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

HP 1420 Switch Series

Specifications

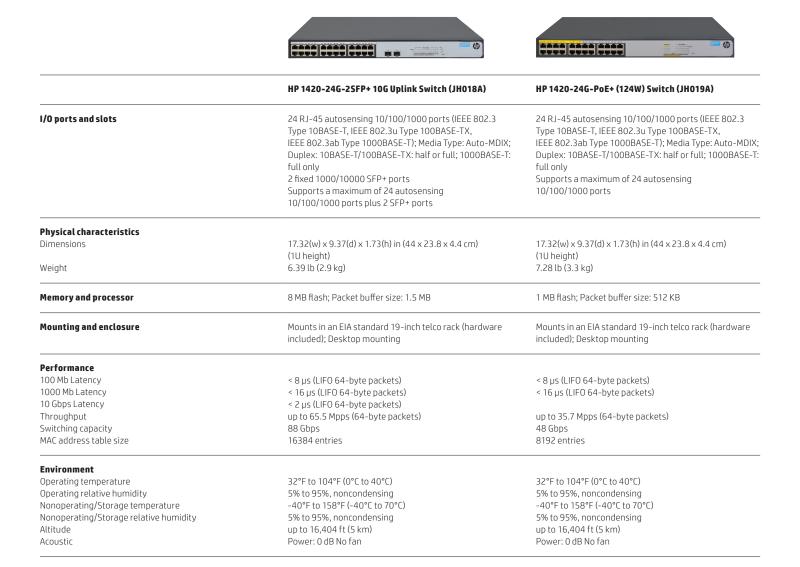|	HP 1420-16G Switch (JH016A)	HP 1420-24G-2SFP Switch (JH017A)
I/O ports and slots	16 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only Supports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

HP 1420 Switch Series (continued)

Specifications (continued)

	HP 1420-16G Switch (JH016A)	HP 1420-24G-2SFP Switch (JH017A)
Electrical characteristics		
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
	Notes	
	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. This model provides internal power supply. Please select the correct power cord country option.	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. This model provides internal power supply. Please select the correct power cord country option.
Safety	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
Emissions	FCC Rules Part 15, Subpart B Class A	FCC Rules Part 15, Subpart B Class A
Immunity		
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
Notes		Use only supported genuine HP transceivers with your switch.
Services	Refer to the HP website at 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 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.

HP 1420 Switch Series (continued)

Specifications (continued)

	HP 1420-24G-2SFP+ 10G Uplink Switch (JH018A)	HP 1420-24G-PoE+ (124W) Switch (JH019A)
I/O ports and slots	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
Physical characteristics		
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)
Memory and processor	8 MB flash; Packet buffer size: 1.5 MB	1 MB flash; Packet buffer size: 512 KB
Mounting and enclosure	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
Performance		
100 Mb Latency	< 8 µs (LIFO 64-byte packets)	< 8 µs (LIFO 64-byte packets)
1000 Mb Latency	< 16 µs (LIFO 64-byte packets)	< 16 µs (LIFO 64-byte packets)
10 Gbps Latency	< 2 µs (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
Environment		
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)
Electrical characteristics		
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+
	Notes	
	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. This model provides internal power supply. Please select the correct power cord country option.	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE Power is the power supplied by the internal power supply, it is dependent on the type and quantity of power supplies and may be supplemented with the use of a External Power Supply (EPS). 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.
Safety	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
Emissions	FCC Rules Part 15, Subpart B Class A	FCC Rules Part 15, Subpart B Class A
Immunity		
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
Notes	Use only supported genuine HP transceivers with your switch.	
Services	Refer to the HP website at 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 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)

General protocols	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

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)
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)
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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