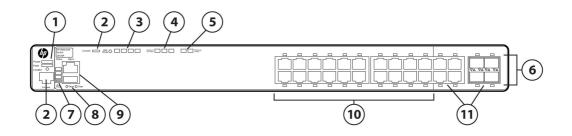
## **Overview**

## Models

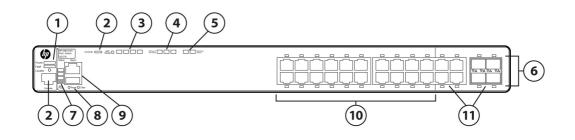
107254
J9726A
J9727A
J9728A
J9729A
J9836A



#### HP 2920-24G Switch

- 1. Power, Fault, and Locator LEDs
- 2. Console ports
- 3. LED Mode button and indicator LEDs
- 4. Status LEDs for components on the back of the switch
- 5. Stacking status LEDs
- 6. Switch port LEDs

- 7. PoE, Tmp (Temperature), Test, Fan, and Aux (Auxiliary) port status LED
- 8. Reset and Clear buttons
- 9. Aux port and Out-of-Band Management port
- 10. 10/100/1000BASE-T PoE+ RJ-45 ports
- 11. Dual-Personality (10/100/1000BASE-T or SFP) ports



#### HP 2920-24G-PoE+ Switch

- 1. Power, Fault, and Locator LEDs
- 2. Console ports
- 3. LED Mode button and indicator LEDs
- 4. Status LEDs for components on the back of the switch
- 7. PoE, Tmp (Temperature), Test, Fan, and Aux (Auxiliary) port status LED
- 8. Reset and Clear buttons
- 9. Aux port and Out-of-Band Management port
- 10. 10/100/1000BASE-T PoE+ RJ-45 ports

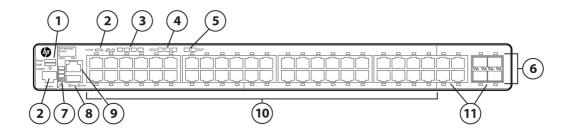


### **Overview**

5. Stacking status LEDs

11. Dual-Personality (10/100/1000BASE-T or SFP) ports

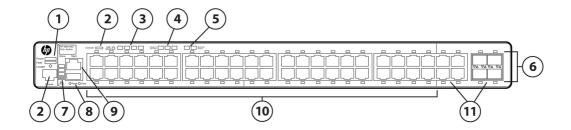
6. Switch port LEDs



### HP 2920-48G Switch

- 1. Power, Fault, and Locator LEDs
- 2. Console ports
- 3. LED Mode button and indicator LEDs
- 4. Status LEDs for components on the back of the switch
- 5. Stacking status LEDs
- 6. Switch port LEDs

- 7. PoE, Tmp (Temperature), Test, Fan, and Aux (Auxiliary) port status LED
- 8. Reset and Clear buttons
- 9. Aux port and Out-of-Band Management port
- 10. 10/100/1000BASE-T PoE+ RJ-45 ports
- 11. Dual-Personality (10/100/1000BASE-T or SFP) ports



### HP 2920-48G-PoE+ Switch HP 2920-48G-PoE+ 740W Switch

- 1. Power, Fault, and Locator LEDs
- 2. Console ports
- 3. LED Mode button and indicator LEDs
- 4. Status LEDs for components on the back of the switch
- 5. Stacking status LEDs
- 6. Switch port LEDs

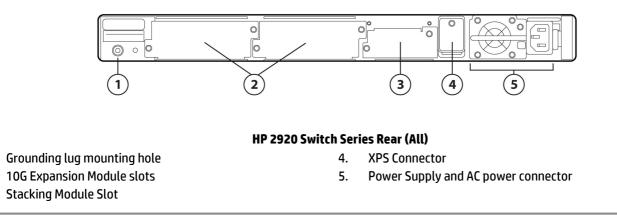
- 7. PoE, Tmp (Temperature), Test, Fan, and Aux (Auxiliary) port status LED
- 8. Reset and Clear buttons
- 9. Aux port and Out-of-Band Management port
- 10. 10/100/1000BASE-T PoE+ RJ-45 ports
- 11. Dual-Personality (10/100/1000BASE-T or SFP) ports



## Overview

1. 2.

3.



## **Product overview**

The HP 2920 Switch Series consists of five switches: the HP 2920-24G and 2920-24G-PoE+ Switches with 24 10/100/1000 ports, and the HP 2920-48G and 2920-48G-PoE+ and 2920-48G 740W PoE+ Switches with 48 10/100/1000 ports. Each switch has four dual-personality ports for 10/100/1000 or SFP connectivity.

In addition, the 2920 switch series supports up to four optional 10 Gigabit Ethernet (SFP+ and/or 10GBASE-T) ports, as well as a twoport stacking module. These options provide you with flexible and easy-to-deploy uplinks and stacking.

Together with static and RIP routing, robust security and management, enterprise-class features, free lifetime warranty, and free software updates, the 2920 switch series is a cost-effective, scalable solution for customers who are building high-performance networks. These switches can be deployed at the enterprise edge, in remote branch offices, and in converged networks.

## **Key Features**

- High-performance Gigabit Ethernet access switch
- Four optional 10GbE (SFP+ and/or 10GBASE-T) ports
- Stacking capability with a total of four switches
- Layer 2 and Layer 3 plus static and RIP routing, PoE, and PoE+ support
- Lifetime warranty, sFlow, ACLs, OpenFlow, and rate limiting

## **Features and Benefits**

### Quality of Service (QoS)

- Traffic prioritization (IEEE 802.1p) allows real-time traffic classification into eight priority levels mapped to eight queues
   Layer 4 prioritization
  - enables prioritization based on TCP/UDP port numbers
- 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



### **Overview**

• Large buffers

provide graceful congestion management

### Connectivity

- Flexible 10 Gbps Ethernet connectivity up to four optional 10-Gigabit ports (SFP+ and/or 10GBASE-T)
- Two-port stacking module with up to 40 Gbps/port

optional two-port stacking module allows stacking of up to four switch units into a single virtual device

• Auto-MDIX

automatically adjusts 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 IPv6 networks

- Dual stack (IPv4/IPv6) provides transition mechanism from IPv4 to IPv6; supports connectivity for both protocols
- MLD snooping

forwards IPv6 multicast traffic to the appropriate interface; prevents IPv6 multicast traffic from flooding the network

• IEEE 802.3at Power over Ethernet (PoE+)

provide up to 30 W per port that allows support of the latest PoE+-capable devices such as IP phones, wireless access points, and security cameras, as well as any IEEE 802.3af-compliant end device; eliminates the cost of additional electrical cabling and circuits that would otherwise be necessary in IP phone and WLAN deployments

Pre-standard PoE support

detects and provides power to pre-standard PoE devices

• Dual-personality functionality

includes four 10/100/1000 ports or SFP slots for optional fiber connectivity such as Gigabit-SX, -LX, and -LH, or 100-FX

#### Performance

- Energy-efficient design
  - High-efficiency power supplies

80 PLUS Silver Certified power supply increases power savings

○ Energy-efficient Ethernet (EEE) support

reduces power consumption in accordance with IEEE 802.3az

• HP ProVision ASIC architecture

is designed with the latest HP ProVision ASIC, providing very low latency, increased packet buffering, and adaptive power consumption

• Selectable queue configurations

allows for increased performance by selecting the number of queues and associated memory buffering that best meet the requirements of the network applications

#### Software-defined networking

• NEW OpenFlow

supports OpenFlow 1.0 and 1.3 specifications to enable SDN by allowing separation of the data (packet forwarding) and control (routing decision) paths

#### Convergence

• IP multicast snooping and data-driven IGMP

automatically prevent flooding of IP multicast traffic



### Overview

• 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) is an automated device discovery protocol that provides easy mapping of network management applications
- 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 savings
- Local MAC Authentication assigns attributes such as VLAN and QoS using locally configured profile that can be a list of MAC prefixes

### Resiliency and high availability

- IEEE 802.1s Multiple Spanning Tree
  provides high link availability in multiple VLAN environments by allowing multiple spanning trees; provides legacy support for
  IEEE 802.1d and IEEE 802.1w
- IEEE 802.3ad Link Aggregation Control Protocol (LACP) and HP port trunking support up to 60 static, dynamic, or distributed trunks active across a stack, with each trunk having up to eight links (ports) per static trunk; support trunking across stack members
- Ring and chain stacking topology
   allows failure of a link or switch in the ring of stacked switches, while the remaining connected switches continue operation
   New SmartLink

provides easy-to-configure link redundancy of active and standby links

### Management

• SNMPv1, v2, and v3

provide complete support of SNMP; provide full support of industry-standard Management Information Base (MIB) plus private extensions; SNMPv3 supports increased security using encryption

 Out-of-band Ethernet management port enables management over a separate physical management network, keeping management traffic segmented from network data traffic

#### Manageability

• Dual flash images

provides independent primary and secondary operating system files for backup while upgrading

- Friendly port names
- allow assignment of descriptive names to ports • Find-Fix-Inform

finds and fixes common network problems automatically, then informs administrator

• Multiple configuration files

allow multiple configuration files to be stored to a flash image

- Software updates free downloads from the Web
- **RMON, XRMON, and sFlow** provide advanced monitoring and reporting capabilities for statistics, history, alarms, and events
- **Troubleshooting** ingress and egress port monitoring enable network problem solving
- Uni-Directional Link Detection (UDLD)

monitors a link between two switches and blocks the ports on both ends of the link if the link goes down at any point between



### **Overview**

the two devices.

### Layer 2 switching

- VLAN support and tagging supports IEEE 802.1Q (4,094 VLAN IDs) and 256 VLANs simultaneously
- GARP VLAN Registration Protocol allows automatic learning and dynamic assignment of VLANs
- 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
   Desid Des VLAN Security Tree (DDVST+)
- Rapid Per-VLAN Spanning Tree (RPVST+) allows each VLAN to build a separate spanning tree to improve link bandwidth usage; is compatible with PVST+

### Layer 3 routing

- Static IP routing provides manually configured routing; includes ECMP capability
- Routing Information Protocol (RIP) provides RIPv1 and RIPv2 routing
- **256 static and 2,048 RIP routes** facilitate segregation of user data without adding external hardware

### Security

### • Multiple user authentication methods

O 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

 $\circ~$  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

• 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
- IEEE 802.1X, MAC or Web authentication provides concurrent network access control and Web authentication of up to 24 clients per port
- Secure shell



### Overview

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

Switch management logon security

helps secure switch CLI logon by optionally requiring either RADIUS or TACACS+ authentication

• Custom banner

displays security policy when users log in to the switch

STP BPDU port protection

blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks

• 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

• STP Root Guard

protects the root bridge from malicious attacks or configuration mistakes

• Identity-driven ACL

enables implementation of a highly granular and flexible access security policy and VLAN assignment specific to each authenticated network user

• Per-port broadcast throttling

selectively configures broadcast control on heavy traffic port uplinks

### **Monitor and diagnostics**

• Digital optical monitoring of SFP+ and 1000BASE-T transceivers allows detailed monitoring of the transceiver settings and parameters

#### Warranty and support

• Lifetime Warranty 2.0

advance hardware replacement for as long as you own the product with next-business-day delivery (available in most countries)<sup>†</sup>

• 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 entire warranty period; to reach our support centers, 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

#### Software releases

to find software for your product, refer to www.hp.com/networking/support; for details on the software releases available 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 zl Modules, HP Threat Management Services zl Module, HP AllianceOne Extended zl Module with Riverbed Steelhead, HP MSM765zl Mobility Controller



