HP E4800G Switch Series

Data sheet

Product overview

The HP E4800G Switch Series is a Gigabit switch family that delivers outstanding security, reliability, and multi-service support capabilities for robust switching at the edge or aggregation layer of large enterprise and campus networks, or in the core layer of medium- and small-sized enterprise networks. The family consists of Layer 2/3/4 Gigabit Ethernet switches that can accommodate the most demanding applications, providing resilient and secure connectivity and the latest traffic-prioritization technologies to optimize applications on converged networks. Designed for maximum flexibility, these switches are available with 24 or 48 Gigabit ports. Power over Ethernet (PoE) and non-PoE models are offered with optional 10 Gigabit expansion capability and small form-factor pluggable (SFP) mini-GBIC Gigabit combo ports for fiber flexibility. The all-SFP model with dual power supplies, for highest availability applications, allows for very flexible fiber with copper Gigabit connectivity.

Key features

- High expandability for investment protection
- Premium security
- Multi-layer reliability
- Convergence-ready support
- Powerful, integrated management capabilities

Features and benefits

Quality of Service (QoS)

- **Layer 4 prioritization:** enables prioritization based on TCP/UDP port numbers

- **Traffic prioritization (IEEE 802.1p):** allows real-time traffic classification into eight priority levels mapped to eight queues

- **Class of Service (CoS):** sets the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), Layer 3 protocol, TCP/UDP port number, source port, and DiffServ

- **Rate limiting:** sets per-port ingress enforced maximums and per-port, per-queue guaranteed minimums

- **Bandwidth shaping:**
  - **Rate limiting:** provides per-port, ingress-based enforced bandwidth maximums
  - **Guaranteed minimums:** provides per-port, per-queue egress-based guaranteed bandwidth minimums

- **Broadcast control:** allows limitation of broadcast traffic rate to cut down on unwanted broadcast traffic on the network

Management

- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP):** automated device discovery protocol provides easy mapping by network management applications

- **Remote configuration and management:** is available through a secure Web browser or a command-line interface (CLI)

- **Manager and operator privilege levels:** enable read-only (operator) and read-write (manager) access on CLI and Web browser management interfaces

- **Management VLAN:** segments traffic to and from management interfaces, including CLI/telnet, a Web browser interface, and SNMP

- **Uni-Directional Link Detection (UDLD):** monitors cable between two switches and shuts down the ports on both ends if the cable is broken turning the bi-directional link into uni-directional; this prevents network problems such as loops (may not apply to all models; see specifications for more details)

- **Multiple configuration files:** can be stored to the flash image

- **Dual flash images:** provide independent primary and secondary operating system files for backup while upgrading

- **Secure Web GUI:** provides a secure, easy-to-use graphical interface for configuring the module via HTTPS

- **Command-line interface (CLI):** provides a secure, easy-to-use command-line interface for configuring the module via SSH or a switch console; provides direct real-time session visibility

- **SNMPv1, v2c, and v3:** facilitate centralized discovery, monitoring, and secure management of networking devices

- **Port mirroring:** enables traffic on a port to be simultaneously sent to a network analyzer for monitoring

- **sFlow (RFC 3176):** provides scalable, ASIC-based wire-speed network monitoring and accounting with no impact on network performance; this allows network operators to gather a variety of sophisticated network statistics and information for capacity planning and real-time network monitoring purposes

- **Enterprise network management:** is supported by the Web-based, enterprise-class HP Intelligent Management Center (IMC) network management platform and Wireless Service Management (WSM), which effectively integrate traditionally disparate management tools into one easy-to-use interface

- **RADIUS accounting:** logs all session details that can be used to generate usage reports or interface to a billing system

- **DHCP options:** DHCP client and snooping

Connectivity

- **Auto-MDIX:** automatically adjusts for straight-through or crossover cables on all 10/100 and 10/100/1000 ports

- **Dual-personality functionality:** includes four 10/100/1000 ports or SFP slots for optional fiber connectivity such as Gigabit-SX, -LX, -LH, or 100-FX

- **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

- **Optional 10 Gigabit Ethernet ports:** allow the addition of 10 Gigabit Ethernet connections for uplinks or high-bandwidth server connections; flexibly supports XFP, SFP+, or CX4 local connections

