Models

HP A5500-24G SI Switch with 2 Interface Slots	JD369A
HP A5500-48G SI Switch with 2 Interface Slots	JD370A
HP A5500-24G-PoE SI Switch	JD371A
HP A5500-48G-PoE SI Switch	JD372A
HP A5500-24G-PoE+ SI Switch with 2 Interface Slots	JG238A
HP A5500-48G-PoE+ SI Switch with 2 Interface Slots	JG239A

Key features

- Managed Layer 2 and Layer 3 GbE connectivity
- High performance
- Enterprise-class security features
- Application convergence capable
- Easy to use and manage

Product overview

These Gigabit Ethernet switches deliver quad-speed performance 10/100/1000 and 10 Gigabit Ethernet, as well as advanced voice-enhanced features such as Power over Ethernet (PoE), auto-voice VLAN, and quality of service (QoS). As a result, they are ideal for enterprise organizations seeking to build a secure, convergence-enhanced campus network. Robust IPv6 support and 10 Gigabit Ethernet uplinks future-proof an enterprise network against obsolescence. Resilient Ring Protection Protocol (RRPP), Smart Link, and Intelligent Resilient Framework (IRF) deliver 50 ms switchover and carrier-class reliability.

Features and benefits

Quality of Service (QoS)

- **Broadcast control**: allows limitation of broadcast traffic rate to cut down on unwanted broadcast traffic on the network
- **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 queuing (SP), weighted round robin queuing, and SP+WRR
- **Traffic policing**: supports Committed Access Rate (CAR) and line rate

Management

- **Friendly port names**: allow assignment of descriptive names to ports
- **Remote configuration and management**: is available through a secure Web browser or a command-line interface (CLI)
- **Manager and operator privilege levels**: enable read-only (operator) and read-write (manager) access on CLI and Web browser management interfaces
- **Command authorization**: leverages 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**: can be stored to the flash image
- **Complete session logging**: provides detailed information for problem identification and resolution
- **SNMPv1, v2c, and v3**: facilitate centralized discovery, monitoring, and secure management of networking devices

Overview

- **Remote monitoring** (RMON): uses standard SNMP to monitor essential network functions; supports events, alarm, history, and statistics group plus a private alarm extension group
- **IEEE 802.1AB Link Layer Discovery Protocol** (LLDP): automated device discovery protocol provides easy mapping by network management applications
- **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
- **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 cable between two switches and shuts down the ports on both ends if the cable is broken, preventing network problems such as loops
- **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, syslogv6, FTPv6, SNMPv6, DHCPv6, and RADIUS for IPv6
- **Troubleshooting**: ingress and egress port monitoring enable 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**: using standard IEEE 802.3x, it provides back pressure to reduce congestion in heavy traffic situations
- **Ethernet OAM**: provides a Layer 2 link performance and fault detection monitoring tool, which reduces failover and network convergence times
- **Jumbo packet support**: supports up to 9216-byte frame size to improve performance of large data transfers
- **Optional 10 Gigabit Ethernet ports**: allow the addition of 10 Gigabit Ethernet connections for uplinks or high-bandwidth server connections; flexibly supports 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 location
- **High-bandwidth CX4 local stacking**: when locally 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

- **Nonblocking architecture**: up to 192 Gbps nonblocking switching fabric provides wire-speed switching with up to 143 million pps throughput
- **Hardware-based wire-speed access control lists** (ACLs): feature-rich ACL implementation (TCAM based) helps ensure high levels of security and ease of administration without impacting network performance

Resiliency and high availability

- **Separate data and control paths**: keeps control separated 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 and RSTP**: provide 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 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

Overview

network operation by eliminating the complexity of Spanning Tree, Equal-Cost Multipath (ECMP), or VRRP

Layer 2 switching

- **16K MAC address table**: provides access to many Layer 2 devices
- **VLAN support and tagging**: support 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
- **10 GbE 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**: effectively control and manage the flooding of multicast packets in a Layer 2 network