## **Overview**

and HP Survivable Branch Communication zl Module powered by Microsoft<sup>®</sup> 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 2920-24G Switch 24 RJ-45 autosensing 10/100/1000 ports 4 dual-personality ports min=0 \ max=4 SFP Transceivers 1 - HP X331 165W 100-240VAC to 12VDC PS included 1U - Height	J9726A
PDU CABLE NA/MEX/TW/JPPDU CABLE NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9726A#B2B
PDU CABLE ROW <ul> <li>C15 PDU Jumper Cord (ROW)</li> </ul>	J9726A#B2C
High Volt Switch to Wall Power Cord <ul> <li>NEMA L6-20P Cord (NA/MEX/JP/TW)</li> </ul>	J9726A#B2E
HP 2920-24G-POE+ Switch 24 RJ-45 autosensing 10/100/1000 PoE+ ports 4 dual-personality ports min=0 \ max=4 SFP Transceivers 1 - HP X332 575W 100-240VAC to 54VDC PS included 1U - Height	J9727A See Configuration Note:1, 2
PDU CABLE NA/MEX/TW/JPPDU CABLE NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9727A#B2B
PDU CABLE ROW <ul> <li>C15 PDU Jumper Cord (ROW)</li> </ul>	J9727A#B2C
High Volt Switch to Wall Power Cord <ul> <li>NEMA L6-20P Cord (NA/MEX/JP/TW)</li> </ul>	J9727A#B2E
HP 2920-48G Switch • 48 RJ-45 autosensing 10/100/1000 ports • 4 dual-personality ports • min=0 \ max=4 SFP Transceivers • 1 - HP X331 165W 100-240VAC to 12VDC PS included • 1U - Height	J9728A See Configuration Note:1, 2
PDU CABLE NA/MEX/TW/JPPDU CABLE NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9728A#B2B



Configuration		
PDU CABLE ROW		J9728A#B2C
C15 PDU Jun	nper Cord (ROW)	
High Volt Switch to	Wall Power Cord	J9728A#B2E
• NEMA L6-20	P Cord (NA/MEX/JP/TW)	
HP 2920-48G-POE+	+ Switch	J9729A
	tosensing 10/100/1000 PoE+ ports	See
<ul> <li>4 dual-perso</li> <li>min=0 \ may</li> </ul>		Configuration
	=4 SFP Transceivers 575W 100-240VAC to 54VDC PS included	Note:1, 2
• 1U - Height		
PDU CABLE NA/MEX	/TW/JP	J9729A#B2B
	nper Cord (NA/MEX/TW/JP)	
PDU CABLE ROW		J9729A#B2C
C15 PDU Jun	nper Cord (ROW)	
High Volt Switch to	Wall Power Cord	J9729A#B2E
• NEMA L6-20	P Cord (NA/MEX/JP/TW)	
HP 2920-48G-P0E+	+ 740W Switch	J9836A
	tosensing 10/100/1000 PoE+ ports	See
	-personality 10/100/1000 PoE+ ports	Configuration
	=4 SFP Transceivers 1050W 110-240VAC to 54VDC PS included	Note:1, 2
• 1U - Height	TO SOW TTO EFORCE OF STREAMEN	
PDU CABLE NA/MEX	/TW/JP	J9836A#B2B
	nper Cord (NA/MEX/TW/JP)	
PDU CABLE ROW		J9836A#B2C
C15 PDU Jun	nper Cord (ROW)	
High Volt Switch to	Wall Power Cord	J9836A#B2E
-	P Cord (NA/MEX/JP/TW)	
Configuration Rules	s	
	The following Transceivers install into this Module Switch:	
Note 1	HP X121 1G SFP LC LH Transceiver	J4860C
	HP X121 1G SFP LC LX Transceiver	J4859C
	HP X121 1G SFP LC SX Transceiver	J4858C
	HP X122 1G SFP LC BX-D Transceiver	J9142B
	HP X122 1G SFP LC BX-U Transceiver	J9143B



## HP 2920 Switch Series

## Configuration

HP X111 100M SFP LC FX Transceiver	J9054C
HP X112 100M SFP LC BX-D Transceiver	J9099B
HP X112 100M SFP LC BX-U Transceiver	J9100B

Note 2

Localization required on orders without #B2B, #B2C or #B2E options.

## **Rack Level Integration CTO Models**

HP 2920-24G Switch 24 RJ-45 autosensing 10/100/1000 ports 4 dual-personality ports\ min=0 \ max=4 SFP Transceivers 1 - HP X331 165W 100-240VAC to 12VDC PS included 1U - Height	J9726A#0D1 See Configuration Note:1, 3, 4, 5
PDU CABLE NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9726A#B2B
<ul> <li>PDU CABLE ROW</li> <li>C15 PDU Jumper Cord (ROW)</li> </ul>	J9726A#B2C
HP 2920-24G-POE+ Switch 24 RJ-45 autosensing 10/100/1000 PoE+ ports 4 dual-personality ports min=0 \ max=4 SFP Transceivers 1 - HP X332 575W 100-240VAC to 54VDC PS included 1U - Height	J9727A#0D1 See Configuration Note:1, 3, 4, 5
PDU CABLE NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9727A#B2B
<ul> <li>PDU CABLE ROW</li> <li>C15 PDU Jumper Cord (ROW)</li> </ul>	J9727A#B2C
HP 2920-48G Switch • 48 RJ-45 autosensing 10/100/1000 ports • 4 dual-personality ports • min=0 \ max=4 SFP Transceivers • 1 - HP X331 165W 100-240VAC to 12VDC PS included • 1U - Height	J9728A#0D1 See Configuration Note:1, 3, 4, 5
PDU CABLE NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9728A#B2B



## Configuration

HP 2920-48G-POE+ Switch • 48 RJ-45 autosensing 10/100/1000 PoE+ ports • 4 dual-personality ports • min=0 \ max=4 SFP Transceivers • 1 - HP X332 575W 100-240VAC to 54VDC PS included • 1U - Height	J9729A#0D1 See Configuration Note:1, 3, 4, 5
<ul> <li>PDU CABLE NA/MEX/TW/JP</li> <li>C15 PDU Jumper Cord (NA/MEX/TW/JP)</li> </ul>	J9729A#B2B
<ul> <li>PDU CABLE ROW</li> <li>C15 PDU Jumper Cord (ROW)</li> </ul>	J9729A#B2C
HP 2920-48G-POE+ 740W Switch • 44 RJ-45 autosensing 10/100/1000 PoE+ ports	J9836A See
<ul> <li>4 RJ-45 dual-personality 10/100/1000 PoE+ ports</li> <li>min=0 \ max=4 SFP Transceivers</li> <li>1 - HP X332 1050W 110-240VAC to 54VDC PS included</li> <li>1U - Height</li> </ul>	Configuration Note:1, 3, 4, 5
<ul> <li>min=0 \ max=4 SFP Transceivers</li> <li>1 - HP X332 1050W 110-240VAC to 54VDC PS included</li> </ul>	-

### **Configuration Rules**

Note 1	The following Transceivers install into this Module (Use #0D1 quoted to switch if switch is CTO) - if applicable:	
	HP X121 1G SFP LC LH Transceiver	J4860C
	HP X121 1G SFP LC LX Transceiver	J4859C
	HP X121 1G SFP LC SX Transceiver	J4858C
	HP X122 1G SFP LC BX-D Transceiver	J9142B
	HP X122 1G SFP LC BX-U Transceiver	J9143B
	HP X111 100M SFP LC FX Transceiver	J9054C
	HP X112 100M SFP LC BX-D Transceiver	J9099B
	HP X112 100M SFP LC BX-U Transceiver	J9100B
Note 3	If this switch is factory installed in HP Racks, then the J9583A#0D1 is required. CLIC Only - Allow the J9583AZ in all regions	
Note 4	Localization required on orders without #B2B or #B2C options	
Note 5	If HP CTO Switch Chassis is selected for Rack Level Integration, Then the CTO Switch Chassis integrate (with #0D1) to the HP Rack.	needs to



## Configuration

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**

### System (std 1 // max 1) per switch enclosure

HP X331 165W 100-240VAC to 12VDC PS • includes 1 x c15, 165w (Spare Only)	J9739A#0D1 See Configuration Note:1, 3, 4
PDU CABLE NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9739A#B2B
<ul> <li>PDU CABLE ROW</li> <li>C15 PDU Jumper Cord (ROW)</li> </ul>	J9739A#B2C
<ul> <li>High Volt Switch to Wall Power Cord</li> <li>NEMA L6-20P Cord (NA/MEX/JP/TW)</li> </ul>	J9739A#B2E
HP X332 575W 100-240VAC to 54VDC PS • includes 1 x c15, 575w (Spare Only)	J9738A#0D1 See Configuration Note:2, 3, 4
<ul> <li>PDU CABLE NA/MEX/TW/JP</li> <li>C15 PDU Jumper Cord (NA/MEX/TW/JP)</li> </ul>	J9738A#B2B
<ul> <li>PDU CABLE ROW</li> <li>C15 PDU Jumper Cord (ROW)</li> </ul>	J9738A#B2C
High Volt Switch to Wall Power Cord • NEMA L6-20P Cord (NA/MEX/JP/TW)	J9738A#B2E
HP X332 1050W 100-240VAC to 54VDC PS • includes 1 x c15, 1050w (Spare or Upgrade Only)	J9737A See Configuration Note:2, 3, 4
PDU CABLE NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	J9737A#B2B



PDU CABLE ROW • C15 PDU Jumpe	r Cord (ROW)	J9737A#B2C
High Volt Switch to Wa • NEMA L6-20P C	Ill Power Cord ord (NA/MEX/JP/TW)	J9737A#B2E
Configuration Rules		
Note 1	This power supply is only supported on the J9726A and J9728A.	
Note 2	This power supply is only supported on the J9727A ,J9729A and J9836A.	
Note 3	Localization required on orders without #B2B ,#B2C or #B2E options.	
Note 4	If #B2E is selected Then replace Localized option with #B2E for power supply and with #B2E (Offered only in NA, Mexico,, Taiwan, and Japan)	for switch .
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, an ROW. (Watson Default B2B or B2C for Rack Level CTO) Switch/Router/Power Supply to Wall Power Cord - Localized Option (Watson Default for BTO CTO) High Volt Switch/Router/Power Supply to Wall Power Cord - #B2E Option. (Offered only in No Mexico, Taiwan, and Japan)	and Box Level
Localization	X332 575W 100-240VAC to 54VDC PS, CL - Chile - English localization Power Cord: Quantity :1, CEI 23-50, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	J9738A#A1X
	Store #: 8120-6980 X332 575W 100-240VAC to 54VDC PS, US - U.S English localization Power Cord: Quantity :1, NEMA 5-15P, C15 STRAIGHT, 125 V, 15 A, 2.5 meters, 8.21 feet ,Part Store #: 8121-0973	J9738A#ABA
	X332 575 W 100-240VAC to 54VDC PS, EU - Europe - English localization Power Cord: Quantity :1, CEE 7-VII, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part Store #: 8120-6811	J9738A#ABB
	X332 575W 100-240VAC to 54VDC PS, AU - Australia - English localization Power Cord: Quantity :1, AS/NZS 3112, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet	J9738A#ABG
	,Part Store #: 8121-0834 X332 575W 100-240VAC to 54VDC PS, BR - Brazil - Portuguese localization Power Cord: Quantity :1, NBR 14136 Fig13, C13 STRAIGHT, 250 V, 2.5 A, 2.5 meters, 8.21 feet ,Part Store #: 8121-1069	J9738A#AC4
	X332 575W 100-240VAC to 54VDC PS, KR - Korea - English localization Power Cord: Quantity :1, CEE 7-VII, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part Store #: 8120-6811	J9738A#AC6
	X332 575W 100-240VAC to 54VDC PS, UK - United Kingdom - English localization Power Cord: Quantity :1, BS 1363/A, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part Store #: 8120-6809	J9738A#ACC



