HP 5500 HI Switch Series

Data sheet

Product overview

The HP 5500 HI Series of Gigabit Ethernet switches delivers outstanding resiliency, security, and multiservice support capabilities at the edge layer of data center, large campus, and metro Ethernet networks. The switches can also be used in the core layer of SMB networks. The HP 5500 HI Switch Series supports dual power supply and IRF virtual fabric to provide the highest levels of resiliency and manageability. With complete IPv4/IPv6 and MPLS/VPLS features, the series provides investment protection with an easy transition from IPv4 to IPv6 networks. Designed with two fixed 10G ports and extension flexibility, these switches can provide up to six 10-GbE uplink or 70 GbE ports.

Key features

- High expandability for investment protection
- Premium resiliency and integrated management
- Enhanced MPLS/VPLS support
- Full-featured IPv4/IPv6 dual stack
- Dual power supplies for high resiliency

Features and benefits

Quality of Service (QoS)

- **Advanced classifier-based QoS:** classifies traffic using multiple match criteria based on Layer 2, 3, and 4 information; applies QoS policies such as setting priority level and rate limit to selected traffic on a per-port or per-VLAN basis

- **Traffic policing:** supports Committed Access Rate (CAR) and line rate

- **Powerful QoS feature:** creates traffic classes based on access control lists (ACLs), IEEE 802.1p precedence, IP, DSCP or Type of Service (ToS) precedence; supports filter, redirect, mirror, or remark; supports the following congestion actions: strict priority (SP) queuing, weighted round robin (WRR), weighted fair queuing (WFQ), weighted random early discard (WRED), weighted deficit round robin (WDRR), and SP+WDRR

- **Storm restraint:** allows limitation of broadcast, multicast, and unknown unicast traffic rate to cut down on unwanted broadcast traffic on the network

Management

- **Friendly port names:** allow assignment of descriptive names to ports

- **sFlow (RFC 3176):** provides scalable ASIC-based wire-speed 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

- **Complete session logging:** provides detailed information for problem identification and resolution

- **Remote configuration and management:** is available through a secure Web browser or a command-line interface (CLI)

- **Manager and operator privilege levels:** enable read-only (operator) and read-write (manager) access on CLI and Web browser management interfaces

- **Management VLAN:** segments traffic to and from management interfaces, including CLI/telnet, a Web browser interface, and SNMP

- **Command authorization:** leverages RADIUS to link a custom list of CLI commands to an individual network administrator's login; also provides an audit trail

- **Secure Web GUI:** provides a secure, easy-to-use graphical interface for configuring the module via HTTPS

- **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

- **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

- **In-service software upgrade (ISSU):** enables operators to perform upgrades in the shortest possible amount of time with minimal risk to network operations or traffic disruptions

Connectivity

- **Auto-MDIX:** automatically adjusts for straight-through or crossover cables on all 10/100 and 10/100/1000 ports

- **Packet storm protection:** protects against broadcast, multicast, or unicast storms with user-defined thresholds

- **Ethernet OAM:** provides a Layer 2 link performance and fault detection monitoring tool, which reduces failover and network convergence times

- **Flow control:** using standard IEEE 802.3x, it provides back pressure to reduce congestion in heavy traffic situations

- **Fixed 10 GbE ports:** two fixed SFP+ ports provide a 20 GbE connection to the network without the need for additional extension interface modules

- **Optional 10 GbE ports:** through the use of optional modules, additional 10 GbE connections are available for uplinks or high-bandwidth server connections; flexibly supports XFP, SFP+, or CX4 local connections

- **Optional 8-port SFP module:** add up to eight additional wire-speed Gigabit ports for unprecedented Gigabit density in a single 1U enclosure

- **Jumbo packet support:** supports up to 9216-byte frame size to improve the performance of large data transfers

- **High-bandwidth CX4 local stacking:** when stacked using CX4 local stacking, achieves 12 Gbps per connection, allowing for up to 96 Gbps total stacking bandwidth (full duplex) in a resilient stacking configuration

