HP A5800 Switch Series

Data sheet

Product overview

HP A5800 switches offer an unmatched combination of Gigabit and 10-Gigabit Ethernet port density, high-availability architecture, and full Layer 2 and Layer 3 dual-stack IPv4 and IPv6 capabilities. Besides wire-speed line-rate performance on all ports, the switches include patented Intelligent Resilient Framework (IRF) technology and Rapid Ring Protection Protocol (RRPP) that allow local or geographically distributed A5800 switches to be interconnected for higher resiliency and performance. Available in PoE and non-PoE models and 1 RU and 2 RU flex chassis configurations, A5800 switches are built on open standards and include an open application architecture (OAA) module slot that that enables flexible deployment options for new services. These versatile switches are ideal for use in the network core for a building or department, or as a high-performance switch in the convergence layer or network edge of enterprise campus networks.

Key features

- For enterprise core, distribution, data center
- Flex-Chassis with modular resiliency
- Support up to 84 ports
- OAA module for flexible deployment
- Redundant, hot-swappable power supplies, fans

Features and benefits

Quality of Service (QoS)

- **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
- **Integrated network services:** with support for open application architecture (OAA) modules, extends and integrates application capability into the network
- **Ring Resiliency Protection Protocol (RRPP):** provides fast recovery for ring Ethernet-based topology; provides consistent application performance for applications such as VOIP

Management

- **Remote configuration and management:** is available through a secure Web browser or a command-line interface (CLI)
- **IEEE 802.1ab LLDP discovery:** advertises and receives management information from adjacent devices on a network
- **USB support:**
  - **File copy:** allows users to copy switch files to and from a USB flash drive
- **DHCP options:**
  - DNS Relay and SMTP Redirection
  - DHCP: Server (RFC 2131), Client, and Option-82 Relay (RFC 3046)
- **sFlow:** provides scalable, ASIC-based, network monitoring and accounting; this allows network operators to gather a variety of sophisticated network statistics and information for capacity planning and real-time network monitoring purposes
- **SNMPv1, v2c, and v3:** facilitate centralized discovery, monitoring, and secure management of networking devices

Connectivity

- **High-density port connectivity:** supports up to 84 1-Gigabit ports per unit/612 per stack
- **Auto-MDIX:** automatically adjusts for straight-through or crossover cables on all 10/100 ports
- **Jumbo frames:** on Gigabit and 10-Gigabit ports, allow high-performance remote backup and disaster-recovery services
- **IEEE 802.3af Power over Ethernet (PoE):** provides up to 15.4 W per port to IEEE 802.3af-compliant PoE-powered devices such as IP phones, wireless access points, and security cameras
- **Medium Power over Ethernet (PoE):** supports a medium Power over Ethernet (PoE) power supply, with each port providing up to 30 W of output power
- **IPv6 native support:**
  - **IPv6 host:** enables switches to be managed and deployed at the IPv6 network's edge
  - **Dual stack (IPv4/IPv6):** transitions from IPv4 to IPv6, supporting connectivity for both protocols
  - **MLD snooping:** forwards IPv6 multicast traffic to the appropriate interface
  - **IPv6 ACL/QoS:** supports ACL and QoS for IPv6 network traffic, preventing traffic flooding
  - **IPv6 routing:** supports IPv6 static routes and IPv6 versions of RIP, OSPF, IS-IS, and BGP routing protocols

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
- **Unique Flex Chassis Architecture:** supports the best of both fixed chassis and modular configurations

Manageability

- **Full-featured console:** provides complete control of the switch with a familiar command-line interface (CLI)
- **Web interface:** allows configuration of the switch from any Web browser on the network
- **RMON and sFlow:** provide advanced monitoring and reporting capabilities for statistics, history, alarms, and events
- **Multiple configuration files:** allow multiple configuration files to be stored to flash image

- **Troubleshooting:**
  - Ingress and egress port monitoring enable network problem solving
  - Tracert and Ping enable testing of network connectivity
  - Virtual Cable Tests provide visibility to cable problems