## **HP 2920 Switch Series**

Configuration		
	X332 575W 100-240VAC to 54VDC PS, SZ - Switzerland - English localization Power Cord: Quantity :1, SEV 6534-2 Type 12, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part Store #: 8120-6815	J9738A#ACD
	X332 575W 100-240VAC to 54VDC PS, DK - Denmark - English localization Power Cord: Quantity :1, DK 2-5A, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part Store #: 8120-6814	J9738A#ACE
	X332 575W 100-240VAC to 54VDC PS, JP - Japan - English localization Power Cord: Quantity :1, JIS C 8303, C13 STRAIGHT, 125 V, 12 A, 2.3 meters, 7.55 feet ,Part	J9738A#ACF
	Store #: 8120-4753 X332 575W 100-240VAC to 54VDC PS, IN - India - English localization Power Cord: Quantity :1, IS 1293, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	J9738A#ACJ
	Store #: 8121-0780 X332 575W 100-240VAC to 54VDC PS, ZA - South Africa - English localization Power Cord: Quantity :1, SABS 164, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part	J9738A#ACQ
	Store #: 8120-6813 X332 575W 100-240VAC to 54VDC PS, IL - Israel - English localization Power Cord: Quantity :1, SI 32 90-DEG, C13 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet	J9738A#AKJ
	,Part Store #: 8121-1035 X332 575W 100-240VAC to 54VDC PS, TH - Thailand - English localization X332 575W 100-240VAC to 54VDC PS, CN - China - English localization Power Cord: Quantity :1, GB 1002, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	J9738A#AKL J9738A#AKM
	Store #: 8120-8707 X332 575W 100-240VAC to 54VDC PS, TW - Taiwan - English localization Power Cord: Quantity :1, CNS 690 Type 2(1), C13 STRAIGHT, 125 V, 13 A, 2.5 meters, 8.21	J9738A#ARB
	feet ,Part Store #: 8121-0974 X332 575W 100-240VAC to 54VDC PS, MY - Malaysia - English localization Power Cord: Quantity :1, BS 1363/A, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part Store #: 8120-6809	J9738A#ARE
	X332 575W 100-240VAC to 54VDC PS, AR - Argentina - English localization Power Cord: Quantity :1, IRAM 2073, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part Store #: 8120-6869	J9738A#ARM
	X331 165W 100-240VAC to 12VDC PS, CL - Chile - English localization Power Cord: Quantity :1, CEI 23-50, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part Store #: 8120-6980	J9739A#A1X
	X331 165W 100-240VAC to 12VDC PS, US - U.S English localization Power Cord: Quantity :1, NEMA 5-15P, C15 STRAIGHT, 125 V, 15 A, 2.5 meters, 8.21 feet ,Part Store #: 8121-0973	J9739A#ABA
	X331 165W 100-240VAC to 12VDC PS, EU - Europe - English localization Power Cord: Quantity :1, CEE 7-VII, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part Store #: 8120-6811	J9739A#ABB
	X331 165W 100-240VAC to 12VDC PS, AU - Australia - English localization Power Cord: Quantity :1, AS/NZS 3112, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet	J9739A#ABG
	,Part Store #: 8121-0834 X331 165W 100-240VAC to 12VDC PS, BR - Brazil - Portuguese localization Power Cord: Quantity :1, NBR 14136 Fig13, C13 STRAIGHT, 250 V, 2.5 A, 2.5 meters, 8.21	J9739A#AC4
	feet ,Part Store #: 8121-1069 X331 165W 100-240VAC to 12VDC PS, KR - Korea - English localization	J9739A#AC6



Power Cord: Quantity :1, CEE 7-VII, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part Store #: 8120-6811	
X331 165W 100-240VAC to 12VDC PS, UK - United Kingdom - English localization	J9739A#ACC
Power Cord: Quantity :1, BS 1363/A, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	
Store #: 8120-6809	
X331 165W 100-240VAC to 12VDC PS, SZ - Switzerland - English localization	J9739A#ACD
Power Cord: Quantity :1, SEV 6534-2 Type 12, C13 STRAIGHT, 250 V, 10 A, 2.25 meters,	
7.39 feet ,Part Store #: 8120-6815	
X331 165W 100-240VAC to 12VDC PS, DK - Denmark - English localization	J9739A#ACE
Power Cord: Quantity :1, DK 2-5A, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part	
Store #: 8120-6814	
X331 165W 100-240VAC to 12VDC PS, JP - Japan - English localization	J9739A#ACF
Power Cord: Quantity :1, JIS C 8303, C13 STRAIGHT, 125 V, 12 A, 2.3 meters, 7.55 feet ,Part Store #: 8120-4753	
X331 165W 100-240VAC to 12VDC PS, IN - India - English localization	J9739A#ACJ
Power Cord: Quantity :1, IS 1293, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part Store #: 8121-0780	
X331 165W 100-240VAC to 12VDC PS, ZA - South Africa - English localization	J9739A#ACQ
Power Cord: Quantity :1, SABS 164, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part	
Store #: 8120-6813	
X331 165W 100-240VAC to 12VDC PS, IL - Israel - English localization	J9739A#AKJ
Power Cord: Quantity :1, SI 32 90-DEG, C13 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet	
,Part Store #: 8121-1035	
X331 165W 100-240VAC to 12VDC PS, TH - Thailand - English localization	J9739A#AKL
Power Cord: Quantity :1, NEMA 5-15P, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet	
,Part Store #: 8121-0668	
X331 165W 100-240VAC to 12VDC PS, CN - China - English localization	J9739A#AKM
Power Cord: Quantity :1, GB 1002, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part Store #: 8120-8707	
X331 165W 100-240VAC to 12VDC PS, TW - Taiwan - English localization	J9739A#ARB
Power Cord: Quantity :1, CNS 690 Type 2(1), C13 STRAIGHT, 125 V, 13 A, 2.5 meters, 8.21	
feet ,Part Store #: 8121-0974	
X331 165W 100-240VAC to 12VDC PS, MY - Malaysia - English localization	J9739A#ARE
Power Cord: Quantity :1, BS 1363/A, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	
Store #: 8120-6809	
X331 165W 100-240VAC to 12VDC PS, AR - Argentina - English localization	J9739A#ARM
Power Cord: Quantity :1, IRAM 2073, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part Store #: 8120-6869	
2920-24G Switch, CL - Chile - English localization	J9726A#A1X
Power Cord: Quantity :1, CEI 23-50, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	J3720A#ATA
Store #: 8120-6980	
2920-24G Switch, US - U.S English localization	J9726A#ABA
Power Cord: Quantity :1, NEMA 5-15P, C15 STRAIGHT, 125 V, 15 A, 2.5 meters, 8.21 feet	
,Part Store #: 8121-0914	
2920-24G Switch, EU - Europe - English localization	J9726A#ABB
Power Cord: Quantity :1, CEE 7-VII, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part	
Store #: 8120-6811	



## **HP 2920 Switch Series**

2920-24G Switch, AU - Australia - English localization Power Cord: Quantity :1, AS/NZS 3112, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet	J9726A#ABG
,Part Store #: 8121-0834 2920-24G Switch, BR - Brazil - Portuguese localization	J9726A#AC4
Power Cord: Quantity :1, NBR 14136 Fig13, C13 STRAIGHT, 250 V, 2.5 A, 2.5 meters, 8.21 feet ,Part Store #: 8121-1069	
2920-24G Switch, KR - Korea - English localization Power Cord: Quantity :1, CEE 7-VII, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part	J9726A#AC6
Store #: 8120-6811	107754#466
2920-24G Switch, UK - United Kingdom - English localization Power Cord: Quantity :1, BS 1363/A, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part Store #: 8120-6809	J9726A#ACC
2920-24G Switch, SZ - Switzerland - English localization	J9726A#ACD
Power Cord: Quantity :1, SEV 6534-2 Type 12, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part Store #: 8120-6815	
2920-24G Switch, DK - Denmark - English localization Power Cord: Quantity :1, DK 2-5A, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part	J9726A#ACE
Store #: 8120-6814 2920-24G Switch, JP - Japan - English localization	J9726A#ACF
Power Cord: Quantity :1, JIS C 8303, C13 STRAIGHT, 125 V, 12 A, 2.3 meters, 7.55 feet ,Part Store #: 8120-4753	557 201
2920-24G Switch, IN - India - English localization	J9726A#ACJ
Power Cord: Quantity :1, IS 1293, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part Store #: 8121-0780	
2920-24G Switch, ZA - South Africa - English localization Power Cord: Quantity :1, SABS 164, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part	J9726A#ACQ
Store #: 8120-6813 2920-24G Switch, IL - Israel - English localization	J9726A#AKJ
Power Cord: Quantity :1, SI 32 90-DEG, C13 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet ,Part Store #: 8121-1035	557201111
2920-24G Switch, TH - Thailand - English localization	J9726A#AKL
Power Cord: Quantity :1, NEMA 5-15P, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part Store #: 8121-0668	
2920-24G Switch, CN - China - English localization Power Cord: Quantity :1, GB 1002, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	J9726A#AKM
Store #: 8120-8707 2920-24G Switch, TW - Taiwan - English localization	J9726A#ARB
Power Cord: Quantity :1, CNS 690 Type 2(1), C13 STRAIGHT, 125 V, 13 A, 2.5 meters, 8.21 feet ,Part Store #: 8121-0974	557 201111112
2920-24G Switch, MY - Malaysia - English localization	J9726A#ARE
Power Cord: Quantity :1, BS 1363/A, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part Store #: 8120-6809	
2920-24G Switch, AR - Argentina - English localization Power Cord: Quantity :1, IRAM 2073, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	J9726A#ARM
Store #: 8120-6869 2920-24G Switch, JmpCbl-NA/JP/TW - JmpCbl-NA/JP/TW	J9726A#B2B
	<i>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</i>



