

Overview

Models

HP E5500-24 Switch	JE101A
HP E5500-48 Switch	JE103A
HP E5500-24-PoE Switch	JE105A
HP E5500-48-PoE Switch	JE107A
HP E5500-24-SFP EI Switch	JE109A

Key features

- Enterprise-level performance
- High availability for critical applications
- Future-proof, standards-based switching
- Multi-layer security

Product overview

HP E5500 switches deliver premium levels of performance, security, and reliability for robust switching at the enterprise network edge. The series consists of Layer 2/3/4 Fast Ethernet and Power over Ethernet switches, with advanced features that can accommodate the most demanding applications. They offer resilient and secure connectivity and the latest traffic-prioritization technologies to optimize applications on converged networks. Designed for maximum flexibility and scalability, they come with 24 or 48 10/100 ports, plus four active SFP-based Gigabit Ethernet ports for stacking and uplinks. They can be stacked up to eight units high in one location—or distributed over several sites up to 70 km (43.5 miles) apart and connected via Gigabit links to form a virtual “stack.” One stack can provide up to 384 Fast Ethernet ports and may be managed centrally as a single-IP entity.

Features and benefits

Quality of Service (QoS)

- **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

Management

- **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
- **3Com-heritage Comware V3 Operating System**: CLI and Web user interface in common with HP E4XXX and E55XX series switches
- **Port mirroring**: enables traffic on a port to be simultaneously sent to a network analyzer for monitoring

Connectivity



Overview

- **Auto-MDIX:** automatically adjusts for straight-through or crossover cables on all 10/100 ports
- **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
- **Gigabit uplinks:** dual-personality ports for either 10/100/1000 or mini-GBIC SFP connectivity for increased connectivity flexibility

Manageability

- **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
- **Advanced stacking:** locally connect up to eight E5500 switches using Gigabit ports and manage as a single entity; improves resiliency by spreading aggregated links across multiple stacked units
- **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

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
- **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 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

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
- **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
- **Management password:** provides security so that only authorized access to the Web browser interface is allowed
- **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
- **Automatic VLAN assignment:** automatically assigns users to the appropriate VLAN based on their identity and location and the time of day
- **Secure Web management with HTTPS and SSL:** encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch

Convergence



Overview

- **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
- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP):** is an automated device discovery protocol for easy mapping by network management applications
- **Automated voice VLAN assignment:** recognizes IP phones and automatically assigns voice traffic to a dedicated VLAN for IP phones

Warranty and support

- **Lifetime warranty:** for as long as you own the product with advance replacement and next-business-day delivery (available in most countries)*
- **Electronic and telephone support:** limited electronic and telephone support is available from HP; refer to: www.hp.com/networking/warranty for details on the support provided and the period during which support is available
- **Software releases:** refer to: www.hp.com/networking/warranty for details on the software releases provided and the period during which software releases are available for your product(s)

* Hardware warranty replacement for as long as you own the product, with next business day advance replacement (available in most countries) with a five-year hardware warranty replacement for the disk drive included with HP AllianceONE Services zI Module, HP Threat Management Services zI Module, HP PCM+ Agent with AllianceONE Services zI Module, and HP E-MSM765 zI Mobility Controller. For details, refer to the HP Software License, Warranty, and Support booklet at: www.hp.com/networking/warranty.



Technical Specifications

HP E5500-24 Switch (JE101A)

Ports	24 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Duplex: half or full 4 fixed Gigabit Ethernet SFP ports 1 RJ-45 serial console port Supports a maximum of 24 auto-sensing 10/100 ports plus 4 1000Base-X SFP ports, or a combination
Physical characteristics	Dimensions 10.6(d) x 17.3(w) x 1.7(h) in. (26.92 x 43.94 x 4.32 cm) (1U height) Weight 7.3 lb. (3.31 kg)
Memory and processor	Broadcom 5836, 64 MB SDRAM, 16 MB flash; packet buffer size: 32 MB
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)
Performance	Throughput 9.5 million pps Routing/Switching capacity 12.8 Gbps Routing table size 2,000 entries
Environment	Operating temperature 32°F to 113°F (0°C to 45°C) Operating relative humidity 10% to 95%, non-condensing Non-operating/Storage temperature -40°F to 158°F (-40°C to 70°C) Non-operating/Storage relative humidity 10% to 95%, non-condensing
Electrical characteristics	Voltage 100-240 VAC DC Voltage -48 to -60 VDC Frequency 50 / 60 Hz
Safety	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EU RoHS Compliant
Emissions	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A
Management	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager; IEEE 802.3 Ethernet MIB
Services	Installation with minimum configuration, system-based pricing (UW451E)

