

### Overview

## Aruba 3810 Switch Series



### Models

Aruba 3810M 24G 1-slot Switch	JL071A
Aruba 3810M 48G 1-slot Switch	JL072A
Aruba 3810M 24G PoE+ 1-slot Switch	JL073A
Aruba 3810M 48G PoE+ 1-slot Switch	JL074A
Aruba 3810M 16SFP+ 2-slot Switch	JL075A
Aruba 3810M 40G 8 HPE Smart Rate PoE+ 1-slot Switch	JL076A

### Key features

- Advanced Layer 3 switch series with backplane stacking, low latency and resiliency
- Security and network management tools with ClearPass Policy Manager, AirWave and Central support
- HPE Smart Rate for high-speed multi-gigabit capacity and PoE+ power
- Modular 10GbE and 40GbE uplinks for wireless aggregation
- Optimized for innovative SDN applications with OpenFlow support

### Overview

#### Product overview

The Aruba 3810 Switch Series provides performance and resiliency for enterprises, SMBs, and branch office networks. With HPE Smart Rate multi-gigabit ports for high-speed 802.11ac devices, this advanced Layer 3 switch delivers a better application experience with low latency, virtualization with resilient stacking technology, and line rate 40GbE for plenty of back haul capacity.

Full PoE+ provisioning available on 48-ports. Dual, redundant, hot-swappable power supplies and innovative backplane stacking technology delivers resiliency and scalability in a convenient 1U form factor. Advanced Layer 2 and 3 feature set with OSPF, IPv6, IPv4 BGP, Tunneled Node, robust QoS and policy-based routing are included with no software licensing.

With support for OpenFlow, the Aruba 3810 is ready to take advantage of SDN applications such as HPE Network Visualizer, Optimizer, and Protector Applications. The 3810 is easy to deploy and manage with advanced security and network management tools like 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.

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### 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

#### 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

### Overview

- **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
- **Multiple configuration files**  
stores easily to the flash image
- **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
- **Zero-Touch ProVisioning (ZTP)**  
simplifies installation of the switch infrastructure using the Aruba Activate-based or a DHCP-based process with AirWave Network Management
- **Unidirectional Link Detection (UDLD)**  
support HPE UDLD and DLDP protocols to monitor a cable between two switches and shut down the ports on both ends if a broken link is detected, preventing network problems such as loops
- **IP service level agreements (SLA) for voice**  
monitor quality of voice traffic using the UDP jitter and UDP jitter for VoIP tests
- **Aruba Central support**  
cloud based management platform offers simple, secure, and cost effective way to manage switches

### Connectivity

- **Jumbo frames**

### Overview

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

- **HPE 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

- **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



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becomes the commander

- **IEEE 802.3ad Link Aggregation Protocol (LACP) and Hewlett Packard Enterprise port trunking**  
support up to 144 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
- **VLAN support and tagging**  
supports the IEEE 802.1Q standard and 4096 VLANs simultaneously
- **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

### 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
- **Bidirectional Forwarding Detection (BFD)**  
enables link connectivity monitoring and reduces network convergence time for static routing, OSPFv2, and VRRP

### Overview

#### Layer 3 routing

- **Static IP routing**  
provides manually configured routing for both IPv4 and IPv6 networks
- **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**  
delivers secure encryption of 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
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- **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
- **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)**  
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**  
supports 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**



### Overview

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 3810M 24G 1-slot Switch JL071A

- 24 RJ-45 autosensing 10/100/1000 ports
- 1 open stacking module slot
- 1 open uplink module slot
- 1 Power Supply required (Max 2)
- 1U - Height

Aruba 3810M 48G 1-slot Switch JL072A

- 48 RJ-45 autosensing 10/100/1000 ports
- 1 open stacking module slot
- 1 open uplink module slot
- 1 Power Supply required (Max 2)
- 1U - Height

Aruba 3810M 24G PoE+ 1-slot Switch JL073A

- 24 RJ-45 autosensing 10/100/1000 PoE+ ports
- 1 open stacking module slot
- 1 open uplink module slot
- 1 Power Supply required (Max 2)
- 1U - Height

Aruba 3810M 48G PoE+ 1-slot Switch JL074A

- 48 RJ-45 autosensing 10/100/1000 PoE+ ports
- 1 open stacking module slot
- 1 open uplink module slot
- 1 Power Supply required (Max 2)
- 1U - Height

Aruba 3810M 16SFP+ 2-slot Switch JL075A

- 16 fixed 1000/10000 SFP+ ports
- min=0 \ max=16 SFP+ Transceivers
- 1 open stacking module slot
- 2 open uplink module slot
- 1 Power Supply required (Max 2)
- 1U - Height

See  
Configuration

**NOTE: 1**

Aruba 3810M 40G 8 HPE Smart Rate PoE+ 1-slot Switch JL076A

- 40 RJ-45 autosensing 10/100/1000 PoE+ ports
- 8 RJ-45 1/2.5/5/XGT PoE+ ports
- 1 open stacking module slot
- 1 open uplink module slot
- 1 Power Supply required (Max 2)
- 1U - Height

#### Configuration Rules:



### Configuration

#### NOTE 1

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

HPE X111 100M SFP LC FX Transceiver	J9054C
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 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

## Box Level Integration CTO Models

### CTO Solution SKU

Aruba 38xx Configure-to-order Switch Solution	JG501A
<ul style="list-style-type: none"> <li>SSP trigger SKU</li> </ul>	

