



HP 5800 Switch Series

Data sheet

Product overview

HP 5800 series 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. In addition to wire-speed line-rate performance on all ports, the switches include patented Intelligent Resilient Framework (IRF) technology and Rapid Ring Protection Protocol (RRPP), which allow local or geographically distributed HP 5800 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, HP 5800 switches are built on open standards and include an open application architecture (OAA) module slot that enables flexible deployment options for new services. These versatile switches are ideal for use in the network core of buildings or departments, 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 for 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
- **Network Time Protocol (NTP):** synchronizes timekeeping among distributed time servers and clients; keeps consistent timekeeping among all clock-dependent devices within the network so that the devices can provide diverse applications based on the consistent time

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 Ethernet and 10-Gigabit ports, they 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

Resiliency and high availability

- **Data center-optimized design:** HP 5800AF-48G Switch (JG225A) supports front-to-back/back-to-front airflow for hot/cold aisles, rear rack mounts, and redundant hot-swappable AC or DC power and fans

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 a 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:** allows automatic learning and dynamic assignment of VLANs
- **32K MAC addresses:** provide access to many Layer 2 devices
- **4,094 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 RIPv6 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, RIPv6, OSPFv3, IS-ISv6, and BGPv6+
- **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 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 Protocol, 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 energy efficiency

Warranty and support

- **Lifetime warranty:** for as long as you own the product with advance replacement and next-business-day delivery (available in most countries)*
- **Electronic and telephone support:** limited electronic and telephone support is available from HP; 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 zI Module, HP Threat Management Services zI Module, HP PCM+ Agent with AllianceONE Services zI Module, and HP MSM765 zI Mobility Controller. For details, refer to the HP Software License, Warranty, and Support booklet at www.hp.com/networking/warranty.

HP 5800 Switch Series

Specifications



HP 5800-24G-PoE+ Switch (JC099A)



HP 5800-24G Switch (JC100A)



HP 5800-24G-SFP Switch (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 supply 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)	14.35(d) x 17.32(w) x 1.72(h) in. (36.45 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	1024 MB SDRAM, 512 MB flash; packet buffer size: 4 MB	1024 MB SDRAM, 512 MB flash; packet buffer size: 4 MB	1024 MB SDRAM, 512 MB flash; packet buffer size: 4 MB
Performance			
Latency	4.02 μ s (Store and Forward) (64-byte packets)	4.02 μ s (Store and Forward) (64-byte packets)	4.02 μ s (Store and Forward) (64-byte packets)
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%
Acoustic	Low-speed fan: 47.5 dB, High-speed fan: 52.4 dB	Low-speed fan: 42.3 dB, High-speed fan: 52.9 dB	Low-speed fan: 49.6 dB, High-speed fan: 58.1 dB
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 5800-24G-PoE+ Switch (JC099A)	HP 5800-24G Switch (JC100A)	HP 5800-24G-SFP Switch (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	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (UV882E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UV885E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UV888E)</p> <p>3-year, 24x7 SW phone support, software updates (UV891E)</p> <p>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR565E)</p> <p>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR566E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UV883E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UV886E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV889E)</p> <p>4-year, 24x7 SW phone support, software updates (UV892E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UV884E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UV887E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV890E)</p> <p>5-year, 24x7 SW phone support, software updates (UV893E)</p> <p>3 Yr 6 hr Call-to-Repair Onsite (UW969E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (UW970E)</p> <p>5 Yr 6 hr Call-to-Repair Onsite (UW971E)</p> <p>1-year, 6 hour Call-To-Repair Onsite for hardware (HR568E)</p> <p>1-year, 24x7 software phone support, software updates (HR567E)</p> <p>1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS650E)</p> <p>1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS651E)</p> <p>3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS652E)</p> <p>3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS653E)</p> <p>4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS654E)</p> <p>4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS655E)</p> <p>5-year, 24x7 software 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Specifications (continued)

HP 5800-24G-PoE+ Switch (JC099A)

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 5800-24G Switch (JC100A)

5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS657E)

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 5800-24G-SFP Switch (JC103A)

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

Standards and protocols (applies to all products in series)

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 5800 Switch Series

Specifications (continued)



HP 5800-48G-PoE Switch (JC104A)



HP 5800-48G Switch (JC105A)