Power Cord: Quantity :1, C14 STRAIGHT, C15 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet ,Part Store #: 8121-1091	
2920-24G Switch, JmpCbl-ROW - JmpCbl-ROW	J9726A#B2C
Power Cord: Quantity :1, C14 STRAIGHT, C15 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet	JJTEONHELC
Part Store #: 8121-1094	
2920-24G Switch, 220V-NA - L6-20 220V-NA	J9726A#B2E
Power Cord: Quantity :1, NEMA 6-15P, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet	
,Part Store #: 8120-3996	
2920-24G-POE+ Switch, CL - Chile - English localization	J9727A#A1X
Power Cord: Quantity :1, CEI 23-50, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	
Store #: 8120-6980	
2920-24G-POE+ Switch, US - U.S English localization	J9727A#ABA
Power Cord: Quantity :1, NEMA 5-15P, C15 STRAIGHT, 125 V, 15 A, 2.5 meters, 8.21 feet	
,Part Store #: 8121-0914	
2920-24G-POE+ Switch, EU - Europe - English localization	J9727A#ABB
Power Cord: Quantity :1, CEE 7-VII, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part	
Store #: 8120-6811	
2920-24G-POE+ Switch, AU - Australia - English localization	J9727A#ABG
Power Cord: Quantity :1, AS/NZS 3112, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet	
,Part Store #: 8121-0834	
2920-24G-POE+ Switch, BR - Brazil - Portuguese localization	J9727A#AC4
Power Cord: Quantity :1, NBR 14136 Fig13, C13 STRAIGHT, 250 V, 2.5 A, 2.5 meters, 8.21	
feet ,Part Store #: 8121-1069	
2920-24G-POE+ Switch, KR - Korea - English localization	J9727A#AC6
Power Cord: Quantity :1, CEE 7-VII, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part Store #: 8120-6811	
2920-24G-POE+ Switch, UK - United Kingdom - English localization	J9727A#ACC
Power Cord: Quantity :1, BS 1363/A, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	
Store #: 8120-6809	
2920-24G-POE+ Switch, SZ - Switzerland - English localization	J9727A#ACD
Power Cord: Quantity :1, SEV 6534-2 Type 12, C13 STRAIGHT, 250 V, 10 A, 2.25 meters,	
7.39 feet ,Part Store #: 8120-6815	
2920-24G-POE+ Switch, DK - Denmark - English localization	J9727A#ACE
Power Cord: Quantity :1, DK 2-5A, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part	
Store #: 8120-6814	
2920-24G-POE+ Switch, JP - Japan - English localization	J9727A#ACF
Power Cord: Quantity :1, JIS C 8303, C13 STRAIGHT, 125 V, 12 A, 2.3 meters, 7.55 feet ,Part	
Store #: 8120-4753	
2920-24G-POE+ Switch, IN - India - English localization	J9727A#ACJ
Power Cord: Quantity :1, IS 1293, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	
Store #: 8121-0780	
Power Cord: Quantity :1, SABS 164, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part	J9727A#ACQ
Store #: 8120-6813	107074
2920-24G-POE+ Switch, IL - Israel - English localization	J9727A#AKJ
Power Cord: Quantity :1, SI 32 90-DEG, C13 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet	
,Part Store #: 8121-1035 2020 246 POE+ Switch TH, Thailand, English localization	
2920-24G-POE+ Switch, TH - Thailand - English localization	J9727A#AKL



Power Cord: Quantity :1, NEMA 5-15P, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part Store #: 8121-0668	
2920-24G-POE+ Switch, CN - China - English localization	J9727A#AKM
Power Cord: Quantity :1, GB 1002, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	
Store #: 8120-8707	
2920-24G-POE+ Switch, TW - Taiwan - English localization	J9727A#ARB
Power Cord: Quantity :1, CNS 690 Type 2(1), C13 STRAIGHT, 125 V, 13 A, 2.5 meters, 8.21 feet ,Part Store #: 8121-0974	
2920-24G-POE+ Switch, MY - Malaysia - English localization	J9727A#ARE
Power Cord: Quantity :1, BS 1363/A, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part Store #: 8120-6809	
2920-24G-POE+ Switch, AR - Argentina - English localization	J9727A#ARM
Power Cord: Quantity :1, IRAM 2073, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	
Store #: 8120-6869	
2920-24G-POE+ Switch, JmpCbl-NA/JP/TW - JmpCbl-NA/JP/TW	J9727A#B2B
Power Cord: Quantity :1, C14 STRAIGHT, C15 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet	
,Part Store #: 8121-1091	
2920-24G-POE+ Switch, JmpCbl-ROW - JmpCbl-ROW	J9727A#B2C
Power Cord: Quantity :1, C14 STRAIGHT, C15 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet	
,Part Store #: 8121-1094	
2920-24G-POE+ Switch, 220V-NA - L6-20 220V-NA	J9727A#B2E
Power Cord: Quantity :1, NEMA 6-15P, C15 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet	
,Part Store #: 8120-5338	
2920-48G Switch, CL - Chile - English localization	J9728A#A1X
Power Cord: Quantity :1, CEI 23-50, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	
Store #: 8120-6980	
2920-48G Switch, US - U.S English localization	J9728A#ABA
Power Cord: Quantity :1, NEMA 5-15P, C15 STRAIGHT, 125 V, 15 A, 2.5 meters, 8.21 feet	
,Part Store #: 8121-0914	
2920-48G Switch, EU - Europe - English localization	J9728A#ABB
Power Cord: Quantity :1, CEE 7-VII, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part	
Store #: 8120-6811	107204#400
2920-48G Switch, AU - Australia - English localization	J9728A#ABG
Power Cord: Quantity :1, AS/NZS 3112, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet .Part Store #: 8121-0834	
2920–48G Switch, BR – Brazil – Portuguese localization	J9728A#AC4
Power Cord: Quantity :1, NBR 14136 Fig13, C13 STRAIGHT, 250 V, 2.5 A, 2.5 meters, 8.21	J9720A#AC4
feet ,Part Store #: 8121-1069	
2920–48G Switch, KR - Korea - English localization	J9728A#AC6
Power Cord: Quantity :1, CEE 7-VII, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part	JJ7 201#AC0
Store #: 8120-6811	
2920-48G Switch, UK - United Kingdom - English localization	J9728A#ACC
Power Cord: Quantity :1, BS 1363/A, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	
Store #: 8120-6809	
2920-48G Switch, SZ - Switzerland - English localization	J9728A#ACD
Power Cord: Quantity :1, SEV 6534-2 Type 12, C13 STRAIGHT, 250 V, 10 A, 2.25 meters,	
7.39 feet ,Part Store #: 8120-6815	



## **HP 2920 Switch Series**

2920-48G Switch, DK - Denmark - English localization	J9728A#ACE
Power Cord: Quantity :1, DK 2-5A, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part	
Store #: 8120-6814	
2920-48G Switch, JP - Japan - English localization	J9728A#ACF
Power Cord: Quantity :1, JIS C 8303, C13 STRAIGHT, 125 V, 12 A, 2.3 meters, 7.55 feet ,Part	
Store #: 8120-4753	
2920-48G Switch, IN - India - English localization	J9728A#ACJ
Power Cord: Quantity :1, IS 1293, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part Store #: 8121-0780	
2920-48G Switch, ZA - South Africa - English localization	J9728A#ACQ
Power Cord: Quantity :1, SABS 164, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part	J3720A#ACQ
Store #: 8120-6813	
2920-48G Switch, IL - Israel - English localization	J9728A#AKJ
Power Cord: Quantity :1, SI 32 90-DEG, C13 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet	
,Part Store #: 8121-1035	
2920-48G Switch, TH - Thailand - English localization	J9728A#AKL
Power Cord: Quantity :1, NEMA 5-15P, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet	
,Part Store #: 8121-0668	
2920-48G Switch, CN - China - English localization	J9728A#AKM
Power Cord: Quantity :1, GB 1002, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	
Store #: 8120-8707	
2920-48G Switch, TW - Taiwan - English localization	J9728A#ARB
Power Cord: Quantity :1, CNS 690 Type 2(1), C13 STRAIGHT, 125 V, 13 A, 2.5 meters, 8.21 feet ,Part Store #: 8121-0974	
2920-48G Switch, MY - Malaysia - English localization	J9728A#ARE
Power Cord: Quantity :1, BS 1363/A, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	J <i>J1</i> 20A#ARE
Store #: 8120-6809	
2920-48G Switch, AR - Argentina - English localization	J9728A#ARM
Power Cord: Quantity :1, IRAM 2073, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	
Store #: 8120-6869	
2920-48G Switch, JmpCbl-NA/JP/TW - JmpCbl-NA/JP/TW	J9728A#B2B
Power Cord: Quantity :1, C14 STRAIGHT, C15 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet	
,Part Store #: 8121-1091	
2920-48G Switch, JmpCbl-ROW - JmpCbl-ROW	J9728A#B2C
Power Cord: Quantity :1, C14 STRAIGHT, C15 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet	
,Part Store #: 8121-1094	
2920-48G Switch, 220V-NA - L6-20 220V-NA	J9728A#B2E
Power Cord: Quantity :1, NEMA 6-15P, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part Store #: 8120-3996	
2920-48G-POE+ Switch, CL - Chile - English localization	J9729A#A1X
Power Cord: Quantity :1, CEI 23-50, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	JJ723A#ATA
Store #: 8120-6980	
2920-48G-POE+ Switch, US - U.S English localization	J9729A#ABA
Power Cord: Quantity :1, NEMA 5-15P, C15 STRAIGHT, 125 V, 15 A, 2.5 meters, 8.21 feet	
,Part Store #: 8121-0914	
2920-48G-POE+ Switch, EU - Europe - English localization	J9729A#ABB



Power Cord: Quantity :1, CEE 7-VII, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part Store #: 8120-6811	
2920-48G-POE+ Switch, AU - Australia - English localization	J9729A#ABG
Power Cord: Quantity :1, AS/NZS 3112, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet	557 257 1782
Part Store #: 8121-0834	
2920-48G-POE+ Switch, BR - Brazil - Portuguese localization	J9729A#AC4
Power Cord: Quantity :1, NBR 14136 Fig13, C13 STRAIGHT, 250 V, 2.5 A, 2.5 meters, 8.21	
feet ,Part Store #: 8121-1069	
2920-48G-POE+ Switch, KR - Korea - English localization	J9729A#AC6
Power Cord: Quantity :1, CEE 7-VII, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part	
Store #: 8120-6811	
2920-48G-POE+ Switch, UK - United Kingdom - English localization	J9729A#ACC
Power Cord: Quantity :1, BS 1363/A, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	
Store #: 8120-6809	
2920-48G-POE+ Switch, SZ - Switzerland - English localization	J9729A#ACD
Power Cord: Quantity :1, SEV 6534-2 Type 12, C13 STRAIGHT, 250 V, 10 A, 2.25 meters,	
7.39 feet ,Part Store #: 8120-6815	
2920-48G-POE+ Switch, DK - Denmark - English localization	J9729A#ACE
Power Cord: Quantity :1, DK 2-5A, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part	
Store #: 8120-6814	107204#465
2920-48G-POE+ Switch, JP - Japan - English localization	J9729A#ACF
Power Cord: Quantity :1, JIS C 8303, C13 STRAIGHT, 125 V, 12 A, 2.3 meters, 7.55 feet ,Part Store #: 8120-4753	
2920-48G-POE+ Switch, IN - India - English localization	J9729A#ACJ
Power Cord: Quantity :1, IS 1293, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	JJ72JA#ACJ
Store #: 8121-0780	
2920-48G-POE+ Switch, ZA - South Africa - English localization	J9729A#ACQ
Power Cord: Quantity :1, SABS 164, C13 STRAIGHT, 250 V, 10 A, 2.25 meters, 7.39 feet ,Part	
Store #: 8120-6813	
2920-48G-POE+ Switch, IL - Israel - English localization	J9729A#AKJ
Power Cord: Quantity :1, SI 32 90-DEG, C13 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet	
,Part Store #: 8121-1035	
2920-48G-POE+ Switch, TH - Thailand - English localization	J9729A#AKL
Power Cord: Quantity :1, NEMA 5-15P, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet	
,Part Store #: 8121-0668	
2920-48G-POE+ Switch, CN - China - English localization	J9729A#AKM
Power Cord: Quantity :1, GB 1002, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	
Store #: 8120-8707	
2920-48G-POE+ Switch, TW - Taiwan - English localization	J9729A#ARB
Power Cord: Quantity :1, CNS 690 Type 2(1), C13 STRAIGHT, 125 V, 13 A, 2.5 meters, 8.21	
feet ,Part Store #: 8121-0974	107204#405
Power Cord: Quantity :1, BS 1363/A, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part Store #: 8120-6809	J9729A#ARE
2920-48G-POE+ Switch, AR - Argentina - English localization	J9729A#ARM
Power Cord: Quantity :1, IRAM 2073, C13 STRAIGHT, 250 V, 10 A, 2.3 meters, 7.55 feet ,Part	JJILJAHANM
Store #: 8120-6869	
2920-48G-POE+ Switch, JmpCbl-NA/JP/TW - JmpCbl-NA/JP/TW	J9729A#B2B