- **High-bandwidth CX4 local stacking:** when locally stacked using CX4 local stacking, achieves 12 Gbps per connection, allowing for up to 96 Gbps total stacking bandwidth (full duplex) in a resilient stacking configuration

- **IPv6 native support:**
  - **IPv6 host:** enables switches to be managed and deployed at the IPv6 network's edge
  - **Dual stack (IPv4 and IPv6):** transitions from IPv4 to IPv6, supporting connectivity for both protocols
  - **Multicast Listener Discovery (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 and OSPF routing protocols

- **High-density port connectivity:** provides up to 48 fixed 10/100/1000Base-T or 24 SFP 1000Base-X ports in a Layer 2/Layer 3/Layer 4 stackable switch supporting unique IRF stacking

Resiliency and high availability

- **IEEE 802.1D Spanning Tree Protocol (STP):** provides redundant links while preventing network loops

- **IEEE 802.1s Multiple Spanning Tree:** provides high link availability in multiple VLAN environments by allowing multiple spanning trees

- **Virtual Router Redundancy Protocol (VRRP):** allows groups of two routers to dynamically back each other up to create highly available routed environments

- **Device Link Detection Protocol (DLDP):** monitors link connectivity and shuts down ports at both ends if unidirectional traffic is detected, preventing loops in STP-based networks

- **Intelligent Resilient Framework (IRF):** creates virtual resilient switching fabrics, where two or more switches perform as a single Layer 2 switch, 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, Equal-Cost Multipath (ECMP), or VRRP

- **Rapid Ring Protection Protocol (RRPP):** connects multiple switches in a high-performance ring using standard Ethernet technology; traffic can be rerouted around the ring in less than 50 ms, reducing the impact on traffic and applications

Manageability

- **Advanced IRF technology stacking:**
  - Locally connect up to nine E4800G switches using 10 Gigabit or CX4 local connections
  - Improve resiliency by spreading aggregated links across multiple stacked units
  - See faster performance through a distributed routing architecture where locally bound traffic is handled at each unit
  - Simplify management with single IP management and a unified control interface per stack

- **RMON (remote monitoring):** provides advanced monitoring and reporting capabilities for statistics, history, alarms, and events

- **Dual flash images:** provides independent primary and secondary operating system files for backup while upgrading

- **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

- **Multiple configuration files:** allow multiple configuration files to be stored to flash image

- **Software updates:** free downloads from the Web

- **sFlow (RFC 3176):** wire-speed traffic accounting and monitoring

- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP):** automated device discovery protocol provides easy mapping using network management applications

- **Virtual stacking capability:** single IP address management for a virtual stack of up to 255 Comware-based 3Com legacy devices, including HP E4XXX and E55XX series switches
- **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

- **VLAN support and tagging:** support IEEE 802.1Q, with 4094 simultaneous VLAN IDs
- **GARP VLAN Registration Protocol (GVRP):** allows automatic learning and dynamic assignment of VLANs
- **IP multicast snooping and data-driven IGMP:** automatically prevents flooding of IP multicast traffic
- **Jumbo packet support:** supports up to 9220-byte frame size to improve performance of large data transfers
- **IEEE 802.1ad QinQ:** increases the scalability of an Ethernet network by providing a hierarchical structure; connects multiple LANs on a high-speed campus or metro network

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
- **User Datagram Protocol (UDP) helper:** redirects UDP broadcasts to specific IP subnets to prevent server spoofing
- **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 IP routing:** provides routing of IP at media speed; supports static routes, RIP, RIPv2, and OSPF

- **OSPF-ECMP (Equal-Cost Multipath):** enables multiple equal-cost links in OSPF environment to increase link redundancy and scale bandwidth
- **OSPF:** provides OSPFv2 for IPv4 and OSPFv3 for IPv6 routing
- **Multicast Routing PIM Dense and Sparse modes:** provides robust support of multicast protocols
- **Border Gateway Protocol 4 (BGP-4):** Exterior Gateway Protocol (EGP) with path vector protocol uses TCP for enhanced reliability for the route discovery process, reduces bandwidth consumption by advertising only incremental updates, and supports extensive policies for increased flexibility, as well as scales to very large networks

