

# HP 2530 Switch Series



## Key features

- Cost-effective, reliable, protected, and fully managed L2 switches
- 8, 24, or 48 Gigabit or Fast Ethernet ports with up to four Gigabit or two 10 Gigabit uplink ports
- PoE+ models for voice, video, and wireless deployments
- Access control lists (ACLs), EEE, and IPv4/IPv6 host support
- Limited Lifetime Warranty 2.0 with 3 years 24x7 phone support

## Product overview

The HP 2530 Switch Series consists of 17 fully managed L2 edge switches that deliver cost-effective, reliable, protected and easy-to-use connectivity to business networks. Designed for entry-level to midsize enterprise networks, these Gigabit and Fast Ethernet switches deliver full L2 capabilities with optional Power over Ethernet (PoE), enhanced access security, traffic prioritization, and IPv6 host support.

The HP 2530 Switch Series offers uplink flexibility with either four Gigabit or two 10 Gigabit Ethernet uplinks on some 24- and 48-port models. The Gigabit 24- and 48-port models have either two small form-factor pluggable plus (SFP+) or four small form-factor pluggable (SFP) slots for fiber connectivity. The Fast Ethernet 24- and 48-port models have two SFPs and two RJ-45 Gigabit uplinks. The compact and fan-less 8-port switches offer additional flexibility with two dual-personality ports that can be used as either RJ-45 Gigabit Ethernet or SFP ports. Moreover, the HP 2530 Switch Series PoE+ Switches are IEEE 802.3af- and IEEE 802.3at-compliant with up to 30 W per port, making them suitable for voice, video, or wireless deployments with PoE+.

The switch series is easy to use, deploy, and manage via the SNMP, CLI, and Web GUI. It offers flexible wall, table, and rack mounting options; quiet operation with fan-less and variable-speed fan models; and improved power savings with features such as IEEE 802.3az energy-efficient Ethernet. And it includes Limited Lifetime Warranty 2.0 with 3 years 24x7 phone support and includes all software releases.

## Features and benefits

### Quality of Service

- Traffic prioritization (IEEE 802.1p)

Allows real-time traffic classification with support for eight priority levels mapped to either two or four queues, and uses weighted deficit round-robin (WDRR) or strict priority
- Simplified quality of service (QoS) configuration
  - Port-based
    - Prioritizes traffic by specifying a port and priority level
  - VLAN-based
    - Prioritizes traffic by specifying a VLAN and priority level
- 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

Establishes per-port ingress-enforced maximums for all ingress traffic or for broadcast, multicast, or unknown destination traffic
- Layer 4 prioritization

Enables prioritization based on TCP/UDP port numbers
- Flow control

Helps deliver reliable communication during full-duplex operation

### Management

- Choice of management interfaces
  - HTML-based easy-to-use Web GUI
    - Allows configuration of the switch from any Web browser
  - Robust CLI
    - Provides advanced configuration and diagnostics
  - Simple network management protocol (SNMPv1/v2c/v3)
    - Allows the switch to be managed with a variety of third-party network management applications
- Virtual stacking

Provides single IP address management for up to 16 switches
- sFlow® (RFC 3176)

Delivers wire-speed traffic accounting and monitoring, configured by SNMP and CLI with three terminal encrypted receivers

- IEEE 802.1AB Link Layer Discovery Protocol (LLDP)  
Automates device discovery protocol for easy mapping by network management applications
- Logging  
Provides local and remote logging of events via SNMP (v2c and v3) and syslog; provides log throttling and log filtering to reduce the number of log events generated
- Port mirroring  
Allows traffic to be mirrored on any port or a network analyzer to assist with diagnostics or detecting network attacks
- Remote monitoring (RMON)  
Provides advanced monitoring and reporting capabilities for statistics, history, alarms, and events
- Find, fix, and inform  
Finds and fixes common network problems automatically, and then informs the administrator
- Friendly port names  
Allows assignment of descriptive names to ports
- Dual flash images  
Provides independent primary and secondary operating system files for backup while upgrading
- Multiple configuration files  
Are easily stored with a flash image
- Front-panel LEDs
  - Locator LEDs  
Allows users to set the locator LED on a specific switch to turn on, blink, or turn off; and simplifies troubleshooting by making it easy to locate a particular switch within a rack of similar switches
  - Per-port LEDs  
Provides an at-a-glance view of the status, activity, speed, and full-duplex operation
  - Power and fault LEDs  
Display issues, if any
- HP Comware CLI
  - Comware-compatible CLI  
Bridges the experience of HP Comware CLI users who are using the HP ProVision software CLI
  - Display and fundamental Comware CLI commands  
Are embedded in the switch CLI as native commands; display output is formatted as on Comware-based switches, and fundamental commands provide a Comware-familiar initial switch setup
  - Configuration Comware CLI commands  
When Comware commands are entered, CLI helps elicit to formulate the correct ProVision software CLI command
- **NEW** Download software via DHCP  
Adds the option to specify the location of switch software via DHCP
- **NEW** TR-069 support  
Enables zero-touch configuration for switches

## Connectivity

- IPv6
  - IPv6 host
    - Allows the switch to be deployed and managed at the edge of an IPv6 network
  - Dual stack (IPv4/IPv6)
    - Supports connectivity for both protocols; provides a transition mechanism from IPv4 to IPv6
  - MLD snooping
    - Forwards IPv6 multicast traffic to appropriate interface; prevents IPv6 multicast traffic from flooding the network
  - IPv6 ACL/QoS
    - Supports ACL and QoS for IPv6 network traffic on Gigabit and 48 port 10/100 models
  - Security
    - RA Guard, DHCPv6 Protection, Dynamic IPv6 Lockdown (YA only)
- 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
- IEEE 802.3at PoE+
  - Provides up to 30 W per port to IEEE 802.3 for PoE/PoE+-powered devices such as video IP phones, IEEE 802.11n wireless access points, and advanced pan/tilt/zoom security cameras (refer to the product specifications for the total PoE power availability)
- Auto-MDIX
  - Adjusts automatically for straight-through or crossover cables on all ports
- Pre-standard PoE support
  - Detects and provides power to pre-standard PoE devices (refer to the list of supported devices in the product FAQs, which can be accessed at [hp.com/networking/support](http://hp.com/networking/support))
- SFP slots
  - Provides fiber connectivity such as Gigabit-SX, LX, LH, and BX with four SFP slots on all 24- and 48-port Gigabit Ethernet models. Fast Ethernet 24- and 48-port models have two SFP slots and two RJ-45 Gigabit uplinks; 8-port models have two dual-personality ports supporting either SFP or RJ-45 Gigabit uplinks
- Dual-personality (RJ-45 or USB micro-B) serial console port
  - Gives easy access to switch CLI with front-of-switch location and the flexibility of using either an RJ-45 or USB micro-B serial console port

## Layer 2 switching

- VLANs

Provides support for 512 VLANs and 4,094 VLAN IDs

- Jumbo packet support

Supports up to 9,220-byte frame size to improve the performance of large data transfers; 8- and 24-port Fast Ethernet models automatically support up to 2,000-byte frames with no configuration needed

- 16K MAC address table

Provides access to many Layer 2 devices

- GARP VLAN Registration Protocol

Allows automatic learning and dynamic assignment of VLANs

- **NEW** Rapid Per-VLAN Spanning Tree (RPVST+)

Allows each VLAN to build a separate spanning tree to improve link bandwidth usage; is compatible with PVST+

## Security

- ACLs

Accommodates IPv4/IPv6 port and VLAN-based ACLs (IPv6 ACL is supported only on Gigabit Ethernet and 48-port models.)