Layer 2 switching

- **GARP VLAN Registration Protocol (GVRP):** allows automatic learning and dynamic assignment of VLANs
- **32K MAC addresses:** provide access to many Layer 2 devices
- **4094 port-based VLANs:** provide security between workgroups
- **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
- **Gigabit Ethernet port aggregation:** allows grouping of ports to increase overall data throughput to a remote device
- **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
- **IPFIX/sFlow:** allows traffic sampling

Layer 3 services

- **Address Resolution Protocol (ARP):** determines the MAC address of another IP host in the same subnet; supports static ARPs; gratuitous ARP allows detection of duplicate IP addresses; proxy ARP allows normal ARP operation between subnets or when subnets are separated by a Layer 2 network
- **Dynamic Host Configuration Protocol (DHCP):** simplifies the management of large IP networks and supports client and server; DHCP Relay enables DHCP operation across subnets

Layer 3 routing

- **Layer 3 IPv4 routing:** provides routing of IPv4 at media speed; supports static routes, RIP and RIPv2, OSPF, IS-IS, and BGP
- **RIP and RIPng support:** provides complete support of RIP for both IPv4 and IPv6
- **OSPF and OSPFv3 support:** provides complete support of OSPF for both IPv4 and IPv6
- **IS-IS and IS-ISv6 support:** provides complete support of IS-IS for both IPv4 and IPv6
- **Layer 3 IPv6 routing:** provides routing of IPv6 at media speed; supports static routes, RIPng, OSPFv3, IS-ISv6, and BGP4+
- **Bidirectional Forwarding Detection (BFD):** enables link connectivity monitoring and reduces network convergence time for RIP, OSPF, BGP, IS-IS, VRRP, MPLS, and IRF
- **Virtual Router Redundancy Protocol (VRRP) and VRRP Extended:** allow quick failover of router ports
- **Policy-based routing:** makes routing decisions based on policies set by the network administrator
- **IGMPv1, v2, and v3:** allow individual hosts to be registered on a particular VLAN
- **PIM-SSM, PIM-DM, and PIM-SM (for IPv4 and IPv6):** support IP Multicast address management and inhibition of DoS attacks
- **Equal-Cost Multipath (ECMP):** enables multiple equal-cost links in a routing environment to increase link redundancy and scale bandwidth
- **NEW MPLS support:** provides extended support of MPLS, including MPLS VPNs and MPLS Traffic Engineering (MPLS TE)
- **NEW VPLS support:** provides extended support of VPLS for data center to data center communication at Layer 2; provides support of hierarchical VPLS for scalability

Security

- **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
- **Defense-in-depth security:** provides integrated and distributed security enforcement that can be managed from a central location, such as the HP Intelligent Management Center (IMC)
- **Advanced processor queuing mechanism:** helps prevent denial-of-service (DoS) attacks, while DHCP snooping helps ensure that devices can only receive an IP address from a legitimate DHCP server on the network
- **IEEE 802.1X-based dynamic delivery of QoS, ACLs, and VLANs:** allows complete control over user network access

- **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
- **MAC-based authentication:** allows or denies access to the switch based on client MAC address
- **IP source guard:** helps prevent IP spoofing attacks
- **HTTPS management:** provides secure Web management
- **Multi-Customer Edge (MCE)-Multicast Virtual Routing and Forwarding (MVRF):** provide MPLS Edge router support
- **Public Key Infrastructure (PKI):** is used to control access
- **RADIUS/HWTACACS:** eases switch management security administration by using a password authentication server
- **Secure Shell (SSHv2):** encrypts all transmitted data for secure, remote command-line interface (CLI) access over IP networks
- **IP Source Guard:** filters packets on a per-port basis, which prevents illegal packets from being forwarded

Convergence

- **Voice VLAN:** automatically assigns VLAN and priority for IP phones, simplifying network configuration and maintenance
- **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
- **Protocol Independent Multicast (PIM):** is used for IPv4 and IPv6 multicast applications; supports PIM dense mode (DM), sparse mode (SM), and source-specific mode (SSM)
- **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

