Data sheet

# **HP 2530 Switch Series**





# **Key features**

- Cost-effective, reliable, and secure fully managed Layer 2 switches
- 8, 24, or 48 Gigabit or Fast Ethernet ports with 4 Gigabit uplink ports (2 uplinks on 8-port models)
- PoE+ models for voice, video, and wireless deployments
- ACLs, EEE, and IPv4/IPv6 host support
- Includes lifetime warranty, all software releases, and technical phone support

# **Product overview**

The HP 2530 Switch Series consists of 12 fully managed Layer 2 edge switches that deliver cost-effective, reliable, secure, and easy-to-use connectivity to business networks. Designed for entry-level to midsize enterprise networks, these Gigabit and Fast Ethernet switches deliver full Layer 2 capabilities with optional PoE+, enhanced access security, traffic prioritization, and IPv6 host support.

The HP 2530 Switch Series offers uplink flexibility with four Gigabit Ethernet uplinks on all 24- and 48-port models. Gigabit Ethernet uplinks are four small form-factor pluggable (SFP) slots for fiber connectivity on the 24- and 48-port Gigabit Ethernet models. The Fast Ethernet 24- and 48-port models have two SFPs and two RJ-45 Gigabit uplinks. The compact and fanless 8-port switches offer additional flexibility with two dual-personality ports that can be used as either RJ-45 Gigabit Ethernet or SFP ports. For customers implementing Power over Ethernet for voice, video, or wireless

deployments, the HP 2530 PoE+ switches are IEEE 802.3af and IEEE 802.3at compliant with up to 30 W per port.

The switch series is easy to use, deploy, and manage via SNMP, CLI, and Web GUI. It offers flexible wall, table, and rack mounting; quiet operation with fanless and variable speed fan models; and improved power savings, with features such as IEEE 802.3 az (Energy Efficient Ethernet). These switches include a lifetime warranty, as well as all software releases and technical phone support.

# **Features and benefits**

### Quality of Service (QoS)

### Traffic prioritization (IEEE 802.1p)

allows real-time traffic classification with support for eight priority levels mapped to either two or four queues; uses weighted deficit round robin (WDRR) or strict priority (SP)

## • Simplified 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

sets per-port ingress enforced maximums for all ingressed 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

#### - Web graphical user interface (GUI)

HTML-based easy-to-use graphical interface allows configuration of the switch from any Web browser

#### Command-line interface (CLI)

provides advanced configuration and diagnostics through a robust CLI

### Simple Network Management Protocol (SNMPv1/v2c/v3) allows a 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

#### RMON (remote monitoring)

provides advanced monitoring and reporting capabilities for statistics, history, alarms, and events

#### • Find-Fix-and-Inform

finds and fixes common network problems automatically, 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

allows multiple configuration files to be stored to a flash image

#### Front-panel LEDs

#### Locator LED

allows users to set the locator LED on a specific switch to either turn on, blink, or turn off; 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 status, activity, speed, and full-duplex operation

### - Power and fault LEDs

displays any issues

### 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 the appropriate interface; prevents IPv6 multicast traffic from flooding the network

#### • 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 Power over Ethernet Plus

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 (see product specifications for total PoE power available)

### 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; see the list of supported devices in the product FAQ at www.hp.com/networking/support

### Small form-factor pluggable (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 flexibility of using either 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 9220-byte frame size to improve the performance of large data transfers; 8- and 24-port Fast Ethernet models automatically support up to 2000-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

### Security

# • Access control lists (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 (SSHv2; client and server)

encrypts all transmitted data for secure remote CLI access over IP networks

#### Secure shell

encrypts all transmitted data for secure 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 quard

protects the root bridge from malicious attacks or configuration mistakes

### Secure management access

delivers secure 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 secure 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 filters 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 eight 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

#### Convergence

### • 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

#### IEEE 802.1AB Link Layer Discovery Protocol (LLDP)

facilitates easy mapping using network management applications with LLDP automated device discovery protocol

#### PoE and PoE+ allocations

support multiple method (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

## Resiliency and high availability

### · Port trunking and link aggregation

#### - Trunking

supports up to eight links per trunk to increase bandwidth and create redundant connections; 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 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

#### **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

allows the port to automatically go into low-power mode to conserve energy when no link is detected

#### - Fanless and variable-speed fans

decreases power consumption in fanless (all 8-port, 2530-24, and 2530-48 switches) and variable-speed fan switches

#### - Port LEDs

conserves energy by optionally turning off port link and activity LEDs

## · Switch on a chip

provides highly integrated, high-performance switch design with a nonblocking architecture

#### **Flexibility**

# • Flexible mounting

#### Rackable

accommodates mounting in a standard 19-inch rack using included hardware

### - Wall mountable

allows the switch to be mounted to a wall using included hardware

#### Surface mountable

allows the switch to be mounted above or below a surface (such as a desk or table) with included hardware

### Quiet operation

lowers noise for deployments in acoustically sensitive environments such as conference rooms and office space

#### Compact size

reduces space requirements (see product specifications for exact dimensions)

## 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; to reach our support centers, refer to

www.hp.com/networking/contact-support; for details on the duration of support provided with your product purchase, refer to www.hp.com/networking/warrantysummary

## Software releases

to find software for your product, refer to www.hp.com/networking/support; for details on the software releases available with your product purchase, refer to www.hp.com/networking/warrantysummary

<sup>†</sup>HP warranty includes repair or replacement of hardware for as long as you own the product, with next business day advance replacement (available in most countries). The disk drive included with HP AllianceOne Advanced Services and Services 2l Modules, HP Threat Management Services 2l Module, HP AllianceOne Extended 2l Module with Riverbed Steelhead, HP MSM7652l Mobility Controller and HP Survivable Branch Communication 2l Module powered by Microsoft Lync has a five-year hardware warranty. For details, refer to the Software license and hardware warranty statements at www.hp.com/networking/warranty.

# **Specifications**

	1	F	
	HP 2530-48G-PoE+ Switch (J9772A)	HP 2530-24G-PoE+ Switch (J9773A)	HP 2530-8G-PoE+ Switch (J9774A)
Ports	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	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	8 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 108ASE-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	4 fixed Gigabit Ethernet SFP ports	2 dual-personality ports; each port can be used as either
	1 dual-personality (RJ-45 or USB micro-B) serial console port	1 dual-personality (RJ-45 or USB micro-B) serial console port	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			
	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	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	IPv6 Ready Certified	IPv6 Ready Certified
100 Mb Latency	< 7.4 µs (LIFO 64-byte packets)	< 7.4 µs (LIFO 64-byte packets)	< 7.4 µs (LIFO 64-byte packets)
1000 Mb Latency	< 2.3 µs (LIFO 64-byte packets)	< 2.3 µs (LIFO 64-byte packets)	< 2.6 µs (LIFO 64-byte packets)
Throughput	up to 77.3 million pps (64-byte packets)	up to 41.6 million pps (64-byte packets)	up to 14.8 million pps (64-byte packets)
Switching capacity	104 Gbps	56 Gbps	20 Gbps
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), 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)
	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: 33.6 dB, Pressure: 43.9 dB	Power: 39.6 dB, Pressure: 43.9 dB	Power: 0 dB, Pressure: 0 dB
Electrical characteristics			
Frequency Manipulation to the distribution of	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)
Voltage	100-127/200-240 VAC	100-127/200-240 VAC	100-127/200-240 VAC
Current Maximum power rating	5.8/2.9 A	3.2/1.6 A	1.4 A
Idle power	476 W 40.1 W	247 W	86 W 13.4 W
PoE power	40.1 W 382 W	25.2 W 195 W	13.4 W 67 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.	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	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	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A
Immunity			

