



# HP 5800 Switch Series



## Key features

- For enterprise edge, distribution, data center
- Cut-through design with low latency
- Support for up to 84 ports
- OAA module for flexible deployment
- Redundant, hot-swappable power supplies, fans

## 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 as well as 1 RU and 2 RU form factor 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 high-performance switches in the convergence layer or network edge of enterprise campus networks.

# Features and benefits

## Quality of Service (QoS)

- **Powerful QoS feature**  
creates traffic classes based on access control lists (ACLs), IEEE 802.1p precedence, IP, and 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**  
enables configuration and management through a secure Web browser or a CLI located on a remote device
- **IEEE 802.1ab LLDP discovery**  
advertises and receives management information from adjacent devices on a network, facilitating easy mapping by network management applications
- **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, which 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 timekeeping consistent 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, jumbo frames of 9k size 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
- **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
- **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)**  
help provide high levels of security and ease of administration without impacting network performance with a feature-rich TCAM-based ACL implementation
- **Unique versatile architecture**  
supports the best of both fixed-port and modular configurations

## Resiliency and high availability

- **Data center-optimized design**  
the 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 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
  - **Traceroute 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
- **10GbE port aggregation**  
allows grouping of ports to increase overall data throughput to a remote device
- **IPFIX/sFlow**  
allows traffic sampling
- **Spanning Tree Protocols (STP, MSTP, and RSTP) and STP root guard**  
helps prevent network loops; up to 32 MSTP instances available

### 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**  
provides a browser-based environment to authenticated clients that is similar to IEEE 802.1X
- **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 a client MAC address
- **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**  
helps prevent IP spoofing attacks; filters packets on a per-port basis, which prevents illegal packets from being forwarded
- **Access control lists (ACLs)**  
helps provide high levels of security and ease of administration; 6k ingress entries and 1k egress entries (IPv4 and IPv6)

## Convergence

- **Voice VLAN**  
automatically assigns VLAN and priority for IP phones, simplifying network configuration and maintenance
- **Internet Group Management Protocol (IGMP)**  
utilizes Any-Source Multicast (ASM) or Source-Specific Multicast (SSM) to manage IPv4 multicast networks; supports IGMPv1, v2, and v3
- **Protocol Independent Multicast (PIM)**  
defines modes of Internet multicasting to allow one-to-many and many-to-many transmission of information; PIM Dense Mode (DM), Sparse Mode (SM), and Source-Specific Mode (SSM) are supported
- **LLDP-MED (Media Endpoint Discovery)**  
defines 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)**  
operations, administration and maintenance (OAM) management capability 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 OAM mechanism used for link connectivity detection and fault locating

## Additional information

- **HP 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
  - does not require switches to be co-located and allows them to be part of a disaster-recovery system
  - allows servers or switches to 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**  
improves energy efficiency through the use of the latest advances in silicon development; shuts off unused ports and utilizes variable-speed fans, reducing energy costs
- **Higher scalability with IRF**  
simplifies the architecture of server access networks and reduces cost and complexity; up to nine 5800 Switches can be combined to deliver unmatched scalability of virtualized access layer switches and flatter, two-tier FlexFabric networks

## Warranty and support

- **Lifetime warranty**  
for as long as you own the product with advance replacement and next-business-day delivery (available in most countries)†
- **Electronic and telephone support**  
limited electronic and telephone support is available from HP; to reach our support centers, refer to [www.hp.com/networking/contact-support](http://www.hp.com/networking/contact-support); for details on the duration of support provided with your product purchase, refer to [www.hp.com/networking/warrantysummary](http://www.hp.com/networking/warrantysummary)
- **Software releases**  
to find software for your product, refer to [www.hp.com/networking/support](http://www.hp.com/networking/support); for details on the software releases available with your product purchase, refer to [www.hp.com/networking/warrantysummary](http://www.hp.com/networking/warrantysummary)

†HP warranty includes repair or replacement of hardware for as long as you own the product, with next business day advance replacement (available in most countries). The disk drive included with HP AllianceOne Advanced Services and Services z1 Modules, HP Threat Management Services z1 Module, HP AllianceOne Extended z1 Module with Riverbed Steelhead, HP MSM765z1 Mobility Controller and HP Survivable Branch Communication z1 Module powered by Microsoft Lync has a five-year hardware warranty. For details, refer to the Software license and hardware warranty statements at [www.hp.com/networking/warranty](http://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)**

