



HP E4210G Switch Series

Data sheet

Product overview

HP E4210G Switch Series are entry-level Gigabit Ethernet LAN switches with enterprise-class quality of service (QoS), security, and management features, delivering high value for network administrators looking for an economical edge device. Available Power over Ethernet (PoE) models are ideal for voice over IP and wireless networking installations, while non-PoE models are also available for simple port expansion. Dual-personality ports allow flexibility, including the ability to add 10 Gigabit Ethernet capability. Setting them apart from lower-end devices, the series switches support an industry-standard command-line interface, Web-based administration, and SNMP management. In addition, they support Intelligent Resilient Framework (IRF) stacking of up to four units.

Key features

- Entry-level switching, enterprise-class features
- Affordable price
- Out-of-the-box plug-and-play simplicity
- Access control lists for improved security
- Energy efficient; quiet, fan-free design (non-PoE)



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

- **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
- **RADIUS accounting support:** separates RADIUS accounting server support per SSID; provides detailed session, usage, and billing information for each client activity
- **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

Connectivity

- **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
- **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

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
- **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

- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP):** automated device discovery protocol provides easy mapping using network management applications
- **sFlow (RFC 3176):** wire-speed traffic accounting and monitoring
- **Advanced IRF technology stacking:** locally connects up to four E4210G switches using 10 Gigabit Ethernet or CX4 local connections; improves resiliency by spreading aggregated links across multiple stacked units; provides simplified management with single IP management and a unified control interface per stack
- **IEEE 802.1X and RADIUS network logins:** control port-based access for authentication and accountability
- **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
- **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

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 routing

- **Static IP routing:** provides manually configured Layer 3 routing

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
- **Secure Web management with HTTPS and SSL:** encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch

- **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
- **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
- **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

- **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.

HP E4210G Switch Series

Specifications



HP E4210-24G Switch (JF844A)



HP E4210-48G Switch (JF845A)



HP E4210-24G-PoE Switch (JF846A)

Ports	20 RJ-45 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T); Media Type: Auto-MDIX; Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only 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) 1 RJ-45 serial console port Supports a maximum of 2 10-GbE ports	44 RJ-45 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T); Media Type: Auto-MDIX; Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only 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) 1 RJ-45 serial console port Supports a maximum of 2 10-GbE ports	20 RJ-45 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); Media Type: Auto-MDIX; Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only 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) 1 RJ-45 serial console port Supports a maximum of 2 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)	11.8(d) x 17.4(w) x 1.7(h) in. (29.97 x 44.2 x 4.32 cm) (1U height)	16.9(d) x 17.4(w) x 1.7(h) in. (42.93 x 44.2 x 4.32 cm) (1U height)
Weight	9.0 lb. (4.08 kg)	10.4 lb. (4.72 kg)	15.2 lb. (6.89 kg)
Memory and processor			
Processor	Broadcom 5836 @ 264 MHz, 16 MB flash, 64 MB RAM; packet buffer size: .75 MB	Broadcom 5836 @ 264 MHz, 16 MB flash, 64 MB RAM; packet buffer size: 1.5 MB	Broadcom 5836 @ 264 MHz, 16 MB flash, 64 MB RAM; packet buffer size: .75 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			
Throughput	up to 65.5 million pps	up to 101.2 million pps	up to 65.5 million pps
Routing/Switching capacity	88 Gbps	136 Gbps	88 Gbps
Routing table size	32 entries	32 entries	32 entries
Environment			
Operating temperature	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)
Operating relative humidity	10% to 95%, non-condensing	10% to 95%, non-condensing	10% to 95%, non-condensing
Non-operating/Storage temperature	14°F to 158°F (-10°C to 70°C)	14°F to 158°F (-10°C to 70°C)	14°F to 158°F (-10°C to 70°C)
Non-operating/Storage relative humidity	10% to 95%, non-condensing	10% to 95%, non-condensing	10% to 95%, non-condensing
Electrical characteristics			
Voltage	100-240 VAC	100-240 VAC	100-240 VAC
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Safety	UL 60950-1:2003; CSA 22.2 60950-1:2003; IEC 60950-1:2001; EN 60950-1:2001	UL 60950-1:2003; CSA 22.2 60950-1:2003; IEC 60950-1:2001; EN 60950-1:2001	UL 60950-1:2003; CSA 22.2 60950-1:2003; IEC 60950-1:2001; EN 60950-1:2001
Emissions	VCCI Class A; EN 55022 Class A; EN 55024; ICES-003 Class A	VCCI Class A; EN 55022 Class A; EN 55024; ICES-003 Class A	VCCI Class A; EN 55022 Class A; EN 55024; ICES-003 Class A
Management	IMC - Intelligent Management Center; command-line interface; Web browser; out-of-band management (serial RS-232C); SNMP Manager; Telnet; IEEE 802.3 Ethernet MIB	IMC - Intelligent Management Center; command-line interface; Web browser; out-of-band management (serial RS-232C); SNMP Manager; Telnet; IEEE 802.3 Ethernet MIB	IMC - Intelligent Management Center; command-line interface; Web browser; out-of-band management (serial RS-232C); SNMP Manager; Telnet; IEEE 802.3 Ethernet MIB
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.	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.

