Overview

Models

HP 5800-24G-PoE+ Switch	JC099A
HP 5800-24G Switch	JC100A
HP 5800-24G-SFP Switch	JC103A
HP 5800-48G-PoE Switch	JC104A
HP 5800-48G Switch	JC105A
HP 5800-48G Switch with 2 Slots	JC101A
HP 5800AF-48G Switch	JG225A

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

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 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.

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**:

Overview

  - 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, maximum frame length of 9K; 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

Overview

- IEEE 802.1ad QinQ and Selective QinQ: increase the scalability of an Ethernet network by providing a hierarchical structure; connect multiple LANs on a high-speed campus or metro network
- Gigabit Ethernet port aggregation: allows grouping of ports to increase overall data throughput to a remote device
- 10 GbE port aggregation: allows grouping of ports to increase overall data throughput to a remote device
- Spanning Tree/MSTP, RSTP, and STP Root Guard: prevent network loops
- IPFIX/sFlow: allows traffic sampling

Layer 3 services

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

Layer 3 routing

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

Security

- Unicast Reverse Path Forwarding (URPF): allows normal packets to be forwarded correctly, but discards the attaching packet due to lack of reverse path route or incorrect inbound interface; prevents source spoofing and distributed attacks; supports distributed UFPF
- Defense-in-depth security: provides integrated and distributed security enforcement that can be managed from a central location, such as the HP Intelligent Management Center (IMC)
- Advanced processor queuing mechanism: helps prevent denial-of-service (DoS) attacks, while DHCP snooping helps ensure that devices can only receive an IP address from a legitimate DHCP server on the network
- IEEE 802.1X-based dynamic delivery of QoS, ACLs, and VLANs: allows complete control over user network access
- Guest VLAN: similar to IEEE 802.1X, it provides a browser-based environment to authenticated clients
- Port isolation: secures and adds privacy, and prevents malicious attackers from obtaining user information
- MAC-based authentication: allows or denies access to the switch based on client MAC address
- IP source guard: helps prevent IP spoofing attacks
- HTTPS management: provides secure Web management
- Multi-Customer Edge (MCE)-Multicast Virtual Routing and Forwarding (MVRF): provide MPLS Edge router support
- Public Key Infrastructure (PKI): is used to control access
- RADIUS/HWTACACS: eases switch management security administration by using a password authentication server

Overview

- 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 zl Module, HP Threat Management Services zl Module, HP PCM+ Agent with AllianceONE Services zl Module, and HP E-MSM765 zl Mobility Controller. For details, refer to the HP Software License, Warranty, and Support booklet at: www.hp.com/networking/warranty.

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

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	
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)
	Weight	17.64 lb. (8 kg)
Memory and processor	1024 MB SDRAM, 512 MB flash; packet buffer size: 4 MB	
Performance	Latency	4.02 μs (Store and Forward) (64-byte packets)
	Throughput	155 million pps
	Routing/Switching capacity	208 Gbps
	Routing table size	16000 entries
	MAC address table size	32000 entries
Environment	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
Electrical characteristics	Maximum heat dissipation	2968 BTU/hr (3131.24 kJ/hr)
	Voltage	100-120/200-240 VAC
	Frequency	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	
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	
Immunity	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

Technical Specifications

Management	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 (UV882E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV885E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UV888E) 3-year, 24x7 SW phone support, software updates (UV891E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR565E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR566E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV883E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV886E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV889E) 4-year, 24x7 SW phone support, software updates (UV892E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV884E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV887E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV890E) 5-year, 24x7 SW phone support, software updates (UV893E) 3 Yr 6 hr Call-to-Repair Onsite (UW969E) 4 Yr 6 hr Call-to-Repair Onsite (UW970E) 5 Yr 6 hr Call-to-Repair Onsite (UW971E) 1-year, 6 hour Call-To-Repair Onsite for hardware (HR568E) 1-year, 24x7 software phone support, software updates (HR567E) 1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS650E) 1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS651E) 3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS652E) 3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS653E) 4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS654E) 4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS655E) 5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS656E) 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 Switch (JC100A)

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	
Physical characteristics	Dimensions	14.35(d) x 17.32(w) x 1.72(h) in. (36.45 x 44.0 x 4.36 cm) (1U height)
	Weight	13.23 lb. (6 kg)
Memory and processor	1024 MB SDRAM, 512 MB flash; packet buffer size: 4 MB	

Technical Specifications

Performance	Latency	4.02 μs (Store and Forward) (64-byte packets)
	Throughput	155 million pps
	Routing/Switching capacity	208 Gbps
	Routing table size	16000 entries
	MAC address table size	32000 entries
Environment	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
Electrical characteristics	Maximum heat dissipation	358 BTU/hr (377.69 kJ/hr)
	Voltage	100-120-240 VAC
	Frequency	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	
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	
Immunity	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
Management	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 (UV882E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV885E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UV888E) 3-year, 24x7 SW phone support, software updates (UV891E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR565E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR566E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV883E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV886E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV889E)	

4-year, 24x7 SW phone support, software updates (UV892E)
5-year, 4-hour onsite, 13x5 coverage for hardware (UV884E)
5-year, 4-hour onsite, 24x7 coverage for hardware (UV887E)
5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV890E)
5-year, 24x7 SW phone support, software updates (UV893E)
3 Yr 6 hr Call-to-Repair Onsite (UW969E)
4 Yr 6 hr Call-to-Repair Onsite (UW970E)
5 Yr 6 hr Call-to-Repair Onsite (UW971E)
1-year, 6 hour Call-To-Repair Onsite for hardware (HR568E)
1-year, 24x7 software phone support, software updates (HR567E)
1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS650E)
1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS651E)
3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS652E)
3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS653E)
4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS654E)
4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS655E)
5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS656E)
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 with 1 Interface Slot (JC103A)

