



## HP E2610 Switch Series

Data sheet

### Product overview

The HP E2610 Switch Series consists of five switches. The HP E2610-24 and E2610-48 Switches provide 24 and 48 ports of 10/100 connectivity. The HP E2610-24 Switch is a fanless switch with quiet operation, making it ideal for deployments in open spaces. The HP E2610-24-PPoE, E2610-24-PoE, and E2610-48-PoE Switches are IEEE 802.3af compliant for Power over Ethernet (PoE) and provide up to 15.4 W for 12, 24, and 48 ports. The E2610-24-PPoE switch has 24 10/100 ports and provides 12 ports of PoE. All series switches include two 10/100/1000Base-T ports and two mini-GBIC slots for Gigabit Ethernet uplink connectivity. An optional redundant external power supply is also available to provide redundancy in the event of a power supply failure. With static routing, robust security and management features, free lifetime warranty, and free software updates, the HP E2610 Switch Series is a cost-effective solution for customers who are building converged enterprise edge networks.

### Key features

- Access layer cost-effective switch
- Layer 2 plus static IP routing
- Scalable 10/100 connectivity
- Gigabit fiber uplinks
- Enterprise-class features



## Features and benefits

### Quality of Service (QoS)

- **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
- **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 four queues

### Connectivity

- **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
- **Pre-standard PoE support:** detects and provides power to pre-standard PoE devices; see list of supported devices in the product FAQ at [www.hp.com/networking/support](http://www.hp.com/networking/support)
- **Gigabit uplink connectivity:** two 10/100/1000Base-T ports and two mini-GBIC ports for connectivity such as Gigabit Ethernet (SX, LX, LH, and 1000Base-T) and 100Base-FX
- **Auto-MDIX:** automatically adjusts for straight-through or crossover cables on all 10/100 ports
- **Jumbo packet support:** supports up to 9216-byte frame size to improve performance of large data transfers
- **Pre-standard PoE support:** detects and provides power to most of Cisco's pre-standard PoE devices; see list of support devices in product's FAQ on [www.hp.com/networking](http://www.hp.com/networking)

### Resiliency and high availability

- **IEEE 802.3ad Link Aggregation Protocol (LACP) and HP port trunking:** support up to 24 trunks, each with up to 8 links (ports) per trunk
- **IEEE 802.1s Multiple Spanning Tree:** provides high link availability in multiple VLAN environments by allowing multiple spanning trees; provides legacy support for IEEE 802.1d and IEEE 802.1w
- **Optional redundant power supply:** provides uninterrupted power (provided by HP E600 RPS/EPs)

## Manageability

- **RMON, XRMON, and sFlow:** provide advanced monitoring and reporting capabilities for statistics, history, alarms, and events
- **Uni-Directional Link Detection (UDLD):** monitors a link between two switches and blocks the ports on both ends of the link if the link goes down at any point between the two devices
- **Command authorization:** leverages RADIUS to link a custom list of CLI commands to individual network administrator's login; also provides an audit trail
- **Multiple configuration files:** allow multiple configuration files to be stored to a flash image
- **Dual flash images:** provides independent primary and secondary operating system files for backup while upgrading
- **Single IP Address Management:** single IP address management for a virtual stack of up to 16 switches
- **Friendly port names:** allow assignment of descriptive names to ports
- **Find-Fix-Inform:** finds and fixes common network problems automatically, then informs administrator
- **Software updates:** free downloads from the Web
- **Troubleshooting:** ingress and egress port monitoring enable network problem solving

### Layer 2 switching

- **VLAN support and tagging:** supports IEEE 802.1Q (4,094 VLAN IDs) and 256 VLANs simultaneously
- **GARP VLAN Registration Protocol:** allows automatic learning and dynamic assignment of VLANs
- **IEEE 802.1v protocol VLANs:** isolate select non-IPv4 protocols automatically into their own VLANs

### Layer 3 routing

- **Basic IP routing:** enables automatic routing to the connected VLANs and up to 16 static routes, including one default route, in IP networks

