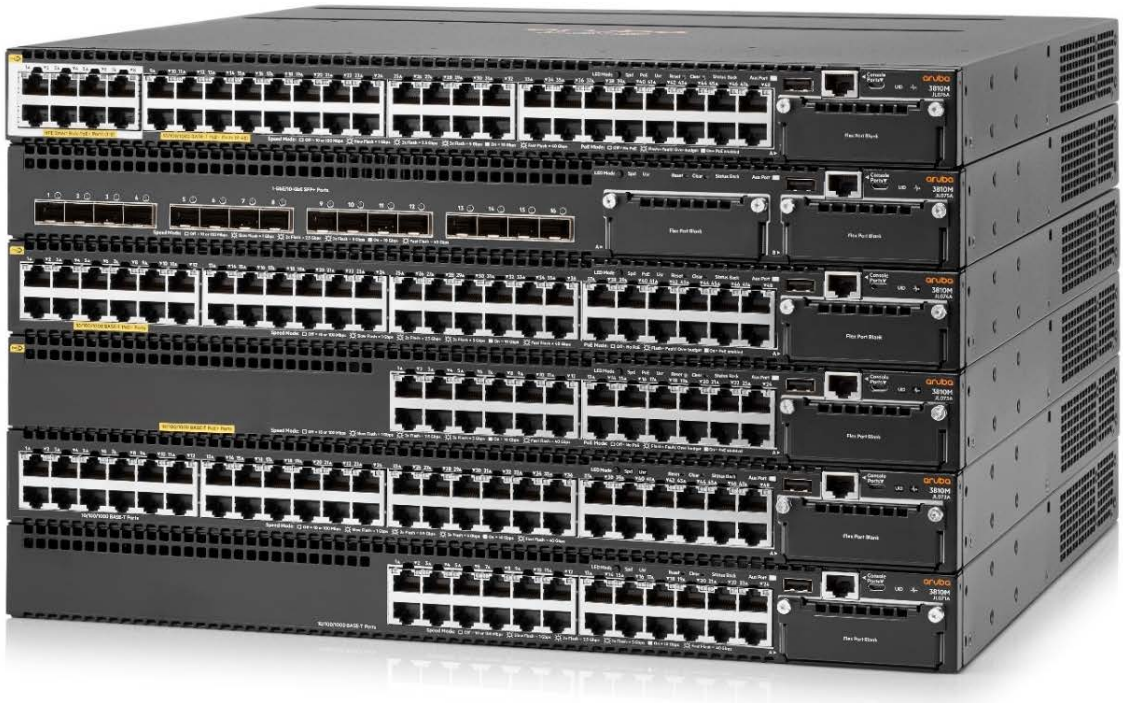
Overview

Aruba 3810M 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
Aruba 3810M 48G PoE+ 4SFP+ 680W Switch	JL428A
Aruba 3810M 48G PoE+ 4SFP+ 1050W Switch	JL429A
Aruba 3810M 24SFP+ 250W Switch	JL430A

Key features

- Advanced Layer 3 switch series with backplane stacking, dynamic segmentation, low latency and resiliency
- Advanced security and network management via Aruba ClearPass Policy Manager, Aruba AirWave and Aruba Central
- Modular 10GbE and 40GbE uplinks for wireless aggregation
- HPE Smart Rate for high-speed multi-gigabit capacity and PoE+ power
- Software-defined ready with REST APIs and OpenFlow support

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 access points and IoT devices, this advanced Layer 3 network switch delivers a better

Standard Features

application experience with low latency, virtualization with resilient stacking technology, and line rate 40GbE for plenty of back haul capacity.

A powerful Aruba ProVision ASIC delivers performance, robust feature support, and value with flexible programmability for the latest applications. The 3810 delivers resiliency and scalability via innovative backplane stacking technology and redundant, hot-swappable power supplies all in a convenient 1U form factor. It supports an advanced Layer 2 and 3 feature set with OSPF, IPv6, IPv4 BGP, Dynamic Segmentation, robust QoS, and policy-based routing are included with no software licensing.

The 3810M is easy to deploy, use and manage using Aruba AirWave or Aruba Central. Aruba ClearPass offers centralized security and external captive portal support. The switches offer a limited lifetime warranty.

Standard Features

Enhanced Capabilities and benefits

Software-defined networks

- **Supports multiple programmatic interfaces**
  Including REST APIs and Openflow 1.0 and 1.3, to enable automation of network operations, monitoring, and troubleshooting.

