

Overview

Aruba 2620 Switch Series



Aruba 2620 Switch Series Family

Models

Aruba 2620 24 Switch	J9623A
Aruba 2620 24 PPOE+ Switch	J9624A
Aruba 2620 24 PoE+ Switch	J9625A
Aruba 2620 48 Switch	J9626A
Aruba 2620 48 PoE+ Switch	J9627A

Key features

- Cost-effective access layer switches
- Lite L3 IPv4/IPv6 static and RIP routing
- 30 W PoE+ support on PoE models
- Gigabit fiber uplinks
- Enterprise-class features

Product overview

The Aruba 2620 Switch Series consists of five switches with 10/100 connectivity. The 2620-24 Switch has a fan-less design for quiet operation, making it suitable for deployments in open spaces. The models 2620-24-PPoE+, 2620-24-PoE+ models, and 2620-48-PoE+ are IEEE 802.3af- and IEEE 802.3at-compliant switches that provide up to 30 W per powered port. The 2620-48 model has variable-speed fans for quiet operation.

All 2620 switches include two 10/100/1000BASE-T ports and two SFP slots for Gigabit Ethernet uplink connectivity. An optional redundant external power supply is also available to provide redundancy in the event of a power supply failure.

With IPv4/IPv6 static and RIP routing, robust security and management features, as well as Limited Lifetime Warranty and included software updates, the 2620 Switch Series is a cost-effective solution for those building converged enterprise-edge networks.

Features and benefits

Quality of Service (QoS)

- **Layer 4 prioritization**
enables prioritization based on TCP/UDP port numbers
- **Traffic prioritization (IEEE 802.1p)**
allows real-time traffic classification into eight priority levels mapped to eight queues
- **Class of Service (CoS)**
sets the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), Layer 3 protocol, TCP/UDP port number, source port, and DiffServ
- **Rate limiting**
sets per-port ingress enforced maximums and per-port, per-queue minimums

Connectivity

- **Auto-MDIX**
provides automatic adjustments for straight-through or crossover cables on all 10/100 and 10/100/1000 ports
- **IPv6**
 - **IPv6 host**
allows the switches to be managed and deployed at the edge of an IPv6 network
 - **Dual stack (IPv4/IPv6)**
provides a transition mechanism from IPv4 to IPv6; and supports connectivity for both protocols
 - **MLD snooping**
forwards IPv6 multicast traffic to the appropriate interface; and helps prevent IPv6 multicast traffic from flooding the network
 - **Security**
RA Guard, DHCPv6 Protection, Dynamic IPv6 Lockdown
- **IEEE 802.3af Power over Ethernet (PoE)**
provides up to 15.4 W per port to IEEE 802.3af-compliant PoE-powered devices such as IP phones, wireless access points, and security cameras
- **IEEE 802.3at PoE+**
provides up to 30 W per port to IEEE 802.3 for PoE-/PoE+-powered devices such as video IP phones, IEEE 802.11n wireless access points, and advanced pan/tilt/zoom security cameras
- **Pre-standard PoE support**
detects and provides power to pre-standard PoE devices (refer to the list of supported devices in the product FAQs, which can be accessed at <http://www.hpe.com/networking>)
- **Single IP address management**
provides single-IP-address management for a virtual stack of up to 16 switches

Resiliency and high availability

- **External redundant power supply**
provides high reliability
- **IEEE 802.3ad Link Aggregation Protocol (LACP) and Hewlett Packard Enterprise port trunking**
support up to 24 trunks, each with up to 8 links (ports) per trunk
- **IEEE 802.1s Multiple Spanning Tree**
provides high link availability in multiple VLAN environments by allowing multiple spanning trees
- **SmartLink**
provides easy-to-configure link redundancy of active and standby links

Manageability

- **Dual flash images**
provides independent primary and secondary operating system files for backup while upgrading
- **Friendly port names**
allows assignment of descriptive names to ports
- **Multiple configuration files**
stores easily to the flash image
- **Port mirroring**
enables traffic on a port to be simultaneously sent to a network analyzer for monitoring
- **sFlow (RFC 3176)**
delivers wire-speed traffic accounting and monitoring, configured by the SNMP and CLI with three terminal encrypted receivers

- **Remote monitoring (RMON)**
provides advanced monitoring and reporting capabilities for statistics, history, alarms, and events
- **Find, fix, and inform**
finds and fixes common network problems automatically, and then informs the administrator
- **Comware CLI**
 - **Comware-compatible CLI**
bridges the experience of Hewlett Packard Enterprise Comware CLI users who are using the ProVision CLI
 - **Display and fundamental Comware CLI commands**
are natively embedded in the switch CLI; display output is formatted as on Comware-based switches; fundamental commands provide Comware-familiar initial switch setup
 - **Configuration Comware CLI commands**
when Comware commands are entered, CLI help is elicited to formulate the correct ProVision software CLI command
- **TR-069 support**
enables zero-touch configuration for switches
- **Zero-Touch ProVisioning (ZTP)**
uses settings in DHCP to enable ZTP with Aruba AirWave Network Management

Layer 2 switching

- **VLANs**
provide support for 512 VLANs and 4,094 VLAN IDs
- **Jumbo packet support**
improves the performance of large data transfers; supports frame size of up to 9220 bytes
- **IEEE 802.1v protocol VLANs**
isolate select non-IPv4 protocols automatically into their own VLANs
- **Per-VLAN Spanning Tree Plus (PVST+)**
allows each VLAN to build a separate spanning tree to improve link bandwidth usage in network environments with multiple V

Layer 3 routing

- **Static IP routing**
provides manually configured routing; includes ECMP capability
- **Routing Information Protocol (RIP)**
provides RIPv1 and RIPv2 routing

Security

- **Access control lists (ACLs)**
provide IP Layer 3 filtering based on source/destination IP address/subnet and source/destination TCP/UDP port number
- **Source-port filtering**
allows only specified ports to communicate with each other
- **RADIUS/TACACS+**
eases switch management security administration by using a password authentication server
- **Secure shell**
encrypts all transmitted data for secure remote CLI access over IP networks
- **Secure Sockets Layer (SSL)**
encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch
- **Port security**
allows access only to specified MAC addresses, which can be learned or specified by the administrator
- **MAC address lockout**
prevents particular configured MAC addresses from connecting to the network
- **Secure FTP**
allows secure file transfer to and from the switch; protects against unwanted file downloads or unauthorized copying of a switch configuration file
- **Custom banner**
displays security policy when users log in to the switch