## Security

- **Multiple user authentication methods:**
  - **IEEE 802.1X:** is an industry-standard method of user authentication using an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server
  - **Web-based authentication:** similar to IEEE 802.1X, it provides a browser-based environment to authenticate clients that do not support the IEEE 802.1X supplicant
  - **MAC-based authentication:** client is authenticated with the RADIUS server based on the client's MAC address
- **Authentication flexibility:**
  - **Multiple IEEE 802.1X users per port:** provides authentication of up to eight IEEE 802.1X users per port; prevents user "piggybacking" on another user's IEEE 802.1X authentication
  - **Concurrent IEEE 802.1X and Web or MAC authentication schemes per port:** switch port will accept any of IEEE 802.1X and either Web or MAC authentications
- **Access control lists (ACLs):** provide IP Layer 3 filtering based on source/destination IP address/subnet and source/destination TCP/UDP port number
- **Identity-driven ACL:** enables implementation of a highly granular and flexible access security policy and VLAN assignment specific to each authenticated network user
- **Dynamic ARP protection:** blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data
- **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
- **Source-port filtering:** allows only specified ports to communicate with each other
- **RADIUS/TACACS+:** eases switch management security administration by using a password authentication server
- **Secure Shell:** encrypts all transmitted data for secure remote CLI access over IP networks
- **Port monitoring for network threats:** provides sampled port traffic using sFlow technology to the HP Network Immunity Manager application for Network Behavior Anomaly Detection (NBAD) analysis to detect threats and mitigate threats at the port where they originated

- **Secure Sockets Layer (SSL):** encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch
- **Secure FTP:** allows secure file transfer to and from the switch; protects against unwanted file downloads or unauthorized copying of a switch configuration file
- **Switch management logon security:** can require either RADIUS or TACACS+ authentication for secure switch CLI logon
- **DHCP protection:** blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks
- **STP BPDU port protection:** blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks
- **STP Root Guard:** protects the root bridge from malicious attack or configuration mistakes

## Convergence

- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP):** is an automated device discovery protocol that provides easy mapping of network management applications
- **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 snooping and data-driven IGMP:** automatically prevents flooding of IP multicast traffic

## Monitor and diagnostics

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

## 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](http://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](http://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 z1 Module, HP Threat Management Services z1 Module, HP PCM+ Agent with AllianceONE Services z1 Module, and HP E-MSM765 z1 Mobility Controller. For details, refer to the HP Software License, Warranty, and Support booklet at [www.hp.com/networking/warranty](http://www.hp.com/networking/warranty).