Layer 3 services

- **Address Resolution Protocol** (ARP): determines the MAC address of another IP host in the same subnet
- **Dynamic Host Configuration Protocol** (DHCP): simplifies the management of large IP networks; supports client; DHCP Relay enables DHCP operation across subnets
- **Loopback interface address**: defines an address in RIP that can always be reachable, improving diagnostic capability
- **User Datagram Protocol helper function**: allows User Datagram Protocol (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
- **Route maps**: provide more control during route redistribution; allow filtering and altering of route metrics

Layer 3 routing

- **IPv4 routing protocols**: support static routes and RIP
- **IPv6 routing protocols**: provide routing of IPv6 at wire speed; support static routes and RIPng

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
- **Secure management access**: securely encrypts all access methods (CLI, GUI, or MIB) through SSHv2, SSL, and/or SNMPv3
- **Secure FTP**: allows secure file transfer to and from the switch; protects against unwanted file downloads or unauthorized copying of a switch configuration file
- **Guest VLAN**: similar to IEEE 802.1X, it provides a browser-based environment to authenticated clients
- **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 attack or configuration mistakes
- **DHCP protection**: blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks
- **Dynamic ARP protection**: blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data
- **IP source guard**: helps prevent IP spoofing attacks

Overview

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

Convergence

- **IEEE 802.1AB Link Layer Discovery Protocol** (LLDP): is an automated device discovery protocol that provides easy mapping of network management applications
- **LLDP-MED**: is a standard extension that automatically configures network devices, including LLDP-capable IP phones
- **LLDP-CDP compatibility**: receives and recognizes CDP packets from Cisco's IP phones for seamless interoperation
- **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**: support 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): automatically prevents flooding of IP multicast 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

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

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; refer to: www.hp.com/networking/warranty for details on the support provided and the period during which support is available
- **Software releases**: refer to: www.hp.com/networking/warranty for details on the software releases provided and the period during which software releases are available for your product(s)

* Hardware warranty replacement for as long as you own the product, with next business day advance replacement (available in most countries) with a five-year hardware warranty replacement for the disk drive included with HP AllianceONE Services zl Module, HP hreat Management Services zl Module, HP PCM+ Agent with AllianceONE Services zl Module, and HP E-MSM765 zl Mobility Controller. For details, refer to the HP Software License, Warranty, and Support booklet at www.hp.com/networking/warranty.

Technical Specifications

HP A5500-24G SI Switch with 2 Interface Slots (JD369A)

Ports		24 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

Ports
24 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

Supports a maximum of 24 autosensing 10/100/1000 ports

Physical characteristics
Dimensions — 11.81(d) x 17.32(w) x 1.72(h) in. (30 x 44 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
10 Gbps Latency — < 2.6 μs
Throughput — 107.2 million pps
Routing/Switching capacity — 144 Gbps

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 — 273 BTU/hr (288.02 kJ/hr)
Voltage — 100-240 VAC
Maximum power rating — 80 W
Frequency — 50/60 Hz
Notes — Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.

Safety
UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; EN 60950-1/A11; FDA 21 CFR Subchapter J; 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 (UV870E)
3-year, 4-hour onsite, 24x7 coverage for hardware (UV873E)
3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UV876E)
3-year, 24x7 SW phone support, software updates (UV879E)

Technical Specifications

1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR574E)
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 (HR576E)
Installation with minimum configuration, system-based pricing (UW451E)
4-year, 4-hour onsite, 13x5 coverage for hardware (UV871E)
4-year, 4-hour onsite, 24x7 coverage for hardware (UV874E)
4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV877E)
4-year, 24x7 SW phone support, software updates (UV880E)
5-year, 4-hour onsite, 13x5 coverage for hardware (UV872E)
5-year, 4-hour onsite, 24x7 coverage for hardware (UV875E)
5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV878E)
5-year, 24x7 SW phone support, software updates (UV881E)
3 Yr 6 hr Call-to-Repair Onsite (UW966E)
4 Yr 6 hr Call-to-Repair Onsite (UW967E)
5 Yr 6 hr Call-to-Repair Onsite (UW968E)
1-year, 6 hour Call-To-Repair Onsite for hardware (HR578E)
1-year, 24x7 software phone support, software updates (HR577E)
1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS658E)
1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS659E)
3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS660E)
3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS661E)
4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS662E)
4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS663E)
5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS664E)
5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS665E)

