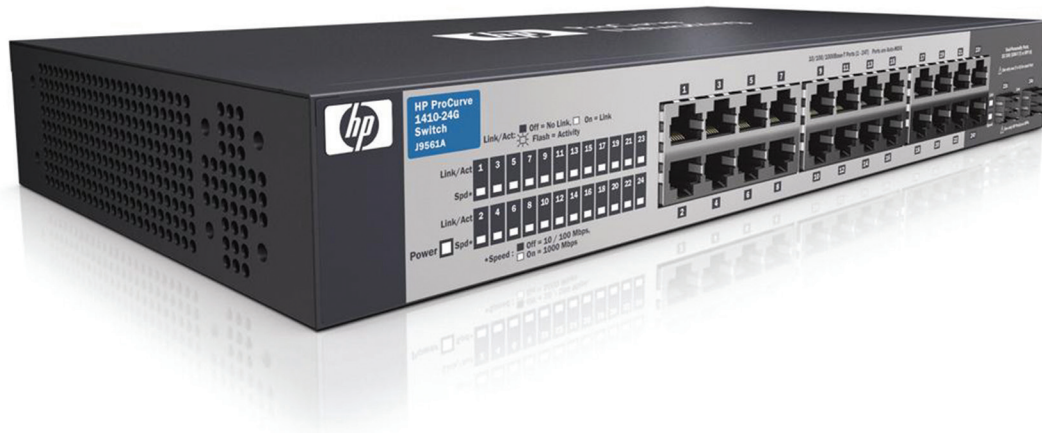


# HP 1410 Switch Series



## Product overview

The HP 1410 Switch Series comprises unmanaged Gigabit Ethernet and Fast Ethernet switches, designed for small businesses looking for entry-level low-cost networking solutions that come with a limited lifetime warranty. The series consists of nine models with flexible mounting options to meet different network switching needs. All models have quality of service (QoS) support and IEEE 802.3x flow control features that provide outstanding data efficiency.

Simplified plug-and-play convenience is enabled 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—1410-24G-R, 1410-16, and 1410-24 models are advanced IEEE 802.3az-compliant unmanaged Gigabit and Fast Ethernet switches. The switches come with built-in green features and a limited lifetime warranty, making the series the right choice for organizations seeking a networking solution that's both economical and reliable.

### A summary of the highlights of the 1410 Switch Series:

- Unmanaged Gigabit Ethernet and Fast Ethernet switches
- Green features for low power consumption
- Fan-less design for silent operation
- QoS support
- Limited Lifetime warranty

## Features and benefits

### 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

### Connectivity

- Auto-MDIX  
Provides automatic adjustments for straight-through or crossover cables on all 10/100 and 10/100/1000 ports

### Performance

- **NEW** Energy-efficient Ethernet support  
Supports new IEEE 802.3az standard; and allows lower power consumption, when operated with IEEE-compliant client devices in 100 Mb/s mode only (JG708A, J9662A, and J9663A)
- Half-/full-duplex auto-negotiating capability on every port  
Doubles the throughput of every port
- **NEW** Jumbo frame support  
Allows frames up to 9,216 bytes to be switched through the network (Gigabit Ethernet models)
- Mini jumbo-frame support  
Allows frames up to 2,048 bytes to be switched through the network, which supports large data transfers (J9662A and J9663A)

### **Ease of use**

- Unmanaged

Provides plug-and-play simplicity

- 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

- Auto-speed negotiation

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

### **Flexibility**

- Fan-less design

Enables quiet operation for deployment in open spaces

- **NEW** Internal power supply

Delivers operational convenience and an environment suitable for business operations (JG708A, J9561A, and JD986B)