Security

- **Access control lists (ACLs):** provide IP Layer 3 filtering based on source/destination IP address/subnet and source/destination TCP/UDP port number
- **RADIUS/TACACS+:** eases switch management security administration by using a password authentication server
- **Secure Shell (SSHv2):** encrypts all transmitted data for secure, remote command-line interface (CLI) access over IP networks
- **IEEE 802.1X and RADIUS network logins:** control port-based access for authentication and accountability
- **Port security:** allows access only to specified MAC addresses, which can be learned or specified by the administrator
- **MAC address lockout:** prevents particular configured MAC addresses from connecting to the network
- **Secure File Transfer Protocol (FTP):** allows secure file transfer to and from the switch; protects against unwanted file downloads or unauthorized copying of switch configuration file
- **Switch management logon security:** can require either RADIUS or TACACS+ authentication for secure switch CLI logon
- **Secure management access:** securely encrypts all access methods (CLI, GUI, or MIB) through SSHv2, SSL, and/or SNMPv3
- **Custom banner:** displays security policy when users log in to the switch

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- **Automatic VLAN assignment:** automatically assigns users to the appropriate VLAN based on their identity and location and the time of day

- **Management password:** provides security so that only authorized access to the Web browser interface is allowed

- **IP lockdown:** restricts incoming traffic on a port to a specific IP address/subnet, and denies all other traffic on that port

- **STP BPDU port protection:** blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks

- **Dynamic IP lockdown:** works with DHCP protection to block traffic from unauthorized hosts, preventing IP source address spoofing

- **DHCP protection:** blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks

- **Dynamic ARP protection:** blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data

- **STP Root Guard:** protects root bridge from malicious attack or configuration mistakes

Convergence

- **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

- **IP multicast routing (PIM Dense):** routes IP multicast traffic using the PIM Dense routing protocol

- **Automated voice VLAN assignment:** recognizes IP phones and automatically assigns voice traffic to a dedicated VLAN for IP phones

Monitor and diagnostics

- **Port mirroring:** enables traffic on a port to be simultaneously sent to a network analyzer for monitoring

- **Software updates:** free downloads from the Web

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)

HP E4800G Switch Series

Specifications

	HP E4800-24G Switch (JD007A)	HP E4800-24G-PoE Switch (JD008A)	HP E4800-24G-SFP Switch (JD009A)
Ports	2 module slots	2 module slots	2 module slots
	20 auto-negotiating 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T)	20 auto-negotiating 10/100/1000 PoE ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T, IEEE 802.3af PoE)	16 auto-negotiating 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T)
	4 dual-personality 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T); 10/100/1000	4 dual-personality 10/100/1000 PoE ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T, IEEE 802.3af PoE)	8 dual-personality 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T)
	Supports a maximum of 4 10-GbE ports	Supports a maximum of 4 10-GbE ports	Supports a maximum of 4 10-GbE ports
Power supplies			2 power-supply slots 1 minimum power-supplies required includes: 1 x JD362AHP A5500 150 W AC Power Supply
Physical characteristics			
Dimensions	11.8(d) x 17.4(w) x 1.7(h) in. (29.97 x 44.2 x 4.32 cm) (1U height)	16.5(d) x 17.4(w) x 1.7(h) in. (41.91 x 44.2 x 4.32 cm) (13.2U height)	14.17(d) x 17.32(w) x 1.72(h) in. (36.00 x 44 x 4.36 cm) (1U height)
Weight	8.8 lb. (3.99 kg)	13.23 lb. (6 kg)	13.89 lb. (6.3 kg)
Memory and processor			
Module	MPC8349 @ 533 MHz, 256 MB RAM, 32 MB flash; packet buffer size: 2 MB	MPC8349 @ 533 MHz, 256 MB RAM, 32 MB flash; packet buffer size: 2 MB	MPC8349 @ 533 MHz, 256 MB RAM, 32 MB flash; packet buffer size: 2 MB
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)
Performance			
100 Mb Latency	< 10 μs	< 10 μs	< 10 μs
Throughput	107.2 million pps	107.2 million pps	107.2 million pps
Routing/Switching capacity	144 Gbps	144 Gbps	144 Gbps
Routing table size	12,000 entries	12,000 entries	12,000 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%, non-condensing	10% to 90%, non-condensing	10% to 90%, non-condensing
Electrical characteristics			
	Achieved Miercom Certified Green Award		
Voltage	100-240 VAC	100-240 VAC	100-240 VAC
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Safety	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03
Emissions	FCC part 15 Class A; VCCI Class A; CISPR 22 Class A; EN 55024; EN 55022 1998 Class A; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A	FCC part 15 Class A; VCCI Class A; CISPR 22 Class A; EN 55024; EN 55022 1998 Class A; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A	FCC part 15 Class A; VCCI Class A; CISPR 22 Class A; EN 55024; EN 55022 1998 Class A; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A
Management	IMC - Intelligent Management Center; command-line interface; Web browser; out-of-band management (serial RS-232C); SNMP Manager; Telnet; HTTPS; IEEE 802.3 Ethernet MIB	IMC - Intelligent Management Center; command-line interface; Web browser; out-of-band management (serial RS-232C); SNMP Manager; Telnet; HTTPS; IEEE 802.3 Ethernet MIB	IMC - Intelligent Management Center; command-line interface; Web browser; out-of-band management (serial RS-232C); SNMP Manager; Telnet; HTTPS; IEEE 802.3 Ethernet MIB
Notes	Supports a maximum of four 10-GbE ports	Supports a maximum of four 10-GbE ports	Supports a maximum of four 10-GbE ports

