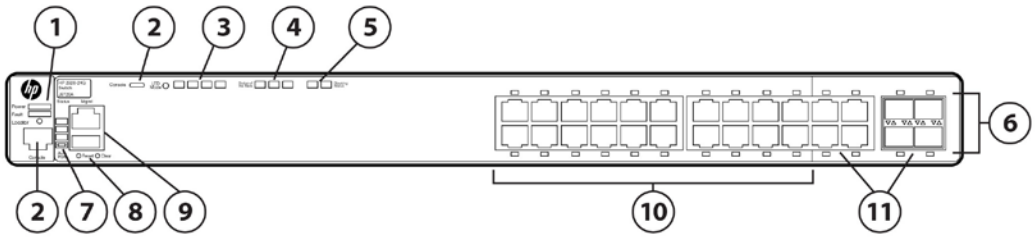
Overview

Aruba 2920 Switch Series

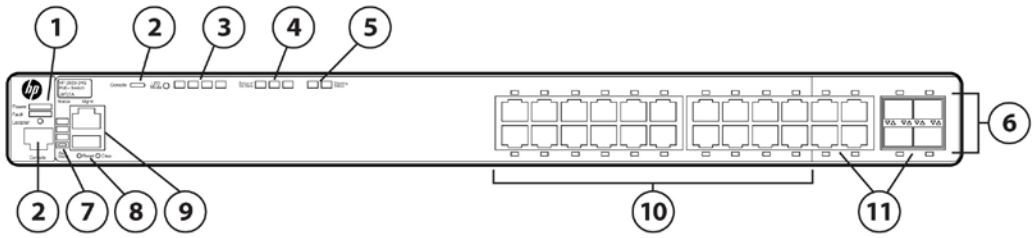
Models

Aruba 2920 24G Switch	J9726A
Aruba 2920 24G POE+ Switch	J9727A
Aruba 2920 48G Switch	J9728A
Aruba 2920 48G POE+ Switch	J9729A
Aruba 2920-48G-POE+ 740W Switch	J9836A



Aruba 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

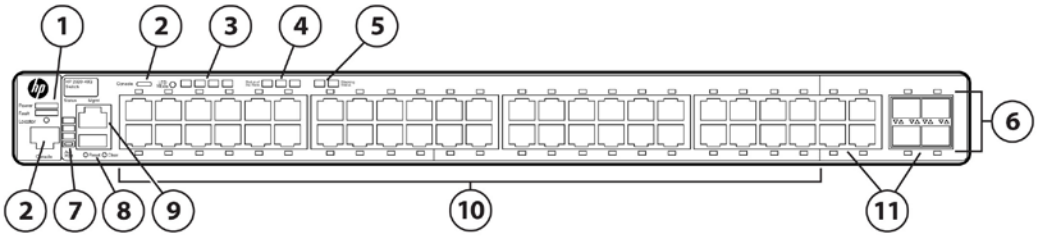


Aruba 2920 24G POE+ Switch

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

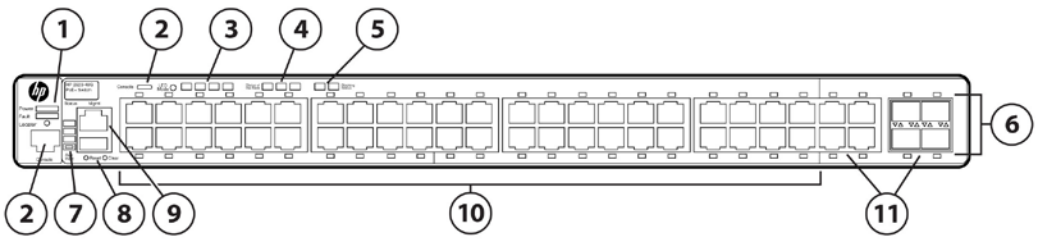
Overview

6. Switch port LEDs



Aruba 2920 48G Switch

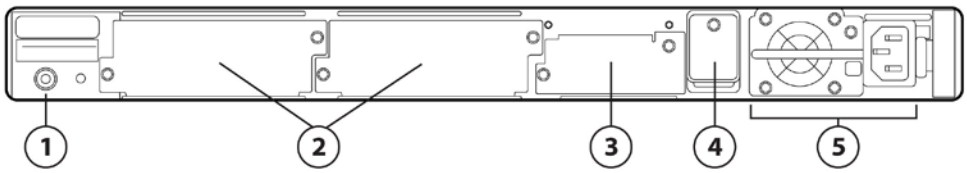
1. Power, Fault, and Locator LEDs
2. Console ports
3. LED Mode button and indicator LEDs
4. Status LEDs for components on the back of the switch
5. Stacking status LEDs
6. Switch port LEDs
7. PoE, Tmp (Temperature), Test, Fan, and Aux (Auxiliary) port status LED
8. Reset and Clear buttons
9. Aux port 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



Aruba 2920 48G POE+ Switch
Aruba 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



Aruba 2920 Switch Series Rear (All)

1. Grounding lug mounting hole
2. 10G Expansion Module slots
3. Stacking Module Slot
4. XPS Connector
5. Power Supply and AC power connector

Key Features

- Aruba Basic Layer 3 switch series with stacking, static & RIP routing, IPv6, ACLs, and sFlow.
- Advanced security and network management tools with Aruba ClearPass Policy Manager and Aruba AirWave
- Modular 10GbE uplinks (SFP+ and 10GBASE-T) and upgradeable power supplies for up to 1440W PoE+
- Simple deployment with Zero Touch Provisioning and cloud-based Aruba Central support
- Ready for innovative SDN applications with OpenFlow support

Product overview

The Aruba 2920 Switch Series provides security, scalability, and ease of use for enterprise edge, SMB and branch office networks. A powerful ProVision ASIC delivers low latency, more packet buffering, and adaptive power consumption. This Basic Layer 3 switch series supports modular stacking, 10GbE, PoE+, static and RIP routing, Access OSPF routing, Tunneled node, ACLs, sFlow, and IPv6. The 2920 delivers a consistent wired/wireless user experience with advanced security and network management tools with Aruba ClearPass Policy Manager and Aruba AirWave. With support from Aruba Central, you can quickly set up remote branch sites with little or no IT support. The 2920 is optimized for Software-defined Networking (SDN) with OpenFlow support.