	HP 2530-48G-PoE+ Switch (J9772A)	HP 2530-24G-PoE+ Switch (J9773A)	HP 2530-8G-PoE+ Switch (J9774A)
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
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	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. 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.
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)	3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)	3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)
	3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)	3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)	3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)
	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E)	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E)	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E)
	3-year, 24x7 SW phone support, software updates (UF792E)	3-year, 24x7 SW phone support, software updates (UF792E)	3-year, 24x7 SW phone support, software updates (UF792E)
	4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)	4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)	4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)
	4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)	4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)	4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)
	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)
	4-year, 24x7 SW phone support, software updates (UR951E)	4-year, 24x7 SW phone support, software updates (UR951E)	4-year, 24x7 SW phone support, software updates (UR951E)
	5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)	5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)	5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)
	5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)	5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)	5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)
	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)
	3 Yr 6 hr Call-to-Repair Onsite (UW368E)	3 Yr 6 hr Call-to-Repair Onsite (UW368E)	3 Yr 6 hr Call-to-Repair Onsite (UW368E)
	4 Yr 6 hr Call-to-Repair Onsite (UW369E)	4 Yr 6 hr Call-to-Repair Onsite (UW369E)	4 Yr 6 hr Call-to-Repair Onsite (UW369E)
	5 Yr 6 hr Call-to-Repair Onsite (UW370E)	5 Yr 6 hr Call-to-Repair Onsite (UW370E)	5 Yr 6 hr Call-to-Repair Onsite (UW370E)
	1-year, 4-hour onsite, 13x5 coverage for hardware (HR849E)	1-year, 4-hour onsite, 13x5 coverage for hardware (HR849E)	1-year, 4-hour onsite, 13x5 coverage for hardware (HR849E)
	1-year, 4-hour onsite, 24x7 coverage for hardware (HR850E)	1-year, 4-hour onsite, 24x7 coverage for hardware (HR850E)	1-year, 4-hour onsite, 24x7 coverage for hardware (HR850E)
	1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E)	1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E)	1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E)
	1-year, 24x7 software phone support, software updates (HR852E)	1-year, 24x7 software phone support, software updates (HR852E)	1-year, 24x7 software phone support, software updates (HR852E)
	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR851E)	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR851E)	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR851E)
	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E)	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E)	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E)

	HP 2530-48G-PoE+ Switch (J9772A)	HP 2530-24G-PoE+ Switch (J9773A)	HP 2530-8G-PoE+ Switch (J9774A)
	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS555E)	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS555E)	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS555E)
	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS556E)	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS556E)	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS556E)
	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS557E)	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS557E)	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS557E)
	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS558E)	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS558E)	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS558E)
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	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS560E)	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS560E)	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS560E)
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	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
Standards and protocols (applies to all products in series)	<b>Denial of service protection</b> Network DoS Filter	IP multicast RFC 3376 IGMPv3 (host joins only)	Network management IEEE 802.1AB Link Layer Discovery Protocol (LLDP) RFC 1098 A Simple Network Management Protocol (SMMP)
	Device management	IPv6	RFC 2819 Four groups of RMON: 1 (statistics), 2 (history)
	RFC 1591 DNS (client) SSHv1/SSHv2 Secure Shell	RFC 1981 IPv6 Path MTU Discovery RFC 2460 IPv6 Specification RFC 2925 Remote Operations MIB (Ping only) RFC 3315 DHCPv6 (client only)	3 (alarm) and 9 (events) ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED) SNMPv1/v2c/v3
	General protocols	RFC 3513 IPv6 Addressing Architecture	
	IEEE 802.1D MAC Bridges	RFC 3596 DNS Extension for IPv6	
	IEEE 802.1p Priority IEEE 802.1Q VLANs	RFC 4022 MIB for TCP RFC 4113 MIB for UDP	<b>QoS/CoS</b> RFC 2474 DiffServ precedence, with 4 queues per port
	IEEE 802.1s Multiple Spanning Trees	RFC 4251 SSHv6 Architecture	RFC 2475 DiffServ Architecture
	IEEE 802.1w Rapid Reconfiguration of Spanning Tree	RFC 4252 SSHv6 Authentication	RFC 2597 DiffServ Assured Forwarding (AF)
	IEEE 802.3 Type 10BASE-T	RFC 4252 SSHv6 Transport Layer	RFC 2598 DiffServ Expedited Forwarding (EF)
	IEEE 802.3ab 1000BASE-T	RFC 4254 SSHv6 Connection	
	IEEE 802.3ad Link Aggregation Control Protocol (LACP)	RFC 4293 MIB for IP	
	IEEE 802.3af Power over Ethernet	RFC 4419 Key Exchange for SSH	Security
	IEEE 802.3at Power over Ethernet Plus IEEE 802.3az Energy Efficient Ethernet	RFC 4443 ICMPv6 RFC 4861 IPv6 Neighbor Discovery	IEEE 802.1X Port Based Network Access Control RFC 1492 TACACS+
	IEEE 802.3x Flow Control RFC 768 UDP	RFC 4862 IPv6 Stateless Address Auto-configuration	RFC 2138 RADIUS Authentication RFC 2866 RADIUS Accounting
	RFC 783 TFTP Protocol (revision 2)		Secure Sockets Layer (SSL)
	RFC 792 ICMP	MIBs	
	RFC 793 TCP RFC 826 ARP	RFC 1213 MIB II RFC 1493 Bridge MIB	
	RFC 854 TELNET	RFC 2021 RMONV2 MIB	
	RFC 868 Time Protocol	RFC 2613 SMON MIB	
	RFC 951 BOOTP	RFC 2618 RADIUS Client MIB	
	RFC 1350 TFTP Protocol (revision 2)	RFC 2620 RADIUS Accounting Client MIB	
	RFC 1542 BOOTP Extensions	RFC 2665 Ethernet-Like-MIB	
	RFC 2030 Simple Network Time Protocol (SNTP) v4	RFC 2674 802.1p and IEEE 802.1Q Bridge MIB	
	RFC 2131 DHCP	RFC 2688 MAU-MIB RFC 2737 Entity MIB (Version 2)	