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SNMP v3 and RMON RFC support

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IEEE 802.3 Type 10BASE-T
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IEEE 802.3af Power over Ethernet
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
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RFC 791 IP
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 1058 RIPv1
RFC 1812 IPv4 Routing
RFC 2338 VRRP
RFC 2644 Directed Broadcast Control

IP multicast

RFC 1112 IGMP
RFC 2236 IGMPv2
RFC 2362 PIM Sparse Mode

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OSPF

RFC 1253 OSPFv2 MIB
RFC 1583 OSPFv2
RFC 1587 OSPF NSSA
RFC 1850 OSPFv2 Management Information Base (MIB), traps
RFC 2154 OSPF w/ Digital Signatures (Password, MD-5)
RFC 2328 OSPFv2

QoS/CoS

IEEE 802.1P (CoS)



Technical Specifications

HP E5500-48 Switch (JE103A)

Ports	48 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Duplex: half or full 4 fixed Gigabit Ethernet SFP ports 1 RJ-45 serial console port Supports a maximum of 48 auto-sensing 10/100 ports plus 4 1000Base-X SFP ports, or a combination
Physical characteristics	Dimensions 10.6(d) x 17.3(w) x 1.7(h) in. (26.92 x 43.94 x 4.32 cm) (1U height) Weight 7.3 lb. (3.31 kg)
Memory and processor	Broadcom 5836, 64 MB SDRAM, 16 MB flash; packet buffer size: 32 MB
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)
Performance	Throughput 11.8 million pps Routing/Switching capacity 17.6 Gbps Routing table size 2,000 entries
Environment	Operating temperature 32°F to 113°F (0°C to 45°C) Operating relative humidity 10% to 95%, non-condensing Non-operating/Storage temperature -40°F to 158°F (-40°C to 70°C) Non-operating/Storage relative humidity 10% to 95%, non-condensing
Electrical characteristics	Voltage 100-240 VAC DC Voltage -48 to -60 VDC Frequency 50 / 60 Hz
Safety	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EU RoHS Compliant
Emissions	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A
Management	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager; IEEE 802.3 Ethernet MIB
Services	Installation with minimum configuration, system-based pricing (UW451E)

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IEEE 802.1P (CoS)



Technical Specifications

HP E5500-24-PoE Switch (JE105A)

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Physical characteristics	Dimensions 16.8(d) x 17.3(w) x 1.7(h) in. (42.67 x 43.94 x 4.32 cm) (1U height) Weight 13.9 lb. (6.31 kg)
Memory and processor	Broadcom 5836, 64 MB SDRAM, 16 MB flash; packet buffer size: 32 MB
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)
Performance	Throughput 9.5 million pps Routing/Switching capacity 12.8 Gbps Routing table size 2,000 entries
Environment	Operating temperature 32°F to 113°F (0°C to 45°C) Operating relative humidity 10% to 95%, non-condensing Non-operating/Storage temperature -40°F to 158°F (-40°C to 70°C) Non-operating/Storage relative humidity 10% to 95%, non-condensing
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QoS/CoS

IEEE 802.1P (CoS)



Technical Specifications

HP E5500-24-SFP EI Switch (JE109A)

Ports	24 SFP 100 Mbps ports 2 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 fixed Gigabit Ethernet SFP ports 1 RJ-45 serial console port Supports a maximum of 24 100BASE-X SFP ports plus 2 auto-sensing 10/100/1000 ports plus 2 1000Base-X SFP ports, or a combination
Physical characteristics	Dimensions 10.6(d) x 17.3(w) x 1.7(h) in. (26.92 x 43.94 x 4.32 cm) (1U height) Weight 7.3 lb. (3.31 kg)
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Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included)
Performance	Throughput 9.5 million pps Routing/Switching capacity 12.8 Gbps Routing table size 2,000 entries
Environment	Operating temperature 32°F to 113°F (0°C to 45°C) Operating relative humidity 10% to 95%, non-condensing Non-operating/Storage temperature -40°F to 158°F (-40°C to 70°C) Non-operating/Storage relative humidity 10% to 95%, non-condensing
Electrical characteristics	Voltage 100-240 VAC DC Voltage -48 to -60 VDC Frequency 50 / 60 Hz
Safety	UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1-03; EU RoHS Compliant
Emissions	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A
Management	IMC - Intelligent Management Center; command-line interface; Web browser; SNMP Manager; IEEE 802.3 Ethernet MIB
Services	Installation with minimum configuration, system-based pricing (UW451E)

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.