### **Warranty and support**

- **NEW** Limited Lifetime Warranty 2.0

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

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

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

## HP 1410 Switch Series

### Specifications



	HP 1410-8G Switch (J9559A)	HP 1410-16G Switch (J9560A)	HP 1410-24G-R Switch (JG708A)
<b>Ports</b>	8 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only Supports a maximum of 8 autosensing 10/100/1000 ports	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 Supports a maximum of 24 autosensing 10/100/1000 ports
<b>Physical characteristics</b>	6.14(w) x 3.8(d) x 0.96(h) in (15.6 x 9.65 x 2.45 cm)	8.21(w) x 4.41(d) x 1.73(h) in (20.85 x 11.2 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	0.74 lb (0.34 kg)	1.43 lb (0.65 kg)	6.61 lb (3 kg)
<b>Memory and processor</b>	4 Kb EEPROM capacity; packet buffer size: 192 KB	512 Kb flash; packet buffer size: 512 KB	1 MB flash; packet buffer size: 512 KB
<b>Mounting</b>	Wall, desktop and under-table mounting	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	< 3.6 μs (LIFO 64-byte packets)	< 8.0 μs (LIFO 64-byte packets)	< 8.0 μs (LIFO 64-byte packets)
1000 Mb Latency	< 1.2 μs (LIFO 64-byte packets)	< 3.6 μs (LIFO 64-byte packets)	< 3.6 μs (LIFO 64-byte packets)
Throughput	up to 11.9 million pps (64-byte packets)	up to 23.8 million pps (64-byte packets)	35.7 million pps (64-byte packets)
Switching capacity	16 Gb/s	32 Gb/s	48 Gb/s
MAC address table size	4096 entries	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)	32°F to 104°F (0°C to 40°C)
Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing	15% to 95% @ 104°F (40°C), noncondensing	5% 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 16,404 ft (5 km)
Acoustic	Power: 0 dB No fan	Power: 0 dB No fan	Power: 0 dB No fan

	HP 1410-8G Switch (J9559A)	HP 1410-16G Switch (J9560A)	HP 1410-24G-R Switch (JG708A)
<b>Electrical characteristics</b>			
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Maximum heat dissipation	41 BTU/hr (43.26 kJ/hr)	44 BTU/hr (46.42 kJ/hr)	55 BTU/hr (58 kJ/hr)
Voltage	100-240 VAC	100-240 VAC	100-240 VAC
Current	1.0 A	1.1 A	0.3 A
Maximum power rating	12 W	13 W	16 W
<b>Notes</b>			
	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. The exact input voltage and frequency rating are determined by the specific power adaptor part number ordered. Please select the correct power adaptor 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. The exact input voltage and frequency rating are determined by the specific power adaptor part number ordered. Please select the correct power adaptor 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.
<b>Safety</b>			
	CSA 22.2 No. 60950; EN 60950/IEC 60950; UL 60950-1	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	FCC Rules Part 15, Subpart B Class A
<b>Immunity</b>			
Generic	EN 55022 CISPR 22	EN 55022 CISPR 22	EN 55022 CISPR 22
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	IEC 61000-3-2	IEC 61000-3-2	IEC 61000-3-2
Flicker	IEC 61000-3-3	IEC 61000-3-3	IEC 61000-3-3
<b>Notes</b>			
IEEE 802.3az Energy Efficient Ethernet protocol is supported by the HP 1410-24G-R (JG708A), HP 1410-16 (J9662A) and HP 1410-24 (J9663A) Switches.			