Specifications (continued)

	HP E4800-24G Switch (JD007A)	HP E4800-24G-PoE Switch (JD008A)	HP E4800-24G-SFP Switch (JD009A)
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UV906E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV909E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV912E) 3-year, 24x7 SW phone support, software updates (UV915E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV907E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV910E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV913E) 4-year, 24x7 SW phone support, software updates (UV916E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV908E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV911E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV914E) 5-year, 24x7 SW phone support, software updates (UV917E) 3 Yr 6 hr Call-to-Repair Onsite (UW975E) 4 Yr 6 hr Call-to-Repair Onsite (UW976E) 5 Yr 6 hr Call-to-Repair Onsite (UW977E) Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	3-year, 4-hour onsite, 13x5 coverage for hardware (UV906E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV909E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV912E) 3-year, 24x7 SW phone support, software updates (UV915E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV907E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV910E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV913E) 4-year, 24x7 SW phone support, software updates (UV916E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV908E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV911E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV914E) 5-year, 24x7 SW phone support, software updates (UV917E) 3 Yr 6 hr Call-to-Repair Onsite (UW975E) 4 Yr 6 hr Call-to-Repair Onsite (UW976E) 5 Yr 6 hr Call-to-Repair Onsite (UW977E) Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	3-year, 4-hour onsite, 13x5 coverage for hardware (UV906E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV909E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV912E) 3-year, 24x7 SW phone support, software updates (UV915E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV907E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV910E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV913E) 4-year, 24x7 SW phone support, software updates (UV916E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV908E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV911E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV914E) 5-year, 24x7 SW phone support, software updates (UV917E) 3 Yr 6 hr Call-to-Repair Onsite (UW975E) 4 Yr 6 hr Call-to-Repair Onsite (UW976E) 5 Yr 6 hr Call-to-Repair Onsite (UW977E) Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

Specifications (continued)

HP E4800-24G Switch (JD007A)	HP E4800-24G-PoE Switch (JD008A)	HP E4800-24G-SFP Switch (JD009A)

Standards and protocols
(applies to all products in series)

BGP
RFC 1657 Definitions of Managed Objects for BGPv4
RFC 1771 BGPv4
RFC 2858 BGP-4 Multi-Protocol Extensions

Device management
RFC 1157 SNMPv1/v2c
RFC 2452 MIB for TCP6
RFC 2454 MIB for UDP6

