

Overview

Models

| | |
|----------------------|--------|
| HP 1410-8G Switch | J9559A |
| HP 1410-16G Switch | J9560A |
| HP 1410-24G-R Switch | JG708A |
| HP 1410-24G Switch | J9561A |
| HP 1410-8 Switch | J9661A |
| HP 1410-16 Switch | J9662A |
| HP 1410-24 Switch | J9663A |
| HP 1410-24-R Switch | JD986B |
| HP 1410-24-2G Switch | J9664A |

Key features

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

Product overview

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 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 lifetime warranty, making the series the right choice for organizations seeking a networking solution that's both economical and reliable.

Features and benefits

Quality of Service (QoS)

- **IEEE 802.1p prioritisation**
delivers data to devices based on the priority and type of traffic
- **DiffServ Code Point (DSCP) support**
allows real-time traffic prioritisation based on Layer 3 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



Overview

- **NEW Energy-efficient Ethernet support**
supports new IEEE 802.3az standard; allows lower power consumption when operated with IEEE-compliant client devices in 100 Mb/s mode only (JG708A, J9662A and J9663A switches)
- **Half-/full-duplex auto-negotiating capability on every port**
doubles the throughput of every port
- **NEW Jumbo frame support**
allows frames up to 9216 bytes to be switched through the network (Gigabit Ethernet models)
- **Mini jumbo frame support**
allows frames up to 2048 bytes to be switched through the network, which supports large data transfers (J9662A and J9663A switches)

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**
selects individual port speed automatically 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
- **NEW Internal power supply**
provides operation convenience and a neat operation environment (JG708A, J9561A and JD986B switches)

Warranty and support

- **NEW Lifetime Warranty 2.0**
advance hardware replacement for as long as you own the product with next-business-day delivery (available in most countries)†
- **NEW Electronic and telephone support (for 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 complete warranty period; to reach our support centres, refer to www.hp.com/networking/contact-support; for details on the duration of support provided with your product purchase, refer to www.hp.com/networking/warrantysummary

* HP warranty includes repair or replacement of hardware for as long as you own the product, with next business day advance replacement (available in most countries). The disk drive included with HP AllianceOne Advanced Services and Services z1 Modules, HP Threat Management Services z1 Module, HP AllianceOne Extended z1 Module with Riverbed Steelhead, HP MSM765 z1 Mobility Controller and HP Survivable Branch Communication z1 Module powered by Microsoft® Lync has a five-year hardware warranty. For details, refer to the Software license and hardware warranty statements at www.hp.com/networking/warranty

Configuration

Build To Order: BTO is a standalone unit with no integration. BTO products ship standalone are not part of a CTO or Rack-Shippable solution.

| | |
|--|---|
| HP 1410-8G Switch <ul style="list-style-type: none">8 autosensing 10/100/1000 ports | J9559A See Configuration Note:2 |
| HP 1410-16G Switch <ul style="list-style-type: none">16 autosensing 10/100/1000 ports1U - Height | J9560A See Configuration Note:2 |
| HP 1410-24G-R Switch <ul style="list-style-type: none">24 autosensing 10/100/1000 ports1U - Height | JG708A See Configuration Note:2 |
| HP 1410-24G Switch <ul style="list-style-type: none">22 autosensing 10/100/1000 ports2 dual-personality ports; either an RJ-45 10/100/1000 port or an open mini-GBIC slot1U - Height | J9561A See Configuration Note:1, 3 |
| PDU Cable NA/MX/TW/JP <ul style="list-style-type: none">C15 PDU Jumper Cord (NA/MX/TW/JP) | J9561A #B2B |
| PDU Cable ROW <ul style="list-style-type: none">C15 PDU Jumper Cord (ROW) | J9561A #B2C |
| HP 1410-8 Switch <ul style="list-style-type: none">8 autosensing 10/100 ports | J9661A See Configuration Note:2 |
| HP 1410-16 Switch <ul style="list-style-type: none">16 autosensing 10/100 ports1U - Height | J9662A See Configuration Note:2 |
| HP 1410-24 Switch <ul style="list-style-type: none">24 autosensing 10/100 ports1U - Height | J9663A See Configuration Note:2 |
| HP 1410-24-R Switch <ul style="list-style-type: none">24 autosensing 10/100 ports1U - Height | JD986B See Configuration Note:2 |

