RETIRED: This document has been officially retired, and the base products listed herein are now considered obsolete and are no longer available for sale. Consequently, the information contained within may no longer be current. This document is provided exclusively for reference and informational purposes.

Overview

Aruba 3800 Switch Series

Models

Aruba 3800 24SFP 2SFP+ Switch	J9584A

Key features

- Fully managed L3 stackable switch series
- Highly resilient low-latency architecture
- SFP+, 10GBASE-T, PoE+, and modular stacking
- Highly resilient meshed stacking technology
- Limited Lifetime Warranty

Product overview

The Aruba 3800 Switch Series is a family of nine fully managed Gigabit Ethernet switches available in 24-port and 48-port models, with or without PoE+, and with either SFP+ or 10GBASE-T uplinks. The 3800 Switch Series utilizes the latest ProVision ASIC technology and advances in hardware engineering to deliver one of the most resilient and energy-efficient switches in the industry. In addition, meshed stacking technology is implemented in this switch series to deliver chassis-like resiliency in a flexible, stackable form factor.

Features and benefits

Software-defined networking

- **OpenFlow**
  is a key technology that enables 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
- **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

Overview

Quality of Service (QoS)

- **Advanced classifier-based QoS**
  classifies traffic using multiple match criteria based on Layer 2, 3, and 4 information; applies QoS policies such as setting priority level and rate limit to selected traffic on a per-port or per-VLAN basis
- **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
- **Bandwidth shaping**:
  - **Port-based rate limiting**: provides per-port ingress-/egress-enforced increased bandwidth
  - **Classifier-based rate limiting**: uses an access control list (ACL) to enforce increased bandwidth for ingress traffic on each port
  - **Reduced bandwidth**: provides per-port, per-queue egress-based reduced bandwidth
- **Remote intelligent mirroring**
  mirrors selected ingress/egress traffic based on an ACL, port, MAC address, or VLAN to a local or remote HPE 8200 zl, 6600, 6200 yl, 5400 zl, or 3500 switch anywhere on the network
- **Remote monitoring (RMON), Extended RMON (XRMON), and sFlow v5**
  provide advanced monitoring and reporting capabilities for statistics, history, alarms, and events
- **Traffic prioritization**
  allows real-time traffic classification into eight priority levels that are mapped to eight queues

Management

- **Friendly port names**
  allows assignment of descriptive names to ports
- **IEEE 802.1AB Link Layer Discovery Protocol** (LLDP)
  advertises and receives management information from adjacent devices on a network, facilitating easy mapping by network management applications
- **Command authorization**
  leverages RADIUS to link a custom list of CLI commands to an individual network administrator's login; an audit trail documents activity
- **Uni-Directional Link Detection** (UDLD)
  monitors a cable between two switches and shuts down the ports on both ends if the cable is broken, turning the bidirectional link into a unidirectional one; this prevents network problems such as loops
- **Multiple configuration files**
  allows assignment of descriptive names to ports
- **Dual flash images**
  provides independent primary and secondary operating system files for backup while upgrading
- **Out-of-Band Ethernet management port**
  enables management over a separate physical management network; and keeps management traffic segmented from network data traffic
- **Comware CLI**
  - **Comware-compatible CLI**
    bridges the experience of Hewlett Packard Enterprise Comware CLI users who are using the ProVision CLI
  - **Display and fundamental Comware CLI commands**
    are natively embedded in the switch CLI; display output is formatted as on Comware-based switches; fundamental commands provide Comware-familiar initial switch setup
  - **Configuration Comware CLI commands**
    when Comware commands are entered, CLI help is elicited to formulate the correct ProVision software CLI command

Overview

- **Zero-Touch ProVisioning (ZTP)**
  simplifies installation of the switch infrastructure using the Aruba Activate-based or a DHCP-based process with AirWave Network Management.

Connectivity

- **Jumbo frames**
  on Gigabit Ethernet and 10-Gigabit Ethernet ports, jumbo frames allow high-performance remote backup and disaster-recovery services
- **IEEE 802.3at PoE+**
  provides up to 30 W per port to IEEE 802.3at-complaint PoE/PoE+-powered devices such as video IP phones, IEEE 802.11n wireless access points, and advanced pan/zoom/tilt security cameras
- **Pre-standard PoE support**
  detects and provides power to pre-standard PoE devices (refer to the list of supported devices in the product FAQs, which can be accessed at **http://www.hpe.com/networking**)
- **Choice of uplinks**:
  - **SFP+ uplink models**: provide fiber-optic (up to 70 km) or direct-attach-cable (DAC) connectivity
  - **10GBASE-T uplink models**: offer 10GbE speeds, using standard RJ-45 connectors and standard twisted-pair cabling up to 100 m
- **Auto-MDIX**
  provides automatic adjustments for straight-through or crossover cables on all RJ-45 ports
- **IPv6**:
  - **IPv6 host**: enables switch management in an IPv6 network
  - **Dual stack (IPv4 and IPv6)**: transitions 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 traffic
  - **IPv6 routing**: supports static, RIPng, OSPFv3 routing protocols
  - **6in4 tunneling**: supports encapsulation of IPv6 traffic in IPv4 packets
  - **Security**: provides RA guard, DHCPv6 protection, dynamic IPv6 lockdown, and ND snooping

Performance

- **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
- **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
- **Meshed stacking technology**:
  - **High-performance stacking**: provides up to 336 Gb/s of stacking throughput; each 4-port stacking module can support up to 42 Gb/s in each direction per stacking port
  - **Ring, chain, and mesh topologies**: support up to a 10-member ring or chain and 5-member fully meshed stacks; meshed topologies offer increased resiliency vs. a standard ring
  - **Virtualized switching**: provides simplified management as the switches appear as a single chassis when stacked
- **Hewlett Packard Enterprise ProVision ASIC architecture**:
  is designed with the latest ProVision ASIC, providing very low latency, increased packet buffering, and adaptive power consumption

