-year, 4-hour onsite, 24x7 coverage for hardware (UV862E)
4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV865E)
4-year, 24x7 SW phone support, software updates (UV868E)
5-year, 4-hour onsite, 13x5 coverage for hardware (UV860E)
5-year, 4-hour onsite, 24x7 coverage for hardware (UV863E)
5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV866E)
5-year, 24x7 SW phone support, software updates (UV869E)
3 Yr 6 hr Call-to-Repair Onsite (UW963E)
4 Yr 6 hr Call-to-Repair Onsite (UW964E)
5 Yr 6 hr Call-to-Repair Onsite (UW965E)
1-year, 6 hour Call-To-Repair Onsite for hardware (HR588E)
1-year, 24x7 software phone support, software updates (HR587E)
1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS682E)
1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS683E)
4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS686E)
4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS687E)
5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS688E)

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 5120-24G EI Switch with 2 Interface Slots (JE068A)

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 dual-personality ports; auto-sensing 10/100/1000Base-T or SFP	
	2 port expansion module slots	
	1 RJ-45 serial console port	
Physical characteristics	**Dimensions**	17.32(w) x 11.81(d) x 1.72(h) in (44 x 30 x 4.37 cm) (1U height)
	Weight	9.92 lb. (4.5 kg)
Memory and processor	128 MB SDRAM, 16 MB flash; packet buffer size: 2 MB	
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	
Performance	**1000 Mb Latency**	< 3.2 µs
	10 Gbps Latency	< 2.6 µs
	Throughput	107.2 million pps
	Routing/Switching capacity	144 Gbps
	Routing table size	32 entries (IPv4)
Environment	**Operating temperature**	32°F to 113°F (0°C to 45°C)

Technical Specifications

	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	ISO 7779
Electrical characteristics	**Maximum heat dissipation**	362 BTU/hr (381.91 kJ/hr)
	Voltage	100-240 VAC
	Idle power	36 W
	Maximum power rating	106 W
	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.
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; ROHS Compliance	
Emissions	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; ICES-003 Class A; ANSI C63.4 2003; ETSI EN 300 386 V1.3.3; AS/NZS CISPR22 Class A; EN 61000-3-2; EN 61000-3-3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-4-11; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A	
Management	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager	
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UV858E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV861E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UV864E) 3-year, 24x7 SW phone support, software updates (UV867E) 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR584E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR585E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR586E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV859E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV862E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV865E) 4-year, 24x7 SW phone support, software updates (UV868E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV860E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV863E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV866E) 5-year, 24x7 SW phone support, software updates (UV869E) 3 Yr 6 hr Call-to-Repair Onsite (UW963E) 4 Yr 6 hr Call-to-Repair Onsite (UW964E) 5 Yr 6 hr Call-to-Repair Onsite (UW965E) 1-year, 6 hour Call-To-Repair Onsite for hardware (HR588E) 1-year, 24x7 software phone support, software updates (HR587E) 1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS682E) 1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS683E) 4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange	

Technical Specifications

(HS686E)
4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS687E)
5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS688E)

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 5120-24G EI Switch (JE066A)

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 dual-personality ports; auto-sensing 10/100/1000Base-T or SFP	
	1 RJ-45 serial console port	
Physical characteristics	**Dimensions**	17.32(w) x 11.81(d) x 1.72(h) in (44 x 30 x 4.36 cm) (1U height)
	Weight	9.92 lb. (4.5 kg)
Memory and processor	128 MB SDRAM, 16 MB flash; packet buffer size: 2 MB	
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	
Performance	**1000 Mb Latency**	< 3.2 µs
	Throughput	35.7 million pps
	Routing/Switching capacity	48 Gbps
	Routing table size	32 entries (IPv4)
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	ISO 7779
Electrical characteristics	**Maximum heat dissipation**	212 BTU/hr (223.66 kJ/hr)
	Voltage	100-240 VAC
	Idle power	35 W
	Maximum power rating	62 W
	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.
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	

