

Overview

Models

HP 1410-8G Switch	J9559A
HP 1410-16G Switch	J9560A
HP 1410-24G Switch	J9561A
HP 1410-8 Switch	J9661A
HP 1410-16 Switch	J9662A
HP 1410-24 Switch	J9663A
HP 1410-24-2G Switch	J9664A

Key features

- Unmanaged Gigabit and Fast Ethernet switches
- Green features for low power consumption
- Fanless for silent operation
- Quality-of-Service (QoS) support
- Lifetime warranty*

Product overview

HP 1410 series switches are unmanaged Gigabit Ethernet and Fast Ethernet switches designed for small businesses looking for entry-level, low-cost networking solutions with a lifetime warranty. The HP 1410 switch series consists of seven models with flexible mounting options that allow customers to choose the best switch to meet their network switching needs. All models have QoS support and IEEE 802.3x flow control features to provide outstanding data efficiency. Simplified plug-and-play operation is enabled by features like Auto-MDIX and auto-speed negotiation. HP has innovated and combined the latest advances in silicon technology to provide some of the most power-efficient switches: 16- and 24-port Fast Ethernet models are the industry's first IEEE 802.3az compliant unmanaged Fast Ethernet switches. The available green features, along with the lifetime warranty, make the HP 1410 switch series ideal for customers seeking low-cost and reliable networking solutions.

Features and benefits

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 Layer 3 TOS/DSCP parameters

Connectivity

- **Auto-MDIX:** automatically adjusts for straight-through or crossover cables on all 10/100 and 10/100/1000 ports

Performance

- **NEW Energy-efficient Ethernet support (J9662A and J9663A only):** supports new IEEE 802.3az standard; allows lower power consumption when operated with IEEE-compliant client devices in 100 Mb/s mode only
- **Half-/Full-duplex auto-negotiating capability on every port:** doubles the throughput of every port
- **Jumbo frame support (Gigabit Ethernet models only):** allows frames up to 9216 bytes to be switched through the network
- **Mini jumbo frame support (J9662A and J9663A only):** allows frames up to 2048 bytes to be switched through the network, which supports large data transfers



Overview

Ease of use

- **Unmanaged:** provides plug-and-play simplicity
- **Comprehensive LED display with per-port indicators:** provides an at-a-glance view of status, activity, speed, and full-duplex operation
- **Flow control:** helps ensure reliable communications during full-duplex operation
- **Auto-speed negotiation:** automatically selects individual port speed depending on client capabilities without the need for manual intervention, allowing for simple plug-and-play operation

Flexibility

- **Fanless design:** enables quiet operation for deployment in open spaces

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; refer to: www.hp.com/networking/warranty for details on the support provided and the period during which support is available

* Hardware warranties replacement for as long as you own the product, with next business day advance replacement (available in most countries). The disk drive included with HP Alliance One Advanced Services and Services zI Modules, HP Threat Management Services zI Module, HP AllianceOne Ext zI Mod w/Rvrbd Stlhd, HP E-MSM765zI Mobility Controller and HP Surv Brch Com zI Mod pwrby Msft Lync has a five-year hardware warranty. For details, refer to the Software license and hardware warranty statements at: www.hp.com/networking/warranty.



Technical Specifications

HP 1410-8G Switch (J9559A)

Ports	8 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	
Physical characteristics	Dimensions	3.8(d) x 6.14(w) x 0.96(h) in. (9.65 x 15.6 x 2.45 cm) (.5U height)
	Weight	.74 lb. (0.34 kg)
Memory and processor	4 Kb EEPROM capacity; packet buffer size: 192 KB	
Mounting	Wall, desktop, and under-table mounting	
Performance	100 Mb Latency	< 3.6 μ s (LIFO 64-byte packets)
	1000 Mb Latency	< 1.2 μ s (LIFO 64-byte packets)
	Throughput	up to 11.9 million pps (64-byte packets)
	Switching capacity	16 Gbps
	MAC address table size	4096 entries
Environment	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	
Electrical characteristics	Maximum heat dissipation	41 BTU/hr (43.26 kJ/hr)
	Voltage	100-240 VAC
	Current	1.0 A
	Maximum power rating	12 W
	Frequency	50/60 Hz
	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. The exact input voltage and frequency rating are determined by the specific power adapter part number ordered. Please select the correct power adapter country option.
Safety	CSA 22.2 No. 60950; EN 60950/IEC 60950; UL 60950-1	
Emissions	FCC Rules Part 15, Subpart B Class A	
Immunity	Generic	EN 55022 CISPR 22
	EN	EN 55024, CISPR 24
	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3
	EFT/Burst	IEC 61000-4-4
	Surge	IEC 61000-4-5
Conducted	IEC 61000-4-6	