Resiliency and high availability

- **Virtual Router Redundancy Protocol (VRRP)**
  allows groups of two routers to dynamically back each other up to create highly available routed environments in IPv4 and IPv6 networks

Overview

- **Nonstop switching and routing**
  improves network availability to better support critical applications, such as unified communication and mobility; traffic will continue to be forwarded during failovers, when the backup member of the stack becomes the commander
- **IEEE 802.3ad Link Aggregation Protocol (LACP) and Hewlett Packard Enterprise port trunking**
  support up to 24 trunks, each with up to 8 links (ports) per trunk
- **IEEE 802.1s Multiple Spanning Tree**
  provides high link availability in multiple VLAN environments by allowing multiple spanning trees; provides legacy support for IEEE 802.1d and IEEE 802.1w
- **Dual hot-swappable power supplies**
  - **Increased resiliency**: provides secondary power supply to enable complete switch power redundancy in case of power line or supply failure
  - **Increased PoE+ power**: provides the secondary power supply to increase the total available PoE+ power
- **Distributed trunking**
  enables loop-free and redundant network topology without using Spanning Tree Protocol; allows a server or switch to connect to two switches using one logical trunk for redundancy and load sharing
- **SmartLink**
  provides easy-to-configure link redundancy of active and standby links

Layer 2 switching

- **IEEE 802.1ad QinQ**
  increases the scalability of an Ethernet network by providing a hierarchical structure; connects multiple LANs on a high-speed campus or metro network
- **IEEE 802.1v protocol VLANs**
  isolate select non-IPv4 protocols automatically into their own VLANs
- **MAC-based VLAN**
  provides granular control and security; uses RADIUS to map a MAC address/user to specific 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+
- **Hewlett Packard Enterprise switch meshing**
  dynamically load balances across multiple active redundant links to increase available aggregate bandwidth; allows concurrent Layer 3 routing
- **GVRP and MVRP**
  allows automatic learning and dynamic assignment of VLANs
- **VLAN support and tagging**
  supports the IEEE 802.1Q standard and 4094 VLANs simultaneously

Layer 3 services

- **Loopback interface address**
  defines an address in Routing Information Protocol (RIP) and Open Standard Path First (OSPF), improving diagnostic capability
- **Route maps**
  provide more control during route redistribution; allow filtering and altering of route metrics
- **User Datagram Protocol (UDP) helper function**
  allows UDP broadcasts to be directed across router interfaces to specific IP unicast or subnet broadcast addresses; and helps prevent server spoofing for UDP services such as DHCP
- **DHCP server**
  centralizes and reduces the cost of IPv4 address management

Layer 3 routing

- **Static IP routing**
  provides manually configured routing for both IPv4 and IPv6 networks

Overview

- **OSPF**
  provides OSPFv2 for IPv4 routing and OSPFv3 for IPv6 routing
- **Policy-based routing**
  makes routing decisions based on policies set by the network administrator
- **Border Gateway Protocol** (BGP)
  provides IPv4 Border Gateway Protocol routing, which is scalable, robust, and flexible
- **Routing Information Protocol (RIP)**
  provides RIPv1, RIPv2, and RIPng routing

Security

- **Source-port filtering**
  allows only specified ports to communicate with each other
- **RADIUS/TACACS+**
  eases switch management security administration by using a password authentication server
- **Secure shell**
  encrypts all transmitted data for secure remote CLI access over IP networks
- **Secure Sockets Layer** (SSL)
  encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch
- **Port security**
  allows access only to specified MAC addresses, which can be learned or specified by the administrator
- **MAC address lockout**
  prevents particular configured MAC addresses from connecting to the network
- **Detection of malicious attacks**
  monitors 10 types of network traffic and sends a warning when an anomaly that potentially can be caused by malicious attacks is detected
- **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
- **Secure management access**
  securely encrypts all access methods (CLI, GUI, or MIB) through SSHv2, SSL, and/or SNMPv3
- **ICMP throttling**
  defeats ICMP denial-of-service attacks by enabling any switch port to automatically throttle ICMP traffic
- **Identity-driven ACL**
  enables implementation of a highly granular and flexible access security policy and VLAN assignment specific to each authenticated network user
- **STP BPDU port protection**
  blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks
- **Dynamic IP lockdown**
  works with DHCP protection to block traffic from unauthorized hosts, preventing IP source address spoofing
- **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
- **Management Interface Wizard**
  helps secure management interfaces such as SNMP, telnet, SSH, SSL, Web, and USB at the desired level
- **Security banner**
  displays a customized security policy when users log in to the switch
- **Switch CPU protection**
  provides automatic protection against malicious network traffic trying to shut down the switch

Overview

- **ACLs**
  provide filtering based on the IP field, source/destination IP address/subnet and source/destination TCP/UDP port number on a per-VLAN or per-port basis
- **Multiple authentication methods**
  - **IEEE 802.1X**
    authenticates multiple IEEE 802.1X users per port; prevents a user from "piggybacking" on another user's authentication
  - **Web-based authentication**
    authenticates from Web browser for clients that do not support 802.1X supplicant
  - **MAC-based authentication**
    authenticates client with the RADIUS server based on client's MAC address
  - **Concurrent authentication modes**
    enables a switch port to accept up to 32 sessions of 802.1X, Web, and MAC authentication
- **Private VLAN**
  provides network security by restricting peer-to-peer communication to prevent a variety of malicious attacks; typically a 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

Convergence

- **IP multicast snooping** (data-driven IGMP)
  automatically prevents 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
- **PoE allocations**
  support multiple methods (automatic, IEEE 802.3af class, LLDP-MED, or user specified) to allocate PoE power for more efficient energy savings
- **IP multicast routing**
  includes PIM sparse and dense modes to route IP multicast traffic
- **Auto VLAN configuration for voice**
  - **RADIUS VLAN**
    uses a standard RADIUS attribute and LLDP-MED to automatically configure a VLAN for IP phones
  - **CDPv2**
    uses CDPv2 to configure legacy IP phones
- **Local MAC Authentication**
  assigns attributes such as VLAN and QoS using locally configured profile that can be a list of MAC prefixes