Unified Wired and Wireless Support

- **ClearPass Policy Manager support**
  unified wired and wireless policies using Aruba ClearPass Policy Manager
- **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-based local user role or download from ClearPass
- **Dynamic segmentation**
  Provides a secured tunnel to transport network traffic on a per-port or per-user-role basis to an Aruba Controller. In per-user-role Tunneled Node, users are authenticated with ClearPass Policy Manager which can direct the traffic to be tunneled to Aruba controller or switch locally.
- **Static IP visibility**
  provides a way for ClearPass to do accounting for clients with static IP addresses

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**
  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
- **Unknown Unicast Rate Limiting**
  throttles unicast packets with unknown destination addresses and limits flooding on the VLAN

Standard Features

Simplified management and configuration

- **Flexible management**
  supports both cloud-based Central and on-premise AirWave without ripping and replacing switching infrastructure
- **Aruba Central cloud-based management platform**
  offers simple, secure, and cost effective way to manage switches
- **Built-in programmable and easy to use REST API interface**
  provides configuration automation for campus networks
- **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
- **Zero Touch ProVisioning (ZTP)**
  simplifies installation of the switch infrastructure using the Aruba Activate-based or a DHCP-based process with AirWave and Central Network Management
- **Unidirectional Link Detection (UDLD)**
  monitors the link between two switches and blocks the ports on both ends of the link if the link goes down at any point between the two devices
- **IP service level agreements (SLA) for voice**
  monitor quality of voice traffic using the UDP jitter and UDP jitter for VoIP tests

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Connectivity

- **Jumbo frames on Gigabit Ethernet and 10-Gigabit Ethernet ports**
  allow high-performance remote backup and disaster-recovery services
- **IEEE 802.3at Power over Ethernet (PoE+)**
  provides up to 30 W per port that allows support of the latest PoE+ capable devices such as IP phones, wireless access points, and security cameras, as well as any IEEE 802.3af compliant end device; eliminates the cost of additional electrical cabling and circuits that would otherwise be necessary in IP phone and WLAN deployments
- **Support for pre-standard PoE**
  detects and provides power to pre-standard PoE devices
- **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

Standard Features

Performance and efficiency

- **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
- **Aruba ProVision ASIC**
  provides 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 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: with secondary power supply to enable complete switch power redundancy in case of power line or supply failure
  - Secondary power supply increases 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+
- **Aruba 3810M 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

Standard Features

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

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

- **Control plane policing**
  sets rate limit on control protocols to protect CPU overload from DOS attacks
- **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

Standard Features

- **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
- **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
  - Supports web-based authentication
  - MAC-based client authentication
  - **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
- **IEEE 802.1AE MACsec**
  provides security on a link between two switch ports (1Gbps or 10Gbps) using standard encryption and authentication
- **Open authentication role**
  simplifies first-time deployment of AAA in brownfield deployments by allowing full network access for failed clients and provides instant connectivity as soon as a client is plugged-in
- **Critical authentication role**
  ensures that important infrastructure devices such as IP phones are allowed network access even in the absence of a RADIUS server
- **MAC pinning**
  allows non-chatty legacy devices to stay authenticated by pinning client MAC addresses to the port until the clients logoff or get disconnected

Standard Features

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
- **Protocol Independent Multicast for IPv6**
  supports one-to-many and many-to-many media casting use cases such as IPTV over IPv6 networks
- **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 Information

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

See Configuration **RULE:** 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 Information