Technical Specifications

Power frequency magnetic field	IEC 61000-4-8
Voltage dips and interruptions	IEC 61000-4-11
Harmonics	IEC 61000-3-2
Flicker	IEC 61000-3-3

Services

3-year, 4-hour onsite, 13x5 coverage for hardware (UF795E)
3-year, 4-hour onsite, 24x7 coverage for hardware (UF796E)
1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR843E)
1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR844E)
Installation with minimum configuration, system-based pricing (U4826E)
Installation with HP-provided configuration, system-based pricing (U4830E)
4-year, 4-hour onsite, 13x5 coverage for hardware (UR816E)
4-year, 4-hour onsite, 24x7 coverage for hardware (UR817E)
5-year, 4-hour onsite, 13x5 coverage for hardware (UR818E)
5-year, 4-hour onsite, 24x7 coverage for hardware (UR819E)
3 Yr 6 hr Call-to-Repair Onsite (UW386E)
4 Yr 6 hr Call-to-Repair Onsite (UW387E)
5 Yr 6 hr Call-to-Repair Onsite (UW388E)
1-year, 6 hour Call-To-Repair Onsite for hardware (HR845E)

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.

HP 1410-16G Switch (J9560A)

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	
Physical characteristics	Dimensions	4.41(d) x 8.21(w) x 1.73(h) in. (11.2 x 20.85 x 4.4 cm) (1U height)
	Weight	1.43 lb. (0.65 kg)
Memory and processor	512 KB flash; packet buffer size: 512 KB	
Mounting	Mounts in an EIA-standard 19 in. telco rack (hardware included); wall, desktop, and under-table mounting	
Performance	100 Mb Latency	< 8.0 μ s (LIFO 64-byte packets)
	1000 Mb Latency	< 3.6 μ s (LIFO 64-byte packets)
	Throughput	up to 23.8 million pps (64-byte packets)
	Switching capacity	32 Gbps
	MAC address table size	8000 entries
Environment	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



Technical Specifications

	Altitude	up to 10,000 ft. (3 km)
	Acoustic	Power: 0 dB No fan
Electrical characteristics	Maximum heat dissipation	44 BTU/hr (46.42 kJ/hr)
	Voltage	100-240 VAC
	Current	1.1 A
	Maximum power rating	13 W
	Frequency	50/60 Hz
	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. The exact input voltage and frequency rating are determined by the specific power adapter part number ordered. Please select the correct power adapter country option.
	Safety	CSA 22.2 No. 60950; UL 60950-1; IEC 60950-1; EN 60950-1
Emissions	FCC Rules Part 15, Subpart B Class A	
Immunity	Generic	EN 55022 CISPR 22
	EN	EN 55024, CISPR 24
	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3
	EFT/Burst	IEC 61000-4-4
	Surge	IEC 61000-4-5
	Conducted	IEC 61000-4-6
	Power frequency magnetic field	IEC 61000-4-8
	Voltage dips and interruptions	IEC 61000-4-11
	Harmonics	IEC 61000-3-2
Flicker	IEC 61000-3-3	
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UF797E)	
	3-year, 4-hour onsite, 24x7 coverage for hardware (UF798E)	
	1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR846E)	
	1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR847E)	
	Installation with minimum configuration, system-based pricing (U4826E)	
	Installation with HP-provided configuration, system-based pricing (U4830E)	
	4-year, 4-hour onsite, 13x5 coverage for hardware (UR820E)	
	4-year, 4-hour onsite, 24x7 coverage for hardware (UR821E)	
	5-year, 4-hour onsite, 13x5 coverage for hardware (UR822E)	
	5-year, 4-hour onsite, 24x7 coverage for hardware (UR823E)	
	3 Yr 6 hr Call-to-Repair Onsite (UW389E)	
	4 Yr 6 hr Call-to-Repair Onsite (UW390E)	
5 Yr 6 hr Call-to-Repair Onsite (UW391E)		
1-year, 6 hour Call-To-Repair Onsite for hardware (HR848E)		

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



Technical Specifications

local HP sales office.