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 3800 24SFP 2SFP+ Switch — J9584A

- 24 SFP 100/1000 Mbps ports
- min=0 \ max=24 SFP Transceivers
- 2 fixed 1000/10000 SFP+ ports
- min=0 \ max=2 SFP+ Transceivers
- 1 open stacking module slot
- 1 X311 400WPower Supply included
- 1 Aruba 3800 Switch Fan Tray (J9582A) included
- 1U - Height

See Configuration
NOTE: 1, 2, 4

PDU Cable NA/MEX/TW/JP — J9584A#B2B

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

PDU Cable ROW — J9584A#B2C

- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord — J9584A#B2E

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

Configuration Rules:

NOTE 1 The following Transceivers install into this Switch (For the 1000/10000 SFP+ Ports):

HPE X121 1G SFP LC LH Transceiver	J4860C
HPE X121 1G SFP LC LX Transceiver	J4859C
HPE X121 1G SFP LC SX Transceiver	J4858C
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

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

NOTE 4 The following Transceivers install into this Switch:

HPE X121 1G SFP LC LH Transceiver	J4860C
HPE X121 1G SFP LC LX Transceiver	J4859C
HPE X121 1G SFP LC SX Transceiver	J4858C
HPE X111 100M SFP LC FX Transceiver	J9054C

Configuration

Remarks: OCA Only Model Selection Form -
HPE Offering > Aruba > Switches - ArubaOS:
Aruba 3800 Switch Series

Box Level Integration CTO Models

CTO Solution SKU

Aruba 38xx Configure-to-order Switch Solution — JG501A
- SSP trigger SKU

CTO Switch Chassis

Aruba 3800 24SFP 2SFP+ Switch — J9584A — See Configuration — **NOTE:** 1, 2, 4, 10, 11
- 24 SFP 100/1000 Mbps ports
- min=0 \ max=24 SFP Transceivers
- 2 fixed 1000/10000 SFP+ ports
- min=0 \ max=2 SFP+ Transceivers
- 1 open stacking module slot
- 1 X311 400WPower Supply included
- 1 Aruba 3800 Switch Fan Tray (J9582A) included
- 1U - Height

PDU Cable NA/MEX/TW/JP — J9584A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW — J9584A#B2C
- C15 PDU Jumper Cord (ROW)

High Volt Switch to Wall Power Cord — J9584A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

Configuration Rules:

NOTE 1 The following Transceivers install into this Switch:

HPE X121 1G SFP LC LH Transceiver	J4860C
HPE X121 1G SFP LC LX Transceiver	J4859C
HPE X121 1G SFP LC SX Transceiver	J4858C
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

Configuration

HPE X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B
HPE X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285B

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

NOTE 4 The following Transceivers install into this Switch: (For the 100/1000 SFP Ports)

HPE X121 1G SFP LC LH Transceiver	J4860C
HPE X121 1G SFP LC LX Transceiver	J4859C
HPE X121 1G SFP LC SX Transceiver	J4858C
HPE X111 100M SFP LC FX Transceiver	J9054C

NOTE 10 If the Switch Chassis is to be Factory Integrated (CTO), Then the #0D1 is required on the Switch Chassis and integrated to the JG501A HPE 3800 CTO Enablement. (Min 1/Max 1 Switch per SSP)

NOTE 11 If this Switch is selected, Then a Minimum of 1 factory integrated accessory must be ordered and integrated to CTO chassis. See Menu below, option must have a #0D1 to be integrated to the CTO Chassis.

Rack Level Integration CTO Models

Aruba 3800 24SFP 2SFP+ Switch — J9584A

- 24 SFP 100/1000 Mbps ports
- min=0 \ max=24 SFP Transceivers
- 2 fixed 1000/10000 SFP+ ports
- min=0 \ max=2 SFP+ Transceivers
- 1 open stacking module slot
- 1 X311 400WPower Supply included
- 1 Aruba 3800 Switch Fan Tray (J9582A) included
- 1U - Height

See Configuration
NOTE: 1, 2, 4, 5, 6, 11

PDU Cable NA/MEX/TW/JP — J9584A#B2B

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

PDU Cable ROW — J9584A#B2C

- C15 PDU Jumper Cord (ROW)

Configuration Rules:

NOTE 1 The following Transceivers install into this Switch:

HPE X121 1G SFP LC LH Transceiver	J4860C
HPE X121 1G SFP LC LX Transceiver	J4859C
HPE X121 1G SFP LC SX Transceiver	J4858C
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

Configuration

HPE X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B
HPE X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285B

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

NOTE 4 The following Transceivers install into this Switch: (For the 100/1000 SFP Ports)

HPE X121 1G SFP LC LH Transceiver	J4860C
HPE X121 1G SFP LC LX Transceiver	J4859C
HPE X121 1G SFP LC SX Transceiver	J4858C
HPE X111 100M SFP LC FX Transceiver	J9054C

NOTE 5 When Switches/Routers are Factory Racked, Then #B2B, or #B2C should be the Defaulted Power Cable option on the Switches/Routers.

NOTE 6 If this switch is factory installed in HPE Universal Racks, Then the J9583A#0D1 is required.
CLIC Only - Allow the J9583AZ in all regions.

NOTE 11 If the CTO Switch Chassis needs to be racked, Then the CTO Base Model needs to integrate (with #0D1) to the HPE Universal Rack.

Internal Power Supplies

System (std 1 // max=2) User Selection (min 0 / max=1) per Switch

HPE X311 400W 100 240VAC to 12VDC Power Supply — J9581A
See Configuration
NOTE: 2, 3, 4, 5

PDU Cable NA/MEX/TW/JP — J9581A#B2B
- C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW — J9581A#B2C
- C15 PDU Jumper Cord (ROW)

High Volt Power Supply to Wall Power Cord — J9581A#B2E
- NEMA L6-20P Cord (NA/MEX/JP/TW)

No Power Cord — J9581A#AC3
- No Localized Power Cord Selected

Configuration Rules:

NOTE 2 If this Power supply is selected, Then J9584A must be the switch it's installed into.