General protocols
IEEE 802.1ag Service Layer OAM
IEEE 802.1D MAC Bridges
IEEE 802.1p Priority
IEEE 802.1Q (GVRP)
IEEE 802.1Q VLANs
IEEE 802.1s (MSTP)
IEEE 802.1s Multiple Spanning Trees
IEEE 802.1v VLAN classification by Protocol and Port
IEEE 802.1w Rapid Reconfiguration of Spanning Tree
IEEE 802.1X PAE
IEEE 802.3ab 1000BASE-T
IEEE 802.3ac (VLAN Tagging Extension)
IEEE 802.3ad Link Aggregation (LAG)
IEEE 802.3ae 10-Gigabit Ethernet
IEEE 802.3af Power over Ethernet
IEEE 802.3ag Ethernet OAM
IEEE 802.3ah Ethernet in First Mile over Point to Point Fiber - EFMF
IEEE 802.3i 10Base-T
IEEE 802.3u 100BASE-X
IEEE 802.3x Flow Control
IEEE 802.3z 1000BASE-X
RFC 768 UDP
RFC 791 IP
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 854 TELNET
RFC 856 TELNET
RFC 925 Multi-LAN Address Resolution
RFC 950 Internet Standard Subnetting Procedure
RFC 951 BOOTP
RFC 1058 RIPv1
RFC 1122 Host Requirements
RFC 1141 Incremental updating of the Internet checksum
RFC 1253 (OSPF v2)
RFC 1305 NTPv3
RFC 1350 TFTP Protocol (revision 2)
RFC 1389 RIPv2 MIB Extension
RFC 1519 CIDR
RFC 1542 BOOTP Extensions
RFC 1723 RIP v2
RFC 1812 IPv4 Routing
RFC 2131 DHCP

RFC 2236 IGMP Snooping
RFC 2284 EAP over LAN
RFC 2616 HTTP Compatibility v1.1
RFC 2644 Directed Broadcast Control
RFC 2767 Dual Stacks IPv4 & IPv6
RFC 3246 Expedited Forwarding PHB
RFC 3410 Applicability Statements for SNMP
RFC 3416 Protocol Operations for SNMP
RFC 3417 Transport Mappings for the Simple Network Management Protocol (SNMP)
RFC 3623 Graceful OSPF Restart
RFC 3704 Unicast Reverse Path Forwarding (URPF)
RFC 3768 VRRP
RFC 4213 Basic IPv6 Transition Mechanisms

IPv6
RFC 1886 DNS Extension for IPv6
RFC 1887 IPv6 Unicast Address Allocation Architecture
RFC 1981 IPv6 Path MTU Discovery
RFC 2080 RIPng 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 2475 IPv6 DiffServ Architecture
RFC 2526 Reserved IPv6 Subnet Anycast Addresses
RFC 2710 Multicast Listener Discovery (MLD) for IPv6
RFC 2740 OSPFv3 for IPv6
RFC 3056 Connection of IPv6 Domains via IPv4 Clouds
RFC 3306 Unicast-Prefix-based IPv6 Multicast Addresses
RFC 3307 IPv6 Multicast Address Allocation
RFC 3484 Default Address Selection for IPv6
RFC 3493 Basic Socket Interface Extensions for IPv6
RFC 3513 IPv6 Addressing Architecture
RFC 3542 Advanced Sockets API for IPv6
RFC 3587 IPv6 Global Unicast Address Format
RFC 3596 DNS Extension for IPv6
RFC 3810 MLDv2 for IPv6
RFC 4443 ICMPv6

MIBs
IEEE8021-PAE-MIB
IEEE8023-LAG-MIB
RFC 1212 Concise MIB Definitions
RFC 1213 MIB II
RFC 1493 Bridge MIB
RFC 1657 BGP-4 MIB
RFC 1724 RIPv2 MIB

RFC 1907 SNMPv2 MIB
RFC 2012 SNMPv2 MIB for TCP
RFC 2233 Interfaces 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 2573 SNMP-Target MIB
RFC 2574 SNMP USM MIB
RFC 2618 RADIUS Client MIB
RFC 2620 RADIUS Accounting MIB
RFC 2819 RMON MIB
RFC 2925 Ping MIB
RFC 3414 SNMP-User based-SM MIB
RFC 3415 SNMP-View based-ACM MIB
RFC 4113 UDP MIB

Network management
IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
IEEE 802.1D (STP)
RFC 1157 SNMPv1
RFC 1215 SNMP Generic traps
RFC 1757 RMON 4 groups: Stats, History, Alarms and Events
RFC 1901 SNMPv2 Introduction
RFC 1918 Private Internet Address Allocation
RFC 2575 VACM for SNMP
RFC 2576 Coexistence between SNMP versions
RFC 2578 SMIv2
RFC 2581 TCP6

OSPF
RFC 1253 OSPFv2 MIB
RFC 1587 OSPF NSSA
RFC 1850 OSPFv2 Management Information Base (MIB), traps
RFC 2328 OSPFv2