- 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 Sockets Layer (SSL)

Encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch

- 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

- Multiple user authentication methods
  - IEEE 802.1X
    - Uses an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server to authenticate in accordance with industry standards
  - Web-based authentication
    - Provides a browser-based environment, similar to IEEE 802.1X, to authenticate clients that do not support the IEEE 802.1X supplicant
  - MAC-based authentication
    - Authenticates the client with the RADIUS server based on the client's MAC address
- Secure shell (SSH) v2
  - Encrypts all transmitted data for safe remote CLI access over IP networks
- Secure shell
  - Encrypts all transmitted data for safe remote CLI access over IP networks
- 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 attacks or configuration mistakes
- Secure management access
  - Delivers protected encryption of all access methods (CLI, GUI, or MIB) through SSHv2 and SNMPv3
- Custom banner
  - Displays security policy when users log in to the switch
- Secure FTP
  - Allows safe file transfer to and from the switch; protects against unwanted file downloads or unauthorized copying of a switch configuration file
- Protected ports CLI
  - Offers intuitive CLI to configure the source-port filter feature, by allowing specified ports to be isolated from all other ports on the switch; the protected port or ports can communicate only with the uplink or shared resources

- Authentication flexibility
  - Multiple IEEE 802.1X users per port
    - Provides authentication for up to 32 IEEE 802.1X users per port; prevents a user from “piggybacking” on another user’s IEEE 802.1X authentication
  - Concurrent IEEE 802.1X and Web or MAC authentication schemes per port
    - Allows a switch port to accept any IEEE 802.1X and either Web or MAC authentications
- Switch management logon security
  - Helps secure switch CLI logon by optionally requiring either RADIUS or TACACS+ authentication
- **NEW** DHCP protection
  - Blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks
- **NEW** Dynamic ARP protection
  - Blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data
- **NEW** Dynamic IP lockdown
  - Works with DHCP protection to block traffic from unauthorized hosts, preventing IP source address spoofing

### **Convergence**

- IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
  - Facilitates easy mapping using network management applications with LLDP automated device discovery protocol
- LLDP-MED (Media Endpoint Discovery)
  - Defines 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 (data-driven IGMP)
  - Prevents flooding of IP multicast traffic
- PoE and PoE+ allocations
  - Support multiple methods—automatic, IEEE 802.3at dynamic, LLDP-MED fine grain, IEEE 802.3af device class, or user specified—to allocate and manage PoE/PoE+ power for more efficient energy use
- Voice VLAN
  - Uses LLDP-MED to automatically configure a VLAN for IP phones
- IP multicast (data-driven IGMPv3)
  - Prevents flooding of IP multicast traffic
- LLDP-CDP compatibility
  - Receives and recognizes CDP packets from Cisco’s IP phones for seamless interoperation
- **NEW** Local MAC Authentication
  - Assigns attributes such as VLAN and QoS using locally configured profile that can be a list of MAC prefixes Unified Wired and Wireless
- **NEW** HTTP redirect function
  - Supports HP Intelligent Management Center (IMC) bring your own device (BYOD) solution

### **Resiliency and high availability**

- Port trunking and link aggregation
  - Trunking
    - Supports up to eight links per trunk to increase bandwidth and create redundant connections; and supports L2, L3, and L4 trunk load-balancing algorithm (L4 trunk load balancing is supported only on Gigabit Ethernet and 48-port models.)
  - IEEE 802.3ad Link Aggregation Control Protocol (LACP)
    - Eases configuration of trunks through automatic configuration
- 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
- **NEW** SmartLink
  - Provides easy-to-configure link redundancy of active and standby links

### **Product architecture**

- Energy-efficient design
  - IEEE 802.3az
    - Reduces power consumption during periods of low data activity on Gigabit Ethernet switches
  - Port low-power mode
    - Enables the port to automatically go into low-power mode to conserve energy when no link is detected
  - Fan-less and variable-speed fans
    - Decreases power consumption in fan-less (all 8-port, 2530-24, and 2530-48 PoE+ switches) as well as variable-speed fan switches
  - Port LEDs
    - Conserves energy by optionally turning off port link and activity LEDs
- Switch on a chip
  - Provides a highly integrated, high-performance switch design with a nonblocking architecture



### **Flexibility**

- Flexible mounting

- Rack mountable

- Allows the switch to be mounted on a standard 19-inch rack, with the hardware included

- Wall mountable

- Allows the switch to be mounted on a wall, using the hardware included

- Surface mountable

- Allows the switch to be mounted above or below a surface (such as a desk or table), using the hardware included

- Quiet operation

- Lowers noise, making it suitable for deployments in acoustically sensitive environments such as conference rooms and office spaces

- Compact size

- Reduces space requirements (refer to the product specifications for the exact dimensions)

### **Warranty and support**

- Limited Lifetime Warranty 2.0

- Advance hardware replacement with next-business-day delivery (available in most countries). See [hp.com/networking/warrantysummary](http://hp.com/networking/warrantysummary) for duration details

- Electronic and telephone support (for Limited Lifetime Warranty 2.0)

- Limited 24x7 telephone support is available from HP for the first 3 years; limited electronic and business hours telephone support is available from HP for the entire warranty period; to reach our support centers, refer to [hp.com/networking/contact-support](http://hp.com/networking/contact-support); for details on the duration of support provided with your product purchase, refer to [hp.com/networking/warrantysummary](http://hp.com/networking/warrantysummary)

- Software releases

- To find software for your product, refer to [hp.com/networking/support](http://hp.com/networking/support); for details on the software releases available with your product purchase, refer to [hp.com/networking/warrantysummary](http://hp.com/networking/warrantysummary)

## HP 2530 Switch Series

### Specifications



**HP 2530-48G-PoE+ Switch (J9772A)**



**HP 2530-24G-PoE+ Switch (J9773A)**



**HP 2530-8G-PoE+ Switch (J9774A)**

#### I/O ports and slots

48 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only  
4 fixed Gigabit Ethernet SFP ports  
1 dual-personality (RJ-45 or USB micro-B) serial console port

24 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only  
4 fixed Gigabit Ethernet SFP ports  
1 dual-personality (RJ-45 or USB micro-B) serial console port

8 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only  
2 dual-personality ports; each port can be used as either an RJ-45 10/100/1000 port (IEEE 802.3 Type 10BASE-T; IEEE 802.3u Type 100BASE-TX; IEEE 802.3ab 1000BASE-T Gigabit Ethernet) or as a SFP slot (for use with SFP transceivers)  
1 dual-personality (RJ-45 or USB micro-B) serial console port