	HP 5800-24G-PoE+ Switch (JC099A)	HP 5800-24G Switch (JC100A)	HP 5800-24G-SFP Switch (JC103A)
<b>Ports</b>	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
<b>Power supplies</b>			2 power supply slots 1 minimum power supply required (ordered separately)
<b>Physical characteristics</b>	17.3(w) x 16.8(d) x 1.71(h) in (43.94 x 42.67 x 4.34 cm) (1U height)  Weight 17.64 lb (8 kg)	17.32(w) x 14.35(d) x 1.72(h) in (44.0 x 36.45 x 4.36 cm) (1U height)  Weight 13.23 lb (6 kg)	17.32(w) x 16.81(d) x 1.72(h) in (44.0 x 42.7 x 4.36 cm) (1U height)  Weight 18.74 lb (8.5 kg)
<b>Memory and processor</b>	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
<b>Performance</b>	Latency 4.02 $\mu$ s (Store and Forward) (64-byte packets) Throughput 155 million pps Routing/Switching capacity 208 Gb/s Routing table size 16000 entries (IPv4) MAC address table size 32000 entries	Latency 4.02 $\mu$ s (Store and Forward) (64-byte packets) Throughput 155 million pps Routing/Switching capacity 208 Gb/s Routing table size 16000 entries (IPv4) MAC address table size 32000 entries	Latency 4.02 $\mu$ s (Store and Forward) (64-byte packets) Throughput 155 million pps Routing/Switching capacity 208 Gb/s Routing table size 16000 entries (IPv4) MAC address table size 32000 entries
<b>Environment</b>	Operating temperature 32°F to 113°F (0°C to 45°C) Operating relative humidity 10% to 90% Acoustic Low-speed fan: 47.5 dB, High-speed fan: 52.4 dB	Operating temperature 32°F to 113°F (0°C to 45°C) Operating relative humidity 10% to 90% Acoustic Low-speed fan: 42.3 dB, High-speed fan: 52.9 dB	Operating temperature 32°F to 113°F (0°C to 45°C) Operating relative humidity 10% to 90% Acoustic Low-speed fan: 49.6 dB, High-speed fan: 58.1 dB
<b>Electrical characteristics</b>	Frequency 50/60 Hz Maximum heat dissipation 2968 BTU/hr (3131.24 kJ/hr) Voltage 100-120/200-240 VAC DC voltage	Frequency 50/60 Hz Maximum heat dissipation 358 BTU/hr (377.69 kJ/hr) Voltage 100-120-240 VAC DC voltage	Frequency 50/60 Hz Maximum heat dissipation 498 BTU/hr (525.39 kJ/hr) Voltage 100-120/200-240 VAC DC voltage -48 VDC to -60 VDC
<b>Safety</b>	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
<b>Emissions</b>	VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR 22 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 CISPR 22 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 CISPR 22 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
<b>Immunity</b>	Generic ETSI EN 300 386 V1.3.3 EN EN 55024:1998+ A1:2001 + A2:2003 ESD EN 61000-4-2; IEC 61000-4-2 Radiated EN 61000-4-3; IEC 61000-4-3 EFT/Burst EN 61000-4-4; IEC 61000-4-4 Surge EN 61000-4-5; IEC 61000-4-5 Conducted EN 61000-4-6; IEC 61000-4-6 Power frequency magnetic field IEC 61000-4-8; EN 61000-4-8 Voltage dips and interruptions EN 61000-4-11; IEC 61000-4-11 Harmonics EN 61000-3-2; IEC 61000-3-2 Flicker EN 61000-3-3; IEC 61000-3-3	Generic ETSI EN 300 386 V1.3.3 EN EN 55024:1998+ A1:2001 + A2:2003 ESD EN 61000-4-2; IEC 61000-4-2 Radiated EN 61000-4-3; IEC 61000-4-3 EFT/Burst EN 61000-4-4; IEC 61000-4-4 Surge EN 61000-4-5; IEC 61000-4-5 Conducted EN 61000-4-6; IEC 61000-4-6 Power frequency magnetic field IEC 61000-4-8; EN 61000-4-8 Voltage dips and interruptions EN 61000-4-11; IEC 61000-4-11 Harmonics EN 61000-3-2; IEC 61000-3-2 Flicker EN 61000-3-3; IEC 61000-3-3	Generic ETSI EN 300 386 V1.3.3 EN EN 55024:1998+ A1:2001 + A2:2003 ESD EN 61000-4-2; IEC 61000-4-2 Radiated EN 61000-4-3; IEC 61000-4-3 EFT/Burst EN 61000-4-4; IEC 61000-4-4 Surge EN 61000-4-5; IEC 61000-4-5 Conducted EN 61000-4-6; IEC 61000-4-6 Power frequency magnetic field IEC 61000-4-8; EN 61000-4-8 Voltage dips and interruptions EN 61000-4-11; IEC 61000-4-11 Harmonics EN 61000-3-2; IEC 61000-3-2 Flicker EN 61000-3-3; IEC 61000-3-3