- **Identity-driven ACL**
enables implementation of a highly granular and flexible access security policy and VLAN assignment specific to each authenticated network user
- **STP BPDU port protection**
blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks
- **STP root guard**
protects the root bridge from malicious attacks or configuration mistakes
- **DHCP protection**
blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks
- **Dynamic ARP protection**
blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data
- **Multiple user authentication methods**
 - **IEEE 802.1X**
uses an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server to authenticate in accordance with industry standards
 - **Web-based authentication**
provides a browser-based environment, similar to IEEE 802.1X, to authenticate clients that do not support the IEEE 802.1X supplicant
 - **MAC-based authentication**
authenticates the client with the RADIUS server based on the client's MAC address
- **Authentication flexibility**
 - **Multiple IEEE 802.1X users per port**
provides authentication of multiple IEEE 802.1X users per port; prevents a user from "piggybacking" on another user's IEEE 802.1X authentication
 - **Concurrent IEEE 802.1X, Web, and MAC authentication schemes per port**
switch port will accept up to 32 sessions of IEEE 802.1X, Web, and MAC authentications
- **Port mirroring for network threats**
provides sampled port traffic, using sFlow technology, to the HPE Network Immunity Manager application for network-behavior-anomaly-detection analysis—to detect and mitigate threats at the ports where the threats originate
- **Per-port broadcast throttling**
selectively configures broadcast control on heavy traffic port uplinks

Convergence

- **IP multicast snooping and data-driven IGMP**
automatically prevent flooding of IP multicast traffic
- **LLDP-MED (Media Endpoint Discovery)**
defines a standard extension of LLDP that stores values for parameters such as QoS and VLAN to automatically configure network devices such as IP phones
- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP)**
facilitates easy mapping using network management applications with LLDP automated device discovery protocol
- **PoE and PoE+ allocations**
support multiple methods—automatic, IEEE 802.3at dynamic, LLDP-MED fine grain, IEEE 802.3af device class, or user specified—to allocate and manage PoE/PoE+ power for more efficient energy use
- **LLDP-CDP compatibility**
receives and recognizes CDP packets from Cisco's IP phones for seamless interoperation
- **Local MAC Authentication**
assigns attributes such as VLAN and QoS using locally configured profile that can be a list of MAC prefixes

Unified Wired and Wireless

- **ClearPass Policy Manager support**
unified wired and wireless policies using Aruba ClearPass Policy Manager
- **HTTP redirect function**
supports HPE Intelligent Management Center (IMC) bring your own device (BYOD) solution
- **Switch auto-configuration**
automatically configures switch for different settings such as VLAN, CoS, PoE max power, and PoE

priority when an Aruba access point is detected

- **User role**

defines a set of switch-based policies in areas such as security, authentication, and QoS. A user role can be assigned to a group of users or devices, using switch configuration or ClearPass

Monitor and diagnostics

- **Port mirroring**

enables traffic on a port to be simultaneously sent to a network analyzer for monitoring

- **Software updates**

free downloads from the Web

Flexibility

- **Quiet operation**

- **Fan-less design (2620-24 switch)**

enables quiet operation for deployment in open spaces

- **Variable-speed fans (2620-24-PPoE+, 2620-24-PoE+, 2620-48, and 2620-48-PoE+ switches)**

improve fan speed for the operating environment, while keeping noise and energy consumption levels to a minimum

- **Flexible mounting**

- **Rack mountable**

allows the switch to be mounted on a standard 19-inch rack, with the hardware included

- **Surface mountable**

allows the switch to be mounted above or below a surface (such as a desk or table), using the hardware included

Warranty and support

- **Limited Lifetime Warranty**

See <http://www.hpe.com/networking/warrantysummary> for warranty and support information included with your product purchase.

- **Software releases**

to find software for your product, refer to <http://www.hpe.com/networking/support>; for details on the software releases available with your product purchase, refer to

<http://www.hpe.com/networking/warrantysummary>

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.

Aruba 2620 24 Switch

- 2 autosensing 10/100/1000 port(RJ-45)
- 24 autosensing 10/100 ports (RJ-45)
- 2 open mini-GBIC (SFP) slots
- min=0 \ max=2 SFP Transceivers
- 1U - Height

J9623A

See
Configuration
NOTE: 1, 2

PDU CABLE NA/MEX/TW/JP

- C15 PDU Jumper Cord (NA/MEX/TW/JP)

J9623A#B2B

PDU CABLE ROW

J9623A#B2C

• C15 PDU Jumper Cord (ROW)	
Aruba 2620 24 PPoE+ Switch • 2 autosensing 10/100/1000 port(RJ-45) • 12 RJ-45 autosensing 10/100 ports • 12 RJ-45 autosensing 10/100 PoE+ ports • 2 open mini-GBIC (SFP) slots • min=0 \ max=2 SFP Transceivers • 1U - Height	J9624A See Configuration NOTE: 1, 2
PDU CABLE NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9624A#B2B
PDU CABLE ROW • C15 PDU Jumper Cord (ROW)	J9624A#B2C
Aruba 2620 24 PoE+ Switch • 2 autosensing 10/100/1000 port(RJ-45) • 24 RJ-45 autosensing 10/100 PoE+ ports • 2 open mini-GBIC (SFP) slots • min=0 \ max=2 SFP Transceivers • 1U - Height	J9625A See Configuration NOTE: 1, 2
PDU CABLE NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9625A#B2B
PDU CABLE ROW • C15 PDU Jumper Cord (ROW)	J9625A#B2C
Aruba 2620 48 Switch • 2 RJ-45 autosensing 10/100/1000 port (RJ-45) • 48 RJ-45 autosensing 10/100 ports (RJ-45) • 2 open mini-GBIC (SFP) slots • min=0 \ max=2 SFP Transceivers • 1U - Height	J9626A See Configuration NOTE: 1, 2
PDU CABLE NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9626A#B2B
PDU CABLE ROW • C15 PDU Jumper Cord (ROW)	J9626A#B2C
Aruba 2620 48 PoE+ Switch • 48 RJ-45 autosensing 10/100 PoE+ ports • 2 autosensing 10/100/1000 port (RJ-45) • 2 open mini-GBIC (SFP) slots • min=0 \ max=2 SFP Transceivers • 1U - Height	J9627A See Configuration NOTE: 1, 2
PDU CABLE NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9627A#B2B
PDU CABLE ROW • C15 PDU Jumper Cord (ROW)	J9627A#B2C

Configuration Rules:

NOTE 1	The following Transceivers install into this Switch:	
	Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858D
	Aruba 1G SFP LC LX 10km SMF Transceiver	J4859D
	Aruba 1G SFP LC LH 70km SMF Transceiver	J4860D
	Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177D
	Aruba 100M SFP LC FX 2km MMF Transceiver	J9054D

NOTE 2 Localization required on orders without #B2B or #B2C options.