Technical Specifications

	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	3-year, 4-hour onsite, 13x5 coverage for hardware (UV858E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV861E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UV864E) 3-year, 24x7 SW phone support, software updates (UV867E) 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR584E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR585E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR586E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR670E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV859E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV862E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV865E) 4-year, 24x7 SW phone support, software updates (UV868E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV860E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV863E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV866E) 5-year, 24x7 SW phone support, software updates (UV869E) 3 Yr 6 hr Call-to-Repair Onsite (UW963E) 4 Yr 6 hr Call-to-Repair Onsite (UW964E) 5 Yr 6 hr Call-to-Repair Onsite (UW965E) 1-year, 6 hour Call-To-Repair Onsite for hardware (HR588E) 1-year, 24x7 software phone support, software updates (HR587E) 1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS682E) 1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS683E) 4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS686E) 4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS687E) 5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS688E) 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 5120-48G-PoE+ EI Switch with 2 Interface Slots (JG237A)

Ports	48 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+); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	
	4 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SFP	
	2 port expansion module slots	
	1 RJ-45 serial console port	
	Supports a maximum of 48 autosensing 10/100/1000 ports	
Physical characteristics	**Dimensions**	17.32(w) x 16.54(d) x 1.72(h) in (43.99 x 42.01 x 4.37 cm) (1U height)
	Weight	16.53 lb. (7.5 kg)
Memory and processor	128 MB SDRAM, 16 MB flash; packet buffer size: 4 MB	
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	
Performance	**1000 Mb Latency**	< 3.2 µs
	10 Gbps Latency	< 2.6 µs

Technical Specifications

	Throughput	142.9 million pps
	Routing/Switching capacity	192 Gbps
	Routing table size	32 entries (IPv4)
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	10% to 90%, noncondensing
Electrical characteristics	**Maximum heat dissipation**	614 BTU/hr (647.77 kJ/hr)
	Voltage	100-240 VAC
	DC voltage	-52 to -55 VDC
	Idle power	78 W
	Maximum power rating	920 W
	PoE power	740 W
	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. 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 AC input, the Max power consumption is 550 W (370 W for PoE).
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; ROHS Compliance	
Emissions	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; ICES-003 Class A; ANSI C63.4 2003; ETSI EN 300 386 V1.3.3; AS/NZS CISPR22 Class A; EN 61000-3-2; EN 61000-3-3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-4-11; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47, Part 15) Class A	
Management	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager	
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UV858E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV861E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UV864E) 3-year, 24x7 SW phone support, software updates (UV867E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV859E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV862E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV865E) 4-year, 24x7 SW phone support, software updates (UV868E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV860E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV863E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV866E) 5-year, 24x7 SW phone support, software updates (UV869E) 3 Yr 6 hr Call-to-Repair Onsite (UW963E) 4 Yr 6 hr Call-to-Repair Onsite (UW964E)	

	5 Yr 6 hr Call-to-Repair Onsite (UW965E) 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 5120-24G-PoE+ EI Switch with 2 Interface Slots (JG236A)

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 dual-personality ports; PoE auto-sensing 10/100/1000Base-T or SPF	
	2 port expansion module slots	
	1 RJ-45 serial console port	
Physical characteristics	**Dimensions**	17.32(w) x 16.54(d) x 1.72(h) in (43.99 x 42.01 x 4.37 cm) (1U height)
	Weight	15.43 lb. (7 kg)
Memory and processor	128 MB SDRAM, 16 MB flash; packet buffer size: 2 MB	
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	
Performance	**1000 Mb Latency**	< 3.2 µs
	10 Gbps Latency	< 2.6 µs
	Throughput	107.2 million pps
	Routing/Switching capacity	144 Gbps
	Routing table size	32 entries (IPv4)
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
Electrical characteristics	**Maximum heat dissipation**	425 BTU/hr (448.38 kJ/hr)
	Voltage	100-240 VAC
	DC voltage	-52 to -55 VDC
	Idle power	55 W
	Maximum power rating	495 W
	PoE power	370 W
	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. 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).
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	