Aruba 3810M 48G PoE+ 4SFP+ 680W Switch • Includes 1 3810M 48 Port PoE+ Switch (JL074A) • 48 RJ-45 autosensing 10/100/1000 PoE+ ports • 4 fixed 1000/10000 SFP/SFP+ ports • min=0 \ max=4 SFP/SFP+ Transceivers • 1 open stacking module slot • Includes 1 uplink module (JL083A) • Includes 1 680W Power Supply (JL086A, Max 2) • 1U - Height	JL428A See Configuration **RULE:** 1, 2
PDU Cable NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL428A#B2B
PDU Cable ROW • C15 PDU Jumper Cord (ROW)	JL428A#B2C
High Volt Power Supply to Wall Power Cord • NEMA L6-20P Cord (NA/MEX/JP/TW)	JL428A#B2E
No Power Cord • No Localized Power Cord Selected	JL428A#AC3
Aruba 3810M 48G PoE+ 4SFP+ 1050W Switch • Includes 1 3810M 48 Port PoE+ Switch (JL074A) • 48 RJ-45 autosensing 10/100/1000 PoE+ ports • 4 fixed 1000/10000 SFP/SFP+ ports • min=0 \ max=4 SFP/SFP+ Transceivers • 1 open stacking module slot • Includes 1 uplink module (JL083A) • Includes 1 1050W Power Supply (JL087A, Max 2) • 1U - Height	JL429A See Configuration **RULE:** 1, 2
PDU Cable NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL429A#B2B
PDU Cable ROW • C15 PDU Jumper Cord (ROW)	JL429A#B2C
High Volt Power Supply to Wall Power Cord • NEMA L6-20P Cord (NA/MEX/JP/TW)	JL429A#B2E
No Power Cord • No Localized Power Cord Selected	JL429A#AC3
Aruba 3810M 24SFP+ 250W Switch • Includes 1 3810M 16 Port SFP+ Switch (JL075A) • 16 fixed 1000/10000 SFP/SFP+ ports • 8 port SFP+ ports on the included modules • min=0 \ max=24 SFP/SFP+ Transceivers • 1 open stacking module slot • Includes 2 uplink modules (JL083A) • Includes 1 250W Power Supply (JL085A, Max 2) • 1U - Height	JL430A See Configuration **RULE:** 1, 2
PDU Cable NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL430A#B2B
PDU Cable ROW • C15 PDU Jumper Cord (ROW)	JL430A#B2C

Configuration Information

High Volt Power Supply to Wall Power Cord	JL430A#B2E
• NEMA L6-20P Cord (NA/MEX/JP/TW)	
No Power Cord	JL430A#AC3
• No Localized Power Cord Selected	

Configuration Rules:

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

Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858D
Aruba 1G SFP LC LX 10km SMF Transceiver	J4859D
Aruba 1G SFP LC LH 70km SMF Transceiver	J4860D
Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177D
Aruba 100M SFP LC FX 2km MMF Transceiver	J9054D
Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D
Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151E
Aruba 10G SFP+ LC LRM 220m OM2 MMF Transceiver	J9152D
Aruba 10G SFP+ LC ER 40km SMF Transceiver	J9153D
Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281D
Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283D
Aruba 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285D

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

Rack Level Integration CTO Models

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	See Configuration **RULE:** 10, 11
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	See Configuration **RULE:** 10, 11
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	See Configuration **RULE:** 10, 11
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	See Configuration **RULE:** 10, 11

Configuration Information

Aruba 3810M 16SFP+ 2-slot Switch • 16 fixed 1000/10000 SFP/SFP+ ports • min=0 \ max=16 SFP/SFP+ Transceivers • 1 open stacking module slot • 2 open uplink module slot • 1 Power Supply required (Max 2) • 1U - Height	JL075A See Configuration **RULE:** 1, 10, 11
Aruba 3810M 40G 8 HPE Smart Rate PoE+ 1-slot Switch • 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	JL076A See Configuration **RULE:** 10, 11
Aruba 3810M 48G PoE+ 4SFP+ 680W Switch • Includes 1 3810M 48 Port PoE+ Switch (JL074A) • 48 RJ-45 autosensing 10/100/1000 PoE+ ports • 4 fixed 1000/10000 SFP/SFP+ ports • min=0 \ max=4 SFP/SFP+ Transceivers • 1 open stacking module slot • Includes 1 uplink module (JL083A) • Includes 1 680W Power Supply (JL086A, Max 2) • 1U - Height	JL428A See Configuration **RULE:** 1, 3, 4, 10, 11
PDU Cable NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL428A #B2B
PDU Cable ROW • C15 PDU Jumper Cord (ROW)	JL428A #B2C
High Volt Power Supply to Wall Power Cord • NEMA L6-20P Cord (NA/MEX/JP/TW)	JL428A #B2E
No Power Cord • No Localized Power Cord Selected	JL428A#AC3
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PDU Cable NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL429A #B2B
PDU Cable ROW • C15 PDU Jumper Cord (ROW)	JL429A #B2C
High Volt Power Supply to Wall Power Cord • NEMA L6-20P Cord (NA/MEX/JP/TW)	JL429A #B2E
No Power Cord • No Localized Power Cord Selected	JL429A #AC3