Rack Level Integration CTO Models

Aruba 2620 24 Switch	J9623A
2 autosensing 10/100/1000 port (RJ-45) 24 autosensing 10/100 ports (RJ-45) 2 open mini-GBIC (SFP) slots - min=0 \ max=2 SFP Transceivers 1U - Height	See Configuration NOTE: 1, 2, 3
PDU CABLE NA/MEX/TW/JP	J9623A#B2B
C15 PDU Jumper Cord (NA/MEX/TW/JP)	
PDU CABLE ROW	J9623A#B2C
C15 PDU Jumper Cord (ROW)	
Aruba 2620 24 PPOE+ Switch	J9624A
2 autosensing 10/100/1000 port (RJ-45) 12 RJ-45 autosensing 10/100 ports 12 RJ-45 autosensing 10/100 PoE+ ports 2 open mini-GBIC (SFP) slots - min=0 \ max=2 SFP Transceivers 1U - Height	See Configuration NOTE: 1, 2, 3
PDU CABLE NA/MEX/TW/JP	J9624A#B2B
C15 PDU Jumper Cord (NA/MEX/TW/JP)	
PDU CABLE ROW	J9624A#B2C
C15 PDU Jumper Cord (ROW)	
Aruba 2620 24 PoE+ Switch	J9625A
24 RJ-45 autosensing 10/100 PoE+ ports 2 autosensing 10/100/1000 port(RJ-45) 2 open mini-GBIC (SFP) slots - min=0 \ max=2 SFP Transceivers 1U - Height	See Configuration NOTE: 1, 2, 3
PDU CABLE NA/MEX/TW/JP	J9625A#B2B
C15 PDU Jumper Cord (NA/MEX/TW/JP)	
PDU CABLE ROW	J9625A#B2C
C15 PDU Jumper Cord (ROW)	
Aruba 2620 48 Switch	J9626A
48 autosensing 10/100 ports (RJ-45) 2 autosensing 10/100/1000 port(RJ-45) 2 open mini-GBIC (SFP) slots	See Configuration NOTE: 1, 2, 3

- min=0 \ max=2 SFP Transceivers
- 1U - Height

PDU CABLE NA/MEX/TW/JP J9626A#B2B

- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU CABLE ROW J9626A#B2C

- C15 PDU Jumper Cord (ROW)

Aruba 2620 48 PoE+ Switch J9627A

- 48 RJ-45 autosensing 10/100 PoE+ ports
- 2 autosensing 10/100/1000 port (RJ-45)
- 2 open mini-GBIC (SFP) slots
- min=0 \ max=2 SFP Transceivers
- 1U - Height

See Configuration
NOTE: 1, 2, 3

PDU CABLE NA/MEX/TW/JP J9627A#B2B

- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU CABLE ROW J9627A#B2C

- C15 PDU Jumper Cord (ROW)

Configuration Rules:

NOTE 1 The following Transceivers install into this Switch:

Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858D
Aruba 1G SFP LC LX 10km SMF Transceiver	J4859D
Aruba 1G SFP LC LH 70km SMF Transceiver	J4860D
Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177D
Aruba 100M SFP LC FX 2km MMF Transceiver	J9054D

NOTE 2 Localization required on orders without #B2B or #B2C options.

NOTE 3 If this switch is factory installed in HP Universal Racks, Then the J9583A#0D1 is required.

Remarks: Drop down under power supply should offer the following options and results:
Switch/Router/Power Supply to PDU Power Cord - #B2B in North America, Mexico, Taiwan, and Japan or #B2C ROW. (Watson Default B2B or B2C for Rack Level CTO)
Switch/Router/Power Supply to Wall Power Cord - Localized Option (Watson Default for BTO and Box Level CTO)

Internal Power Supplies

Power supplies included in base model.

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

Transceivers

SFP Transceivers

Aruba 100M SFP LC FX 2km MMF Transceiver	J9054D
Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858D
Aruba 1G SFP LC LX 10km SMF Transceiver	J4859D
Aruba 1G SFP LC LH 70km SMF Transceiver	J4860D

Switch Enclosure Options

Rack Mount Kit

System (std 0 // max 1) User Selection (min 1 // max 1) per switch enclosure

HPE X410 1U Universal 4-post Rackmount Kit	J9583A See Configuration NOTE: 1
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Configuration Rules:

NOTE 1 Default with switch.

External Redundant Power supplies

HPE ProCurve 630 Redundant and/or External Power Supply Height = 1U	J9443A See Configuration NOTE: 1, 2, 4
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No Power Cord No Localized Power Cord Selected	J9443A#AC3
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Configuration Rules:

NOTE 1 See HPE Networking Rack Menu for integration details.

NOTE 2 Supported on J9625A, J9627A only.

NOTE 3 Supported on J9623A, J9624A, J9626A only.

NOTE 4 Localization required

Technical Specifications

Aruba 2620 24 Switch (J9623A)

I/O ports and slots	24 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Media Type: Auto-MDIX; Duplex: half or full 2 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 2 open mini-GBIC (SFP) slots	
Additional ports and slots	1 RJ-45 serial console port	
Physical characteristics	Dimensions	17.44(w) x 10(d) x 1.73(h) in (44.3 x 25.4 x 4.39 cm) (1U height)
	Weight	5.71 lb (2.59 kg) shipping weight
Memory and processor	Processor	PowerPC FreeScale 8313 @ 400 MHz, 512 MB flash; Packet buffer size: 1 MB, 512 MB SDRAM, 4 MB flash ROM

Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	
	Performance	
	IPv6 Ready Certified	
	100 Mb Latency	< 8.3 μ s (LIFO 64-byte packets)
	1000 Mb Latency	< 2.9 μ s (LIFO 64-byte packets)
	Throughput	up to 9.5 Mpps
	Routing/Switching capacity	12.8 Gbps
	MAC address table size	16000 entries
Environment	Operating temperature	32°F to 131°F (0°C to 55°C)
	Operating relative humidity	15% to 95%, 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, Pressure: 0 dB No Fan
Electrical characteristics	Achieved Miercom Certified Green Award	
	Frequency	50/60 Hz
	Maximum heat dissipation	95 BTU/hr (100.23 kJ/hr)
	Voltage	100 - 127 / 200 - 240 VAC, rated
	Current	0.4/0.3 A
	Maximum power rating	28 W
	Idle power	13.3 W
	PoE power	0 W
	NOTES	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the power supplied by the internal power supply. It is dependent on the type and quantity of power supplies and may be supplemented with the use of an external power supply (EPS).
Safety	EN 60950/IEC 60950; CAN/CSA 22.2 No. 60950; EN 60825; UL 60950	
	Emissions	
	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A	
	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	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
Management	Aruba AirWave Network Management; IMC - Intelligent Management Center; Command-line interface; Web browser	
Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.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 Hewlett Packard Enterprise sales office.	

