

# HP 1420 Switch Series



## Key features

- Unmanaged plug-and-play Gigabit Ethernet switching
- Green features for low power consumption
- Fanless design for silent operation
- Quality of service capabilities for improved network efficiency
- Limited lifetime warranty with three years 24x7 phone support

## Product overview

The HP 1420 Switch Series consists of unmanaged Gigabit Ethernet switches, for small business and others looking for plug-and-play basic Layer 2 connectivity for their network, including low-cost PoE+ and 10-Gigabit uplink models.

The 1420 Switch Series includes four Gigabit switches. All have 10/100/1000 ports for affordable Gigabit connections using copper Cat 5e cabling. There is a 16-port RJ45-only model. There is a 24-port model with two SFP Gigabit ports, ideal where long distances require fiber-based connections. Another 24-port model supports IEEE 802.3at PoE+ on 12 of its ports, able to forward up to 30 W power on these ports to power access points, IP phones, IP cameras, and other PoE-enabled devices. For cost-effective high-speed fiber-based server connections, there is a 24-port 10/100/1000 switch with two SFP+ 10-Gigabit ports.

HP 1420 switches have quality of service (QoS) support and IEEE 802.3x flow control features that improve network efficiency.

Simplified plug-and-play convenience is supported by features such as auto-MDIX and auto-speed negotiation. HP has innovated and combined the latest advances in silicon technology to bring you some of the most power-efficient switches. All models support the Energy Efficient Ethernet IEEE 802.3az standard, as well as auto power-down mode on idle ports and power saving on short-distance cables. With their fanless silent operation, these switches are ideal for office deployment. HP 1420 switches come with a limited lifetime warranty covering the unit and power supplies, as well as 24x7 phone support for the first three years of ownership.

## Features and benefits

### Ease of use

- Unmanaged

Provides plug-and-play simplicity

- Auto-speed negotiation

Selects individual port speed automatically, depending on client capabilities; removing the need for manual intervention enables simple plug-and-play operation

- Comprehensive LED display with per-port indicators

Provides an at-a-glance view of the status, activity, speed, and full-duplex operation of the switches

- Flow control

Helps ensure reliable communications during full-duplex operation

- HP/IEEE Auto-MDIX

Automatically adjusts for straight-through or crossover cables on all RJ-45 ports

### Connectivity

- Gigabit Ethernet 10/100/1000 connectivity—high speed Ethernet connections over highly affordable copper Category 5 cabling

- 10-Gigabit fiber connectivity

Future-proof 10-Gigabit technology allows high-speed fiber connection to servers or other switches with connection flexibility using optional SFP+ or SFP transceivers

- IEEE 802.3at Power over Ethernet (PoE+)

Provides up to 30 W per port, which allows support of the latest PoE+-capable devices such as IP phones, wireless access points, and security cameras, as well as any IEEE 802.3af compliant end device; reduces the cost of additional electrical cabling and circuits that would otherwise be necessary in IP phone and WLAN deployments (for PoE model)

### Performance

- Energy Efficient Ethernet support

Supports new IEEE 802.3az standard; and allows lower power consumption, when operated with IEEE-compliant client devices in 100 Mbps mode only

- Half-/full-duplex auto-negotiating capability on every port doubles the throughput of every port

- Jumbo frame support

Allows frames up to 9,216 bytes to be switched through the network

### **Flexibility**

- Fanless design

Enables quiet operation for deployment in open spaces

- Internal power supply

Delivers operational convenience and an environment suitable for business operations

### **Quality of service (QoS)**

- IEEE 802.1p prioritization

Delivers data to devices, based on the priority and type of traffic

- DiffServ Code Point (DSCP) support

Allows real-time traffic prioritization, based on L3 TOS/DSCP parameters

### **Warranty and support**

- Limited Lifetime Warranty 2.0

Advance hardware replacement with next-business-day delivery (available in most countries).

See [hp.com/networking/warrantysummary](http://hp.com/networking/warrantysummary) for duration details