HP 1410-24G Switch (J9561A)

Ports	22 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only
	2 dual-personality ports; each port can be used as either an RJ-45 10/100/1000 port (IEEE 802.3 Type 10Base-T; IEEE 802.3u Type 100Base-TX; IEEE 802.3ab 1000Base-T Gigabit Ethernet) or an open mini-GBIC slot (for use with mini-GBIC transceivers)
Physical characteristics	Dimensions 6.65(d) x 13.23(w) x 1.73(h) in. (16.9 x 33.6 x 4.4 cm) (1U height)
	Weight 2.98 lb. (1.35 kg)
Memory and processor	512 KB flash; packet buffer size: 512 KB
Mounting	Mounts in an EIA-standard 19 in. telco rack (hardware included); wall, desktop, and under-table mounting
Performance	100 Mb Latency < 8.0 μ s (LIFO 64-byte packets)
	1000 Mb Latency < 3.6 μ s (LIFO 64-byte packets)
	Throughput up to 35.7 million pps (64-byte packets)
	Switching capacity 48 Gbps
	MAC address table size 8000 entries
Environment	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
Electrical characteristics	Maximum heat dissipation 75 BTU/hr (79.13 kJ/hr)
	Voltage 100-127/200-240 VAC
	Current 0.3/0.2 A
	Maximum power rating 22 W
	Frequency 50/60 Hz
	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.
Safety	CSA 22.2 No. 60950; UL 60950-1; IEC 60950-1; EN 60950-1
Emissions	FCC Rules Part 15, Subpart B Class A
Immunity	Generic EN 55022 CISPR 22
	EN EN 55024, CISPR 24
	ESD IEC 61000-4-2
	Radiated IEC 61000-4-3



Technical Specifications

EFT/Burst	IEC 61000-4-4
Surge	IEC 61000-4-5
Conducted	IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8
Voltage dips and interruptions	IEC 61000-4-11
Harmonics	IEC 61000-3-2
Flicker	IEC 61000-3-3

Notes Use only supported genuine HP mini-GBICs with your switch.

Services 3-year, 4-hour onsite, 13x5 coverage for hardware (UF797E)
3-year, 4-hour onsite, 24x7 coverage for hardware (UF798E)
1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR846E)
1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR847E)
Installation with minimum configuration, system-based pricing (U4826E)
Installation with HP-provided configuration, system-based pricing (U4830E)
4-year, 4-hour onsite, 13x5 coverage for hardware (UR820E)
4-year, 4-hour onsite, 24x7 coverage for hardware (UR821E)
5-year, 4-hour onsite, 13x5 coverage for hardware (UR822E)
5-year, 4-hour onsite, 24x7 coverage for hardware (UR823E)
3 Yr 6 hr Call-to-Repair Onsite (UW389E)
4 Yr 6 hr Call-to-Repair Onsite (UW390E)
5 Yr 6 hr Call-to-Repair Onsite (UW391E)
1-year, 6 hour Call-To-Repair Onsite for hardware (HR848E)

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HP 1410-8 Switch (J9661A)

Ports	Supports a maximum of 8 autosensing 10/100 ports
Physical characteristics	Dimensions 3.74(d) x 6.14(w) x 0.97(h) in. (9.5 x 15.6 x 2.46 cm)
	Weight 0.74 lb. (0.34 kg)
Memory and processor	96 KB
Mounting	Wall, desktop, and under-table mounting
Performance	100 Mb Latency < 3.7 μ s (LIFO 64-byte packets)
	Throughput up to 1.1 million pps (64-byte packets)
	Switching capacity 1.6 Gbps
	MAC address table size 1040 entries
Environment	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)



Technical Specifications

	Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing
	Altitude	up to 10,000 ft. (3 km)
	Acoustic	Power: 0 dB
Electrical characteristics	Maximum heat dissipation	13 BTU/hr (13.72 kJ/hr)
	Voltage	100-240 VAC
	DC voltage	12 V
	Current	0.3 A
	Maximum power rating	3.6 W
	Frequency	50/60 Hz
	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. The exact input voltage and frequency rating are determined by the specific power adapter part number ordered. Please select the correct power adapter country option.
Safety		UL 60950-1; CSA 22.2 60950-1; IEC 60950-1:2005; EN 60950-1:2006 + A11:2009
Emissions		FCC Rules Part 15, Subpart B Class A
Immunity	Generic	EN 55022 CISPR 22
	EN	EN 55024, CISPR 24
	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3
	EFT/Burst	IEC 61000-4-4
	Surge	IEC 61000-4-5
	Conducted	IEC 61000-4-6
	Power frequency magnetic field	IEC 61000-4-8
	Voltage dips and interruptions	IEC 61000-4-11
	Harmonics	IEC 61000-3-2
	Flicker	IEC 61000-3-3
Services		3-year, 4-hour onsite, 13x5 coverage for hardware (UF795E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UF796E) 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR843E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR844E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UR817E) 3 Yr 6 hr Call-to-Repair Onsite (UW386E) 1-year, 6 hour Call-To-Repair Onsite for hardware (HR845E)

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.