#### Physical characteristics

##### Dimensions

17.44(w) x 13.00(d) x 1.75(h) in (44.3 x 32.26 x 4.45 cm) (1U height)

17.44(w) x 13.00(d) x 1.75(h) in (44.3 x 33.02 x 4.45 cm) (1U height)

10(w) x 6.28(d) x 1.75(h) in (25.4 x 15.95 x 4.45 cm) (1U height)

##### Weight

10.4 lb (4.72 kg)

8.7 lb (3.95 kg)

2.2 lb (1 kg)

#### Memory and processor

##### Processor

ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 3 MB dynamically allocated

ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated

ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated

#### Mounting and enclosure

Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting

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Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting

#### Performance

##### 100 Mb Latency

IPv6 Ready Certified  
< 7.4  $\mu$ s (LIFO 64-byte packets)

IPv6 Ready Certified  
< 7.4  $\mu$ s (LIFO 64-byte packets)

IPv6 Ready Certified  
< 7.4  $\mu$ s (LIFO 64-byte packets)

##### 1000 Mb Latency

< 2.3  $\mu$ s (LIFO 64-byte packets)

< 2.3  $\mu$ s (LIFO 64-byte packets)

< 2.6  $\mu$ s (LIFO 64-byte packets)

##### Throughput

up to 77.3 Mpps (64-byte packets)

up to 41.6 Mpps (64-byte packets)

up to 14.8 Mpps (64-byte packets)

##### Switching capacity

104 Gb/s

56 Gb/s

20 Gb/s

##### MAC address table size

16000 entries

16000 entries

16000 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

15% to 95% @ 104°F (40°C),

15% to 95% @ 104°F (40°C),

15% to 95% @ 104°F (40°C),

##### Nonoperating/Storage temperature

noncondensing  
-40°F to 158°F (-40°C to 70°C)

noncondensing  
-40°F to 158°F (-40°C to 70°C)

noncondensing  
-40°F to 158°F (-40°C to 70°C)

##### Nonoperating/Storage relative humidity

15% to 90% @ 149°F (65°C),

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15% to 90% @ 149°F (65°C),

##### Altitude

up to 10,000 ft (3 km)

up to 10,000 ft (3 km)

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##### Acoustic

Power: 43.6 dB, Pressure: 33.6 dB

Power: 43.9 dB, Pressure: 39.6 dB

Power: 0 dB, Pressure: 0 dB

	HP 2530-48G-PoE+ Switch (J9772A)	HP 2530-24G-PoE+ Switch (J9773A)	HP 2530-8G-PoE+ Switch (J9774A)
<b>Electrical characteristics</b>			
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Maximum heat dissipation	236 BTU/hr (248.98 kJ/hr), (switch only: 236 BTU/hr; combined switch + max. PoE devices: 1624 BTU/hr)	135 BTU/hr (142.42 kJ/hr), (switch only: 135 BTU/hr; combined switch + max. PoE devices: 843 BTU/hr)	65 BTU/hr (68.58 kJ/hr), (switch only: 65 BTU/hr; combined switch + max. PoE devices: 293 BTU/hr)
AC voltage	100–127/200–240 VAC	100–127/200–240 VAC	100–127/200–240 VAC
Current	5.8/2.9 A	3.2/1.6 A	1.4 A
Maximum power rating	476 W	247 W	86 W
Idle power	40.1 W	25.2 W	13.4 W
PoE power	382 W	195 W	67 W
<b>Notes</b>			
	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the total power budget available to all PoE ports.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the total power budget available to all PoE ports.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the total power budget available to all PoE ports.
<b>Safety</b>			
	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1
<b>Emissions</b>			
	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A
<b>Immunity</b>			
Generic	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
EN	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3	IEC 61000-4-3	IEC 61000-4-3
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4	IEC 61000-4-4
Surge	IEC 61000-4-5	IEC 61000-4-5	IEC 61000-4-5
Conducted	IEC 61000-4-6	IEC 61000-4-6	IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8	IEC 61000-4-8
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11	IEC 61000-4-11
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>			
	IMC—Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB	IMC—Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB	IMC—Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB
<b>Notes</b>			
	IEEE 802.3az applies to Gigabit models only; IEEE 802.3at and IEEE 802.3af apply to PoE+ models only. When using SFPs with this product, SFPs with revision “B” or later (product number ends with the letter “B” or later, e.g., J4858B, J4859C) are required.	IEEE 802.3az applies to Gigabit models only; IEEE 802.3at and IEEE 802.3af apply to PoE+ models only. When using SFPs with this product, SFPs with revision “B” or later (product number ends with the letter “B” or later, e.g., J4858B, J4859C) are required.	IEEE 802.3az applies to Gigabit models only; IEEE 802.3at and IEEE 802.3af apply to PoE+ models only. When using SFPs with this product, SFPs with revision “B” or later (product number ends with the letter “B” or later, e.g., J4858B, J4859C) are required.
<b>Services</b>			
	Refer to the HP website at <a href="http://hp.com/networking/services">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://hp.com/networking/services">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://hp.com/networking/services">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.

## HP 2530 Switch Series (continued)

### Specifications (continued)



**HP 2530-48-PoE+ Switch (J9778A)**



**HP 2530-24-PoE+ Switch (J9779A)**



**HP 2530-8-PoE+ Switch (J9780A)**

#### I/O ports and slots

48 RJ-45 autosensing 10/100 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3at PoE+); Media Type: Auto-MDIX; Duplex: half or full  
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 fixed Gigabit Ethernet SFP ports  
1 dual-personality (RJ-45 or USB micro-B) serial console port

24 RJ-45 autosensing 10/100 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3at PoE+); Media Type: Auto-MDIX; Duplex: half or full  
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 fixed Gigabit Ethernet SFP ports  
1 dual-personality (RJ-45 or USB micro-B) serial console port

8 RJ-45 autosensing 10/100 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3at PoE+); Media Type: Auto-MDIX; Duplex: half or full  
2 dual-personality ports; each port can be used as either an RJ-45 10/100/1000 port (IEEE 802.3 Type 10BASE-T; IEEE 802.3u Type 100BASE-TX; IEEE 802.3ab 1000BASE-T Gigabit Ethernet) or as a SFP slot (for use with SFP transceivers) ports  
1 dual-personality (RJ-45 or USB micro-B) serial console port

#### Physical characteristics

Dimensions 17.4(w) x 12.7(d) x 1.75(h) in (44.2 x 32.26 x 4.45 cm) (1U height)  
Weight 10.1 lb (4.58 kg)

Dimensions 17.4(w) x 12.7(d) x 1.75(h) in (44.2 x 32.26 x 4.45 cm) (1U height)  
Weight 8.4 lb (3.81 kg)

Dimensions 10(w) x 6.28(d) x 1.75(h) in (25.4 x 15.95 x 4.45 cm) (1U height)  
Weight 2.0 lb (0.91 kg)

#### Memory and processor

Processor ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 3 MB dynamically allocated