The Aruba 2920 Switch Series provides cost-effective pay as you grow modular stacking with a 2-port stacking module, support for up to four 10GBASE-T (or SFP+) uplinks and upgradeable power supplies so your network can quickly scale when needed. The robust Basic Layer 3 feature set requires no licensing and includes a limited lifetime warranty.

Features and Benefits

Software-defined networking

- **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

Unified Wired and Wireless

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

Overview

- **User role**
  defines a set of switch-based policies in areas such as security, authentication, and QoS. A user role can be assigned to a group of users or devices, using switch configuration or ClearPass
- **Per-port tunneled node**
  provides a secured tunnel to transport network traffic on a per-port basis to an Aruba Controller. Authentication and network policies will be applied and enforced at the Controller
- **Static IP Visibility**
  provides a way for ClearPass to do accounting for clients with static IP address

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
- **Large buffers**
  provide graceful congestion management

Connectivity

- **Flexible 10 Gb/s Ethernet connectivity**
  up to four optional 10 Gigabit ports (SFP+ and/or 10GBASE-T)
- **Optional two-port stacking module with up to 40 Gb/s per port**
  allows stacking of up to four switch units into a single virtual device
- **Auto-MDIX**
  provides automatic adjustments for straight-through or crossover cables on all 10/100 and 10/100/1000 ports
- **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
- **IPv6**
  - **IPv6 host**
    enables switches to be managed in an IPv6 network
  - **Dual stack (IPv4 and IPv6)**
    transitions from IPv4 to IPv6, supporting connectivity for both protocols
  - **MLD snooping**
    forwards IPv6 multicast traffic to the appropriate interface
  - **IPv6 ACL/QoS**
    supports ACL and QoS for IPv6 network traffic
  - **IPv6 routing**
    supports static and RIPng protocols
  - **Security**
    provides RA guard, DHCPv6 protection, dynamic IPv6 lockdown, and ND snooping

Overview

Performance

- **Energy-efficient design**
  - **80 PLUS Silver Certified power supply:** increases power efficiency and savings
  - **Energy-efficient Ethernet (EEE) support** reduces power consumption in accordance with IEEE 802.3az
- **HPE ProVision ASIC architecture** is designed with the latest 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

Convergence

- **IP multicast snooping and data-driven IGMP** automatically prevent flooding of IP multicast traffic
- **LLDP-MED (Media Endpoint Discovery)** defines a standard extension of LLDP that stores values for parameters such as QoS and VLAN to configure automatically 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 HPE 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
- **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 of a separate physical management network, keeping management traffic segmented from network data traffic
- **Zero-Touch ProVisioning (ZTP)** simplifies installation of the switch infrastructure using the Aruba Activate-based or a DHCP-based process with AirWave Network Management
- **TR-069 support**

Overview

enables zero-touch configuration for switches

- **Aruba Central support**
  cloud based management platform offers simple, secure, and cost effective way to manage switches

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 the two devices.

Layer 2 switching

- **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
- **Rapid Per-VLAN Spanning Tree (RPVST+)**
  allows each VLAN to build a separate spanning tree to improve link bandwidth usage; is compatible with PVST+
- **GVRP and MVRP**
  allows automatic learning and dynamic assignment of VLANs
- **VLAN support and tagging**
  supports IEEE 802.1Q (4,094 VLAN IDs) and 1022 VLANs simultaneously

Layer 3 services

- **DHCP server**
  centralizes and reduces the cost of IPv4 address management

Layer 3 routing

- **Static IP routing**
  provides manually configured routing; includes ECMP capability
- **256 static and 2,048 RIP routes**
  facilitate segregation of user data without adding external hardware
- **Routing Information Protocol (RIP)**
  provides RIPv1, RIPv2, and RIPng routing
- **Access OSPF**
  provides OSPFv2 and OSPFv3 protocols for routing between access and the next layer on the LAN. Only one OSPF area and up to 8 interfaces are supported.

Overview

Security

- **Multiple user authentication methods**
  - **IEEE 802.1X**
    uses an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server to authenticate in accordance with industry standards
  - **Web-based authentication**
    provides a browser-based environment, similar to IEEE 802.1X, to authenticate clients that do not support the IEEE 802.1X supplicant
  - **MAC-based authentication**
    authenticates the client with the RADIUS server based on the client's MAC address
- **Authentication flexibility**
  - **Multiple IEEE 802.1X users per port**
    provides authentication of multiple IEEE 802.1X users per port; prevents a user from "piggybacking" on another user's IEEE 802.1X authentication
  - **Concurrent IEEE 802.1X, Web, and MAC authentication schemes per port**
    switch port will accept up to 32 sessions of IEEE 802.1X, Web, and MAC authentications
- **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**
  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**
  configures broadcast control selectively on heavy traffic port uplinks
- **Private VLAN**
  provides network security by restricting peer-to-peer communication to prevent a variety of malicious attacks; typically a