Aruba 2620 24 PPoE+ Switch (J9624A)

I/O ports and slots	12 RJ-45 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Media Type: Auto-MDIX; Duplex: half or full	
	12 RJ-45 autosensing 10/100 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3at PoE+); Duplex: half or full	
	2 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	
	2 open mini-GBIC (SFP) slots	
Additional ports and slots	1 RJ-45 serial console port	
Physical characteristics	Dimensions	17.44(w) x 10.0(d) x 1.73(h) in (44.30 x 25.4 x 4.39 cm) (1U height)
	Weight	7.03 lb (3.19 kg)
Memory and processor	Processor	PowerPC FreeScale 8313 @ 400 MHz, 512 MB flash; Packet buffer size: 1 MB, 512 MB SDRAM, 4 MB flash ROM
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	
Performance	IPv6 Ready Certified	
	100 Mb Latency	< 8.3 μs (LIFO 64-byte packets)
	1000 Mb Latency	< 2.9 μs (LIFO 64-byte packets)
	Throughput	up to 9.5 Mpps
	Routing/Switching capacity	12.8 Gbps
	MAC address table size	16000 entries
Environment	Operating temperature	32°F to 131°F (0°C to 55°C)
	Operating relative humidity	15% to 95%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	15% to 90%, noncondensing
	Altitude	up to 10,000 ft (3 km)
Electrical characteristics	Acoustic	Power: 37.1 dB, Pressure: 25.9 dB
	Achieved Miercom Certified Green Award	
	Frequency	50/60 Hz
	Maximum heat dissipation	177 BTU/hr (186.74 kJ/hr), (switch only: 177 BTU/hr; combined switch + max. PoE devices: 679 BTU/hr)
	Voltage	100 - 127 / 200 - 240 VAC, rated
	Current	1.8/1.0 A
	Maximum power rating	38.5 W

Idle power	22.0 W
PoE power	128 W
NOTES	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the power supplied by the internal power supply. It is dependent on the type and quantity of power supplies and may be supplemented with the use of an external power supply (EPS).

Safety	EN 60950/IEC 60950; CAN/CSA 22.2 No. 60950; EN 60825; UL 60950
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A
Immunity	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 EN 61000-3-2, IEC 61000-3-2 Flicker EN 61000-3-3, IEC 61000-3-3
Management	Aruba AirWave Network Management; IMC - Intelligent Management Center; Command-line interface; Web browser
Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.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 Hewlett Packard Enterprise sales office.

Aruba 2620 24 PoE+ Switch (J9625A)

I/O ports and slots	24 RJ-45 autosensing 10/100 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3at PoE+); Media Type: Auto-MDIX; Duplex: half or full 2 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 2 open mini-GBIC (SFP) slots	
Additional ports and slots	1 RJ-45 serial console port	
Physical characteristics	Dimensions	17.44(w) x 14.5(d) x 1.73(h) in (44.3 x 36.83 x 4.39 cm) (1U height)
	Weight	10.67 lb (4.84 kg) shipping weight
Memory and processor	Processor	Power PC FreeScale 8313 @ 400 MHz, 512 MB flash; Packet buffer size: 1 MB, 512 MB SDRAM, 4 MB flash ROM
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	
Performance	IPv6 Ready Certified	
	100 Mb Latency	< 8.3 µs (LIFO)
	1000 Mb Latency	< 2.9 µs (LIFO)

Environment	Throughput	up to 9.5 Mpps
	Routing/Switching capacity	12.8 Gbps
	MAC address table size	16000 entries
	Operating temperature	32°F to 131°F (0°C to 55°C)
	Operating relative humidity	15% to 95%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
Electrical characteristics	Nonoperating/Storage relative humidity	15% to 90%, noncondensing
	Altitude	up to 10,000 ft (3 km)
	Acoustic	Power: 34.0 dB, Pressure: 29.7 dB
	Achieved Miercom Certified Green Award	
	Frequency	50/60 Hz
	Maximum heat dissipation	270 BTU/hr (284.85 kJ/hr), (switch only: 270 BTU/hr; combined switch + max. PoE devices: 1751 BTU/hr)
	Voltage	100 - 127 / 200 - 240 VAC, rated
	Current	4.9/2.5 A
	Maximum power rating	39.5 W
	Idle power	22.8 W
Safety Emissions Immunity	PoE power	382 W
	NOTES	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the power supplied by the internal power supply. It is dependent on the type and quantity of power supplies and may be supplemented with the use of an external power supply (EPS).
	Safety	EN 60950/IEC 60950; CAN/CSA 22.2 No. 60950; EN 60825; UL 60950
	Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A
	Immunity	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
Management	Power frequency magnetic field	IEC 61000-4-8
	Voltage dips and interruptions	IEC 61000-4-11
	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
	Management	Aruba AirWave Network Management; IMC - Intelligent Management Center; Command-line interface; Web browser

Services

Refer to the Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

Aruba 2620 48 Switch (J9626A)

I/O ports and slots	48 autosensing 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX); Media Type: Auto-MDIX; Duplex: half or full	
	2 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only	
	2 open mini-GBIC (SFP) slots	
Additional ports and slots	1 RJ-45 serial console port	
Physical characteristics	Dimensions	17.44(w) x 10(d) x 1.73(h) in (44.30 x 25.4 x 4.39 cm) (1U height)
	Weight	6.48 lb (2.94 kg) shipping weight
Memory and processor	Processor	Power PC FreeScale 8313 @ 400 MHz, 512 MB flash; Packet buffer size: 2 MB, 512 MB SDRAM, 4 MB flash ROM
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	
Performance	IPv6 Ready Certified	
	100 Mb Latency	< 8.3 μ s (LIFO)
	1000 Mb Latency	< 2.9 μ s (LIFO)
	Throughput	up to 13.0 Mpps
	Routing/Switching capacity	17.6 Gbps
	MAC address table size	16000 entries
	Environment	Operating temperature 32°F to 131°F (0°C to 55°C)
		Operating relative humidity 15% to 95%, noncondensing
		Nonoperating/Storage temperature -40°F to 158°F (-40°C to 70°C)
		Nonoperating/Storage relative humidity 15% to 95%, noncondensing
Electrical characteristics	Altitude	up to 10,000 ft (3 km)
	Acoustic	Power: 36.5 dB, Pressure: 24.5 dB
	Achieved Miercom Certified Green Award*	
	Frequency	50/60 Hz
	Maximum heat dissipation	148 BTU/hr (156.14 kJ/hr)
	Voltage	100 - 127 / 200 - 240 VAC, rated
	Current	0.7/0.4 A
	Maximum power rating	43.5 W
	Idle power	19.4 W
	NOTES	Idle power is the actual power consumption of the device with no ports connected. 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	EN 60950/IEC 60950; CAN/CSA 22.2 No. 60950; EN 60825; UL 60950
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A
Immunity	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 EN 61000-3-2, IEC 61000-3-2 Flicker EN 61000-3-3, IEC 61000-3-3
Management	Aruba AirWave Network Management; IMC - Intelligent Management Center; Command-line interface; Web browser
Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.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 Hewlett Packard Enterprise sales office.