QoS/CoS
IEEE 802.1P (CoS)
RFC 2474 DSCP DiffServ
RFC 2597 DiffServ Assured Forwarding (AF)
RFC 2598 DiffServ Expedited Forwarding (EF)

Security
RFC 1492 TACACS+

IPsec
RFC 2401 IP Security Architecture
RFC 2402 IP Authentication Header
RFC 2406 IP Encapsulating Security Payload
RFC 2409 - The Internet Key Exchange
RFC 2865 - Remote Authentication Dial In User Service (RADIUS)

HP E4800G Switch Series

Specifications

	HP E4800-48G Switch (JD010A)	HP E4800-48G-PoE Switch (JD011A)
Ports	2 module slots	2 module slots
	44 auto-negotiating 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T)	44 auto-negotiating 10/100/1000 PoE ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T, IEEE 802.3af PoE)
	4 dual-personality 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T)	4 dual-personality 10/100/1000 PoE ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T, IEEE 802.3af PoE)
	Supports a maximum of 4 10-GbE ports	Supports a maximum of 4 10-GbE ports
Physical characteristics		
Dimensions	11.8(d) x 17.4(w) x 1.7(h) in. (29.97 x 44.2 x 4.32 cm) (1U height)	16.5(d) x 17.4(w) x 1.7(h) in. (41.91 x 44.2 x 4.32 cm) (1U height)
Weight	9.9 lb. (4.49 kg)	14.3 lb. (6.49 kg)
Memory and processor		
Module	MPC8349 @ 533 MHz, 256 MB RAM, 32 MB flash; packet buffer size: 4 MB	MPC8349 @ 533 MHz, 256 MB RAM, 32 MB flash; packet buffer size: 4 MB
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)
Performance		
100 Mb Latency	< 10 µs	< 10 µs
Throughput	142.9 million pps	142.9 million pps
Routing/Switching capacity	192 Gbps	192 Gbps
Routing table size	12,000 entries	12,000 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%, non-condensing	10% to 90%, non-condensing
Electrical characteristics		
	Achieved Miercom Certified Green Award	
Maximum heat dissipation		100 / 240 BTU/hr (105.5 / 253.2 kJ/hr)
Voltage	100-240 VAC	100-240 VAC
Frequency	50 / 60 Hz	50 / 60 Hz
Safety	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03
Emissions	FCC part 15 Class A; VCCI Class A; CISPR 22 Class A; EN 55024; EN 55022 1998 Class A; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A	FCC part 15 Class A; VCCI Class A; CISPR 22 Class A; EN 55024; EN 55022 1998 Class A; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A
Management	IMC - Intelligent Management Center; command-line interface; Web browser; out-of-band management (serial RS-232C); SNMP Manager; Telnet; HTTPS; IEEE 802.3 Ethernet MIB	IMC - Intelligent Management Center; command-line interface; Web browser; out-of-band management (serial RS-232C); SNMP Manager; Telnet; HTTPS; IEEE 802.3 Ethernet MIB
Notes	Supports a maximum of four 10-GbE ports	Supports a maximum of four 10-GbE ports
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UV906E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV909E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV912E) 3-year, 24x7 SW phone support, software updates (UV915E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV907E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV910E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV913E) 4-year, 24x7 SW phone support, software updates (UV916E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV908E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV911E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV914E) 5-year, 24x7 SW phone support, software updates (UV917E) 3 Yr 6 hr Call-to-Repair Onsite (UW975E) 4 Yr 6 hr Call-to-Repair Onsite (UW976E) 5 Yr 6 hr Call-to-Repair Onsite (UW977E)	3-year, 4-hour onsite, 13x5 coverage for hardware (UV906E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UV909E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UV912E) 3-year, 24x7 SW phone support, software updates (UV915E) Installation with minimum configuration, system-based pricing (UW451E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UV907E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UV910E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV913E) 4-year, 24x7 SW phone support, software updates (UV916E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UV908E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UV911E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UV914E) 5-year, 24x7 SW phone support, software updates (UV917E) 3 Yr 6 hr Call-to-Repair Onsite (UW975E) 4 Yr 6 hr Call-to-Repair Onsite (UW976E) 5 Yr 6 hr Call-to-Repair Onsite (UW977E)
	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.	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

Specifications (continued)

HP E4800-48G Switch (JD010A)		HP E4800-48G-PoE Switch (JD011A)	