Monitor and diagnostics

- **Port mirroring:** enables traffic on a port to be simultaneously sent to a network analyzer for monitoring
- **OAM (IEEE 802.3ah):** detects data link layer problems that occurred in the "last mile"; monitors the status of the link between the two devices
- **CFD (IEEE 802.1ag):** connectivity fault detection (CFD) provides a Layer 2 link Operations, Administration and Maintenance (OAM) mechanism used for link connectivity detection and fault locating

Additional information

- **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, ECMP, or VRRP
- **OAA modules:** support wireless network management and high-performance security applications; leverage network infrastructure investment
- **Green IT and power:** use the latest advances in silicon development, shut off unused ports, and use variable-speed fans to improve power 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; 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 Threat 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.

HP A5800 Switch Series

Specifications

	 HP A5800-24G-PoE+ Switch (JC099A)	 HP A5800-24G Switch (JC100A)	 HP A5800-24G-SFP Switch with 1 Interface Slot (JC103A)
Ports	24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 1 extended module slot 4 fixed 1000/10000 SFP+ ports 1 RJ-45 serial console port	24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 1 extended module slot 4 fixed 1000/10000 SFP+ ports 1 RJ-45 serial console port	24 SFP fixed Gigabit Ethernet SFP ports 1 extended module slot 4 fixed 1000/10000 SFP+ ports 1 RJ-45 serial console port
Power supplies			2 power-supply slots 1 minimum power-supplies required (ordered separately)
Physical characteristics			
Dimensions	16.8(d) x 17.3(w) x 1.71(h) in. (42.67 x 43.94 x 4.34 cm) (1U height)	18.39(d) x 17.32(w) x 1.72(h) in. (46.7 x 44.0 x 4.36 cm) (1U height)	16.81(d) x 17.32(w) x 1.72(h) in. (42.7 x 44.0 x 4.36 cm) (1U height)
Weight	17.64 lb. (8 kg)	13.23 lb. (6 kg)	18.74 lb. (8.5 kg)
Memory and processor	512 MB SDRAM, 512 MB flash; packet buffer size: 4 MB	512 MB SDRAM, 512 MB flash; packet buffer size: 4 MB	512 MB SDRAM, 512 MB flash; packet buffer size: 4 MB
Performance			
Throughput	155 million pps	155 million pps	155 million pps
Routing/Switching capacity	208 Gbps	208 Gbps	208 Gbps
Routing table size	16000 entries	16000 entries	16000 entries
MAC address table size	32000 entries	32000 entries	32000 entries
Environment			
Operating temperature	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)
Operating relative humidity	10% to 90%	10% to 90%	10% to 90%
Electrical characteristics			
Maximum heat dissipation	2968 BTU/hr (3131.24 kJ/hr)	358 BTU/hr (377.69 kJ/hr)	498 BTU/hr (525.39 kJ/hr)
Voltage	100-120 / 200-240 VAC	100-120-240 VAC	100-120 / 200-240 VAC
DC voltage			–48 VDC to –60 VDC
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; ROHS Compliance	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; ROHS Compliance	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; ROHS Compliance
Emissions	VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR22 Class A; 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	VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR22 Class A; 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	VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR22 Class A; 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
Immunity			
Generic	ETSI EN 300 386 V1.3.3	ETSI EN 300 386 V1.3.3	ETSI EN 300 386 V1.3.3
EN	EN 55024:1998+ A1:2001 + A2:2003	EN 55024:1998+ A1:2001 + A2:2003	EN 55024:1998+ A1:2001 + A2:2003
ESD	EN 61000-4-2; IEC 61000-4-2	EN 61000-4-2; IEC 61000-4-2	EN 61000-4-2; IEC 61000-4-2
Radiated	EN 61000-4-3; IEC 61000-4-3	EN 61000-4-3; IEC 61000-4-3	EN 61000-4-3; IEC 61000-4-3
EFT/Burst	EN 61000-4-4; IEC 61000-4-4	EN 61000-4-4; IEC 61000-4-4	EN 61000-4-4; IEC 61000-4-4
Surge	EN 61000-4-5; IEC 61000-4-5	EN 61000-4-5; IEC 61000-4-5	EN 61000-4-5; IEC 61000-4-5
Conducted	EN 61000-4-6; IEC 61000-4-6	EN 61000-4-6; IEC 61000-4-6	EN 61000-4-6; IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8; EN 61000-4-8	IEC 61000-4-8; EN 61000-4-8	IEC 61000-4-8; EN 61000-4-8
Voltage dips and interruptions	EN 61000-4-11; IEC 61000-4-11	EN 61000-4-11; IEC 61000-4-11	EN 61000-4-11; IEC 61000-4-11
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3
Management	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager; Telnet; HTTPS; RMON1; FTP	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager; Telnet; HTTPS; RMON1; FTP	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager; Telnet; HTTPS; RMON1; FTP