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	HP 2530-48-PoE+ Switch (J9778A)	HP 2530-24-PoE+ Switch (J9779A)	HP 2530-8-PoE+ Switch (J9780A)
Ports	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	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	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 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 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 dual-personality ports; each port can be used as eithe an RJ-45 10/100/1000 port (IEEE 802.3 Type 10Base-T; IEEE 802.3aU Type 100Base-Tx; IEEE 802.3ab 1000Base-T Gigabit Ethernet) or as a SFP slot (for use with SFP transceivers) ports
	2 fixed Gigabit Ethernet SFP ports	2 fixed Gigabit Ethernet SFP ports	1 dual-personality (RJ-45 or USB micro-B) serial console
	1 dual-personality (RJ-45 or USB micro-B) serial console port	1 dual-personality (RJ-45 or USB micro-B) serial console port	port
Physical characteristics			
	17.4(w) x 12.7(d) x 1.75(h) in (44.2 x 32.26 x 4.45 cm) (1U height)	17.4(w) x 12.7(d) x 1.75(h) in (44.2 x 32.26 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	10.1 lb (4.58 kg)	8.4 lb (3.81 kg)	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	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	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	IPv6 Ready Certified	IPv6 Ready Certified
100 Mb Latency	< 6.6 µs (LIFO 64-byte packets)	< 1.7 µs (LIFO 64-byte packets)	< 1.3 µs (LIFO 64-byte packets)
1000 Mb Latency	< 2.2 μs (LIFO 64-byte packets)	< 1.1 μs (LIFO 64-byte packets)	< 2.3 μs (LIFO 64-byte packets)
Throughput	up to 13 million pps (64-byte packets)	up to 9.5 million pps (64-byte packets)	up to 4.1 million pps (64-byte packets)
Switching capacity	17.6 Gbps	12.8 Gbps	5.6 Gbps
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), 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: 31.8 dB, Pressure: 37.9 dB	Power: 31.7 dB, Pressure: 40.4 dB	Power: 0 dB, Pressure: 0 dB
Electrical characteristics			
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)
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
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.	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.	PoE power is the total power budget available to all PoE ports.	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	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	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A
	. 22 200371, E11 330EE/CI31 N-EE Class A, VCCI Class A	. 22 2.033 H, EH 330EE, CISI N-EE CLU33 H, VCCI CLU33 H	. 22 2003 N, EN 330EE/ CIS: N-EE Class N, VCCI Class N

# **HP 2530 Switch Series**

	HP 2530-48-PoE+ Switch (J9778A)	HP 2530-24-PoE+ Switch (J9779A)	HP 2530-8-PoE+ Switch (J9780A)
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
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	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. 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, 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.
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)	3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)	3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)
	3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)	3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)	3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)
	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E) 3-year, 24x7 SW phone support, software updates (UF792E)	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E) 3-year, 24x7 SW phone support, software updates (UF792E)	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E) 3-year, 24x7 SW phone support, software updates (UF792E)
	4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)	4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)	4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)
	4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)	4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)	4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)
	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)
	4-year, 24x7 SW phone support, software updates (UR951E)	4-year, 24x7 SW phone support, software updates (UR951E)	4-year, 24x7 SW phone support, software updates (UR951E)
	5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)	5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)	5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)
	5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)	5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)	5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)
	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)
	3 Yr 6 hr Call-to-Repair Onsite (UW368E)	3 Yr 6 hr Call-to-Repair Onsite (UW368E)	3 Yr 6 hr Call-to-Repair Onsite (UW368E)
	4 Yr 6 hr Call-to-Repair Onsite (UW369E)	4 Yr 6 hr Call-to-Repair Onsite (UW369E)	4 Yr 6 hr Call-to-Repair Onsite (UW369E)
	5 Yr 6 hr Call-to-Repair Onsite (UW370E)	5 Yr 6 hr Call-to-Repair Onsite (UW370E)	5 Yr 6 hr Call-to-Repair Onsite (UW370E)
	1-year, 4-hour onsite, 13x5 coverage for hardware (HR849E)	1-year, 4-hour onsite, 13x5 coverage for hardware (HR849E)	1-year, 4-hour onsite, 13x5 coverage for hardware (HR849E)
	1-year, 4-hour onsite, 24x7 coverage for hardware (HR850E)	1-year, 4-hour onsite, 24x7 coverage for hardware (HR850E)	1-year, 4-hour onsite, 24x7 coverage for hardware (HR850E)
	1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E)	1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E)	1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E)
	1-year, 24x7 software phone support, software updates (HR852E)	1-year, 24x7 software phone support, software updates (HR852E)	1-year, 24x7 software phone support, software updates (HR852E)
	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR851E)	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR851E)	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR851E)
	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E)	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E)	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E)

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	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
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	IEEE 802.1s Multiple Spanning Trees	RFC 4251 SSHv6 Architecture	RFC 2475 DiffServ Architecture
	IEEE 802.1w Rapid Reconfiguration of Spanning Tree IEEE 802.3 Type 10BASE-T IEEE 802.3ab 1000BASE-T	RFC 4252 SSHv6 Authentication RFC 4252 SSHv6 Transport Layer RFC 4254 SSHv6 Connection	RFC 2597 DiffServ Assured Forwarding (AF) RFC 2598 DiffServ Expedited Forwarding (EF)
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	RFC 2030 Simple Network Time Protocol (SNTP) v4 RFC 2131 DHCP	RFC 2674 802.1p and IEEE 802.1Q Bridge MIB RFC 2688 MAU-MIB RFC 2723 Fatitu MID (Version 2)	
		RFC 2737 Entity MIB (Version 2) RFC 2863 The Interfaces Group MIB	