Performance

- **Hardware-based wire-speed access control lists (ACLs):** feature-rich ACL implementation (TCAM-based) helps ensure high levels of security and ease of administration without impacting network performance

- **Nonblocking architecture:** up to 224 Gbps nonblocking switching fabric provides wire-speed switching with up to 167 million pps throughput

Resiliency and high availability

- **Separate data and control paths:** keeps control separated from services and keeps service processing isolated; increases security and performance

- **Device Link Detection Protocol (DLDP):** monitors link connectivity and shuts down ports at both ends if unidirectional traffic is detected, preventing loops in STP-based networks

- **Intelligent Resilient Framework (IRF):** creates virtual resilient switching fabrics, where two or more switches perform as a single Layer 2 switch and Layer 3 router; switches do not have to be co-located and can be part of a disaster-recovery system; servers or switches can be attached using standard LACP for automatic load balancing and high availability; simplifies network operation by eliminating the complexity of Spanning Tree Protocol, Equal-Cost Multipath (ECMP), or VRRP

- **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

- **Smart link:** allows 50 ms failover between links

- **Virtual Router Redundancy Protocol (VRRP):** allows groups of two routers to dynamically back each other up to create highly available routed environments

- **External redundant power supply:** provides high reliability

Manageability

- **Dual flash images:** provides independent primary and secondary operating system files for backup while upgrading

- **Multiple configuration files:** allow multiple configuration files to be stored to a flash image

- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP):** automated device discovery protocol provides easy mapping using network management applications

- **Troubleshooting:** ingress and egress port monitoring enable network problem solving; Virtual Cable Tests provide visibility into cable problems

- **IPv6 management:** future-proofs networking, as the switch is capable of being managed whether the attached network is running IPv4 or IPv6; supports pingv6, tracertv6, Telnetv6, TFTPv6, DNSv6, and ARPv6

Layer 2 switching

- **GARP VLAN Registration Protocol:** allows automatic learning and dynamic assignment of VLANs

- **IP multicast snooping and data-driven IGMP:** automatically prevents flooding of IP multicast traffic

- **Jumbo packet support:** supports up to 9220-byte frame size to improve the performance of large data transfers

- **Internet Group Management Protocol (IGMP) and Multicast Listener Discovery (MLD) protocol snooping:** effectively control and manage the flooding of multicast packets in a Layer 2 network

- **32K MAC addresses:** provide access to many Layer 2 devices

- **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

- **10 GbE port aggregation:** allows grouping of ports to increase overall data throughput to a remote device

- **Spanning Tree/MSTP, RSTP, and STP Root Guard:** prevent network loops

Layer 3 services

- **Loopback interface address:** defines an address in Routing Information Protocol (RIP) and OSPF that can always be reachable, improving diagnostic capability

- **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 and supports client and server; DHCP Relay enables DHCP operation across subnets

- **User Datagram Protocol (UDP) helper function:** allows UDP broadcasts to be directed across router interfaces to specific IP unicast or subnet broadcast addresses and prevents server spoofing for UDP services such as DHCP

Layer 3 routing

- **IPv4 routing protocols:** support static routes, RIP, OSPF, ISIS, and BGP

- **IPv6 routing protocols:** provide routing of IPv6 at wire speed; support static routes, RIPng, OSPFv3, IS-ISv6, and BGP4+ for IPv6

- **PIM-SSM, PIM-DM, and PIM-SM (for IPv4 and IPv6):** support IP Multicast address management and inhibition of DoS attacks

- **MPLS support:** provides extended support of MPLS, including MPLS VPNs and MPLS Traffic Engineering (MPLS TE)

- **Virtual Private LAN Service (VPLS):** establishes point-to-multipoint Layer 2 VPNs across a provider network