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 A5500-48G SI Switch with 2 Interface Slots (JD370A)

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 11.81(d) x 17.32(w) x 1.72(h) in. (30 x 44 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)

Technical Specifications

Performance	1000 Mb Latency	< 3.2 μs
	10 Gbps Latency	< 2.6 μs
	Throughput	142.9 million pps
	Routing/Switching capacity	192 Gbps
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	410 BTU/hr (432.55 kJ/hr)
	Voltage	100-240 VAC
	Maximum power rating	120 W
	Frequency	50/60 Hz
	Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety		UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; EN 60950-1/A11; FDA 21 CFR Subchapter J; 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 (HQ080E) 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 (HQ084E) 3-year, 24x7 SW phone support, software updates (HQ083E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR580E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR581E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (HQ085E) 4-year, 4-hour onsite, 24x7 coverage for hardware (HQ086E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HQ093E) 4-year, 24x7 SW phone support, software updates (HQ091E) 5-year, 4-hour onsite, 13x5 coverage for hardware (HQ088E) 5-year, 4-hour onsite, 24x7 coverage for hardware (HQ089E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HQ094E) 5-year, 24x7 SW phone support, software updates (HQ092E) 3 Yr 6 hr Call-to-Repair Onsite (HQ082E)

Technical Specifications

4 Yr 6 hr Call-to-Repair Onsite (HQ087E)
5 Yr 6 hr Call-to-Repair Onsite (HQ090E)
1-year, 4-hour onsite, 13x5 coverage for hardware (HR579E)
1-year, 6 hour Call-To-Repair Onsite for hardware (HR583E)
1-year, 24x7 software phone support, software updates (HR582E)
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 (HS675E)
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 (HS677E)
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 (HS679E)
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 (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.

HP A5500-24G-PoE SI Switch (JD371A)

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 802.3af PoE); 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 24 autosensing 10/100/1000 ports
Physical characteristics	Dimensions 16.54(d) x 17.32(w) x 1.72(h) in. (42 x 44 x 4.36 cm) (1U height)
	Weight 13.2 lb. (6 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 up to 107.2 million pps
	Routing/Switching capacity 144 Gbps
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

Technical Specifications

Electrical characteristics	Maximum heat dissipation	290 BTU/hr (305.95 kJ/hr)
	Voltage	100-240 VAC
	DC voltage	-52 to -55 VDC
	Maximum power rating	455 W
	PoE power	370 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. 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; EN 60950-1/A11; FDA 21 CFR Subchapter J; 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 (UV870E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV873E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UV876E) 3-year, 24x7 SW phone support, software updates (UV879E) 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR574E) 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 (HR576E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV871E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV874E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV877E) 4-year, 24x7 SW phone support, software updates (UV880E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV872E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV875E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV878E) 5-year, 24x7 SW phone support, software updates (UV881E) 3 Yr 6 hr Call-to-Repair Onsite (UW966E) 4 Yr 6 hr Call-to-Repair Onsite (UW967E) 5 Yr 6 hr Call-to-Repair Onsite (UW968E) 1-year, 6 hour Call-To-Repair Onsite for hardware (HR578E) 1-year, 24x7 software phone support, software updates (HR577E) 1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS658E) 1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS659E) 3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS660E) 3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS661E) 4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange

Technical Specifications

(HS662E)
4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS663E)
5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS664E)
5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS665E)

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HP A5500-48G-PoE SI Switch (JD372A)

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 802.3af PoE); 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	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)
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	$< 3.2\,\mu s$
	10 Gbps Latency	$< 2.6\,\mu s$
	Throughput	up to 142.9 million pps
	Routing/Switching capacity	192 Gbps
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	444 BTU/hr (468.42 kJ/hr)
	Voltage	100-240 VAC
	DC voltage	-52 to -55 VDC
	Maximum power rating	870 W
	PoE power	740 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. PoE power is the power supplied by the internal power supply. It is dependent on the type and quantity of power supplies and may