Processor ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated

Processor ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated

#### Mounting and enclosure

Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting

Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting

Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting

#### Performance

IPv6 Ready Certified  
100 Mb Latency < 6.6 μs (LIFO 64-byte packets)  
1000 Mb Latency < 2.2 μs (LIFO 64-byte packets)  
Throughput up to 13 Mpps (64-byte packets)  
Switching capacity 17.6 Gb/s  
MAC address table size 16000 entries

IPv6 Ready Certified  
100 Mb Latency < 1.7 μs (LIFO 64-byte packets)  
1000 Mb Latency < 1.1 μs (LIFO 64-byte packets)  
Throughput up to 9.5 Mpps (64-byte packets)  
Switching capacity 12.8 Gb/s  
MAC address table size 16000 entries

IPv6 Ready Certified  
100 Mb Latency < 1.3 μs (LIFO 64-byte packets)  
1000 Mb Latency < 1.3 μs (LIFO 64-byte packets)  
Throughput up to 4.1 Mpps (64-byte packets)  
Switching capacity 5.6 Gb/s  
MAC address table size 16000 entries

#### Environment

Operating temperature 32°F to 113°F (0°C to 45°C)  
Operating relative humidity 15% to 95% @ 104°F (40°C), noncondensing  
Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C)  
Nonoperating/Storage relative humidity 15% to 90% @ 149°F (65°C), noncondensing  
Altitude up to 10,000 ft (3 km)  
Acoustic Power: 37.9 dB, Pressure: 31.8 dB

Operating temperature 32°F to 113°F (0°C to 45°C)  
Operating relative humidity 15% to 95% @ 104°F (40°C), noncondensing  
Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C)  
Nonoperating/Storage relative humidity 15% to 90% @ 149°F (65°C), noncondensing  
Altitude up to 10,000 ft (3 km)  
Acoustic Power: 40.4 dB, Pressure: 31.7 dB

Operating temperature 32°F to 113°F (0°C to 45°C)  
Operating relative humidity 15% to 95% @ 104°F (40°C), noncondensing  
Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C)  
Nonoperating/Storage relative humidity 15% to 90% @ 149°F (65°C), noncondensing  
Altitude up to 10,000 ft (3 km)  
Acoustic Power: 0 dB, Pressure: 0 dB

	HP 2530-48-PoE+ Switch (J9778A)	HP 2530-24-PoE+ Switch (J9779A)	HP 2530-8-PoE+ Switch (J9780A)
<b>Electrical characteristics</b>			
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Maximum heat dissipation	170 BTU/hr (179.35 kJ/hr), (switch only: 170 BTU/hr; combined switch + max. PoE devices: 1505 BTU/hr)	99 BTU/hr (104.45 kJ/hr), (switch only: 99 BTU/hr; combined switch + max. PoE devices: 809 BTU/hr)	29 BTU/hr (30.6 kJ/hr), (switch only: 29 BTU/hr; combined switch + max. PoE devices: 262 BTU/hr)
AC voltage	100–127/200–240 VAC	100–127/200–240 VAC	100–127/200–240 VAC
Current	5.2/2.6 A	2.8/1.4 A	1.4 A
Maximum power rating	441 W	237 W	76.7 W
Idle power	37.5 W	21.8 W	5.8 W
PoE power	382 W	195 W	67 W
<b>Notes</b>			
	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the total power budget available to all PoE ports.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the total power budget available to all PoE ports.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the total power budget available to all PoE ports.
<b>Safety</b>			
	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1
<b>Emissions</b>			
	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A
<b>Immunity</b>			
Generic	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
EN	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3	IEC 61000-4-3	IEC 61000-4-3
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4	IEC 61000-4-4
Surge	IEC 61000-4-5	IEC 61000-4-5	IEC 61000-4-5
Conducted	IEC 61000-4-6	IEC 61000-4-6	IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8	IEC 61000-4-8
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11	IEC 61000-4-11
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>			
	IMC—Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB	IMC—Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB	IMC—Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB
<b>Notes</b>			
	IEEE 802.3az applies to Gigabit models only; IEEE 802.3at and IEEE 802.3af apply to PoE+ models only. When using SFPs with this product, SFPs with revision “B” or later (product number ends with the letter “B” or later, e.g., J4858B, J4859C) are required.	IEEE 802.3az applies to Gigabit models only; IEEE 802.3at and IEEE 802.3af apply to PoE+ models only. When using SFPs with this product, SFPs with revision “B” or later (product number ends with the letter “B” or later, e.g., J4858B, J4859C) are required.	IEEE 802.3az applies to Gigabit models only; IEEE 802.3at and IEEE 802.3af apply to PoE+ models only. When using SFPs with this product, SFPs with revision “B” or later (product number ends with the letter “B” or later, e.g., J4858B, J4859C) are required.
<b>Services</b>			
	Refer to the HP website at <a href="http://hp.com/networking/services">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://hp.com/networking/services">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://hp.com/networking/services">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.

## HP 2530 Switch Series (continued)

### Specifications (continued)



**HP 2530-48G Switch (J9775A)**



**HP 2530-24G Switch (J9776A)**



**HP 2530-8G Switch (J9777A)**

#### I/O ports and slots

48 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only  
4 fixed Gigabit Ethernet SFP ports  
1 dual-personality (RJ-45 or USB micro-B) serial console port

24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only  
4 fixed Gigabit Ethernet SFP ports  
1 dual-personality (RJ-45 or USB micro-B) serial console port

8 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only  
2 dual-personality ports; each port can be used as either an RJ-45 10/100/1000 port (IEEE 802.3 Type 10BASE-T; IEEE 802.3u Type 100BASE-TX; IEEE 802.3ab 1000BASE-T Gigabit Ethernet) or as a SFP slot (for use with SFP transceivers) ports  
1 dual-personality (RJ-45 or USB micro-B) serial console port

#### Physical characteristics

Dimensions 17.44(w) x 10.00(d) x 1.75(h) in (44.3 x 25.4 x 4.45 cm) (1U height)  
Weight 6.8 lb (3.08 kg)

Dimensions 17.44(w) x 10.00(d) x 1.75(h) in (44.3 x 25.4 x 4.45 cm) (1U height)  
Weight 6.1 lb (2.77 kg)

Dimensions 10(w) x 6.28(d) x 1.75(h) in (25.4 x 15.95 x 4.45 cm) (1U height)  
Weight 2.0 lb (0.91 kg)

#### Memory and processor

Processor ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 3 MB dynamically allocated

Processor ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated

Processor ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated

#### Mounting and enclosure

Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting

Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting

Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting

#### Performance

100 Mb Latency < 7.4  $\mu$ s (LIFO 64-byte packets)  
1000 Mb Latency < 2.3  $\mu$ s (LIFO 64-byte packets)  
Throughput up to 77.3 Mpps (64-byte packets)  
Switching capacity 104 Gb/s  
MAC address table size 16000 entries

100 Mb Latency < 7.4  $\mu$ s (LIFO 64-byte packets)  
1000 Mb Latency < 2.3  $\mu$ s (LIFO 64-byte packets)  
Throughput up to 41.6 Mpps (64-byte packets)  
Switching capacity 56 Gb/s  
MAC address table size 16000 entries