Overview

switch port can only communicate with other ports in the same community and/or an uplink port, regardless of VLAN ID or destination MAC address

Monitor and diagnostics

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

Warranty and support

- **Limited Lifetime Warranty**
  see **http://www.hpe.com/networking/warrantysummary** for warranty and support information included with your product purchase.
- **Software releases**
  to find software for your product, refer to **http://www.hpe.com/networking/support**; for details on the software releases available with your product purchase, refer to **http://www.hpe.com/networking/warrantysummary**

Configuration

Build To Order:

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

Aruba 2920 24G Switch — J9726A

- 24 RJ-45 autosensing 10/100/1000 ports — See Configuration **NOTE: 1, 2**
- 4 dual-personality ports
- min=0 \ max=4 SFP Transceivers
- 1 - HPE X331 165W 100-240VAC to 12VDC PS included
- 1U - Height

PDU CABLE NA/MEX/TW/JPPDU CABLE NA/MEX/TW/JP — J9726A#B2B

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

PDU CABLE ROW — J9726A#B2C

- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord — J9726A#B2E

- NEMA L6-20P Cord (NA/MEX/JP/TW)

Aruba 2920 24G POE+ Switch — J9727A

- 24 RJ-45 autosensing 10/100/1000 PoE+ ports — See Configuration **NOTE: 1, 2**
- 4 dual-personality ports
- min=0 \ max=4 SFP Transceivers
- 1 - HPE X332 575W 100-240VAC to 54VDC PS included
- 1U - Height

PDU CABLE NA/MEX/TW/JPPDU CABLE NA/MEX/TW/JP — J9727A#B2B

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

PDU CABLE ROW — J9727A#B2C

- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord — J9727A#B2E

- NEMA L6-20P Cord (NA/MEX/JP/TW)

Aruba 2920 48G Switch — J9728A

- 48 RJ-45 autosensing 10/100/1000 ports — See Configuration **NOTE: 1, 2**
- 4 dual-personality ports

Configuration

- min=0 \ max=4 SFP Transceivers
- 1 - HPE X331 165W 100-240VAC to 12VDC PS included
- 1U - Height

PDU CABLE NA/MEX/TW/JPPDU CABLE NA/MEX/TW/JP J9728A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU CABLE ROW J9728A#B2C
- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord J9728A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

Aruba 2920 48G POE+ Switch J9729A
- 48 RJ-45 autosensing 10/100/1000 PoE+ ports See Configuration **NOTE: 1, 2**
- 4 dual-personality ports
- min=0 \ max=4 SFP Transceivers
- 1 - HPE X332 575W 100-240VAC to 54VDC PS included
- 1U - Height

PDU CABLE NA/MEX/TW/JP J9729A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU CABLE ROW J9729A#B2C
- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord J9729A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

Aruba 2920-48G-POE+ 740W Switch J9836A
- 44 RJ-45 autosensing 10/100/1000 PoE+ ports See Configuration **NOTE: 1, 2**
- 4 RJ-45 dual-personality 10/100/1000 PoE+ ports
- min=0 \ max=4 SFP Transceivers
- 1 - HPE X332 1050W 110-240VAC to 54VDC PS included
- 1U - Height

PDU CABLE NA/MEX/TW/JP J9836A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

Configuration

PDU CABLE ROW J9836A#B2C
- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord J9836A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

No Power Cord J9836A#AC3
- No Localized Power Cord Selected

Configuration Rules

The following Transceivers install into this Module Switch:

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

NOTE 2 Localization required on orders without #B2B, #B2C or #B2E options.

Rack Level Integration CTO Models

Aruba 2920 24G Switch J9726A
- 24 RJ-45 autosensing 10/100/1000 ports See Configuration **NOTE:** 1, 3, 4, 5
- 4 dual-personality ports\
- min=0 \ max=4 SFP Transceivers
- 1 - HPE X331 165W 100-240VAC to 12VDC PS included
- 1U - Height

PDU CABLE NA/MEX/TW/JP J9726A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU CABLE ROW J9726A#B2C
- C15 PDU Jumper Cord (ROW)

Aruba 2920 24G POE+ Switch J9727A
- 24 RJ-45 autosensing 10/100/1000 PoE+ ports See Configuration **NOTE:** 1, 3, 4, 5
- 4 dual-personality ports
- min=0 \ max=4 SFP Transceivers
- 1 - HPE X332 575W 100-240VAC to 54VDC PS included
- 1U - Height

PDU CABLE NA/MEX/TW/JP J9727A#B2B

Configuration

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

PDU CABLE ROW J9727A#B2C
- C15 PDU Jumper Cord (ROW)

Aruba 2920 48G Switch J9728A
- 48 RJ-45 autosensing 10/100/1000 ports
- 4 dual-personality ports
- min=0 \ max=4 SFP Transceivers
- 1 - HPE X331 165W 100-240VAC to 12VDC PS included
- 1U - Height

See Configuration **NOTE:** 1, 3, 4, 5

PDU CABLE NA/MEX/TW/JP J9728A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU CABLE ROW J9728A#B2C
- C15 PDU Jumper Cord (ROW)

Aruba 2920 48G POE+ Switch J9729A
- 48 RJ-45 autosensing 10/100/1000 PoE+ ports
- 4 dual-personality ports
- min=0 \ max=4 SFP Transceivers
- 1 - HPE X332 575W 100-240VAC to 54VDC PS included
- 1U - Height