Configuration

| | |
|--|--------------------------|
| HP 1410-24-2G Switch | J9664A |
| <ul style="list-style-type: none">• 24 autosensing 10/100ports• 2 autosensing 10/100/1000 ports• 1U - Height | See Configuration Note:2 |

Configuration Rules:

| | |
|--------|---|
| Note 1 | The following Transceivers install into this switch: HP X121 1G SFP LC SX Transceiver J4858C HP X121 1G SFP LC LX Transceiver J4859C HP X111 100M SFP LC FX Transceiver J9054C |
| Note 2 | Localization required. (See Localization Menu for list.) |
| Note 3 | Localization (Wall Power Cord) required on orders without #B2B or #B2C (PDU Power Cord). (See Localization Menu) |

Internal or External Power Supplies(Model Dependant)

Power supplies included

Enter the following menu selections as integrated to the CTO Model X server above if order is factory built.

Transceivers

SFP Transceivers

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

Cables

Multi-Mode Cables

| | |
|--------------------------------------|--------|
| HP .5m Multi-mode OM3 LC/LC FC Cable | AJ833A |
| HP 1m Multi-mode OM3 LC/LC FC Cable | AJ834A |
| HP 2 m Multimode OM3 LC/LC FC Cable | AJ835A |
| HP 5 m Multimode OM3 LC/LC FC Cable | AJ836A |
| HP 15 m Multimode OM3 LC/LC FC Cable | AJ837A |
| HP 30 m Multimode OM3 LC/LC FC Cable | AJ838A |
| HP 50 m Multimode OM3 LC/LC FC Cable | AJ839A |
| HP Premier Flex LC/LC OM4 2f 1m Cbl | QK732A |

Configuration

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|--------------------------------------|--------|
| HP Premier Flex LC/LC OM4 2f 2m Cbl | QK733A |
| HP Premier Flex LC/LC OM4 2f 5m Cbl | QK734A |
| HP Premier Flex LC/LC OM4 2f 15m Cbl | QK735A |
| HP Premier Flex LC/LC OM4 2f 30m Cbl | QK736A |
| HP Premier Flex LC/LC OM4 2f 50m Cbl | QK737A |

Technical Specifications

HP 1410-8G Switch (J9559A)

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|-----------------------------------|--|---|
| I/O ports and slots | 8 RJ-45 autosensing 10/100/1000 ports; Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) | |
| | Supports a maximum of 8 autosensing 10/100/1000 ports | |
| Physical characteristics | Dimensions | 6.14(w) x 3.8(d) x 0.96(h) in (15.6 x 9.65 x 2.45 cm) |
| | Weight | 0.74 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 | 11.9 Mpps (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 | Frequency | 50/60 Hz |
| | Maximum heat dissipation | 41 BTU/hr (43.26 kJ/hr) |
| | Voltage | 100 - 240 VAC |
| | Current | 1.0 A |
| | Maximum power rating | 12 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. |
| | | 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. |
| 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 |

Technical Specifications

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|---------------------------------------|----------------|
| 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)
 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)

I/O ports and slots

16 RJ-45 autosensing 10/100/1000 ports; Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T)

Supports a maximum of 16 autosensing 10/100/1000 ports

Physical characteristics

Dimensions 8.21(w) x 4.41(d) x 1.73(h) in (20.85 x 11.2 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 23.8 Mpps (64-byte packets)
Switching capacity 32 Gb/s

Technical Specifications

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|-----------------------------------|---|---|
| Environment | MAC address table size | 8192 entries |
| | 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 | Frequency | 50/60 Hz |
| | Maximum heat dissipation | 44 BTU/hr (46.42 kJ/hr) |
| | Voltage | 100 - 240 VAC |
| | Current | 1.1 A |
| | Maximum power rating | 13 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. 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. |
| | 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) | |

Technical Specifications

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 local HP sales office.