Aruba 2620 48 PoE+ Switch (J9627A)

I/O ports and slots	48 RJ-45 autosensing 10/100 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3at PoE+); Media Type: Auto-MDIX; Duplex: half or full 2 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 2 open mini-GBIC (SFP) slots	
Additional ports and slots	1 RJ-45 serial console port	
Physical characteristics	Dimensions	17.44(w) x 14.50(d) x 1.73(h) in (44.30 x 36.83 x 4.39 cm) (1U height)
	Weight	11.53 lb (5.23 kg) shipping weight
Memory and processor	Processor	PowerPC FreeScale 8313 @ 400 MHz, 512 MB flash; Packet buffer size: 2 MB, 512 MB SDRAM, 4 MB flash ROM
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	
Performance	IPv6 Ready Certified	
	100 Mb Latency	< 8.3 μ s (LIFO)
	1000 Mb Latency	< 2.9 μ s (LIFO)
	Throughput	up to 13.0 Mpps
	Routing/Switching capacity	17.6 Gbps
	MAC address table size	16000 entries
	Operating temperature	32°F to 131°F (0°C to 55°C)
Environment	Operating relative humidity	15% to 95%, noncondensing

Electrical characteristics	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	15% to 95%, noncondensing
	Altitude	up to 10,000 ft (3 km)
	Acoustic	Power: 34.0 dB, Pressure: 25.3 dB
	Achieved Miercom Certified Green Award	
	Frequency	50/60 Hz
	Maximum heat dissipation	325 BTU/hr (342.88 kJ/hr), (switch only: 325 BTU/hr; combined switch + max. PoE devices: 1833 BTU/hr)
	Voltage	100 - 127 / 200 - 240 VAC, rated
	Current	5.6/2.8 A
	Maximum power rating	54.9 W
	Idle power	29.6 W
	PoE power	382 W
	NOTES	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the power supplied by the internal power supply. it is dependent on the type and quantity of power supplies and may be supplemented with the use of an external power supply (EPS).
Safety Emissions Immunity		EN 60950/IEC 60950; CAN/CSA 22.2 No. 60950; EN 60825; UL 60950
		FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A
	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	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
Management	Aruba AirWave Network Management; IMC - Intelligent Management Center; Command-line interface; Web browser	
Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.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 Hewlett Packard Enterprise sales office.	

Standards and protocols (applies to all products in series)

Device Management	RFC 1591 DNS (client)
	RFC 2576 (Coexistence between SNMP V1, V2, V3)
	RFC 2579 (SMIv2 Text Conventions)

RFC 2580 (SMIPv2 Conformance)
RFC 3416 (SNMP Protocol Operations v2)
RFC 3417 (SNMP Transport Mappings)
HTML and telnet management

General Protocols

IEEE 802.1D MAC Bridges
IEEE 802.1p Priority
IEEE 802.1Q VLANs
IEEE 802.1s Multiple Spanning Trees
IEEE 802.1v VLAN classification by Protocol and Port
IEEE 802.1w Rapid Reconfiguration of Spanning Tree
IEEE 802.3ad Link Aggregation Control Protocol (LACP)
IEEE 802.3x Flow Control
RFC 768 UDP
RFC 783 TFTP Protocol (revision 2)
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 854 TELNET
RFC 868 Time Protocol
RFC 951 BOOTP
RFC 1058 RIPv1
RFC 1350 TFTP Protocol (revision 2)
RFC 1542 BOOTP Extensions
RFC 1918 Address Allocation for Private Internet
RFC 2030 Simple Network Time Protocol (SNTP) v4
RFC 2131 DHCP
RFC 2453 RIPv2
RFC 3046 DHCP Relay Agent Information Option
RFC 3575 IANA Considerations for RADIUS
RFC 5905 Network Time Protocol Version 4: Protocol and Algorithms Specification

IP Multicast

RFC 3376 IGMPv3 (host joins only)

IPv6

RFC 1981 IPv6 Path MTU Discovery
RFC 2460 IPv6 Specification
RFC 2464 Transmission of IPv6 over Ethernet Networks
RFC 2710 Multicast Listener Discovery (MLD) for IPv6
RFC 2925 Remote Operations MIB (Ping only)
RFC 3019 MLDv1 MIB
RFC 3315 DHCPv6 (client only)
RFC 3484 Default Address Selection for IPv6
RFC 3513 IPv6 Addressing Architecture
RFC 3596 DNS Extension for IPv6
RFC 3810 Multicast Listener Discovery Version 2 (MLDv2) for IPv6
RFC 4022 MIB for TCP
RFC 4113 MIB for UDP
RFC 4251 SSHv6 Architecture
RFC 4252 SSHv6 Authentication
RFC 4253 SSHv6 Transport Layer
RFC 4254 SSHv6 Connection
RFC 4291 IP Version 6 Addressing Architecture
RFC 4293 MIB for IP
RFC 4419 Key Exchange for SSH
RFC 4443 ICMPv6
RFC 4541 IGMP & MLD Snooping Switch
RFC 4861 IPv6 Neighbor Discovery
RFC 4862 IPv6 Stateless Address Auto-configuration

MIBs	RFC 1155 Structure & ID of Mgmt Info for TCP/IP Internets
	RFC 1213 MIB II
	RFC 1493 Bridge MIB
	RFC 1724 RIPv2 MIB
	RFC 2021 RMONv2 MIB
	RFC 2096 IP Forwarding Table MIB
	RFC 2578 Structure of Management Information Version 2 (SMIv2)
	RFC 2613 SMON MIB
	RFC 2618 RADIUS Client MIB
	RFC 2620 RADIUS Accounting MIB
	RFC 2665 Ethernet-Like-MIB
	RFC 2668 802.3 MAU MIB
	RFC 2674 802.1p and IEEE 802.1Q Bridge MIB
	RFC 2737 Entity MIB (Version 2)
	RFC 2863 The Interfaces Group MIB
	RFC 2925 Ping MIB
	RFC 4836 Managed Objects for 802.3 Medium Attachment Units (MAU)
Network Management	IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
	RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events)
	RFC 3176 sFlow
	RFC 3411 SNMP Management Frameworks
	RFC 3412 Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)
	RFC 3413 Simple Network Management Protocol (SNMP) Applications
	RFC 3414 User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3)
	RFC 3415 View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP)
	RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)
	RFC 5424 Syslog Protocol
	ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)
	SNMPv1/v2c/v3
	XRMON
QoS/CoS	RFC 2474 DiffServ Precedence, including 8 queues/port
	RFC 2475 DiffServ Architecture
	RFC 2597 DiffServ Assured Forwarding (AF)
	RFC 2598 DiffServ Expedited Forwarding (EF)
	Ingress Rate Limiting
Security	IEEE 802.1X Port Based Network Access Control
	RFC 1492 TACACS+
	RFC 2138 RADIUS Authentication
	RFC 2866 RADIUS Accounting
	Secure Sockets Layer (SSL)