Configuration

NOTE 3 Localization required on orders without #B2B or #B2C options.

NOTE 4 When Switches are Factory Racked with this power supply, Then #B2B, or #B2C should be the Defaulted Power Cable option on the Power Supplies. (See Drop down remark in "Internal Power Supplies" section.)

NOTE 5 If Power Supply is ordered with a Switch/Router Solution, then the default Power Cable option should be the same as the Router/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, 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 switch above if order is factory built.

Modules

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

Aruba 3800 4-port Stacking Module	J9577A See Configuration **NOTE:** 1

Configuration Rules:

NOTE 1 The following Cables install into this Module: (Use #B01 quoted to switch if switch is CTO) - if applicable

Aruba 3800/3810M 0.5m Stacking Cable	J9578A
Aruba 3800/3810M 1m Stacking Cable	J9665A
Aruba 3800/3810M 3m Stacking Cable	J9579A

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
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

Configuration

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

Cables

Stacking Cables

System (std 0 // max=4) User Selection (min 0 / max=4) per Switch

Aruba 3800/3810M 0.5m Stacking Cable	J9578A
Aruba 3800/3810M 1m Stacking Cable	J9665A
Aruba 3800/3810M 3m Stacking Cable	J9579A

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
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

Rack Mount Kit

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

Configuration Rules:

NOTE 1 If this switch is factory installed in HPE Universal Racks, Then the J9583A#0D1 is required.

Fan Tray

Aruba 3800 Switch Fan Tray • This is a Spare Only	J9582A

Technical Specifications

Aruba 3800 24SFP 2SFP+ Switch (J9584A)

Included accessories	1 Aruba 3800 Switch Fan Tray (J9582A) 1 HPE X311 400W 100 240VAC to 12VDC Power Supply (J9581A)	
Ports	24 SFP 100/1000 Mbps ports (IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 100BASE-TX: half or full; 1000BASE-T: full only	
	2 fixed 1000/10000 SFP+ ports	
Additional ports and slots	1 RJ-45 serial console port	
	1 RJ-45 out-of-band management port	
	1 stacking module slot	
Power supplies	2 power supply slots 1 minimum power supply required includes: 1 x J9581A (HPE X311 400W 100 240VAC to 12VDC Power Supply)	
Fan tray	includes: 1 x J9582A 1 fan tray slot	
Physical characteristics	**Dimensions**	17.43(w) x 18.4(d) x 1.7(h) in (44.27 x 46.74 x 4.32 cm) (1U height)
	Weight	16.01 lb (7.26 kg)
Memory and processor	**Processor**	HPE ProVision ASIC/ARM @ 350 MHz; Freescale P2020 @ 1200 MHz, 4 GB flash, 2 GB SDRAM; packet buffer size: 18 MB dynamic
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	
Performance	**1000 Mb Latency**	< 2.8 µs (LIFO 64-byte packets)
	10 Gbps Latency	< 1.9 µs (LIFO 64-byte packets)
	Throughput	up to 65.4 Mpps (64-byte packets)
	Switching capacity	88 Gbps
	Routing table size	10000 entries (IPv4)
	MAC address table size	65500 entries
Environment	**Operating temperature**	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing
	Altitude	up to 10,000 ft (3 km)
	Acoustic	Power: 36 dB, Pressure: 25 dB
Electrical characteristics	**Maximum heat dissipation**	434 BTU/hr (457.87 kJ/hr)
	Voltage	100 - 127 / 200 - 240 VAC, rated
	Current	6/3 A
	Idle power	55 W
	Maximum power rating	127 W
	Frequency	50/60 Hz
	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-

Technical Specifications

		case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	EN 60950/IEC 60950; UL 60950; CAN/CSA 22.2 No. 60950; EN 60825	
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A	
Immunity	**EN**	EN 55024, CISPR 24
	ESD	IEC 61000-4-2
	Radiated	IEC 61000-4-3; 3 V/m
	EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
	Surge	IEC 61000-4-5; 1 kV/2 kV AC
	Conducted	IEC 61000-4-6; 3 V
	Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
	Voltage dips and interruptions	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods
	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
Management	Aruba AirWave Network Management; IMC – Intelligent Management Center; Command-line interface; Web browser; Configuration menu	
NOTES	Supported 1G SFP transceivers are revision "B" or later (product number ends with the letter "B" or later).	
Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	

Standards and protocols (applies to all products in series)

BGP	RFC 1997 BGP Communities Attribute RFC 2918 Route Refresh Capability RFC 4271 A Border Gateway Protocol 4 (BGP-4) RFC 4456 BGP Route Reflection: An Alternative to Full Mesh Internal BGP (IBGP) RFC 4724 Graceful Restart Mechanism for BGP RFC 5492 Capabilities Advertisement with BGP-4
Denial of service protection	CPU DoS Protection
Device Management	RFC 1591 DNS (client) RFC 2576 (Coexistence between SNMP V1, V2, V3) RFC 2579 (SMIv2 Text Conventions) RFC 2580 (SMIv2 Conformance) RFC 3416 (SNMP Protocol Operations v2) RFC 3417 (SNMP Transport Mappings) HTML and telnet management
General Protocols	IEEE 802.1ad Q-in-Q IEEE 802.1AX-2008 Link Aggregation IEEE 802.1D MAC Bridges IEEE 802.1p Priority IEEE 802.1Q VLANs

Technical Specifications

IEEE 802.1s Multiple Spanning Trees
IEEE 802.1v VLAN classification by Protocol and Port
IEEE 802.1w Rapid Reconfiguration of Spanning Tree
IEEE 802.3ad Link Aggregation Control Protocol (LACP)
IEEE 802.3af Power over 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 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 2453 RIPv2
RFC 2548 (MS-RAS-Vendor only)
RFC 3046 DHCP Relay Agent Information Option
RFC 3575 IANA Considerations for RADIUS
RFC 3576 Ext to RADIUS (CoA only)
RFC 3768 VRRP
RFC 4675 RADIUS VLAN & Priority
RFC 5798 VRRP (exclude Accept Mode and sub-sec timer)
RFC 5905 Network Time Protocol Version 4: Protocol and Algorithms Specification
UDLD (Uni-directional Link Detection)