Technical Specifications

Ports	Supports a maximum of 16 autosensing 10/100 ports	
Physical characteristics	Dimensions	4.21(d) x 8.21(w) x 1.73(h) in. (10.7 x 20.85 x 4.4 cm)
	Weight	1.43 lb. (0.65 kg)
Memory and processor	16 Kb EEPROM; packet buffer size: 2 Mb	
Mounting	Mounts in an EIA-standard 19 in. telco rack (hardware included); wall, desktop, and under-table mounting	
Performance	100 Mb Latency	< 10.6 μ s (LIFO 64-byte packets)
	Throughput	up to 2.3 million pps (64-byte packets)
	Switching capacity	3.2 Gbps
	MAC address table size	8192 entries
Environment	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
Electrical characteristics	Maximum heat dissipation	13 BTU/hr (13.72 kJ/hr)
	Voltage	100-240 VAC
	DC voltage	12 V
	Current	0.3 A
	Maximum power rating	3.6 W
	Frequency	50/60 Hz
	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. The exact input voltage and frequency rating are determined by the specific power adapter part number ordered. Please select the correct power adapter country option.
Safety	UL 60950-1; CSA C22.2 60950-1; IEC 60950-1:2005; EN 60950-1:2006 + A11:2009	
Emissions	FCC Rules Part 15, Subpart B Class A	
Immunity	Generic	EN 55022 CISPR 22
	EN	EN 55024, CISPR 24
	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3
	EFT/Burst	IEC 61000-4-4
	Surge	IEC 61000-4-5
	Conducted	IEC 61000-4-6
	Power frequency magnetic field	IEC 61000-4-8



Technical Specifications

Voltage dips and interruptions	IEC 61000-4-11
Harmonics	IEC 61000-3-2
Flicker	IEC 61000-3-3

Notes IEEE 802.3az Energy Efficient Ethernet protocol is supported by the HP 1410-16 (J9662A) and HP 1410-24 (J9663A) Switches only

Services

- 3-year, 4-hour onsite, 13x5 coverage for hardware (UF797E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (UF798E)
- 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR846E)
- 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR847E)
- 4-year, 4-hour onsite, 13x5 coverage for hardware (UR820E)
- 4-year, 4-hour onsite, 24x7 coverage for hardware (UR821E)
- 5-year, 4-hour onsite, 13x5 coverage for hardware (UR822E)
- 5-year, 4-hour onsite, 24x7 coverage for hardware (UR823E)
- 3 Yr 6 hr Call-to-Repair Onsite (UW389E)
- 4 Yr 6 hr Call-to-Repair Onsite (UW390E)
- 5 Yr 6 hr Call-to-Repair Onsite (UW391E)

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.

HP 1410-24 Switch (J9663A)

Ports	Supports a maximum of 24 autosensing 10/100 ports
Physical characteristics	Dimensions 6.65(d) x 13.23(w) x 1.73(h) in. (16.9 x 33.6 x 4.4 cm)
	Weight 2.98 lb. (1.35 kg)
Memory and processor	16 Kb EEPROM; packet buffer size: 2 Mb
Mounting	Mounts in an EIA-standard 19 in. telco rack (hardware included); wall, desktop, and under-table mounting
Performance	100 Mb Latency < 11 μ s (LIFO 64-byte packets)
	Throughput up to 3.5 million pps (64-byte packets)
	Switching capacity 4.8 Gbps
	MAC address table size 8192 entries
Environment	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
Electrical characteristics	Maximum heat dissipation 17 BTU/hr (17.93 kJ/hr)
	Voltage 100-240 VAC
	DC voltage 12 V



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Current	0.4 A
Maximum power rating	4.8 W
Frequency	50/60 Hz
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. The exact input voltage and frequency rating are determined by the specific power adapter part number ordered. Please select the correct power adapter country option.