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

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

## HP 1420 Switch Series

### Specifications



	<b>HP 1420-16G Switch (JH016A)</b>	<b>HP 1420-24G-2SFP Switch (JH017A)</b>
<b>I/O ports and slots</b>	16 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only Supports a maximum of 16 autosensing 10/100/1000 ports	24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 2 SFP 100/1000 Mbps ports Supports a maximum of 24 autosensing 10/100/1000 ports plus 2 SFP ports
<b>Physical characteristics</b>		
Dimensions	10.47(w) x 6.38(d) x 1.73(h) in (26.6 x 16.2 x 4.4 cm) (1U height)	17.32(w) x 6.81(d) x 1.73(h) in (44 x 17.3 x 4.4 cm) (1U height)
Weight	2.65 lb (1.2 kg)	4.85 lb (2.2 kg)
<b>Memory and processor</b>	1 MB flash; Packet buffer size: 512 KB	1 MB flash; Packet buffer size: 512 KB
<b>Mounting and enclosure</b>	Mounts in an EIA standard 19-inch telco rack (hardware included); Wall, desktop and under-table mounting	Mounts in an EIA standard 19-inch telco rack (hardware included); Desktop mounting
<b>Performance</b>		
100 Mb Latency	< 8 $\mu$ s (LIFO 64-byte packets)	< 8 $\mu$ s (LIFO 64-byte packets)
1000 Mb Latency	< 16 $\mu$ s (LIFO 64-byte packets)	< 16 $\mu$ s (LIFO 64-byte packets)
Throughput	up to 23.8 Mpps (64-byte packets)	up to 38.7 Mpps (64-byte packets)
Switching capacity	32 Gbps	52 Gbps
MAC address table size	8192 entries	8192 entries
<b>Environment</b>		
Operating temperature	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)
Operating relative humidity	5% to 95%, noncondensing	5% to 95%, noncondensing
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage relative humidity	5% to 95%, noncondensing	5% to 95%, noncondensing
Altitude	up to 16,404 ft (5 km)	up to 16,404 ft (5 km)
Acoustic	Power: 0 dB No fan	Power: 0 dB No fan

## HP 1420 Switch Series (continued)

### Specifications (continued)

	HP 1420-16G Switch (JH016A)	HP 1420-24G-25FP Switch (JH017A)
<b>Electrical characteristics</b>		
Frequency	50/60 Hz	50/60 Hz
Voltage	100—240 VAC, rated (depending on power supply chosen)	100—240 VAC, rated (depending on power supply chosen)
Current	0.2 A	0.3 A
Maximum power rating	12 W	18 W
	<p><b>Notes</b></p> <p>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.</p> <p>This model provides internal power supply. Please select the correct power cord country option.</p>	<p>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.</p> <p>This model provides internal power supply. Please select the correct power cord country option.</p>
<b>Safety</b>	CSA 22.2 No. 60950; UL 60950-1; IEC 60950-1; EN 60950-1	CSA 22.2 No. 60950; UL 60950-1; IEC 60950-1; EN 60950-1
<b>Emissions</b>	FCC Rules Part 15, Subpart B Class A	FCC Rules Part 15, Subpart B Class A
<b>Immunity</b>		
Generic	EN 55022 CISPR 22	EN 55022 CISPR 22
EN	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3	IEC 61000-4-3
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4
Surge	IEC 61000-4-5	IEC 61000-4-5
Conducted	IEC 61000-4-6	IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11
Harmonics	IEC 61000-3-2	IEC 61000-3-2
Flicker	IEC 61000-3-3	IEC 61000-3-3
<b>Notes</b>		Use only supported genuine HP transceivers with your switch.
<b>Services</b>	Refer to the HP website at <a href="http://hp.com/networking/services">hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at <a href="http://hp.com/networking/services">hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

## HP 1420 Switch Series (continued)

### Specifications (continued)



	<b>HP 1420-24G-2SFP+ 10G Uplink Switch (JH018A)</b>	<b>HP 1420-24G-PoE+ (124W) Switch (JH019A)</b>
<b>I/O ports and slots</b>	24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 2 fixed 1000/10000 SFP+ ports Supports a maximum of 24 autosensing 10/100/1000 ports plus 2 SFP+ ports	24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only Supports a maximum of 24 autosensing 10/100/1000 ports
<b>Physical characteristics</b>		
Dimensions	17.32(w) x 9.37(d) x 1.73(h) in (44 x 23.8 x 4.4 cm) (1U height)	17.32(w) x 9.37(d) x 1.73(h) in (44 x 23.8 x 4.4 cm) (1U height)
Weight	6.39 lb (2.9 kg)	7.28 lb (3.3 kg)
<b>Memory and processor</b>	8 MB flash; Packet buffer size: 1.5 MB	1 MB flash; Packet buffer size: 512 KB
<b>Mounting and enclosure</b>	Mounts in an EIA standard 19-inch telco rack (hardware included); Desktop mounting	Mounts in an EIA standard 19-inch telco rack (hardware included); Desktop mounting
<b>Performance</b>		
100 Mb Latency	< 8 $\mu$ s (LIFO 64-byte packets)	< 8 $\mu$ s (LIFO 64-byte packets)
1000 Mb Latency	< 16 $\mu$ s (LIFO 64-byte packets)	< 16 $\mu$ s (LIFO 64-byte packets)
10 Gbps Latency	< 2 $\mu$ s (LIFO 64-byte packets)	< 16 $\mu$ s (LIFO 64-byte packets)
Throughput	up to 65.5 Mpps (64-byte packets)	up to 35.7 Mpps (64-byte packets)
Switching capacity	88 Gbps	48 Gbps
MAC address table size	16384 entries	8192 entries
<b>Environment</b>		
Operating temperature	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)
Operating relative humidity	5% to 95%, noncondensing	5% to 95%, noncondensing
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage relative humidity	5% to 95%, noncondensing	5% to 95%, noncondensing
Altitude	up to 16,404 ft (5 km)	up to 16,404 ft (5 km)
Acoustic	Power: 0 dB No fan	Power: 0 dB No fan