## Configuration

Power Cord: Quantity :1, C14 STRAIGHT, C15 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 fee	et
,Part Store #: 8121-1091	
2920-48G-POE+ Switch, JmpCbl-ROW - JmpCbl-ROW	J9729A#B2C
Power Cord: Quantity :1, C14 STRAIGHT, C15 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 fee	et
,Part Store #: 8121-1094	
2920-48G-POE+ Switch, 220V-NA - L6-20 220V-NA	J9729A#B2E
Power Cord: Quantity :1, NEMA 6-15P, C15 STRAIGHT, 250 V, 10 A, 2.5 meters, 8.21 feet	
,Part Store #: 8120-5338	

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

## Networking

### **Ethernet Modules**

System (std 0 // max 2) User Selection (min 0 // max 2) per enclosure

HP 2920 2-port 10GbE SFP+ Module • min=0 \ max=2 SFP + Transceivers	J9731A See Configuration Note:1
HP 2920 2-port 10GBASE-T Module	J9732A

### **Configuration Rules**

Note 1 The following Transceivers install into this Module (Use #0D1 or #B01 quoted to switch if switch is CTO) - if applicable:	
HP X121 1G SFP LC LH Transceiver J4	1860C
HP X121 1G SFP LC LX Transceiver J4	1859C
HP X121 1G SFP LC SX Transceiver J4	1858C
HP X122 1G SFP LC BX-D Transceiver J9	9142B
HP X122 1G SFP LC BX-U Transceiver J9	9143B
HP X132 10G SFP+ LC SR Transceiver J9	9150A
HP X132 10G SFP+ LC ER Transceiver J9	9153A
HP X132 10G SFP+ LC LR Transceiver J9	9151A
HP X132 10G SFP+ LC LRM Transceiver J9	9152A
HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable J9	9281B
HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable J9	9283B
HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable J9	9285B
HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable J9	9300A
HP 10G X244 XFP to SFP+ 3m Direct Attach Copper Cable J9	9301A
HP 10G X244 XFP to SFP+ 5m Direct Attach Copper Cable J9	9302A
HP X242 10G SFP+ to SFP+ 10m Direct Attach Copper Cable J9	9286B
HP X242 10G SFP+ to SFP+ 15m Direct Attach Copper Cable J9	9287B



## Configuration

### **Stacking Modules**

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

HP 2920 2-port Stacking Module	J9733A

## Transceivers

### **SFP Transceivers**

HP X121 1G SFP LC LH Transceiver HP X121 1G SFP LC LX Transceiver	J4860C J4859C
HP X121 1G SFP LC SX Transceiver	J4858C
HP X122 1G SFP LC BX-D Transceiver	J9142B
HP X122 1G SFP LC BX-U Transceiver	J9143B
HP X121 1G SFP RJ45 T Transceiver	J8177C
HP X111 100M SFP LC FX Transceiver	J9054C
HP X112 100M SFP LC BX-D Transceiver	J9099B
HP X112 100M SFP LC BX-U Transceiver	J9100B

### SFP+ Transceivers

HP X132 10G SFP+ LC ER Transceiver	J9153A
HP X132 10G SFP+ LC SR Transceiver	J9150A
HP X132 10G SFP+ LC LR Transceiver	J9151A
HP X132 10G SFP+ LC LRM Transceiver	J9152A
HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B#B01
HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B#B01
HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285B#B01
HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable	J9300A#B01
HP 10G X244 XFP to SFP+ 3m Direct Attach Copper Cable	J9301A#B01
HP 10G X244 XFP to SFP+ 5m Direct Attach Copper Cable	J9302A#B01
HP X242 10G SFP+ to SFP+ 10m Direct Attach Copper Cable	J9286B
HP X242 10G SFP+ to SFP+ 15m Direct Attach Copper Cable	J9287B

## 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

## Configuration

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
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

### **Stacking Cables**

HP 2920 0.5m Stacking Cable	J9734A
HP 2920 1.0m Stacking Cable	J9735A
HP 2920 3.0m Stacking Cable	J9736A

## **Switch Enclosure Options**

### **Mounting Kit**

HP X410 1U Univ 4-post Rack Mnt Kit	J9583A
	See Configuration
	Note:1

### **Configuration Rules**

Note 1 If this Mounting Kit is order with #0D1 then it integrates to the HP Universal Rack. (not the switch)

### **External/Redundant Power Supplies**

HP 640 External/Redundant Power Supply <ul> <li>Height = 1U</li> <li>includes 1 x c13, 800w</li> </ul>	J9805A See Configuration Note:1, 3, 4, 5
HP X331 165W 100-240VAC to 12VDC PS • includes 1 x c15, 165w	J9739A See Configuration Note:2
<ul> <li>PDU CABLE NA/MEX/TW/JP</li> <li>C15 PDU Jumper Cord (NA/MEX/TW/JP)</li> </ul>	J9739A#B2B
<ul> <li>PDU CABLE ROW</li> <li>C15 PDU Jumper Cord (ROW)</li> </ul>	J9739A#B2C
High Volt Switch to Wall Power Cord <ul> <li>NEMA L6-20P Cord (NA/MEX/JP/TW)</li> </ul>	J9739A#B2E



HP X332 575W 10 • includes 1	00-240VAC to 54VDC PS x c15, 575w	J9738A See Configuration Note:2
PDU CABLE NA/M • C15 PDU Ju	EX/TW/JP Jmper Cord (NA/MEX/TW/JP)	J9738A#B2B
PDU CABLE ROW • C15 PDU Ju	umper Cord (ROW)	J9738A#B2C
-	to Wall Power Cord 20P Cord (NA/MEX/JP/TW)	J9738A#B2E
HP X332 1050W • includes 1	100-240VAC to 54VDC PS x c15, 1050w	J9737A See Configuration Note:2
PDU CABLE NA/M • C15 PDU Ju	EX/TW/JP Jmper Cord (NA/MEX/TW/JP)	J9737A#B2B
PDU CABLE ROW • C15 PDU Ju	umper Cord (ROW)	J9737A#B2C
-	to Wall Power Cord 20P Cord (NA/MEX/JP/TW)	J9737A#B2E
Configuration Ru	les	
Note 1	Can take up to Three internal power supplies. (J9737A, J9738A and J9739A) System (std 0 // max 3) User Selection (min 1 // max 3) per Power Supply enclosure. Mixing or matching of the 3 different power supplies is supported in the Chassis.	
Note 2	Localization required on orders without #B2B, #B2C or #B2E options.	
Note 3	No Localization. Localization is on the internal Power supplies.	
Note 4	Up to eight (8) Switch Chassis can be connected to this External Redundant Power Source. Power supply slot 1 supports up to 4 cables Power supply slot 2 supports up to 2 cables Power supply slot 3 supports up to 2 cables Supported on J9726A, J9727A, J9728A, J9729A and J9836A switches only.	
Note 5	If this RPS/EPS is installed in HP Universal Racks, Then the J9583A#0D1 is required	
Remarks:	For J9726A, and J9728A, the power supply in J9805A must be J9739A (165W).	

## **HP 2920 Switch Series**

## Configuration

For J9727A and J9729A, the power supply in J9805A must be J9737A (1050W) or J9738A (575W). For J9836A, the power supply in J9805A must be J9737A (1050W).

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)

High Volt Switch/Router/Power Supply to Wall Power Cord - #B2E Option. (Offered only in North America, Mexico, Taiwan, and Japan)

#### External/Redundant Power Cables

HP 640 EPS/RPS 1m Cable

J9806A See Configuration Note:1

### **Configuration Rules**

Note 11, 2, 3 or 4 cables per AC Power Supply used with J9805A supported. System (std 0 // max 8) User<br/>Selection (min 1 // max 8) per Power Supply enclosure.<br/>Power supply slot 1 supports up to 4 cables<br/>Power supply slot 2 supports up to 2 cables<br/>Power supply slot 3 supports up to 2 cables



## **Technical Specifications**

### HP 2920-24G Switch (J9726A)

I/O ports and slots Power supplies	20 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) 4 RJ-45 dual-personality 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) 1 dual-personality (RJ-45 or USB micro-B) 1 USB 1.1 1 RJ-45 out-of-band management port 2 module slots 1 stacking module slot 1 power supply slot	
	1 minimum power supply r includes: 1 x J9739A (HP X3	equired 331 165W 100-240VAC to 12VDC Modular Power Supply)
Physical characteristics	Dimensions	17.42(w) x 13.23(d) x 1.75(h) in (44.25 x 33.6 x 4.45 cm) (1U height)
	Weight	11.57 lb (5.25 kg)
Memory and processor	Tri Core ARM1176 @ 625 M dynamic egress + 4.5 MB in	IHz, 512 MB SDRAM, 1 GB flash MB; packet buffer size: 11.25 MB (6.75 MB Igress)
Performance	100 Mb Latency	< 9.0 µs (FIFO 64-byte packets)
	1000 Mb Latency	< 3.3 µs (FIFO 64-byte packets)
	10 Gbps Latency	< 3.3 µs (FIFO 64-byte packets)
	Throughput	95.2 million pps
	Switching capacity	128 Gb/s
	Routing table size	2048 entries (IPv4), 256 entries (IPv6)
	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
	Non-operating/ Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/ Storage relative humidity	15% to 95%, noncondensing
	Altitude	up to 10,000 ft (3 km)
	Acoustic	Power: 57 dB, Pressure: 41.4 dB
Electrical characteristics	Frequency	50/60 Hz
	Maximum heat dissipation	198 BTU/hr (208.89 kJ/hr)
	AC voltage	100-240 VAC
	Maximum power rating	58 W
	Idle power	26 W



## **Technical Specifications**

Safety	CE Labeled; EN 60825-1 Safety of Laser Products-Part 1; FCC Part 15, Subpart B; GOST; EU RoHS Compliant; EN 55022 Class A; EN 55024: 1998; C-Tick; ICES-003, Class A; VCCI Class A; IEC 60950-1 :Second Edition ; IEC 60825-1; EN62479:2010; CSA C22.2 No. 60950-1-07 2nd Edition; EN 60950- 1:2006+A11:2009+A1:2010+A12:2011; IEC 60950-1 (ed.2): am1		
Emissions	FCC part 15 Class A; VC	CI 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	IEC 61000-3-2	
	Flicker	IEC 61000-3-3	
Management	menu; out-of-band ma	ent Management Center; command-line interface; Web browser; configuration nagement (RJ-45 Ethernet); SNMP Manager; Telnet; RMON1; FTP; in-line and out- nanagement (serial RS-232C or Micro USB)	
Services		e at www.hp.com/networking/services for details on the service-level descriptions For details about services and response times in your area, please contact your local	