See Configuration **NOTE:** 1, 3, 4, 5

PDU CABLE NA/MEX/TW/JP J9729A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU CABLE ROW J9729A#B2C
- C15 PDU Jumper Cord (ROW)

Aruba 2920-48G-POE+ 740W Switch J9836A
- 44 RJ-45 autosensing 10/100/1000 PoE+ ports
- 4 RJ-45 dual-personality 10/100/1000 PoE+ ports
- min=0 \ max=4 SFP Transceivers
- 1 - HPE X332 1050W 110-240VAC to 54VDC PS included
- 1U - Height

See Configuration **NOTE:** 1, 3, 4, 5

PDU CABLE NA/MEX/TW/JP J9836A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

Configuration

PDU CABLE ROW J9836A#B2C
- C15 PDU Jumper Cord (ROW)

No Power Cord J9836A#AC3
- No Localized Power Cord Selected

Configuration Rules

NOTE 1 The following Transceivers install into this Module (Use #0D1 quoted to switch if switch is CTO) - if applicable:

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

NOTE 3 If this switch is factory installed in HPE 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 HPE CTO Switch Chassis is selected for Rack Level Integration, Then the CTO Switch Chassis needs to integrate (with #0D1) to the HPE Rack.

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

NOTE: These Internal Power Supplies are for Field Install as Spares or Upgrades when used internally in the Switches.
See the External/Redundant Power Supplies section under the Switch Enclosure Options below for configuring these Power Supplies in the HP640 Redundant/External PS Shelf.

Aruba X331 165W 100-240VAC/12VDC MODULAR POWER SUPPLY J9739A
- includes 1 x c15, 165w (Spare Only) See Configuration **NOTE:** 1, 3, 4

PDU CABLE NA/MEX/TW/JP J9739A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU CABLE ROW J9739A#B2C

Configuration

- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord J9739A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

Aruba X332 575W 100-240VAC/54VDC MODULAR POWER SUPPLY J9738A
- includes 1 x c15, 575w (Spare Only) See Configuration **NOTE:** 2, 3, 4

PDU CABLE NA/MEX/TW/JP J9738A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU CABLE ROW J9738A#B2C
- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord J9738A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

Aruba X332 1050W 110-240VAC/54VDC MODULAR POWER SUPPLY J9737A
- includes 1 x c15, 1050w (Spare or Upgrade Only) See Configuration **NOTE:** 2, 3, 4

PDU CABLE NA/MEX/TW/JP J9737A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU CABLE ROW J9737A#B2C
- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord J9737A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

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 for switch. (Offered

Configuration

only in NA, Mexico,, Taiwan, and Japan)

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

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

Aruba 2920 2-port 10GbE SFP+ Module	J9731A
• min=0 \ max=2 SFP + Transceivers	See Configuration **NOTE:** 1
Aruba 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:

HPE X121 1G SFP LC LH Transceiver	J4860C
HPE X121 1G SFP LC LX Transceiver	J4859C
HPE 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
HPE X132 10G SFP+ LC SR Transceiver	J9150A
HPE X132 10G SFP+ LC ER Transceiver	J9153A
HPE X132 10G SFP+ LC LR Transceiver	J9151A
HPE X132 10G SFP+ LC LRM Transceiver	J9152A
HPE X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B
HPE X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B
HPE X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285B
HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable	J9300A
HP 10G X244 XFP to SFP+ 3m Direct Attach Copper Cable	J9301A
HP 10G X244 XFP to SFP+ 5m Direct Attach Copper Cable	J9302A

Stacking Modules

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

Configuration

Aruba 2920 2-port Stacking Module	J9733A

Transceivers

SFP Transceivers

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

SFP+ Transceivers

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

Cables

Stacking Cables

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

Multi-Mode Cables

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

Configuration

HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable	QK736A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable	QK737A

Switch Enclosure Options

Mounting Kit

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

Configuration Rules

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

External/Redundant Power Supplies

Aruba 640 Redundant/External Power Supply Shelf — J9805A
- Height = 1U
- includes 1 x c13, 800w

See Configuration
NOTE: 1, 3, 4, 5, 6

Aruba X331 165W 100-240VAC/12VDC MODULAR POWER SUPPLY — J9739A
- includes 1 x c15, 165w

See Configuration
NOTE: 2, 7

PDU CABLE NA/MEX/TW/JP — J9739A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU CABLE ROW — J9739A#B2C
- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord — J9739A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

Aruba X332 575W 100-240VAC/54VDC MODULAR POWER SUPPLY — J9738A
- includes 1 x c15, 575w

See Configuration
NOTE: 2, 7

PDU CABLE NA/MEX/TW/JP — J9738A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU CABLE ROW — J9738A#B2C

Configuration

- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord — J9738A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

Aruba X332 1050W 110-240VAC/54VDC MODULAR POWER SUPPLY — J9737A
- includes 1 x c15, 1050w

See Configuration
NOTE: 2, 7

PDU CABLE NA/MEX/TW/JP — J9737A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU CABLE ROW — J9737A#B2C
- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord — J9737A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

Configuration Rules

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 HPE Universal Racks, Then the J9583A#0D1 is required

NOTE 6 This Power Shelf can only have #0D1 if a Universal Rack is on the order

NOTE 7 This Power Supply can only have #0D1 if the J9805A#0D1(PS Shelf) is on the order

Remarks: For J9726A, and J9728A, the power supply in J9805A must be J9739A (165W).
For J9727A and J9729A, the power supply in J9805A must be J9737A (1050W) or