### CTO Switch Chassis

Aruba 3810M 24G 1-slot Switch	JL071A
<ul style="list-style-type: none"> <li>24 RJ-45 autosensing 10/100/1000 ports</li> <li>1 open stacking module slot</li> <li>1 open uplink module slot</li> <li>1 Power Supply required (Max 2)</li> <li>1U - Height</li> </ul>	See Configuration <b>NOTE: 10, 11</b>

Aruba 3810M 48G 1-slot Switch	JL072A
<ul style="list-style-type: none"> <li>48 RJ-45 autosensing 10/100/1000 ports</li> <li>1 open stacking module slot</li> <li>1 open uplink module slot</li> <li>1 Power Supply required (Max 2)</li> <li>1U - Height</li> </ul>	See Configuration <b>NOTE: 10, 11</b>

Aruba 3810M 24G PoE+ 1-slot Switch	JL073A
<ul style="list-style-type: none"> <li>24 RJ-45 autosensing 10/100/1000 PoE+ ports</li> <li>1 open stacking module slot</li> <li>1 open uplink module slot</li> <li>1 Power Supply required (Max 2)</li> <li>1U - Height</li> </ul>	See Configuration <b>NOTE: 10, 11</b>

### Configuration

Aruba 3810M 48G PoE+ 1-slot Switch	JL074A
<ul style="list-style-type: none"> <li>● 48 RJ-45 autosensing 10/100/1000 PoE+ ports</li> <li>● 1 open stacking module slot</li> <li>● 1 open uplink module slot</li> <li>● 1 Power Supply required (Max 2)</li> <li>● 1U - Height</li> </ul>	See Configuration <b>NOTE: 10, 11</b>
Aruba 3810M 16SFP+ 2-slot Switch	JL075A
<ul style="list-style-type: none"> <li>● 16 fixed 1000/10000 SFP+ ports</li> <li>● min=0 \ max=16 SFP+ Transceivers</li> <li>● 1 open stacking module slot</li> <li>● 2 open uplink module slot</li> <li>● 1 Power Supply required (Max 2)</li> <li>1U - Height</li> </ul>	See Configuration <b>NOTE: 1, 10, 11</b>
Aruba 3810M 40G 8 HPE Smart Rate PoE+ 1-slot Switch	JL076A
<ul style="list-style-type: none"> <li>● 40 RJ-45 autosensing 10/100/1000 PoE+ ports</li> <li>● 8 RJ-45 1/2.5/5/XGT PoE+ ports</li> <li>● 1 open stacking module slot</li> <li>● 1 open uplink module slot</li> <li>● 1 Power Supply required (Max 2)</li> <li>● 1U - Height</li> </ul>	See Configuration <b>NOTE: 10, 11</b>

### Configuration Rules:

<b>NOTE 1</b>	The following Transceivers install into this Switch (For the 1000/10000 SFP+ Ports):	
	HPE X111 100M SFP LC FX Transceiver	J9054C
	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 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
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	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

**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 - HP 3800 CTO Enablement. (Min 1/Max 1 Switch per SSP)

### Configuration

**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 3810M 24G 1-slot Switch	JL071A
<ul style="list-style-type: none"><li>• 24 RJ-45 autosensing 10/100/1000 ports</li><li>• 1 open stacking module slot</li><li>• 1 open uplink module slot</li><li>• 1 Power Supply required (Max 2)</li><li>• 1U - Height</li></ul>	See Configuration <b>NOTE: 10, 11</b>
Aruba 3810M 48G 1-slot Switch	JL072A
<ul style="list-style-type: none"><li>• 48 RJ-45 autosensing 10/100/1000 ports</li><li>• 1 open stacking module slot</li><li>• 1 open uplink module slot</li><li>• 1 Power Supply required (Max 2)</li><li>• 1U - Height</li></ul>	See Configuration <b>NOTE: 10, 11</b>
Aruba 3810M 24G PoE+ 1-slot Switch	JL073A
<ul style="list-style-type: none"><li>• 24 RJ-45 autosensing 10/100/1000 PoE+ ports</li><li>• 1 open stacking module slot</li><li>• 1 open uplink module slot</li><li>• 1 Power Supply required (Max 2)</li><li>• 1U - Height</li></ul>	See Configuration <b>NOTE: 10, 11</b>
Aruba 3810M 48G PoE+ 1-slot Switch	JL074A
<ul style="list-style-type: none"><li>• 48 RJ-45 autosensing 10/100/1000 PoE+ ports</li><li>• 1 open stacking module slot</li><li>• 1 open uplink module slot</li><li>• 1 Power Supply required (Max 2)</li><li>• 1U - Height</li></ul>	See Configuration <b>NOTE: 10, 11</b>
Aruba 3810M 16SFP+ 2-slot Switch	JL075A
<ul style="list-style-type: none"><li>• 16 fixed 1000/10000 SFP+ ports</li><li>• min=0 \ max=16 SFP+ Transceivers</li><li>• 1 open stacking module slot</li><li>• 2 open uplink module slot</li><li>• 1 Power Supply required (Max 2)</li><li>• 1U - Height</li></ul>	See Configuration <b>NOTE: 1, 10, 11</b>
Aruba 3810M 40G 8 HPE Smart Rate PoE+ 1-slot Switch	JL076A
<ul style="list-style-type: none"><li>• 40 RJ-45 autosensing 10/100/1000 PoE+ ports</li><li>• 8 RJ-45 1/2.5/5/XGT PoE+ ports</li><li>• 1 open stacking module slot</li><li>• 1 open uplink module slot</li><li>• 1 Power Supply required (Max 2)</li><li>• 1U - Height</li></ul>	See Configuration <b>NOTE: 10, 11</b>