Standards and protocols
(applies to all products in series)

BGP
RFC 1657 Definitions of Managed Objects for BGPv4
RFC 1771 BGPv4
RFC 2858 BGP-4 Multi-Protocol Extensions

Device management
RFC 1157 SNMPv1/v2c
RFC 2452 MIB for TCP6
RFC 2454 MIB for UDP6

General protocols
IEEE 802.1ag Service Layer OAM
IEEE 802.1D MAC Bridges
IEEE 802.1p Priority
IEEE 802.1Q (GVRP)
IEEE 802.1Q VLANs
IEEE 802.1s (MSTP)
IEEE 802.1s Multiple Spanning Trees
IEEE 802.1v VLAN classification by Protocol and Port
IEEE 802.1w Rapid Reconfiguration of Spanning Tree
IEEE 802.1X PAE
IEEE 802.3ab 1000BASE-T
IEEE 802.3ac (VLAN Tagging Extension)
IEEE 802.3ad Link Aggregation (LAG)
IEEE 802.3ae 10-Gigabit Ethernet
IEEE 802.3af Power over Ethernet
IEEE 802.3ag Ethernet OAM
IEEE 802.3ah Ethernet in First Mile over Point to Point Fiber - EFMF
IEEE 802.3i 10Base-T
IEEE 802.3u 100BASE-X
IEEE 802.3x Flow Control
IEEE 802.3z 1000BASE-X
RFC 768 UDP
RFC 791 IP
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 854 TELNET
RFC 856 TELNET
RFC 925 Multi-LAN Address Resolution
RFC 950 Internet Standard Subnetting Procedure
RFC 951 BOOTP
RFC 1058 RIPv1
RFC 1122 Host Requirements
RFC 1141 Incremental updating of the Internet checksum
RFC 1253 (OSPF v2)
RFC 1305 NTPv3
RFC 1350 TFTP Protocol (revision 2)
RFC 1389 RIPv2 MIB Extension
RFC 1519 CIDR
RFC 1542 BOOTP Extensions
RFC 1723 RIP v2
RFC 1812 IPv4 Routing
RFC 2131 DHCP

RFC 2236 IGMP Snooping
RFC 2284 EAP over LAN
RFC 2616 HTTP Compatibility v1.1
RFC 2644 Directed Broadcast Control
RFC 2767 Dual Stacks IPv4 & IPv6
RFC 3246 Expedited Forwarding PHB
RFC 3410 Applicability Statements for SNMP
RFC 3416 Protocol Operations for SNMP
RFC 3417 Transport Mappings for the Simple Network Management Protocol (SNMP)
RFC 3623 Graceful OSPF Restart
RFC 3704 Unicast Reverse Path Forwarding (URPF)
RFC 3768 VRRP
RFC 4213 Basic IPv6 Transition Mechanisms

IPv6
RFC 1886 DNS Extension for IPv6
RFC 1887 IPv6 Unicast Address Allocation Architecture
RFC 1981 IPv6 Path MTU Discovery
RFC 2080 RIPng 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 2475 IPv6 DiffServ Architecture
RFC 2526 Reserved IPv6 Subnet Anycast Addresses
RFC 2710 Multicast Listener Discovery (MLD) for IPv6
RFC 2740 OSPFv3 for IPv6
RFC 3056 Connection of IPv6 Domains via IPv4 Clouds
RFC 3306 Unicast-Prefix-based IPv6 Multicast Addresses
RFC 3307 IPv6 Multicast Address Allocation
RFC 3484 Default Address Selection for IPv6
RFC 3493 Basic Socket Interface Extensions for IPv6
RFC 3513 IPv6 Addressing Architecture
RFC 3542 Advanced Sockets API for IPv6
RFC 3587 IPv6 Global Unicast Address Format
RFC 3596 DNS Extension for IPv6
RFC 3810 MLDv2 for IPv6
RFC 4443 ICMPv6

MIBs
IEEE8021-PAE-MIB
IEEE8023-LAG-MIB
RFC 1212 Concise MIB Definitions
RFC 1213 MIB II
RFC 1493 Bridge MIB
RFC 1657 BGP-4 MIB
RFC 1724 RIPv2 MIB