Technical Specifications

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
3-year, 4-hour onsite, 13x5 coverage for hardware (UV858E)
3-year, 4-hour onsite, 24x7 coverage for hardware (UV861E)
3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UV864E)
3-year, 24x7 SW phone support, software updates (UV867E)
4-year, 4-hour onsite, 13x5 coverage for hardware (UV859E)
4-year, 4-hour onsite, 24x7 coverage for hardware (UV862E)
4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV865E)
4-year, 24x7 SW phone support, software updates (UV868E)
5-year, 4-hour onsite, 13x5 coverage for hardware (UV860E)
5-year, 4-hour onsite, 24x7 coverage for hardware (UV863E)
5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV866E)
5-year, 24x7 SW phone support, software updates (UV869E)
3 Yr 6 hr Call-to-Repair Onsite (UW963E)
4 Yr 6 hr Call-to-Repair Onsite (UW964E)
5 Yr 6 hr Call-to-Repair Onsite (UW965E)

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

Standards and protocols (applies to all products in series)

Device management
RFC 1157 SNMPv1/v2c
RFC 1305 NTPv3
RFC 2573 (SNMPv3 Applications)
RFC 2819 (RMON groups Alarm, Event, History and Statistics only)
RFC 3416 (SNMP Protocol Operations v2)
HTML and telnet management
Multiple Configuration Files
SNMP v3 and RMON RFC support
SSHv1/SSHv2 Secure Shell
TACACS/TACACS+
Web UI

General protocols
IEEE 802.1ad Q-in-Q
IEEE 802.1D MAC Bridges
IEEE 802.1p Priority
IEEE 802.1Q VLANs
IEEE 802.1s Multiple Spanning Trees
IEEE 802.1w Rapid Reconfiguration of Spanning Tree
IEEE 802.1X PAE
IEEE 802.3 Type 10BASE-T
IEEE 802.3ab 1000BASE-T
IEEE 802.3ad Link Aggregation Control Protocol (LACP)
IEEE 802.3ae 10-Gigabit Ethernet
IEEE 802.3af Power over Ethernet
RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)
RFC 3576 Ext to RADIUS (CoA only)
RFC 4213 Basic IPv6 Transition Mechanisms
RFC 4675 RADIUS VLAN & Priority
802.1r - GARP Proprietary Attribute Registration Protocol (GPRP)

IPv6
RFC 2461 IPv6 Neighbor Discovery
RFC 2463 ICMPv6
RFC 3162 RADIUS and IPv6
RFC 3306 Unicast-Prefix-based IPv6 Multicast Addresses
RFC 3315 DHCPv6 (client and relay)

MIBs
RFC 1212 Concise MIB Definitions
RFC 1213 MIB II
RFC 1493 Bridge MIB
RFC 1757 Remote Network Monitoring MIB
RFC 2096 IP Forwarding Table MIB
RFC 2233 Interface MIB
RFC 2571 SNMP Framework MIB
RFC 2572 SNMP-MPD MIB
RFC 2573 SNMP-Notification MIB
RFC 2573 SNMP-Target MIB
RFC 2574 SNMP USM MIB
RFC 2618 RADIUS Authentication Client MIB