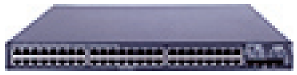
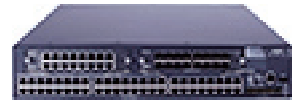
Specifications (continued)

	HP A5800-24G-PoE+ Switch (JC099A)	HP A5800-24G Switch (JC100A)	HP A5800-24G-SFP Switch with 1 Interface Slot (JC103A)
Notes			Customer must order a power supply, as the device does not come with a PSU. At least one JD362A or JD366A is required.
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UV882E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV885E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV888E) 3-year, 24x7 SW phone support, software updates (UV891E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV883E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV886E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV889E) 4-year, 24x7 SW phone support, software updates (UV892E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV884E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV887E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV890E) 5-year, 24x7 SW phone support, software updates (UV893E) 3 Yr 6 hr Call-to-Repair Onsite (UW969E) 4 Yr 6 hr Call-to-Repair Onsite (UW970E) 5 Yr 6 hr Call-to-Repair Onsite (UW971E) 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.	3-year, 4-hour onsite, 13x5 coverage for hardware (UV882E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV885E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV888E) 3-year, 24x7 SW phone support, software updates (UV891E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV883E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV886E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV889E) 4-year, 24x7 SW phone support, software updates (UV892E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV884E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV887E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV890E) 5-year, 24x7 SW phone support, software updates (UV893E) 3 Yr 6 hr Call-to-Repair Onsite (UW969E) 4 Yr 6 hr Call-to-Repair Onsite (UW970E) 5 Yr 6 hr Call-to-Repair Onsite (UW971E) 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.	3-year, 4-hour onsite, 13x5 coverage for hardware (UV882E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV885E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV888E) 3-year, 24x7 SW phone support, software updates (UV891E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV883E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV886E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV889E) 4-year, 24x7 SW phone support, software updates (UV892E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV884E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV887E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV890E) 5-year, 24x7 SW phone support, software updates (UV893E) 3 Yr 6 hr Call-to-Repair Onsite (UW969E) 4 Yr 6 hr Call-to-Repair Onsite (UW970E) 5 Yr 6 hr Call-to-Repair Onsite (UW971E) 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.

Specifications (continued)