# HP E2610 Switch Series

## Specifications



**HP E2610-48 Switch (J9088A)**



**HP E2610-24 Switch (J9085A)**



**HP E2610-24-PoE Switch (J9087A)**

<b>Ports</b>	48 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Media Type: Auto-MDIX; Duplex: half or full  1 RJ-45 serial console port  2 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 open mini-GBIC (SFP) slots	24 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Media Type: Auto-MDIX; Duplex: half or full  1 RJ-45 serial console port  2 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 open mini-GBIC (SFP) slots	24 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Media Type: Auto-MDIX; Duplex: half or full  1 RJ-45 serial console port  2 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 open mini-GBIC (SFP) slots
<b>Physical characteristics</b>			
Dimensions	9.3(d) x 17.4(w) x 1.73(h) in. (23.62 x 44.2 x 4.39 cm) (1U height)	9.3(d) x 17.4(w) x 1.73(h) in. (23.62 x 44.2 x 4.39 cm) (1U height)	12.5(d) x 17.4(w) x 1.73(h) in. (31.75 x 44.2 x 4.39 cm) (1U height)
Weight	10.75 lb. (4.88 kg), Fully loaded	2.49 lb. (1.13 kg), Fully loaded	15.05 lb. (6.83 kg), Fully loaded
<b>Memory and processor</b>			
Processor	MIPS @ 300 MHz, 16 MB flash, 128 MB SDRAM; packet buffer size: 2 MB	MIPS @ 300 MHz, 16 MB flash, 128 MB SDRAM; packet buffer size: 1 MB	MIPS @ 300 MHz, 16 MB flash, 128 MB SDRAM; packet buffer size: 1 MB
<b>Mounting</b>	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only
<b>Performance</b>			
100 Mb Latency	< 6.2 $\mu$ s (LIFO)	< 4.1 $\mu$ s (LIFO)	< 4.1 $\mu$ s (LIFO)
1000 Mb Latency	< 4.4 $\mu$ s (LIFO)	< 2.9 $\mu$ s (LIFO)	< 2.9 $\mu$ s (LIFO)
Throughput	up to 13.0 million pps	up to 9.5 million pps	up to 9.5 million pps
Routing/Switching capacity	17.6 Gbps	12.8 Gbps	12.8 Gbps
MAC address table size	8000 entries	8000 entries	8000 entries
<b>Environment</b>			
Operating temperature	32°F to 122°F (0°C to 50°C)	32°F to 122°F (0°C to 50°C)	32°F to 122°F (0°C to 50°C)
Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing	15% to 95% @ 104°F (40°C), noncondensing	15% to 95% @ 104°F (40°C), noncondensing
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing	15% to 90% @ 149°F (65°C), noncondensing	15% to 90% @ 149°F (65°C), noncondensing
Altitude	up to 10,000 ft. (3 km)	up to 10,000 ft. (3 km)	up to 10,000 ft. (3 km)
Acoustic	Power: 45 dB, Pressure: 36.2 dB; DIN 45635T.19 per ISO 7779	Power: 0 dB, Pressure: 0 dB No Fan	Power: 64 dB, Pressure: 57 dB; DIN 45635T.19 per ISO 7779
<b>Electrical characteristics</b>			
	<b>Achieved Miercom Certified Green Award</b>		
Maximum heat dissipation	285 BTU/hr (300.67 kJ/hr)	142 BTU/hr (149.81 kJ/hr)	410 BTU/hr (432.55 kJ/hr), (switch-only BTU/hr: 410; combined switch + max. PoE devices at 15.4 W: 2281 BTU/hr )
Voltage	100-127/200-240 VAC	100-127/200-240 VAC	100-127/200-240 VAC
Current	1.3/0.8 A	0.8/0.4 A	7.0/3.5 A
Maximum power rating	66 W	41 W	77 W
PoE power			406 W
Frequency	50/60 Hz	50/60 Hz	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.	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.	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. PoE power is the power supplied by the internal power supply. It is dependent on the type and quantity of power supplies and may be supplemented with the use of an external power supply (EPS). Power consumption: 77 W without PoE; 527 W with PoE.
<b>Safety</b>	CSA 22.2 No. 60950; UL 60950; IEC 60950; EN 60950	CSA 22.2 No. 60950; UL 60950; IEC 60950; EN 60950	CSA 22.2 No. 60950; UL 60950; IEC 60950; EN 60950
<b>Emissions</b>	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A
<b>Immunity</b>			
EN	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24

# HP E2610 Switch Series

## Specifications (continued)

	HP E2610-48 Switch (J9088A)	HP E2610-24 Switch (J9085A)	HP E2610-24-PoE Switch (J9087A)
ESD	IEC 61000-4-2; 4 kV CD, 8 kV AD	IEC 61000-4-2; 4 kV CD, 8 kV AD	IEC 61000-4-2; 4 kV CD, 8 kV AD
Radiated	IEC 61000-4-3; 3V/m	IEC 61000-4-3; 3V/m	IEC 61000-4-3; 3V/m
EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5kV (signal line)
Surge	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC
Conducted	IEC 61000-4-6; 3V	IEC 61000-4-6; 3V	IEC 61000-4-6; 3V
Power frequency magnetic field	IEC 61000-4-8; 1A/m,50 or 60 Hz	IEC 61000-4-8; 1A/m,50 or 60 Hz	IEC 61000-4-8; 1A/m,50 or 60 Hz
Voltage dips and interruptions	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3
<b>Management</b>	HP PCM+; HP PCM (included); command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)	HP PCM+; HP PCM (included); command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)	HP PCM+; HP PCM (included); command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)
<b>Notes</b>	When using mini-GBICs with this product, mini-GBICs with revision "B" or later (product ends with the letter "B" or later, e.g., J4858B, J4859C) are required.	When using mini-GBICs with this product, mini-GBICs with revision "B" or later (product ends with the letter "B" or later, e.g., J4858B, J4859C) are required.	When using mini-GBICs with this product, mini-GBICs with revision "B" or later (product ends with the letter "B" or later, e.g., J4858B, J4859C) are required.