Configuration

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

Aruba 640 Redundant/External Power Supply 1m Cable	J9806A See Configuration **NOTE:** 1

Configuration Rules

NOTE 1 1, 2, 3 or 4 cables per AC Power Supply used with J9805A supported. System (std 0 // max 8) User Selection (min 1 // max 8) per Power Supply enclosure.
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

Technical Specifications

Aruba 2920 24G Switch (J9726A)

I/O ports and slots	20 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 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) 2 module slots	
Additional ports and slots	1 stacking module slot 1 dual-personality (RJ-45 or USB micro-B) 1 USB 1.1 1 RJ-45 out-of-band management port	
Power supplies	1 power supply slot 1 minimum power supply required includes: 1 x J9739A (HPE X331 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 MHz, 512 MB SDRAM, 1 GB flash MB; packet buffer size: 11.25 MB (6.75 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)
	10 Gbps Latency	< 3.3 µs (FIFO 64-byte packets)
	Throughput	up to 95.2 Mpps
	Switching capacity	128 Gbps
	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
	80plus.org Certification	Silver
	Maximum heat dissipation	198 BTU/hr (208.89 kJ/hr)
	Voltage	100 - 240 VAC, rated
	Maximum power rating	58 W
	Idle power	26 W
	NOTES	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all

Technical Specifications

		modules populated.
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	Aruba AirWave Network Management; 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 Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	

Aruba 2920 24G POE+ Switch (J9727A)

I/O ports and slots	20 RJ-45 autosensing 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+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 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+) 2 module slots	
Additional ports and slots	1 stacking module slot 1 dual-personality (RJ-45 or USB micro-B) 1 USB 1.1 1 RJ-45 out-of-band management port	
Power supplies	1 power supply slot 1 minimum power supply required includes: 1 x J9738A (HPE 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)
	10 Gbps Latency	< 3.3 µs (FIFO 64-byte packets)
	Throughput	up to 95.2 Mpps

Technical Specifications

	Switching capacity	128 Gbps
	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
Electrical characteristics	**Frequency**	50/60 Hz
	80plus.org Certification	Silver
	Maximum heat dissipation	358 BTU/hr (377.69 kJ/hr)
	Voltage	100 - 240 VAC, rated
	Maximum power rating	475 W
	Idle power	42 W
	PoE power	370 W PoE+
	NOTES	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the power supplied by the internal power supply. It is dependent on the type and quantity of power supplies and may be supplemented with the use of an external power supply (EPS). 370 W of PoE+ power is available using the internal default power supply.
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	Aruba AirWave Network Management; IMC – Intelligent Management Center; Command-line interface;	

Technical Specifications

	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 Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

Aruba 2920 48G Switch (J9728A)

I/O ports and slots	44 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 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) 2 module slots	
Additional ports and slots	1 stacking module slot 1 dual-personality (RJ-45 or USB micro-B) 1 USB 1.1 1 RJ-45 out-of-band management port	
Power supplies	1 power supply slot 1 minimum power supply required includes: 1 x J9739A (HPE X331 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 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 (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	up to 130.9 Mpps
	Switching capacity	176 Gbps
	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
Electrical characteristics	**Frequency**	50/60 Hz
		Achieved Miercom Certified Green Award
	80plus.org Certification	Silver
	Maximum heat dissipation	239 BTU/hr (252.15 kJ/hr)
	Voltage	100 - 240 VAC, rated
	Maximum power rating	70 W
	Idle power	27 W

Technical Specifications

	NOTES	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated
Safety	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 60825-1; IEC 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 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	Aruba AirWave Network Management; 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 Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	

Aruba 2920 48G POE+ Switch (J9729A)

I/O ports and slots	44 RJ-45 autosensing 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+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 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+) 2 module slots	
Additional ports and slots	1 stacking module slot 1 dual-personality (RJ-45 or USB micro-B) 1 USB 1.1 1 RJ-45 out-of-band management port	
Power supplies	1 power supply slot 1 minimum power supply required includes: 1 x J9738A (HPE X332 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 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 (FIFO 64-byte packets)

Technical Specifications

	1000 Mb Latency	< 3.2 µs (FIFO 64-byte packets)
	10 Gbps Latency	< 3.2 µs (FIFO 64-byte packets)
	Throughput	up to 130.9 Mpps
	Switching capacity	176 Gbps
	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
Electrical characteristics	**Frequency**	50/60 Hz
	80plus.org Certification	Silver
	Maximum heat dissipation	399 BTU/hr (420.95 kJ/hr)
	Voltage	100 - 240 VAC, rated
	Maximum power rating	487 W
	Idle power	46 W
	PoE power	370 W PoE+
	NOTES	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the power supplied by the internal power supply. It is dependent on the type and quantity of power supplies and may be supplemented with the use of an external power supply (EPS). 370 W of PoE+ power is available using the internal default power supply.
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 60825-1; IEC 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 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

Technical Specifications

	Harmonics	IEC 61000-3-2
	Flicker	IEC 61000-3-3
Management	Aruba AirWave Network Management; 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 Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	

Aruba 2920-48G-POE+ 740W Switch (J9836A)