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	be supplemented with the use of an external power supply (EPS). With AC input: the maximum power consumption is 500 W; PoE power is 370 W.
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
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 (HQ080E)

Services

3-year, 4-hour onsite, 13x5 coverage for hardware (HQ080E)
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 (HQ084E)
3-year, 24x7 SW phone support, software updates (HQ083E)
1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR580E)
1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR581E)
4-year, 4-hour onsite, 13x5 coverage for hardware (HQ085E)
4-year, 4-hour onsite, 24x7 coverage for hardware (HQ086E)
4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HQ093E)
4-year, 24x7 SW phone support, software updates (HQ091E)
5-year, 4-hour onsite, 13x5 coverage for hardware (HQ088E)
5-year, 4-hour onsite, 24x7 coverage for hardware (HQ089E)
5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HQ094E)
5-year, 24x7 SW phone support, software updates (HQ092E)
3 Yr 6 hr Call-to-Repair Onsite (HQ082E)
4 Yr 6 hr Call-to-Repair Onsite (HQ087E)
5 Yr 6 hr Call-to-Repair Onsite (HQ090E)
1-year, 4-hour onsite, 13x5 coverage for hardware (HR579E)
1-year, 6 hour Call-To-Repair Onsite for hardware (HR583E)
1-year, 24x7 software phone support, software updates (HR582E)
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 (HS675E)
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 (HS677E)
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 (HS679E)
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 (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.

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HP A5500-24G-PoE+ SI Switch with 2 Interface Slots (JG238A)

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+) 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 24 autosensing 10/100/1000 ports

Physical characteristics	Dimensions	16.54(d) x 17.32(w) x 1.72(h) in. (42 x 44 x 4.36 cm) (1U height)
	Weight	13.2 lb. (6 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	$< 3.2\,\mu s$
	10 Gbps Latency	$< 2.6\,\mu s$
	Throughput	up to 107.2 million pps
	Routing/Switching capacity	144 Gbps
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	290 BTU/hr (305.95 kJ/hr)
	Voltage	100-240 VAC
	DC voltage	-52 to -55 VDC
	Maximum power rating	455 W
	PoE power	370 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. 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; EN 60950-1/A11; FDA 21 CFR Subchapter J; ROHS Compliance

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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 (UV870E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV873E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UV876E) 3-year, 24x7 SW phone support, software updates (UV879E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV871E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV874E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV877E) 4-year, 24x7 SW phone support, software updates (UV880E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV872E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV875E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV878E) 5-year, 24x7 SW phone support, software updates (UV881E) 3 Yr 6 hr Call-to-Repair Onsite (UW966E) 4 Yr 6 hr Call-to-Repair Onsite (UW967E) 5 Yr 6 hr Call-to-Repair Onsite (UW968E) 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 A5500-48G-PoE+ SI Switch with 2 Interface Slots (JG239A)

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; 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	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)
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	$< 3.2\,\mu s$
	10 Gbps Latency	$< 2.6\,\mu s$
	Throughput	up to 142.9 million pps
	Routing/Switching capacity	192 Gbps
Environment	Operating temperature	32°F to 113°F (0°C to 45°C)

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HP A5500 SI Switch Series

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
Electrical characteristics	Maximum heat dissipation	444 BTU/hr (468.42 kJ/hr)
	Voltage	100-240 VAC
	DC voltage	-52 to -55 VDC
	Maximum power rating	870 W
	PoE power	740 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. 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 maximum power consumption is 500 W; PoE power is 370 W.
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
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 (HQ080E) 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 (HQ084E) 3-year, 24x7 SW phone support, software updates (HQ083E) 4-year, 4-hour onsite, 13x5 coverage for hardware (HQ085E) 4-year, 4-hour onsite, 24x7 coverage for hardware (HQ086E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HQ093E) 4-year, 24x7 SW phone support, software updates (HQ091E) 5-year, 4-hour onsite, 13x5 coverage for hardware (HQ088E) 5-year, 4-hour onsite, 24x7 coverage for hardware (HQ089E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HQ094E) 5-year, 24x7 SW phone support, software updates (HQ092E) 3 Yr 6 hr Call-to-Repair Onsite (HQ082E) 4 Yr 6 hr Call-to-Repair Onsite (HQ087E) 5 Yr 6 hr Call-to-Repair Onsite (HQ090E)