HP 1410-24G-R Switch (JG708A)

| | |
|-----------------------------------|---|
| I/O ports and slots | 24 RJ-45 autosensing 10/100/1000 ports; Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) Supports a maximum of 24 autosensing 10/100/1000 ports |
| Physical characteristics | Dimensions 17.32(w) x 6.81(d) x 1.73(h) in (44 x 17.3 x 4.4 cm) (1U height) Weight 6.61 lb (3 kg) |
| Memory and processor | 1 MB flash; packet buffer size: 512 KB |
| Mounting | Mounts in an EIA standard 19-inch telco rack (hardware included); desktop 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 35.7 Mpps (64-byte packets) Switching capacity 48 Gb/s MAC address table size 8192 entries |
| Environment | 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 5% to 90% @ 149°F (65°C), noncondensing Altitude up to 16,404 ft (5 km) Acoustic Power: 0 dB No fan |
| Electrical characteristics | Frequency 50/60 Hz Maximum heat dissipation 55 BTU/hr (58 kJ/hr) Voltage 100 - 240 VAC Current 0.3 A |

Technical Specifications

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|-----------------------------|---|
| Maximum power rating | 16 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. |

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 | |

Notes 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.

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 local HP sales office.

HP 1410-24G Switch (J9561A)



Technical Specifications

| | | |
|-----------------------------------|--|---|
| I/O ports and slots | <p>22 RJ-45 autosensing 10/100/1000 ports; Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T)</p> <p>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)</p> <p>Supports a maximum of 24 Gigabit Ethernet ports</p> | |
| Physical characteristics | Dimensions | 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) |
| 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 | 35.7 Kpps (64-byte packets) |
| | Switching capacity | 48 Gb/s |
| | 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 No fan |
| Electrical characteristics | Frequency | 50/60 Hz |
| | 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 |
| | Notes | <p>Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.</p> <p>This model provides internal power supply. Please select the correct power cord country option.</p> |
| 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 |

Technical Specifications

| | |
|---------------------------------------|----------------|
| 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 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)

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 1410-8 Switch (J9661A)

| | | |
|---------------------------------|--|---|
| I/O ports and slots | 8 RJ-45 autosensing 10/100 ports; Duplex: half or full (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX) | |
| | Supports a maximum of 8 autosensing 10/100 ports | |
| Physical characteristics | Dimensions | 6.14(w) x 3.74(d) x 0.97(h) in (15.6 x 9.5 x 2.46 cm) |
| | Weight | 0.74 lb (0.34 kg) |
| Memory and processor | 16 Kb EEPROM; packet buffer size: 96 KB | |
| Mounting | Wall, desktop, and under-table mounting | |
| Performance | 100 Mb Latency | < 3.7µs (LIFO 64-byte packets) |
| | Throughput | 1.1 Mpps (64-byte packets) |
| | Switching capacity | 1.6 Gb/s |
| | MAC address table size | 1024 entries |
| Environment | Operating temperature | 32°F to 104°F (0°C to 40°C) |

Technical Specifications

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|-----------------------------------|--|--|
| | 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 | Frequency | 50/60 Hz |
| | 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 |
| | Notes | <p>Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.</p> <p>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.</p> |
| 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) | |

Technical Specifications

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.

HP 1410-16 Switch (J9662A)