RFC 1907 SNMPv2 MIB
RFC 2012 SNMPv2 MIB for TCP
RFC 2233 Interfaces 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 2573 SNMP-Target MIB
RFC 2574 SNMP USM MIB
RFC 2618 RADIUS Client MIB
RFC 2620 RADIUS Accounting MIB
RFC 2819 RMON MIB
RFC 2925 Ping MIB
RFC 3414 SNMP-User based-SM MIB
RFC 3415 SNMP-View based-ACM MIB
RFC 4113 UDP MIB

Network management
IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
IEEE 802.1D (STP)
RFC 1157 SNMPv1
RFC 1215 SNMP Generic traps
RFC 1757 RMON 4 groups: Stats, History, Alarms and Events
RFC 1901 SNMPv2 Introduction
RFC 1918 Private Internet Address Allocation
RFC 2575 VACM for SNMP
RFC 2576 Coexistence between SNMP versions
RFC 2578 SMIv2
RFC 2581 TCP6

OSPF
RFC 1253 OSPFv2 MIB
RFC 1587 OSPF NSSA
RFC 1850 OSPFv2 Management Information Base (MIB), traps
RFC 2328 OSPFv2

QoS/CoS
IEEE 802.1P (CoS)
RFC 2474 DSCP DiffServ
RFC 2597 DiffServ Assured Forwarding (AF)
RFC 2598 DiffServ Expedited Forwarding (EF)

Security
RFC 1492 TACACS+

IPsec
RFC 2401 IP Security Architecture
RFC 2402 IP Authentication Header
RFC 2406 IP Encapsulating Security Payload
RFC 2409 - The Internet Key Exchange
RFC 2865 - Remote Authentication Dial In User Service (RADIUS)

HP E4800G Switch Series accessories

Modules

HP 2-Port SFP A5500/E4800 Module (JD367A)

HP 2-Port 10-GbE SFP+ A5500/E4800/E4500 Module (JD368B)

HP 2-Port 10-Gig XFP E45/E48 Module (JE049A)

HP 1-Port 10-Gig XFP E45/E48 Module (JE053A)

HP 2-Port 10-Gig LCM E45/E48 Module (JE051A)

Transceivers

HP X130 SFP+ LC SR Transceiver (JD092B)

HP X130 SFP+ LC LRM Transceiver (JD093B)

HP X130 SFP+ LC LR Transceiver (JD094B)

HP X124 1G SFP LC SX Transceiver (JD493A)

HP X125 1G SFP RJ45 T Transceiver (JD089B)

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 BX 10-U Transceiver (JD098B)

HP X120 1G SFP LC BX 10-D Transceiver (JD099B)

HP X125 1G SFP LC SX Transceiver (JD118B)

HP X120 1G SFP LC LX Transceiver (JD119B)

HP X110 100M SFP LC LX Transceiver (JD120B)

HP X110 100M SFP LC FX Dual Mode Transceiver (JD497A)

HP X110 100M SFP LC LX10 Transceiver (JD498A)

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 X130 SC LR XFP Transceiver (JD108B)

HP X130 LC SR XFP Transceiver (JD117B)

HP X135 LC ER XFP Transceiver (JD121A)

HP X130 CX4 XFP Transceiver (JD506A)

Cables

NEW HP 0.5 m Multimode OM3 LC/LC Optical Cable (AJ833A)

NEW HP 1 m Multimode OM3 LC/LC Optical Cable (AJ834A)

NEW HP 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)

NEW HP 5 m Multimode OM3 LC/LC Optical Cable (AJ836A)

NEW HP 15 m Multimode OM3 LC/LC Optical Cable (AJ837A)

NEW HP 30 m Multimode OM3 LC/LC Optical Cable (AJ838A)

NEW HP 50 m Multimode OM3 LC/LC Optical Cable (AJ839A)

HP 50 cm CX4 Cable (JE054A)

HP 100 cm CX4 Cable (JE055A)

HP 300 cm CX4 Cable (JE056A)

NEW HP 0.5 m PremierFlex OM3+ LC/LC Optical Cable (BK837A)

Power Supply

HP A5500 150 W AC Power Supply (JD362A)

HP A5500 150 W DC Power Supply (JD366A)

Products within this series have achieved sufficient scores in each of the rated criteria to achieve the Miercom Certified Green distinction Award. See the Specifications section of this series for more information.

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