### Configuration Rules:



### Configuration

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

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

**NOTE 10**      If switch is 0D1 to Racks, then the J9583A#0D1 is also required.

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

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

## Modules

### Stacking Modules

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

Aruba 3810M 4-port Stacking Module	JL084A
• min=0 \ max=4 Stacking cables	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

### Uplink Modules



### Configuration

JL071A, JL072A, JL073A, JL074A, JL076A Only System (std 0 // max 1) User Selection (min 0 / max 1) per Chassis

JL075A Only System (std 0 // max 2) User Selection (min 0 / max 2) per Chassis

Aruba 3810M 1QSFP+ 40GbE Module

- min=0 \ max=1 QSFP+ Transceiver

JL078A  
See  
Configuration  
**NOTE: 1**

Aruba 3810M 2QSFP+ 40GbE Module

- min=0 \ max=2 QSFP+ Transceiver

JL079A  
See  
Configuration  
**NOTE: 1, 3**

Aruba 3810M 4SFP+ Module

- min=0 \ max=4 SFP+ Transceivers

JL083A  
See  
Configuration  
**NOTE: 2**

### Configuration Rules:

#### NOTE 1

The following Transceivers install into this Module: (Use #0D1 or #B01 if switch is CTO) - if applicable

HPE X142 40G QSFP+ MPO SR4 Transceiver	JH231A
HPE X142 40G QSFP+ LC LR4 SM Transceiver	JH232A
HPE X142 40G QSFP+ MPO eSR4 300M Transceiver	JH233A
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

#### NOTE 2

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

HPE X111 100M SFP LC FX Transceiver	J9054C
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 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

### Configuration

<b>NOTE 3</b>	This module is only available for the following switches:	
	Aruba 3810M 48G 1-slot Switch	JL072A
	Aruba 3810M 48G PoE+ 1-slot Switch	JL074A
	Aruba 3810M 40G 8 HPE Smart Rate PoE+ 1-slot Switch	JL076A

**Remarks:** Watson Only Blue NOTE - Although these switches are compatible with HPE Smart Rate modules, they do not provide PoE+ power.

### 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

#### QSFP+ Transceivers

HPE X142 40G QSFP+ MPO SR4 Transceiver	JH231A
HPE X142 40G QSFP+ LC LR4 SM Transceiver	JH232A
HPE X142 40G QSFP+ MPO eSR4 300M Transceiver	JH233A
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

### Internal Power Supplies

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

Aruba X371 12VDC 250W 100-240VAC Power Supply	JL085A
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### Configuration

	See Configuration <b>NOTE: 1, 3, 4</b>
PDU Cable NA/MEX/TW/JP <ul style="list-style-type: none"><li>C15 PDU Jumper Cord (NA/MEX/TW/JP)</li></ul>	JL085A #B2B
PDU Cable ROW <ul style="list-style-type: none"><li>C15 PDU Jumper Cord (ROW)</li></ul>	JL085A #B2C
High Volt Power Supply to Wall Power Cord <ul style="list-style-type: none"><li>NEMA L6-20P Cord (NA/MEX/JP/TW)</li></ul>	JL085A #B2E
Aruba X372 54VDC 680W 100-240VAC Power Supply	JL086A See Configuration <b>NOTE: 2, 3, 4</b>
PDU Cable NA/MEX/TW/JP <ul style="list-style-type: none"><li>C15 PDU Jumper Cord (NA/MEX/TW/JP)</li></ul>	JL086A #B2B
PDU Cable ROW <ul style="list-style-type: none"><li>C15 PDU Jumper Cord (ROW)</li></ul>	JL086A #B2C
High Volt Power Supply to Wall Power Cord <ul style="list-style-type: none"><li>NEMA L6-20P Cord (NA/MEX/JP/TW)</li></ul>	JL086A #B2E
Aruba X372 54VDC 1050W 110-240VAC Power Supply	JL087A See Configuration <b>NOTE: 2, 3, 4</b>
PDU Cable NA/MEX/TW/JP <ul style="list-style-type: none"><li>C15 PDU Jumper Cord (NA/MEX/TW/JP)</li></ul>	JL087A #B2B
PDU Cable ROW <ul style="list-style-type: none"><li>C15 PDU Jumper Cord (ROW)</li></ul>	JL087A #B2C



### Configuration

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

JL087A  
#B2E

#### Configuration Rules:

- NOTE 1** If this Power supply is selected, then JL071A, JL072A, JL075A must be the switch its installed into.
- NOTE 2** If this Power supply is selected, Then JL073A, JL074A, JL076A must be the switch its installed into.
- 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.)