| | | | | | | | | | | | | | | | |
|---|---|------------------------------|---|------------------------------------|--|---|--------------------------------|---|--|-----------------|-------------------------|-----------------------------|--------------------|--------------|---|
| Ports | 16 RJ-45 autosensing 10/100 ports; Duplex: half or full (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX) | | | | | | | | | | | | | | |
| | Supports a maximum of 16 autosensing 10/100 ports | | | | | | | | | | | | | | |
| Physical characteristics | <table border="0"> <tr> <td style="vertical-align: top;">Dimensions</td> <td>8.21 (w) x 4.21 (d) x 1.73 (h) in (20.85 x 10.69 x 4.39 cm) (1U height)</td> </tr> <tr> <td style="vertical-align: top;">Weight</td> <td>1.43 lb (0.65 kg)</td> </tr> </table> | Dimensions | 8.21 (w) x 4.21 (d) x 1.73 (h) in (20.85 x 10.69 x 4.39 cm) (1U height) | Weight | 1.43 lb (0.65 kg) | | | | | | | | | | |
| Dimensions | 8.21 (w) x 4.21 (d) x 1.73 (h) in (20.85 x 10.69 x 4.39 cm) (1U height) | | | | | | | | | | | | | | |
| 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-inch telco rack (hardware included); wall, desktop and under-table mounting | | | | | | | | | | | | | | |
| Performance | <table border="0"> <tr> <td style="vertical-align: top;">100 Mb Latency</td> <td>< 10.6 μs (LIFO 64-byte packets)</td> </tr> <tr> <td style="vertical-align: top;">Throughput</td> <td>2.3 Mpps (64-byte packets)</td> </tr> <tr> <td style="vertical-align: top;">Switching capacity</td> <td>3.2 Gb/s</td> </tr> <tr> <td style="vertical-align: top;">MAC address table size</td> <td>8192 entries</td> </tr> </table> | 100 Mb Latency | < 10.6 μ s (LIFO 64-byte packets) | Throughput | 2.3 Mpps (64-byte packets) | Switching capacity | 3.2 Gb/s | MAC address table size | 8192 entries | | | | | | |
| 100 Mb Latency | < 10.6 μ s (LIFO 64-byte packets) | | | | | | | | | | | | | | |
| Throughput | 2.3 Mpps (64-byte packets) | | | | | | | | | | | | | | |
| Switching capacity | 3.2 Gb/s | | | | | | | | | | | | | | |
| MAC address table size | 8192 entries | | | | | | | | | | | | | | |
| Environment | <table border="0"> <tr> <td style="vertical-align: top;">Operating temperature</td> <td>32°F to 104°F (0°C to 40°C)</td> </tr> <tr> <td style="vertical-align: top;">Operating relative humidity</td> <td>15% to 95% @ 104°F (40°C), noncondensing</td> </tr> <tr> <td style="vertical-align: top;">Nonoperating/Storage temperature</td> <td>-40°F to 158°F (-40°C to 70°C)</td> </tr> <tr> <td style="vertical-align: top;">Nonoperating/Storage relative humidity</td> <td>15% to 90% @ 149°F (65°C), noncondensing</td> </tr> <tr> <td style="vertical-align: top;">Altitude</td> <td>up to 10,000 ft. (3 km)</td> </tr> <tr> <td style="vertical-align: top;">Acoustic</td> <td>Power: 0 dB No fan</td> </tr> </table> | 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 | | | | | | | | | | | | | | |
| Electrical characteristics | <table border="0"> <tr> <td style="vertical-align: top;">Frequency</td> <td>50/60 Hz</td> </tr> <tr> <td style="vertical-align: top;">Maximum heat dissipation</td> <td>13 BTU/hr (13.72 kJ/hr)</td> </tr> <tr> <td style="vertical-align: top;">Voltage</td> <td>100 - 240 VAC</td> </tr> <tr> <td style="vertical-align: top;">DC voltage</td> <td>12 V</td> </tr> <tr> <td style="vertical-align: top;">Current</td> <td>0.3 A</td> </tr> <tr> <td style="vertical-align: top;">Maximum power rating</td> <td>3.6 W</td> </tr> <tr> <td style="vertical-align: top;">Notes</td> <td>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.</td> </tr> </table> | Frequency | 50/60 Hz | 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 | 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. |
| Frequency | 50/60 Hz | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | |
| 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 adaptor part number ordered. Please select the correct power adaptor