	HP A5800-24G-PoE+ Switch (JC099A)	HP A5800-24G Switch (JC100A)	HP A5800-24G-SFP Switch with 1 Interface Slot (JC103A)
Standards and protocols (applies to all products in series)	**General protocols** IEEE 802.1ag Service Layer OAM IEEE 802.1D MAC Bridges IEEE 802.1p Priority IEEE 802.1Q VLANs IEEE 802.1s (MSTP) IEEE 802.1v VLAN classification by Protocol and Port IEEE 802.1w Rapid Reconfiguration of Spanning Tree IEEE 802.1X PAE IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3ae 10-Gigabit Ethernet IEEE 802.3x Flow Control RFC 768 UDP RFC 792 ICMP RFC 793 TCP RFC 826 ARP RFC 854 TELNET RFC 925 Multi-LAN Address Resolution RFC 951 BOOTP RFC 1058 RIPv1 RFC 1350 TFTP Protocol (revision 2) RFC 1519 CIDR RFC 1542 BOOTP Extensions RFC 2131 DHCP RFC 2453 RIPv2 RFC 3046 DHCP Relay Agent Information Option RFC 3576 Ext to RADIUS (CoA only) RFC 3768 VRRP RFC 4675 RADIUS VLAN & Priority 802.1r - GARP Proprietary Attribute Registration Protocol (GPRP) **IP multicast** RFC 2934 Protocol Independent Multicast MIB for IPv4 RFC 3376 IGMPv3 (host joins only) RFC 3618 Multicast Source Discovery Protocol (MSDP) RFC 3973 Draft 2 PIM Dense Mode RFC 4601 Draft 10 PIM Sparse Mode	**IPv6** RFC 2080 RIPng for IPv6 RFC 2460 IPv6 Specification RFC 2710 Multicast Listener Discovery (MLD) for IPv6 RFC 2740 OSPFv3 for IPv6 RFC 2925 Remote Operations MIB (Ping only) RFC 3019 MLDv1 MIB RFC 3162 RADIUS and IPv6 RFC 3315 DHCPv6 (client and relay) RFC 3315 DHCPv6 (client only) RFC 3810 MLDv2 (host joins only) RFC 4022 MIB for TCP RFC 4251 SSHv6 Architecture RFC 4252 SSHv6 Authentication RFC 4253 SSHv6 Transport Layer RFC 4254 SSHv6 Connection RFC 4293 MIB for IP RFC 4419 Key Exchange for SSH RFC 4443 ICMPv6 RFC 4541 IGMP & MLD Snooping Switch RFC 4861 IPv6 Neighbor Discovery RFC 4862 IPv6 Stateless Address Auto-configuration **MIBs** IEEE 8021-PAE-MIB IEEE 8023-LAG-MIB RFC 1213 MIB II RFC 1493 Bridge MIB RFC 1657 BGP-4 MIB RFC 1724 RIPv2 MIB RFC 1850 OSPFv2 MIB RFC 2011 SNMPv2 MIB for IP RFC 2013 SNMPv2 MIB for UDP RFC 2233 Interface MIB RFC 2273 SNMP-NOTIFICATION-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 2618 RADIUS Client MIB RFC 2620 RADIUS Accounting MIB RFC 2665 Ethernet-Like-MIB RFC 2674 802.1p and IEEE 802.1Q Bridge MIB RFC 2688 MAU-MIB RFC 2787 VRRP MIB RFC 2819 RMON MIB RFC 2925 Ping MIB RFC 3414 SNMP-User based-SM MIB RFC 3415 SNMP-View based-ACM MIB RFC 3418 MIB for SNMPv3 RFC 3621 Power Ethernet MIB RFC 3826 AES for SNMP's USM MIB RFC 4133 Entity MIB (Version 3) LLDP-EXT-DOT1-MIB LLDP-EXT-DOT3-MIB LLDP-MIB **Network management** IEEE 802.1AB Link Layer Discovery Protocol (LLDP) RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events) RFC 3176 sFlow ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED) SNMPv1/v2c/v3 **OSPF** RFC 2328 OSPFv2 RFC 3101 OSPF NSSA **Security** IEEE 802.1X Port Based Network Access Control RFC 1492 TACACS+ RFC 2865 RADIUS (client only) RFC 2866 RADIUS Accounting Secure Sockets Layer (SSL) SSHv2 Secure Shell

Specifications (continued)