IEEE 802.3i 10BASE-T
IEEE 802.3u 100BASE-X
IEEE 802.3x Flow Control
IEEE 802.3z 1000BASE-X
RFC 768 UDP
RFC 783 TFTP Protocol (revision 2)
RFC 791 IP
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 854 TELNET
RFC 951 BOOTP
RFC 1213 Management Information Base for Network Management of TCP/IP-based internets
RFC 1305 NTPv3
RFC 1350 TFTP Protocol (revision 2)
RFC 1519 CIDR
RFC 1812 IPv4 Routing
RFC 1866 Hypertext Markup Language - 2.0
RFC 2131 DHCP
RFC 2236 IGMP Snooping
RFC 2616 HTTP Compatibility v1.1
RFC 2665 Definitions of Managed Objects for the Ethernet-like Interface Types
RFC 2668 Definitions of Managed Objects for IEEE 802.3 Medium Attachment Units (MAUs)
RFC 2865 Remote Authentication Dial In User Service (RADIUS)
RFC 2866 RADIUS Accounting
RFC 3414 User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3)
RFC 3415 View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP)
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 2737 Entity MIB (Version 2)
RFC 2819 RMON MIB
RFC 2863 The Interfaces Group 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 3621 Power Ethernet MIB

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

Security
IEEE 802.1X Port Based Network Access Control
RFC 1492 TACACS+
RFC 2138 RADIUS Authentication
RFC 2139 RADIUS Accounting
RFC 2865 RADIUS (client only)
RFC 2866 RADIUS Accounting
Secure Sockets Layer (SSL)
SSHv2 Secure Shell

Accessories

HP 5120 EI Switch Series accessories

Modules	
HP 5500 2-port 10GbE XFP Module	JD359B
HP 5500 2-port 10GbE Local Connect Module	JD360B
HP 5500 1-port 10GbE XFP Module	JD361B
HP 5500/5120 2-port 10GbE SFP+ Module	JD368B
HP 5500/4800 2-port GbE SFP Module	JD367A
NEW HP 5500/5120 2-port 10GBASE-T Module	JG535A
Transceivers	
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 SX Transceiver	JD118B
HP X130 10G SFP+ LC SR Transceiver	JD092B
HP X130 10G SFP+ LC LRM Transceiver	JD093B
HP X130 10G SFP+ LC LR Transceiver	JD094B
HP X240 10G SFP+ to SFP+ 0.65m Direct Attach Copper Cable	JD095C
HP X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable	JD096C
HP X240 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	JD097C
HP X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable	JG081C
HP X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable	JC784C
HP X130 10G XFP LC LR Transceiver	JD108B
HP X130 10G XFP LC SR Transceiver	JD117B
HP X120 1G SFP LC SX Transceiver	JD118B
HP X120 1G SFP LC LX Transceiver	JD119B
HP X120 1G SFP RJ45 T Transceiver	JD089B
HP X135 10G XFP LC ER Transceiver	JD121A
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
HP X130 10G SFP+ LC ER 40km Transceiver	JG234A
Cables	
HP X230 CX4 to CX4 3m Cable	JD365A
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 X230 Local Connect 50cm CX4 Cable	JD363B
Power Supply	
HP RPS 800 Redundant Power Supply	JD183A

Accessories

HP RPS1600 Redundant Power System	JG136A
HP RPS1600 1600W AC Power Supply	JG137A
Power Cords	
HP X290 1000 A JD5 2m RPS Cable	JD187A
HP X290 500/800 1m RPS Cable	JD190A

Accessory Product Details

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

HP 5500 2-port 10GbE XFP Module (JD359B)	**Ports**		2 XFP 10-GbE ports; Duplex: full only
	Services		Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 5500 1-port 10GbE XFP Module (JD361B)	**Ports**		1 XFP 10-GbE port; Duplex: full only
	Services		Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 5500/4800 2-port GbE SFP Module (JD367A)	**Ports**		2 SFP 1000 Mbps ports
	Services		Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP X125 1G SFP LC LH40 1310nm Transceiver (JD061A) A small form-factor pluggable SFP Gigabit LH40 transceiver that provides a full duplex Gigabit solution up to 40km on a single-mode fiber.	**Ports**		1 LC 1000Base-LH port (no IEEE standard exists for 1550 nm optics)
	Connectivity	Connector type	LC
		Wavelength	1310 nm
	Physical characteristics	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	Power consumption typical	0.8 W
		Power consumption maximum	1.0 W
	Cabling		Cable type: Single-mode fiber optic, complying with ITU-T G.652; Maximum distance: • 40km distance
		Fiber type	Single Mode
	Services		Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP X120 1G SFP LC LH40 1550nm Transceiver (JD062A) A small form-factor pluggable (SFP) Gigabit LH40 transceiver that provides a full-duplex	**Ports**		1 LC 1000BASE-LH port (no IEEE standard exists for 1550 nm optics)
	Connectivity	Connector type	LC
		Wavelength	1550 nm
	Physical characteristics	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	Power consumption typical	0.8 W