Technical Specifications

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 | <table> <tr> <td>Generic</td> <td>EN 55022 CISPR 22</td> </tr> <tr> <td>EN</td> <td>EN 55024, CISPR 24</td> </tr> <tr> <td>ESD</td> <td>IEC 61000-4-2</td> </tr> <tr> <td>Radiated</td> <td>IEC 61000-4-3</td> </tr> <tr> <td>EFT/Burst</td> <td>IEC 61000-4-4</td> </tr> <tr> <td>Surge</td> <td>IEC 61000-4-5</td> </tr> <tr> <td>Conducted</td> <td>IEC 61000-4-6</td> </tr> <tr> <td>Power frequency magnetic field</td> <td>IEC 61000-4-8</td> </tr> <tr> <td>Voltage dips and interruptions</td> <td>IEC 61000-4-11</td> </tr> <tr> <td>Harmonics</td> <td>IEC 61000-3-2</td> </tr> <tr> <td>Flicker</td> <td>IEC 61000-3-3</td> </tr> </table> | 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 |
| 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 | <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 Yr 6 hr Call-to-Repair Onsite (UW389E)</p> <p>4 Yr 6 hr Call-to-Repair Onsite (UW390E)</p> <p>5 Yr 6 hr Call-to-Repair Onsite (UW391E)</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.

HP 1410-24 Switch (J9663A)

| | | | | | |
|---------------------------------|---|-------------------|--|---------------|-------------------|
| I/O ports and slots | 24 RJ-45 autosensing 10/100 ports; Duplex: half or full (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX) | | | | |
| | Supports a maximum of 24 autosensing 10/100 ports | | | | |
| Physical characteristics | <table> <tr> <td>Dimensions</td> <td>13.23(w) x 6.65(d) x 1.73(h) in (33.6 x 16.89 x 4.39 cm) (1U height)</td> </tr> <tr> <td>Weight</td> <td>2.98 lb (1.35 kg)</td> </tr> </table> | Dimensions | 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) |
| Dimensions | 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) | | | | |
| 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 | | | | |

Technical Specifications

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|-----------------------------------|---|---|
| Performance | 100 Mb Latency | < 11 μ s (LIFO 64-byte packets) |
| | Throughput | 3.5 Mpps (64-byte packets) |
| | Switching capacity | 4.8 Gb/s |
| | 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 No fan | |
| Electrical characteristics | 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 |
| | 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 adaptor part number ordered. Please select the correct power adaptor 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 |

Technical Specifications

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|-----------------|--|---------------|
| | Flicker | IEC 61000-3-3 |
| Notes | 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. | |
| 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-R Switch (JD986B)

| | | |
|-----------------------------------|---|--|
| I/O ports and slots | 24 RJ-45 autosensing 10/100 ports; Duplex: half or full (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX) | |
| | Supports a maximum of 24 autosensing 10/100 ports | |
| Physical characteristics | Dimensions | 17.32(w) x 6.81(d) x 1.73(h) in (44 x 17.3 x 4.4 cm) |
| | Weight | 4.41 lb (2.0 kg) |
| Memory and processor | 8kb EEPROM; packet buffer size: 2 Mb | |
| Mounting | Mounts in an EIA standard 19-inch telco rack (hardware included); desktop mounting | |
| Performance | 100 Mb Latency | < 11 μ s (LIFO 64-byte packets) |
| | Throughput | 3.5 Mpps (64-byte packets) |
| | Switching capacity | 4.8 Gb/s |
| | 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 | 5% to 90% @ 149°F (65°C), noncondensing |
| | Altitude | up to 16,404 ft (5 km) |
| | Acoustic | Power: 0 dB No fan |
| Electrical characteristics | Frequency | 50/60 Hz |
| | Maximum heat dissipation | 21 BTU/hr (22 kJ/hr) |

Technical Specifications

| | |
|-----------------------------|---|
| Voltage | 100 - 240 VAC |
| DC voltage | 3.3 V |
| Current | 1.1 A |
| Maximum power rating | 3.6 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 an internal power supply. Please select the correct power cord 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 (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)
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 local HP sales office.