**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)

### Cables

#### Stacking Cables

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

### 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

#### 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 Network Racks, Then the J9583A#0D1 is required.

#### Fan Tray

Aruba 3810 Switch Fan Tray

JL088A

- This is a Spare Only

### Technical Specifications

#### Aruba 3810M 24G 1-slot Switch (JL071A)

<b>Included accessories</b>	1 Aruba 3810 Switch Fan Tray (JL088A)
<b>I/O ports and slots</b>	24 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; Ports 1 - 24 support MACSec Supports a maximum of 4 SFP+ ports or 1 40GbE ports, with optional module 1 open module slot Supports a maximum of 4 SFP+ ports or 1 40GbE ports, with optional module
<b>Additional ports and slots</b>	1 stacking module slot 1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 dual-personality (RJ-45 or USB micro-B)
<b>Power supplies</b>	2 power supply slots 1 minimum power supply required (ordered separately)
<b>Fan tray</b>	includes: 1 x JL088A 1 fan tray slot Switch ships with 1 JL088A fan tray installed. Spares ordered separately.
<b>Physical characteristics</b>	<b>Dimensions</b> 17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height) <b>Weight</b> 12.76 lb (5.79 kg)
<b>Memory and processor</b>	P2020 Dual Core @ 1.2 GHz, 4 GB DDR3 SDRAM, 1 GB SD Card Dual ARM Coretex A9 @ 1 GHz, 2 GB DDR3 SDRAM; Packet buffer size: 13.5 MB Internal
<b>Mounting and enclosure</b>	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only
<b>Performance</b>	IPv6 Ready Certified <b>1000 Mb Latency</b> < 2.8 $\mu$ s (FIFO 64-byte packets) <b>10 Gbps Latency</b> < 1.8 $\mu$ s (FIFO 64-byte packets) <b>40 Gbps Latency</b> < 1.5 $\mu$ s (FIFO 64-byte packets) <b>Throughput</b> up to 95.2 Mpps (64-byte packets) <b>Routing/Switching capacity</b> 160 Gbps <b>Switch fabric speed</b> 169 Gbps <b>Routing table size</b> 10000 entries (IPv4), 5000 entries (IPv6) <b>MAC address table size</b> 64000 entries
<b>Environment</b>	<b>Operating temperature</b> 32°F to 113°F (0°C to 45°C) <b>Operating relative humidity</b> 15% to 95% @ 104°F (40°C), noncondensing <b>Nonoperating/Storage temperature</b> -40°F to 158°F (-40°C to 70°C)

### Technical Specifications

	<b>Nonoperating/Storage relative humidity</b>	15% to 90% @ 149°F (65°C), noncondensing
	<b>Altitude</b>	up to 10,000 ft (3 km)
	<b>Acoustic</b>	Power: 39 dB, Pressure: 22.8 dB
<b>Safety</b>		EN 60950/IEC 60950; UL 60950; UL 60950-1; CAN/CSA 22.2 No. 60950; EN 60825; CSA 22.2 60950-1; EN62479:2010; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; EN 62368-1, Ed. 2; IEC 60950-1:2005 Ed.2; Am 1:2009+A2:2013; IEC 60825:2007; EN60850-1:2007 / IEC 60825-1: 2007 Class1 Class 1 Laser Products / Laser Klasse 1; UL 62368-1 Ed.2
<b>Emissions</b>		FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013
<b>Immunity</b>	<b>Generic</b>	EN55022: 2010
	<b>EN</b>	EN55024: 2010
	<b>ESD</b>	IEC 61000-4-2
	<b>Radiated</b>	IEC 61000-4-3; 3 V/m
	<b>EFT/Burst</b>	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
	<b>Surge</b>	IEC 61000-4-5; 1 kV/2 kV AC
	<b>Conducted</b>	IEC 61000-4-6; 3 V
	<b>Power frequency magnetic field</b>	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
	<b>Voltage dips and interruptions</b>	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods
	<b>Harmonics</b>	EN61000-3-2:2006 +A1:2009 +A2:2009 Class A
	<b>Flicker</b>	EN61000-3-3:2008
<b>Management</b>		Aruba AirWave Network Management; IMC - Intelligent Management Center; Command-line interface; Web browser; Configuration menu; Out-of-band management (RJ-45 Ethernet); In-line and out-of-band; Out-of-band management (serial RS-232c or micro usb)
<b>Services</b>		Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">http://www.hpe.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

### Aruba 3810M 48G 1-slot Switch (JL072A)

<b>Included accessories</b>	1 Aruba 3810 Switch Fan Tray (JL088A)
<b>I/O ports and slots</b>	48 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; Ports 1 - 48 support MACSec 1 open module slot Supports a maximum of 4 SFP+ ports or 2 40GbE ports, with optional module
<b>Additional ports and slots</b>	1 stacking module slot 1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 dual-personality (RJ-45 or USB micro-B)
<b>Power supplies</b>	2 power supply slots 1 minimum power supply required (ordered separately)