Configuration Information

Aruba 3810M 24SFP+ 250W Switch • Includes 1 3810M 16 Port SFP+ Switch (JL075A) • 16 fixed 1000/10000 SFP/SFP+ ports • 8 port SFP+ ports on the included modules • min=0 \ max=24 SFP/SFP+ Transceivers • 1 open stacking module slot • Includes 2 uplink modules (JL083A) • Includes 1 250W Power Supply (JL085A, Max 2) • 1U - Height	JL430A See Configuration **RULE:** 1, 3, 4, 10, 11
PDU Cable NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL430A #B2B
PDU Cable ROW • C15 PDU Jumper Cord (ROW)	JL430A #B2C
High Volt Power Supply to Wall Power Cord • NEMA L6-20P Cord (NA/MEX/JP/TW)	JL430A #B2E
No Power Cord • No Localized Power Cord Selected	JL430A #AC3

Configuration Rules:

RULE 1	The following Transceivers install into this Switch (For the 1000/10000 SFP+ Ports):	
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	Aruba 1G SFP LC LX 10km SMF Transceiver	J4859D
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	Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177D
	Aruba 100M SFP LC FX 2km MMF Transceiver	J9054D
	Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D
	Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151E
	Aruba 10G SFP+ LC LRM 220m OM2 MMF Transceiver	J9152D
	Aruba 10G SFP+ LC ER 40km SMF Transceiver	J9153D
	Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281D
	Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283D
	Aruba 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285D
RULE 3	Localization required on orders without #B2B, #B2C, #B2E options.	
RULE 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.)	
RULE 10	If switch is 0D1 to Racks, then the J9583A#0D1 is also required.	
RULE 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.	

Configuration Information

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)
Watson Blue **NOTE:** It is recommended that both power supplies match for full redundancy in the case of a fully populated switch, but not required.
Clic UNB - If an option is ordered with #0D1/#B01, then the switch must have #0D1 option.

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=1 \ max=4 Stacking cables — See Configuration **RULE:** 1

Configuration Rules:

RULE 1 One of the following Stacking Cables must be selected:

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

Uplink Modules

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
JL428A, JL429A Only System (std 1 // max 1) User Selection (min 0 / max 0) per Chassis
JL430A Only System (std 2 // max 2) User Selection (min 0 / max 0) per Chassis

Aruba 3810M/2930M 1-port QSFP+ 40GbE Module — JL078A

- min=0 \ max=1 QSFP+ Transceiver — See Configuration **RULE:** 1

Aruba 3810M 2QSFP+ 40GbE Module — JL079A

- min=0 \ max=2 QSFP+ Transceiver — See Configuration **RULE:** 1, 3

Aruba 3810M 4 HPE Smart Rate PoE+ Module — JL081A

- 4 x HPE Smart Rate Ports

Aruba 3810M/2930M 4-port 100M/1G/10G SFP+ MACsec Module — JL083A

- min=0 \ max=4 SFP/SFP+ Transceivers — See Configuration **RULE:** 2

Configuration Information

Configuration Rules:

RULE 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
	Aruba 40G QSFP+ LC Bidirectional 150m MMF 2-strand Transceiver	JL308A
RULE 2	The following Transceivers install into this Switch (For the 1000/10000 SFP+ Ports):	
	Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858D
	Aruba 1G SFP LC LX 10km SMF Transceiver	J4859D
	Aruba 1G SFP LC LH 70km SMF Transceiver	J4860D
	Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177D
	Aruba 100M SFP LC FX 2km MMF Transceiver	J9054D
	Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D
	Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151E
	Aruba 10G SFP+ LC LRM 220m OM2 MMF Transceiver	J9152D
	Aruba 10G SFP+ LC ER 40km SMF Transceiver	J9153D
	Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281D
	Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283D
	Aruba 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285D
RULE 3	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 all 3810M/2930M Switches are compatible with the 4 Port HPE Smart Rate module, non PoE switches do not provide PoE power to the HPE Smart Rate Module.	