HP 1410-24-2G Switch (J9664A)



Technical Specifications

| | | |
|-----------------------------------|--|---|
| I/O ports and slots | 24 RJ-45 autosensing 10/100 ports; Duplex: half or full (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX) 2 RJ-45 autosensing 10/100/1000 ports; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) Supports a maximum of 24 autosensing 10/100 ports plus 2 autosensing 10/100/1000 ports | |
| Physical characteristics | Dimensions | 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) |
| 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 | 6.5 Mpps (64-byte packets) |
| | Switching capacity | 8.8 Gb/s |
| | 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 | 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 |
| | 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 adaptor part number ordered. Please select the correct power adaptor 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 |

Technical Specifications

| | |
|---------------------------------------|----------------|
| 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)
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 local HP sales office.

Standards and protocols (applies to all products in series)

General protocols

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 autonegotiation
IEEE 802.3x Flow Control

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 |
| 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 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 |

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 Cabling
LC/LC Optical Cable
(AJ833A)**

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: 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 LC/LC Optical Cable
(AJ834A)

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 ± 3.0µm Cladding diameter: 125 ± 2.0µm Coating diameter: 245 ± 10µm
- 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 50/125µm 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 LC/LC Optical Cable
(AJ835A) **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 ± 3.0µm Cladding diameter: 125 ± 2.0µm Coating diameter: 245 ± 10µm
- 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 50/125µm 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 LC/LC Optical Cable **Cabling**
(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 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end.

- Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um
- 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 50/125um 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 Cabling
LC/LC Optical Cable
(AJ837A)

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 Cabling
LC/LC Optical Cable
(AJ838A)**

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 ± 3.0µm Cladding diameter: 125 ± 2.0µm Coating diameter: 245 ± 10µm
- 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 50/125µm 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 Cabling
LC/LC Optical Cable
(AJ839A)

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 Premier Flex LC/LC
Multi-mode OM4 2 fiber
1m Cable (QK732A)**

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 Premier Flex LC/LC
Multi-mode OM4 2 fiber
2m Cable (QK733A)**

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.

Accessory Product Details

**HP Premier Flex LC/LC
Multi-mode OM4 2 fiber
5m Cable (QK734A)**

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 Premier Flex LC/LC
Multi-mode OM4 2 fiber
15m Cable (QK735A)**

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 Premier Flex LC/LC
Multi-mode OM4 2 fiber
30m Cable (QK736A)**

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 Premier Flex LC/LC
Multi-mode OM4 2 fiber
50m Cable (QK737A)**

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

| | | |
|--|---|--|
| <p>HP X121 1G SFP LC SX Transceiver (J4858C)</p> | <p>Ports Physical characteristics</p> | <p>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</p> |
| <p>A small form-factor pluggable (SFP) Gigabit SX transceiver that provides a full-duplex Gigabit solution up to 550 m on multimode fiber.</p> | <p>Environment</p> | <p>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)</p> |
| | <p>Electrical characteristics</p> | <p>Power consumption typical: 0.4 W Power consumption maximum: 0.7 W</p> |
| | <p>Cabling</p> | <p>Type:</p> <ul style="list-style-type: none"> ● 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; |
| | | <p>Maximum distance:</p> <ul style="list-style-type: none"> ● 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) |
| | <p>Services</p> | <p>Cable length: 2-550m Fiber type: Multi Mode 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 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) |

Accessory Product Details

| | |
|-----------------|---|
| Notes | A mode conditioning patch cord may be needed in some multimode fiber installations. Wavelength: 1310nm Power Consumption: < 500mW Typical |
| 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 X111 100M SFP LC FX Transceiver (J9054C) | Ports | 1 LC 100BASE-FX port (IEEE 802.3u Type 100BASE-FX); Duplex: half or full | |
| | Physical characteristics | Dimensions | 2.7(d) x 0.54(w) x 0.48(h) in. (6.86 x 1.38 x 1.22 cm) |
| | | Weight | 0.06 lb. (0.03 kg) |
| | | Environment | Operating temperature |
| | 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% |
| | Cabling | Altitude | up to 10,000 ft. (3 km) |
| | | Notes | Cable type: 62.5/125 μ m or 50/125 μ m (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) |
| | | | Services |
| 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. | | |

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