### HP 2920-24G-PoE+ Switch (J9727A)

I/O ports and slots	20 RJ-45 autosensing 10/100/1000 PoE+ 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, IEEE 802.3at PoE+) 4 RJ-45 dual-personality 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+) 1 dual-personality (RJ-45 or USB micro-B) 1 USB 1.1 1 RJ-45 out-of-band management port 2 module slots 1 stacking module slot	
Power supplies	1 power supply slot 1 minimum power supply required includes: 1 x J9738A (HP X332 575W 100-240VAC to 54VDC Modular Power Supply)	
Physical characteristics	Dimensions	17.42(w) x 13.23(d) x 1.75(h) in (44.25 x 33.6 x 4.45 cm) (1U height)
	Weight	12.04 lb (5.46 kg)
Memory and processor	Tri Core ARM1176 @ 625 MHz, 512 MB SDRAM, 1 GB flash; packet buffer size: 11.25 MB (6.5 MB dynamic egress + 4.5 MB ingress)	
Performance	100 Mb Latency	< 9.0 µs (FIFO 64-byte packets)
	1000 Mb Latency	< 3.3 µs (FIFO 64-byte packets)



## **HP 2920 Switch Series**

## **Technical Specifications**

	10 Gbps Latency	< 3.3 μs (FIFO 64-byte packets)
	Throughput	95.2 million pps
	Switching capacity	128 Gb/s
	Routing table size	2048 entries (IPv4), 256 entries (IPv6)
	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
	Non-operating/ Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/ Storage relative humidity	15% to 95%, noncondensing
	Altitude	up to 10,000 ft (3 km)
	Acoustic	Power: 61 dB, Pressure: 44.9 dB
<b>Electrical characteristics</b>	Frequency	50/60 Hz
	Maximum heat dissipation	358 BTU/hr (377.69 kJ/hr)
	AC voltage	100-240 VAC
	Maximum power rating	475 W
	Idle power	42 W
	PoE power	370 W
Safety	Compliant; EN 55022 Class Edition ; IEC 60825-1; EN62	fety of Laser Products-Part 1; FCC Part 15, Subpart B; GOST; EU RoHS A; EN 55024: 1998; C-Tick; ICES-003, Class A; VCCI Class A; IEC 60950-1 :Second 2479:2010; CSA C22.2 No. 60950-1-07 2nd Edition; EN 60950- D+A12:2011; IEC 60950-1 (ed.2): am1
Emissions	FCC part 15 Class A; VCCI Cl	ass 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	IEC 61000-3-2
	Flicker	IEC 61000-3-3
Management	menu; out-of-band manage	Aanagement Center; command-line interface; Web browser; configuration ement (RJ-45 Ethernet); SNMP Manager; Telnet; RMON1; FTP; in-line and out- agement (serial RS-232C or Micro USB)



## **Technical Specifications**

#### 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 2920-48G Switch (J9728A)		
I/O ports and slots	44 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) 4 RJ-45 dual-personality 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) 1 dual-personality (RJ-45 or USB micro-B) 1 USB 1.1 1 RJ-45 out-of-band management port 2 module slots 1 stacking module slot	
Power supplies	1 power supply slot 1 minimum power supply r includes: 1 x J9739A (HP X	equired 331 165W 100-240VAC to 12VDC Modular Power Supply)
Physical characteristics	Dimensions	17.42(w) x 13.23(d) x 1.75(h) in (44.25 x 33.6 x 4.45 cm) (1U height)
	Weight	11.95 lb (5.42 kg)
Memory and processor	Tri Core ARM1176 @ 625 M egress + 4.5 MB ingress)	IHz, 512 MB SDRAM, 1 GB flash; packet buffer size: 11.25 MB (6.75 MB dynamic
Performance	100 Mb Latency	< 9.0 µs (FIFO 64-byte packets)
	1000 Mb Latency	< 3.3 µs (FIFO 64-byte packets)
	10 Gbps Latency	< 3.2 µs (FIFO 64-byte packets)
	Throughput	130.9 million pps
	Switching capacity	176 Gb/s
	Routing table size	2048 entries (IPv4), 256 entries (IPv6)
	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
	Non-operating/ Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/ Storage relative humidity	15% to 95%, noncondensing
	Altitude	up to 10,000 ft (3 km)
	Acoustic	Power: 57 dB, Pressure: 41.8 dB
<b>Electrical characteristics</b>	Frequency	50/60 Hz
	Maximum heat dissipation	239 BTU/hr (252.15 kJ/hr)
	AC voltage	100-240 VAC
	Maximum power rating	70 W



## **Technical Specifications**

	Idle power	27 W	
Safety	Compliant; EN 55022 Clas 60950-1, Second Edition;	Gafety of Laser Products-Part 1; FCC Part 15, Subpart B; GOST; EU RoHS SS A; EN 55024: 1998; C-Tick; ICES-003, Class A; VCCI Class A; IEC 60825-1; IEC EN62479:2010; CSA C22.2 No. 60950-1-07 2nd Edition; EN 60950- 10+A12:2011; IEC 60950-1 (ed.2): am1	
Emissions	FCC part 15 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	IEC 61000-3-2	
	Flicker	IEC 61000-3-3	
Management	menu; out-of-band mana	t Management Center; command-line interface; Web browser; configuration gement (RJ-45 Ethernet); SNMP Manager; Telnet; RMON1; FTP; in-line and out- nagement (serial RS-232C or Micro USB)	
Services		t www.hp.com/networking/services for details on the service-level descriptions r details about services and response times in your area, please contact your local	

#### HP 2920-48G-PoE+ Switch (J9729A)

I/O ports and slots	44 RJ-45 autosensing 10/100/1000 PoE+ 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, IEEE 802.3at PoE+) 4 RJ-45 dual-personality 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+) 1 dual-personality (RJ-45 or USB micro-B) 1 USB 1.1 1 RJ-45 out-of-band management port 2 module slots 1 stacking module slot 1 power supply slot	
Power supplies	1 power supply slot 1 minimum power supply includes: 1 x J9738A (HP X	required 332 575W 100-240VAC to 54VDC Modular Power Supply)
Physical characteristics	Dimensions	17.42(w) x 13.23(d) x 1.73(h) in (44.25 x 33.6 x 4.39 cm) (1U height)
	Weight	12.57 lb (5.7 kg)
Memory and processor	Tri Core ARM1176 @ 625 M egress + 4.5 MB ingress)	4Hz, 512 MB SDRAM, 1 GB flash; packet buffer size: 11.25 MB (6.75 MB dynamic
Performance	100 Mb Latency	< 9.0 µs (FIFO 64-byte packets)



## HP 2920 Switch Series

## **Technical Specifications**

	1000 Mb Latency	< 3.2 µs (FIFO 64-byte packets)
	10 Gbps Latency	< 3.2 µs (FIFO 64-byte packets)
	Throughput	130.9 million pps
	Switching capacity	176 Gb/s
	Routing table size	2048 entries (IPv4), 256 entries (IPv6)
	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
	Non-operating/ Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/ Storage relative humidity	15% to 95%, noncondensing
	Altitude	up to 10,000 ft (3 km)
	Acoustic	Power: 62 dB, Pressure: 45.2 dB
<b>Electrical characteristics</b>	Frequency	50/60 Hz
	Maximum heat dissipation	399 BTU/hr (420.95 kJ/hr)
	AC voltage	100-240 VAC
	Maximum power rating	487 W
	Idle power	46 W
	PoE power	370 W
Safety	CE Labeled; EN 60825-1 Safety of Laser Products-Part 1; FCC Part 15, Subpart B; GOST; EU Ro Compliant; EN 55022 Class A; EN 55024: 1998; C-Tick; ICES-003, Class A; VCCI Class A; IEC 608 60950-1, Second Edition; EN62479:2010; CSA C22.2 No. 60950-1-07 2nd Edition; EN 60950- 1:2006+A11:2009+A1:2010+A12:2011; IEC 60950-1 (ed.2): am1	
Emissions	FCC part 15 Class A; VCCI Cl	ass 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	IEC 61000-3-2
	Flicker	IEC 61000-3-3



## **Technical Specifications**

Management	HP PCM+; IMC - Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (RJ-45 Ethernet); SNMP Manager; Telnet; RMON1; FTP; in-line and out- of-band; out-of-band management (serial RS-232C or Micro USB)
Services	Refer to the HP website at <a href="www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