Accessories

Aruba 2620 Switch Series accessories

Modules

HPE X121 1G SFP LC SX Transceiver

J4858C

HPE X121 1G SFP LC LX Transceiver	J4859C
HPE X121 1G SFP LC LH Transceiver	J4860C
HPE X121 1G SFP RJ45 T Transceiver	J8177C
HPE X111 100M SFP LC FX Transceiver	J9054C

Transceivers

HPE X111 100M SFP LC FX Transceiver	J9054C
HPE X132 10G SFP+ LC SR Transceiver	J9150A
HPE X132 10G SFP+ LC LR Transceiver	J9151A
HPE X132 10G SFP+ LC LRM Transceiver	J9152A
HPE X121 1G SFP LC LH Transceiver	J4860C
HPE X121 1G SFP LC SX Transceiver	J4858C
HPE X121 1G SFP LC LX Transceiver	J4859C
HPE X121 1G SFP RJ45 T Transceiver	J8177C
HPE X132 10G SFP+ LC ER Transceiver	J9153A
HPE X142 40G QSFP+ MPO SR4 Transceiver	JH231A
HPE X142 40G QSFP+ LC LR4 SM Transceiver	JH232A
HPE X142 40G QSFP+ MPO eSR4 300M Transceiver	JH233A

Cables

HPE LC to LC Multi-mode OM3 2-Fiber 0.5m 1-Pack Fiber Optic Cable	AJ833A
HPE LC to LC Multi-mode OM3 2-Fiber 1.0m 1-Pack Fiber Optic Cable	AJ834A
HPE LC to LC Multi-mode OM3 2-Fiber 2.0m 1-Pack Fiber Optic Cable	AJ835A
HPE LC to LC Multi-mode OM3 2-Fiber 5.0m 1-Pack Fiber Optic Cable	AJ836A
HPE LC to LC Multi-mode OM3 2-Fiber 15.0m 1-Pack Fiber Optic Cable	AJ837A
HPE LC to LC Multi-mode OM3 2-Fiber 30.0m 1-Pack Fiber Optic Cable	AJ838A
HPE LC to LC Multi-mode OM3 2-Fiber 50.0m 1-Pack Fiber Optic Cable	AJ839A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable	QK732A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable	QK733A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable	QK734A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable	QK735A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable	QK736A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable	QK737A

Mounting Kit

HPE X410 1U Universal 4-post Rackmount Kit	J9583A
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Accessory Product Details

HPE X121 1G SFP LC SX Transceiver (J4858C)	Ports	1 LC 1000BASE-SX port; Duplex: full only
	Physical characteristics	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**
Cabling

Power consumption typical: 0.4 W
Power consumption maximum: 0.7 W
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 Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

**HPE X121 1G SFP LC
LX Transceiver**
(J4859C)

Ports

HP X121 1G SFP LC LX
Transceiver: An SFP
format
gigabit transceiver with
LC connectors using LX
technology.

**Physical
characteristics**

Environment

Cabling

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)

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)

Type:

- 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;

Maximum distance:

- 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)

NOTES

A mode conditioning patch cord may be needed in some multimode fiber installations.

Wavelength: 1310nm

Power Consumption: < 500mW Typical

Services

Refer to the Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

HPE X121 1G SFP LC LH Transceiver (J4860C) A small form-factor pluggable (SFP) Gigabit LH transceiver that provides a full-duplex Gigabit solution up to 70 km on single-mode fiber.	Ports	1 LC 1000BASE-LH port (no IEEE standard exists for 1550 nm optics); Duplex: full only
	Physical characteristics	Dimensions: 2.17(d) x 0.60(w) x 0.46(h) in. (5.5 x 1.53 x 1.18 cm) Weight: 0.04 lb. (0.02 kg)
	Environment	Operating temperature: -40°F to 185°F (-40°C to 85°C) Operating relative humidity: 0% to 95% @ 77°F (25°C), noncondensing Nonoperating/Storage temperature: -40°F to 185°F (-40°C to 85°C)
	Cabling	Altitude: up to 10,000 ft. (3 km) Cable type: - Low metal content, single-mode fiber-optic, complying with ITU-T G.652 and ISO/IEC 793-2 Type B1; Maximum distance: 10-70,000 m (single-mode fiber)
	NOTES	Power consumption is 0.8 watts typical with 1 watt maximum at 100% utilization. For distances less than 20 km, a 10 dB attenuator must be used. For distances between 20 km and 40 km, a 5 dB attenuator must be used. Attenuators can be purchased from most cable vendors.
	Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.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 Hewlett Packard Enterprise sales office.

HPE X121 1G SFP RJ45 T Transceiver (J8177C) HP X121 1G SFP RJ45 T Transceiver: An SFP format gigabit transceiver with RJ45 connectors using 1000BaseT technology.	Ports	1 RJ-45 1000BASE-T port (IEEE 802.3ab Type 1000BASE-T); Duplex: full only
	Physical characteristics	Dimensions: 2.71(d) x 0.54(w) x 0.55(h) in. (6.88 x 1.37 x 1.4 cm) Weight: 0.06 lb. (0.03 kg)
	Environment	Operating temperature: 32°F to 158°F (0°C to 70°C); with 100 LFM airflow over the SFP module Operating relative humidity: 0% to 95% @ 75°F (25°C), noncondensing Nonoperating/Storage temperature: -40°F to 185°F (-40°C to 85°C) Nonoperating/Storage relative humidity: 0% to 95% @ 77°F (25°C), noncondensing
	Cabling	Altitude: up to 10,000 ft. (3000 km) Cable type: 1000BASE-T: Category 5 (5E or better recommended), 100 Ω differential 4-pair unshielded twisted pair (UTP) or shielded twisted pair (STP) balanced, complying with IEEE 802.3ab 1000BASE-T; Maximum distance: 100 m

NOTES

Power consumption is nominally 1 watt.

For supported platforms and minimum software requirements to support this product, see the document titled "Support for the J8177C 1000Base-T Mini-GBIC" on the "HPE Mini-GBICs and SFPs" Manuals Web page.

The J8177C Gigabit copper mini-GBIC is not supported on dual-personality ports.

The J8177C is capable of 100 Mb operation. This is supported on only the HPE E8200zl, E5400zl, and HPE E6200-24G-mGBIC yl Switches using software version K.12.21 or later. Use the "auto-100" port setting to enable 100 Mb operation.

Important: The earlier J8177B does not support 100 Mb operation. When used in the Switch gl 20-Port 10/100/1000 Module (J4908A), the J8177C mini-GBIC can be installed in either the upper or lower mini-GBIC

port, but will block access to the other port.