Ports  48 RJ-45 Type 10B 802.3ab 1 10BASE-1 only  4 fixed Gi 1 dual-pe port  17.44(w) (1U heigh  Weight 6.8 lb (3.0  Memory and processor  Processor ARM9E @ packet bu  Mounting Mounts in equipmer horizonta  Performance IPv6 Reac  100 Mb Latency < 7.4 µs (1) 1000 Mb Latency < 2.3 µs (1) 1000 Mb Latency < 2.3 µs (1) 1000 Mb Latency < 2.3 µs (1) 1000 Mb Latency < 4.6 µs (1) 1000 mb Latency < 4.7 µs (1) 1000 mb Latency < 4.8 µs (1) 1000 mb Latency < 5.8 µs (1) 1000 mb Latency < 6.8 µs (1) 1000 mb Latency < 7.4 µs (1) 1000 mb Latency < 7.4 µs (1) 1000 mb Latency < 7.4 µs (1) 1000 mb Latency < 7.5 µs (1) 1000 mb Latency < 7.6 µs (1) 1000 mb Latency < 7.8 µs (1) 1000 mb Latency < 7.9 µs (1) 1000 mb Latency < 7.4 µs (1) 1000 mb Latency < 7		HP 2530-24G Switch (J9776A)  24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 10BASE-T, IEEE 802.3u Type 10BASE-T, IEEE 802.3u Type 100BASE-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 Supports a maximum of 28 Gigabit Ethernet ports  17.44(w) x 10.00(d) x 1.75(h) in (44.3 x 25.4 x 4.45 cm) (1U height) 6.1 lb (2.77 kg)  ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting  IPv6 Ready Certified  < 7.4 µs (LIFO 64-byte packets)	an RJ-45 10/100/1000 port (IEEE 802.3 Type 10Base-T; IEEE 802.3 u Type 100Base-Tx; IEEE 802.3 u Type 100Base-Tx; IEEE 802.3 u Type 100Base-Tx; IEEE 802.3 u Type 100Base-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  10(w) x 6.28(d) x 1.75(h) in (25.4 x 15.95 x 4.45 cm) (1U height) 2.0 lb (0.91 kg)  ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting
Physical characteristics  Physical characteristics  17.44(w) (1U heigh (1U heigh 6.8 lb (3.0 Memory and processor Processor ARM9E @ packet bu Mounting equipmer horizonta  Performance  IPv6 Reac 100 Mb Latency < 7.4 µs (100 Mb Latency < 2.3 µs (10	BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE Type 1000BASE-T); Duplex: -T/100BASE-TX: half or full; 1000BASE-T: full  Gigabit Ethernet SFP ports  Dersonality (RJ-45 or USB micro-B) serial console  Dersonality (RJ-	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 Supports a maximum of 28 Gigabit Ethernet ports  17.44(w) x 10.00(d) x 1.75(h) in (44.3 x 25.4 x 4.45 cm) (1U height) 6.1 lb (2.77 kg)  ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting	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  10(w) x 6.28(d) x 1.75(h) in (25.4 x 15.95 x 4.45 cm) (1U height) 2.0 lb (0.91 kg)  ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting
Physical characteristics  17.44(w) (10 height 6.8 lb (3.0  Memory and processor Processor ARM9E @ packet bu Mounting Mounts in equipmer horizonta  Performance  IPv6 Reac 100 Mb Latency 7.4 µs (1) 1000 Mb Latency 1000 Mb Latency 1000 Mb Latency 104 Gbps MAC address table size 16000 en  Environment Operating temperature Operating relative humidity Nonoperating/Storage temperature Vonoperating/Storage relative humidity Altitude Acoustic Power: 31  Electrical characteristics Frequency So/60 Hz Achieved Maximum heat dissipation 203 BTU/ Voltage Current 1.2/0.7 A Maximum power rating 59.5 W Idle power 29.5 W Notes	personality (RJ-45 or USB micro-B) serial console obersonality (RJ-45 or USB micro-B) serial console of the con	1 dual-personality (RJ-45 or USB micro-B) serial console port  Supports a maximum of 28 Gigabit Ethernet ports  17.44(w) x 10.00(d) x 1.75(h) in (44.3 x 25.4 x 4.45 cm) (1U height) 6.1 lb (2.77 kg)  ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting	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  10(w) x 6.28(d) x 1.75(h) in (25.4 x 15.95 x 4.45 cm) (1U height)  2.0 lb (0.91 kg)  ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting
Physical characteristics  17.44(w) (1U heigh  Weight 6.8 lb (3.0  Memory and processor  Processor ARM9E @ packet bu  Mounting Mounts in equipmer horizonta  Performance  IPv6 Reac  100 Mb Latency < 7.4 µs (1) 1000 Mb Latency < 2.3 µs (1) 1000 Mb Latency < 16000 en  Environment  Operating capacity 104 Gbps MAC address table size 16000 en  Environment  Operating relative humidity 15% to 9! Nonoperating/Storage relative humidity 15% to 9! Nonoperating/Storage relative humidity 15% to 9! Clittude up to 10,6 Acoustic Power: 31  Electrical characteristics  Frequency 50/60 Hz Achieved  Maximum heat dissipation 203 BTU/ Voltage 100-127/ Current 1.2/0.7 A  Maximum power rating 59.5 W  Idle power 29.5 W  Notes	a) x 10.00(d) x 1.75(h) in (44.3 x 25.4 x 4.45 cm) (ht) .08 kg)  @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; buffer size: 3 MB dynamically allocated in an EIA-standard 19-inch telco rack or ent cabinet (rack-mounting kit available); tal surface mounting; wall mounting ady Certified (LIFO 64-byte packets)	port  Supports a maximum of 28 Gigabit Ethernet ports  17.44(w) × 10.00(d) × 1.75(h) in (44.3 × 25.4 × 4.45 cm) (10 height) 6.1 lb (2.77 kg)  ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting	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  10(w) x 6.28(d) x 1.75(h) in (25.4 x 15.95 x 4.45 cm) (1U height) 2.0 lb (0.91 kg)  ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting
Weight 6.8 lb (3.0  Memory and processor  Processor ARM9E @ packet bu  Mounting Mounts in equipmen horizonta  Performance IPv6 React  100 Mb Latency < 7.4 µs (1)  1000 Mb Latency < 2.3 µs (1)  Throughput up to 77.3  Switching capacity 104 Gbps MAC address table size 16000 en  Environment Operating temperature 32°F to 1°  Operating relative humidity 15% to 99  Nonoperating/Storage temperature 40°F to 1 Nonoperating/Storage relative humidity 15% to 99  Altitude up to 10,4  Acoustic Power: 31  Electrical characteristics  Frequency 50/60 Hz Achieved Maximum heat dissipation 203 BTU/  Voltage 100-127/  Current 1.2/0.7 A  Maximum power rating 59.5 W  Idle power 29.5 W  Notes Idle power	ght)  .08 kg)  @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; buffer size: 3 MB dynamically allocated in an EIA-standard 19-inch telco rack or ent cabinet (rack-mounting kit available); tal surface mounting; wall mounting  ady Certified (LIFO 64-byte packets)	17.44(w) x 10.00(d) x 1.75(h) in (44.3 x 25.4 x 4.45 cm) (1U height) 6.1 lb (2.77 kg)  ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting  IPv6 Ready Certified	port  10(w) x 6.28(d) x 1.75(h) in (25.4 x 15.95 x 4.45 cm) (10 height) 2.0 lb (0.91 kg)  ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting  IPv6 Ready Certified
Weight 6.8 lb (3.0  Memory and processor  Processor ARM9E @ packet bu  Mounting Mounts in equipmen horizonta  Performance IPv6 React  100 Mb Latency < 7.4 µs (1)  1000 Mb Latency < 2.3 µs (1)  Throughput up to 77.3  Switching capacity 104 Gbps MAC address table size 16000 en  Environment Operating temperature 32°F to 1°  Operating relative humidity 15% to 99  Nonoperating/Storage temperature 40°F to 1 Nonoperating/Storage relative humidity 15% to 99  Altitude up to 10,4  Acoustic Power: 31  Electrical characteristics  Frequency 50/60 Hz Achieved Maximum heat dissipation 203 BTU/  Voltage 100-127/  Current 1.2/0.7 A  Maximum power rating 59.5 W  Idle power 29.5 W  Notes Idle power	ght)  .08 kg)  @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; buffer size: 3 MB dynamically allocated in an EIA-standard 19-inch telco rack or ent cabinet (rack-mounting kit available); tal surface mounting; wall mounting  ady Certified (LIFO 64-byte packets)	(1U height) 6.1 lb (2.77 kg)  ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting  IPv6 Ready Certified	height) 2.0 lb (0.91 kg)  ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting  IPv6 Ready Certified
Weight 6.8 lb (3.0  Memory and processor  Processor ARM9E @ packet bu  Mounting Mounts in equipmer horizontal  Performance  IPv6 Reac  100 Mb Latency < 7.4 µs (1 1000 Mb Latency < 2.3 µs (1 1000 Mb Latency	ght)  .08 kg)  @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; buffer size: 3 MB dynamically allocated in an EIA-standard 19-inch telco rack or ent cabinet (rack-mounting kit available); tal surface mounting; wall mounting  ady Certified (LIFO 64-byte packets)	(1U height) 6.1 lb (2.77 kg)  ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting  IPv6 Ready Certified	height) 2.0 lb (0.91 kg)  ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting  IPv6 Ready Certified
Memory and processor  Processor  ARM9E @ packet bu Mounting  Mounting  Mounts in equipmer horizonta  Performance  IPv6 Reac  100 Mb Latency  7.4 µs (I 1000 Mb Latency  1000 Mb Latency  104 Gbps MAC address table size  Environment  Operating temperature  Operating remperature  Operating remperature  Operating remperature  Nonoperating/Storage temperature  Nonoperating/Storage relative humidity  Acoustic  Power: 31  Electrical characteristics  Frequency  Maximum heat dissipation  Voltage  100-127/ Current  1.2/0.7 A Maximum power rating  59.5 W  Idle power  Jene Suman Arm Suman Arm Suman Arm Suman Sum	@ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; puffer size: 3 MB dynamically allocated in an EIA-standard 19-inch telco rack or ent cabinet (rack-mounting kit available); tal surface mounting; wall mounting ady Certified (LIFO 64-byte packets)	ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting  IPv6 Ready Certified	ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting  IPv6 Ready Certified
Processor  ARM9E @ packet bu  Mounting  Mounts in equipmer horizonta  Performance  IPv6 Reac  100 Mb Latency < 7.4 µs (I) 1000 Mb Latency < 2.3 µs (I) Throughput up to 77.3  Switching capacity 104 Gbps MAC address table size 16000 en  Environment  Operating temperature 32°F to 1° Operating relative humidity 15% to 99 Nonoperating/Storage temperature -40°F to 1° Nonoperating/Storage relative humidity 15% to 99 Altitude up to 10,0 Acoustic Power: 31  Electrical characteristics  Frequency 50/60 Hz Achieved Maximum heat dissipation 203 BTU/ Voltage 100-127/ Current 1.2/0.7 A Maximum power rating 59.5 W Idle power 29.5 W Notes	ouffer size: 3 MB dynamically allocated in an EIA-standard 19-inch telco rack or ent cabinet (rack-mounting kit available); tal surface mounting; wall mounting ady Certified (LIFO 64-byte packets)	packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting  IPv6 Ready Certified	packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting  IPv6 Ready Certified
Mounting Mounts in equipmer horizontal equipmer equ	ouffer size: 3 MB dynamically allocated in an EIA-standard 19-inch telco rack or ent cabinet (rack-mounting kit available); tal surface mounting; wall mounting ady Certified (LIFO 64-byte packets)	packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting  IPv6 Ready Certified	packet buffer size: 1.5 MB dynamically allocated  Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting  IPv6 Ready Certified
equipmer horizontal equipmer e	ent cabinet (rack-mounting kit available); tal surface mounting; wall mounting ady Certified (LIFO 64-byte packets)	equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting  IPv6 Ready Certified	equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting
IPv6 Reac  100 Mb Latency < 7.4 µs (i 1000 Mb Latency < 2.3 µs (i 1000 Mb Latency < 2.3 µs (i 1000 Mb Latency	(LIFO 64-byte packets)		
100 Mb Latency       < 7.4 µs (t)	(LIFO 64-byte packets)		-
1000 Mb Latency < 2.3 µs (I Throughput up to 77.3 Switching capacity 104 Gbps MAC address table size 16000 en  Environment Operating temperature 32°F to 1° Operating relative humidity 15% to 99 Nonoperating/Storage temperature -40°F to 1° Nonoperating/Storage relative humidity 15% to 99 Acoustic Power: 31  Electrical characteristics Frequency 50/60 Hz Achieved Maximum heat dissipation 203 BTU/ Voltage 100-127/ Current 1.2/0.7 A Maximum power rating 59.5 W Idle power 29.5 W Notes Idouence 1004 Corp.		< 7.4 µs (LIFO 64-byte packets)	
Throughput up to 77.3  Switching capacity 104 Gbps  MAC address table size 16000 en  Environment  Operating temperature 32°F to 1° Operating relative humidity 15% to 99 Nonoperating/Storage temperature -40°F to 1° Nonoperating/Storage relative humidity 15% to 99 Altitude up to 10,0 Acoustic Power: 31  Electrical characteristics  Frequency 50/60 Hz Achieved  Maximum heat dissipation 203 BTU/ Voltage 100-127/ Current 1.2/0.7 A Maximum power rating 59.5 W Idle power 29.5 W Notes Ideour 16000 en  100 en  12/ Corrent 1.2/0.7 A Maximum power rating 159.5 W Idle power 129.5 W	(LIFO 64-byte packets)		< 7.4 µs (LIFO 64-byte packets)
Switching capacity 104 Gbps MAC address table size 16000 en  Environment  Operating temperature 32°F to 1° Operating relative humidity 15% to 9° Nonoperating/Storage temperature 40°F to 1° Nonoperating/Storage relative humidity 15% to 9° Altitude up to 10,0° Acoustic Power: 31  Electrical characteristics Frequency 50/60 Hz Achieved Maximum heat dissipation 203 BTU/ Voltage 100-127/ Current 1.2/0.7 A Maximum power rating 59.5 W Idle power 29.5 W Notes Idle power		< 2.3 µs (LIFO 64-byte packets)	< 2.6 µs (LIFO 64-byte packets)
MAC address table size 16000 en  Environment  Operating temperature 32°F to 1° Operating relative humidity 15% to 9° Nonoperating/Storage temperature -40°F to 1° Nonoperating/Storage relative humidity 15% to 9° Altitude up to 10,0° Acoustic Power: 31  Electrical characteristics Frequency 50/60 Hz Achieved  Maximum heat dissipation 203 BTU/ Voltage 100-127/ Current 1.2/0.7 A Maximum power rating 59.5 W Idle power 29.5 W Notes Idle power	'.3 million pps (64-byte packets)	up to 41.6 million pps (64-byte packets)	up to 14.8 million pps (64-byte packets)
Environment  Operating temperature Operating relative humidity Nonoperating/Storage temperature A-40°F to 1°C Nonoperating/Storage relative humidity Altitude Acoustic Power: 31  Electrical characteristics Frequency Maximum heat dissipation Voltage 100-127/ Current 1.2/0.7 A Maximum power rating 101 Source Maximum power rating 102 Source Maximum power rating 103 BTU/ Maximum power rating 104 Source Maximum power rating 105 Source Maximum power rating 107 Source Maximum power rating 108 Source Maximum power rating 109 Source Maximum power	is	56 Gbps	20 Gbps
Operating temperature 32°F to 1°C operating relative humidity 15% to 9°C operating relative humidity 15% to 9°C operating/Storage temperature 40°F to 1°C operating/Storage relative humidity 15% to 9°C operating/Storage relative humidity 15% to 9°C operating/Storage relative humidity 15% to 9°C operation 10°C operation 1	ntries	16000 entries	16000 entries
Operating relative humidity 15% to 99 Nonoperating/Storage temperature 40°F to 1 Nonoperating/Storage relative humidity 15% to 90 Altitude up to 10,0 Acoustic Power: 31 Electrical characteristics  Frequency 50/60 Hz Achieved Maximum heat dissipation 203 BTU/Voltage 100-127/Current 1.2/0.7 A Maximum power rating 59.5 W Idle power 29.5 W Notes Idle power			
Nonoperating/Storage temperature	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)
Nonoperating/Storage relative humidity 15% to 90 Altitude up to 10,4 Acoustic Power: 31  Electrical characteristics Frequency 50/60 Hz Achieved Maximum heat dissipation 203 BTU/ Voltage 100-127/ Current 1.2/0.7 A Maximum power rating 59.5 W Idle power 29.5 W Notes Idle power	95% @ 104°F (40°C), noncondensing	15% to 95% @ 104°F (40°C), noncondensing	15% to 95% @ 104°F (40°C), noncondensing
Altitude up to 10,0 Acoustic Power: 31  Electrical characteristics Frequency 50/60 Hz Achieved Maximum heat dissipation 203 BTU/ Voltage 100-127/ Current 1.2/0.7 A Maximum power rating 59.5 W Idle power 29.5 W Notes Idle power	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)
Acoustic Power: 31  Electrical characteristics Frequency 50/60 Hz Achieved Maximum heat dissipation 203 BTU/ Voltage 100-127/ Current 1.2/0.7 A Maximum power rating 59.5 W Idle power 29.5 W Notes Idle power	90% @ 149°F (65°C), noncondensing	15% to 90% @ 149°F (65°C), noncondensing	15% to 90% @ 149°F (65°C), noncondensing
Electrical characteristics Frequency 50/60 Hz Achieved Maximum heat dissipation 203 BTU/ Voltage 100-127/ Current 1.2/0.7 A Maximum power rating 59.5 W Idle power 29.5 W Notes Idle power	),000 ft (3 km)	up to 10,000 ft (3 km)	up to 10,000 ft (3 km)
Frequency 50/60 Hz Achieved Maximum heat dissipation 203 BTU/ Voltage 100-127/ Current 1.2/0.7 A Maximum power rating 59.5 W Idle power 29.5 W Notes Idle power	31.0 dB, Pressure: 34.5 dB	Power: 26.4 dB, Pressure: 34.0 dB	Power: 0 dB, Pressure: 0 dB
Achieved Maximum heat dissipation 203 BTU/ Voltage 100-127/ Current 1.2/0.7 A Maximum power rating 59.5 W Idle power 29.5 W Notes Idle power			
Maximum heat dissipation 203 BTU/ Voltage 100-127/ Current 1.2/0.7 A Maximum power rating 59.5 W Idle power 29.5 W Notes Idle powe	z d Miercom Certified Green Award	50/60 Hz	50/60 Hz
Voltage         100-127/           Current         1.2/0.7 A           Maximum power rating         59.5 W           Idle power         29.5 W           Notes         Idle power	J/hr (214.17 kJ/hr)	164 BTU/hr (173.02 kJ/hr)	63 BTU/hr (66.46 kJ/hr), (switch only: 63 BTU/hr)
Maximum power rating 59.5 W Idle power 29.5 W Notes Idle powe	7/200-240 VAC	100-127/200-240 VAC	100-127/200-240 VAC
Idle power 29.5 W Notes Idle powe	A	.6/.4 A	0.5 A
ldle power 29.5 W Notes Idle power		48.0 W	18.6 W
		28.8 W	13.6 W
Maximum are the w provided loaded Po	ver is the actual power consumption of the with no ports connected. m power rating and maximum heat dissipation worst-case theoretical maximum numbers d for planning the infrastructure with fully	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 (if equipped), 100% traffic, all ports plugged all modules populated.	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1
Emissions FCC Class		60950-1; EN 60950-1	
Immunity	all modules populated. i0-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC	60950-1; EN 60950-1 FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A
Generic EN 55024	oll modules populated. 60-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 1; EN 60950-1	<u> </u>	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A
EN 55024	oll modules populated. 60-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 1; EN 60950-1	<u> </u>	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A EN 55024, CISPR 24