100 Mb Latency < 7.4  $\mu$ s (LIFO 64-byte packets)  
1000 Mb Latency < 2.6  $\mu$ s (LIFO 64-byte packets)  
Throughput up to 14.8 Mpps (64-byte packets)  
Switching capacity 20 Gb/s  
MAC address table size 16000 entries

#### Environment

Operating temperature 32°F to 113°F (0°C to 45°C)  
Operating relative humidity 15% to 95% @ 104°F (40°C), noncondensing  
Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C)  
Nonoperating/Storage relative humidity 15% to 90% @ 149°F (65°C), noncondensing  
Altitude up to 10,000 ft (3 km)  
Acoustic Power: 34.5 dB, Pressure: 31.0 dB

Operating temperature 32°F to 113°F (0°C to 45°C)  
Operating relative humidity 15% to 95% @ 104°F (40°C), noncondensing  
Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C)  
Nonoperating/Storage relative humidity 15% to 90% @ 149°F (65°C), noncondensing  
Altitude up to 10,000 ft (3 km)  
Acoustic Power: 34.0 dB, Pressure: 26.4 dB

Operating temperature 32°F to 113°F (0°C to 45°C)  
Operating relative humidity 15% to 95% @ 104°F (40°C), noncondensing  
Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C)  
Nonoperating/Storage relative humidity 15% to 90% @ 149°F (65°C), noncondensing  
Altitude up to 10,000 ft (3 km)  
Acoustic Power: 0 dB, Pressure: 0 dB

	HP 2530-48G Switch (J9775A)	HP 2530-24G Switch (J9776A)	HP 2530-8G Switch (J9777A)
<b>Electrical characteristics</b>			
Frequency	50/60 Hz Achieved Miercom Certified Green Award	50/60 Hz	50/60 Hz
Maximum heat dissipation	203 BTU/hr (214.17 kJ/hr)	164 BTU/hr (173.02 kJ/hr)	63 BTU/hr (66.46 kJ/hr), (switch only: 63 BTU/hr)
AC voltage	100–127/200–240 VAC	100–127/200–240 VAC	100–127/200–240 VAC
Current	1.2/0.7 A	.6/4 A	0.5 A
Maximum power rating	59.5 W	48.0 W	18.6 W
Idle power	29.5 W	28.8 W	13.6 W
<b>Notes</b>			
	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
<b>Safety</b>			
	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1
<b>Emissions</b>			
	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A
<b>Immunity</b>			
Generic	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
EN	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3	IEC 61000-4-3	IEC 61000-4-3
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4	IEC 61000-4-4
Surge	IEC 61000-4-5	IEC 61000-4-5	IEC 61000-4-5
Conducted	IEC 61000-4-6	IEC 61000-4-6	IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8	IEC 61000-4-8
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11	IEC 61000-4-11
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>			
	IMC—Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB	IMC—Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB	IMC—Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB
<b>Notes</b>			
	IEEE 802.3az applies to Gigabit models only; IEEE 802.3at and IEEE 802.3af apply to PoE+ models only. When using SFPs with this product, SFPs with revision "B" or later (product number ends with the letter "B" or later, e.g., J4858B, J4859C) are required.	IEEE 802.3az applies to Gigabit models only; IEEE 802.3at and IEEE 802.3af apply to PoE+ models only. When using SFPs with this product, SFPs with revision "B" or later (product number ends with the letter "B" or later, e.g., J4858B, J4859C) are required.	IEEE 802.3az applies to Gigabit models only; IEEE 802.3at and IEEE 802.3af apply to PoE+ models only. When using SFPs with this product, SFPs with revision "B" or later (product number ends with the letter "B" or later, e.g., J4858B, J4859C) are required.
<b>Services</b>			
	Refer to the HP website at <a href="http://hp.com/networking/services">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://hp.com/networking/services">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://hp.com/networking/services">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.

## HP 2530 Switch Series (continued)

### Specifications (continued)



**HP 2530-48 Switch (J9781A)**



**HP 2530-24 Switch (J9782A)**



**HP 2530-8 Switch (J9783A)**

#### I/O ports and slots

48 RJ-45 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Duplex: half or full  
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 fixed Gigabit Ethernet SFP ports  
1 dual-personality (RJ-45 or USB micro-B) serial console port

24 RJ-45 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Duplex: half or full  
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 fixed Gigabit Ethernet SFP ports  
1 dual-personality (RJ-45 or USB micro-B) serial console port

8 RJ-45 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Media Type: Auto-MDIX; Duplex: half or full  
2 dual-personality ports; each port can be used as either an RJ-45 10/100/1000 port (IEEE 802.3 Type 10BASE-T; IEEE 802.3u Type 100BASE-TX; IEEE 802.3ab 1000BASE-T Gigabit Ethernet) or as a SFP slot (for use with SFP transceivers) ports  
1 dual-personality (RJ-45 or USB micro-B) serial console port

#### Physical characteristics

Dimensions 17.4(w) x 9.7(d) x 1.75(h) in (44.2 x 24.64 x 4.45 cm) (1U height)  
Weight 6.3 lb (2.86 kg)

Dimensions 17.4(w) x 9.7(d) x 1.75(h) in (44.2 x 24.64 x 4.45 cm) (1U height)  
Weight 5.7 lb (2.59 kg)

Dimensions 10(w) x 6.28(d) x 1.75(h) in (25.4 x 15.95 x 4.45 cm) (1U height)  
Weight 1.8 lb (0.82 kg)

#### Memory and processor

Processor ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 3 MB dynamically allocated

Processor ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated

Processor ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated

#### Mounting and enclosure

Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting

Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting

Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting

#### Performance

IPv6 Ready Certified  
100 Mb Latency < 6.6  $\mu$ s (LIFO 64-byte packets)  
1000 Mb Latency < 2.2  $\mu$ s (LIFO 64-byte packets)  
Throughput up to 13 Mpps (64-byte packets)  
Switching capacity 17.6 Gb/s  
MAC address table size 16000 entries

IPv6 Ready Certified  
100 Mb Latency < 1.7  $\mu$ s (LIFO 64-byte packets)  
1000 Mb Latency < 1.1  $\mu$ s (LIFO 64-byte packets)  
Throughput up to 9.5 Mpps (64-byte packets)  
Switching capacity 12.8 Gb/s  
MAC address table size 16000 entries

IPv6 Ready Certified  
100 Mb Latency < 1.3  $\mu$ s (LIFO 64-byte packets)  
1000 Mb Latency < 1.3  $\mu$ s (LIFO 64-byte packets)  
Throughput up to 4.1 Mpps (64-byte packets)  
Switching capacity 5.6 Gb/s  
MAC address table size 16000 entries

#### Environment

Operating temperature 32°F to 113°F (0°C to 45°C)  
Operating relative humidity 15% to 95% @ 104°F (40°C), noncondensing  
Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C)  
Nonoperating/Storage relative humidity 15% to 90% @ 149°F (65°C), noncondensing  
Altitude up to 10,000 ft (3 km)  
Acoustic Power: 0 dB, Pressure: 0 dB