Services

Refer to the Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

HPE 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: 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)

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 km (full duplex) or 412 m (half duplex)

NOTES

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 J9054C 100-FX SFP-LC Transceiver" on the "HPE Mini-GBICs and SFPs" Manuals Web page.

Services

Refer to the Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

HP X122 1G SFP LC BX-D Transceiver (J9142B)

Ports

1 LC 1000BASE-BX10 port (IEEE 802.3ah Type 1000BASE-BX10-D); Duplex: full only

Physical characteristics

Dimensions

2.19(d) x 0.54(w) x 0.46(h) in. (5.57 x 1.37 x 1.18 cm)

A small form-factor pluggable (SFP) Gigabit-BX (bi-directional) "downstream" transceiver that provides a full-duplex Gigabit solution up to 10 km on one strand of single-mode fiber. The J9142B connects to the J9143B "upstream" transceiver, or to any IEEE-standard 1000BASE-BX10-U ("upstream") device.	Environment	Weight 0.04 lb. (0.02 kg) Operating temperature 32°F to 158°F (0°C to 70°C) Operating relative humidity 0% to 95%, non-condensing Non-operating/Storage temperature -40°F to 185°F -40°C to 85°C)
	Cabling	Type: Single-mode fiber optic, complying with ITU-T G.652; Maximum distance: 0.5-10,000 m (single-mode fiber)
	NOTES	Transmit wavelength: 1490 nm. Receive wavelength: 1310 nm. Power consumption is 1 watt maximum. For supported platforms and minimum software requirements to support this product, see the document titled "Support for the HPE BX Transceivers" on the "HPE Mini-GBICs and SFPs" Manuals Web page. The J9142B connects to the J9143B "upstream" transceiver, or to any IEEE-standard 1000BASE-BX10-U ("upstream") device. (A 1000-BX-D transceiver can only connect to a 1000-BX-U product. You cannot connect two 1000-BX-D transceivers together.)
	Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.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 Hewlett Packard Enterprise sales office.

HP X122 1G SFP LC BX-U Transceiver (J9143B) A small form-factor pluggable (SFP) Gigabit-BX (bi-directional) "upstream" transceiver that provides a full-duplex Gigabit solution up to 10 km on one strand of single-mode fiber. The J9143B connects to the J9142B "downstream" transceiver, or to any IEEE-standard 1000BASE-BX10-D ("downstream") device.	Ports	1 LC 1000BASE-BX10 port (IEEE 802.3ah Type 1000BASE-BX10-U); Duplex: full only
	Physical characteristics	Dimensions 2.19(d) x 0.54(w) x 0.46(h) in. (5.57 x 1.37 x 1.18 cm)
	Environment	Weight 0.04 lb. (0.02 kg) Operating temperature 32°F to 158°F (0°C to 70°C) Operating relative humidity 0% to 95%, non-condensing Non-operating/Storage temperature -40°F to 185°F -40°C to 85°C)
	Cabling	Type: Single-mode fiber optic, complying with ITU-T G.652; Maximum distance: 0.5-10,000 m (single-mode fiber)
	NOTES	Transmit wavelength: 1310 nm. Receive wavelength: 1490 nm. For supported platforms and minimum software requirements to support this product, see the document titled "Support for the HPE BX Transceivers" on the "HPE Mini-GBICs and SFPs" Manuals Web page. The J9143B connects to the J9142B "downstream" transceiver, or to any IEEE-standard 1000BASE-BX10-D ("downstream") device. (A 1000-BX-U transceiver can only connect to a 1000-BX-D product. You cannot connect two 1000-BX-U transceivers together.) Power consumption is 1 watt maximum.
	Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.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 Hewlett Packard Enterprise sales office.

HPE LC to LC Multimode OM3 2-Fiber 0.5m 1-Pack Fiber Optic 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

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 Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

HPE LC to LC Multimode OM3 2-Fiber 1.0m 1-Pack Fiber Optic 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: $50 \pm 3.0\mu\text{m}$ 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 50/125um 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 Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

HPE LC to LC Multimode OM3 2-Fiber 2.0m 1-Pack Fiber Optic 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 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 Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

HPE LC to LC Multimode OM3 2-Fiber 5.0m 1-Pack Fiber Optic Cable (AJ836A)

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: 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 Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

HPE LC to LC Multimode OM3 2-Fiber 15.0m 1-Pack Fiber Optic 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 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 Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

HPE LC to LC Multimode OM3 2-Fiber 30.0m 1-Pack Fiber Optic 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 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 Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

HPE LC to LC Multi-mode OM3 2-Fiber 50.0m 1-Pack Fiber Optic Cable (AJ839A)

Cabling

Cable type:

50/125 μ m (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 μ m 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 μ m Cladding diameter: 125 $\pm$ 2.0 μ m Coating diameter: 245 $\pm$ 10 μ 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 μ m 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 Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

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

NOTES

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

Core Diameter: 50 μ m $\pm$ 3 μ m, Cladding diameter: 125 μ m $\pm$ 2 μ m;

Coating diameter: 245 $\pm$ 10 μ m

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: HPE PremierFlex OM3+ Fiber Optic Cable, 50/125 μ m, 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 Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

**HPE 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 $\pm$ 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: HPE 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 Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

**HPE 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: HPE 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 Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

**HPE 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: HPE 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 Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

**HPE 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 ±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: HPE 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 Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

**HPE 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 ±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: HPE 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 Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

HPE X410 1U Universal 4-post Rackmount Kit (J9583A)

NOTES

The rack mounting kit supports the 1U, full width switches in the following switch series and the power supply: V1810 Series, E2510 Series, E2520 Series, E2610 Series, E2810 Series, E2910 Series, E3500 Series, and the E620 Power Supply

This universal rack mounting kit is design to fit the following racks: HPE 10K 10642, HPE 10K 10842, Panduit CN, Panduit CS, Wrightline Vantage S2, APC Netshelter 600mm, and APC Netshelter 800mm. It may well fit many other brands and models too.

Services

Refer to the Hewlett Packard Enterprise website at <http://www.hpe.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 Hewlett Packard Enterprise sales office.

