



HPE 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

HPE 5800 Switch Series 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 HPE 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, HPE 5800 Switch Series 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
 - HPE 5800AF-48G Switch (JG225A) supports

Front-to-back and back-to-front airflow for hot or 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
- MPLS support
Provides extended support of MPLS, including MPLS VPNs and MPLS Traffic Engineering (MPLS TE)
- 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 URPF
- Defense-in-depth security
Provides integrated and distributed security enforcement that can be managed from a central location, such as the HPE Intelligent Management Center (IMC)
- Advanced processor queuing mechanism
Helps prevent denial-of-service (DoS) attacks, while DHCP Snooping helps facilitate 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; supports PIM Dense Mode (DM), Sparse Mode (SM), and Source-Specific Mode (SSM)
- 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

- HPE 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 helping eliminate 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 HPE 5800 switches can be combined to deliver unmatched scalability of virtualized access layer switches and flatter, two-tier FlexFabric networks

Warranty and support

- Limited lifetime warranty

See hpe.com/networking/warrantysummary for warranty and support information included with your product purchase.
- Software releases

To find software for your product, refer to hpe.com/networking/support; for details on the software releases available with your product purchase, refer to hpe.com/networking/warrantysummary.

HPE 5800 Switch Series



Specifications	HPE 5800-24G-PoE+ Switch (JC099B)	HPE 5800-24G Switch (JC100B)	HPE 5800-24G-SFP Switch with 1 Interface Slot (JC103B)
I/O ports and slots	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	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	24 SFP fixed Gigabit Ethernet SFP ports 1 extended module slot 4 fixed 1000/10000 SFP+ ports
Additional ports and slots	1 RJ-45 serial console port	1 RJ-45 serial console port	1 RJ-45 serial console port
Power supplies	Included	Included	2 power supply slots 1 minimum power supply required (ordered separately)
Physical characteristics			
Dimensions	17.3(w) x 16.8(d) x 1.71(h) in. (43.94 x 42.67 x 4.34 cm) (1U height)	17.32(w) x 14.35(d) x 1.72(h) in. (44.0 x 36.45 x 4.36 cm) (1U height)	17.32(w) x 16.81(d) x 1.72(h) in. (44.0 x 42.7 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	2048 MB SDRAM, 512 MB flash; packet buffer size: 4 MB	2048 MB SDRAM, 512 MB flash; packet buffer size: 4 MB	2048 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 Mpps	155 Mpps	155 Mpps
Routing/Switching capacity	208 Gbps	208 Gbps	208 Gbps
Routing table size	16000 entries (IPv4)	16000 entries (IPv4)	16000 entries (IPv4)
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			
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Maximum heat dissipation	2968 BTU/hr (3131.24 kJ/hr)	358 BTU/hr (377.69 kJ/hr)	498 BTU/hr (525.39 kJ/hr)
AC voltage	100–120/200–240 VAC	100–120–240 VAC	100–120/200–240 VAC

HPE 5800 Switch Series

Specifications (continued)	HPE 5800-24G-PoE+ Switch (JC099B)	HPE 5800-24G Switch (JC100B)	HPE 5800-24G-SFP Switch with 1 Interface Slot (JC103B)
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 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
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
Notes			The customer must order a power supply, as the device does not come with a PSU. At least one JD362A/JD362B or JD366A/JD366B is required.
Services	Refer to the Hewlett Packard Enterprise website at hpe.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 Hewlett Packard Enterprise sales office.	Refer to the Hewlett Packard Enterprise website at hpe.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 Hewlett Packard Enterprise sales office.	Refer to the Hewlett Packard Enterprise website at hpe.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 Hewlett Packard Enterprise sales office.