Operating temperature 32°F to 113°F (0°C to 45°C)  
Operating relative humidity 15% to 95% @ 104°F (40°C), noncondensing  
Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C)  
Nonoperating/Storage relative humidity 15% to 90% @ 149°F (65°C), noncondensing  
Altitude up to 10,000 ft (3 km)  
Acoustic Power: 0 dB, Pressure: 0 dB

Operating temperature 32°F to 113°F (0°C to 45°C)  
Operating relative humidity 15% to 95% @ 104°F (40°C), noncondensing  
Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C)  
Nonoperating/Storage relative humidity 15% to 90% @ 149°F (65°C), noncondensing  
Altitude up to 10,000 ft (3 km)  
Acoustic Power: 0 dB, Pressure: 0 dB



	HP 2530-48 Switch (J9781A)	HP 2530-24 Switch (J9782A)	HP 2530-8 Switch (J9783A)
<b>Electrical characteristics</b>			
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Maximum heat dissipation	102 BTU/hr (107.61 kJ/hr)	50 BTU/hr (52.75 kJ/hr)	25 BTU/hr (26.38 kJ/hr)
AC voltage	100–127/200–240 VAC	100–127/200–240 VAC	100–127/200–240 VAC
Current	0.7/0.4 A	0.3/0.2 A	0.5 A
Maximum power rating	29.9 W	14.7 W	7.2 W
Idle power	17.1 W	8.4 W	4.5 W
<b>Notes</b>			
	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
<b>Safety</b>			
	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1
<b>Emissions</b>			
	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A
<b>Immunity</b>			
Generic	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
EN	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3	IEC 61000-4-3	IEC 61000-4-3
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4	IEC 61000-4-4
Surge	IEC 61000-4-5	IEC 61000-4-5	IEC 61000-4-5
Conducted	IEC 61000-4-6	IEC 61000-4-6	IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8	IEC 61000-4-8
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11	IEC 61000-4-11
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>			
	IMC—Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB	IMC—Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB	IMC—Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB
<b>Notes</b>			
	IEEE 802.3az applies to Gigabit models only; IEEE 802.3at and IEEE 802.3af apply to PoE+ models only. When using SFPs with this product, SFPs with revision "B" or later (product number ends with the letter "B" or later, e.g., J4858B, J4859C) are required.	IEEE 802.3az applies to Gigabit models only; IEEE 802.3at and IEEE 802.3af apply to PoE+ models only. When using SFPs with this product, SFPs with revision "B" or later (product number ends with the letter "B" or later, e.g., J4858B, J4859C) are required.	IEEE 802.3az applies to Gigabit models only; IEEE 802.3at and IEEE 802.3af apply to PoE+ models only. When using SFPs with this product, SFPs with revision "B" or later (product number ends with the letter "B" or later, e.g., J4858B, J4859C) are required.
<b>Services</b>			
	Refer to the HP website at <a href="http://hp.com/networking/services">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://hp.com/networking/services">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://hp.com/networking/services">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.

## HP 2530 Switch Series (continued)

### Specifications (continued)



**HP 2530-48G-PoE+-2SFP+ Switch (J9853A)**



**HP 2530-24G-PoE+-2SFP+ Switch (J9854A)**

#### I/O ports and slots

48 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+);  
Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only  
2 SFP+ fixed 1000/10000 SFP+ ports  
1 dual-personality (RJ-45 or USB micro-B) serial console port

24 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+);  
Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only  
2 SFP+ fixed 1000/10000 SFP+ ports  
1 dual-personality (RJ-45 or USB micro-B) serial console port

#### Physical characteristics

Dimensions

17.44(w) x 13.00(d) x 1.75(h) in (44.3 x 32.26 x 4.45 cm)  
(1U height)

17.44(w) x 13.00(d) x 1.75(h) in (44.3 x 33.02 x 4.45 cm)  
(1U height)

Weight

10.4 lb (4.72 kg)

8.6 lb (3.9 kg)

#### Memory and processor

Processor

ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM;  
packet buffer size: 3 MB dynamically allocated

ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM;  
packet buffer size: 1.5 MB dynamically allocated

#### Mounting and enclosure

Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available);  
horizontal surface mounting; wall mounting

Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available);  
horizontal surface mounting; wall mounting

#### Performance

100 Mb Latency

IPv6 Ready Certified

< 7.3  $\mu$ s (LIFO 64-byte packets)

IPv6 Ready Certified

< 7.3  $\mu$ s (LIFO 64-byte packets)

1000 Mb Latency

< 2.7  $\mu$ s (LIFO 64-byte packets)

< 2.7  $\mu$ s (LIFO 64-byte packets)

10 Gb/s Latency

< 4.0  $\mu$ s (LIFO 64-byte packets)

< 2.2  $\mu$ s (LIFO 64-byte packets)

Throughput

101 Mpps (64-byte packets)

65.4 Mpps (64-byte packets)

Switching capacity

136 Gb/s

88 Gb/s

MAC address table size

16000 entries

16000 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

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: 36.4 dB, Pressure: 30.1 dB

Power: 31.3 dB, Pressure: 24 dB

**HP 2530-48G-PoE+-2SFP+ Switch (J9853A)****HP 2530-24G-PoE+-2SFP+ Switch (J9854A)****Electrical characteristics**

Frequency	50/60 Hz	50/60 Hz
Maximum heat dissipation	215 BTU/hr (226.83 kJ/hr), (switch only: 215 BTU/hr; combined switch + max. PoE devices: 1499 BTU/hr) 100–127/200–240 VAC	118 BTU/hr (124.49 kJ/hr), (switch only: 118 BTU/hr; combined switch + max. PoE devices: 757 BTU/hr) 100–127/200–240 VAC
AC voltage		
Current	5.6/2.8 A	2.9/1.4 A
Maximum power rating	439 W	222.2 W
Idle power	40.2 W	24.7 W
PoE power	382 W	195 W

**Notes**

Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the total power budget available to all PoE ports.

Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the total power budget available to all PoE ports.

**Safety**

UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1

UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1

**Emissions**

FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A

FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A

**Immunity**

Generic	EN 55024, CISPR 24	EN 55024, CISPR 24
EN	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3	IEC 61000-4-3
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4
Surge	IEC 61000-4-5	IEC 61000-4-5
Conducted	IEC 61000-4-6	IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11
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

**Management**

IMC—Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB

IMC—Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB

**Notes**

IEEE 802.3az applies to Gigabit models only; IEEE 802.3at and IEEE 802.3af apply to PoE+ models only. SFPs with revision "B" or later (e.g., J4858B, J4859C) are required with this product. This product supports only 1 Gigabit SFP & 10 Gigabit SFP+ transceivers, as well as 10 Gigabit Direct Attach Cables.

IEEE 802.3az applies to Gigabit models only; IEEE 802.3at and IEEE 802.3af apply to PoE+ models only. SFPs with revision "B" or later (e.g., J4858B, J4859C) are required with this product. This product supports only 1 Gigabit SFP & 10 Gigabit SFP+ transceivers, as well as 10 Gigabit Direct Attach Cables.