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

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Standards and protocols
(applies to all products in series)

Device management
RFC 1157 SNMPv1/v2c
RFC 1305 NTPv3
RFC 1901 (Community based SNMPv2)
RFC 2452 MIB for TCP6
RFC 2454 MIB for UDP6
RFC 2573 (SNMPv3 Applications)
RFC 2576 (Coexistence between SNMP V1, V2, V3)
RFC 2819 RMON
RFC 3410 (Management Framework)
RFC 3416 (SNMP Protocol Operations v2)
RFC 3417 (SNMP Transport Mappings)
HTML and telnet management
Multiple Configuration Files
SNMP v3 and RMON RFC support
SSHv1/SSHv2 Secure Shell

General protocols
IEEE 802.1ad Q-in-Q
IEEE 802.1D MAC Bridges
IEEE 802.1p Priority
IEEE 802.1Q (GVRP)
IEEE 802.1s (MSTP)
IEEE 802.1w Rapid Reconfiguration of Spanning Tree
IEEE 802.3ab 1000BASE-T
IEEE 802.3ad Link Aggregation (LAG)
IEEE 802.3ae 10-Gigabit Ethernet
IEEE 802.3af Power over Ethernet
IEEE 802.3i 10BASE-T
IEEE 802.3u 100BASE-X
IEEE 802.3x Flow Control
IEEE 802.3z 1000BASE-X
RFC 791 IP
RFC 792 ICMP
RFC 793 TCP
RFC 854 TELNET
RFC 925 Multi-LAN Address Resolution
RFC 950 Internet Standard Subnetting Procedure
RFC 951 BOOTP
RFC 1058 RIPv1
RFC 1122 Host Requirements
RFC 1141 Incremental updating of the Internet checksum
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 2710 Multicast Listener Discovery (MLD) for IPv6
RFC 2893 Transition Mechanisms for IPv6 Hosts and Routers
RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations (Ping only)
RFC 3056 Connection of IPv6 Domains via IPv4 Clouds
RFC 3162 RADIUS and IPv6
RFC 3306 Unicast-Prefix-based IPv6 Multicast Addresses
RFC 3315 DHCPv6 (client and relay)
RFC 3484 Default Address Selection for IPv6
RFC 3493 Basic Socket Interface Extensions for IPv6
RFC 3513 IPv6 Addressing Architecture
RFC 3542 Advanced Sockets API for IPv6
RFC 3587 IPv6 Global Unicast Address Format
RFC 3596 DNS Extension for IPv6
RFC 3810 MLDv2 for IPv6
RFC 4113 MIB for UDP
RFC 4443 ICMPv6

MIBs
RFC 1212 Concise MIB Definitions
RFC 1213 MIB II
RFC 1724 RIPv2 MIB
RFC 1757 Remote Network Monitoring MIB
RFC 2012 SNMPv2 MIB for TCP
RFC 2013 SNMPv2 MIB for UDP
RFC 2233 Interface MIB
RFC 2452 IPV6-TCP-MIB
RFC 2454 IPV6-UDP-MIB
RFC 2465 IPv6 MIB
RFC 2466 ICMPv6 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
RFC 2620 RADIUS Accounting Client MIB
RFC 2819 RMON MIB
RFC 2925 Ping MIB
RFC 3414 SNMP-User based-SM MIB
RFC 3415 SNMP-View based-ACM MIB
RFC 4113 UDP MIB