- **Bidirectional Forwarding Detection (BFD):** enables link connectivity monitoring and reduces network convergence time for RIP, OSPF, BGP, IS-IS, VRRP, MPLS, and IRF

- **Policy-based routing:** makes routing decisions based on policies set by the network administrator

- **Equal-Cost Multipath (ECMP):** enables multiple equal-cost links in a routing environment to increase link redundancy and scale bandwidth

- **IPv6 tunneling:** allows a smooth transition from IPv4 to IPv6 by encapsulating IPv6 traffic over an existing IPv4 infrastructure

Security

- **Access control lists (ACLs):** provide IP Layer 2 to Layer 4 traffic filtering; support 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 server

- **MAC-based authentication:** authenticates the client with the RADIUS server based on the client's MAC address

- **Identity-driven security and access control:**
  - **Per-user ACLs:** permit or deny user access to specific network resources based on user identity and time of day, allowing multiple types of users on the same network to access specific network services without risk to network security or unauthorized access to sensitive data
  - **Automatic VLAN assignment:** automatically assigns users to the appropriate VLAN based on their identities

- **Port security:** allows access only to specified MAC addresses, which can be learned or specified by the administrator

- **Secure FTP:** allows secure file transfer to and from the switch; protects against unwanted file downloads or unauthorized copying of a switch configuration file

- **STP BPDU port protection:** blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks

- **DHCP protection:** blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks

- **Dynamic ARP protection:** blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data

- **STP Root Guard:** protects the root bridge from malicious attacks or configuration mistakes

- **Guest VLAN:** similar to IEEE 802.1X, it provides a browser-based environment to authenticated clients

- **Port isolation:** secures and adds privacy, and prevents malicious attackers from obtaining user information

- **IP Source Guard:** helps prevent IP spoofing attacks

- **Endpoint Admission Defense (EAD):** provides security policies to users accessing a network

- **RADIUS/HWTACACS:** eases switch management security administration by using a password authentication server

- **Secure management access:** securely encrypts all access methods (CLI, GUI, or MIB) through SSHv2 and SNMPv3

- **Unicast Reverse Path Forwarding (URPF):** allows normal packets to be forwarded correctly, but discards the attaching packet due to lack of reverse path route or incorrect inbound interface; prevents source spoofing and distributed attacks; supports distributed UFPF

Convergence

- **LLDP-MED (Media Endpoint Discovery):** is a standard extension of LLDP that stores values for parameters such as QoS and VLAN to automatically configure network devices such as IP phones

- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP):** is an automated device discovery protocol that provides easy mapping of network management applications

- **Internet Group Management Protocol (IGMP):** is used by IP hosts to establish and maintain multicast groups; supports v1, v2, and v3; utilizes Any-Source Multicast (ASM) or Source-Specific Multicast (SSM) to manage IPv4 multicast networks

- **Multicast Source Discovery Protocol (MSDP):** is used for inter-domain multicast applications, allowing multiple PIM-SM domains to interoperate

- **Multicast Border Gateway Protocol (MBGP):** allows multicast traffic to be forwarded across BGP networks and kept separate from unicast traffic

- **Multicast VLAN:** allows multiple VLANs to receive the same IPv4 or IPv6 multicast traffic, reducing network bandwidth demand by eliminating multiple streams to each VLAN

- **LLDP-CDP compatibility:** receives and recognizes CDP packets from Cisco's IP phones for seamless interoperation

Additional information

- **Green initiative support:** provides support for RoHS and WEEE regulations

- **Green IT and power:** use the latest advances in silicon development, shut off unused ports, and use variable-speed fans to improve energy efficiency

Warranty and support

- **Lifetime warranty:** for as long as you own the product with advance replacement and next-business-day delivery (available in most countries)†

- **Electronic and telephone support:** limited electronic and telephone support is available from HP; 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