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 X122 1G SFP LC BX-D Transceiver	J9142B
HPE X122 1G SFP LC BX-U Transceiver	J9143B
HPE X111 100M SFP LC FX Transceiver	J9054C
Aruba 100M SFP LC FX 2km MMF Transceiver	J9054D
Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858D
Aruba 1G SFP LC LX 10km SMF Transceiver	J4859D
Aruba 1G SFP LC LH 70km SMF Transceiver	J4860D
Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177D

Configuration Information

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
Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D
Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151E
Aruba 10G SFP+ LC LRM 220m OM2 MMF Transceiver	J9152D
Aruba 10G SFP+ LC ER 40km SMF Transceiver	J9153D
Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281D
Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283D
Aruba 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285D
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

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
Aruba 40G QSFP+ LC Bidirectional 150m MMF 2-strand Transceiver	JL308A
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

For JL428A, JL429A, JL430A System (std 1 // max=2) User Selection (min 0 / max=1) per Switch

Aruba X371 12VDC 250W 100-240VAC Power Supply	JL085A See Configuration **RULE:** 1, 3, 4
PDU Cable NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL085A #B2B
PDU Cable ROW • C15 PDU Jumper Cord (ROW)	JL085A #B2C
High Volt Power Supply to Wall Power Cord • NEMA L6-20P Cord (NA/MEX/JP/TW)	JL085A #B2E
No Power Cord • No Localized Power Cord Selected	JL085A #AC3
Aruba X372 54VDC 680W 100-240VAC Power Supply	JL086A See Configuration **RULE:** 2, 3, 4
PDU Cable NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL086A #B2B
PDU Cable ROW • C15 PDU Jumper Cord (ROW)	JL086A #B2C
High Volt Power Supply to Wall Power Cord • NEMA L6-20P Cord (NA/MEX/JP/TW)	JL086A #B2E

Configuration Information

No Power Cord • No Localized Power Cord Selected	JL086A #AC3
Aruba X372 54VDC 1050W 110-240VAC Power Supply	JL087A See Configuration **RULE:** 2, 3, 4
PDU Cable NA/MEX/TW/JP • C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL087A #B2B
PDU Cable ROW • C15 PDU Jumper Cord (ROW)	JL087A #B2C
High Volt Power Supply to Wall Power Cord • NEMA L6-20P Cord (NA/MEX/JP/TW)	JL087A #B2E
No Power Cord • No Localized Power Cord Selected	JL087A #AC3

Configuration Rules:

RULE 1	If this Power supply is selected, Then JL071A, JL072A, JL075A, JL430A must be the switch its installed into.
RULE 2	If this Power supply is selected, Then JL073A, JL074A, JL076A, JL428A, JL429A must be the switch its installed into.
RULE 3	Localization required on orders without #B2B or #B2C options.
RULE 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) No Localized Power Cord Selected - #AC3 Option Watson Blue **NOTE:** It is recommended that both power supplies match for full redundancy in the case of a fully populated switch, but not required.

Configuration Information

Cables

Stacking Cables

(std 0 // max 99) User Selection (min 0 // max 99) per switch

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

Console Cables

(std 0 // max 99) User Selection (min 0 // max 99) per switch

Aruba X2C2 RJ45 to DB9 Console Cable	JL448A

Multi-Mode Cables

(std 0 // max 99) User Selection (min 0 // max 99) per switch

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

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

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

Configuration Rules:

RULE 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)		
Included accessories	1 Aruba 3810 Switch Fan Tray (JL088A)	
I/O ports and slots	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	
Additional ports and slots	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)	
Power supplies	2 power supply slots 1 minimum power supply required (ordered separately)	
Fan tray	includes: 1 x JL088A 1 fan tray slot Switch ships with 1 JL088A fan tray installed. Spares ordered separately.	
Physical characteristics	**Dimensions**	17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height)
	Weight	12.76 lb (5.79 kg)
Memory and processor	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	
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	
Performance	IPv6 Ready Certified	
	1000 Mb Latency	< 2.8 µs (FIFO 64-byte packets)
	10 Gbps Latency	< 1.8 µs (FIFO 64-byte packets)
	40 Gbps Latency	< 1.5 µs (FIFO 64-byte packets)
	Throughput	up to 95.2 Mpps (64-byte packets)
	Routing/Switching capacity	160 Gbps
	Switch fabric speed	169 Gbps
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	MAC address table size	64000 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: 39 dB, Pressure: 22.8 dB
	Primary Airflow Direction	Front-to-side and front-to-rear

Technical Specifications

Electrical Characteristics	**Frequency**	50/60Hz
	Voltage	JL085A PSU: 100-127/200-240 VAC
	Current	JL085A PSU (Each): 1A/0.5A
	Max/Idle Power Rating (Switch+ 1 PSU)	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W
	Maximum Heat Dissipation *(Max Case)	310.31
	PoE Power (Max Possible)	N/A
	Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst case theoretical maximum numbers provide for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. This is a modular product. *Switch + 2 power supplies + one JL083A Uplink. For most accurate heat dissipation, idle and max power for any combination of chassis and accessories, please consult configurator.
Safety	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	
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013	
Immunity	**Generic**	EN55022: 2010
	EN	EN55024: 2010
	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	EN61000-3-2:2006 +A1:2009 +A2:2009 Class A
	Flicker	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.	