#### HP 2920-48G-PoE+ 740W Switch (J9836A)

Forwer supplies         injower supply stor           I minimum power supply         1           I minimum power supply         17.42(w) x 13.23(d) x 1.73(h) in (44.25 x 33.6 x 4.39 cm) (1U height)           Weight         12.86 lb (5.83 kg)           Memory and processor         Tri Core ARM1176 @ 625 MHz, 512 MB SDRAM, 1 GB flash; packet buffer size: 11.25 MB (6.75 MB dynamic egress + 4.5 MB ingress)           Performance         100 Mb Latency         < 9.0 µs (FIF0 64-byte packets)           100 Mb Latency         < 3.2 µs (FIF0 64-byte packets)           100 Mb Latency         < 3.2 µs (FIF0 64-byte packets)           100 Mb Latency         < 3.2 µs (FIF0 64-byte packets)           100 Mb Latency         < 3.2 µs (FIF0 64-byte packets)           10 Gbps Latency         < 3.2 µs (FIF0 64-byte packets)           10 Gbps Latency         < 3.2 µs (FIF0 64-byte packets)           10 Gbps Latency         < 3.2 µs (FIF0 64-byte packets)           10 Gbps Latency         < 3.2 µs (FIF0 64-byte packets)           10 Gbps Latency         < 10.2 00 mtilion pps           Switching capacity         176 Gb/s           Routing table size         10.000 entries           Forviornment         Operating relative         32°F to 131°F (0°C to 55°C)           Operating/         15% to 95%, noncondensing           humidity	I/O ports and slots Power supplies	44 RJ-45 autosensing 10/100/1000 PoE+ 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, IEEE 802.3at PoE+) 4 RJ-45 dual-personality 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+) 1 dual-personality (RJ-45 or USB micro-B) 1 USB 1.1 1 RJ-45 out-of-band management port 2 module slots 1 stacking module slot		
Weight12.86 lb (5.83 kg)Memory and processorTri Core ARM1176 @ 625 \L>, 512 MB SDRAM, 1 GB flash; packet buffer size: 11.25 MB (6.75 MB dynamic egress + J. SMB ingress)Performance100 Mb Latency<9.0 µs (FIF0 64-byte packets)	i owei supplies			
Memory and processorTri Core ARM1176 @ 625 MHz, 512 MB SDRAM, 1 GB flash; packet buffer size: 11.25 MB (6.75 MB dynamic egress + 4.5 MB ingress)Performance100 Mb Latency< 9.0 µs (FIFO 64-byte packets)	Physical characteristics	Dimensions	17.42(w) x 13.23(d) x 1.73(h) in (44.25 x 33.6 x 4.39 cm) (1U height)	
(6.75 MB dynamic egress + 4.5 MB ingress)Performance100 Mb Latency< 9.0 μs (FIF0 64-byte packets)1000 Mb Latency< 3.2 μs (FIF0 64-byte packets)10 Gbps Latency< 3.2 μs (FIF0 64-byte packets)10 Gbps Latency< 3.2 μs (FIF0 64-byte packets)Throughput130.9 million ppsSwitching capacity176 Gb/sRouting table size2048 entries (IPv4), 256 entries (IPv6)MAC address table size16000 entriesDerating temperature32° to 131°F (0°C to 55°C)Operating relative humidity-40°F to 158°F (-40°C to 70°C)Storage temperature Storage relative humidity15% to 95%, noncondensingNon-operating/ storage relative humidity15% to 95%, noncondensingAltitudeup to 10,000 ft (3 km)AcousticPower: -53 dB, Pressure: -38.3 dB		Weight	12.86 lb (5.83 kg)	
1000 Mb Latency< 3.2 µs (FIFO 64-byte packets)10 Gbps Latency< 3.2 µs (FIFO 64-byte packets)10 Gbps Latency< 3.2 µs (FIFO 64-byte packets)Throughput130.9 million ppsSwitching capacity176 Gb/sRouting table size2048 entries (IPv4), 256 entries (IPv6)MAC address table size16000 entriesOperating temperature32°F to 131°F (0°C to 55°C)Operating relative15% to 95%, noncondensing humidityNon-operating/ Storage temperature-40°F to 158°F (-40°C to 70°C) Storage relative humidityNon-operating/ storage relative humidity15% to 95%, noncondensing humicientAttitudeup to 10,000 ft (3 km)AcousticPower: -53 dB, Pressure: -38.3 dB	Memory and processor			
<ul> <li>10 Gbps Latency</li> <li>3.2 µs (FIFO 64-byte packets)</li> <li>Throughput</li> <li>130.9 million pps</li> <li>Switching capacity</li> <li>Switching capacity</li></ul>	Performance	100 Mb Latency	< 9.0 µs (FIFO 64-byte packets)	
Throughput130.9 million ppsSwitching capacity176 Gb/sRouting table size2048 entries (IPv4), 256 entries (IPv6)MAC address table size16000 entriesOperating temperature32°F to 131°F (0°C to 55°C)Operating relative humidity15% to 95%, noncondensingNon-operating/ Storage temperature-40°F to 158°F (-40°C to 70°C)Non-operating/ Storage relative humidity15% to 95%, noncondensingAltitudeup to 10,000 ft (3 km)AcousticPower: -53 dB, Pressure: -38.3 dB		1000 Mb Latency	< 3.2 µs (FIFO 64-byte packets)	
Switching capacity176 Gb/sRouting table size2048 entries (IPv4), 256 entries (IPv6)MAC address table size16000 entriesDerating temperature32°F to 131°F (0°C to 55°C)Operating relative humidity15% to 95%, noncondensing humidityNon-operating/ Storage temperature-40°F to 158°F (-40°C to 70°C) Storage temperatureNon-operating/ Storage relative humidity15% to 95%, noncondensing does to 158°F (-40°C to 70°C) Storage temperatureAutitudeup to 10,000 ft (3 km)AcousticPower: -53 dB, Pressure: -38.3 dB		10 Gbps Latency	< 3.2 µs (FIFO 64-byte packets)	
Routing table size2048 entries (IPv4), 256 entries (IPv6)MAC address table size16000 entriesDperating temperature32°F to 131°F (0°C to 55°C)Operating relative humidity15% to 95%, noncondensingNon-operating/ Storage temperature-40°F to 158°F (-40°C to 70°C)Non-operating/ Storage relative humidity15% to 95%, noncondensingAltitudeup to 10,000 ft (3 km)AcousticPower: -53 dB, Pressure: -38.3 dB		Throughput	130.9 million pps	
MAC address table size1600 entriesEnvironmentOperating temperature32°F to 131°F (0°C to 55°C)Operating relative humidity15% to 95%, noncondensing -40°F to 158°F (-40°C to 70°C) Storage temperatureNon-operating/ Storage relative humidity-40°F to 158°F (-40°C to 70°C) -50°C)Non-operating/ Storage relative humidity15% to 95%, noncondensing -Non-operating/ Storage relative humidity15% to 95%, noncondensing -Altitudeup to 10,000 ft (3 km) -AcousticPower: -53 dB, Pressure: -38.3 dB		Switching capacity	176 Gb/s	
EnvironmentOperating temperature32°F to 131°F (0°C to 55°C)Operating relative humidity15% to 95%, noncondensing humidityNon-operating/ Storage temperature-40°F to 158°F (-40°C to 70°C) Storage temperatureNon-operating/ Storage relative humidity15% to 95%, noncondensing humidityAltitudeup to 10,000 ft (3 km) Power: -53 dB, Pressure: -38.3 dB		Routing table size	2048 entries (IPv4), 256 entries (IPv6)	
Operating relative humidity15% to 95%, noncondensingNon-operating/ Storage temperature-40°F to 158°F (-40°C to 70°C)Non-operating/ Storage relative humidity15% to 95%, noncondensingNon-operating/ Storage relative humidity15% to 95%, noncondensingAltitudeup to 10,000 ft (3 km)AcousticPower: -53 dB, Pressure: -38.3 dB		MAC address table size	16000 entries	
humidityNon-operating/ Storage temperature-40°F to 158°F (-40°C to 70°C)Non-operating/ Storage relative humidity15% to 95%, noncondensingAltitudeup to 10,000 ft (3 km)AcousticPower: -53 dB, Pressure: -38.3 dB	Environment	Operating temperature	32°F to 131°F (0°C to 55°C)	
Storage temperatureNon-operating/15% to 95%, noncondensingStorage relative humidityAltitudeup to 10,000 ft (3 km)AcousticPower: -53 dB, Pressure: -38.3 dB			15% to 95%, noncondensing	
Storage relative humidityAltitudeup to 10,000 ft (3 km)AcousticPower: -53 dB, Pressure: -38.3 dB			-40°F to 158°F (-40°C to 70°C)	
Altitudeup to 10,000 ft (3 km)AcousticPower: -53 dB, Pressure: -38.3 dB			-	
		Altitude	up to 10,000 ft (3 km)	
Electrical characteristics Frequency 50/60 Hz		Acoustic	Power: -53 dB, Pressure: -38.3 dB	
	Electrical characteristics	Frequency	50/60 Hz	



## **Technical Specifications**

	Maximum heat dissipation	399 BTU/hr (420.95 kJ/hr)	
	AC voltage	100-240 VAC	
	Maximum power rating	487 W	
	Idle power	46 W	
	PoE power	740 W	
Safety	CE Labeled; EN 60825-1 Safety of Laser Products-Part 1; FCC Part 15, Subpart B; GOST; EU RoHS Compliant; EN 55022 Class A; EN 55024: 1998; C-Tick; ICES-003, Class A; VCCI Class A; IEC 60950-1 :Second Edition ; IEC 60825-1; EN62479:2010; CSA C22.2 No. 60950-1-07 2nd Edition; EN 60950- 1:2006+A11:2009+A1:2010+A12:2011; IEC 60950-1 (ed.2): am1		
Emissions	FCC part 15 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	IEC 61000-3-2	
	Flicker	IEC 61000-3-3	
Management	HP PCM+; IMC - Intelligent Management Center; command-line interface; Web browser; configuration menu; out-of-band management (RJ-45 Ethernet); SNMP Manager; Telnet; RMON1; FTP; in-line and ou of-band; out-of-band management (serial RS-232C or Micro USB)		
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.		
<b>Standards and protocols</b> (applies to all products in series)	Denial of service protection CPU DoS Protection		
series)	Device management RFC 1155 Structure and Mgmt Information (SMIv1) RFC 1157 SNMPv1/v2c RFC 1591 DNS (client) RFC 1901 (Community based SNMPv2) RFC 1901-1907 SNMPv2c, SMIv2 and Revised MIB-II RFC 1908 (SNMP v1/2 Coexistence) RFC 2578-2580 SMIv2 RFC 2579 (SMIv2 Text Conventions)		
RFC 2580 (SMIV2 Text Conventions) RFC 2580 (SMIV2 Conformance) RFC 2819 (RMON groups Alarm, Event, History and			



## **Technical Specifications**

Statistics only) RFC 3416 (SNMP Protocol Operations v2) RFC 3417 (SNMP Transport Mappings) HTML and telnet management HTTP, SSHv1, and Telnet **Multiple Configuration Files** Multiple Software Images SNMP v3 and RMON RFC support SSHv1/SSHv2 Secure Shell TACACS/TACACS+ Web UI **General protocols** IEEE 802.1AX-2008 Link Aggregation 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 802.3ab 1000BASE-T IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3af Power over Ethernet IEEE 802.3at PoE+ IEEE 802.3az Energy Efficient Ethernet 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 1256 ICMP Router Discovery Protocol (IRDP) RFC 1350 TFTP Protocol (revision 2) RFC 1519 CIDR **RFC 1542 BOOTP Extensions** RFC 2030 Simple Network Time Protocol (SNTP) v4 RFC 2131 DHCP RFC 2236 IGMP Snooping **RFC 2453 RIPv2** RFC 2865 Remote Authentication Dial In User Service (RADIUS) **RFC 2866 RADIUS Accounting** RFC 3046 DHCP Relay Agent Information Option RFC 3411 An Architecture for Describing Simple Network Management Protocol (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



## **Technical Specifications**

of the Simple Network Management Protocol (SNMPv3) RFC 3415 View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP) RFC 3416 Protocol Operations for SNMP RFC 3417 Transport Mappings for the Simple Network Management Protocol (SNMP) RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP) RFC 3576 Ext to RADIUS (CoA only) RFC 4541 Considerations for Internet Group Management Protocol (IGMP) and Multicast Listener Discovery (MLD) Snooping Switches RFC 4675 RADIUS VLAN & Priority RFC 4861 Neighbor Discovery for IP version 6 (IPv6) RFC 4862 IPv6 Stateless Address Autoconfiguration UDLD (Uni-directional Link Detection)

### **IP** multicast

RFC 1112 IGMP RFC 2236 IGMPv2 RFC 2710 Multicast Listener Discovery (MLD) for IPv6 RFC 3376 IGMPv3 (host joins only) RFC 4541 Considerations for Internet Group Management Protocol (IGMP) and Multicast Listener Discovery (MLD) Snooping Switches

### IPv6

RFC 1981 IPv6 Path MTU Discovery **RFC 2460 IPv6 Specification** RFC 2710 Multicast Listener Discovery (MLD) for IPv6 RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations (Ping only) RFC 2925 Remote Operations MIB (Ping only) RFC 3019 MLDv1 MIB RFC 3315 DHCPv6 (client and relay) RFC 3513 IPv6 Addressing Architecture RFC 3596 DNS Extension for IPv6 RFC 3810 MLDv2 (host joins only) 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 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

IEEE 802.1ap (MSTP and STP MIB's only) RFC 1156 (TCP/IP MIB) RFC 1157 A Simple Network Management Protocol (SNMP)



#### **Technical Specifications**

RFC 1213 MIB II RFC 1493 Bridge MIB RFC 1724 RIPv2 MIB RFC 2021 RMONv2 MIB RFC 2578 Structure of Management Information Version 2 (SMIv2) RFC 2579 Textual Conventions for SMIv2 RFC 2580 Conformance Statements for 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 2819 RMON MIB RFC 2863 The Interfaces Group MIB RFC 2925 Ping MIB RFC 2933 IGMP MIB RFC 3414 SNMP-User based-SM MIB RFC 3415 SNMP-View based-ACM MIB RFC 3417 Simple Network Management Protocol (SNMP) over IEEE 802 Networks RFC 3418 MIB for SNMPv3

#### **Network management**

IEEE 802.1AB Link Layer Discovery Protocol (LLDP) **RFC 1155 Structure of Management Information** RFC 1157 SNMPv1 RFC 2021 Remote Network Monitoring Management Information Base Version 2 using SMIv2 RFC 2576 Coexistence between SNMP versions RFC 2578 Structure of Management Information Version 2 (SMIv2) RFC 2579 Textual Conventions for SMIv2 RFC 2580 Conformance Statements for SMIv2 RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events) RFC 2819 Remote Network Monitoring Management Information Base **RFC 2856 Textual Conventions for Additional High Capacity Data Types** RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations RFC 3164 BSD syslog Protocol RFC 3176 sFlow **RFC 3411 SNMP Management Frameworks** RFC 3412 SNMPv3 Message Processing RFC 3414 SNMPv3 User-based Security Model (USM) RFC 3415 SNMPv3 View-based Access Control Model VACM) ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED) SNMPv1/v2c/v3 XRMON