	HP 2530-48G Switch (J9775A)	HP 2530-24G Switch (J9776A)	HP 2530-8G Switch (J9777A)
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
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	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. 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.	EEE 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.
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)	3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)	3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)
	3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)	3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)	3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)
	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E)	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E)	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E)
	3-year, 24x7 SW phone support, software updates (UF792E)	3-year, 24x7 SW phone support, software updates (UF792E)	3-year, 24x7 SW phone support, software updates (UF792E)
	4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)	4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)	4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)
	4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)	4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)	4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)
	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)
	4-year, 24x7 SW phone support, software updates (UR951E)	4-year, 24x7 SW phone support, software updates (UR951E)	4-year, 24x7 SW phone support, software updates (UR951E)
	5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)	5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)	5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)
	5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)	5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)	5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)
	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)
	3 Yr 6 hr Call-to-Repair Onsite (UW368E)	3 Yr 6 hr Call-to-Repair Onsite (UW368E)	3 Yr 6 hr Call-to-Repair Onsite (UW368E)
	4 Yr 6 hr Call-to-Repair Onsite (UW369E)	4 Yr 6 hr Call-to-Repair Onsite (UW369E)	4 Yr 6 hr Call-to-Repair Onsite (UW369E)
	5 Yr 6 hr Call-to-Repair Onsite (UW370E)	5 Yr 6 hr Call-to-Repair Onsite (UW370E)	5 Yr 6 hr Call-to-Repair Onsite (UW370E)
	1-year, 4-hour onsite, 13x5 coverage for hardware (HR849E)	1-year, 4-hour onsite, 13x5 coverage for hardware (HR849E)	1-year, 4-hour onsite, 13x5 coverage for hardware (HR849E)
	1-year, 4-hour onsite, 24x7 coverage for hardware (HR850E)	1-year, 4-hour onsite, 24x7 coverage for hardware (HR850E)	1-year, 4-hour onsite, 24x7 coverage for hardware (HR850E)
	1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E)	1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E)	1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E)
	1-year, 24x7 software phone support, software updates (HR852E)	1-year, 24x7 software phone support, software updates (HR852E)	1-year, 24x7 software phone support, software updates (HR852E)
	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR851E)	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR851E)	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR851E)
	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E)	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E)	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E)
	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS555E)	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS555E)	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS555E)