Accessory Product Details

Gigabit solution up to 40 km on a single mode fiber.		Power consumption maximum	1.0 W
	Cabling	Cable type: Single-mode fiber optic, complying with ITU-T G.652; Maximum distance: • 40km distance Fiber type	Single Mode
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	
HP X125 1G SFP LC LH70 Transceiver (JD063B) A small form-factor pluggable (SFP) Gigabit LH70 transceiver that provides a full-duplex Gigabit solution up to 70km on a single-mode fiber.	**Ports**	1 LC 1000BASE-LH port (no IEEE standard exists for 1550 nm optics)	
	Connectivity	**Connector type**	LC
		Wavelength	1550 nm
	Physical characteristics	**Dimensions**	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Cable type: Single-mode fiber optic, complying with ITU-T G.652; Maximum distance: • 70km Fiber type	Single Mode
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	
HP X120 1G SFP LC SX Transceiver (JD118B) A small form-factor pluggable (SFP) Gigabit SX transceiver that provides a full-duplex Gigabit solution up to 550m on a Multimode fiber.	**Ports**	1 LC 1000BASE-SX port	
	Connectivity	**Connector type**	LC
		Wavelength	850 nm
	Physical characteristics	**Dimensions**	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Maximum distance: • FDDI Grade distance = 220m • OM1 = 275m • OM2 = 500m	

Accessory Product Details

		• OM3 = Not Specified by standard	
		Cable length	up to 550m
		Fiber type	Multi Mode
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	
HP X120 1G SFP LC LX Transceiver (JD119B) A small form-factor pluggable (SFP) Gigabig LX transceiver that provides a full duplex Gigabit solution up to 550m on MMF or 10Km on SMF	**Ports**	1 SFP 1000BASE-LX port (IEEE 802.3z Type 1000BASE-LX)	
	Connectivity	**Connector type**	LC
		Wavelength	1300 nm
	Physical characteristics	**Dimensions**	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Cable type: Either single mode or multimode; Maximum distance: • 550m for Multimode • 10km for Singlemode	
		Fiber type	Both
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	
HP X120 1G SFP LC BX 10-U Transceiver (JD098B) A small form-factor pluggable (SFP) Gigabit LX-BX10-U transceiver that provides a full duplex Gigabit solution up to 10km on a single mode cable.	**Ports**	1 LC 1000BASE-BX10 port (IEEE 802.3ah Type 1000BASE-BX10-U); Duplex: full only	
	Connectivity	**Connector type**	LC
	Physical characteristics	**Dimensions**	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Maximum distance: • 10km	
		Fiber type	Single Mode
	Notes	TX 1310nm RX 1490nm	
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

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

HP X125 1G SFP RJ45 T Transceiver (JD089B) A small form factor pluggable (SFP) Gigabit 1000Base-T transceiver that provides a full duplex Gigabit solution up to 100m on a Cat-5+ cable.	**Ports**	1 RJ-45 1000BASE-T port (IEEE 802.3ab Type 1000BASE-T)	
	Connectivity	**Connector type**	RJ-45
	Physical characteristics	**Dimensions**	2.71(d) x 0.54(w) x 0.55(h) in. (6.88 x 1.37 x 1.4 cm)
		Full configuration weight	0.07 lb. (0.03 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Cable type: 1000BASE-T: Category 5 (5E or better recommended), 100 Ù differential 4-pair unshielded twisted pair (UTP) or shielded twisted pair (STP) balanced, complying with IEEE 802.3ab 1000BASE-T; Maximum distance: • 100m	
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