QoS/CoS

### **Technical Specifications**

IEEE 802.1P (CoS) RFC 2474 DiffServ Precedence, including 8 queues/port RFC 2597 DiffServ Assured Forwarding (AF) RFC 2598 DiffServ Expedited Forwarding (EF) Ingress Rate Limiting

#### Security

IEEE 802.1X Port Based Network Access Control IEEE 802.1X:Port-Based Network Access Control (2001) RFC 1321 The MD5 Message-Digest Algorithm **RFC 1334 PPP Authentication Protocols (PAP)** RFC 1492 An Access Control Protocol, Sometimes Called TACACS RFC 1492 TACACS+ **RFC 1994 PPP Challenge Handshake Authentication** Protocol (CHAP) RFC 2082 RIP-2 MD5 Authentication RFC 2104 Keyed-Hashing for Message Authentication **RFC 2138 RADIUS Authentication RFC 2139 RADIUS Accounting** RFC 2246 Transport Layer Security (TLS) RFC 2548 Microsoft Vendor-specific RADIUS Attributes **RFC 2618 RADIUS Authentication Client MIB RFC 2620 RADIUS Accounting Client MIB RFC 2716 PPP EAP TLS Authentication Protocol** RFC 2818 HTTP Over TLS RFC 2865 RADIUS (client only) **RFC 2865 RADIUS Authentication RFC 2866 RADIUS Accounting** RFC 2867 RADIUS Accounting Modifications for Tunnel Protocol Support **RFC 2868 RADIUS Attributes for Tunnel Protocol Support RFC 2869 RADIUS Extensions RFC 2882 NAS Requirements: Extended RADIUS Practices** RFC 3162 RADIUS and IPv6 **RFC 3576 Dynamic Authorization Extensions to RADIUS** RFC 3579 RADIUS Support For Extensible Authentication Protocol (EAP) RFC 3580 IEEE 802.1X Remote Authentication Dial In User Service (RADIUS) Usage Guidelines **RFC 4576 RADIUS Attributes** Access Control Lists (ACLs) draft-grant-tacacs-02 (TACACS) Guest VLAN for 802.1x MAC Authentication MAC Lockdown MAC Lockout Port Security Secure Sockets Layer (SSL) SSHv2 Secure Shell Web Authentication



## **Accessory Product Details**

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

HP 0.5 m Multimode OM3 LC/LC Optical Cable (AJ833A)	Cabling	<b>Cable type</b> : 50/125 µm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m
		<b>Maximum distance</b> : 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.
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical glass: Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>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.</li> <li>CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber and designed to work in both the 850 and 1300 nm wavelength windows.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>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.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul>
	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	<b>Cable type</b> : 50/125 µm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m	
		<b>Maximum distance</b> : 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.	
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>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.</li> <li>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.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>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.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul>	
	Services	Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	



Accessory Product Details			
HP 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)	Cabling	<b>Cable type</b> : 50/125 μm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;	
		<b>Maximum distance</b> : 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.	
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>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.</li> <li>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.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>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.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul>	
	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 (AJ836A)	Cabling	<b>Cable type</b> : 50/125 μm core/cladding) diameter, mulitimode 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.
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>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.</li> <li>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.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>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.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul>
	Services	Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.



Accessory Product Details		
HP 15 m Multimode OM3 LC/LC Optical Cable (AJ837A)	Cabling	<b>Cable type</b> : 50/125 µm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		<b>Maximum distance</b> : 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.
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>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.</li> <li>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.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>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.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul>
	Services	Refer to the HP website at <a href="www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.



Accessory Product Details		
HP 30 m Multimode OM3 LC/LC Optical Cable (AJ838A)	Cabling	<b>Cable type</b> : 50/125 μm (core/cladding) diameter, mulitimode 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.
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>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.</li> <li>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.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>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.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul>
	Services	Refer to the HP website at <a href="www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.



Accessory Product Details		
HP 50 m Multimode OM3 LC/LC Optical Cable (AJ839A)	Cabling	<b>Cable type</b> : 50/125 μm (core/cladding) diameter, mulitimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m;
		<b>Maximum distance</b> : 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.
		<ul> <li>Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um</li> <li>Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm.</li> <li>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.</li> <li>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.</li> <li>BULK CABLE &amp; CABLE ASSEMBLY CONFIGURATION:</li> <li>Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic.</li> <li>Jacket Color: Aqua for OM3 multimode per TIA 598</li> <li>Boot Color: White</li> <li>Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths &gt; 30 meters.</li> <li>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.</li> <li>Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg</li> </ul>
	Services	Refer to the HP website at <a href="www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.



Accessory Product D	etails	
HP Premier Flex LC/LC Multi-mode OM4 2 fiber	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.
<b>1m Cable</b> (QK732A)		<ul> <li>Core Diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um</li> </ul>
		• Bandwidth: 3000 MHz-km @ 850nm (Laser)
		<ul> <li>Jacket Color: Blue</li> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic</li> <li>Boot Color: White</li> </ul>
		• 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.
		<ul> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths &gt;30m</li> </ul>
		<ul> <li>Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45</li> </ul>
	Services	Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP Premier Flex LC/LC Multi-mode OM4 2 fiber	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.
<b>2m Cable</b> (QK733A)		<ul> <li>Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um</li> </ul>
		• Bandwidth: 3000 MHz-km @ 850nm (Laser)
		• Jacket Color: Blue
		<ul> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic</li> <li>Boot Color: White</li> </ul>
		• 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.
		<ul> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths &gt;30m</li> </ul>
		<ul> <li>Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45</li> </ul>
	Services	Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.



Accessory Product D	etails	
HP Premier Flex LC/LC Multi-mode OM4 2 fiber	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.
<b>5m Cable</b> (QK734A)		• Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um
		• Bandwidth: 3000 MHz-km @ 850nm (Laser)
		<ul> <li>Jacket Color: Blue</li> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic</li> <li>Boot Color: White</li> </ul>
		• 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.
		<ul> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths &gt;30m</li> </ul>
		<ul> <li>Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45</li> </ul>
	Services	Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP Premier Flex LC/LC Multi-mode OM4 2 fiber	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.
<b>15m Cable</b> (QK735A)		<ul> <li>Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um</li> </ul>
		• Bandwidth: 3000 MHz-km @ 850nm (Laser)
		<ul> <li>Jacket Color: Blue</li> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic</li> <li>Boot Color: White</li> </ul>
		<ul> <li>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.</li> </ul>
		<ul> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths &gt;30m</li> </ul>
		<ul> <li>Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45</li> </ul>
	Services	Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.



Accessory Product D	etails	
HP Premier Flex LC/LC Multi-mode OM4 2 fiber	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.
<b>30m Cable</b> (QK736A)		• Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um
		• Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue
		<ul> <li>Jacket Color: Blue</li> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic</li> <li>Boot Color: White</li> </ul>
		• 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.
		<ul> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths &gt;30m</li> </ul>
		<ul> <li>Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45</li> </ul>
	Services	Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
HP Premier Flex LC/LC Multi-mode OM4 2 fiber	Notes	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end.
<b>50m Cable</b> (QK737A)		• Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um
		• Bandwidth: 3000 MHz-km @ 850nm (Laser)
		<ul> <li>Jacket Color: Blue</li> <li>Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic</li> </ul>
		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.
		<ul> <li>Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths &gt;30m</li> </ul>
		<ul> <li>Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45</li> </ul>
	Services	Refer to the HP website at <a href="www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.



## **Accessory Product Details**

<b>HP X410 1U Universal 4- post Rack Mounting Kit</b> (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: HP 10K 10642, HP 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 HP website at: <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

HP Identity Driven Manager 3.0 Software	Identity Driven Manager 3.0 software and license for managing up to 500 users.	
500-User License (J9438A)	RADIUS server support	Microsoft Network Policy Server on Windows Server 2008 (32-bit) Microsoft Internet Authentication Service (IAS) on Windows Server 2003 (32- bit) FreeRADIUS supplied with Red Hat Enterprise Linux (4.7 and 5.2) RADIUS on the Network Access Controller 800
		FreeRADIUS supplied with SuSE Linux Enterprise Server (9.3 and 10.2)
	Features	Intuitive Explorer-style interface OpenView NNM integration Application of policies by user identity
		Auto VLAN assignment
		<ul> <li>Auto set quality of service by user</li> </ul>
		<ul> <li>Auto set bandwidth assignment by user</li> </ul>
		Rule-based access rights deployment
		Dynamic rights assignment based on:
		• Time
		Location
		User system
		Auto-discovery of:
		RADIUS servers
		Realms
		Users
	Notes	Additional specifications
		<ul> <li>Supports environments with up to 10,000 users.</li> <li>Supports up to 10 RADIUS servers with HP Identity Driven Manager agents installed.</li> </ul>
		Requires the HP PCM Plus 3.0 or greater network management platform.
		Please see HP PCM Plus 3.0 for hardware and software system



#### Accessory Product Details requirements. Services 3-Year, 9x5 SW phone support, software updates (UQ124E) 3-year, 24x7 SW phone support, software updates (UQ125E) 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 Identity Driven** License to add support for managing an additional 1,000 users with the Identity Driven Manager 3.0 Manager 3.0 Software-product. Additional 1,000-User License (J9440A) **RADIUS server support** Features Notes Additional specifications • Supports environments with up to 10,000 users. Supports up to 10 RADIUS servers with HP Identity Driven Manager agents installed. Requires the HP PCM Plus 3.0 or greater network management platform. Please see HP PCM Plus 3.0 for hardware and software system requirements. Requires the HP Identity Driven Manager 3.0 base product (J9438A). Multiple licenses for additional 1,000 users can be added to the base HP Identity Driven Manager product to support larger numbers of users. Services 3-year, 24x7 SW phone support, software updates (UQ119E) 3-Year, 9x5 SW phone support, software updates (UQ118E) 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 Identity Driven Manager 3.0 Software	Identity Driven Manager 3.0 software and license for managing an unlimited number of users.	
Unlimited-User License (J9439A)	RADIUS server support	Microsoft Network Policy Server on Windows Server 2008 (32-bit) Microsoft Internet Authentication Service (IAS) on Windows Server 2003 (32- bit) FreeRADIUS supplied with Red Hat Enterprise Linux (4.7 and 5.2) RADIUS on the Network Access Controller 800 FreeRADIUS supplied with SuSE Linux Enterprise Server (9.3 and 10.2)
	Features	Intuitive Explorer-style interface OpenView NNM integration Application of policies by user identity
		<ul> <li>Auto VLAN assignment</li> <li>Auto set quality of service by user</li> <li>Auto set bandwidth assignment by user</li> </ul>
		Rule-based access rights deployment
		Dynamic rights assignment based on:
		<ul> <li>Time</li> <li>Location</li> <li>User system</li> </ul>
		Auto-discovery of:
		<ul> <li>RADIUS servers</li> <li>Realms</li> <li>Users</li> </ul>
	Notes	Additional specifications
		<ul> <li>Supports environments with up to 10,000 users.</li> <li>Supports up to 10 RADIUS servers with HP Identity Driven Manager agents installed.</li> </ul>
		Requires the HP PCM Plus 3.0 or greater network management platform.
		Please see HP PCM Plus 3.0 for hardware and software system requirements.
	Services	3-year, 24x7 SW phone support, software updates (UQ133E) 3-Year, 9x5 SW phone support, software updates (UQ132E)
		Refer to the HP website at <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the
		service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.



### **Accessory Product Details**

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

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