## HP 1420 Switch Series (continued)

### Specifications (continued)

	HP 1420-24G-2SFP+ 10G Uplink Switch (JH018A)	HP 1420-24G-PoE+ (124W) Switch (JH019A)	
<b>Electrical characteristics</b>			
Frequency	50/60 Hz	50/60 Hz	
Voltage	100—240 VAC, rated (depending on power supply chosen)	100—240 VAC, rated (depending on power supply chosen)	
Current	0.4 A	0.3/1.8 A	
Maximum power rating	21 W	160 W	
PoE power		124 W PoE+	
<b>Notes</b>			
	<p>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.</p> <p>This model provides internal power supply. Please select the correct power cord country option.</p>	<p>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.</p> <p>PoE Power is the power supplied by the internal power supply, it is dependent on the type and quantity of power supplies and may be supplemented with the use of a External Power Supply (EPS).</p> <p>This product provides PoE or PoE+ power across 12 of 24 ports, with a total power budget of 124W. This model is designed with internal power supply. Please select the correct power cord country option.</p>	
<b>Safety</b>			
	CSA 22.2 No. 60950; UL 60950-1; IEC 60950-1; EN 60950-1	CSA 22.2 No. 60950; UL 60950-1; IEC 60950-1; EN 60950-1	
<b>Emissions</b>			
	FCC Rules Part 15, Subpart B Class A	FCC Rules Part 15, Subpart B Class A	
<b>Immunity</b>			
Generic	EN 55022 CISPR 22	EN 55022 CISPR 22	
EN	EN 55024, CISPR 24	EN 55024, CISPR 24	
ESD	IEC 61000-4-2	IEC 61000-4-2	
Radiated	IEC 61000-4-3	IEC 61000-4-3	
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4	
Surge	IEC 61000-4-5	IEC 61000-4-5	
Conducted	IEC 61000-4-6	IEC 61000-4-6	
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8	
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11	
Harmonics	IEC 61000-3-2	IEC 61000-3-2	
Flicker	IEC 61000-3-3	IEC 61000-3-3	
<b>Notes</b>			
	Use only supported genuine HP transceivers with your switch.		
<b>Services</b>			
	Refer to the HP website at <a href="http://hp.com/networking/services">hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at <a href="http://hp.com/networking/services">hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	
<b>Standards and Protocols</b> (applies to all products in series)			
<b>General protocols</b>			
	IEEE 802.1p Priority IEEE 802.3ab 1000BASE-T IEEE 802.3ae 10-Gigabit Ethernet IEEE 802.3af Power over Ethernet	IEEE 802.3at Power over Ethernet Plus IEEE 802.3az Energy Efficient Ethernet IEEE 802.3i 10BASE-T Ethernet over twisted pair	IEEE 802.3u 100BASE-TX Fast Ethernet, 100BASE-FX with autonegotiation IEEE 802.3x Flow Control IEEE 802.3z 1000BASE-X Gigabit Ethernet over fiber

## HP 1420 Switch Series accessories

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### Cables

HP 0.5 m Multimode OM3 LC/LC Optical Cable (AJ833A)  
HP 1 m Multimode OM3 LC/LC Optical Cable (AJ834A)  
HP 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)  
HP 5 m Multimode OM3 LC/LC Optical Cable (AJ836A)  
HP 15 m Multimode OM3 LC/LC Optical Cable (AJ837A)  
HP 30 m Multimode OM3 LC/LC Optical Cable (AJ838A)  
HP 50 m Multimode OM3 LC/LC Optical Cable (AJ839A)  
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable (QK732A)  
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable (QK733A)  
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable (QK734A)  
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable (QK735A)  
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable (QK736A)  
HP Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable (QK737A)

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### HP 1420-24G-2SFP Switch (JH017A)

HP X121 1G SFP LC SX Transceiver (J4858C)  
HP X121 1G SFP LC LX Transceiver (J4859C)  
HP X121 1G SFP RJ45 T Transceiver (J8177C)  
HP X120 1G SFP LC SX Transceiver (JD118B)  
HP X120 1G SFP LC LX Transceiver (JD119B)  
HP X120 1G SFP RJ45 T Transceiver (JD089B)

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### HP 1420-24G-2SFP+ 10G Uplink Switch (JH018A)

HP X121 1G SFP LC SX Transceiver (J4858C)  
HP X121 1G SFP LC LX Transceiver (J4859C)  
HP X121 1G SFP RJ45 T Transceiver (J8177C)  
HP X120 1G SFP LC SX Transceiver (JD118B)  
HP X120 1G SFP LC LX Transceiver (JD119B)  
HP X120 1G SFP RJ45 T Transceiver (JD089B)  
HP X132 10G SFP+ LC SR Transceiver (J9150A)  
HP X130 10G SFP+ LC SR Transceiver (JD092B)  
HP X130 10G SFP+ LC LR Transceiver (JD094B)  
HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable (J9281B)  
HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable (J9283B)

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