HP 0.5 m Multimode OM3 LC/LC Optical Cable (AJ833A)	**Cabling**	**Cable type**: 50/125 µm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m **Maximum distance**: 10Gbps Transfer Rate (Ethernet): 300m	
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical glass: Bandwidth: For LED sources: 1500/500 MHz-km	

		@850/1300nm. • Optical glass: Bandwidth: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber and designed to work in both the 850 and 1300 nm wavelength windows. • BULK CABLE & CABLE ASSEMBLY CONFIGURATION: • Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. • Jacket Color: Aqua for OM3 multimode per TIA 598 • Boot Color: White • Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. • Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. • Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 1 m Multimode OM3 LC/LC Optical Cable (AJ834A)	**Cabling**	**Cable type**: 50/125 µm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m **Maximum distance**: 10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. • BULK CABLE & CABLE ASSEMBLY CONFIGURATION: • Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. • Jacket Color: Aqua for OM3 multimode per TIA 598 • Boot Color: White • Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. • Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.

		• Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)	**Cabling**	**Cable type**: 50/125 µm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m; **Maximum distance**: 10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. • BULK CABLE & CABLE ASSEMBLY CONFIGURATION: • Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. • Jacket Color: Aqua for OM3 multimode per TIA 598 • Boot Color: White • Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. • Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. • Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 5 m Multimode OM3 LC/LC Optical Cable (AJ836A)	**Cabling**	**Cable type**: 50/125 µm core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m; **Maximum distance**: 10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: This specification defines the detail requirements for a tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable

		and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. • BULK CABLE & CABLE ASSEMBLY CONFIGURATION: • Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. • Jacket Color: Aqua for OM3 multimode per TIA 598 • Boot Color: White • Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. • Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. • Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 15 m Multimode OM3 LC/LC Optical Cable (AJ837A)	**Cabling**	**Cable type**: 50/125 µm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m; **Maximum distance**: 10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. • BULK CABLE & CABLE ASSEMBLY CONFIGURATION: • Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.

		• Jacket Color: Aqua for OM3 multimode per TIA 598 • Boot Color: White • Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. • Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. • Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 30 m Multimode OM3 LC/LC Optical Cable (AJ838A)	**Cabling**	**Cable type**: 50/125 µm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m; **Maximum distance**: 10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. • BULK CABLE & CABLE ASSEMBLY CONFIGURATION: • Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. • Jacket Color: Aqua for OM3 multimode per TIA 598 • Boot Color: White • Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. • Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. • Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 50 m Multimode OM3 LC/LC Optical Cable (AJ839A)	**Cabling**	**Cable type**: 50/125 µm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for

		distances of up to 300 m; **Maximum distance**: 10Gbps Transfer Rate (Ethernet): 300m
	Notes	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. • BULK CABLE & CABLE ASSEMBLY CONFIGURATION: • Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. • Jacket Color: Aqua for OM3 multimode per TIA 598 • Boot Color: White • Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. • Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. • Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 0.5 m PremierFlex OM3+ LC/LC Optical Cable (BK837A)	**Notes**	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core diameter: 50um ± 3um; Cladding diameter: 125um ± 2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade - Low Smoke Zero Halogen (LSZH) thermoplastic. • Boot Color: White • Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL OFN FT4, ROHS. Cable also has a longitudal white stripe that runs the entire length of the cable. • Insertion Loss: less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46
	Services	Refer to the HP website at www.hp.com/networking/services for details on

		the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 1 m PremierFlex OM3+ LC/LC Optical Cable (BK838A)	**Notes**	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core Diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 2 m PremierFlex OM3+ LC/LC Optical Cable (BK839A)	**Notes**	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 5 m PremierFlex OM3+ LC/LC Optical Cable (BK840A)	**Notes**	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.