**Services**

Refer to the HP website at [hp.com/networking/services](http://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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## HP 2530 Switch Series (continued)

### Specifications (continued)



**HP 2530-48G-2SFP+ Switch (J9855A)**



**HP 2530-24G-2SFP+ Switch (J9856A)**



**HP 2530-8-PoE+ Internal PS Switch (JL070A)**

	HP 2530-48G-2SFP+ Switch (J9855A)	HP 2530-24G-2SFP+ Switch (J9856A)	HP 2530-8-PoE+ Internal PS Switch (JL070A)
<b>I/O ports and slots</b>	48 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 2 SFP+ fixed 1000/10000 SFP+ ports 1 dual-personality (RJ-45 or USB micro-B) serial console port	24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 2 SFP+ fixed 1000/10000 SFP+ ports 1 dual-personality (RJ-45 or USB micro-B) serial console port	8 RJ-45 autosensing 10/100 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3at PoE+); Media Type: Auto-MDIX; Duplex: half or full 2 dual-personality ports; each port can be used as either an RJ-45 10/100/1000 port (IEEE 802.3 Type 10BASE-T; IEEE 802.3u Type 100BASE-TX; IEEE 802.3ab 1000BASE-T Gigabit Ethernet) or as a SFP slot (for use with SFP transceivers) ports 1 dual-personality (RJ-45 or USB micro-B) serial console port
<b>Physical characteristics</b>			
Dimensions	17.44(w) x 10.00(d) x 1.75(h) in (44.3 x 25.4 x 4.45 cm) (1U height)	17.44(w) x 10.00(d) x 1.75(h) in (44.3 x 25.4 x 4.45 cm) (1U height)	10(w) x 9.68(d) x 1.75(h) in (25.4 x 24.59 x 4.45 cm) (1U height)
Weight	7.1 lb (3.08 kg)	6.2 lb (2.81 kg)	4.65 lb (2.11 kg)
<b>Memory and processor</b>			
Processor	ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 3 MB dynamically allocated	ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated	ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated
<b>Mounting and enclosure</b>			
Mounting and enclosure	Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting	Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting	Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); Horizontal surface mounting; Wall mounting
<b>Performance</b>			
100 Mb Latency	IPv6 Ready Certified < 7.3 μs (LIFO 64-byte packets)	IPv6 Ready Certified < 7.3 μs (LIFO 64-byte packets)	IPv6 Ready Certified < 1.3 μs (LIFO 64-byte packets)
1000 Mb Latency	< 2.7 μs (LIFO 64-byte packets)	< 2.7 μs (LIFO 64-byte packets)	< 1.3 μs (LIFO 64-byte packets)
10 Gb/s Latency	< 4.0 μs (LIFO 64-byte packets)	< 2.2 μs (LIFO 64-byte packets)	
Throughput	101 Mpps (64-byte packets)	65.4 Mpps (64-byte packets)	up to 4.1 Mpps (64-byte packets)
Switching capacity	136 Gb/s	88 Gb/s	5.6 Gbps
MAC address table size	16000 entries	16000 entries	16000 entries
<b>Environment</b>			
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	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: 32.2 dB, Pressure: 25.6 dB	Power: 29.4 dB, Pressure: 22.3 dB	Power: 0 dB, Pressure: 0 dB

	HP 2530-48G-2SFP+ Switch (J9855A)	HP 2530-24G-2SFP+ Switch (J9856A)	HP 2530-8-PoE+ Internal PS Switch (JL070A)
<b>Electrical characteristics</b>			
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Maximum heat dissipation	Achieved Miercom Certified Green Award 189 BTU/hr (199.4 kJ/hr)	104 BTU/hr (109.72 kJ/hr)	29 BTU/hr (30.6 kJ/hr), (switch only: 29 BTU/hr; combined switch + max. PoE devices: 239 BTU/hr)
AC voltage	100–127/200–240 VAC	100–127/200–240 VAC	100–127/200–240 VAC
Current	0.9/0.5 A	0.7/0.5 A	0.9/0.5 A
Maximum power rating	55.1 W	31 W	70.2 W
Idle power	33.3 W	20.5 W	5.3 W
PoE power			67 W PoE
<b>Notes</b>			
	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the total power budget available to all PoE ports.
<b>Safety</b>			
	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1
<b>Emissions</b>			
	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A
<b>Immunity</b>			
Generic	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
EN	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3	IEC 61000-4-3	IEC 61000-4-3
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4	IEC 61000-4-4
Surge	IEC 61000-4-5	IEC 61000-4-5	IEC 61000-4-5
Conducted	IEC 61000-4-6	IEC 61000-4-6	IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8	IEC 61000-4-8
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11	IEC 61000-4-11
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>			
	IMC—Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB	IMC—Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB	IMC—Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB
<b>Notes</b>			
	IEEE 802.3az applies to Gigabit models only; IEEE 802.3at and IEEE 802.3af apply to PoE+ models only. SFPs with revision “B” or later (e.g., J4858B, J4859C) are required with this product. This product supports only 1 Gigabit SFP & 10 Gigabit SFP+ transceivers, as well as 10 Gigabit Direct Attach Cables.	IEEE 802.3az applies to Gigabit models only; IEEE 802.3at and IEEE 802.3af apply to PoE+ models only. SFPs with revision “B” or later (e.g., J4858B, J4859C) are required with this product. This product supports only 1 Gigabit SFP & 10 Gigabit SFP+ transceivers, as well as 10 Gigabit Direct Attach Cables.	IEEE 802.3az applies to Gigabit models only; IEEE 802.3at and IEEE 802.3af apply to PoE+ models only. When using SFPs with this product, SFPs with revision “B” or later (product number ends with the letter “B” or later, e.g., J4858B, J4859C) are required.
<b>Services</b>			
	Refer to the HP website at <a href="http://hp.com/networking/services">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://hp.com/networking/services">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://hp.com/networking/services">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.

**Standards and protocols**

(applies to all products in series)

**Denial of service protection**

Network DoS Filter

**Device management**

RFC 1591 DNS (client)

SSHv1/SSHv2 Secure Shell

**General protocols**

IEEE 802.1D MAC Bridges  
 IEEE 802.1p Priority  
 IEEE 802.1Q VLANs  
 IEEE 802.1s Multiple Spanning Trees  
 IEEE 802.1w Rapid Reconfiguration of Spanning Tree  
 IEEE 802.3 Type 10BASE-T  
 IEEE 802.3ab 1000BASE-T  
 IEEE 802.3ad Link Aggregation Control Protocol (LACP)  
 IEEE 802.3af Power over Ethernet  
 IEEE 802.3at Power over Ethernet Plus  
 IEEE 802.3az Energy Efficient 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 868 Time Protocol  
 RFC 951 BOOTP  
 RFC 1350 TFTP Protocol (revision 2)  
 RFC 1542 BOOTP Extensions  
 RFC 1918 Address Allocation for Private Internet  
 RFC 2030 Simple Network Time Protocol (SNTP) v4  
 RFC 2131 DHCP