Technical Specifications

Aruba 3810M 48G 1-slot Switch (JL072A)		
Included accessories	1 Aruba 3810 Switch Fan Tray (JL088A)	
I/O ports and slots	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	
Additional ports and slots	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)	
Power supplies	2 power supply slots 1 minimum power supply required (ordered separately)	
Fan tray	includes: 1 x JL088A 1 fan tray slot Switch ships with 1 JL088A fan tray installed. Spares ordered separately.	
Physical characteristics	**Dimensions**	17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height)
	Weight	13.20 lb (5.99 kg)
Memory and processor	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	
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	
Performance	IPv6 Ready Certified	
	1000 Mb Latency	< 2.8 µs (FIFO 64-byte packets)
	10 Gbps Latency	< 1.8 µs (FIFO 64-byte packets)
	40 Gbps Latency	< 1.5 µs (FIFO 64-byte packets)
	Throughput	up to 190.5 Mpps (64-byte packets)
	Routing/Switching capacity	320 Gbps
	Switch fabric speed	338 Gbps
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	MAC address table size	64000 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: 38 dB, Pressure: 21.8 dB
	Primary Airflow Direction	Front-to-side and front-to-rear

Technical Specifications

Electrical Characteristics	**Frequency**	50/60Hz
	Voltage	JL085A PSU: 100-127/200-240 VAC
	Current	JL085A PSU (Each): 1A/0.5A
	Max/Idle Power Rating (Switch+ 1 PSU)	95W/78W
	Second PSU Power Adder	10W
	Max/Idle Uplink Power Adder	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W
	Maximum Heat Dissipation *(Max Case)	395.56
	PoE Power (Max Possible)	N/A
	Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst case theoretical maximum numbers provide for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. This is a modular product. *Switch + 2 power supplies + one JL083A Uplink. For most accurate heat dissipation, idle and max power for any combination of chassis and accessories, please consult configurator.
Safety	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	
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013	
Immunity	**Generic**	EN55022: 2010
	EN	EN55024: 2010
	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	EN61000-3-2:2006 +A1:2009 +A2:2009 Class A
	Flicker	EN61000-3-3:2008

Technical Specifications

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)

Included accessories	1 Aruba 3810 Switch Fan Tray (JL088A)	
I/O ports and slots	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	
Additional ports and slots	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)	
Power supplies	2 power supply slots 1 minimum power supply required (ordered separately)	
Fan tray	includes: 1 x JL088A 1 fan tray slot Switch ships with 1 JL088A fan tray installed. Spares ordered separately	
Physical characteristics	**Dimensions**	17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height)
	Weight	13.02 lb (5.91 kg)
Memory and processor	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	
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	
Performance	IPv6 Ready Certified	
	1000 Mb Latency	< 2.8 µs (FIFO 64-byte packets)
	10 Gbps Latency	< 1.8 µs (FIFO 64-byte packets)
	40 Gbps Latency	< 1.5 µs (FIFO 64-byte packets)
	Throughput	up to 95.2 Mpps (64-byte packets)
	Routing/Switching capacity	160 Gbps
	Switch fabric speed	169 Gbps
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	MAC address table size	64000 entries

Technical Specifications

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: 44 dB, Pressure: 27.6 dB
	Primary Airflow Direction	Front-to-side and front-to-rear
Electrical Characteristics	**Frequency**	50/60Hz
	Voltage	JL086A PSU: 100-127/200-240 VAC JL087A PSU: 110-127/200-240 VAC
	Current	JL086A PSU (Each): 5A/2.5A JL087A PSU (Each): 8.5A/5A
	Max/Idle Power Rating (Switch+ 1 PSU)	95W/82W
	Second PSU Power Adder	10W
	Max/Idle Uplink Power Adder	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W
	Maximum Heat Dissipation *(Max Case)	395.56
	PoE Power (Max Possible)	840W
	Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst case theoretical maximum numbers provide for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. This is a modular product. *Switch + 2 power supplies + one JL083A Uplink. For most accurate heat dissipation, idle and max power for any combination of chassis and accessories, please consult configurator.
Safety	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	
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013	