	HP 2530-48G Switch (J9775A)	HP 2530-24G Switch (J9776A)	HP 2530-8G Switch (J9777A)
	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS556E)	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS556E)	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS556E)
	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS557E)	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS557E)	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS557E)
	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS558E)	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HSS58E)	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS558E)
	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS559E)	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS559E)	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS559E)
	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS560E)	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HSS60E)	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS560E)
	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS561E)	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HSS61E)	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HSS61E)
	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
Standards and protocols	Denial of service protection	IP multicast	Network management
(applies to all products in series)	Network DoS Filter  Device management	RFC 3376 IGMPv3 (host joins only)  IPv6	IEEE 802.1AB Link Layer Discovery Protocol (LLDP) RFC 1098 A Simple Network Management Protocol (SNMP) RFC 2819 Four groups of RMON: 1 (statistics), 2 (history),
	RFC 1591 DNS (client) SSHv1/SSHv2 Secure Shell	RFC 1981 IPv6 Path MTU Discovery RFC 2460 IPv6 Specification RFC 2925 Remote Operations MIB (Ping only) RFC 3315 DHCPv6 (client only)	3 (alarm) and 9 (events) ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED) SNMPv1/v2c/v3
	General protocols IEEE 802.1D MAC Bridges	RFC 3513 IPv6 Addressing Architecture RFC 3596 DNS Extension for IPv6	
	IEEE 802.1p Priority IEEE 802.10 VLANs IEEE 802.15 Multiple Spanning Trees IEEE 802.1 w Rapid Reconfiguration of Spanning Tree IEEE 802.3 Type 10BASE-T IEEE 802.3ab 1000BASE-T	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	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)
	IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3at 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 4293 MIB for IP RFC 4419 Key Exchange for SSH RFC 4443 ICMPv6 RFC 4861 IPv6 Neighbor Discovery RFC 4862 IPv6 Stateless Address Auto-configuration	Security IEEE 802.1X Port Based Network Access Control RFC 1492 TACACS+ RFC 2138 RADIUS Authentication RFC 2866 RADIUS Accounting Secure Sockets Layer (SSL)
	RFC 792 ICMP RFC 793 TCP RFC 826 ARP RFC 854 TELNET RFC 868 Time Protocol RFC 951 B00TP RFC 1350 TFTP Protocol (revision 2) RFC 1542 B00TP Extensions RFC 2030 Simple Network Time Protocol (SNTP) v4 RFC 2131 DHCP	MIBs RFC 1213 MIB II RFC 1493 Bridge MIB RFC 2021 RMONV2 MIB RFC 2613 SMON MIB RFC 2618 RADIUS Client MIB RFC 2620 RADIUS Accounting Client MIB RFC 2656 Ethernet-Like-MIB RFC 2674 802.1p and IEEE 802.1Q Bridge MIB RFC 2737 Entity MIB (Version 2) RFC 2863 The Interfaces Group MIB	