IP Multicast

RFC 3376 IGMPv3
RFC 3973 PIM Dense Mode
RFC 4601 PIM Sparse Mode

IPv6

RFC 1981 IPv6 Path MTU Discovery
RFC 2080 RIPng for IPv6
RFC 2081 RIPng Protocol Applicability Statement
RFC 2082 RIP-2 MD5
RFC 2375 IPv6 Multicast Address Assignments
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 3019 MLDv1 MIB
RFC 3315 DHCPv6 (client only)
RFC 3484 Default Address Selection for IPv6
RFC 3587 IPv6 Global Unicast Address Format
RFC 3596 DNS Extension for IPv6
RFC 3810 MLDv2 (host joins only)
RFC 4022 MIB for TCP
RFC 4087 IP Tunnel MIB
RFC 4113 MIB for UDP

Technical Specifications

RFC 4213 Basic Transition Mechanisms for IPv6 Hosts and Routers
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 4294 IPv6 Node Requirements
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 5340 OSPFv3 for IPv6
RFC 5453 Reserved IPv6 Interface Identifiers
RFC 5519 Multicast Group Membership Discovery MIB (MLDv2 only)
RFC 5722 Handling of Overlapping IPv6 Fragments
RFC 6620 FCFS SAVI
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 1213 MIB II
RFC 1493 Bridge MIB
RFC 1724 RIPv2 MIB
RFC 1850 OSPFv2 MIB
RFC 2021 RMONv2 MIB
RFC 2096 IP Forwarding Table MIB
RFC 2578 Structure of Management Information Version 2 (SMIv2)
RFC 2613 SMON MIB
RFC 2618 RADIUS Client MIB
RFC 2620 RADIUS Accounting MIB
RFC 2665 Ethernet-Like-MIB
RFC 2668 802.3 MAU MIB
RFC 2674 802.1p and IEEE 802.1Q Bridge MIB
RFC 2737 Entity MIB (Version 2)
RFC 2787 VRRP MIB
RFC 2863 The Interfaces Group MIB
RFC 2925 Ping MIB
RFC 2932 IP (Multicast Routing MIB)
RFC 2933 IGMP MIB
RFC 4836 Managed Objects for 802.3 Medium Attachment Units (MAU)

Network Management

IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events)
RFC 3176 sFlow
RFC 3411 SNMP Management Frameworks
RFC 3412 Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)
RFC 3413 Simple Network Management Protocol (SNMP) Applications
RFC 3414 User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3)

Technical Specifications

	RFC 3415 View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP) RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP) RFC 5424 Syslog Protocol ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED) SNMPv1/v2c/v3 XRMON
OSPF	RFC 2328 OSPFv2 RFC 3101 OSPF NSSA RFC 3623 Graceful OSPF Restart (Unplanned Outages only) RFC 5340 OSPFv3 for IPv6
QoS/CoS	RFC 2474 DiffServ Precedence, including 8 queues/port RFC 2475 DiffServ Architecture RFC 2597 DiffServ Assured Forwarding (AF) RFC 2598 DiffServ Expedited Forwarding (EF)
Security	IEEE 802.1X Port Based Network Access Control RFC 1321 The MD5 Message-Digest Algorithm RFC 1492 TACACS+ RFC 2818 HTTP Over TLS RFC 2865 RADIUS (client only) RFC 2866 RADIUS Accounting RFC 3579 RADIUS Support For Extensible Authentication Protocol (EAP) Secure Sockets Layer (SSL) SSHv2 Secure Shell

Accessories

Aruba 3800 Switch Series accessories

Modules

Aruba 3800 4-port Stacking Module	J9577A

Cables

Aruba 3800/3810M 0.5m Stacking Cable	J9578A
Aruba 3800/3810M 1m Stacking Cable	J9665A
Aruba 3800/3810M 3m Stacking Cable	J9579A

Power Supply

HPE X311 400W 100 240VAC to 12VDC Power Supply	J9581A

Fan Tray

Aruba 3800 Switch Fan Tray	J9582A

Aruba 3800 24SFP 2SFP+ Switch (J9584A)

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 X111 100M SFP LC FX Transceiver	J9054C
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 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

Accessory Product Details

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

Aruba 3800 4-port Stacking Module (J9577A)	**Management**	HPE PCM+; HPE PCM; command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE X410 1U Universal 4-post Rackmount Kit (J9583A)	**NOTES**	The rack mounting kit supports the 1U, full width switches in the following switch series and the power supply: V1810 Series, E2510 Series, E2520 Series, E2610 Series, E2810 Series, E2910 Series, E3500 Series, and the E620 Power Supply This universal rack mounting kit is design to fit the following racks: HPE 10K 10642, HPE 10K 10842, Panduit CN, Panduit CS, Wrightline Vantage S2, APC Netshelter 600mm, and APC Netshelter 800mm. It may well fit many other brands and models too.
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE X121 1G SFP LC SX Transceiver (J4858C) A small form-factor pluggable (SFP) Gigabit SX transceiver that provides a full-duplex Gigabit solution up to 550 m on multimode fiber.	**Ports**	1 LC 1000BASE-SX port; Duplex: full only
	Physical characteristics	Dimensions: 2.24(d) x 0.54(w) x 0.48(h) in. (5.69 x 1.37 x 1.22 cm) Weight: 0.04 lb. (0.02 kg) Transceiver form factor: SFP
	Environment	Operating temperature: 32°F to 158°F (0°C to 70°C) Operating relative humidity: 5% to 85%, noncondensing Nonoperating/Storage temperature: -40°F to 203°F (-40°C to 85°C) Altitude: up to 10,000 ft. (3 km)
	Electrical characteristics	Power consumption typical: 0.4 W Power consumption maximum: 0.7 W
	Cabling	Type: • 62.5/125 µm or 50/125 µm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively; Maximum distance: • 2-220 m (62.5 µm core diameter, 160 MHz*km bandwidth • 2-275 m (62.5 µm core diameter, 200 MHz*km bandwidth • 2-500 m (50 µm core diameter, 400 MHz*km bandwidth) • 2-550 m (50 µm core diameter, 500 MHz*km bandwidth) Cable length: 2-550m