I/O ports and slots	44 RJ-45 autosensing 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+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 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+) 2 module slots	
Additional ports and slots	1 stacking module slot 1 dual-personality (RJ-45 or USB micro-B) 1 USB 1.1 1 RJ-45 out-of-band management port	
Power supplies	1 power supply slot 1 minimum power supply required includes: 1 x J9737A (HPE X332 1050W 110-240VAC to 54VDC 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	12.86 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 (FIFO 64-byte packets)
	1000 Mb Latency	< 3.2 µs (FIFO 64-byte packets)
	10 Gbps Latency	< 3.2 µs (FIFO 64-byte packets)
	Throughput	up to 130.9 Mpps
	Switching capacity	176 Gbps
	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: 53 dB, Pressure: 38.3 dB
Electrical characteristics	**Frequency**	50/60 Hz
	80plus.org Certification	Gold
	Maximum heat dissipation	399 BTU/hr (420.95 kJ/hr)
	Voltage	110 - 240 VAC, rated
	Maximum power rating	881 W

Technical Specifications

	Idle power	52 W
	PoE power	740 W PoE+
	NOTES	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the power supplied by the internal power supply. It is dependent on the type and quantity of power supplies and may be supplemented with the use of an external power supply (EPS). Idle power is the actual power consumption of the device with no ports connected. 740 W of PoE+ power is available using the internal default power supply.
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	Aruba AirWave Network Management; 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 Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	

Standards and protocols (applies to all products in series)

Denial of service protection	CPU DoS Protection
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 2576 (Coexistence between SNMP V1, V2, V3)

Technical Specifications

RFC 2578-2580 SMIv2
RFC 2579 (SMIv2 Text Conventions)
RFC 2580 (SMIv2 Conformance)
RFC 2819 (RMON groups Alarm, Event, History and 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 1918 Address Allocation for Private Internet
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 of the Simple Network Management

Technical Specifications

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 3575 IANA Considerations for RADIUS
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
RFC 5905 Network Time Protocol Version 4: Protocol and Algorithms Specification
UDLD (Uni-directional Link Detection)

IP Multicast

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

IPv6

RFC 1981 IPv6 Path MTU Discovery
RFC 2080 RIPng for IPv6
RFC 2081 RIPng Protocol Applicability Statement
RFC 2082 RIP-2 MD5
RFC 2460 IPv6 Specification
RFC 2464 Transmission of IPv6 over Ethernet Networks
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 3484 Default Address Selection for IPv6
RFC 3513 IPv6 Addressing Architecture
RFC 3596 DNS Extension for IPv6
RFC 3810 MLDv2 for IPv6
RFC 4022 MIB for TCP
RFC 4113 MIB for UDP
RFC 4251 SSHv6 Architecture
RFC 4252 SSHv6 Authentication
RFC 4253 SSHv6 Transport Layer
RFC 4254 SSHv6 Connection
RFC 4291 IP Version 6 Addressing Architecture
RFC 4293 MIB for IP
RFC 4419 Key Exchange for SSH
RFC 4443 ICMPv6
RFC 4541 IGMP & MLD Snooping Switch
RFC 4861 IPv6 Neighbor Discovery
RFC 4862 IPv6 Stateless Address Auto-configuration
RFC 5095 Deprecation of Type 0 Routing Headers in IPv6
RFC 6620 FCFS SAVI

Technical Specifications

draft-ietf-savi-mix

MIBs

IEEE 802.1ap (MSTP and STP MIB's only)
IEEE 8021-Bridge-MIB (2008)
IEEE 8021-Q-Bridge-MIB (2008)
RFC 1155 Structure & ID of Mgmt Info for TCP/IP Internets
RFC 1156 (TCP/IP MIB)
RFC 1157 A Simple Network Management Protocol (SNMP)
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 2932 IP (Multicast Routing 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
RFC 4836 Managed Objects for 802.3 Medium Attachment Units (MAU)

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 Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)
RFC 3413 Simple Network Management Protocol (SNMP) Applications
RFC 3414 User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3)
RFC 3415 SNMPv3 View-based Access Control Model VACM)
RFC 3415 View-based Access Control Model (VACM) for the Simple Network Management Protocol

Technical Specifications

	(SNMP) RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP) RFC 5424 Syslog Protocol ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED) SNMPv1/v2c/v3 XRMON
QoS/CoS	IEEE 802.1p (CoS) RFC 2474 DiffServ Precedence, including 8 queues/port RFC 2475 DiffServ Architecture RFC 2597 DiffServ Assured Forwarding (AF) RFC 2598 DiffServ Expedited Forwarding (EF) Ingress Rate Limiting
Security	IEEE 802.1X Port Based Network Access Control RFC 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 RADIUS 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

Accessories

Aruba 2920 Switch Series accessories

Modules

Aruba 2920 2-port 10GbE SFP+ Module	J9731A
Aruba 2920 2-port 10GBASE-T Module	J9732A
Aruba 2920 2-port Stacking Module	J9733A

Transceivers

HPE X121 1G SFP LC SX Transceiver	J4858C
HPE X121 1G SFP LC LX Transceiver	J4859C
HPE X121 1G SFP LC LH Transceiver	J4860C
HPE X121 1G SFP RJ45 T Transceiver	J8177C
HPE X111 100M SFP LC FX Transceiver	J9054C
HPE X132 10G SFP+ LC SR Transceiver	J9150A
HPE X132 10G SFP+ LC LR Transceiver	J9151A
HPE X132 10G SFP+ LC LRM Transceiver	J9152A
HPE X132 10G SFP+ LC ER Transceiver	J9153A
HPE X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B
HPE X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B
HPE X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285B
HPE X242 40G QSFP+ to QSFP+ 1m Direct Attach Copper Cable	JH234A
HPE X242 40G QSFP+ to QSFP+ 3m Direct Attach Copper Cable	JH235A
HPE X242 40G QSFP+ to QSFP+ 5m Direct Attach Copper Cable	JH236A