Ports	24 SFP fixed Gigabit Ethernet SFP ports	
	1 extended module slot	
	4 fixed 1000/10000 SFP+ ports	
	1 RJ-45 serial console port	
Power supplies	2 power supply slots 1 minimum power supplies required (ordered separately)	
Physical characteristics	Dimensions	16.81(d) x 17.32(w) x 1.72(h) in. (42.7 x 44.0 x 4.36 cm) (1U height)
	Weight	18.74 lb. (8.5 kg)
Memory and processor	1024 MB SDRAM, 512 MB flash; packet buffer size: 4 MB	
Performance	Latency	4.02 μs (Store and Forward) (64-byte packets)
	Throughput	155 million pps
	Routing/Switching capacity	208 Gbps
	Routing table size	16000 entries
	MAC address table size	32000 entries
Environment	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

Technical Specifications

Electrical characteristics	Maximum heat dissipation	498 BTU/hr (525.39 kJ/hr)
	Voltage	100-120/200-240 VAC
	DC voltage	–48 VDC to –60 VDC
	Frequency	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	
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	
Immunity	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
Management	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager; Telnet; HTTPS; RMON1; FTP	
Notes	Customer must order a power supply, as the device does not come with a PSU. At least one JD362A or JD366A is required.	
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UV882E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV885E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UV888E) 3-year, 24x7 SW phone support, software updates (UV891E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR565E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR566E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV883E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV886E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV889E) 4-year, 24x7 SW phone support, software updates (UV892E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV884E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV887E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV890E) 5-year, 24x7 SW phone support, software updates (UV893E) 3 Yr 6 hr Call-to-Repair Onsite (UW969E) 4 Yr 6 hr Call-to-Repair Onsite (UW970E) 5 Yr 6 hr Call-to-Repair Onsite (UW971E) 1-year, 24x7 software phone support, software updates (HR567E)	

1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS650E)
1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS651E)
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HP 5800-48G-PoE+ Switch with 1 Interface Slot (JC104A)

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	1 extended module slot	
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	Weight	18.74 lb. (8.5 kg)
Memory and processor	1024 MB SDRAM, 512 MB flash; packet buffer size: 8 MB	
Performance	Latency	4.02 μs (Store and Forward) (64-byte packets)
	Throughput	190 million pps
	Routing/Switching capacity	256 Gbps
	Routing table size	16000 entries
	MAC address table size	32000 entries
Environment	Operating temperature	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	10% to 90%
	Acoustic	Low-speed fan: 50.5 dB, High-speed fan: 57.9 dB
Electrical characteristics	Maximum heat dissipation	3320 BTU/hr (3502.6 kJ/hr)
	Voltage	100-120/200-240 VAC
	Frequency	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	
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	

Technical Specifications

Immunity	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
Management	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) 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 with 1 Interface Slot (JC105A)

Technical Specifications

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	
Physical characteristics	Dimensions	14.45(d) x 17.32(w) x 1.72(h) in. (36.7 x 44.0 x 4.36 cm) (1U height)
	Weight	14.33 lb. (6.5 kg)
Memory and processor	1024 MB SDRAM, 512 MB flash; packet buffer size: 8 MB	
Performance	Latency	4.02 μs (Store and Forward) (64-byte packets)
	Throughput	190 million pps
	Routing/Switching capacity	256 Gbps
	Routing table size	16000 entries
	MAC address table size	32000 entries
Environment	Operating temperature	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	10% to 90%
	Acoustic	Low-speed fan: 45.3 dB, High-speed fan: 56.5 dB
Electrical characteristics	Maximum heat dissipation	557 BTU/hr (587.64 kJ/hr)
	Voltage	100-120/200-240 VAC
	Frequency	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	
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	
Immunity	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
Management	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)
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-PoE+ Switch with 2 Interface Slots (JC101A)

Ports	48 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	
	2 extended module slots	
	1 open module slot	
	4 SFP fixed Gigabit Ethernet SFP ports	
	1 RJ-45 serial console port	
Power supplies	2 power supply slots 1 minimum power supplies required (ordered separately)	
Physical characteristics	Dimensions	18.31(d) x 17.32(w) x 3.39(h) in. (46.5 x 44.0 x 8.61 cm) (2U height)
	Weight	39.7 lb. (18.0 kg)
Memory and processor	1024 MB SDRAM, 512 MB flash; packet buffer size: 8 MB	
Performance	Latency	4.02 μs (Store and Forward) (64-byte packets)
	Throughput	211 million pps
	Routing/Switching capacity	284 Gbps
	Routing table size	16000 entries