Accessory Product Details

		Fiber type: Multi Mode
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE X121 1G SFP LC LX Transceiver (J4859C) HPE X121 1G SFP LC LX Transceiver: An SFP format gigabit transceiver with LC connectors using LX technology.	**Ports**	1 LC 1000BASE-LX port (IEEE 802.3z Type 1000BASE-LX); Duplex: full only
	Physical characteristics	Dimensions: 2.24(d) x 0.54(w) x 0.486(h) in. (5.69 x 1.37 x 1.23 cm) Weight:0.04 lb. (0.02 kg)
	Environment	Operating temperature: 32°F to 158°F (0°C to 70°C) Operating relative humidity: 0% to 85%, noncondensing Nonoperating/Storage temperature: -40°F to 212°F (-40°C to 100°C) Altitude: up to 10,000 ft. (3 km)
	Cabling	Type: • Either single mode or multimode; 62.5/125 µm or 50/125 µm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively; Low metal content, single-mode fiber-optic, complying with ITU-T G.652 and ISO/IEC 793-2 Type B1; Maximum distance: • 2-550 m (multimode 62.5 µm core diameter, 500 MHz*km bandwidth) • 2-550 m (multimode 50 µm core diameter, 400 MHz*km bandwidth) • 2-550 m (multimode 50 µm core diameter, 500 MHz*km bandwidth) • 2-10,000 m (single-mode fiber)
	NOTES	A mode conditioning patch cord may be needed in some multimode fiber installations. Wavelength: 1310nm Power Consumption: < 500mW Typical
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.
HPE X121 1G SFP LC LH Transceiver (J4860C) A small form-factor pluggable (SFP) Gigabit LH transceiver that provides a full-duplex	**Ports**	1 LC 1000BASE-LH port (no IEEE standard exists for 1550 nm optics); Duplex: full only
	Physical characteristics	Dimensions: 2.17(d) x 0.60(w) x 0.46(h) in. (5.5 x 1.53 x 1.18 cm) Weight: 0.04 lb. (0.02 kg)
	Environment	Operating temperature: -40°F to 185°F (-40°C to 85°C) Operating relative humidity: 0% to 95% @ 77°F (25°C), noncondensing Nonoperating/Storage temperature: -40°F to 185°F (-40°C to 85°C) Altitude: up to 10,000 ft. (3 km)

Accessory Product Details

Gigabit solution up to 70 km on single-mode fiber.	**Cabling**	Cable type: • Low metal content, single-mode fiber-optic, complying with ITU-T G.652 and ISO/IEC 793-2 Type B1; Maximum distance: • 10-70,000 m (single-mode fiber)
	NOTES	Power consumption is 0.8 watts typical with 1 watt maximum at 100% utilization. For distances less than 20 km, a 10 dB attenuator must be used. For distances between 20 km and 40 km, a 5 dB attenuator must be used. Attenuators can be purchased from most cable vendors.
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

HPE X132 10G SFP+ LC SR Transceiver (J9150A) A 10-Gigabit transceiver in SFP+ form-factor that supports the 10-Gigabit SR standard, providing 10-Gigabit connectivity up to 300 m on multimode fiber.	**Ports**		1 LC 10-GbE port (IEEE 802.3ae Type 10Gbase-SR); Duplex: full only
	Connectivity	**Connector type**	LC
		Wavelength	850 nm
	Physical characteristics	**Dimensions**	2.19(d) x 0.54(w) x 0.47(h) in. (5.57 x 1.38 x 1.19 cm)
		Weight	0.04 lb. (0.02 kg)
		Transceiver form factor	SFP+
	Environment	**Operating temperature**	32°F to 158°F (0°C to 70°C)
		Operating relative humidity	0% to 85%, noncondensing
		Nonoperating/Storage temperature	-40°F to 185°F (-40°C to 85°C)
		Altitude	up to 10,000 ft. (3 km)
	Electrical characteristics	**Power consumption typical**	0.6 W
		Power consumption maximum	0.8 W
	Cabling		Cable type: 62.5/125 µm or 50/125 µm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively; Maximum distance: • 2-26m with 62.5 µm multimode cable @ 160 MHz*km • 2-33m with 62.5 µm multimode cable @ 200 MHz*km • 2-66m with 50 µm multimode cable @ 400 MHz*km • 2-82m with 50 µm multimode cable @ 500 MHz*km • 2-300m with 50 µm multimode cable @ 2000 MHz*km

Accessory Product Details

		Cable length	2-300m
		Fiber type	Multi Mode
	NOTES		For fiber patch cords, use Ultra Physical Contact (UPC) surface termination/polish. Angled Physical Contact (APC) is not recommended.
	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 X132 10G SFP+ LC LR Transceiver (J9151A) A 10-Gigabit transceiver in SFP+ form-factor that supports the 10-Gigabit LR standard, providing 10-Gigabit connectivity up to 10 km on single-mode fiber.	**Ports**		1 LC 10-GbE port (IEEE 802.3ae Type 10Gbase-LR); Duplex: full only
	Connectivity	**Connector type**	LC
		Wavelength	1310 nm
	Physical characteristics	**Dimensions**	2.19(d) x 0.54(w) x 0.47(h) in. (5.57 x 1.38 x 1.19 cm)
		Weight	0.04 lb. (.02 kg)
		Transceiver form factor	SFP+
	Environment	**Operating temperature**	32°F to 158°F (0°C to 70°C)
		Operating relative humidity	0% to 85%, noncondensing
		Nonoperating/Storage temperature	-40°F to 185°F (-40°C to 85°C)
		Altitude	up to 10,000 ft. (3 km)
	Electrical characteristics	**Power consumption typical**	0.9 W
		Power consumption maximum	1 W
	Cabling		Cable type: Low metal content, single-mode fiber-optic, complying with ITU-T G.652 and ISO/IEC 793-2 Type B1; Maximum distance: • 2m-10km with 9/125 µm single-mode cable
		Cable length	2m to 10km
		Fiber type	Single Mode
	NOTES		Conditioning patch cord cables are not supported. For fiber patch cords, use Ultra Physical Contact (UPC) surface termination/polish. Angled Physical Contact (APC) is not recommended.
	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.
	Ports		1 LC 10-GbE port (IEEE 802.3aq Type 10Gbase-LRM); Duplex: full only
	Connectivity	**Connector type**	LC
		Wavelength	1310 nm