Cables

HPE LC to LC Multi-mode OM3 2-Fiber 0.5m 1-Pack Fiber Optic Cable	AJ833A
HPE LC to LC Multi-mode OM3 2-Fiber 1.0m 1-Pack Fiber Optic Cable	AJ834A
HPE LC to LC Multi-mode OM3 2-Fiber 2.0m 1-Pack Fiber Optic Cable	AJ835A
HPE LC to LC Multi-mode OM3 2-Fiber 5.0m 1-Pack Fiber Optic Cable	AJ836A
HPE LC to LC Multi-mode OM3 2-Fiber 15.0m 1-Pack Fiber Optic Cable	AJ837A
HPE LC to LC Multi-mode OM3 2-Fiber 30.0m 1-Pack Fiber Optic Cable	AJ838A
HPE LC to LC Multi-mode OM3 2-Fiber 50.0m 1-Pack Fiber Optic Cable	AJ839A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable	QK732A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable	QK733A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable	QK734A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable	QK735A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable	QK736A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable	QK737A
Aruba 2920 0.5m Stacking Cable	J9734A
Aruba 2920 1.0m Stacking Cable	J9735A
Aruba 2920 3.0m Stacking Cable	J9736A

Mounting Kit

Accessories

HPE X410 1U Universal 4-post Rackmount Kit	J9583A

Accessory Product Details

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

HPE LC to LC Multi-mode OM3 2-Fiber 0.5m 1-Pack Fiber Optic Cable (AJ833A)	**Cabling**	**Cable type**: 50/125 µm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m **Maximum distance**: 10Gbps Transfer Rate (Ethernet): 300m
	NOTES	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical glass: Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical glass: Bandwidth: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber and designed to work in both the 850 and 1300 nm wavelength windows. • BULK CABLE & CABLE ASSEMBLY CONFIGURATION: • Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. • Jacket Color: Aqua for OM3 multimode per TIA 598 • Boot Color: White • Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. • Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. • Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE LC to LC Multi-mode OM3 2-Fiber 1.0m 1-Pack Fiber Optic Cable (AJ834A)	**Cabling**	**Cable type**: 50/125 µm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m **Maximum distance**: 10Gbps Transfer Rate (Ethernet): 300m
	NOTES	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on

Accessory Product Details

		one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. • BULK CABLE & CABLE ASSEMBLY CONFIGURATION: • Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. • Jacket Color: Aqua for OM3 multimode per TIA 598 • Boot Color: White • Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. • Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. • Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE LC to LC Multi-mode OM3 2-Fiber 2.0m 1-Pack Fiber Optic Cable (AJ835A)	**Cabling**	**Cable type**: 50/125 µm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m; **Maximum distance**: 10Gbps Transfer Rate (Ethernet): 300m
	NOTES	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. • BULK CABLE & CABLE ASSEMBLY CONFIGURATION: • Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. • Jacket Color: Aqua for OM3 multimode per TIA 598

Accessory Product Details

		• Boot Color: White • Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. • Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. • Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE LC to LC Multi-mode OM3 2-Fiber 5.0m 1-Pack Fiber Optic Cable (AJ836A)	**Cabling**	**Cable type**: 50/125 µm core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m; **Maximum distance**: 10Gbps Transfer Rate (Ethernet): 300m
	NOTES	Cable Specs: This specification defines the detail requirements for a tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. • BULK CABLE & CABLE ASSEMBLY CONFIGURATION: • Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. • Jacket Color: Aqua for OM3 multimode per TIA 598 • Boot Color: White • Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. • Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. • Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE LC to LC Multi-	**Cabling**	**Cable type**:

Accessory Product Details

mode OM3 2-Fiber 15.0m 1-Pack Fiber Optic Cable (AJ837A)		50/125 µm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m; **Maximum distance**: 10Gbps Transfer Rate (Ethernet): 300m
	NOTES	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. • BULK CABLE & CABLE ASSEMBLY CONFIGURATION: • Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. • Jacket Color: Aqua for OM3 multimode per TIA 598 • Boot Color: White • Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. • Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. • Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE LC to LC Multi-mode OM3 2-Fiber 30.0m 1-Pack Fiber Optic Cable (AJ838A)	**Cabling**	**Cable type**: 50/125 µm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m; **Maximum distance**: 10Gbps Transfer Rate (Ethernet): 300m
	NOTES	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical Glass: For Laser sources: 2000/500 MHz-km

Accessory Product Details

		@850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. • BULK CABLE & CABLE ASSEMBLY CONFIGURATION: • Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. • Jacket Color: Aqua for OM3 multimode per TIA 598 • Boot Color: White • Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. • Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. • Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE LC to LC Multi-mode OM3 2-Fiber 50.0m 1-Pack Fiber Optic Cable (AJ839A)	**Cabling**	**Cable type**: 50/125 µm (core/cladding) diameter, multimode fiber optic, with effective modal bandwidth of 2000 MHz/km as detailed in TIA-492AAAC for distances of up to 300 m; **Maximum distance**: 10Gbps Transfer Rate (Ethernet): 300m
	NOTES	Cable Specs: Tight buffered duplex fiber optic multimode OM3 50/125 um fiber optic cable and Ethernet assembly with LC duplex connectors on one end and LC duplex connectors on other end. • Dimensions: Core diameter: 50 ± 3.0um Cladding diameter: 125 ± 2.0um Coating diameter: 245 ± 10um • Optical Glass Bandwidth: For LED sources: 1500/500 MHz-km @850/1300nm. • Optical Glass: For Laser sources: 2000/500 MHz-km @850/1300nm. VCSEL Laser sources: Shall achieve 600 / 600 meters @850/1300nm for Gigabit Ethernet compliant links. • CABLE: The cable is duplex zipcord graded index 50/125um multimode optical fiber. The cable is designed to work in both the 850 and 1300 nm wavelength windows. • BULK CABLE & CABLE ASSEMBLY CONFIGURATION: • Jacket Material: Riser Grade - Low Smoke Zero Halogen thermoplastic. • Jacket Color: Aqua for OM3 multimode per TIA 598 • Boot Color: White • Insertion Loss: less than 0.5 dB @ 850 with LED source, 0.003 dB/M added for lengths > 30 meters. • Maximum Cable attenuation: 3.0 dB/km @ 850 nm, 1.0 dB/Km @ 1310 nm @ 23°C as tested in accordance with EIA 455-46. • Weight: Air Packed Weight: 1 LB Net Weight: 0.454Kg