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	MAC address table size	32000 entries
Environment	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
Electrical characteristics	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
	Frequency	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	
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	
Immunity	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
Management	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager; Telnet; HTTPS; RMON1; FTP	
Notes	Customer must order power supply, as the device does not come with a PSU. At least one JC087A/JC090A/JC089A is required.	
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (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) 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 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	
	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)	
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	25.98(d) x 17.32(w) x 1.72(h) in. (66 x 44 x 4.36 cm) (1U height)
	Weight	22.05 lb. (10 kg), Fully loaded
Memory and processor	1024 MB flash, 512 MB SDRAM; packet buffer size: 8 MB	
Performance	Latency	< 5 µs (64-byte packets)
	Throughput	161 million pps
	Routing/Switching capacity	216 Gbps
	Routing table size	16000 entries
	MAC address table size	32000 entries
Environment	Operating temperature	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	10% to 90%
	Acoustic	Low-speed fan: 60.1 dB, High-speed fan: 69.9 dB

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Electrical characteristics	Maximum heat dissipation	426 BTU/hr (449.43 kJ/hr)
	Voltage	100-120/200-240 VAC
	DC Voltage	650W DC: -36 VDC to -72 VDC
	Frequency	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
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
Immunity	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
Management		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 JC680A or JC681A is required.
Services		Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

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 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 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 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

Accessories

HP 5800 Switch Series accessories	**Modules**	
	HP 5820X/A5800 4-port 10-GbE SFP+ Module	JC091A
	HP 5820X/A5800 2-port 10-GbE SFP+ Module	JC092B
	HP 5800 16-port Gig-T Module	JC094A
	HP 5800 16-port GbE SFP Module	JC095A
	Transceivers	
	HP X124 1G SFP LC LH40 1310nm Transceiver	JD061A
	HP X120 1G SFP LC LH40 1550nm Transceiver	JD062A
	HP X125 1G SFP LC LH70 Transceiver	JD063B
	HP 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 SFP+ LC SR Transceiver	JD092B
	HP X130 SFP+ LC LRM Transceiver	JD093B
	HP X130 SFP+ LC LR Transceiver	JD094B
	HP X130 10G SFP+ LC ER 40km Transceiver	JG234A
	HP X240 SFP+ SFP+ 0.65 m Direct Attach Cable	JD095B
	HP X240 SFP+ SFP+ 1.2 m Direct Attach Cable	JD096B
	HP X240 SFP+ SFP+ 3 m Direct Attach Cable	JD097B
	HP X240 SFP+ 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/A5500 150W AC Power Supply	JD362A
	HP 5800/A5500 150W DC Power Supply	JD366A
	HP 5820/A5800 300W AC Power Supply	JC087A
	HP 5820/A5800 300W DC Power Supply	JC090A
	HP 5800 750W AC PoE 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

Accessories

HP 5800 1RU Spare Fan Assembly for A5800-24G-SFP Switch with 1 Interface Slot	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 5800 VPN Firewall Module	JD255A
HP 5800-48G Switch with 2 Slots (JC101A)	
HP 5800 Access Controller Module for 64-256 Access Points	JD441A
HP 5800 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

NOTE: Details are not available for all accessories. The following specifications were available at the time of publication.

HP X125 1G SFP LC LH40 1310nm Transceiver (JD061A) A small form-factor pluggable SFP Gigabit LH40 transceiver that provides a full duplex Gigabit solution up to 40km on a single-mode fiber.	**Ports**		1 LC 1000Base-LH port (no IEEE standard exists for 1550 nm optics)
	Connectivity	Connector type	LC
		Wavelength	1310 nm
	Physical characteristics	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	Power consumption typical	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Cable type: Single-mode fiber optic, complying with ITU-T G.652; Maximum distance: • 40km distance	
		Fiber type	Single Mode
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	
HP X120 1G SFP LC LH40 1550nm Transceiver (JD062A) A small form-factor pluggable (SFP) Gigabit LH40 transceiver that provides a full-duplex Gigabit solution up to 40 km on a single mode fiber.	**Ports**		1 LC 1000BASE-LH port (no IEEE standard exists for 1550 nm optics)
	Connectivity	Connector type	LC
		Wavelength	1550 nm
	Physical characteristics	Dimensions	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	Power consumption typical	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Cable type: Single-mode fiber optic, complying with ITU-T G.652; Maximum distance: • 40km distance	
		Fiber type	Single Mode
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

Accessory Product Details

HP X125 1G SFP LC LH70 Transceiver (JD063B) A small form-factor pluggable (SFP) Gigabit LH70 transceiver that provides a full-duplex Gigabit solution up to 70km on a single-mode fiber.	**Ports**	1 LC 1000BASE-LH port (no IEEE standard exists for 1550 nm optics)	
	Connectivity	**Connector type**	LC
		Wavelength	1550 nm
	Physical characteristics	**Dimensions**	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Cable type: Single-mode fiber optic, complying with ITU-T G.652; Maximum distance: • 70km	
		Fiber type	Single Mode
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

HP X120 1G SFP LC SX Transceiver (JD118B) A small form-factor pluggable (SFP) Gigabit SX transceiver that provides a full-duplex Gigabit solution up to 550m on a Multimode fiber.	**Ports**	1 LC 1000BASE-SX port	
	Connectivity	**Connector type**	LC
		Wavelength	850 nm
	Physical characteristics	**Dimensions**	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Maximum distance: • FDDI Grade distance = 220m • OM1 = 275m • OM2 = 500m • OM3 = Not Specified by standard	
		Cable length	up to 550m
		Fiber type	Multi Mode
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