Network management

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RFC 1542 BOOTP Extensions
RFC 1723 RIP v2
RFC 1812 IPv4 Routing
RFC 1887 An Architecture for IPv6 Unicast Address Allocation
RFC 2131 DHCP
RFC 2236 IGMP Snooping
RFC 2375 IPv6 Multicast Address Assignments
RFC 2581 TCP Congestion Control
RFC 2616 HTTP Compatibility v1.1
RFC 2644 Directed Broadcast Control
RFC 2865 Remote Authentication Dial In User Service (RADIUS)
RFC 2866 RADIUS Accounting
RFC 3246 Expedited Forwarding PHB
RFC 3410 Applicability Statements for SNMP
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 3417 Transport Mappings for the Simple Network Management Protocol (SNMP)
RFC 3484 Default Address Selection for Internet Protocol version 6 (IPv6)
RFC 3493 Basic Socket Interface Extensions for IPv6
RFC 3542 Advanced Sockets Application Program Interface (API) for IPv6
RFC 3587 IPv6 Global Unicast Address Format
RFC 3596 DNS Extensions to Support IP Version 6
RFC 4113 Management Information Base for the User Datagram Protocol (UDP)
RFC 4213 Basic IPv6 Transition Mechanisms
RFC 4443 Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6) Specification
802.1r - GARP Proprietary Attribute Registration Protocol (GPRP)

IPv6
RFC 1887 IPv6 Unicast Address Allocation Architecture
RFC 1981 IPv6 Path MTU Discovery
RFC 2080 RIPng for IPv6
RFC 2373 IPv6 Addressing Architecture
RFC 2375 IPv6 Multicast Address Assignments
RFC 2460 IPv6 Specification
RFC 2461 IPv6 Neighbor Discovery
RFC 2462 IPv6 Stateless Address Auto-configuration

IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
IEEE 802.1D (STP)
RFC 1157 SNMPv1
RFC 1212 Concise MIB definitions
RFC 1215 SNMP Generic traps
RFC 1757 RMON 4 groups: Stats, History, Alarms and Events
RFC 1901 SNMPv2 Introduction
RFC 1918 Private Internet Address Allocation
RFC 2373 Remote Network Monitoring Management Information Base for High Capacity Networks
RFC 2571 An Architecture for Describing SNMP Management Frameworks
RFC 2572 Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)
RFC 2573 SNMP Applications
RFC 2573 SNMPv3 Applications
RFC 2574 SNMPv3 User-based Security Model (USM)
RFC 2575 SNMPv3 View-based Access Control Model (VACM)
RFC 2576 Coexistence between SNMP versions
RFC 2578 SMIv2
RFC 2581 TCP6
RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events)
RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations
RFC 3176 sFlow
RFC 3410 Introduction to Version 3 of the Internet-standard Network Management Framework
RFC 3414 SNMPv3 User-based Security Model (USM)
RFC 3415 SNMPv3 View-based Access Control Model VACM)
ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)
SNMPv1/v2c/v3

QoS/CoS
IEEE 802.1P (CoS)
RFC 2474 DSCP DiffServ
RFC 2475 DiffServ Architecture
RFC 2597 DiffServ Assured Forwarding (AF)
RFC 2598 DiffServ Expedited Forwarding (EF)

Security
IEEE 802.1X Port Based Network Access Control
RFC 1492 TACACS+
RFC 1918 Address Allocation for Private Internets
RFC 2865 RADIUS Authentication

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RFC 2463 ICMPv6
RFC 2464 Transmission of IPv6 over Ethernet Networks
RFC 2475 IPv6 DiffServ Architecture

RFC 2866 RADIUS Accounting
Access Control Lists (ACLs)
MAC Authentication
Port Security
SSHv2 Secure Shell

Accessories

HP A5500 SI Switch Series accessories

Modules

HP A5500/A5120-EI 2-port 10-GbE XFP Module	JD359B
HP A5500/A5120-EI 2-port 10-GbE CX4 Module	JD360B
HP A5500/A5120-EI 1-port 10-GbE XFP Module	JD361B
HP A5500/A5120-EI 2-port 10-GbE SFP+ Module	JD368B
HP A5500/A5120-EI 2-Port GbE SFP Module	JD367A