Technical Specifications

Immunity	**Generic**	EN55022: 2010
	EN	EN55024: 2010
	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	EN61000-3-2:2006 +A1:2009 +A2:2009 Class A
	Flicker	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 48G PoE+ 1-slot Switch (JL074A)

Included accessories	1 Aruba 3810 Switch Fan Tray (JL088A)	
I/O ports and slots	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	
Additional ports and slots	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)	
Power supplies	2 power supply slots 1 minimum power supply required (ordered separately)	
Fan tray	includes: 1 x JL088A 1 fan tray slot Switch ships with 1 JL088A fan tray installed. Spares ordered separately.	
Physical characteristics	**Dimensions**	17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height)
	Weight	13.62 lb (6.18 kg)
Memory and processor	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	
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	

Technical Specifications

Performance	**IPv6 Ready Certified**	
	1000 Mb Latency	< 2.8 µs (FIFO 64-byte packets)
	10 Gbps Latency	< 1.8 µs (FIFO 64-byte packets)
	40 Gbps Latency	< 1.5 µs (FIFO 64-byte packets)
	Throughput	up to 190.5 Mpps (64-byte packets)
	Routing/Switching capacity	320 Gbps
	Switch fabric speed	338 Gbps
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	MAC address table size	64000 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: 47 dB, Pressure: 29.4 dB
	Primary Airflow Direction	Front-to-side and front-to-rear
Electrical Characteristics	**Frequency**	50/60Hz
	Voltage	JL086A PSU: 100-127/200-240 VAC JL087A PSU: 110-127/200-240 VAC
	Current	JL086A PSU (Each): 5A/2.5A JL087A PSU (Each): 8.5A/5A
	Max/Idle Power Rating (Switch+ 1 PSU)	135W/103W
	Second PSU Power Adder	10W
	Max/Idle Uplink Power Adder	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W
	Maximum Heat Dissipation *(Max Case)	531.96
	PoE Power (Max Possible)	1440W
	Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst case theoretical maximum numbers provide for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. This is a modular product. *Switch + 2 power supplies + one JL083A Uplink. For most accurate heat dissipation, idle and max power for any combination of chassis and accessories, please consult configurator.

Technical Specifications

Safety	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	
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013	
Immunity	**Generic**	EN55022: 2010
	EN	EN55024: 2010
	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	EN61000-3-2:2006 +A1:2009 +A2:2009 Class A
	Flicker	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 16SFP+ 2-slot Switch (JL075A)

Included accessories	1 Aruba 3810 Switch Fan Tray (JL088A)	
I/O ports and slots	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	
Additional ports and slots	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)	
Power supplies	2 power supply slots 1 minimum power supply required (ordered separately)	
Fan tray	includes: 1 x JL088A 1 fan tray slot Switch ships with 1 JL088A fan tray installed. Spares ordered separately.	
Physical characteristics	**Dimensions**	17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height)
	Weight	13.28 lb (6.02 kg)
Memory and processor	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	

Technical Specifications

Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	
Performance	IPv6 Ready Certified	
	1000 Mb Latency	< 2.8 µs (FIFO 64-byte packets)
	10 Gbps Latency	< 1.8 µs (FIFO 64-byte packets)
	40 Gbps Latency	< 1.5 µs (FIFO 64-byte packets)
	Throughput	up to 285.7 Mpps (64-byte packets)
	Routing/Switching capacity	480 Gbps
	Switch fabric speed	508 Gbps
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	MAC address table size	64000 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: 39 dB, Pressure: 22.3 dB
	Primary Airflow Direction	Front-to-side and front-to-rear
Electrical Characteristics	**Frequency**	50/60Hz
	Voltage	JL085A PSU: 100-127/200-240 VAC
	Current	JL085A PSU (Each): 1A/0.5A
	Max/Idle Power Rating (Switch+ 1 PSU)	120W/95W
	Second PSU Power Adder	10W
	Max/Idle Uplink Power Adder	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W
	Maximum Heat Dissipation *(Max Case)	480.81
	PoE Power (Max Possible)	N/A
	Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst case theoretical maximum numbers provide for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. This is a modular product. *Switch + 2 power supplies + one JL083A Uplink. For most accurate heat dissipation, idle and max power for any combination of chassis and accessories, please consult configurator