RFC 3411 An Architecture for Describing Simple Network Management Protocol (SNMP) Management Frameworks  
 RFC 3412 Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)  
 RFC 3413 Simple Network Management Protocol (SNMP) Applications  
 RFC 3414 User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3)  
 RFC 3415 View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP)  
 RFC 3416 Protocol Operations for SNMP

**IP multicast**

RFC 3376 IGMPv3 (host joins only)

**IPv6**

RFC 1981 IPv6 Path MTU Discovery  
 RFC 2460 IPv6 Specification  
 RFC 2464 Transmission of IPv6 over Ethernet Networks  
 RFC 2925 Remote Operations MIB (Ping only)  
 RFC 3315 DHCPv6 (client only)  
 RFC 3484 Default Address Selection for IPv6  
 RFC 3513 IPv6 Addressing Architecture  
 RFC 3596 DNS Extension for IPv6

RFC 3810 Multicast Listener Discovery Version 2 (MLDv2) for IPv6  
 RFC 4022 MIB for TCP  
 RFC 4113 MIB for UDP  
 RFC 4251 SSHv6 Architecture  
 RFC 4252 SSHv6 Authentication  
 RFC 4252 SSHv6 Transport Layer  
 RFC 4254 SSHv6 Connection  
 RFC 4291 IP Version 6 Addressing Architecture

RFC 4293 MIB for IP  
 RFC 4419 Key Exchange for SSH  
 RFC 4443 ICMPv6  
 RFC 4861 IPv6 Neighbor Discovery  
 RFC 4862 IPv6 Stateless Address Autoconfiguration  
 RFC 5095 Deprecation of Type 0 Routing Headers in IPv6

**MIBs**

RFC 1155 Structure and Identification of Management Information for TCP/IP Internets  
 RFC 1212 Concise MIB Definitions  
 RFC 1213 MIB II  
 RFC 1493 Bridge MIB  
 RFC 2021 RMONv2 MIB

RFC 2578 Structure of Management Information Version 2 (SMIv2)  
 RFC 2579 Textual Conventions for SMIv2  
 RFC 2613 SMON MIB  
 RFC 2618 RADIUS Client MIB  
 RFC 2620 RADIUS Accounting 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  
 RFC 4836 Managed Objects for 802.3 Medium Attachment Units (MAU)

**Network management**

IEEE 802.1AB Link Layer Discovery Protocol (LLDP)  
 RFC 1098 A Simple Network Management Protocol (SNMP)

RFC 1155 Structure of Management Information  
 RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events)

RFC 5424 Syslog Protocol  
 ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)  
 SNMPv1/v2c/v3

**QoS/CoS**

RFC 2474 DiffServ precedence, with 4 queues per port

RFC 2475 DiffServ Architecture  
 RFC 2597 DiffServ Assured Forwarding (AF)

RFC 2598 DiffServ Expedited Forwarding (EF)

**Security**

IEEE 802.1X Port Based Network Access Control

RFC 1492 TACACS+  
 RFC 2138 RADIUS Authentication

RFC 2866 RADIUS Accounting  
 Secure Sockets Layer (SSL)

## HP 2530 Switch Series accessories

<b>Transceivers</b>	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 SX Transceiver (J4858C) HP X121 1G SFP LC LX Transceiver (J4859C) HP X121 1G SFP LC LH Transceiver (J4860C) HP X122 1G SFP LC BX-D Transceiver (J9142B) HP X122 1G SFP LC BX-U Transceiver (J9143B) HP X121 1G SFP RJ45 T Transceiver (J8177C)
<b>Mounting kit</b>	HP X410 1U Universal 4-post Rack Mounting Kit (J9583A)
<b>HP 2530-8-PoE+ Internal PS Switch (JL070A)</b>	HP X510 1U Cable Guard (J9700A)
<b>HP 2530-8G-PoE+ Switch (J9774A)</b>	HP 2530 8-port Switch Power Adapter Shelf (J9820A) HP X510 1U Cable Guard (J9700A)
<b>HP 2530-8-PoE+ Switch (J9780A)</b>	HP 2530 8-port Switch Power Adapter Shelf (J9820A) HP X510 1U Cable Guard (J9700A)
<b>HP 2530-8G Switch (J9777A)</b>	HP 2530 8-port Switch Power Adapter Shelf (J9820A) HP X510 1U Cable Guard (J9700A)
<b>HP 2530-8 Switch (J9783A)</b>	HP 2530 8-port Switch Power Adapter Shelf (J9820A) HP X510 1U Cable Guard (J9700A)
<b>HP 2530-48G-PoE+-2SFP+ Switch (J9853A)</b>	HP X132 10G SFP+ LC SR Transceiver (J9150A) HP X132 10G SFP+ LC LR Transceiver (J9151A) HP X132 10G SFP+ LC LRM Transceiver (J9152A) HP X132 10G SFP+ LC ER Transceiver (J9153A) HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable (J9281B) HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable (J9283B) HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable (J9285B) HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable (J9300A) HP X244 10G XFP to SFP+ 3m Direct Attach Copper Cable (J9301A) HP X244 10G XFP to SFP+ 5m Direct Attach Copper Cable (J9302A)
<b>HP 2530-24G-PoE+-2SFP+ Switch (J9854A)</b>	HP X132 10G SFP+ LC SR Transceiver (J9150A) HP X132 10G SFP+ LC LR Transceiver (J9151A) HP X132 10G SFP+ LC LRM Transceiver (J9152A) HP X132 10G SFP+ LC ER Transceiver (J9153A) HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable (J9281B) HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable (J9283B) HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable (J9285B) HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable (J9300A) HP X244 10G XFP to SFP+ 3m Direct Attach Copper Cable (J9301A) HP X244 10G XFP to SFP+ 5m Direct Attach Copper Cable (J9302A)

## HP 2530 Switch Series accessories (continued)

### HP 2530-48G-2SFP+ Switch (J9855A)

HP X132 10G SFP+ LC SR Transceiver (J9150A)  
HP X132 10G SFP+ LC LR Transceiver (J9151A)  
HP X132 10G SFP+ LC LRM Transceiver (J9152A)  
HP X132 10G SFP+ LC ER Transceiver (J9153A)  
HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable (J9281B)  
HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable (J9283B)  
HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable (J9285B)  
HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable (J9300A)  
HP X244 10G XFP to SFP+ 3m Direct Attach Copper Cable (J9301A)  
HP X244 10G XFP to SFP+ 5m Direct Attach Copper Cable (J9302A)

### HP 2530-24G-2SFP+ Switch (J9856A)

HP X132 10G SFP+ LC SR Transceiver (J9150A)  
HP X132 10G SFP+ LC LR Transceiver (J9151A)  
HP X132 10G SFP+ LC LRM Transceiver (J9152A)  
HP X132 10G SFP+ LC ER Transceiver (J9153A)  
HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable (J9281B)  
HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable (J9283B)  
HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable (J9285B)  
HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable (J9300A)  
HP X244 10G XFP to SFP+ 3m Direct Attach Copper Cable (J9301A)  
HP X244 10G XFP to SFP+ 5m Direct Attach Copper Cable (J9302A)

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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.

Products within this series are IPv6 Ready certified. See the Specifications section of this series for more information.

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