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	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable (QK732A)	**NOTES**	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core Diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HPE PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable (QK733A)	**NOTES**	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HPE PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

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HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable (QK734A)	**NOTES**	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HPE PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable (QK735A)	**NOTES**	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HPE PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable (QK736A)	**NOTES**	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um

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		• Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HPE PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable (QK737A)	**NOTES**	Cable Specs: Graded-index, "bendable" fiber optic multimode OM3+ 50/125um duplex cable and Ethernet assembly with LC duplex connectors on each end. • Core diameter: 50um ±3um, Cladding diameter: 125um ±2um; Coating diameter: 245 ± 10um • Bandwidth: 3000 MHz-km @ 850nm (Laser) • Jacket Color: Blue • Jacket Material: Riser Grade – Low Smoke Zero Halogen (LSZH) thermoplastic • Boot Color: White • Outer Jacket Print: HPE PremierFlex OM3+ Fiber Optic Cable, 50/125um, Type OFNR (UL), LSZH, cUL, OFN FT4, ROHS. Cable also has a longitudinal white stripe that runs the entire length of the cable. • Insertion Loss: Less than 0.5dB @ 850nm with LED source, 0.003dB/m added for lengths >30m • Maximum Cable Attenuation: 3.0 dB/km @ 850nm, 1.0 dB/km @ 1310nm @ 23°C as tested in accordance with EIA 455-45
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE X410 1U Universal 4-post Rackmount Kit (J9583A)	**NOTES**	The rack mounting kit supports the 1U, full width switches in the following switch series and the power supply: V1810 Series, E2510 Series, E2520 Series, E2610 Series, E2810 Series, E2910 Series, E3500 Series, and the E620 Power Supply This universal rack mounting kit is design to fit the following racks: HPE 10K 10642, HPE 10K 10842, Panduit CN, Panduit CS, Wrightline Vantage S2, APC Netshelter 600mm, and APC Netshelter 800mm. It may well fit many other brands and models too.
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise

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Summary of Changes

Date	Version History	Action	Description of Change
07-Nov-2016	From Version 23 to 24	Changed	Product overview, Features and Benefits, Accessories updated
01-Aug-2016	From Version 22 to 23	Changed	Adding #AC3 Option on Configuration Section
17-June-2016	From Version 21 to 22	Changed	Product descriptions updated.
06-June-2016	From Version 20 to 21	Changed	Overview, Features and Benefits, Technical Specifications and Accessories updated. SKU descriptions updated.
18-Mar-2016	From Version 19 to 20	Changed	Changes made on Configuration section
29-Jan-2016	From Version 18 to 19	Changed	Version updated to fix Product Bulletin format issues.
15-Jan-2016	From Version 17 to 18	Changed	Minor edits on Technical Specifications
08-Jan-2016	From Version 16 to 17	Changed	URLs updated
17-Dec-2015	From Version 15 to 16	Removed	Smart Buy SKUs removed from Accessories
01-Dec-2015	From Version 14 to 15	Changed	QuickSpecs name changed to Aruba 2920 Switch Series Product overview, Features and benefits, Technical Specifications and Accessories updated
01-Dec-2014	From Version 13 to 14	Added	Accessories section added
		Changed	Overview and Technical Specifications sections updated
09-Oct-2014	From Version 12 to 13	Removed	Removed SKUs J9438A, J9440A and J9439A from Accessory Product Details
15-Apr-2014	From Version 10 to 12	Removed	HPE X121 1G SFP RJ45 T Transceiver was removed from Configuration.
17-Feb-2014	From Version 9 to 10	Changed	SFP+ Transceivers were revised.
12-Nov-2013	From Version 8 to 9	Changed	Build to Order, Rack Level Integration CTO Models, Internal Power Supplies, Cables, and Switch Enclosure Options were revised.
30-Sep-2013	From Version 7 to 8	Changed	Configuration was reorganized
18-Sep-2013	From Version 6 to 7	Changed	Product overview and Features and benefits were revised HPE 2920-48G-PoE+ 740W Switch was added
19-Aug-2013	From Version 5 to 6	Changed	Configuration was revised Overview images were added
10-Jun-2013	From Version 4 to 5	Added	OM4 cables were added.
25-Mar-2013	From Version 3 to 4	Removed	Removed the entire Accessories Section.
		Added	Configuration: Multi-Mode Cables and Stacking Cables to the Cables section.
		Changed	Configuration: Updated section with Build to Order and several notes and not references
05-Mar-2013	From Version 2 to 3	Changed	Updated the Accessories section, removing unsupported RPS.
27-Feb-2013	From Version 1 to 2	Changed	Updated the formatting of the new Configuration section.