### Technical Specifications

<b>Fan tray</b>	includes: 1 x JL088A 1 fan tray slot Switch ships with 1 JL088A fan tray installed. Spares ordered separately.
<b>Physical characteristics</b>	<p><b>Dimensions</b> 17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height)</p> <p><b>Weight</b> 13.20 lb (5.99 kg)</p>
<b>Memory and processor</b>	P2020 Dual Core @ 1.2 GHz, 4 GB DDR3 SDRAM, 1 GB SD Card Dual ARM Coretex A9 @ 1 GHz, 2 GB DDR3 SDRAM; Packet buffer size: 13.5 MB Internal
<b>Mounting and enclosure</b>	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only
<b>Performance</b>	<p>IPv6 Ready Certified</p> <p><b>1000 Mb Latency</b> &lt; 2.8 <math>\mu</math>s (FIFO 64-byte packets)</p> <p><b>10 Gbps Latency</b> &lt; 1.8 <math>\mu</math>s (FIFO 64-byte packets)</p> <p><b>40 Gbps Latency</b> &lt; 1.5 <math>\mu</math>s (FIFO 64-byte packets)</p> <p><b>Throughput</b> up to 190.5 Mpps (64-byte packets)</p> <p><b>Routing/Switching capacity</b> 320 Gbps</p> <p><b>Switch fabric speed</b> 338 Gbps</p> <p><b>Routing table size</b> 10000 entries (IPv4), 5000 entries (IPv6)</p> <p><b>MAC address table size</b> 64000 entries</p>
<b>Environment</b>	<p><b>Operating temperature</b> 32°F to 113°F (0°C to 45°C)</p> <p><b>Operating relative humidity</b> 15% to 95% @ 104°F (40°C), noncondensing</p> <p><b>Nonoperating/Storage temperature</b> -40°F to 158°F (-40°C to 70°C)</p> <p><b>Nonoperating/Storage relative humidity</b> 15% to 90% @ 149°F (65°C), noncondensing</p> <p><b>Altitude</b> up to 10,000 ft (3 km)</p> <p><b>Acoustic</b> Power: 38 dB, Pressure: 21.8 dB</p>
<b>Safety</b>	EN 60950/IEC 60950; UL 60950; UL 60950-1; CAN/CSA 22.2 No. 60950; EN 60825; CSA 22.2 60950-1; EN62479:2010; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; EN 62368-1, Ed. 2; IEC 60950-1:2005 Ed.2; Am 1:2009+A2:2013; IEC 60825:2007; EN60850-1:2007 / IEC 60825-1: 2007 Class1 Class 1 Laser Products / Laser Klasse 1; UL 62368-1 Ed.2
<b>Emissions</b>	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013
<b>Immunity</b>	<p><b>Generic</b> EN55022: 2010</p> <p><b>EN</b> EN55024: 2010</p> <p><b>ESD</b> IEC 61000-4-2</p> <p><b>Radiated</b> IEC 61000-4-3; 3 V/m</p> <p><b>EFT/Burst</b> IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)</p> <p><b>Surge</b> IEC 61000-4-5; 1 kV/2 kV AC</p> <p><b>Conducted</b> IEC 61000-4-6; 3 V</p>

### Technical Specifications

<b>Power frequency magnetic field</b>	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
<b>Voltage dips and interruptions</b>	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods
<b>Harmonics</b>	EN61000-3-2:2006 +A1:2009 +A2:2009 Class A
<b>Flicker</b>	EN61000-3-3:2008

**Management** Aruba AirWave Network Management; IMC - Intelligent Management Center; Command-line interface; Web browser; Configuration menu; Out-of-band management (RJ-45 Ethernet); 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 3810M 24G PoE+ 1-slot Switch (JL073A)

<b>Included accessories</b>	1 Aruba 3810 Switch Fan Tray (JL088A)
<b>I/O ports and slots</b>	24 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; Ports 1 - 24 support MACSec 1 open module slot Supports a maximum of 4 SFP+ ports or 1 40GbE ports, with optional module
<b>Additional ports and slots</b>	1 stacking module slot 1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 dual-personality (RJ-45 or USB micro-B)
<b>Power supplies</b>	2 power supply slots 1 minimum power supply required (ordered separately)
<b>Fan tray</b>	includes: 1 x JL088A 1 fan tray slot Switch ships with 1 JL088A fan tray installed. Spares ordered separately
<b>Physical characteristics</b>	<b>Dimensions</b> 17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height) <b>Weight</b> 13.02 lb (5.91 kg)
<b>Memory and processor</b>	P2020 Dual Core @ 1.2 GHz, 4 GB DDR3 SDRAM, 1 GB SD Card Dual ARM Coretex A9 @ 1 GHz, 2 GB DDR3 SDRAM; Packet buffer size: 13.5 MB Internal
<b>Mounting and enclosure</b>	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only
<b>Performance</b>	IPv6 Ready Certified <b>1000 Mb Latency</b> < 2.8 $\mu$ s (FIFO 64-byte packets) <b>10 Gbps Latency</b> < 1.8 $\mu$ s (FIFO 64-byte packets) <b>40 Gbps Latency</b> < 1.5 $\mu$ s (FIFO 64-byte packets) <b>Throughput</b> up to 95.2 Mpps (64-byte packets)

### Technical Specifications

	<b>Routing/Switching capacity</b>	160 Gbps
	<b>Switch fabric speed</b>	169 Gbps
	<b>Routing table size</b>	10000 entries (IPv4), 5000 entries (IPv6)
	<b>MAC address table size</b>	64000 entries
<b>Environment</b>	<b>Operating temperature</b>	32°F to 113°F (0°C to 45°C)
	<b>Operating relative humidity</b>	15% to 95% @ 104°F (40°C), noncondensing
	<b>Nonoperating/Storage temperature</b>	-40°F to 158°F (-40°C to 70°C)
	<b>Nonoperating/Storage relative humidity</b>	15% to 90% @ 149°F (65°C), noncondensing
	<b>Altitude</b>	up to 10,000 ft (3 km)
	<b>Acoustic</b>	Power: 44 dB, Pressure: 27.6 dB
<b>Safety</b>	EN 60950/IEC 60950; UL 60950; UL 60950-1; CAN/CSA 22.2 No. 60950; EN 60825; CSA 22.2 60950-1; EN62479:2010; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; EN 62368-1, Ed. 2; IEC 60950-1:2005 Ed.2; Am 1:2009+A2:2013; IEC 60825:2007; EN60850-1:2007 / IEC 60825-1: 2007 Class1 Class 1 Laser Products / Laser Klasse 1; UL 62368-1 Ed.2	
<b>Emissions</b>	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013	
<b>Immunity</b>	<b>Generic</b>	EN55022: 2010
	<b>EN</b>	EN55024: 2010
	<b>ESD</b>	IEC 61000-4-2
	<b>Radiated</b>	IEC 61000-4-3; 3 V/m
	<b>EFT/Burst</b>	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
	<b>Surge</b>	IEC 61000-4-5; 1 kV/2 kV AC
	<b>Conducted</b>	IEC 61000-4-6; 3 V
	<b>Power frequency magnetic field</b>	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
	<b>Voltage dips and interruptions</b>	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods
	<b>Harmonics</b>	EN61000-3-2:2006 +A1:2009 +A2:2009 Class A
	<b>Flicker</b>	EN61000-3-3:2008
<b>Management</b>	Aruba AirWave Network Management; IMC - Intelligent Management Center; Command-line interface; Web browser; Configuration menu; Out-of-band management (RJ-45 Ethernet); In-line and out-of-band; Out-of-band management (serial RS-232c or micro usb)	
<b>Services</b>	Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">http://www.hpe.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	