Part				0
Part		Q C2	***************************************	MARIN AND
10845CT_TEES 002.3 by Type 108085CT_ND_Place in Type or full   10845CT_TEES 002.3 by Type 108085CT_ND_Place in Type   1		HP 2530-48 Switch (J9781A)	HP 2530-24 Switch (J9782A)	HP 2530-8 Switch (J9783A)
108655-T. HEE 802.3 by 109 10805-T. THE 800.23 by 109 10805-T. THE 800.23 by 109 10805-T. THE 800.23 by 100 100 100 100 100 100 100 100 100 10	Ports	10BASE-T, IEEE 802.3u Type 100BASE-TX); Duplex: half	10BASE-T, IEEE 802.3u Type 100BASE-TX); Duplex: half	10BASE-T, IEEE 802.3u Type 100BASE-TX); Media Type:
Part		10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half	10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half	1000Base-T Gigabit Ethernet) or as a SFP slot (for use
Table   Personality (R)-45 or USB mirror 8) serial (come)   port		2 fixed Gigabit Ethernet SFP ports	2 fixed Gigabit Ethernet SFP ports	
1,4(w) s 2,7(d) x 1,25(d) in (4.2 x 24.64 x 4.85 cm) (10   1,74(w) s 2,7(d) x 1,75(d) in (4.2 x 24.64 x 4.85 cm) (10   1,04 x 24.65 x 4.85 cm) (10   1,04				
	Physical characteristics			
ARMSE @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM: packet buffer size: 15 MB dynamically allocated packet buffer size: 15 MB d				
RAPISE @ 800 MHz. 128 MB TBAN. 256 MB D0B3 DIMN; packet buffer size: 1.3 MB grammically allocated per detect buffer size: 1.3 MB grammically allocated per detect buffer size: 1.3 MB grammically allocated packet buffer size: 1.3 MB grammically allocated packets buffer size: 1.3 MB grammically size of the	Weight	6.3 lb (2.86 kg)	5.7 lb (2.59 kg)	1.8 lb (0.82 kg)
Packet buffer size: 1 MB dynamically allocated   Packet buffer size: 1 MB dynamicall	Memory and processor			
equipment cabinet (rack-mounting kit available), equipment cabinet (rack-mounting kit available), horizontal surface mounting; wall mounting worizontal surface mounting; wall mounting wall mounting worizontal surface mounting; wall mounting wall mounting worizontal surface mounting; wall mounting wall wall wall wall wall wall wall wal	Processor			
Performance	Mounting	equipment cabinet (rack-mounting kit available);	equipment cabinet (rack-mounting kit available);	equipment cabinet (rack-mounting kit available);
100 Mb Latency	Performance			-
1000 Mb Latency   2.2 µs (LIF0 64-byte packets)   4.1 µs (LI		IPv6 Ready Certified	IPv6 Ready Certified	IPv6 Ready Certified
Throughput   Up to 1 3 million pps (64-byte packets)   Up to 9.5 million pps (64-byte packets)   Soliciting capacity   17.6 (bps   12.8 (bps   5.6 (bp	100 Mb Latency	< 6.6 µs (LIFO 64-byte packets)	< 1.7 µs (LIFO 64-byte packets)	< 1.3 µs (LIFO 64-byte packets)
Switching capacity   17.6 Gbps   12.8 Gbps   16000 entries	1000 Mb Latency	< 2.2 μs (LIFO 64-byte packets)	< 1.1 µs (LIFO 64-byte packets)	< 1.3 µs (LIFO 64-byte packets)
MAC address table size   16000 entries   16000 entries   16000 entries	Throughput	up to 13 million pps (64-byte packets)	up to 9.5 million pps (64-byte packets)	up to 4.1 million pps (64-byte packets)
Environment   S2*F to 113*F (0*C to 45*C)   S2*F to 113*F (0*C t	Switching capacity	17.6 Gbps	·	5.6 Gbps
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 90% @ 149°F (65°C), noncondensing <td>MAC address table size</td> <td>16000 entries</td> <td>16000 entries</td> <td>16000 entries</td>	MAC address table size	16000 entries	16000 entries	16000 entries
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)         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)         u	Environment			
Nonoperating/Storage temperature   -40°F to 158°F (-40°C to 70°C)   -40°C to 158°C	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)
Nonoperating/Storage relative humidity 15% to 90% @ 149°F (65°C), noncondensing 415% to 90% @ 149°F (65°C), and 140°C (685) on 145% to 90% on 149°C (685) on 145% (685) on	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
Altitude up to 10,000 ft (3 km) up to 10,000 ft (3 km) up to 10,000 ft (3 km) power: 0 dB, Pressure: 0 dB power: 0 dB, Pressure: 0 dB, Pressure: 0 dB power: 0 dB, Pressure: 0 dB, Pre				
Acoustic Power: 0 dB, Pressure: 0 dB  Electrical characteristics Frequency SO/60 Hz  Maximum heat dissipation 102 BTU/hr (107.61 kJ/hr) 505 BTU/hr (52.75 kJ/hr) 255 BTU/hr (62.88 kJ/hr)  Voltage 100-127/200-240 VAC 100-127/200-240 VAC 100-127/200-240 VAC 100-127/200-240 VAC 0.5 A  Maximum power rating 29.9 W 14.7 W 7.2 W  Motes 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.  Safety UL 60950-1; CAN/CSA 22.2 No. 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 EN 55024, CISPR 24  EN 55024, CISPR 24		15% to 90% @ 149°F (65°C), noncondensing	15% to 90% @ 149°F (65°C), noncondensing	15% to 90% @ 149°F (65°C), noncondensing
Electrical characteristics Frequency 50/60 Hz 50		up to 10,000 ft (3 km)	up to 10,000 ft (3 km)	-
Frequency  Maximum heat dissipation  102 BTU/hr (107.61 kJ/hr)  100-127/200-240 VAC  100-127/	Acoustic	Power: 0 dB, Pressure: 0 dB	Power: 0 dB, Pressure: 0 dB	Power: 0 dB, Pressure: 0 dB
Maximum heat dissipation  102 BTU/hr (107.61 kJ/hr)  102 BTU/hr (26.38 kJ/hr)  103 127/200-240 VAC  100-127/200-240 VAC  120-127/200-240 VAC  120-127/200-24	Electrical characteristics			
Voltage 100-127/200-240 VAC 100-127/200-240 VA	Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Current  O.7/0.4 A  O.3/0.2 A  14.7 W  17.1 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.  Safety  UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60950-1  Emissions  FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A  EN 55024, CISPR 24  EN 5502	·			
Maximum power rating Idle power 17.1 W 14.7 W 4.5 W 4.5 W 15.0 W 16.5 W				
Idle power  17.1 W  8.4 W  17.1 W  17.1 W  18.4 W  18.4 W  18.4 W  18.4 W  18.4 W  18.4 W  18.5 W  18.5 W  18.6 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.  18.6 W  18.6 W  18.6 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.  18.6 W  18.6 W  18.6 W  18.6 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.  18.6 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.  18.6 Power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.  18.6 Power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.  18.6 Power is the worst-case theoretical maximum numbers provided for planning the in				
Idle power is the actual power consumption of the device with no ports connected.  Maximum power rating and maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.  Safety  UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60950-1 Emissions  FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A  Immunity  Generic  EN 55024, CISPR 24	·			
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.  Safety  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  Immunity  Generic  EN 55024, CISPR 24				
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  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  EN 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 IEC 61000-4-2	Notes	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	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	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
Immunity           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	Safety			
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	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	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A
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	Immunity			
ESD IEC 61000-4-2 IEC 61000-4-2 IEC 61000-4-2	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
Radiated IEC 61000-4-3 IEC 61000-4-3 IEC 61000-4-3	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