# HP E2610 Switch Series

## Specifications (continued)

	HP E2610-48 Switch (J9088A)	HP E2610-24 Switch (J9085A)	HP E2610-24-PoE Switch (J9087A)
<b>Standards and protocols</b> (applies to all products in series)	<b>Device management</b> HTML and telnet management  <b>General protocols</b> IEEE 802.1D MAC Bridges IEEE 802.1p Priority IEEE 802.1Q VLANs IEEE 802.1v VLAN classification by Protocol and Port IEEE 802.1w Rapid Reconfiguration of Spanning Tree IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3af Power over Ethernet IEEE 802.3x Flow Control RFC 768 UDP RFC 783 TFTP Protocol (revision 2) RFC 792 ICMP RFC 793 TCP RFC 826 ARP RFC 854 TELNET RFC 951 BOOTP	RFC 1542 BOOTP Extensions RFC 2030 Simple Network Time Protocol (SNTP) v4 RFC 2131 DHCP RFC 3046 DHCP Relay Agent Information Option  <b>IP multicast</b> RFC 3376 IGMPv3  <b>MIBs</b> RFC 1213 MIB II RFC 1493 Bridge MIB RFC 1573 SNMP MIB II RFC 2021 RMONv2 MIB RFC 2096 IP Forwarding Table MIB RFC 2613 SMON MIB RFC 2618 RADIUS Client MIB RFC 2665 Ethernet-Like-MIB RFC 2668 802.3 MAU MIB RFC 2674 802.1p and IEEE 802.1Q Bridge MIB RFC 2737 Entity MIB (Version 2) RFC 2863 The Interfaces Group MIB	<b>Network management</b> IEEE 802.1AB Link Layer Discovery Protocol (LLDP) RFC 3164 BSD syslog Protocol RFC 3176 sFlow ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED) SNMPv1/v2c/v3  <b>Security</b> IEEE 802.1X Port Based Network Access Control RFC 1492 TACACS+ Secure Sockets Layer (SSL) SSHv1/SSHv2 Secure Shell

# HP E2610 Switch Series

## Specifications (continued)



**HP E2610-48-PoE Switch (J9089A)**



**HP E2610-24-PPoE Switch (J9086A)**

<b>Ports</b>	48 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Media Type: Auto-MDIX; Duplex: half or full  1 RJ-45 serial console port  2 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 open mini-GBIC (SFP) slots	24 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Media Type: Auto-MDIX; Duplex: half or full  1 RJ-45 serial console port  2 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 open mini-GBIC (SFP) slots
<b>Physical characteristics</b>		
Dimensions	13.5(d) x 17.4(w) x 1.73(h) in. (34.29 x 44.2 x 4.39 cm) (1U height)	9.3(d) x 17.4(w) x 1.73(h) in. (23.62 x 44.2 x 4.39 cm) (1U height)
Weight	16.7 lb. (7.58 kg), Fully loaded	7.5 lb. (3.4 kg)
<b>Memory and processor</b>		
Processor	MIPS @ 300 MHz, 16 MB flash, 128 MB SDRAM; packet buffer size: 2 MB	MIPS @ 300 MHz, 16 MB flash, 128 MB SDRAM; packet buffer size: 1 MB
<b>Mounting</b>	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only
<b>Performance</b>		
100 Mb Latency	< 6.2 $\mu$ s (LIFO)	< 4.1 $\mu$ s
1000 Mb Latency	< 4.4 $\mu$ s (LIFO)	< 2.9 $\mu$ s
Throughput	up to 13.0 million pps	up to 9.5 million pps
Routing/Switching capacity	17.6 Gbps	12.8 Gbps
MAC address table size	8000 entries	8000 entries
<b>Environment</b>		
Operating temperature	32°F to 122°F (0°C to 50°C)	32°F to 122°F (0°C to 50°C)
Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing	15% to 95% @ 104°F (40°C), noncondensing
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing	15% to 90% @ 149°F (65°C), noncondensing
Altitude	up to 10,000 ft. (3 km)	up to 10,000 ft. (3 km)
Acoustic	Power: 63.6 dB, Pressure: 56.6 dB; DIN 45635T.19 per ISO 7779	Power: 46 dB, Pressure: 38.4 dB; DIN 45635T.19 per ISO 7779
<b>Electrical characteristics</b>		
Maximum heat dissipation	410 BTU/hr (432.55 kJ/hr), (switch-only BTU/hr: 410; combined switch + max. PoE devices at 15.4 W: 2281 BTU/hr)	181 BTU/hr (190.96 kJ/hr), (switch-only BTU/hr: 181; combined switch + max. PoE devices at 15.4 W: 827 BTU/hr)
Voltage	100-127/200-240 VAC	100-127/200-240 VAC
Current	7.0/3.5 A	2.5/1.3 A
Maximum power rating	96 W	62 W
PoE power	406 W	126 W
Frequency	50/60 Hz	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. PoE power is the power supplied by the internal power supply. It is dependent on the type and quantity of power supplies and may be supplemented with the use of an external power supply (EPS). Power consumption: 96 W without PoE; 590 W with PoE.	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. PoE power is the power supplied by the internal power supply. It is dependent on the type and quantity of power supplies and may be supplemented with the use of an external power supply (EPS). Power consumption: 62 W without PoE; 189 W with PoE.
<b>Safety</b>	CSA 22.2 No. 60950; UL 60950; IEC 60950; EN 60950	CSA 22.2 No. 60950; UL 60950; IEC 60950; EN 60950
<b>Emissions</b>	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A
<b>Immunity</b>		
EN	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2; 4 kV CD, 8 kV AD	IEC 61000-4-2; 4 kV CD, 8 kV AD
Radiated	IEC 61000-4-3; 3V/m	IEC 61000-4-3; 3V/m
EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5kV (signal line)
Surge	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC
Conducted	IEC 61000-4-6; 3V	IEC 61000-4-6; 3V
Power frequency magnetic field	IEC 61000-4-8; 1A/m, 50 or 60 Hz	IEC 61000-4-8; 1A/m, 50 or 60 Hz
Voltage dips and interruptions	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3
<b>Management</b>	HP PCM+; HP PCM (included); command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)	HP PCM+; HP PCM (included); command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)