HPE 5800 Switch Series



Specifications

HPE 5800-48G-PoE+ Switch with 1 Interface Slot (JC104B)

HPE 5800-48G Switch with 1 Interface Slot (JC105B)

I/O ports and slots

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

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

Additional ports and slots

1 RJ-45 serial console port

1 RJ-45 serial console port

Physical characteristics

Dimensions

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)

Memory and processor

2048 MB SDRAM, 512 MB flash; packet buffer size: 8 MB

2048 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 Mpps

190 Mpps

Routing/Switching capacity

256 Gbps

256 Gbps

Routing table size

16000 entries (IPv4)

16000 entries (IPv4)

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

HPE 5800 Switch Series

Specifications (continued)	HPE 5800-48G-PoE+ Switch with 1 Interface Slot (JC104B)	HPE 5800-48G Switch with 1 Interface Slot (JC105B)
Electrical characteristics		
Frequency	50/60 Hz	50/60 Hz
Maximum heat dissipation	3320 BTU/hr (3502.6 kJ/hr)	557 BTU/hr (587.64 kJ/hr)
AC voltage	100–120/200–240 VAC	100–120/200–240 VAC
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 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
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	Refer to the Hewlett Packard Enterprise website at hpe.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 Hewlett Packard Enterprise sales office.	Refer to the Hewlett Packard Enterprise website at hpe.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 Hewlett Packard Enterprise sales office.

HPE 5800 Switch Series



Specifications

HPE 5800-48G-PoE+ Switch with 2 Interface Slots (JC101B)

HPE 5800AF-48G Switch (JG225B)

I/O ports and slots

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

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

Additional ports and slots

1 RJ-45 serial console port

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

17.32(w) x 18.31(d) x 3.39(h) in. (44.0 x 46.5 x 8.61 cm)
(2U height)

17.32(w) x 25.98(d) x 1.72(h) in. (43.99 x 65.99 x 4.37 cm)
(1U height)

Weight

39.7 lb (18.0 kg)

22.05 lb (10 kg) shipping weight

Memory and processor

2048 MB SDRAM, 512 MB flash; packet buffer size: 8 MB

2048 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 Mpps

161 Mpps

Routing/Switching capacity

284 Gbps

216 Gbps

Routing table size

16000 entries (IPv4)

16000 entries (IPv4)

MAC address table size

32000 entries

32000 entries

HPE 5800 Switch Series

Specifications (continued)	HPE 5800-48G-PoE+ Switch with 2 Interface Slots (JC101B)	HPE 5800AF-48G Switch (JG225B)
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		
Frequency	50/60 Hz	50/60 Hz
Maximum heat dissipation	6278 BTU/hr (6623.29 kJ/hr)	426 BTU/hr (449.43 kJ/hr)
AC voltage	100–120/200–240 VAC	100–120/200–240 VAC
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 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
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
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	Refer to the Hewlett Packard Enterprise website at hpe.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 Hewlett Packard Enterprise sales office.	Refer to the Hewlett Packard Enterprise website at hpe.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 Hewlett Packard Enterprise sales office.

HPE 5800 Switch Series

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 802.3af 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)
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 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

HPE 5800 Switch Series

Standards and Protocols (continued)

(Applies to all products in series)

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	Access Control Lists (ACLs) Secure Sockets Layer (SSL) SSHv2 Secure Shell

HPE 5800 Switch Series accessories

(Applies to all products in series)

Transceivers	HPE X125 1G SFP LC LH40 1310nm Transceiver (JD061A) HPE X120 1G SFP LC LH40 1550nm Transceiver (JD062A) HPE X125 1G SFP LC LH70 Transceiver (JD063B) HPE X120 1G SFP LC SX Transceiver (JD118B) HPE X120 1G SFP LC LX Transceiver (JD119B) HPE X120 1G SFP RJ45 T Transceiver (JD089B) HPE X110 100M SFP LC LH40 Transceiver (JD090A) HPE X110 100M SFP LC LH80 Transceiver (JD091A) HPE X115 100M SFP LC BX 10-U Transceiver (JD100A) HPE X115 100M SFP LC BX 10-D Transceiver (JD101A) HPE X110 100M SFP LC FX Transceiver (JD102B) HPE X110 100M SFP LC LX Transceiver (JD120B) HPE X130 10G SFP+ LC SR Transceiver (JD092B) HPE X130 10G SFP+ LC LRM Transceiver (JD093B) HPE X130 10G SFP+ LC LR Transceiver (JD094B) HPE X130 10G SFP+ LC ER 40km Transceiver (JG234A) HPE X240 10G SFP+ to SFP+ 0.65m Direct Attach Copper Cable (JD095C) HPE X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable (JD096C) HPE X240 10G SFP+ to SFP+ 3m Direct Attach Copper Cable (JD097C) HPE X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable (JG081C) HPE X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable (JC784C)
Cables	HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable (QK732A) HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable (QK733A) HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable (QK734A) HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable (QK735A) HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable (QK736A) HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable (QK737A)
Power supply	HPE RPS 800 Redundant Power Supply (JD183A) HPE RPS1600 Redundant Power System (JG136A) HPE RPS1600 1600W AC Power Supply (JG137A)