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### Aruba 3810M 48G PoE+ 1-slot Switch (JL074A)

### Technical Specifications

<b>Included accessories</b>	1 Aruba 3810 Switch Fan Tray (JL088A)	
<b>I/O ports and slots</b>	48 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; Ports 1 - 48 support MACSec	
	1 open module slot	
	Supports a maximum of 4 SFP+ ports or 2 40GbE ports, with optional module	
<b>Additional ports and slots</b>	1 stacking module slot	
	1 RJ-45 serial console port	
	1 RJ-45 out-of-band management port	
	1 dual-personality (RJ-45 or USB micro-B)	
<b>Power supplies</b>	2 power supply slots	
	1 minimum power supply required (ordered separately)	
<b>Fan tray</b>	includes: 1 x JL088A	
	1 fan tray slot	
	Switch ships with 1 JL088A fan tray installed. Spares ordered separately.	
<b>Physical characteristics</b>	<b>Dimensions</b>	17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height)
	<b>Weight</b>	13.62 lb (6.18 kg)
<b>Memory and processor</b>	P2020 Dual Core @ 1.2 GHz, 4 GB DDR3 SDRAM, 1 GB SD Card	
	Dual ARM Coretex A9 @ 1 GHz, 2 GB DDR3 SDRAM; Packet buffer size: 13.5 MB Internal	
<b>Mounting and enclosure</b>	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	
<b>Performance</b>	IPv6 Ready Certified	
	<b>1000 Mb Latency</b>	< 2.8 $\mu$ s (FIFO 64-byte packets)
	<b>10 Gbps Latency</b>	< 1.8 $\mu$ s (FIFO 64-byte packets)
	<b>40 Gbps Latency</b>	< 1.5 $\mu$ s (FIFO 64-byte packets)
	<b>Throughput</b>	up to 190.5 Mpps (64-byte packets)
	<b>Routing/Switching capacity</b>	320 Gbps
	<b>Switch fabric speed</b>	338 Gbps
	<b>Routing table size</b>	10000 entries (IPv4), 5000 entries (IPv6)
	<b>MAC address table size</b>	64000 entries
<b>Environment</b>	<b>Operating temperature</b>	32°F to 113°F (0°C to 45°C)
	<b>Operating relative humidity</b>	15% to 95% @ 104°F (40°C), noncondensing
	<b>Nonoperating/Storage temperature</b>	-40°F to 158°F (-40°C to 70°C)
	<b>Nonoperating/Storage relative humidity</b>	15% to 90% @ 149°F (65°C), noncondensing
	<b>Altitude</b>	up to 10,000 ft (3 km)
	<b>Acoustic</b>	Power: 47 dB, Pressure: 29.4 dB



### Technical Specifications

<b>Safety</b>	EN 60950/IEC 60950; UL 60950; UL 60950-1; CAN/CSA 22.2 No. 60950; EN 60825; CSA 22.2 60950-1; EN62479:2010; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; EN 62368-1, Ed. 2; IEC 60950-1:2005 Ed.2; Am 1:2009+A2:2013; IEC 60825:2007; EN60850-1:2007 / IEC 60825-1: 2007 Class1 Class 1 Laser Products / Laser Klasse 1; UL 62368-1 Ed.2	
<b>Emissions</b>	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013	
<b>Immunity</b>	<b>Generic</b>	EN55022: 2010
	<b>EN</b>	EN55024: 2010
	<b>ESD</b>	IEC 61000-4-2
	<b>Radiated</b>	IEC 61000-4-3; 3 V/m
	<b>EFT/Burst</b>	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
	<b>Surge</b>	IEC 61000-4-5; 1 kV/2 kV AC
	<b>Conducted</b>	IEC 61000-4-6; 3 V
	<b>Power frequency magnetic field</b>	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
	<b>Voltage dips and interruptions</b>	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods
	<b>Harmonics</b>	EN61000-3-2:2006 +A1:2009 +A2:2009 Class A
	<b>Flicker</b>	EN61000-3-3:2008
<b>Management</b>	Aruba AirWave Network Management; IMC - Intelligent Management Center; Command-line interface; Web browser; Configuration menu; Out-of-band management (RJ-45 Ethernet); In-line and out-of-band; Out-of-band management (serial RS-232c or micro usb)	
<b>Services</b>	Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">http://www.hpe.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	

### Aruba 3810M 16SFP+ 2-slot Switch (JL075A)

<b>Included accessories</b>	1 Aruba 3810 Switch Fan Tray (JL088A)
<b>I/O ports and slots</b>	16 SFP+ fixed 1000/10000 SFP+ ports; Duplex: 100BASE-TX: half or full; 1000BASE-T: full only; Ports 1 - 16 support MACSec 2 open module slots Supports a maximum of 8 SFP+ ports or 2 40GbE ports, with optional module
<b>Additional ports and slots</b>	1 stacking module slot 1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 dual-personality (RJ-45 or USB micro-B)
<b>Power supplies</b>	2 power supply slots 1 minimum power supply required (ordered separately)
<b>Fan tray</b>	includes: 1 x JL088A 1 fan tray slot Switch ships with 1 JL088A fan tray installed. Spares ordered separately.