Accessory Product Details

HP X120 1G SFP LC LX Transceiver (JD119B) A small form-factor pluggable (SFP) Gigabig LX transceiver that provides a full duplex Gigabit solution up to 550m on MMF or 10Km on SMF	**Ports**	1 SFP 1000BASE-LX port (IEEE 802.3z Type 1000BASE-LX)	
	Connectivity	**Connector type**	LC
		Wavelength	1300 nm
	Physical characteristics	**Dimensions**	2.17(d) x 0.6(w) x 0.46(h) in. (5.51 x 1.52 x 1.17 cm)
		Full configuration weight	0.04 lb. (0.02 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Cable type: Either single mode or multimode; Maximum distance: • 550m for Multimode • 10km for Singlemode	
		Fiber type	Both
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	
HP X125 1G SFP RJ45 T Transceiver (JD089B) A small form factor pluggable (SFP) Gigabit 1000Base-T transceiver that provides a full duplex Gigabit solution up to 100m on a Cat-5+ cable.	**Ports**	1 RJ-45 1000BASE-T port (IEEE 802.3ab Type 1000BASE-T)	
	Connectivity	**Connector type**	RJ-45
	Physical characteristics	**Dimensions**	2.71(d) x 0.54(w) x 0.55(h) in. (6.88 x 1.37 x 1.4 cm)
		Full configuration weight	0.07 lb. (0.03 kg)
	Electrical characteristics	**Power consumption typical**	0.8 W
		Power consumption maximum	1.0 W
	Cabling	Cable type: 1000BASE-T: Category 5 (5E or better recommended), 100 Ù differential 4-pair unshielded twisted pair (UTP) or shielded twisted pair (STP) balanced, complying with IEEE 802.3ab 1000BASE-T; Maximum distance: • 100m	
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

Accessory Product Details

HP 0.5 m PremierFlex OM3+ LC/LC Optical Cable (BK837A)	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core diameter: 50um ± 3um; Cladding diameter: 125um ± 2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade - Low Smoke Zero Halogen (LSZH) thermoplastic. • Boot Color: White • Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL OFN FT4, ROHS. Cable also has a longitudal white stripe that runs the entire length of the cable. • Insertion Loss: less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 1 m PremierFlex OM3+ LC/LC Optical Cable (BK838A)	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core Diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

Accessory Product Details

HP 2 m PremierFlex OM3+ LC/LC Optical Cable (BK839A)	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 5 m PremierFlex OM3+ LC/LC Optical Cable (BK840A)	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

Accessory Product Details

HP 15 m PremierFlex OM3+ LC/LC Optical Cable (BK841A)	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP 30 m PremierFlex OM3+ LC/LC Optical Cable (BK842A)	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

Accessory Product Details

HP 50 m PremierFlex OM3+ LC/LC Optical Cable (BK843A)	**Notes**	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

HP RPS1600 Redundant Power System (JG136A)	**Ports**	8 redundant power supply ports Restrictions: two -56V/25A DC(PoE); six -56V/8A DC(non-PoE)	
	Physical characteristics	**Dimensions**	15.63(d) x 17.32(w) x 1.74(h) in. (39.7 x 44 x 4.42 cm)
		Weight	14.11 lb. (6.4 kg)
		Full configuration weight	16.75 lb. (7.6 kg)
	Environment	**Operating temperature**	14°F to 122°F (-10°C to 50°C)
		Operating relative humidity	5% to 95%
		Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
		Nonoperating/Storage relative humidity	5% to 95%
		Altitude	up to 13,123 ft. (4 km)
		Acoustic	Pressure: 53 dB; ISO 7779, ISO 9296
	Electrical characteristics	**Voltage**	100-120/200-240 VAC
		Current	30/60 A
		Idle power	38 W
		Maximum power rating	3550 W
		RPS power	3200 W
		PoE power	2800 W
		RPS	-55 V
		PoE	-55 V
		Frequency	50/60 Hz

		Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. With one RPS1600 Power Supply, the PRS1600 Redundant Power System can provide 1600W power output; With two PRS1600 Power Supplies, the output power is 3200W.
	Safety	CE Labeled; UL 60950-1; IEC 60950-1; ICES-003; FCC Part 15, Subpart B; EU RoHS Compliant; EN 60950-1/A11; C-Tick; VCCI Class A; ROHS Compliance; EN 300386	
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	
HP RPS1600 1600W AC Power Supply (JG137A)	Physical characteristics	Dimensions	8.19(d) x 4.96(w) x 1.63(h) in. (20.8 x 12.6 x 4.15 cm)
		Weight	3.02 lb. (1.37 kg)
	Environment	Operating temperature	14°F to 122°F (-10°C to 50°C)
		Operating relative humidity	5% to 95%
		Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
		Nonoperating/Storage relative humidity	5% to 95%
	Electrical characteristics	Voltage	100-120/200-240 VAC
		Current	15/30 A
		Maximum power rating	1600 W
		Frequency	50/60 Hz
		Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
	Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

Accessory Product Details

HP A5800 Access Controller Module for 64–256 Access Points (JD441A)