	HP 1410-8G Switch (J9559A)	HP 1410-16G Switch (J9560A)	HP 1410-24G-R Switch (JG708A)
<b>Services</b>	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (UF795E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UF796E)</p> <p>1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR843E)</p> <p>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR844E)</p> <p>Installation with minimum configuration, system-based pricing (U4826E)</p> <p>Installation with HP-provided configuration, system-based pricing (U4830E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UR816E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UR817E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UR818E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UR819E)</p> <p>3-year 6 hr Call-to-Repair Onsite (UW386E)</p> <p>4-year 6 hr Call-to-Repair Onsite (UW387E)</p> <p>5-year 6 hr Call-to-Repair Onsite (UW388E)</p> <p>1-year, 6 hour Call-To-Repair Onsite for hardware (HR845E)</p> <p>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.</p>	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (UF797E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UF798E)</p> <p>1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR846E)</p> <p>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR847E)</p> <p>Installation with minimum configuration, system-based pricing (U4826E)</p> <p>Installation with HP-provided configuration, system-based pricing (U4830E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UR820E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UR821E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UR822E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UR823E)</p> <p>3-year 6 hr Call-to-Repair Onsite (UW389E)</p> <p>4-year 6 hr Call-to-Repair Onsite (UW390E)</p> <p>5-year 6 hr Call-to-Repair Onsite (UW391E)</p> <p>1-year, 6 hour Call-To-Repair Onsite for hardware (HR848E)</p> <p>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.</p>	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (UF797E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UF798E)</p> <p>1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR846E)</p> <p>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR847E)</p> <p>Installation with minimum configuration, system-based pricing (U4826E)</p> <p>Installation with HP-provided configuration, system-based pricing (U4830E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UR820E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UR821E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UR822E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UR823E)</p> <p>3-year 6 hr Call-to-Repair Onsite (UW389E)</p> <p>4-year 6 hr Call-to-Repair Onsite (UW390E)</p> <p>5-year 6 hr Call-to-Repair Onsite (UW391E)</p> <p>1-year, 6 hour Call-To-Repair Onsite for hardware (HR848E)</p> <p>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.</p>

## HP 1410 Switch Series

### Specifications (continued)



	HP 1410-24G Switch (J9561A)	HP 1410-8 Switch (J9661A)	HP 1410-16 Switch (J9662A)	
<b>Ports</b>	22 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE802.3ab 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 an open mini-GBIC slot (for use with mini-GBIC transceivers) Supports a maximum of 24 Gigabit Ethernet ports	8 RJ-45 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Duplex: half or full Supports a maximum of 8 autosensing 10/100 ports	16 RJ-45 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Duplex: half or full Supports a maximum of 16 autosensing 10/100 ports	
<b>Physical characteristics</b>	13.23(w) x 6.65(d) x 1.73(h) in (33.6 x 16.9 x 4.4 cm) (1U height) Weight 2.98 lb (1.35 kg)	6.14(w) x 3.74(d) x 0.97(h) in (15.6 x 9.5 x 2.46 cm) 0.74 lb (0.34 kg)	8.21(w) x 4.21(d) x 1.73(h) in (20.85 x 10.69 x 4.39 cm) (1U height) 1.43 lb (0.65 kg)	
<b>Memory and processor</b>	512 Kb flash; packet buffer size: 512 KB	16 Kb EEPROM; packet buffer size: 96 KB	16Kb EEPROM; packet buffer size: 2 Mb	
<b>Mounting</b>	Mounts in an EIA standard 19-inch telco rack (hardware included); wall, desktop and under-table mounting	Wall, desktop and under-table mounting	Mounts in an EIA standard 19-inch telco rack (hardware included) wall, desktop and under-table mounting	
<b>Performance</b>	100 Mb Latency 1000 Mb Latency Throughput Switching capacity MAC address table size	< 8.0 μs (LIFO 64-byte packets) < 3.6 μs (LIFO 64-byte packets) up to 35.7 million pps (64-byte packets) 48 Gb/s 8192 entries	< 3.7 μs (LIFO 64-byte packets) up to 1.1 million pps (64-byte packets) 1.6 Gb/s 1024 entries	< 10.6 μs (LIFO 64-byte packets) up to 2.3 million pps (64-byte packets) 3.2 Gb/s 8192 entries