# HP 5800 Switch Series

## Specifications (continued)

	HP 5800-24G-PoE+ Switch (JC099A)	HP 5800-24G Switch (JC100A)	HP 5800-24G-SFP Switch (JC103A)
<b>Management</b>	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
<b>Notes</b>			The customer must order a power supply, as the device does not come with a PSU. At least one JD362A or JD366A is required.
<b>Services</b>	<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 phone support, software updates + Next Business Day Hardware Exchange (HS656E)</p>	<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>Installation with minimum configuration, system-based pricing (UW451E)</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>1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS651E)</p> <p>3-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>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>4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS655E)</p>	<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>Installation with minimum configuration, system-based pricing (UW451E)</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, 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 phone support, software updates + Next Business Day Hardware Exchange (HS656E)</p>

# HP 5800 Switch Series

## Specifications (continued)

HP 5800-24G-PoE+ Switch (JC099A)	HP 5800-24G Switch (JC100A)	HP 5800-24G-SFP Switch (JC103A)
<p>5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS657E)</p> <p>Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> 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>5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS656E)</p> <p>5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS657E)</p> <p>Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> 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>5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS657E)</p> <p>Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> 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>

# HP 5800 Switch Series

## Specifications (continued)



**HP 5800-48G-PoE Switch (JC104A)**



**HP 5800-48G Switch (JC105A)**

<b>Ports</b>	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
<b>Physical characteristics</b>	17.32(w) x 16.81(d) x 1.72(h) in (44.0 x 42.7 x 4.36 cm) (1U height)	17.32(w) x 14.45(d) x 1.72(h) in (44.0 x 36.7 x 4.36 cm) (1U height)
Weight	18.74 lb (8.5 kg)	14.33 lb (6.5 kg)
<b>Memory and processor</b>	1024 MB SDRAM, 512 MB flash; packet buffer size: 8 MB	1024 MB SDRAM, 512 MB flash; packet buffer size: 8 MB
<b>Performance</b>	4.02 $\mu$ s (Store and Forward) (64-byte packets)	4.02 $\mu$ s (Store and Forward) (64-byte packets)
Latency	4.02 $\mu$ s (Store and Forward) (64-byte packets)	4.02 $\mu$ s (Store and Forward) (64-byte packets)
Throughput	190 million pps	190 million pps
Routing/Switching capacity	256 Gb/s	256 Gb/s
Routing table size	16000 entries (IPv4)	16000 entries (IPv4)
MAC address table size	32000 entries	32000 entries
<b>Environment</b>	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)
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
<b>Electrical characteristics</b>	50/60 Hz	50/60 Hz
Frequency	50/60 Hz	50/60 Hz
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
<b>Safety</b>	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
<b>Emissions</b>	VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR 22 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 CISPR 22 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
<b>Immunity</b>	ETSI EN 300 386 V1.3.3	ETSI EN 300 386 V1.3.3
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
<b>Management</b>	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
<b>Services</b>	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)	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)



# HP 5800 Switch Series

## Specifications (continued)

HP 5800-48G-PoE Switch (JC104A)	HP 5800-48G Switch (JC105A)
<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 <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> 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>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 <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> 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>