Ports	1 RJ-45 out-of-band management port	
Physical characteristics	Dimensions	9.57(d) x 9.84(w) x 1.38(h) in. (24.3 x 25 x 3.5 cm)
	Weight	3.64 lb. (1.65 kg)
Memory and processor	Processor	Eight core @ 1000 MHz, 1 GB compact flash, 2 GB DDR2 SDRAM
Performance	Switch fabric speed	8 Gbps
	MAC address table size	8,000 entries
Environment	Operating temperature	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	5% to 95%, non-condensing
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/Storage relative humidity	5% to 95%, non-condensing
Electrical characteristics	Maximum heat dissipation	273 BTU/hr (288.02 kJ/hr)
	Maximum power rating	80 W
Safety	UL 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; GOST; C-Tick; NOM; IEC 60950-1(with CB report)	
Emissions	EN 55022; VCCI; ICES-003; AS/NZS CISPR 22; EN 300 386; FCC Part 15; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC	
Immunity	EN	EN 61000-4-2:1995+A1:1998+A2:2001; EN 61000-4-3:2006; EN 61000-4-4:2004; EN 61000-4-5:2006; EN 61000-4-6: 1996 +A1:2001:A2:2007; EN 61000-4-8:2001; EN 61000-4-11:2004; EN 55024:1998+ A1:2001 + A2:2003
Management	IMC - Intelligent Management Center; command-line interface; Web browser; configuration menu; SNMP Manager; Telnet; HTTPS; RMON1; FTP; in-line and out-of-band; IEEE 802.3 Ethernet MIB; Ethernet Interface MIB	
Notes	Max. number of users: 4K. Max. number of users that are supported by local authentication: 1K. Max. number of SSIDs that can be configured: 256. Max. number of users that are supported by local portal authentication: 2K. Number of ACLs: 8K.	
Services	Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	

Standards and protocols

General protocols
RFC 768 UDP
RFC 791 IP
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 854 TELNET
RFC 855 Telnet Option Specification
RFC 858 Telnet Suppress Go Ahead Option
RFC 894 IP over Ethernet
RFC 950 Internet Standard Subnetting Procedure
RFC 959 File Transfer Protocol (FTP)
RFC 1122 Host Requirements
RFC 1141 Incremental updating of the Internet

MIBs
RFC 1229 Interface MIB Extensions
RFC 1643 Ethernet MIB
RFC 1757 Remote Network Monitoring MIB
RFC 2011 SNMPv2 MIB for IP
RFC 2012 SNMPv2 MIB for TCP
RFC 2013 SNMPv2 MIB for UDP
RFC 2571 SNMP Framework MIB
RFC 2572 SNMP-MPD MIB
RFC 2613 SMON MIB
RFC 2863 The Interfaces Group MIB
RFC 2932IP (Multicast Routing MIB)
RFC 2933 IGMP MIB

checksum
RFC 1144 Compressing TCP/IP headers for low-speed serial links
RFC 1256 ICMP Router Discovery Protocol (IRDP)
RFC 1321 The MD5 Message-Digest Algorithm
RFC 1334 PPP Authentication Protocols (PAP)
RFC 1350 TFTP Protocol (revision 2)
RFC 1812 IPv4 Routing
RFC 1944 Benchmarking Methodology for Network Interconnect Devices
RFC 1994 PPP Challenge Handshake Authentication Protocol (CHAP)
RFC 2104 HMAC: Keyed-Hashing for Message Authentication
RFC 2246 The TLS Protocol Version 1.0
RFC 2284 EAP over LAN
RFC 2644 Directed Broadcast Control
RFC 2864 The Inverted Stack Table Extension to the Interfaces Group MIB
RFC 2866 RADIUS Accounting
RFC 2869 RADIUS Extensions
RFC 3268 Advanced Encryption Standard (AES) Ciphersuites for Transport Layer Security (TLS)
RFC 3619 Ethernet Automatic Protection Switching (EAPS)
draft-ietf-capwap-protocol-specification-00.txt:CAPW AP Protocol Specification
draft-ohara-capwap-lwapp-03.txt:Light Weight Access Point Protocol

IP multicast
RFC 1112 IGMP
RFC 2236 IGMPv2
RFC 2934 Protocol Independent Multicast MIB for IPv4

IPv6
RFC 1350 TFTP
RFC 1881 IPv6 Address Allocation Management
RFC 1887 IPv6 Unicast Address Allocation Architecture
RFC 1981 IPv6 Path MTU Discovery
RFC 2292 Advanced Sockets API for IPv6
RFC 2373 IPv6 Addressing Architecture
RFC 2375 IPv6 Multicast Address Assignments
RFC 2460 IPv6 Specification
RFC 2461 IPv6 Neighbor Discovery
RFC 2462 IPv6 Stateless Address Auto-configuration
RFC 2463 ICMPv6

Mobility
IEEE 802.11a High Speed Physical Layer in the 5 GHz Band
IEEE 802.11b Higher-Speed Physical Layer Extension in the 2.4 GHz Band
IEEE 802.11d Global Harmonization
IEEE 802.11g Further Higher Data Rate Extension in the 2.4 GHz Band
IEEE 802.11i Medium Access Control (MAC) Security Enhancements
IEEE 802.11n WLAN Enhancements for Higher Throughput

Network management
RFC 1155 Structure of Management Information
RFC 1905 SNMPv2 Protocol Operations
RFC 2573 SNMPv3 Applications
RFC 2574 SNMPv3 User-based Security Model (USM)
RFC 2575 VACM for SNMP
SNMPv1/v2c

QoS/CoS
RFC 2474 DS Field in the IPv4 and IPv6 Headers
RFC 2475 DiffServ Architecture
RFC 3168 The Addition of Explicit Congestion Notification (ECN) to IP

Security
IEEE 802.1X Port Based Network Access Control
RFC 3394 Advanced Encryption Standard (AES) Key Wrap Algorithm
RFC 3579 RADIUS Support For Extensible Authentication Protocol (EAP)
Access Control Lists (ACLs)
Guest VLAN for 802.1x
MAC Authentication
Secure Sockets Layer (SSL)
SSHv1.5 Secure Shell
SSHv2 Secure Shell
Web Authentication
WPA (Wi-Fi Protected Access)/WPA2