	HP 1410-24G Switch (J9561A)	HP 1410-8 Switch (J9661A)	HP 1410-16 Switch (J9662A)
<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)	32°F to 104°F (0°C to 40°C)
Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing	15% to 95% @ 104°F (40°C), noncondensing	5% 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 16,404 ft (5 km)
Acoustic	Power: 0 dB No fan	Power: 0 dB No fan	Power: 0 dB No fan
<b>Electrical characteristics</b>			
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Maximum heat dissipation	75 BTU/hr (79.13 kJ/hr)	13 BTU/hr (13.72 kJ/hr)	13 BTU/hr (13.72 kJ/hr)
Voltage	100-240 VAC	100-240 VAC	100-240 VAC
DC voltage		12 V	12 V
Current	0.3 A	0.3 A	0.3 A
Maximum power rating	22 W	3.6 W	3.6 W
<b>Notes</b>			
	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. The exact input voltage and frequency rating are determined by the specific power adaptor part number ordered. Please select the correct power adaptor 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. The exact input voltage and frequency rating are determined by the specific power adaptor part number ordered. Please select the correct power adaptor country option.
<b>Safety</b>			
	CSA 22.2 No. 60950; UL 60950-1; IEC 60950-1; EN 60950-1	UL 60950-1; CSA 22.2 60950-1; IEC 60950-1:2005; EN 60950-1:2006 + A11:2009	UL 60950-1; CSA C22.2 60950-1; IEC 60950-1:2005; EN 60950-1:2006 + A11:2009



	HP 1410-24G Switch (J9561A)	HP 1410-8 Switch (J9661A)	HP 1410-16 Switch (J9662A)
<b>Emissions</b>	FCC Rules Part 15, Subpart B Class A	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 55022 CISPR 22
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	IEC 61000-3-2	IEC 61000-3-2	IEC 61000-3-2
Flicker	IEC 61000-3-3	IEC 61000-3-3	IEC 61000-3-3
<b>Notes</b>			
	Use only supported genuine HP mini-GBICs with your switch.		
	IEEE 802.3az Energy Efficient Ethernet protocol is supported by the HP 1410-24G-R (JG708A), HP 1410-16 (J9662A) and HP 1410-24 (J9663A) Switches.		
<b>Services</b>	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (UF795E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UF796E)</p> <p>1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR843E)</p> <p>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR844E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UR817E)</p> <p>3-year 6 hr Call-to-Repair Onsite (UW386E)</p> <p>1-year, 6 hour Call-To-Repair Onsite for hardware (HR845E)</p> <p>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.</p>	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (UF797E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UF798E)</p> <p>1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR846E)</p> <p>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR847E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UR820E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UR821E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UR822E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UR823E)</p> <p>3-year 6 hr Call-to-Repair Onsite (UW389E)</p> <p>4-year 6 hr Call-to-Repair Onsite (UW390E)</p> <p>5-year 6 hr Call-to-Repair Onsite (UW391E)</p> <p>1-year, 6 hour Call-To-Repair Onsite for hardware (HR848E)</p> <p>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.</p>	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (UF797E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UF798E)</p> <p>1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR846E)</p> <p>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR847E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UR820E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UR821E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UR822E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UR823E)</p> <p>3-year 6 hr Call-to-Repair Onsite (UW389E)</p> <p>4-year 6 hr Call-to-Repair Onsite (UW390E)</p> <p>5-year 6 hr Call-to-Repair Onsite (UW391E)</p> <p>1-year, 6 hour Call-To-Repair Onsite for hardware (HR848E)</p> <p>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.</p>