	 **HP A5800-48G-PoE+ Switch with 1 Interface Slot (JC104A)**	 **HP A5800-48G Switch with 1 Interface Slot (JC105A)**	 **HP A5800-48G-PoE+ Switch with 2 Interface Slots (JC101A)**
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); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 1 extended module slot 4 fixed 1000/10000 SFP+ ports 1 RJ-45 serial console port	48 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 1 extended module slot 4 fixed 1000/10000 SFP+ ports 1 RJ-45 serial console port	48 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 2 extended module slots 1 open module slot 4 SFP fixed Gigabit Ethernet SFP ports 1 RJ-45 serial console port
Power supplies			2 power-supply slots 1 minimum power-supplies required (ordered separately)
Physical characteristics			
Dimensions	16.81(d) x 17.32(w) x 1.72(h) in. (42.7 x 44.0 x 4.36 cm) (1U height)	14.45(d) x 17.32(w) x 1.72(h) in. (36.7 x 44.0 x 4.36 cm) (1U height)	18.31(d) x 17.32(w) x 3.39(h) in. (46.5 x 44.0 x 8.61 cm) (2U height)
Weight	18.74 lb. (8.5 kg)	14.33 lb. (6.5 kg)	39.7 lb. (18.0 kg)
Memory and processor	512 MB SDRAM, 512 MB flash; packet buffer size: 8 MB	512 MB SDRAM, 512 MB flash; packet buffer size: 8 MB	512 MB SDRAM, 512 MB flash; packet buffer size: 8 MB
Performance			
Throughput	190 million pps	190 million pps	211 million pps
Routing/Switching capacity	256 Gbps	256 Gbps	284 Gbps
Routing table size	16000 entries	16000 entries	16000 entries
MAC address table size	32000 entries	32000 entries	32000 entries
Environment			
Operating temperature	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)
Operating relative humidity	10% to 90%	10% to 90%	10% to 90%
Electrical characteristics			
Maximum heat dissipation	447 BTU/hr (471.59 kJ/hr)	348 BTU/hr (367.14 kJ/hr)	6278 BTU/hr (6623.29 kJ/hr)
Voltage	100-120 / 200-240 VAC	100-120 / 200-240 VAC	100-120 / 200-240 VAC
DC voltage			300 W DC: –48 VDC to –60 VDC; 750 W DC: –54 VDC to –57 VDC
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; ROHS Compliance	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; ROHS Compliance	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR Subchapter J; NOM; ROHS Compliance
Emissions	VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR22 Class A; 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	VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR22 Class A; 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	VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR22 Class A; 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
Immunity			
Generic	ETSI EN 300 386 V1.3.3	ETSI EN 300 386 V1.3.3	ETSI EN 300 386 V1.3.3
EN	EN 55024:1998+ A1:2001 + A2:2003	EN 55024:1998+ A1:2001 + A2:2003	EN 55024:1998+ A1:2001 + A2:2003
ESD	EN 61000-4-2; IEC 61000-4-2	EN 61000-4-2; IEC 61000-4-2	EN 61000-4-2; IEC 61000-4-2
Radiated	EN 61000-4-3; IEC 61000-4-3	EN 61000-4-3; IEC 61000-4-3	EN 61000-4-3; IEC 61000-4-3
EFT/Burst	EN 61000-4-4; IEC 61000-4-4	EN 61000-4-4; IEC 61000-4-4	EN 61000-4-4; IEC 61000-4-4
Surge	EN 61000-4-5; IEC 61000-4-5	EN 61000-4-5; IEC 61000-4-5	EN 61000-4-5; IEC 61000-4-5
Conducted	EN 61000-4-6; IEC 61000-4-6	EN 61000-4-6; IEC 61000-4-6	EN 61000-4-6; IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8; EN 61000-4-8	IEC 61000-4-8; EN 61000-4-8	IEC 61000-4-8; EN 61000-4-8
Voltage dips and interruptions	EN 61000-4-11; IEC 61000-4-11	EN 61000-4-11; IEC 61000-4-11	EN 61000-4-11; IEC 61000-4-11
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3
Management	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager; Telnet; HTTPS; RMON1; FTP	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager; Telnet; HTTPS; RMON1; FTP	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager; Telnet; HTTPS; RMON1; FTP

Specifications (continued)