HPE 5800 Switch model-specific accessories

HPE 5800-24G-PoE+ Switch (JC099B)	HPE 5800 4-port 10GbE SFP+ Module (JC091A) HPE 5800 2-port 10GbE SFP+ Module (JC092B) HPE 5800 16-port Gig-T Module (JC094A) HPE 5800 16-port SFP Module (JC095A) HPE 5800 1RU Spare Fan Assembly (JC098A)
HPE 5800-24G Switch (JC100B)	HPE 5800 4-port 10GbE SFP+ Module (JC091A) HPE 5800 2-port 10GbE SFP+ Module (JC092B) HPE 5800 16-port Gig-T Module (JC094A) HPE 5800 16-port SFP Module (JC095A) HPE 5800 1RU Spare Fan Assembly (JC098A)
HPE 5800-48G-PoE+ Switch with 2 Interface Slots (JC101B)	HPE 5800 4-port 10GbE SFP+ Module (JC091A) HPE 5800 2-port 10GbE SFP+ Module (JC092B) HPE 5800 16-port Gig-T Module (JC094A) HPE 5800 16-port SFP Module (JC095A) HPE 5800 300W AC Power Supply (JC087A) HPE 5800 750W AC Power Supply (JC089A) HPE 5800 300W DC Power Supply (JC090A) HPE 5800 PoE Module (JC097B) HPE 5800 2RU Spare Fan Assembly (JC096A) HPE 5820 VPN Firewall Module (JD255A)
HPE 5800-24G-SFP Switch with 1 Interface Slot (JC103B)	HPE 5800 4-port 10GbE SFP+ Module (JC091A) HPE 5800 2-port 10GbE SFP+ Module (JC092B) HPE 5800 16-port Gig-T Module (JC094A) HPE 5800 16-port SFP Module (JC095A) HPE X361 150W AC Power Supply (JD362B) HPE X361 150W DC Power Supply (JD366B) HPE 5800 1RU Spare Fan Assembly (JC098A)
HPE 5800-48G-PoE+ Switch with 1 Interface Slot (JC104B)	HPE 5800 4-port 10GbE SFP+ Module (JC091A) HPE 5800 2-port 10GbE SFP+ Module (JC092B) HPE 5800 16-port Gig-T Module (JC094A) HPE 5800 16-port SFP Module (JC095A) HPE 5800 1RU Spare Fan Assembly (JC098A)
HPE 5800-48G Switch with 1 Interface Slot (JC105B)	HPE 5800 4-port 10GbE SFP+ Module (JC091A) HPE 5800 2-port 10GbE SFP+ Module (JC092B) HPE 5800 16-port Gig-T Module (JC094A) HPE 5800 16-port SFP Module (JC095A) HPE 5800 1RU Spare Fan Assembly (JC098A)
HPE 5800AF-48G Switch (JG225B)	HPE 58x0AF 650W AC Power Supply (JC680A) HPE 58x0AF 650W DC Power Supply (JC681A) HPE 58x0AF Back (power side) to Front (port side) Airflow Fan Tray (JC682A) HPE 58x0AF Front (port side) to Back (power side) Airflow Fan Tray (JC683A)

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