Transceivers

HP X124 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 X130 SFP+ LC SR Transceiver	JD092B
HP X130 SFP+ LC LRM Transceiver	JD093B
HP X130 SFP+ LC LR Transceiver	JD094B
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 X135 10G XFP LC ER Transceiver	JD121A
HP X240 SFP+ SFP+ 0.65 m Direct Attach Cable	JD095B
HP X240 SFP+ SFP+ 1.2 m Direct Attach Cable	JD096B
HP X240 SFP+ SFP+ 3 m Direct Attach Cable	JD097B
HP X110 100M SFP LC FX Dual Mode Transceiver	JD497A
HP X110 100M SFP LC LX Dual Mode Transceiver	JD498A
HP X120 1G SFP LC BX 10-U Transceiver	JD098B
HP X120 1G SFP LC BX 10-D Transceiver	JD099B
HP X125 1G SFP RJ45 T Transceiver	JD089B

Cables

HP X230 Local Connect 100 cm CX4 Cable	JD364B
HP X230 Local Connect CX4 300 cm 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
NEW HP 0.5 m PremierFlex OM3+ LC/LC Optical Cable	BK837A
NEW HP 1 m PremierFlex OM3+ LC/LC Optical Cable	BK838A
NEW HP 2 m PremierFlex OM3+ LC/LC Optical Cable	BK839A
NEW HP 5 m PremierFlex OM3+ LC/LC Optical Cable	BK840A
NEW HP 15 m PremierFlex OM3+ LC/LC Optical Cable	BK841A
NEW HP 30 m PremierFlex OM3+ LC/LC Optical Cable	BK842A
NEW HP 50 m PremierFlex OM3+ LC/LC Optical Cable	BK843A
HP X230 Local Connect 50cm CX4 Cable	JD363B

Power Supply

Accessories

HP RPS800 Redundant Power System   JD183A
HP RPS1600 Redundant Power System   JG136A
HP RPS1600 1600W AC Power Supply   JG137A
Power cords
HP X290 JD5 JD5 2m RPS1600 Cable   JD187A
HP X290 H2.7 H2.7 1m RPS800 Cable   JD184A

Accessory Product Details

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 2-Port SFP A5500/E4800 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 X124 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.	

Accessory Product Details

| HP X120 1G SFP LC LH40 1550nm Transceiver (JD062A)

A small form-factor pluggable (SFP) Gigabit LH40 transceiver that provides a full-duplex Gigabit solution up to 40 km on a single mode fiber.		
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:	

- 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.

QuickSpecs

Accessory Product Details

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 • 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.	

Accessory Product Details

HP X110 100M SFP LC FX Dual Mode Transceiver (JD497A)	Ports	1 LC 100 Mbps port	
	Connectivity	Connector type	LC
A small form-factor pluggable (SFP) 100 MB/s Dual mode transceiver that provides a full duplex 100Mb/s soolution up to 2km on a multi mode fiber.		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 length	2km
		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 X110 100M SFP LC LX10 Transceiver (JD498A)	Ports	1 LC 100 Mbps port	
	Connectivity	Connector type	LC
A small form-factor pluggable (SFP) 100Mb/s transceiver that provides a full duplex 100Mb/s solution for up to 10km on a single mode cable.		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 length	10km
		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.	

Accessory Product Details

| 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.	

| 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.	

Accessory Product Details

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.

Accessory Product Details

		• 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.

QuickSpecs

Accessory Product Details

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.

Accessory Product Details

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.

QuickSpecs

Accessory Product Details

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.

Accessory Product Details

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.

Accessory Product Details

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.

Accessory Product Details

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.

Accessory Product Details

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. • 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.

Accessory Product Details

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, 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.

Accessory Product Details

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
		Idle power	38 W
		Maximum power rating	3550 W
		RPS power	3200 W
		PoE power	2800 W
		RPS	-55 V
		PoE	-55 V
		Frequency	50/60 Hz

Accessory Product Details

		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.

Accessory Product Details

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