Accessory Product Details

HPE X132 10G SFP+ LC LRM Transceiver (J9152A) A 10-Gigabit transceiver in SFP+ form-factor that supports the 10-Gigabit LRM standard, for 10-Gigabit connectivity up to 220 m on legacy multimode fiber.	**Physical characteristics**	**Dimensions**	2.19(d) x 0.54(w) x 0.47(h) in. (5.57 x 1.38 x 1.19 cm)
		Weight	0.04 lb. (.02 kg)
		Transceiver form factor	SFP+
	Environment	**Operating temperature**	32°F to 158°F (0°C to 70°C)
		Operating relative humidity	0% to 85%, noncondensing
		Nonoperating/Storage temperature	-40°F to 185°F (-40°C to 85°C)
		Altitude	up to 10,000 ft. (3 km)
	Electrical characteristics	**Power consumption typical**	0.7 W
		Power consumption maximum	1 W
	Cabling	Cable type: 62.5/125 µm or 50/125 µm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively (a mode conditioning patch cord may be needed in some multimode fiber installations); Maximum distance: • 0.5-220m with 62.5 µm multimode cable @ 160/500 MHz*km • 0.5-220m with 62.5 µm multimode cable @ 200/500 MHz*km • 0.5-100m with 50 µm multimode cable @ 400/400 MHz*km • 0.5-220m with 50 µm multimode cable @ 500/500 MHz*km • 0.5-220m with 50 µm multimode cable @ 1500/500 MHz*km	
		Cable length	0.5m to 220m
		Fiber type	Multi Mode
	NOTES	For OM3 cable (50 µm multimode @ 1500/500 MHz*km), a mode-conditioning patch cord is not required. Other multimode cables may require mode-conditioning patch cords to achieve the maximum distances listed above. For fiber patch cords, use Ultra Physical Contact (UPC) surface termination/polish. Angled Physical Contact (APC) is not recommended.	
	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 X132 10G SFP+ LC ER Transceiver (J9153A) The SFP+ ER Transceiver will transmit 10Gbps over up to 40km using standard OM3 fiber cable. This product expands the	**Ports**	1 LC 10-GbE port (IEEE 802.3ae Type 10Gbase-ER); Duplex: full only	
	Connectivity	**Connector type**	LC
		Wavelength	1550 nm
	Physical characteristics	**Dimensions**	2.22(d) x 0.55(w) x 0.47(h) in. (5.65 x 1.39 x 1.19 cm)
		Weight	.04 lb., Fully loaded
		Transceiver form factor	SFP+

Accessory Product Details

HPE Networking transceiver portfolio for connections from 0m to 40km. Use only genuine HPE transceivers with your HPE Networking equipment to ensure reliability and support.	**Environment**	**Operating temperature**	32°F to 158°F (0°C to 70°C)
		Operating relative humidity	5% to 95%, noncondensing
		Nonoperating/Storage temperature	-40°F to 185°F (-40°C to 85°C)
		Nonoperating/Storage relative humidity	5% to 95%, noncondensing
		Altitude	up to 10,000 ft. (3 km)
	Electrical characteristics	**Power consumption typical**	1.3 W
		Power consumption maximum	1.5 W
	Cabling	Cable type: Single-mode fiber optic, complying with ITU-T G.652; Maximum distance: • 40km	
		Fiber type	Single Mode
	NOTES	Check switch release notes for minimum version of software required to support this transceiver. Some switches have limits as to how many of this particular transceiver can be installed. See the release notes of the switch software/firmware being used for more details.	
	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 0.5m 1-Pack Fiber Optic Cable (AJ833A)	**Cabling**	**Cable type**: 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. • 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.

Accessory Product Details

		• 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, 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. • 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

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		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, 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. • 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 5.0m 1-Pack Fiber Optic Cable (AJ836A)	**Cabling**	**Cable type**: 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

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		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 15.0m 1-Pack Fiber Optic Cable (AJ837A)	**Cabling**	**Cable type**: 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. • 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:

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		• 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, 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. • 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.

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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, 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. • 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 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

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		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.
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

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		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 • 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

Accessory Product Details

			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 X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable (J9281B)	**Connectivity**	Length	3.28 ft. (1 m)
	Physical characteristics	Weight	0.24 lb. (0.11 kg) the cable with an SFP+ transceiver at each end of the cable
	Environment	Operating temperature	32°F to 158°F (0°C to 70°C)
		Operating relative humidity	5% to 95%, noncondensing
		Nonoperating/Storage temperature	14°F to 185°F (-10°C to 85°C)
		Nonoperating/Storage relative humidity	5% to 95%, noncondensing
		Altitude	up to 10,000 ft. (3 km)
	Electrical characteristics	Notes	0.04 watts maximum per transceiver end