# HP 5800 Switch Series

## Specifications (continued)



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



**HP 5800AF-48G Switch (JG225A)**

<b>Ports</b>	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
<b>Power supplies</b>	2 power supply slots 1 minimum power supply required (ordered separately)	2 power supply slots 1 minimum power supply required (ordered separately)
<b>Fan tray</b>		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.
<b>Physical characteristics</b>	17.32(w) x 18.31(d) x 3.39(h) in (44.0 x 46.5 x 8.61 cm) (2U height) 39.7 lb (18.0 kg)	17.32(w) x 25.98(d) x 1.72(h) in (43.99 x 65.99 x 4.37 cm) (1U height) 22.05 lb (10 kg), Fully loaded
<b>Memory and processor</b>	1024 MB SDRAM, 512 MB flash; packet buffer size: 8 MB	1024 MB flash, 512 MB SDRAM; packet buffer size: 8 MB
<b>Performance</b>	Latency 4.02 μs (Store and Forward) (64-byte packets) Throughput 211 million pps Routing/Switching capacity 284 Gb/s Routing table size 16000 entries (IPv4) MAC address table size 32000 entries	< 5 μs (64-byte packets) 161 million pps 216 Gb/s 16000 entries (IPv4) 32000 entries
<b>Environment</b>	Operating temperature 32°F to 113°F (0°C to 45°C) Operating relative humidity 10% to 90% Acoustic Low-speed fan: 54 dB, High-speed fan: 58.5 dB	32°F to 113°F (0°C to 45°C) 10% to 90% Low-speed fan: 60.1 dB, High-speed fan: 69.9 dB
<b>Electrical characteristics</b>	Frequency 50/60 Hz Maximum heat dissipation 6278 BTU/hr (6623.29 kJ/hr) Voltage 100-120/200-240 VAC DC voltage 300 W DC: -48 VDC to -60 VDC; 750 W DC: -54 VDC to -57 VDC	50/60 Hz 426 BTU/hr (449.43 kJ/hr) 100-120/200-240 VAC 650W DC: -36 VDC to -72 VDC
<b>Safety</b>	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
<b>Emissions</b>	VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR 22 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 CISPR 22 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
<b>Immunity</b>	Generic ETSI EN 300 386 V1.3.3 EN EN 55024:1998+ A1:2001 + A2:2003 ESD EN 61000-4-2; IEC 61000-4-2 Radiated EN 61000-4-3; IEC 61000-4-3 EFT/Burst EN 61000-4-4; IEC 61000-4-4 Surge EN 61000-4-5; IEC 61000-4-5 Conducted EN 61000-4-6; IEC 61000-4-6 Power frequency magnetic field IEC 61000-4-8; EN 61000-4-8 Voltage dips and interruptions EN 61000-4-11; IEC 61000-4-11 Harmonics EN 61000-3-2, IEC 61000-3-2 Flicker EN 61000-3-3, IEC 61000-3-3	ETSI EN 300 386 V1.3.3 EN 55024:1998+ A1:2001 + A2:2003 EN 61000-4-2; IEC 61000-4-2 EN 61000-4-3; IEC 61000-4-3 EN 61000-4-4; IEC 61000-4-4 EN 61000-4-5; IEC 61000-4-5 EN 61000-4-6; IEC 61000-4-6 IEC 61000-4-8; EN 61000-4-8 EN 61000-4-11; IEC 61000-4-11 EN 61000-3-2, IEC 61000-3-2 EN 61000-3-3, IEC 61000-3-3

# HP 5800 Switch Series

## Specifications (continued)

	HP 5800-48G Switch with 2 Slots (JC101A)	HP 5800AF-48G Switch (JG225A)
<b>Management</b>	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
<b>Notes</b>	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.
<b>Services</b>	<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 <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> 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 <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> 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>

**Standards and Protocols**

(applies to all products in series)

<b>General protocols</b>	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 802.3af Power over Ethernet IEEE 802.3at 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 1812 IPv4 Routing RFC 2131 DHCP RFC 2236 IGMP Snooping RFC 2370 OSPF Opaque LSA Option RFC 2385 TCP MD5 Authentication for BGPv4 RFC 2453 RIPv2 RFC 2475 Architecture for Differentiated Services	RFC 2597 Assured Forwarding PHB Group RFC 3046 DHCP Relay Agent Information Option RFC 3209 RSVP-TE Extensions to RSVP for LSP Tunnels RFC 3576 Ext to RADIUS (CoA only) RFC 3584 Coexistence between Version 1 and Version 2 of the Internet-standard Network Management Framework RFC 3623 Graceful OSPF Restart RFC 3768 VRRP RFC 4090 Fast Reroute Extensions to RSVP-TE for LSP Tunnels RFC 4291 IP Version 6 Addressing Architecture RFC 4675 RADIUS VLAN & Priority RFC 4762 Virtual Private LAN Service (VPLS) Using Label Distribution Protocol (LDP) Signaling 802.1r - GARP Proprietary Attribute Registration Protocol (GPRP)
<b>IP multicast</b>	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 PIM Sparse Mode
<b>IPv6</b>	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
<b>MIBs</b>	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
<b>Network management</b>	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
<b>OSPF</b>		RFC 2328 OSPFv2	RFC 3101 OSPF NSSA
<b>Security</b>	IEEE 802.1X Port Based Network Access Control RFC 1492 TACACS+	RFC 2865 RADIUS (client only) RFC 2866 RADIUS Accounting Access Control Lists (ACLs)	Secure Sockets Layer (SSL) SSHv2 Secure Shell

## HP 5800 Switch Series accessories

### 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 X120 1G SFP LC BX 10-U Transceiver (JD098B)  
HP X120 1G SFP LC BX 10-D Transceiver (JD099B)  
HP X110 100M SFP LC LH40 Transceiver (JD090A)  
HP X110 100M SFP LC LH80 Transceiver (JD091A)  
HP X115 100M SFP LC BX 10-U Transceiver (JD100A)  
HP X115 100M SFP LC BX 10-D Transceiver (JD101A)  
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 (JD095C)  
HP X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable (JD096C)  
HP X240 10G SFP+ to SFP+ 3m Direct Attach Copper Cable (JD097C)  
HP X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable (JG081C)  
HP X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable (JC784C)

### Cables

HP Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable (QK732A)  
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable (QK733A)  
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable (QK734A)  
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable (QK735A)  
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable (QK736A)  
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable (QK737A)

### 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)

### Appliance

HP 5820 VPN Firewall Module (JD255A)

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

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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