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
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)
Weight	18.74 lb. (8.5 kg)	14.33 lb. (6.5 kg)
Memory and processor	1024 MB SDRAM, 512 MB flash; packet buffer size: 8 MB	1024 MB SDRAM, 512 MB flash; packet buffer size: 8 MB
Performance		
Latency	4.02 μ s (Store and Forward) (64-byte packets)	4.02 μ s (Store and Forward) (64-byte packets)
Throughput	190 million pps	190 million pps
Routing/Switching capacity	256 Gbps	256 Gbps
Routing table size	16000 entries	16000 entries
MAC address table size	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)
Operating relative humidity	10% to 90%	10% to 90%
Acoustic	Low-speed fan: 50.5 dB, High-speed fan: 57.9 dB	Low-speed fan: 45.3 dB, High-speed fan: 56.5 dB
Electrical characteristics		
Maximum heat dissipation	3320 BTU/hr (3502.6 kJ/hr)	557 BTU/hr (587.64 kJ/hr)
Voltage	100-120/200-240 VAC	100-120/200-240 VAC
Frequency	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
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
Immunity		
Generic	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
ESD	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
EFT/Burst	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
Conducted	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
Voltage dips and interruptions	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
Flicker	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
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (HQ063E) 3-year, 4-hour onsite, 24x7 coverage for hardware (HQ064E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (HQ067E) 3-year, 24x7 SW phone support, software updates (HQ066E) 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR569E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR570E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (HQ068E) 4-year, 4-hour onsite, 24x7 coverage for hardware (HQ069E)	3-year, 4-hour onsite, 13x5 coverage for hardware (HQ063E) 3-year, 4-hour onsite, 24x7 coverage for hardware (HQ064E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (HQ067E) 3-year, 24x7 SW phone support, software updates (HQ066E) 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR569E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR570E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (HQ068E) 4-year, 4-hour onsite, 24x7 coverage for hardware (HQ069E)

Specifications (continued)

HP 5800-48G-PoE Switch (JC104A)

4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HQ076E)
 4-year, 24x7 SW phone support, software updates (HQ074E)
 5-year, 4-hour onsite, 13x5 coverage for hardware (HQ071E)
 5-year, 4-hour onsite, 24x7 coverage for hardware (HQ072E)
 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HQ077E)
 5-year, 24x7 SW phone support, software updates (HQ075E)
 3 Yr 6 hr Call-to-Repair Onsite (HQ065E)
 4 Yr 6 hr Call-to-Repair Onsite (HQ070E)
 5 Yr 6 hr Call-to-Repair Onsite (HQ073E)
 1-year, 6 hour Call-To-Repair Onsite for hardware (HR573E)
 1-year, 24x7 software phone support, software updates (HR572E)
 1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR571E)
 1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS666E)
 1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS667E)
 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 5800-48G Switch (JC105A)

4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HQ076E)
 4-year, 24x7 SW phone support, software updates (HQ074E)
 5-year, 4-hour onsite, 13x5 coverage for hardware (HQ071E)
 5-year, 4-hour onsite, 24x7 coverage for hardware (HQ072E)
 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HQ077E)
 5-year, 24x7 SW phone support, software updates (HQ075E)
 3 Yr 6 hr Call-to-Repair Onsite (HQ065E)
 4 Yr 6 hr Call-to-Repair Onsite (HQ070E)
 5 Yr 6 hr Call-to-Repair Onsite (HQ073E)
 1-year, 6 hour Call-To-Repair Onsite for hardware (HR573E)
 1-year, 24x7 software phone support, software updates (HR572E)
 1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR571E)
 1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS666E)
 1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS667E)
 Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

Standards and protocols (applies to all products in series)

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 5800 Switch Series

Specifications (continued)



HP 5800-48G Switch with 2 Slots (JC101A)



HP 5800AF-48G Switch (JG225A)

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 2 extended module slots 1 open module slot 4 SFP fixed Gigabit Ethernet 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 6 fixed 1000/10000 SFP+ ports 1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 USB 2.0
Power supplies	2 power supply slots 1 minimum power supply required (ordered separately)	2 power supply slots 1 minimum power supply required (ordered separately)
Fan tray		2 fan tray slots The customer must order fan trays, as fan trays are not included with the switch. This system requires two same-direction airflow fan trays to function properly. The system should not be operated with only one fan tray for more than 24 hours. The system should not be operated without a fan tray more than two minutes. The system should not be operated outside of the temperature range of 32°F (0°C) to 113°F (45°C). Failure to comply with these operating requirements may void the product warranty.
Physical characteristics		
Dimensions	18.31(d) x 17.32(w) x 3.39(h) in. (46.5 x 44.0 x 8.61 cm) (2U height)	25.98(d) x 17.32(w) x 1.72(h) in. (66 x 44 x 4.36 cm) (1U height)
Weight	39.7 lb. (18.0 kg)	22.05 lb. (10 kg), Fully loaded
Memory and processor	1024 MB SDRAM, 512 MB flash; packet buffer size: 8 MB	1024 MB flash, 512 MB SDRAM; packet buffer size: 8 MB
Performance		
Latency	4.02 μs (Store and Forward) (64-byte packets)	< 5 μs (64-byte packets)
Throughput	211 million pps	161 million pps
Routing/Switching capacity	284 Gbps	216 Gbps
Routing table size	16000 entries	16000 entries
MAC address table size	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)
Operating relative humidity	10% to 90%	10% to 90%
Acoustic	Low-speed fan: 54 dB, High-speed fan: 58.5 dB	Low-speed fan: 60.1 dB, High-speed fan: 69.9 dB
Electrical characteristics		
Maximum heat dissipation	6278 BTU/hr (6623.29 kJ/hr)	426 BTU/hr (449.43 kJ/hr)
Voltage	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	650W DC: -36 VDC to -72 VDC
Frequency	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
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
Immunity		
Generic	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
ESD	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
EFT/Burst	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
Conducted	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
Voltage dips and interruptions	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
Flicker	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