	HP A5800-48G-PoE+ Switch with 1 Interface Slot (JC104A)	HP A5800-48G Switch with 1 Interface Slot (JC105A)	HP A5800-48G-PoE+ Switch with 2 Interface Slots (JC101A)
Notes			Customer must order power supply, as the device does not come with a PSU. At least one JC087A/JC090A/JC089A is required.
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UV882E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV885E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV888E) 3-year, 24x7 SW phone support, software updates (UV891E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV883E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV886E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV889E) 4-year, 24x7 SW phone support, software updates (UV892E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV884E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV887E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV890E) 5-year, 24x7 SW phone support, software updates (UV893E) 3 Yr 6 hr Call-to-Repair Onsite (UW969E) 4 Yr 6 hr Call-to-Repair Onsite (UW970E) 5 Yr 6 hr Call-to-Repair Onsite (UW971E) 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.	3-year, 4-hour onsite, 13x5 coverage for hardware (UV882E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV885E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV888E) 3-year, 24x7 SW phone support, software updates (UV891E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV883E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV886E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV889E) 4-year, 24x7 SW phone support, software updates (UV892E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV884E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV887E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV890E) 5-year, 24x7 SW phone support, software updates (UV893E) 3 Yr 6 hr Call-to-Repair Onsite (UW969E) 4 Yr 6 hr Call-to-Repair Onsite (UW970E) 5 Yr 6 hr Call-to-Repair Onsite (UW971E) 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.	3-year, 4-hour onsite, 13x5 coverage for hardware (UV882E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV885E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV888E) 3-year, 24x7 SW phone support, software updates (UV891E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV883E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV886E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV889E) 4-year, 24x7 SW phone support, software updates (UV892E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV884E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV887E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV890E) 5-year, 24x7 SW phone support, software updates (UV893E) 3 Yr 6 hr Call-to-Repair Onsite (UW969E) 4 Yr 6 hr Call-to-Repair Onsite (UW970E) 5 Yr 6 hr Call-to-Repair Onsite (UW971E) 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.

Specifications (continued)

	HP A5800-48G-PoE+ Switch with 1 Interface Slot (JC104A)	HP A5800-48G Switch with 1 Interface Slot (JC105A)	HP A5800-48G-PoE+ Switch with 2 Interface Slots (JC101A)
Standards and protocols (applies to all products in series)	**General protocols** IEEE 802.1ag Service Layer OAM IEEE 802.1D MAC Bridges IEEE 802.1p Priority IEEE 802.1Q VLANs IEEE 802.1s (MSTP) IEEE 802.1v VLAN classification by Protocol and Port IEEE 802.1w Rapid Reconfiguration of Spanning Tree IEEE 802.1X PAE IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3ae 10-Gigabit Ethernet IEEE 802.3x Flow Control RFC 768 UDP RFC 792 ICMP RFC 793 TCP RFC 826 ARP RFC 854 TELNET RFC 925 Multi-LAN Address Resolution RFC 951 BOOTP RFC 1058 RIPv1 RFC 1350 TFTP Protocol (revision 2) RFC 1519 CIDR RFC 1542 BOOTP Extensions RFC 2131 DHCP RFC 2453 RIPv2 RFC 3046 DHCP Relay Agent Information Option RFC 3576 Ext to RADIUS (CoA only) RFC 3768 VRRP RFC 4675 RADIUS VLAN & Priority 802.1r - GARP Proprietary Attribute Registration Protocol (GPRP) **IP multicast** RFC 2934 Protocol Independent Multicast MIB for IPv4 RFC 3376 IGMPv3 (host joins only) RFC 3618 Multicast Source Discovery Protocol (MSDP) RFC 3973 Draft 2 PIM Dense Mode RFC 4601 Draft 10 PIM Sparse Mode	**IPv6** RFC 2080 RIPng for IPv6 RFC 2460 IPv6 Specification RFC 2710 Multicast Listener Discovery (MLD) for IPv6 RFC 2740 OSPFv3 for IPv6 RFC 2925 Remote Operations MIB (Ping only) RFC 3019 MLDv1 MIB RFC 3162 RADIUS and IPv6 RFC 3315 DHCPv6 (client and relay) RFC 3315 DHCPv6 (client only) RFC 3810 MLDv2 (host joins only) RFC 4022 MIB for TCP RFC 4251 SSHv6 Architecture RFC 4252 SSHv6 Authentication RFC 4253 SSHv6 Transport Layer RFC 4254 SSHv6 Connection RFC 4293 MIB for IP RFC 4419 Key Exchange for SSH RFC 4443 ICMPv6 RFC 4541 IGMP & MLD Snooping Switch RFC 4861 IPv6 Neighbor Discovery RFC 4862 IPv6 Stateless Address Auto-configuration **MIBs** IEEE 8021-PAE-MIB IEEE 8023-LAG-MIB RFC 1213 MIB II RFC 1493 Bridge MIB RFC 1657 BGP-4 MIB RFC 1724 RIPv2 MIB RFC 1850 OSPFv2 MIB RFC 2011 SNMPv2 MIB for IP RFC 2013 SNMPv2 MIB for UDP RFC 2233 Interface MIB RFC 2273 SNMP-NOTIFICATION-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 2618 RADIUS Client MIB RFC 2620 RADIUS Accounting MIB RFC 2665 Ethernet-Like-MIB RFC 2674 802.1p and IEEE 802.1Q Bridge MIB RFC 2688 MAU-MIB RFC 2787 VRRP MIB RFC 2819 RMON MIB RFC 2925 Ping MIB RFC 3414 SNMP-User based-SM MIB RFC 3415 SNMP-View based-ACM MIB RFC 3418 MIB for SNMPv3 RFC 3621 Power Ethernet MIB RFC 3826 AES for SNMP's USM MIB RFC 4133 Entity MIB (Version 3) LLDP-EXT-DOT1-MIB LLDP-EXT-DOT3-MIB LLDP-MIB **Network management** IEEE 802.1AB Link Layer Discovery Protocol (LLDP) RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events) RFC 3176 sFlow ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED) SNMPv1/v2c/v3 **OSPF** RFC 2328 OSPFv2 RFC 3101 OSPF NSSA **Security** IEEE 802.1X Port Based Network Access Control RFC 1492 TACACS+ RFC 2865 RADIUS (client only) RFC 2866 RADIUS Accounting Secure Sockets Layer (SSL) SSHv2 Secure Shell