Safety UL 60950-1; CSA 22.2 60950-1; IEC 60950-1:2005; EN 60950-1:2006 + A11:2009

Emissions FCC Rules Part 15, Subpart B Class A

Immunity	Generic EN 55022 CISPR 22
	EN EN 55024, CISPR 24
	ESD IEC 61000-4-2
	Radiated IEC 61000-4-3
	EFT/Burst IEC 61000-4-4
	Surge IEC 61000-4-5
	Conducted IEC 61000-4-6
	Power frequency magnetic field IEC 61000-4-8
	Voltage dips and interruptions IEC 61000-4-11
	Harmonics IEC 61000-3-2
	Flicker IEC 61000-3-3

Notes IEEE 802.3az Energy Efficient Ethernet protocol is supported by the HP 1410-16 (J9662A) and HP 1410-24 (J9663A) Switches only

Services 3-year, 4-hour onsite, 13x5 coverage for hardware (UF797E)
3-year, 4-hour onsite, 24x7 coverage for hardware (UF798E)
1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR846E)
1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR847E)
4-year, 4-hour onsite, 13x5 coverage for hardware (UR820E)
4-year, 4-hour onsite, 24x7 coverage for hardware (UR821E)
5-year, 4-hour onsite, 13x5 coverage for hardware (UR822E)
5-year, 4-hour onsite, 24x7 coverage for hardware (UR823E)
3 Yr 6 hr Call-to-Repair Onsite (UW389E)
4 Yr 6 hr Call-to-Repair Onsite (UW390E)
5 Yr 6 hr Call-to-Repair Onsite (UW391E)

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.

HP 1410-24-2G Switch (J9664A)

Ports Supports a maximum of 24 autosensing 10/100 ports plus 2 autosensing 10/100/1000 ports, or a combination



Technical Specifications

Physical characteristics	Dimensions	6.65(d) x 13.23(w) x 1.73(h) in. (16.9 x 33.6 x 4.4 cm)
	Weight	2.98 lb. (1.35 kg)
Memory and processor	2 KB EEPROM; packet buffer size: 2.5 Mb	
Mounting	Mounts in an EIA-standard 19 in. telco rack (hardware included); wall, desktop, and under-table mounting	
Performance	100 Mb Latency	< 5.6 μ s (LIFO 64-byte packets)
	1000 Mb Latency	< 2.2 μ s (LIFO 64-byte packets)
	Throughput	up to 6.5 million pps (64-byte packets)
	Switching capacity	8.8 Gbps
	MAC address table size	8192 entries
Environment	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
Electrical characteristics	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
	Frequency	50/60 Hz
	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. The exact input voltage and frequency rating are determined by the specific power adapter part number ordered. Please select the correct power adapter country option.
Safety	UL 60950-1; CSA 22.2 60950-1; IEC 60950-1:2005; EN 60950-1:2006 + A11:2009	
Emissions	FCC Rules Part 15, Subpart B Class A	
Immunity	Generic	EN 55022 CISPR 22
	EN	EN 55024, CISPR 24
	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3
	EFT/Burst	IEC 61000-4-4
	Surge	IEC 61000-4-5
	Conducted	IEC 61000-4-6
	Power frequency magnetic field	IEC 61000-4-8



Technical Specifications

Voltage dips and interruptions	IEC 61000-4-11
Harmonics	IEC 61000-3-2
Flicker	IEC 61000-3-3

Services

- 3-year, 4-hour onsite, 13x5 coverage for hardware (UF797E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (UF798E)
- 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR846E)
- 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR847E)
- 4-year, 4-hour onsite, 13x5 coverage for hardware (UR820E)
- 4-year, 4-hour onsite, 24x7 coverage for hardware (UR821E)
- 5-year, 4-hour onsite, 13x5 coverage for hardware (UR822E)
- 5-year, 4-hour onsite, 24x7 coverage for hardware (UR823E)
- 3 Yr 6 hr Call-to-Repair Onsite (UW389E)
- 4 Yr 6 hr Call-to-Repair Onsite (UW390E)
- 5 Yr 6 hr Call-to-Repair Onsite (UW391E)

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)

General protocols

- IEEE 802.1p Priority
- IEEE 802.3ab 1000BASE-T
- IEEE 802.3i 10BASE-T
- IEEE 802.3u 100BASE-X
- IEEE 802.3x Flow Control
- IEEE 802.3z 1000BASE-X



Accessories

HP 1410 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
NEW HP 0.5 m PremierFlex OM3+ LC/LC Optical Cable	BK837A
NEW HP 1 m PremierFlex OM3+ LC/LC Optical Cable	BK838A
NEW HP 2 m PremierFlex OM3+ LC/LC Optical Cable	BK839A
NEW HP 5 m PremierFlex OM3+ LC/LC Optical Cable	BK840A
NEW HP 15 m PremierFlex OM3+ LC/LC Optical Cable	BK841A
NEW HP 30 m PremierFlex OM3+ LC/LC Optical Cable	BK842A
NEW HP 50 m PremierFlex OM3+ LC/LC Optical Cable	BK843A
HP V1410-24G 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



Accessory Product Details

NOTE: Details are not available for all accessories. The following specifications were available at the time of publication.