### Technical Specifications

<b>Physical characteristics</b>	<b>Dimensions</b>	17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height)
	<b>Weight</b>	13.28 lb (6.02 kg)
<b>Memory and processor</b>	P2020 Dual Core @ 1.2 GHz, 4 GB DDR3 SDRAM, 1 GB SD Card Dual ARM Coretex A9 @ 1 GHz, 2 GB DDR3 SDRAM; Packet buffer size: 13.5 MB Internal	
<b>Mounting and enclosure</b>	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	
<b>Performance</b>	IPv6 Ready Certified	
	<b>1000 Mb Latency</b>	< 2.8 $\mu$ s (FIFO 64-byte packets)
	<b>10 Gbps Latency</b>	< 1.8 $\mu$ s (FIFO 64-byte packets)
	<b>40 Gbps Latency</b>	< 1.5 $\mu$ s (FIFO 64-byte packets)
	<b>Throughput</b>	up to 285.7 Mpps (64-byte packets)
	<b>Routing/Switching capacity</b>	480 Gbps
	<b>Switch fabric speed</b>	508 Gbps
	<b>Routing table size</b>	10000 entries (IPv4), 5000 entries (IPv6)
	<b>MAC address table size</b>	64000 entries
	<b>Environment</b>	<b>Operating temperature</b>
<b>Operating relative humidity</b>		15% to 95% @ 104°F (40°C), noncondensing
<b>Nonoperating/Storage temperature</b>		-40°F to 158°F (-40°C to 70°C)
<b>Nonoperating/Storage relative humidity</b>		15% to 90% @ 149°F (65°C), noncondensing
<b>Altitude</b>		up to 10,000 ft (3 km)
<b>Acoustic</b>		Power: 39 dB, Pressure: 22.3 dB
<b>Safety</b>	EN 60950/IEC 60950; UL 60950; UL 60950-1; CAN/CSA 22.2 No. 60950; EN 60825; CSA 22.2 60950-1; EN62479:2010; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; EN 62368-1, Ed. 2; IEC 60950-1:2005 Ed.2; Am 1:2009+A2:2013; IEC 60825:2007; EN60850-1:2007 / IEC 60825-1: 2007 Class1 Class 1 Laser Products / Laser Klasse 1; UL 62368-1 Ed.2	
<b>Emissions</b>	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013	
<b>Immunity</b>	<b>Generic</b>	EN55022: 2010
	<b>EN</b>	EN55024: 2010
	<b>ESD</b>	IEC 61000-4-2
	<b>Radiated</b>	IEC 61000-4-3; 3 V/m
	<b>EFT/Burst</b>	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
	<b>Surge</b>	IEC 61000-4-5; 1 kV/2 kV AC
	<b>Conducted</b>	IEC 61000-4-6; 3 V
	<b>Power frequency magnetic field</b>	IEC 61000-4-8; 1 A/m, 50 or 60 Hz

### Technical Specifications

	<b>Voltage dips and interruptions</b>	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods
	<b>Harmonics</b>	EN61000-3-2:2006 +A1:2009 +A2:2009 Class A
	<b>Flicker</b>	EN61000-3-3:2008
<b>Management</b>	Aruba AirWave Network Management; IMC - Intelligent Management Center; Command-line interface; Web browser; Configuration menu; Out-of-band management (RJ-45 Ethernet); In-line and out-of-band; Out-of-band management (serial RS-232c or micro usb)	
<b>Services</b>	Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">http://www.hpe.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	

### Aruba 3810M 40G 8 HPE Smart Rate PoE+ 1-slot Switch (JL076A)

<b>Included accessories</b>	1 Aruba 3810 Switch Fan Tray (JL088A)	
<b>I/O ports and slots</b>	40 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; Ports 1 - 40 support MACSec 8 RJ-45 HPE Smart Rate Multi-Gigabit ports; Ports 1 - 8 support MACSec 1 open module slot Supports a maximum of 4 SFP+ ports or 2 40GbE ports, with optional module	
<b>Additional ports and slots</b>	1 stacking module slot 1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 dual-personality (RJ-45 or USB micro-B)	
<b>Power supplies</b>	2 power supply slots 1 minimum power supply required (ordered separately)	
<b>Fan tray</b>	includes: 1 x JL088A 1 fan tray slot Switch ships with 1 JL088A fan tray installed. Spares ordered separately.	
<b>Physical characteristics</b>	<b>Dimensions</b>	17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height)
	<b>Weight</b>	13.61 lb (6.17 kg)
<b>Memory and processor</b>	P2020 Dual Core @ 1.2 GHz, 4 GB DDR3 SDRAM, 1 GB SD Card Dual ARM Coretex A9 @ 1 GHz, 2 GB DDR3 SDRAM; Packet buffer size: 13.5 MB Internal	
<b>Mounting and enclosure</b>	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	
<b>Performance</b>	IPv6 Ready Certified	
	<b>1000 Mb Latency</b>	< 2.8 $\mu$ s (FIFO 64-byte packets)
	<b>10 Gbps Latency</b>	< 1.8 $\mu$ s (FIFO 64-byte packets)
	<b>40 Gbps Latency</b>	< 1.5 $\mu$ s (FIFO 64-byte packets)
	<b>Throughput</b>	up to 273.8 Mpps (64-byte packets)
	<b>Routing/Switching capacity</b>	480 Gbps