IKEv1
RFC 3748 - Extensible Authentication Protocol (EAP)

	RFC 2464 Transmission of IPv6 over Ethernet Networks RFC 2526 Reserved IPv6 Subnet Anycast Addresses RFC 2563 ICMPv6 RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations (Ping only) RFC 3484 Default Address Selection for IPv6 RFC 3587 IPv6 Global Unicast Address Format RFC 4443 ICMPv6 RFC 4541 IGMP & MLD Snooping Switch RFC 4861 IPv6 Neighbor Discovery RFC 4862 IPv6 Stateless Address Auto-configuration RFC 5095 Deprecation of Type 0 Routing Headers in IPv6	
HP A5800 Access Controller Module for 32–64 Access Points (JD443A)		
Ports	1 RJ-45 out-of-band management port	
Physical characteristics	**Dimensions**	6.54(d) x 8.7(w) x 1.44(h) in. (16.6 x 22.1 x 3.66 cm)
	Weight	1.65 lb. (0.75 kg)
Memory and processor	**Processor**	Dual core @ 1000 MHz, 128 MB flash, 512 MB DDR2 SDRAM
Performance	**Switch fabric speed**	4 Gbps
	MAC address table size	4,000 entries
Environment	**Operating temperature**	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	5% to 95%, non-condensing
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/Storage relative humidity	5% to 95%, non-condensing
Electrical characteristics	**Maximum heat dissipation**	61 BTU/hr (64.35 kJ/hr)
	Maximum power rating	17.8 W
Safety	UL 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; GOST; C-Tick; NOM; IEC 60950-1(with CB report)	
Emissions	EN 55022; VCCI; ICES-003; AS/NZS CISPR 22; EN 300 386; FCC Part 15; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC	
Immunity	**EN**	EN 61000-4-2:1995+A1:1998+A2:2001; EN 61000-4-3:2006; EN 61000-4-4:2004; EN 61000-4-5:2006; EN 61000-4-6: 1996 +A1:2001:A2:2007; EN 61000-4-8:2001; EN 61000-4-11:2004; EN 55024:1998+ A1:2001 + A2:2003
Management	IMC - Intelligent Management Center; command-line interface; Web browser; configuration menu; SNMP Manager; Telnet; HTTPS; RMON1; FTP; in-line and out-of-band; IEEE 802.3 Ethernet MIB; Ethernet Interface MIB	
Notes	Max. number of users: 2K. Max. number of users that are supported by local authentication: 1K. Max. number of SSIDs that can be configured: 128. Max. number of users that are supported by local portal authentication: 1K. Number of ACLs: 2K.	

Accessory Product Details

Services

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

Standards and protocols

General protocols

RFC 768 UDP
RFC 791 IP
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 854 TELNET
RFC 858 Telnet Suppress Go Ahead Option
RFC 894 IP over Ethernet
RFC 950 Internet Standard Subnetting Procedure
RFC 959 File Transfer Protocol (FTP)
RFC 1122 Host Requirements
RFC 1141 Incremental updating of the Internet checksum
RFC 1144 Compressing TCP/IP headers for low-speed serial links
RFC 1256 ICMP Router Discovery Protocol (IRDP)
RFC 1321 The MD5 Message-Digest Algorithm
RFC 1334 PPP Authentication Protocols (PAP)
RFC 1350 TFTP Protocol (revision 2)
RFC 1812 IPv4 Routing
RFC 1944 Benchmarking Methodology for Network Interconnect Devices
RFC 1994 PPP Challenge Handshake Authentication Protocol (CHAP)
RFC 2104 HMAC: Keyed-Hashing for Message Authentication
RFC 2246 The TLS Protocol Version 1.0
RFC 2284 EAP over LAN
RFC 2644 Directed Broadcast Control
RFC 2864 The Inverted Stack Table Extension to the Interfaces Group MIB
RFC 2866 RADIUS Accounting
RFC 2869 RADIUS Extensions
RFC 3268 Advanced Encryption Standard (AES) Ciphersuites for Transport Layer Security (TLS)
RFC 3619 Ethernet Automatic Protection Switching (EAPS)
draft-ietf-capwap-protocol-specification-00.txt:CAPW AP Protocol Specification
draft-ohara-capwap-lwapp-03.txt:Light Weight Access Point Protocol

IP multicast

RFC 1112 IGMP
RFC 2236 IGMPv2

MIBs

RFC 1229 Interface MIB Extensions
RFC 1643 Ethernet MIB
RFC 1757 Remote Network Monitoring MIB
RFC 2011 SNMPv2 MIB for IP
RFC 2012 SNMPv2 MIB for TCP
RFC 2013 SNMPv2 MIB for UDP
RFC 2571 SNMP Framework MIB
RFC 2572 SNMP-MPD MIB
RFC 2613 SMON MIB
RFC 2863 The Interfaces Group MIB
RFC 2932IP (Multicast Routing MIB)
RFC 2933 IGMP MIB

Mobility

IEEE 802.11a High Speed Physical Layer in the 5 GHz Band
IEEE 802.11b Higher-Speed Physical Layer Extension in the 2.4 GHz Band
IEEE 802.11d Global Harmonization
IEEE 802.11g Further Higher Data Rate Extension in the 2.4 GHz Band
IEEE 802.11i Medium Access Control (MAC) Security Enhancements
IEEE 802.11n WLAN Enhancements for Higher Throughput