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Specifications (continued)

	HP E4210-24G Switch (JF844A)	HP E4210-48G Switch (JF845A)	HP E4210-24G-PoE Switch (JF846A)
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 802.1s 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 802.3ad Link Aggregation (LAG) IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3ae 10-Gigabit Ethernet IEEE 802.3i 10BaseT IEEE 802.3x Flow Control IEEE 802.3z 1000BASE-X RFC 768 UDP RFC 792 ICMP RFC 793 TCP RFC 826 ARP RFC 854 TELNET RFC 951 BOOTP RFC 1350 TFTP Protocol (revision 2) RFC 1519 CIDR RFC 1542 BOOTP Extensions	RFC 2131 DHCP RFC 3576 Ext to RADIUS (CoA only) RFC 4675 RADIUS VLAN & Priority MIBs IEEE 8021-PAE-MIB IEEE 8023-LAG-MIB RFC 1213 MIB II RFC 1493 Bridge MIB RFC 1757 Remote Network Monitoring MIB RFC 1907 SNMPv2 MIB RFC 2011 SNMPv2 MIB for IP RFC 2013 SNMPv2 MIB for UDP RFC 2096 IP Forwarding Table MIB RFC 2233 Interfaces 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 2574 SNMP USM 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 2688 MAU-MIB RFC 2737 Entity MIB (Version 2) RFC 2819 RMON MIB RFC 2863 The Interfaces Group 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 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 802.1D (STP) RFC 1215 SNMP Generic traps RFC 2575 VACM for SNMP Security IEEE 802.1X Port Based Network Access Control

HP E4210G Switch Series accessories

Modules

HP 2-Port 10-Gig LCM E45/E48 Module (JE051A)
HP 2-Port 10-Gig XFP E45/E48 Module (JE049A)
HP 2-port 10-GbE SFP+ A5500/E4800/E4500 Module (JD368B)
HP 1-Port 10-Gig XFP E45/E48 Module (JE053A)

Transceivers

HP X124 1G SFP LC SX Transceiver (JD493A)
HP X120 1G SFP LC LX Transceiver (JD119B)
HP X124 1G SFP LC LH40 1310nm Transceiver (JD061A)
HP X125 1G SFP LC LH70 Transceiver (JD063B)
HP X130 SFP+ LC SR Transceiver (JD092B)
HP X130 SFP+ LC LRM Transceiver (JD093B)
HP X130 SFP+ LC LR Transceiver (JD094B)
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

HP 50cm CX4 Cable (JE054A)
HP 100cm CX4 Cable (JE055A)
HP 300cm CX4 Cable (JE056A)
NEW HP .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 0.5m PremierFlex OM3+ LC/LC Optical Cable (BK837A)

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

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