HP 5500 HI Switch Series

Specifications

	HP 5500-24G-4SFP HI Switch with 2 Interface Slots (JG311A)	HP 5500-48G-4SFP HI Switch with 2 Interface Slots (JG312A)
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); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	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 SFP fixed Gigabit Ethernet SFP ports	4 SFP fixed Gigabit Ethernet SFP ports
	2 port expansion module slots	2 port expansion module slots
	1 RJ-45 serial console port	1 RJ-45 serial console port
	2 SFP+	2 SFP+
	Supports a maximum of 24 autosensing 10/100/1000 ports	Supports a maximum of 48 autosensing 10/100/1000 ports
Power supplies	2 power supply slots 1 minimum power supply required (ordered separately)	2 power supply slots 1 minimum power supply required (ordered separately)
Physical characteristics		
Dimensions	14.17(d) x 17.32(w) x 1.72(h) in. (36 x 44 x 4.36 cm) (1U height)	16.54(d) x 17.32(w) x 1.72(h) in. (42 x 44 x 4.36 cm) (1U height)
Weight	16.53 lb. (7.5 kg), Fully loaded	18.74 lb. (8.5 kg)
Memory and processor		
	1 GB SDRAM, 512 MB flash; packet buffer size: 3 MB	1 GB SDRAM, 512 MB flash; packet buffer size: 6 MB
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)
Performance		
1000 Mb Latency	< 5 µs	< 5 µs
10 Gbps Latency	< 3 µs	< 3 µs
Throughput	130.9 million pps	166.6 million pps
Routing/Switching capacity	176 Gbps	224 Gbps
Routing table size	12000 entries	12000 entries
Environment		
Operating temperature	32°F to 122°F (0°C to 50°C)	32°F to 122°F (0°C to 50°C)
Operating relative humidity	5% to 95%, noncondensing	5% to 95%, noncondensing
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage relative humidity	5% to 95%, noncondensing	5% to 95%, noncondensing
Acoustic	Low-speed fan: 47.9 dB, High-speed fan: 51.1 dB	Low-speed fan: 48.6 dB, High-speed fan: 57.6 dB
Electrical characteristics		
Maximum heat dissipation	481 BTU/hr (507.46 kJ/hr)	651 BTU/hr (686.81 kJ/hr)
Maximum power rating	141 W	191 W
Frequency	50/60 Hz	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.	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; EN 60950-1/A11; FDA 21 CFR Subchapter J; ROHS Compliance	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; EN 60950-1/A11; FDA 21 CFR Subchapter J; ROHS Compliance
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UV870E)	3-year, 4-hour onsite, 13x5 coverage for hardware (HQ080E)
	3-year, 4-hour onsite, 24x7 coverage for hardware (UV873E)	3-year, 4-hour onsite, 24x7 coverage for hardware (HQ081E)
	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UV876E)	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (HQ084E)
	3-year, 24x7 SW phone support, software updates (UV879E)	3-year, 24x7 SW phone support, software updates (HQ083E)
	1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR574E)	1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR580E)
	1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR575E)	1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR581E)
	1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR576E)	Installation with minimum configuration, system-based pricing (UW451E)
	Installation with minimum configuration, system-based pricing (UW451E)	4-year, 4-hour onsite, 13x5 coverage for hardware (HQ085E)
	4-year, 4-hour onsite, 13x5 coverage for hardware (UV871E)	4-year, 4-hour onsite, 24x7 coverage for hardware (HQ086E)
	4-year, 4-hour onsite, 24x7 coverage for hardware (UV874E)	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HQ093E)
	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV877E)	4-year, 24x7 SW phone support, software updates (HQ091E)
	4-year, 24x7 SW phone support, software updates (UV880E)	5-year, 4-hour onsite, 13x5 coverage for hardware (HQ088E)
	5-year, 4-hour onsite, 13x5 coverage for hardware (UV872E)	5-year, 4-hour onsite, 24x7 coverage for hardware (HQ089E)

Specifications (continued)