HP 0.5 m Multimode OM3 LC/LC Optical Cable (AJ833A)

Cabling

Cable type:

50/125 μm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m

Notes

Maximum distance:

10Gbps Transfer Rate (Ethernet): 300m

Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 μm fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter: $50 \pm 3.0\mu\text{m}$ Cladding diameter: $125 \pm 2.0\mu\text{m}$ Coating diameter: $245 \pm 10\mu\text{m}$
- Optical glass: Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.
- Optical glass: Bandwidth: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.
- CABLE: The cable is duplex zipcord graded index 50/125 μm multimode optical fiber and designed to work in both the 850 and 1300 nm wavelength windows.
- BULK CABLE & CABLE ASSEMBLY CONFIGURATION:
- Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.
- Jacket Color: Aqua for OM3 multimode per TIA 598
- Boot Color: White
- Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters.
- Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.
- Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg

Services

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.



Accessory Product Details

HP 1 m Multimode OM3 Cabling
LC/LC Optical Cable
(AJ834A)

Cable type:

50/125 μm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m

Maximum distance:

10Gbps Transfer Rate (Ethernet): 300m

Notes

Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 μm fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter: $50 \pm 3.0\mu\text{m}$ Cladding diameter: $125 \pm 2.0\mu\text{m}$ Coating diameter: $245 \pm 10\mu\text{m}$
- Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.
- Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.
- CABLE: The cable is duplex zipcord graded index 50/125 μm multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows.
- BULK CABLE & CABLE ASSEMBLY CONFIGURATION:
- Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.
- Jacket Color: Aqua for OM3 multimode per TIA 598
- Boot Color: White
- Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters.
- Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.
- Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg

Services

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.



Accessory Product Details

HP 2 m Multimode OM3 Cabling
LC/LC Optical Cable
(AJ835A)

Cable type:

50/125 μm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;

Maximum distance:

10Gbps Transfer Rate (Ethernet): 300m

Notes

Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 μm fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter: $50 \pm 3.0\mu\text{m}$ Cladding diameter: $125 \pm 2.0\mu\text{m}$ Coating diameter: $245 \pm 10\mu\text{m}$
- Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.
- Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.
- CABLE: The cable is duplex zipcord graded index 50/125 μm multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows.
- BULK CABLE & CABLE ASSEMBLY CONFIGURATION:
- Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.
- Jacket Color: Aqua for OM3 multimode per TIA 598
- Boot Color: White
- Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters.
- Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.
- Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg

Services

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.



Accessory Product Details

HP 5 m Multimode OM3 Cabling
LC/LC Optical Cable
(AJ836A)

Cable type:

50/125 μm core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;

Maximum distance:

10Gbps Transfer Rate (Ethernet): 300m

Notes

Cable Specs: This specification defines the detail requirements for a tight buffered duplex fiber optic multimode OM3 50/125 μm fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter: $50 \pm 3.0\mu\text{m}$ Cladding diameter: $125 \pm 2.0\mu\text{m}$ Coating diameter: $245 \pm 10\mu\text{m}$
- Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.
- Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.
- CABLE: The cable is duplex zipcord graded index 50/125 μm multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows.
- BULK CABLE & CABLE ASSEMBLY CONFIGURATION:
- Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.
- Jacket Color: Aqua for OM3 multimode per TIA 598
- Boot Color: White
- Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters.
- Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.
- Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg

Services

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.



Accessory Product Details

HP 15 m Multimode
OM3 LC/LC Optical
Cable (AJ837A)

Cabling

Cable type:

50/125 μm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;

Maximum distance:

10Gbps Transfer Rate (Ethernet): 300m

Notes

Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 μm fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter: $50 \pm 3.0\mu\text{m}$ Cladding diameter: $125 \pm 2.0\mu\text{m}$ Coating diameter: $245 \pm 10\mu\text{m}$
- Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.
- Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.
- CABLE: The cable is duplex zipcord graded index 50/125 μm multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows.
- BULK CABLE & CABLE ASSEMBLY CONFIGURATION:
- Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.
- Jacket Color: Aqua for OM3 multimode per TIA 598
- Boot Color: White
- Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters.
- Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.
- Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg

Services

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.