## HP 1410 Switch Series

### Specifications (continued)



	HP 1410-24 Switch (J9663A)	HP 1410-24-R Switch (JD986B)	HP 1410-24-2G Switch (J9664A)
<b>Ports</b>	24 RJ-45 autosensing 10/100 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 Supports a maximum of 24 autosensing 10/100 ports	24 RJ-45 autosensing 10/100 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 Supports a maximum of 24 autosensing 10/100 ports	24 RJ-45 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Duplex: half or full 2 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only Supports a maximum of 24 autosensing 10/100 ports plus 2 autosensing 10/100/1000 ports
<b>Physical characteristics</b>	13.23(w) x 6.65(d) x 1.73(h) in (33.6 x 16.89 x 4.39 cm) (1U height) Weight: 2.98 lb (1.35 kg)	17.32(w) x 6.81(d) x 1.73(h) in (44 x 17.3 x 4.4 cm) (1U height) Weight: 4.41 lb (2.0 kg)	13.23(w) x 6.65(d) x 1.73(h) in (33.6 x 16.89 x 4.39 cm) (1U height) Weight: 2.98 lb (1.35 kg)
<b>Memory and processor</b>	16 Kb EEPROM; packet buffer size: 2 Mb	8kb EEPROM; packet buffer size: 2 Mb	2 Kb EEPROM; packet buffer size: 2.5 Mb
<b>Mounting</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	Mounts in an EIA standard 19-inch telco rack (hardware included); wall, desktop and under-table mounting
<b>Performance</b>	100 Mb Latency: < 11 $\mu$ s (LIFO 64-byte packets) 1000 Mb Latency: < 11 $\mu$ s (LIFO 64-byte packets) Throughput: up to 3.5 million pps (64-byte packets) Switching capacity: 4.8 Gb/s MAC address table size: 8192 entries	100 Mb Latency: < 11 $\mu$ s (LIFO 64-byte packets) 1000 Mb Latency: < 11 $\mu$ s (LIFO 64-byte packets) Throughput: 3.5 million pps (64-byte packets) Switching capacity: 4.8 Gb/s MAC address table size: 8192 entries	100 Mb Latency: < 5.6 $\mu$ s (LIFO 64-byte packets) 1000 Mb Latency: < 2.2 $\mu$ s (LIFO 64-byte packets) Throughput: up to 6.5 million pps (64-byte packets) Switching capacity: 8.8 Gb/s MAC address table size: 8192 entries
<b>Environment</b>	Operating temperature: 32°F to 104°F (0°C to 40°C) Operating relative humidity: 15% to 95% @ 104°F (40°C), noncondensing Nonoperating/Storage temperature: -40°F to 158°F (-40°C to 70°C) Nonoperating/Storage relative humidity: 15% to 90% @ 149°F (65°C), noncondensing Altitude: up to 10,000 ft (3 km) Acoustic: Power: 0 dB No fan	Operating temperature: 32°F to 104°F (0°C to 40°C) Operating relative humidity: 15% to 95% @ 104°F (40°C), noncondensing Nonoperating/Storage temperature: -40°F to 158°F (-40°C to 70°C) Nonoperating/Storage relative humidity: 15% to 90% @ 149°F (65°C), noncondensing Altitude: up to 10,000 ft (3 km) Acoustic: Power: 0 dB No fan	Operating temperature: 32°F to 104°F (0°C to 40°C) Operating relative humidity: 5% to 95% @ 104°F (40°C), noncondensing Nonoperating/Storage temperature: -40°F to 158°F (-40°C to 70°C) Nonoperating/Storage relative humidity: 15% to 90% @ 149°F (65°C), noncondensing Altitude: up to 16,404 ft (5 km) Acoustic: Power: 0 dB No fan
<b>Electrical characteristics</b>	Frequency: 50/60 Hz Maximum heat dissipation: 17 BTU/hr (17.93 kJ/hr) Voltage: 100-240 VAC DC voltage: 12 V Current: 0.4 A Maximum power rating: 4.8 W	Frequency: 50/60 Hz Maximum heat dissipation: 21 BTU/hr (22 kJ/hr) Voltage: 100-240 VAC DC voltage: 3.3 V Current: 1.1 A Maximum power rating: 3.6 W	Frequency: 50/60 Hz Maximum heat dissipation: 37 BTU/hr (39.03 kJ/hr) Voltage: 100-240 VAC DC voltage: 12 V Current: 0.9 A Maximum power rating: 10.8 W
	<b>Notes</b> 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. The exact input voltage and frequency rating are determined by the specific power adaptor part number ordered. Please select the correct power adaptor 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 an 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. The exact input voltage and frequency rating are determined by the specific power adaptor part number ordered. Please select the correct power adaptor country option.