HP 5800 Switch Series

Specifications (continued)

HP 5800-48G Switch with 2 Slots (JC101A)

HP 5800AF-48G Switch (JG225A)

Notes	The customer must order a power supply, as the device does not come with a PSU. At least one JC087A, JC090A, or JC089A is required.	The customer must order a power supply, as the device does not come with a PSU. At least one JC680A or JC681A is required.
Services	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (HQ063E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (HQ064E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (HQ067E)</p> <p>3-year, 24x7 SW phone support, software updates (HQ066E)</p> <p>1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR569E)</p> <p>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR570E)</p> <p>Installation with minimum configuration, system-based pricing (UW451E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (HQ068E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (HQ069E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HQ076E)</p> <p>4-year, 24x7 SW phone support, software updates (HQ074E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (HQ071E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (HQ072E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HQ077E)</p> <p>5-year, 24x7 SW phone support, software updates (HQ075E)</p> <p>3 Yr 6 hr Call-to-Repair Onsite (HQ065E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (HQ070E)</p> <p>5 Yr 6 hr Call-to-Repair Onsite (HQ073E)</p> <p>1-year, 6 hour Call-to-Repair Onsite for hardware (HR573E)</p> <p>1-year, 24x7 software phone support, software updates (HR572E)</p> <p>1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR571E)</p> <p>1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS666E)</p> <p>1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS667E)</p> <p>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.</p>	<p>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.</p>

Specifications (continued)

HP 5800-48G Switch with 2 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

HP 5800AF-48G Switch (JG225A)

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

Modules

HP 5800 4-port 10GbE SFP+ Module (JC091A)

HP 5800 2-port 10GbE SFP+ Module (JC092B)

HP 5800 16-port Gig-T Module (JC094A)

HP 5800 16-port SFP Module (JC095A)

Transceivers

HP X125 1G SFP LC LH40 1310nm Transceiver (JD061A)

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

HP X125 1G SFP LC LH70 Transceiver (JD063B)

HP X120 1G SFP LC SX Transceiver (JD118B)

HP X120 1G SFP LC LX Transceiver (JD119B)

HP X120 1G SFP RJ45 T Transceiver (JD089B)

HP X110 100M SFP LC LH40 Transceiver (JD090A)

HP X110 100M SFP LC LH80 Transceiver (JD091A)

HP X110 100M SFP LC FX Transceiver (JD102B)

HP X110 100M SFP LC LX Transceiver (JD120B)

HP X130 10G SFP+ LC SR Transceiver (JD092B)

HP X130 10G SFP+ LC LRM Transceiver (JD093B)

HP X130 10G SFP+ LC LR Transceiver (JD094B)

HP X130 10G SFP+ LC ER 40km Transceiver (JG234A)

HP X240 10G SFP+ to SFP+ 0.65m Direct Attach Copper Cable (JD095B)

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

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

HP X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable (JG081B)

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 5800/5500 150W AC Power Supply (JD362A)

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

HP 5800 300W AC Power Supply (JC087A)

HP 5800 300W DC Power Supply (JC090A)

HP 5800 750W AC Power Supply (JC089A)

HP RPS 800 Redundant Power Supply (JD183A)

HP RPS1600 Redundant Power System (JG136A)

HP RPS1600 1600W AC Power Supply (JG137A)

EPS/RPS

HP 5800 PoE Module (JC097B)

Fan Tray

HP 5800 2RU Spare Fan Assembly (JC096A)

HP 5800 1RU Spare Fan Assembly (JC098A)

WLAN

HP 5800 Access Controller Module for 64-256 Access Points (JD441A)

HP 5800 Access Controller Module for 32-64 Access Points (JD443A)

Appliance

HP 5820 VPN Firewall Module (JD255A)

HP 5800-48G Switch with 2 Slots (JC101A)

HP 5800 Access Controller Module for 64-256 Access Points (JD441A)

HP 5820 VPN Firewall Module (JD255A)

HP 5800AF-48G Switch (JG225A)

HP 58x0AF 650W AC Power Supply (JC680A)

HP 58x0AF 650W DC Power Supply (JC681A)

HP 58x0AF Back (power side) to Front (port side) Airflow Fan Tray (JC682A)

HP 58x0AF Front (port side) to Back (power side) Airflow Fan Tray (JC683A)

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