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		• Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 15 m PremierFlex OM3+ LC/LC Optical Cable (BK841A)	**Notes**	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 30 m PremierFlex OM3+ LC/LC Optical Cable (BK842A)	**Notes**	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um,

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			Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services		Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 50 m PremierFlex OM3+ LC/LC Optical Cable (BK843A)	**Notes**		Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services		Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP RPS1600 Redundant Power System (JG136A)	**Ports**		8 redundant power supply ports Restrictions: two -56V/25A DC(PoE); six -56V/8A DC(non-PoE)
	Physical characteristics	**Dimensions**	15.63(d) x 17.32(w) x 1.74(h) in. (39.7 x 44 x 4.42 cm)
		Weight	14.11 lb. (6.4 kg)
		Full configuration weight	16.75 lb. (7.6 kg)
	Environment	**Operating temperature**	14°F to 122°F (-10°C to 50°C)
		Operating relative humidity	5% to 95%
		Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
		Nonoperating/Storage relative humidity	5% to 95%
		Altitude	up to 13,123 ft. (4 km)
		Acoustic	Pressure: 53 dB; ISO 7779, ISO 9296
	Electrical characteristics	**Voltage**	100-120/200-240 VAC
		Current	30/60 A

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		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		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:
12-Dec-2014	From Version 29 to 30	Changed	Fixed minor error on the Accessories section
01-Dec-2014	From Version 28 to 29	Changed	Warranty and support updated
03-Jul-2014	From Version 27 to 28	Changed	Configuration menu updated.
10-Jun-2014	From Version 26 to 27	Added	Added Opacity Shield Kit and Tamper Evidence Labels to Configuration.
15-Apr-2014	From Version 25 to 26	Changed	Notes section in Modules was revised in Configuration.
17-Feb-2014	From Version 24 to 25	Changed	Transceivers and Cables were revised.
17-Dec-2013	From Version 23 to 24	Changed	Modules were revised in Configuration.
09-Dec-2013	From Version 22 to 23	Changed	Notes were revised in Modules.
08-Nov-2013	From Version 21 to 22	Changed	Standard Switch Chassis, Box Level Integration CTO Models, Rack Level Integration Models, and Modules were revised in Configuration.
09-Oct-2013	From Version 20 to 21	Removed	HP X110 100M SFP LC FX Dual Mode Transceiver and HP X110 SFP LC LX10 Transceiver were removed.
30-Sep-2013	From Version 18 to 20	Changed	Notes sections were revised in Configuration HP 5500/5120 2p 10GBASE-T Module was added to Modules
19-Aug-2013	From Version 17 to 18	Changed	Notes section was revised in Box Level Integration CTO Models.
12-Jul-2013	From Version 16 to 17	Added	Acoustic was added to Technical Specifications.
05-Jul-2013	From Version 14 to 16	Added	Configuration Modules were added. Accessories section was added.
21-Jun-2013	From Version 13 to 14	Added	Per-VLAN Spanning Tree Plus was added to Layer 2 Switching RFC 2138 RADIUS Authentication and RFC 2139 RADIUS Accounting were added to Standards and Protocols
10-Jun-2013	From Version 12 to 13	Changed	Overview and Configuration were revised.
22-Apr-2013	From Version 11 to 12	Added	Overview: Added images.
25-Mar-2013	From Version 10 to 11	Added	Overview: Added Build to Order and Models to the Features and benefits section.
		Removed	Overview: Removed products from the Models section Completely removed the Accessories section from QS
07-Dec-2012	From Version 8 to 9	Changed	A PDF formatting issue was corrected.
14-May-2012	From Version 7 to 8	Changed	Features and Benefits, Accessories, and the weight and dimensions for each spec were revised.
26-Sep-2011	From Version 3 to 7	Changed	Model descriptions were revised.
30-Aug-2011	From Version 2 to 3	Added	New models were added.

Summary of Changes

14-Mar-2011	From Version 1 to 2	Changed	Updated the accessories section.

Summary of Changes

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