Accessory Product Details

HP 30 m Multimode
OM3 LC/LC Optical
Cable (AJ838A)

Cabling

Cable type:

50/125 μm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;

Maximum distance:

10Gbps Transfer Rate (Ethernet): 300m

Notes

Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 μm fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter: $50 \pm 3.0\mu\text{m}$ Cladding diameter: $125 \pm 2.0\mu\text{m}$ Coating diameter: $245 \pm 10\mu\text{m}$
- Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.
- Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.
- CABLE: The cable is duplex zipcord graded index 50/125 μm multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows.
- BULK CABLE & CABLE ASSEMBLY CONFIGURATION:
- Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.
- Jacket Color: Aqua for OM3 multimode per TIA 598
- Boot Color: White
- Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters.
- Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.
- Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg

Services

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.



Accessory Product Details

HP 50 m Multimode
OM3 LC/LC Optical
Cable (AJ839A)

Cabling

Cable type:

50/125 μm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;

Maximum distance:

10Gbps Transfer Rate (Ethernet): 300m

Notes

Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 μm fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter: $50 \pm 3.0\mu\text{m}$ Cladding diameter: $125 \pm 2.0\mu\text{m}$ Coating diameter: $245 \pm 10\mu\text{m}$
- Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.
- Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links.
- CABLE: The cable is duplex zipcord graded index 50/125 μm multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows.
- BULK CABLE & CABLE ASSEMBLY CONFIGURATION:
- Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.
- Jacket Color: Aqua for OM3 multimode per TIA 598
- Boot Color: White
- Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters.
- Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46.
- Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg

Services

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.



Accessory Product Details

HP 0.5 m PremierFlex
OM3+ LC/LC Optical
Cable (BK837A)

Notes

Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.

- Core diameter: 50um \pm 3um; Cladding diameter: 125um \pm 2um; Coating diameter: 245 \pm 10um
- Bandwidth: 3000 MHz-km @ 850nm (Laser)
- Jacket Color: Blue
- Jacket Material: Riser Grade - Low Smoke Zero Halogen (LSZH) thermoplastic.
- Boot Color: White
- Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.
- Insertion Loss: less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m
- Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46

Services

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.

HP 1 m PremierFlex
OM3+ LC/LC Optical
Cable (BK838A)

Notes

Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.

- Core Diameter: 50um \pm 3um, Cladding diameter: 125um \pm 2um; Coating diameter: 245 \pm 10um
- Bandwidth: 3000 MHz-km @ 850nm (Laser)
- Jacket Color: Blue
- Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic
- Boot Color: White
- Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.
- Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m
- Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45

Services

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.



Accessory Product Details

HP 2 m PremierFlex
OM3+ LC/LC Optical
Cable (BK839A)

Notes

Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.

- Core diameter: 50um \pm 3um, Cladding diameter: 125um \pm 2um; Coating diameter: 245 \pm 10um
- Bandwidth: 3000 MHz-km @ 850nm (Laser)
- Jacket Color: Blue
- Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic
- Boot Color: White
- Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.
- Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m
- Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45

Services

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.

HP 5 m PremierFlex
OM3+ LC/LC Optical
Cable (BK840A)

Notes

Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.

- Core diameter: 50um \pm 3um, Cladding diameter: 125um \pm 2um; Coating diameter: 245 \pm 10um
- Bandwidth: 3000 MHz-km @ 850nm (Laser)
- Jacket Color: Blue
- Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic
- Boot Color: White
- Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.
- Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m
- Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45

Services

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.



Accessory Product Details

HP 15 m PremierFlex
OM3+ LC/LC Optical
Cable (BK841A)

Notes

Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.

- Core diameter: 50um \pm 3um, Cladding diameter: 125um \pm 2um; Coating diameter: 245 \pm 10um
- Bandwidth: 3000 MHz-km @ 850nm (Laser)
- Jacket Color: Blue
- Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic
- Boot Color: White
- Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.
- Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m
- Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45

Services

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.

HP 30 m PremierFlex
OM3+ LC/LC Optical
Cable (BK842A)

Notes

Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.

- Core diameter: 50um \pm 3um, Cladding diameter: 125um \pm 2um; Coating diameter: 245 \pm 10um
- Bandwidth: 3000 MHz-km @ 850nm (Laser)
- Jacket Color: Blue
- Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic
- Boot Color: White
- Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.
- Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m
- Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45

Services

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.



Accessory Product Details

HP 50 m PremierFlex OM3+ LC/LC Optical Cable (BK843A) **Notes**

Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.

- Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um
- Bandwidth: 3000 MHz-km @ 850nm (Laser)
- Jacket Color: Blue
- Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic
- Boot Color: White
- Outer Jacket Print: HP PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable.
- Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m
- Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45

Services

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.