Network management

RFC 1155 Structure of Management Information
RFC 1905 SNMPv2 Protocol Operations
RFC 2573 SNMPv3 Applications
RFC 2574 SNMPv3 User-based Security Model (USM)
RFC 2575 VACM for SNMP
SNMPv1/v2c

QoS/CoS

RFC 2474 DS Field in the IPv4 and IPv6 Headers
RFC 2475 DiffServ Architecture
RFC 3168 The Addition of Explicit Congestion Notification (ECN) to IP

Security

IEEE 802.1X Port Based Network Access Control
RFC 3394 Advanced Encryption Standard (AES) Key Wrap Algorithm
RFC 3579 RADIUS Support For Extensible Authentication Protocol (EAP)

RFC 2934 Protocol Independent Multicast MIB for IPv4

IPv6
RFC 1350 TFTP
RFC 1881 IPv6 Address Allocation Management
RFC 1887 IPv6 Unicast Address Allocation Architecture
RFC 1981 IPv6 Path MTU Discovery
RFC 2292 Advanced Sockets API for IPv6
RFC 2373 IPv6 Addressing Architecture
RFC 2375 IPv6 Multicast Address Assignments
RFC 2460 IPv6 Specification
RFC 2461 IPv6 Neighbor Discovery
RFC 2462 IPv6 Stateless Address Auto-configuration
RFC 2463 ICMPv6
RFC 2464 Transmission of IPv6 over Ethernet Networks
RFC 2526 Reserved IPv6 Subnet Anycast Addresses
RFC 2563 ICMPv6
RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations (Ping only)
RFC 3484 Default Address Selection for IPv6
RFC 3587 IPv6 Global Unicast Address Format
RFC 4443 ICMPv6
RFC 4541 IGMP & MLD Snooping Switch
RFC 4861 IPv6 Neighbor Discovery
RFC 4862 IPv6 Stateless Address Auto-configuration
RFC 5095 Deprecation of Type 0 Routing Headers in IPv6

Access Control Lists (ACLs)
Guest VLAN for 802.1x
MAC Authentication
Secure Sockets Layer (SSL)
SSHv1.5 Secure Shell
SSHv2 Secure Shell
Web Authentication
WPA (Wi-Fi Protected Access)/WPA2

IKEv1
RFC 3748 - Extensible Authentication Protocol (EAP)

HP A5800 VPN Firewall Module (JD255A)

Ports	2 RJ-45 auto-negotiating 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T)	
	2 dual-personality ports; auto-sensing 10/100/1000Base-T or SFP	
	1 RJ-45 serial console port	
	1 Compact Flash port	
Physical characteristics	**Dimensions**	9.84(d) x 9.84(w) x 14.45(h) in. (25 x 25 x 36.7 cm)
	Weight	7.72 lb. (3.5 kg)
Environment	**Operating temperature**	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	10% to 95%, noncondensing
Management	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager; Telnet; HTTPS; RMON1; FTP	
Features	Performance - 6.5Gbps Firewall Throughput - 1.8M Concurrent connection	

- 50K New connection per second
- Max 20480 security policies
- 2Gbps 3DES/AES VPN Throughput
- 5000 IPSec tunnel
- 4K VLAN

Firewall operation mode
- Routing mode
- Transparent mode
- Hybrid mode

AAA service
- Local Authentication
- Standard Radius
- HWTACACS+
- RADIUS domain Authentication

ASPF
- General TCP / UDP application
- FTP/SMTP/HTTP/RTSP/H323 Protocol State Detection
- SIP/MGCP/QQ/MSN Protocol State Detection
- Java/ActiveX Blocking and Detection
- Port mapping
- Support for the fragmented packets

Virtualization
- 256 Virtual Firewall
- 4 default Security Zone
- Max 256 Security Zone

NAT
- NAPT
- PAT
- NAT Server
- Port mapping
- Bidirectional NAT
- Static NAT

Network Security
- Add blacklist by hand or automatically
- IP+MAC Binding
- ARP Reverse Query
- ARP Cheat Check
- Management ports closed by default

DDOS
- DNS Query Flood
- SYN Flood
- Auto start TCP Proxy when Detect SYN Flood
- ICMP Flood
- UDP Flood
- IP Spoofing
- SQL injection filter

L2TP VPN
- LNS,LAC
- L2TP Multi-instance

GRE
- GRE tunneling protocol

IPSec

- AH/ESP
- ESP
- Transport/tunnel
- NAT traversal
- Strategy template

IKE
- DH
- Pre-share Key authentication-method
- Support aggressive mode and main exchange mode
- IKE DPD, PKI / CA

Network Feature
- 802.1q VLAN
- 4K sub-interface
- Static and dynamic ARP
- Multicast, PIM
- IGMP v1/v2/v3

Routing
- RIP
- OSPF
- BGP
- Static Route
- policy Route

High Availability
- Active/Active mode
- Active/Passive mode
- Session Synchronization for Firewall

System management
- Web Management support IE/Firefox
- Command line interface (Console/Telnet/SSH)
- Classification Manager
- Unified management through iMC
- SNMPv1/v2c/v3

Administration
- Software Upgrades
- Configuration Backup and Restore

Logging/Monitoring
- Syslog
- Mini RMON
- NTP
- NAT/ASPF/firewall log stream(Binary log)