HP 2530-24 Switch (J9782A)

HP 2530-8 Switch (J9783A)

# **HP 2530 Switch Series**

HP 2530-48 Switch (J9781A)

	III E550 40 SWICCII (5570 IA)	III E330 E4 SWICCII (3370EN)	III E330 0 SWITCH (33703N)
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
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	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. 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.
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)	3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)	3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)
	3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)	3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)	3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)
	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E)	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E)	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E)
	3-year, 24x7 SW phone support, software updates (UF792E)	3-year, 24x7 SW phone support, software updates (UF792E)	3-year, 24x7 SW phone support, software updates (UF792E)
	4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)	4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)	4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)
	4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)	4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)	4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)
	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)
	4-year, 24x7 SW phone support, software updates (UR951E)	4-year, 24x7 SW phone support, software updates (UR951E)	4-year, 24x7 SW phone support, software updates (UR951E)
	5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)	5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)	5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)
	5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)	5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)	5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)
	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)
	3 Yr 6 hr Call-to-Repair Onsite (UW368E)	3 Yr 6 hr Call-to-Repair Onsite (UW368E)	3 Yr 6 hr Call-to-Repair Onsite (UW368E)
	4 Yr 6 hr Call-to-Repair Onsite (UW369E)	4 Yr 6 hr Call-to-Repair Onsite (UW369E)	4 Yr 6 hr Call-to-Repair Onsite (UW369E)
	5 Yr 6 hr Call-to-Repair Onsite (UW370E)	5 Yr 6 hr Call-to-Repair Onsite (UW370E)	5 Yr 6 hr Call-to-Repair Onsite (UW370E)
	1-year, 4-hour onsite, 13x5 coverage for hardware (HR849E)	1-year, 4-hour onsite, 13x5 coverage for hardware (HR849E)	1-year, 4-hour onsite, 13x5 coverage for hardware (HR849E)
	1-year, 4-hour onsite, 24x7 coverage for hardware (HR850E)	1-year, 4-hour onsite, 24x7 coverage for hardware (HR850E)	1-year, 4-hour onsite, 24x7 coverage for hardware (HR850E)
	1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E)	1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E)	1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E)
	1-year, 24x7 software phone support, software updates (HR852E)	1-year, 24x7 software phone support, software updates (HR852E)	1-year, 24x7 software phone support, software updates (HR852E)
	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR851E)	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR851E)	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR851E)
	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E)	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E)	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E)
	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS555E)	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS555E)	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS555E)
	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS556E)	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS556E)	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS556E)

	HP 2530-48 Switch (J9781A)	HP 2530-24 Switch (J9782A)	HP 2530-8 Switch (J9783A)
	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS557E)	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS557E)	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS557E)
	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS558E)	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS558E)	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS558E)
	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS559E)	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS559E)	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS559E)
	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS560E)	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS560E)	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS560E)
	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS561E)	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS561E)	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS561E)
	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
Standards and protocols (applies to all products in series)	<b>Denial of service protection</b> Network DoS Filter	IP multicast RFC 3376 IGMPv3 (host joins only)	Network management IEEE 802.1AB Link Layer Discovery Protocol (LLDP) RFC 1098 A Simple Network Management Protocol (SNMP)
	Device management RFC 1591 DNS (client) SSHv1/SSHv2 Secure Shell	IPv6 RFC 1981 IPv6 Path MTU Discovery RFC 2460 IPv6 Specification RFC 2925 Remote Operations MIB (Ping only) RFC 3315 DHCPv6 (client only)	RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events) ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED) SNMPv1/v2c/v3
	General protocols IEEE 802.1D MAC Bridges IEEE 802.1D 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)	RFC 3513 IPv6 Addressing Architecture RFC 3596 DNS Extension 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 4254 MIB for IP	<b>QoS/CoS</b> 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)
	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 4419 Key Exchange for SSH RFC 4443 ICMPv6 RFC 4861 IPv6 Neighbor Discovery RFC 4862 IPv6 Stateless Address Auto-configuration	Security IEEE 802.1X Port Based Network Access Control RFC 1492 TACACS+ RFC 2138 RADIUS Authentication RFC 2866 RADIUS Accounting Secure Sockets Layer (SSL)
	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 2030 Simple Network Time Protocol (SNTP) v4 RFC 2131 DHCP	RFC 1213 MIB II RFC 1493 Bridge MIB RFC 2021 RMONU2 MIB RFC 2613 SMON MIB RFC 2618 RADIUS Client MIB RFC 2620 RADIUS Accounting Client MIB RFC 2656 Ethernet-Like-MIB RFC 2674 802.1p and IEEE 802.1Q Bridge MIB RFC 2688 MAU-MIB RFC 2737 Entity MIB (Version 2) RFC 2863 The Interfaces Group MIB	

# **HP 2530 Switch Series accessories**

### **Transceivers**

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 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 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)

### **Mounting Kit**

HP X410 1U Universal 4-post Rack Mounting Kit (J9583A)

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

HP X510 1U Cable Guard (J9700A)

HP 2530 8-port Switch Power Adapter Shelf (J9820A)

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

HP X510 1U Cable Guard (J9700A)

HP 2530 8-port Switch Power Adapter Shelf (J9820A)

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

HP X510 1U Cable Guard (J9700A)

HP 2530 8-port Switch Power Adapter Shelf (J9820A)

## HP 2530-8 Switch (J9783A)

HP X510 1U Cable Guard (J9700A)

HP 2530 8-port Switch Power Adapter Shelf (J9820A)





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.

# To learn more, visit hp.com/networking

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