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	NOTES	Electrical Properties • Cable Characteristic Impedance: 100 ohms • Crosstalk between pairs: 2% max • Time delay: 1.31 nsec/ft Physical Properties • Cable Diameter: 0.180" • Minimum Cable Bend Radius: 1.0"	
	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 X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable (J9283B)	**Connectivity**	Length	10 ft. (3 m)
	Physical characteristics	Weight	.49 lb. (0.22 kg), Fully loaded the cable with an SFP+ transceiver at each end of the cable
	Environment	Operating temperature	32ºF to 158ºF (0ºC to 70ºC)
		Operating relative humidity	5% to 95%, noncondensing
		Nonoperating/Storage temperature	14ºF to 185ºF (-10ºC to 85ºC)
		Nonoperating/Storage relative humidity	5% to 95%, noncondensing
		Altitude	up to 10,000 ft. (3 km)
	Electrical characteristics	Notes	0.04 watts maximum per transceiver end
	NOTES	Electrical Properties • Cable Characteristic Impedance: 100 ohms • Crosstalk between pairs: 2% max • Time delay: 1.31 nsec/ft Physical Properties • Cable Diameter: 0.180" • Minimum Cable Bend Radius: 1.0"	
	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 X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable (J9285B)	**Connectivity**	Length	22.97 ft. (7 m)
	Physical characteristics	Weight	1.02 lb., Fully loaded the cable with an SFP+ transceiver at each end of the cable
	Environment	Operating temperature	32ºF to 158ºF (0ºC to 70ºC)
		Operating relative humidity	5% to 95%, noncondensing
		Nonoperating/Storage temperature	14ºF to 185ºF (-10ºC to 85ºC)
		Nonoperating/Storage relative humidity	5% to 95%, noncondensing
		Altitude	up to 10,000 ft. (3 km)

Accessory Product Details

	Electrical characteristics	Notes	0.04 watts maximum per transceiver end
	NOTES	Electrical Properties • Cable Characteristic Impedance: 100 ohms • Crosstalk between pairs: 2% max • Time delay: 1.31 nsec/ft Physical Properties • Cable Diameter: 0.180" • Minimum Cable Bend Radius: 1.0"	
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	
HPE X111 100M SFP LC FX Transceiver (J9054C)	**Ports**	1 LC 100BASE-FX port (IEEE 802.3u Type 100BASE-FX); Duplex: half or full	
	Physical characteristics	Dimensions	2.7(d) x 0.54(w) x 0.48(h) in. (6.86 x 1.38 x 1.22 cm)
		Weight	0.06 lb. (0.03 kg)
	Environment	Operating temperature	32°F to 158°F (0°C to 70°C)
		Operating relative humidity	5% to 95%
		Nonoperating/Storage temperature	-40°F to 185°F (-40°C to 85°C)
		Nonoperating/Storage relative humidity	5% to 85%
		Altitude	up to 10,000 ft. (3 km)
	Cabling	Cable type: 62.5/125 ìm or 50/125 ìm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively; Maximum distance: • 2 km (full duplex) or 412 m (half duplex)	
	NOTES	Transmitter wavelength: 1310nm Power consumption is 1.1 watt maximum. For supported platforms and minimum software requirements to support this product, see the document titled "Support for the J9054C 100-FX SFP-LC Transceiver" on the "ProCurve Mini-GBICs and SFPs" Manuals Web page.	
	Services	Refer to the Hewlett Packard Enterprise website at **http://www.hpe.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	

Summary of Changes

Date	Version History	Action	Description of Change
01-Oct-2018	Version 26	Changed	Recommended and Extended markings removed from the document.
04-Sep-2018	Version 25	Changed	QuickSpecs updated with the current Recommended-Extended Options
		Removed	Obsolete products removed. Models removed: J9573A, J9574A, J9575A, J9576A, J9585A, J9586A, J9587A and J9588A. SKUs removed: J9142B, J9143B, J9300A, J9301A, J9302A, J9580A and J8177C.
07-Nov-2016	Version 24	Changed	Features and Benefits updated
01-Aug-2016	Version 23	Changed	Adding #AC3 Option on Configuration section.
06-June-2016	Version 22	Changed	SKU descriptions updated. Product overview, Features and benefits, Technical Specifications and Accessories updated
08-Jan-16	Version 21	Changed	URLs updated
01-Dec-15	Version 20	Changed	QuickSpecs name changed to Aruba 3800 Switch Series Product overview, Features and benefits, Technical Specifications and Accessories updated
12-Dec-14	Version 19	Changed	Added Power Supply SKUs on the Accessories section: HPE X311 400W 100 240VAC to 12VDC Power Supply (J9581A) HPE X312 1000W 100-240VAC to 54VDC Power Supply (J9580A)
01-Dec-14	Version 18	Changed	Overview, Features and benefits, Specifications, Warranty and support, Accessories were revised.
03-Jul-14	Version 17	Changed	Configuration menu updated.
17-Feb-14	Version 16	Changed	SFP+ Transceivers were revised.
12-Nov-13	Version 14	Changed	Note was revised in Box Level Integration CTO Models in Configuration.
18-Oct-13	Version 13	Changed	Configuration was revised.
27-Sep-13	Version 12	Changed	Notes section was reconfigured in Configuration.
02-Jul-13	Version 11	Added	Added J9150A - HPE X132 10G SFP+ LC SR Transceiver to Note 1 in the Configuration section.
10-Jun-13	Version 10	Added	OM4 cables were added.
14-May-13	Version 9	Changed	Updated the Configuration section.
22-Apr-13	Version 8	Added	Overview: Added an image.
25-Mar-13	Version 7	Added	Added the Configuration section.
01-Mar-13	Version 6	Changed	Minor wording changes were made in Features and Benefits and Introductions. Minor changes were made to the specifications for the switches, including updating Included accessories, Fan tray, power supplies, and routing table size.
24-Sep-12	Version 5	Changed	The Introduction and Features and Benefits. Minor changes were made to the specifications for the switches.
25-Jun-12	Version 4	Changed	Features and Benefits and the weight and dimensions for each spec were revised.
14-May-12	Version 3	Changed	Features and Benefits, Accessories, and the weight and dimensions for each spec were revised.
04-Oct-11	Version 2	Changed	Accessories, Accessory Product Details, Models, Features and Benefits, and the Specifications were updated.
26-Sep-11	Version 1	Created	Document creation

Summary of Changes



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