HP A5800 Switch Series accessories

Modules

HP A5820X/A5800 4-port 10-GbE SFP+ Module (JC091A)
HP A5820X/A5800 2-port 10-GbE SFP+ Module (JC092B)
HP A5800 16-port Gig-T Module (JC094A)
HP A5800 16-port GbE SFP Module (JC095A)

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 X110 100M SFP LC LH40 Transceiver (JD090A)
HP X110 100M SFP LC LH80 Transceiver (JD091A)
HP X130 SFP+ LC SR Transceiver (JD092B)
HP X130 SFP+ LC LRM Transceiver (JD093B)
HP X130 SFP+ LC LR Transceiver (JD094B)
HP X110 100M SFP LC FX Transceiver (JD102B)
HP X120 1G SFP LC SX Transceiver (JD118B)
HP X120 1G SFP LC LX Transceiver (JD119B)
HP X110 100M SFP LC LX Transceiver (JD120B)
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)

Cables

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)

Power Supply

HP A5800/A5500 150W AC Power Supply (JD362A)
HP A5800/A5500 150W DC Power Supply (JD366A)
HP A5820/A5800 300W AC Power Supply (JC087A)
HP A5820/A5800 300W DC Power Supply (JC090A)
HP A5800 750W AC PoE Power Supply (JC089A)

EPS/RPS

HP A5800 PoE Module (JC097B)

Fan Tray

HP A5800 2RU Spare Fan Assembly (JC096A)
HP A5800 1RU Spare Fan Assembly for A5800-24G-SFP Switch with 1 Interface Slot (JC098A)

License

HP A-WX5000 32 AP License Upgrade (JD463A)

WLAN

HP A5800 Access Controller OAA Module (JD441A)
HP A5800 Access Controller Module (JD443A)

HP A5800-48G-PoE+ Switch with 2 Interface Slots (JC101A)

HP A5800 Access Controller OAA Module (JD441A)

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

4AA3-0731ENW, Created August 2010; Updated February 2011, Rev.3