HP 5500-24G-4SFP HI Switch with 2 Interface Slots (JG311A)	HP 5500-48G-4SFP HI Switch with 2 Interface Slots (JG312A)
5-year, 4-hour onsite, 24x7 coverage for hardware (UV875E)	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HQ094E)
5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV878E)	5-year, 24x7 SW phone support, software updates (HQ092E)
5-year, 24x7 SW phone support, software updates (UV881E)	3 Yr 6 hr Call-to-Repair Onsite (HQ082E)
3 Yr 6 hr Call-to-Repair Onsite (UW966E)	4 Yr 6 hr Call-to-Repair Onsite (HQ087E)
4 Yr 6 hr Call-to-Repair Onsite (UW967E)	5 Yr 6 hr Call-to-Repair Onsite (HQ090E)
5 Yr 6 hr Call-to-Repair Onsite (UW968E)	1-year, 4-hour onsite, 13x5 coverage for hardware (HR579E)
1-year, 6 hour Call-To-Repair Onsite for hardware (HR578E)	1-year, 6 hour Call-To-Repair Onsite for hardware (HR583E)
1-year, 24x7 software phone support, software updates (HR577E)	1-year, 24x7 software phone support, software updates (HR582E)
1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS658E)	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS674E)
1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS659E)	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS675E)
3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS660E)	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS676E)
3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS661E)	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS677E)
4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS662E)	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS678E)
4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS663E)	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS679E)
5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS664E)	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS680E)
5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS665E)	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS681E)
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.	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 HI 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 5500/4800 2-port GbE SFP Module (JD367A)

HP 5500/5120 2-port 10GbE SFP+ Module (JD368B)

HP 5500 HI 8-port Gig-T Module (JG313A)

HP 5500 HI 8-port SFP Module (JG314A)

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 RJ45 T Transceiver (JD089B)

HP X110 100M SFP LC LH40 Transceiver (JD090A)

HP X110 100M SFP LC LH80 Transceiver (JD091A)

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 (JD095B)

HP X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable (JD096B)

HP X240 10G SFP+ to SFP+ 3m Direct Attach Copper Cable (JD097B)

HP X120 1G SFP LC BX 10-U Transceiver (JD098B)

HP X120 1G SFP LC BX 10-D Transceiver (JD099B)

HP X110 100M SFP LC FX Transceiver (JD102B)

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 X110 100M SFP LC LX Transceiver (JD120B)

HP X135 10G XFP LC ER Transceiver (JD121A)

HP X110 100M SFP LC FX Dual Mode Transceiver (JD497A)

HP X110 100M SFP LC LX10 Transceiver (JD498A)

HP X120 1G SFP LC LX Transceiver (JD119B)

Cables

HP 0.5 m Multimode OM3 LC/LC Optical Cable (AJ833A)

HP 1 m Multimode OM3 LC/LC Optical Cable (AJ834A)

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

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

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

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

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

HP 0.5 m PremierFlex OM3+ LC/LC Optical Cable (BK837A)

HP 1 m PremierFlex OM3+ LC/LC Optical Cable (BK838A)

HP 2 m PremierFlex OM3+ LC/LC Optical Cable (BK839A)

HP 5 m PremierFlex OM3+ LC/LC Optical Cable (BK840A)

HP 15 m PremierFlex OM3+ LC/LC Optical Cable (BK841A)

HP 30 m PremierFlex OM3+ LC/LC Optical Cable (BK842A)

HP 50 m PremierFlex OM3+ LC/LC Optical Cable (BK843A)

HP X230 Local Connect 50cm CX4 Cable (JD363B)

HP X230 Local Connect 100cm CX4 Cable (JD364B)

HP X230 CX4 to CX4 3m Cable (JD365A)

Power Supply

HP 5800/5500 150W AC Power Supply (JD362A)

HP 5800/5500 150W DC Power Supply (JD366A)

To learn more, visit www.hp.com/networking