HP 600 Redundant and External Power Supply (J8168A)

Ports

6 redundant power supply ports

Restrictions: Each port can provide redundant +12 V power to a connected switch; only one port can provide power at a given time

2 external power supply ports

Restrictions: Provides 50 VDC external PoE to up to two switch devices; provides max. of 408 W full power to one device, and half power (204 W each) if connected to two devices

Physical characteristics

Dimensions 12.83(d) x 17.44(w) x 1.73(h) in. (32.59 x 44.3 x 4.39 cm) (1U height)

Weight 11.78 lb. (5.34 kg), Fully loaded

Mounting

1U rack-mountable and wall-mountable enclosure using standard mounting hardware

Environment

Operating temperature 32°F to 131°F (0°C to 55°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 95% @ 149°F (65°C), noncondensing

Altitude up to 15,000 ft. (4.6 km)

Acoustic Noise emission LwA=59.2 dB at virtual workspace, according to DIN 45635 T.19

Electrical characteristics

Description The unit automatically adjusts to any voltage between 100-240 V and either 50 or 60 Hz

Voltage 100-240 VAC

Current 9/5 A

Maximum power rating 800 W

RPS power 180 W

PoE power 408 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; EN 60950/IEC 60950; UL 60950	
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A	
Immunity	EN EN 55024, CISPR 24	
	ESD IEC 61000-4-2; 4 kV CD, 8 kV AD	
	Radiated IEC 61000-4-3; 3 V/m	
	EFT/Burst IEC 61000-4-4; 1.0 kV (power line), 0.05 kV (signal line)	
	Surge IEC 61000-4-5; 1 kV/2 kV AC	
	Conducted IEC 61000-4-6; 3 V	
	Power frequency magnetic field IEC 61000-4-8; 1 A/m, 50 or 60 Hz	
	Voltage dips and interruptions IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods	
	Harmonics EN 61000-3-2, IEC 61000-3-2	
	Flicker EN 61000-3-3, IEC 61000-3-3	
Management NOTES	Provides information via port interfaces of attached devices Supported devices	
	HPE Switch 2600-PWR Series, Switch 2610 Series, Switch 2610-PWR Series, Switch 2800 Series, Switch 2810 Series, Switch 5300xl Series, Switch 3400cl Series, Switch 6400cl Series, and Secure Router 7000dl Series	
Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.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 Hewlett Packard Enterprise sales office.	

HPE ProCurve 630 Redundant and/or External Power Supply (J9443A)	Physical characteristics	Dimensions	15(d) x 8.5(w) x 1.73(h) in. (38.1 x 21.59 x 4.39 cm) (1U height)
		Weight	7.9 lb. (3.58 kg)
	Environment	Operating temperature	32°F to 131°F (0°C to 55°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
	Electrical characteristics	Altitude	up to 10,000 ft. (3 km)
		Acoustic	Power: 54.2 dB; ISO 7779, ISO 9296
		Maximum heat dissipation	535 BTU/hr (564.42 kJ/hr), for the actual 630 power supply. PoE-powered device heat dissipation assumed to be outside the 630 power supply.
		Voltage	100-127/200-240 VAC
		Current	8/4 A
		Maximum power rating	740 W
		PoE power	398 W

RPS power	185 W
PoE power	398 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. PoE Power is the power supplied by the internal power supply, it is dependent on the type and quantity of power supplies and may be supplemented with the use of an External Power Supply (EPS). 200-240 V power cords shipped with the 630 power supply have a wall plug rated as close to 13 A as specific country standards allow.

NOTES	The HPE 630 RPS/EPS supports the HPE 2910al and 3500yl-PoE+ Switches. The HPE Switch 5400zl Series is not supported. The 630 RPS/EPS includes two 2-m RPS/EPS cables, which can be used to carry either RPS or PoE+ power to the switch. Minimum software versions required: 2910al PoE+ switches require W.14.35 or later and 3500yl-PoE+ switches require K.14.52 or later
Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.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 Hewlett Packard Enterprise sales office.

HPE 620 Redundant/External Power Supply (J8696A)	Ports	2 redundant power supply ports Restrictions: 195 W available per port
		2 external power supply ports Restrictions: 398 W available per port
	Physical characteristics	Dimensions 15.4(d) x 17.4(w) x 1.73(h) in. (39.12 x 44.2 x 4.39 cm) (1U height)
		Weight 15.2 lb. (6.89 kg)
	Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only
	Environment	Operating temperature 32°F to 131°F (0°C to 55°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 LwA per ISO 7779: 54.2 dB
	Electrical characteristics	Maximum heat dissipation 400 BTU/hr (422 kJ/hr), for the actual 620 itself. PoE-powered device heat dissipation assumed to be outside the 620.
		Voltage 100-127/200-240 VAC

	Current	16/8 A
	Maximum power rating	1440 W
	RPS power	390 W
	PoE power	796 W
	RPS	12 V
	PoE	-50 V
	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. Above figures are for maximum RPS and PoE power being supplied to two switches simultaneously. 200 - 240 V power cords shipped with the 620 have a wall plug rated as close to 13 A as specific country standards allow.
Safety	CSA 22.2 No. 60950; EN 60950/IEC 60950; UL 60950	
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A	
Immunity	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	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
Management	Unmanaged power supply; provides information via LEDs (LEDs repeated on front and back panel) or through port interfaces of attached devices	
NOTES	The 620 supports the HPE Switch 2900 Series (RPS) and 3500yl Series (RPS/PoE), as well as 6200yl (RPS) switches. The HPE Switch 5400zl Series is not supported. The 620 includes four 2 m RPS/EPs cables. These cables can be used to carry either RPS or PoE power to the switch being powered.	
Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.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 Hewlett Packard Enterprise sales office.	

Summary of Changes

Date	Version History	Action	Description of Change
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01-Oct-2018	Version 19	Changed	Recommended and Extended markings removed from the document.
04-Sep-2018	Version 18	Changed	QuickSpecs updated with the current Recommended-Extended Options
05-Feb-2018	Version 17	Changed	Configuration section updated
30-Sep-2016	Version 16	Changed	Adding #AC3 Option to J9565A on the Configuration section
06-June-2016	Version 15	Changed	Product overview, Features and benefits, Technical Specifications updated. Product description updated.
08-Jan-2016	Version 14	Changed	URLs updated
01-Dec-2015	Version 13	Changed	QuickSpecs name changed to Aruba 2620 Switch Series Product overview, Features and benefits and Accessories updated.
01-Dec-2014	Version 12	Changed	Updated Warranty and support, Technical Specifications and Product Overview,
09-Dec-2013	Version 11	Changed	Changes made in the Overview, Technical Specifications, and Accessories sections.
11-Nov-2013	Version 10	Changed	Configuration was revised, including adding OM4 cables.
02-Oct-2013	Version 9	Changed	Corrections were made throughout the Configuration section.
11-Sep-2013	Version 8	Changed	Configuration was revised.
19-Aug-2013	Version 7	Changed	Configuration was revised.
10-Jun-2013	Version 6	Added	OM4 cables were added.
22-Apr-2013	Version 5	Added	Overview: Added an image.
25-Mar-2013	Version 4	Added	Overview: Added Build to Order section to the Features and benefits section.
06-Jul-2012	Version 3	Changed	Changes made in the Technical Specifications section.
14-Oct-2011	Version 2	Added	HPE 620 Redundant/External Power Supply was added to Accessories IPv6 Ready Certification and Miercom Certified Green Award were added to Models
26-Sep-2011	Version 1	Created	Document creation






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