IPv6 Routing & Multicast
- RIPng
- OSPFv3
- BGP4+
- Static Route
- Policy Route
- PIM-SM/DM

IPv6 Security
- NAT-PT
- Manual tunnel
- IPV6 OVER ipv4 GRE tunnel
- 6to4 tunnel (RFC3056)

- ISATAP Tunnel
- IPv6 Packet Filter
- Radius
- NAT64

Services

3-year, parts only, global next-day advance exchange (UZ914E)
3-year, 4-hour onsite, 13x5 coverage for hardware (UZ915)
3-year, 4-hour onsite, 24x7 coverage for hardware (UZ918E)
3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UZ922E)
3-year, 24x7 SW phone support, software updates (UZ925E)
4-year, 4-hour onsite, 13x5 coverage for hardware (UZ916E)
4-year, 4-hour onsite, 24x7 coverage for hardware (UZ919E)
4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UZ923E)
4-year, 24x7 SW phone support, software updates (UZ926E)
5-year, 4-hour onsite, 13x5 coverage for hardware (UZ917E)
5-year, 4-hour onsite, 24x7 coverage for hardware (UZ920E)
5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UZ924E)
5-year, 24x7 SW phone support, software updates (UZ927E)
3 Yr 6 hr Call-to-Repair Onsite (UZ928E)
4 Yr 6 hr Call-to-Repair Onsite (UZ929E)
5 Yr 6 hr Call-to-Repair Onsite (UZ930E)

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

IPv6
RFC 1981 IPv6 Path MTU Discovery
RFC 2460 IPv6 Specification
RFC 2465 Management Information Base for IP Version 6: Textual Conventions and General Group(partially support, only "IPv6 Interface Statistics table")
RFC 3484 Default Address Selection for IPv6
RFC 3513 IPv6 Addressing Architecture
RFC 3587 IPv6 Global Unicast Address Format
RFC 4007 IPv6 Scoped Address Architecture
RFC 4862 IPv6 Stateless Address Auto-configuration

Security
RFC 1321 The MD5 Message-Digest Algorithm
RFC 1334 PPP Authentication Protocols (PAP)
RFC 1994 PPP Challenge Handshake Authentication
Protocol (CHAP)
RFC 2104 Keyed-Hashing for Message Authentication
RFC 2138 RADIUS Authentication
RFC 2618 RADIUS Authentication Client MIB
RFC 2620 RADIUS Accounting Client MIB
RFC 2716 PPP EAP TLS Authentication Protocol
RFC 2865 RADIUS Authentication
RFC 2405 The ESP DES-CBC Cipher Algorithm With
Explicit IV
RFC 2406 IP Encapsulating Security Payload (ESP)
RFC 2410 The NULL Encryption Algorithm and Its Use With IPsec
RFC 2411 IP Security Document Roadmap
RFC 2451 The ESP CBC-Mode Cipher Algorithms
RFC 2473 Generic Packet Tunneling in IPv6 Specification
RFC 2529 Transmission of IPv6 over IPv4 Domains without Explicit Tunnels
RFC 2661 Layer Two Tunneling Protocol "L2TP"
RFC 2784 Generic Routing Encapsulation (GRE)
RFC 2868 RADIUS Attributes for Tunnel Protocol Support
RFC 2893 Transition Mechanisms for IPv6 Hosts and Routers
RFC 3602 The AES-CBC Cipher Algorithm and Its Use with IPsec
RFC 4214 Intra-Site Automatic Tunnel Addressing Protocol (ISATAP)

IKEv1
RFC 2407 The Internet IP Security Domain of Interpretation for ISAKMP
RFC 2408 Internet Security Association and Key

RFC 2866 RADIUS Accounting
RFC 2867 RADIUS Accounting Modifications for Tunnel Protocol Support
RFC 2868 RADIUS Attributes for Tunnel Protocol Support
RFC 2869 RADIUS Extensions
draft-grant-tacacs-02 (TACACS)

VPN
RFC 1701 Generic Routing Encapsulation (GRE)
RFC 1702 Generic Routing Encapsulation over IPv4
networks.
RFC 1828 IP Authentication using Keyed MD5
RFC 1829 The ESP DES-CBC Transform
RFC 1853 IP in IP Tunneling
RFC 2085 HMAC-MD5 IP Authentication with Replay Prevention
RFC 2401 Security Architecture for the Internet Protocol
RFC 2402 IP Authentication Header
RFC 2403 The Use of HMAC-MD5-96 within ESP and AH
RFC 2404 The Use of HMAC-SHA-1-96 within ESP and AH
Management Protocol (ISAKMP).
RFC 2409 The Internet Key Exchange (IKE)
RFC 2412 The OAKLEY Key Determination Protocol
RFC 3526 More Modular Exponential (MODP) Diffie-Hellman groups for Internet Key Exchange (IKE)
RFC 3706 A Traffic-Based Method of Detecting Dead Internet Key Exchange (IKE) Peers

PKI
RFC 2510 Internet X.509 Public Key Infrastructure Certificate Management Protocols
RFC 2511 Internet X.509 Certificate Request Message Format
RFC 3279 Algorithms and Identifiers for the Internet X.509 Public Key Infrastructure Certificate and Certificate Revocation List (CRL) Profile
RFC 3280 Internet X.509 Public Key Infrastructure Certificate and Certificate Revocation List (CRL) Profile
draft-nourse-scep-06:
PKCS#1
PKCS#10
PKCS#12
PKCS#7

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