HP X121 1G SFP LC SX Transceiver (J4858C)

Ports
Physical characteristics

1 LC 1000BASE-SX port; Duplex: full only
Dimensions: 2.24(d) x 0.54(w) x 0.48(h) in. (5.69 x 1.37 x 1.22 cm)
Weight: 0.04 lb. (0.02 kg)
Transceiver form factor: SFP

A small form-factor pluggable (SFP) Gigabit SX transceiver that provides a full-duplex Gigabit solution up to 550 m on multimode fiber.

Environment

Operating temperature: 32°F to 158°F (0°C to 70°C)
Operating relative humidity: 5% to 85%, noncondensing
Nonoperating/Storage temperature: -40°F to 203°F (-40°C to 85°C)
Altitude: up to 10,000 ft. (3 km)

Electrical characteristics

Power consumption typical: 0.4 W
Power consumption maximum: 0.7 W

Cabling

Type:

- 62.5/125 μm or 50/125 μm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively;

Maximum distance:

- 2-220 m (62.5 μm core diameter, 160 MHz*km bandwidth)
- 2-275 m (62.5 μm core diameter, 200 MHz*km bandwidth)
- 2-500 m (50 μm core diameter, 400 MHz*km bandwidth)
- 2-550 m (50 μm core diameter, 500 MHz*km bandwidth)

Cable length: 2-550m

Fiber type: Multi Mode

Services

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.



Accessory Product Details

<p>HP X121 1G SFP LC LX Transceiver (J4859C)</p>	<p>Ports Physical characteristics</p>	<p>1 LC 1000BASE-LX port (IEEE 802.3z Type 1000BASE-LX); Duplex: full only Dimensions: 2.24(d) x 0.54(w) x 0.486(h) in. (5.69 x 1.37 x 1.23 cm) Weight: 0.04 lb. (0.02 kg)</p>
<p>HP X121 1G SFP LC LX Transceiver: An SFP format gigabit transceiver with LC connectors using LX technology.</p>	<p>Environment</p>	<p>Operating temperature: 32°F to 158°F (0°C to 70°C) Operating relative humidity: 0% to 85%, noncondensing Nonoperating/Storage temperature: -40°F to 212°F (-40°C to 100°C) Altitude: up to 10,000 ft. (3 km)</p>
	<p>Cabling</p>	<p>Type:</p> <ul style="list-style-type: none"> • Either single mode or multimode; 62.5/125 μm or 50/125 μm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively; Low metal content, single-mode fiber-optic, complying with ITU-T G.652 and ISO/IEC 793-2 Type B1;
		<p>Maximum distance:</p> <ul style="list-style-type: none"> • 2-550 m (multimode 62.5 μm core diameter, 500 MHz*km bandwidth) • 2-550 m (multimode 50 μm core diameter, 400 MHz*km bandwidth) • 2-550 m (multimode 50 μm core diameter, 500 MHz*km bandwidth) • 2-10,000 m (single-mode fiber)
	<p>Notes</p>	<p>A mode conditioning patch cord may be needed in some multimode fiber installations. Wavelength: 1310nm</p>
	<p>Services</p>	<p>Power Consumption: < 500mW Typical 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.</p>
<p>HP X111 100M SFP LC FX Transceiver (J9054C)</p>	<p>Ports Physical characteristics</p>	<p>1 LC 100BASE-FX port (IEEE 802.3u Type 100BASE-FX); Duplex: half or full Dimensions 2.7(d) x 0.54(w) x 0.48(h) in. (6.86 x 1.38 x 1.22 cm)</p>
	<p>Environment</p>	<p>Weight 0.06 lb. (0.03 kg) Operating temperature 32°F to 158°F (0°C to 70°C) Operating relative humidity 5% to 95% Nonoperating/Storage temperature -40°F to 185°F (-40°C to 85°C) Nonoperating/Storage relative humidity 5% to 85% Altitude up to 10,000 ft. (3 km)</p>



Accessory Product Details

Cabling	<p>Cable type: 62.5/125 μm or 50/125 μm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively; Maximum distance: • 2 km (full duplex) or 412 m (half duplex)</p>
Notes	<p>Transmitter wavelength: 1310nm Power consumption is 1.1 watt maximum. For supported platforms and minimum software requirements to support this product, see the document titled "Support for the J9054B 100-FX SFP-LC Transceiver" on the "ProCurve Mini-GBICs and SFPs" Manuals Web page.</p>
Services	<p>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.</p>

To learn more, visit: www.hp.com/networking

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