	HP 1410-24 Switch (J9663A)	HP 1410-24-R Switch (JD986B)	HP 1410-24-2G Switch (J9664A)
<b>Safety</b>	UL 60950-1; CSA 22.2 60950-1; IEC 60950-1:2005; EN 60950-1:2006 + A11:2009	UL 60950-1; CSA 22.2 60950-1; IEC 60950-1:2005; EN 60950-1:2006 + A11:2009	UL 60950-1; CSA 22.2 60950-1; IEC 60950-1:2005; EN 60950-1:2006 + A11:2009
<b>Emissions</b>	FCC Rules Part 15, Subpart B Class A	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 55022 CISPR 22
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	IEC 61000-3-2	IEC 61000-3-2	IEC 61000-3-2
Flicker	IEC 61000-3-3	IEC 61000-3-3	IEC 61000-3-3
<b>Notes</b>	IEEE 802.3az Energy Efficient Ethernet protocol is supported by the HP 1410-24G-R (JG708A), HP 1410-16 (J9662A) and HP 1410-24 (J9663A) Switches.		
<b>Services</b>	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (UF797E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UF798E)</p> <p>1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR846E)</p> <p>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR847E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UR820E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UR821E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UR822E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UR823E)</p> <p>3-year 6 hr Call-to-Repair Onsite (UW389E)</p> <p>4-year 6 hr Call-to-Repair Onsite (UW390E)</p> <p>5-year 6 hr Call-to-Repair Onsite (UW391E)</p> <p>1-year, 6 hour Call-To-Repair Onsite for hardware (HR848E)</p> <p>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.</p>	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (UF797E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UF798E)</p> <p>1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR846E)</p> <p>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR847E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UR820E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UR821E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UR822E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UR823E)</p> <p>3-year 6 hr Call-to-Repair Onsite (UW389E)</p> <p>4-year 6 hr Call-to-Repair Onsite (UW390E)</p> <p>5-year 6 hr Call-to-Repair Onsite (UW391E)</p> <p>1-year, 6 hour Call-To-Repair Onsite for hardware (HR848E)</p> <p>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.</p>	<p>3-year, 4-hour onsite, 13x5 coverage for hardware (UF797E)</p> <p>3-year, 4-hour onsite, 24x7 coverage for hardware (UF798E)</p> <p>1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR846E)</p> <p>1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR847E)</p> <p>4-year, 4-hour onsite, 13x5 coverage for hardware (UR820E)</p> <p>4-year, 4-hour onsite, 24x7 coverage for hardware (UR821E)</p> <p>5-year, 4-hour onsite, 13x5 coverage for hardware (UR822E)</p> <p>5-year, 4-hour onsite, 24x7 coverage for hardware (UR823E)</p> <p>3-year 6 hr Call-to-Repair Onsite (UW389E)</p> <p>4-year 6 hr Call-to-Repair Onsite (UW390E)</p> <p>5-year 6 hr Call-to-Repair Onsite (UW391E)</p> <p>1-year, 6 hour Call-To-Repair Onsite for hardware (HR848E)</p> <p>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.</p>
<b>Standards and Protocols</b> (applies to all products in series)			
<b>General protocols</b>	IEEE 802.1p Priority	IEEE 802.3ab 1000BASE-T Gigabit Ethernet over twisted pair (10/100/1000 models only) IEEE 802.3i 10BASE-T Ethernet over twisted pair	IEEE 802.3u 100BASE-TX Fast Ethernet, 100BASE-FX with auto negotiation IEEE 802.3x Flow Control

## HP 1410 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 1410-24G Switch (J9561A)

HP X121 1G SFP LC SX Transceiver (J4858C)  
HP X121 1G SFP LC LX Transceiver (J4859C)  
HP X111 100M SFP LC FX Transceiver (J9054C)

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