### Technical Specifications

	<b>Switch fabric speed</b>	508 Gbps
	<b>Routing table size</b>	10000 entries (IPv4), 5000 entries (IPv6)
	<b>MAC address table size</b>	64000 entries
<b>Environment</b>	<b>Operating temperature</b>	32°F to 113°F (0°C to 45°C)
	<b>Operating relative humidity</b>	15% to 95% @ 104°F (40°C), noncondensing
	<b>Nonoperating/Storage temperature</b>	-40°F to 158°F (-40°C to 70°C)
	<b>Nonoperating/Storage relative humidity</b>	15% to 90% @ 149°F (65°C), noncondensing
	<b>Altitude</b>	up to 10,000 ft (3 km)
	<b>Acoustic</b>	Power: 49 dB, Pressure: 31.5 dB
<b>Safety</b>	EN 60950/IEC 60950; UL 60950; UL 60950-1; CAN/CSA 22.2 No. 60950; EN 60825; CSA 22.2 60950-1; EN62479:2010; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; EN 62368-1, Ed. 2; IEC 60950-1:2005 Ed.2; Am 1:2009+A2:2013; IEC 60825:2007; EN60850-1:2007 / IEC 60825-1: 2007 Class1 Class 1 Laser Products / Laser Klasse 1; UL 62368-1 Ed.2	
<b>Emissions</b>	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013	
<b>Immunity</b>	<b>Generic</b>	EN55022: 2010
	<b>EN</b>	EN55024: 2010
	<b>ESD</b>	IEC 61000-4-2
	<b>Radiated</b>	IEC 61000-4-3; 3 V/m
	<b>EFT/Burst</b>	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
	<b>Surge</b>	IEC 61000-4-5; 1 kV/2 kV AC
	<b>Conducted</b>	IEC 61000-4-6; 3 V
	<b>Power frequency magnetic field</b>	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
	<b>Voltage dips and interruptions</b>	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods
	<b>Harmonics</b>	EN61000-3-2:2006 +A1:2009 +A2:2009 Class A
	<b>Flicker</b>	EN61000-3-3:2008
<b>Management</b>	Aruba AirWave Network Management; IMC - Intelligent Management Center; Command-line interface; Web browser; Configuration menu; Out-of-band management (RJ-45 Ethernet); In-line and out-of-band; Out-of-band management (serial RS-232c or micro usb)	
<b>Services</b>	Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">http://www.hpe.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	

### Standards and protocols (applies to all products in series)

**BGP** RFC 1997 BGP Communities Attribute



### Technical Specifications

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

**General Protocols** IEEE 802.1ad Q-in-Q  
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 802.3ad 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 5880 Bidirectional Forwarding Detection  
RFC 5905 Network Time Protocol Version 4: Protocol and Algorithms Specification

### Technical Specifications

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 for IPv6  
RFC 4022 MIB for TCP  
RFC 4087 IP Tunnel MIB  
RFC 4113 MIB for UDP  
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

### Technical Specifications

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)  
RFC 7331 BFD MIB

#### Network Management

IEEE 802.1AB Link Layer Discovery Protocol (LLDP)  
RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events)  
RFC 3176 sFlow  
RFC 3411 SNMP Management Frameworks  
RFC 3412 Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)  
RFC 3413 Simple Network Management Protocol (SNMP) Applications  
RFC 3414 User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3)  
RFC 3415 View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP)  
RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)  
RFC 5424 Syslog Protocol  
ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)  
SNMPv1/v2c/v3  
XRMON

#### 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

## Technical Specifications

RFC 3579 RADIUS Support For Extensible Authentication Protocol (EAP)  
Secure Sockets Layer (SSL)  
SSHv2 Secure Shell



### Accessories

#### Aruba 3810 Switch Series accessories

##### Modules

Aruba 3810M 4-port Stacking Module	JL084A
Aruba 3810M 4SFP+ Module	JL083A
Aruba 3810M 1QSFP+ 40GbE Module	JL078A
Aruba 3810M 2QSFP+ 40GbE Module	JL079A

##### Transceivers

HPE X111 100M SFP LC FX Transceiver	J9054C
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 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 X142 40G QSFP+ MPO SR4 Transceiver	JH231A
HPE X142 40G QSFP+ MPO eSR4 300M Transceiver	JH233A
HPE X142 40G QSFP+ LC LR4 SM Transceiver	JH232A
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

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

##### Power Supply

Aruba X371 12VDC 250W 100-240VAC Power Supply	JL085A
Aruba X372 54VDC 680W 100-240VAC Power Supply	JL086A

##### Fan Tray

Aruba 3810 Switch Fan Tray	JL088A
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Accessories

**Mounting Kit**

HPE X410 1U Universal 4-post Rackmount Kit

J9583A

### Summary of Changes

Date	Version History	Action	Description of Change
07-Nov-2016	From Version 5 to 6	Changed	Product overview, Features and Benefits updated
19-Aug-2016	From Version 4 to 5	Changed	Configuration section updated. Minor changes made on Technical Specifications.
06-June-2016	From Version 3 to 4	Changed	Features and Benefits, Standards and Protocols, Accessories updated. SKU descriptions updated.
18-Mar-2016	From Version 2 to 3	Changed	Minor edits on Features and Benefits, Switch family photo added.
11-Dec-2015	From Version 1 to 2	Changed	Standards and protocols and Configuration Menu updated



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c04843019 - 15438 - Worldwide - V6 - 7-November-2016