# HP E2610 Switch Series

## Specifications (continued)

	HP E2610-48-PoE Switch (J9089A)	HP E2610-24-PPoE Switch (J9086A)	
<b>Notes</b>	When using mini-GBICs with this product, mini-GBICs with revision "B" or later (product ends with the letter "B" or later, e.g., J4858B, J4859C) are required.	When using mini-GBICs with this product, mini-GBICs with revision "B" or later (product ends with the letter "B" or later, e.g., J4858B, J4859C) are required.	
<b>Services</b>	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E)</p> <p>3-year, 24x7 SW phone support, software updates (UF792E)</p> <p>1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR849E)</p> <p>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR850E)</p> <p>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR851E)</p> <p>Installation with minimum configuration, system-based pricing (U4826E)</p> <p>Installation with HP-provided configuration, system-based pricing (U4830E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)</p> <p>4-year, 24x7 SW phone support, software updates (UR951E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)</p> <p>5-year, 24x7 SW phone support, software updates (UR955E)</p> <p>3 Yr 6 hr Call-to-Repair Onsite (UW368E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (UW369E)</p> <p>5 Yr 6 hr Call-to-Repair Onsite (UW370E)</p> <p>1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E)</p> <p>1-year, 24x7 software phone support, software updates (HR852E)</p> <p>1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E)</p> <p>1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS555E)</p> <p>3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS556E)</p> <p>3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS557E)</p> <p>4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS558E)</p> <p>4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS559E)</p> <p>5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS560E)</p> <p>5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS561E)</p>	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E)</p> <p>3-year, 24x7 SW phone support, software updates (UF792E)</p> <p>1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR849E)</p> <p>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR850E)</p> <p>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR851E)</p> <p>Installation with minimum configuration, system-based pricing (U4826E)</p> <p>Installation with HP-provided configuration, system-based pricing (U4830E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)</p> <p>4-year, 24x7 SW phone support, software updates (UR951E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)</p> <p>5-year, 24x7 SW phone support, software updates (UR955E)</p> <p>3 Yr 6 hr Call-to-Repair Onsite (UW368E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (UW369E)</p> <p>5 Yr 6 hr Call-to-Repair Onsite (UW370E)</p> <p>1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E)</p> <p>1-year, 24x7 software phone support, software updates (HR852E)</p> <p>1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E)</p> <p>1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS555E)</p> <p>3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS556E)</p> <p>3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS557E)</p> <p>4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS558E)</p> <p>4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS559E)</p> <p>5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS560E)</p> <p>5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS561E)</p>	
	Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> 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 <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> 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.	
<b>Standards and protocols</b> (applies to all products in series)	<p><b>Device management</b></p> <p>HTML and telnet management</p> <p><b>General protocols</b></p> <p>IEEE 802.1D MAC Bridges</p> <p>IEEE 802.1p Priority</p> <p>IEEE 802.1Q VLANs</p> <p>IEEE 802.1v VLAN classification by Protocol and Port</p> <p>IEEE 802.1w Rapid Reconfiguration of Spanning Tree</p> <p>IEEE 802.3ad Link Aggregation Control Protocol (LACP)</p> <p>IEEE 802.3af Power over Ethernet</p> <p>IEEE 802.3x Flow Control</p> <p>RFC 768 UDP</p> <p>RFC 783 TFTP Protocol (revision 2)</p> <p>RFC 792 ICMP</p> <p>RFC 793 TCP</p> <p>RFC 826 ARP</p> <p>RFC 854 TELNET</p> <p>RFC 951 BOOTP</p>	<p>RFC 1542 BOOTP Extensions</p> <p>RFC 2030 Simple Network Time Protocol (SNTP) v4</p> <p>RFC 2131 DHCP</p> <p>RFC 3046 DHCP Relay Agent Information Option</p> <p><b>IP multicast</b></p> <p>RFC 3376 IGMPv3</p> <p><b>MIBs</b></p> <p>RFC 1213 MIB II</p> <p>RFC 1493 Bridge MIB</p> <p>RFC 1573 SNMP MIB II</p> <p>RFC 2021 RMONv2 MIB</p> <p>RFC 2096 IP Forwarding Table MIB</p> <p>RFC 2613 SMON MIB</p> <p>RFC 2618 RADIUS Client MIB</p> <p>RFC 2665 Ethernet-Like-MIB</p> <p>RFC 2668 802.3 MAU MIB</p> <p>RFC 2674 802.1p and IEEE 802.1Q Bridge MIB</p> <p>RFC 2737 Entity MIB (Version 2)</p> <p>RFC 2863 The Interfaces Group MIB</p>	<p><b>Network management</b></p> <p>IEEE 802.1AB Link Layer Discovery Protocol (LLDP)</p> <p>RFC 3164 BSD syslog Protocol</p> <p>RFC 3176 sFlow</p> <p>ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)</p> <p>SNMPv1/v2c/v3</p> <p><b>Security</b></p> <p>IEEE 802.1X Port Based Network Access Control</p> <p>RFC 1492 TACACS+</p> <p>Secure Sockets Layer (SSL)</p> <p>SSHv1/SSHv2 Secure Shell</p>

# HP E2610 Switch Series accessories

## Transceivers

HP X111 100M SFP LC FX Transceiver (J9054C)  
HP X112 100M SFP LC BX-D Transceiver (J9099B)  
HP X112 100M SFP LC BX-U Transceiver (J9100B)  
HP X121 1G SFP LC LH Transceiver (J4860C)  
HP X121 1G SFP LC SX Transceiver (J4858C)  
HP X121 1G SFP LC LX Transceiver (J4859C)  
HP X121 1G SFP RJ45 T Transceiver (J8177C)  
HP X122 1G SFP LC BX-D Transceiver (J9142B)  
HP X122 1G SFP LC BX-U Transceiver (J9143B)

## Cables

HP 0.5 m Multimode OM3 LC/LC Optical Cable (AJ833A)  
HP 1 m Multimode OM3 LC/LC Optical Cable (AJ834A)  
HP 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)  
HP 5 m Multimode OM3 LC/LC Optical Cable (AJ836A)  
HP 15 m Multimode OM3 LC/LC Optical Cable (AJ837A)  
HP 30 m Multimode OM3 LC/LC Optical Cable (AJ838A)  
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)

## EPS/RPS

HP E600 Redundant and External Power Supply (J8168A)

HP E610 External Power Supply (J8169A)

## Mounting Kit

HP X410 E-Series 1U Universal 4-Post Rack Mounting Kit (J9583A)



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](http://www.hp.com/networking)

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