Technical Specifications

Standards and protocols (applies to all products in series)

Device management

RFC 1908 (SNMP v1/2 Coexistence)
RFC 2579 (SMIv2 Text Conventions)
RFC 2580 (SMIv2 Conformance)
RFC 2819 RMON
RFC 3410 (Management Framework)
RFC 3416 (SNMP Protocol Operations v2)
RFC 3417 (SNMP Transport Mappings)
SNMP v3 and RMON RFC support

General protocols

IEEE 802.1D MAC Bridges
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 802.3 Type 10BASE-T
IEEE 802.3ab 1000BASE-T
IEEE 802.3ad Link Aggregation (LAG)
IEEE 802.3af Power over Ethernet
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 783 TFTP Protocol (revision 2)
RFC 791 IP
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 1058 RIPv1
RFC 1812 IPv4 Routing
RFC 2338 VRRP
RFC 2644 Directed Broadcast Control

MIBs

RFC 1213 MIB II
RFC 1724 RIPv2 MIB
RFC 1907 SNMPv2 MIB

RFC 2021 RMONv2 MIB
RFC 2233 Interfaces MIB
RFC 2613 SMON 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 4188 (Bridge MIB)

Network management

RFC 1157 SNMPv1
RFC 1757 RMON 4 groups: Stats, History, Alarms and Events
RFC 1901 SNMPv2 Introduction
RFC 1902 SNMPv2 Structure
RFC 1903 SNMPv2 Textual Conventions
RFC 1904 SNMPv2 Conformance
RFC 1905 SNMPv2 Protocol Operations
RFC 1906 SNMPv2 Transport Mappings
RFC 2570 SNMPv3 Overview
RFC 2571 SNMP Management Frameworks
RFC 2572 SNMPv3 Message Processing
RFC 2573 SNMPv3 Applications
RFC 2574 SNMPv3 User-based Security Model (USM)
RFC 2575 SNMPv3 View-based Access Control Model (VACM)
RFC 2576 Coexistence between SNMP versions
RFC 2578 SMIv2
RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events)
RFC 3414 SNMPv3 User-based Security Model (USM)
RFC 3415 SNMPv3 View-based Access Control Model VACM)

OSPF

RFC 1253 OSPFv2 MIB
RFC 1583 OSPFv2
RFC 1587 OSPF NSSA
RFC 1850 OSPFv2 Management Information Base (MIB), traps
RFC 2154 OSPF w/ Digital Signatures (Password, MD-5)
RFC 2328 OSPFv2

QoS/CoS

IEEE 802.1P (CoS)



Accessories

HP E5500 Switch Series accessories	Transceivers	
	HP X110 100M SFP LC FX Dual Mode Transceiver	JD497A
	HP X110 100M SFP LC LX10 Transceiver	JD498A
	HP X124 1G SFP LC SX Transceiver	JD493A
	HP X125 1G SFP LC LH70 Transceiver	JD063B
	HP X125 1G SFP RJ45 T Transceiver	JD089B
	HP X120 1G SFP LC LX Transceiver	JD119B
	HP X124 1G SFP LC LH40 1310nm Transceiver	JD061A
	HP X120 1G SFP LC LH40 1550nm Transceiver	JD062A
	HP X120 1G SFP LC BX 10-U Transceiver	JD098B
	HP X120 1G SFP LC BX 10-D Transceiver	JD099B
	HP X170 1G SFP LC LH70 1550 Transceiver	JD109A
	HP X170 1G SFP LC LH70 1570 Transceiver	JD110A
	HP X170 1G SFP LC LH70 1590 Transceiver	JD111A
	HP X170 1G SFP LC LH70 1610 Transceiver	JD112A
	HP X170 1G SFP LC LH70 1470 Transceiver	JD113A
	HP X170 1G SFP LC LH70 1490 Transceiver	JD114A
	HP X170 1G SFP LC LH70 1510 Transceiver	JD115A
	HP X170 1G SFP LC LH70 1530 Transceiver	JD116A
	HP X125 1G SFP LC SX Transceiver	JD118B
	HP X124 1G SFP LC LX Transceiver	JD494A
	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
	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
	HP E5500-24-SFP EI Switch (JE109A)	
	HP X115 100M SFP LC BX 10-U Transceiver	JD100A
	HP X115 100M SFP LC BX 10-D Transceiver	JD101A
	HP X110 100M SFP LC FX Transceiver	JD102B
	HP X110 100M SFP LC LX Transceiver	JD120B



Accessories

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

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