Technical Specifications

Safety	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	
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013	
Immunity	**Generic**	EN55022: 2010
	EN	EN55024: 2010
	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	EN61000-3-2:2006 +A1:2009 +A2:2009 Class A
	Flicker	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 40G 8 HPE Smart Rate PoE+ 1-slot Switch (JL076A)

Included accessories	1 Aruba 3810 Switch Fan Tray (JL088A)	
I/O ports and slots	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	
Additional ports and slots	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)	
Power supplies	2 power supply slots 1 minimum power supply required (ordered separately)	
Fan tray	includes: 1 x JL088A 1 fan tray slot Switch ships with 1 JL088A fan tray installed. Spares ordered separately.	
Physical characteristics	**Dimensions**	17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height)
	Weight	13.61 lb (6.17 kg)

Technical Specifications

Memory and processor	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	
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	
Performance	IPv6 Ready Certified	
	1000 Mb Latency	< 2.8 µs (FIFO 64-byte packets)
	10 Gbps Latency	< 1.8 µs (FIFO 64-byte packets)
	40 Gbps Latency	< 1.5 µs (FIFO 64-byte packets)
	Throughput	up to 273.8 Mpps (64-byte packets)
	Routing/Switching capacity	480 Gbps
	Switch fabric speed	508 Gbps
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	MAC address table size	64000 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: 49 dB, Pressure: 31.5 dB
	Primary Airflow Direction	Front-to-side and front-to-rear

Technical Specifications

Electrical Characteristics	**Frequency**	50/60Hz
	Voltage	JL086A PSU: 100-127/200-240 VAC JL087A PSU: 110-127/200-240 VAC
	Current	JL086A PSU (Each): 5A/2.5A JL087A PSU (Each): 8.5A/5A
	Max/Idle Power Rating (Switch+ 1 PSU)	190W/158W
	Second PSU Power Adder	10W
	Max/Idle Uplink Power Adder	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W
	Maximum Heat Dissipation *(Max Case)	719.51
	PoE Power (Max Possible)	1440W
	Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst case theoretical maximum numbers provide for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. This is a modular product. *Switch + 2 power supplies + one JL083A Uplink. For most accurate heat dissipation, idle and max power for any combination of chassis and accessories, please consult configurator.
Safety	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	
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013	
Immunity	**Generic**	EN55022: 2010
	EN	EN55024: 2010
	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	EN61000-3-2:2006 +A1:2009 +A2:2009 Class A
	Flicker	EN61000-3-3:2008

Technical Specifications

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 48G PoE+ 4SFP+ 680W Switch (JL428A)

Included accessories	1 Aruba 3810M 48G PoE+ 1-slot Switch (JL074A) 1 Aruba X372 54VDC 680W Power Supply (JL086A) 1 Aruba 3810M 4SFP+ Module (JL083A) 1 Aruba 3810 Switch Fan Tray (JL088A)	
I/O ports and slots	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	
Additional ports and slots	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)	
Power supplies	2 power supply slots 1 minimum power supply required (ordered separately)	
Fan tray	includes: 1 x JL088A 1 fan tray slot Switch ships with 1 JL088A fan tray installed. Spares ordered separately.	
Physical characteristics	**Dimensions**	17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height)
	Weight	13.62 lb (6.18 kg)
Memory and processor	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	
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	
Performance	IPv6 Ready Certified	
	1000 Mb Latency	< 2.8 µs (FIFO 64-byte packets)
	10 Gbps Latency	< 1.8 µs (FIFO 64-byte packets)
	40 Gbps Latency	< 1.5 µs (FIFO 64-byte packets)
	Throughput	up to 190.5 Mpps (64-byte packets)
	Routing/Switching capacity	320 Gbps
	Switch fabric speed	338 Gbps
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	MAC address table size	64000 entries

Technical Specifications

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: 47 dB, Pressure: 29.4 dB
	Primary Airflow Direction	Front-to-side and front-to-rear
Electrical Characteristics	**Frequency**	50/60Hz
	Voltage	JL085A PSU: 100-127/200-240 VAC
	Current	JL085A PSU (Each): 1A/0.5A
	Max/Idle Power Rating (Switch+ 1 PSU)	70W/55W
	Second PSU Power Adder	10W
	Max/Idle Uplink Power Adder	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W
	Maximum Heat Dissipation *(Max Case)	310.31
	PoE Power (Max Possible)	N/A
	Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst case theoretical maximum numbers provide for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. This is a modular product. *Switch + 2 power supplies + one JL083A Uplink. For most accurate heat dissipation, idle and max power for any combination of chassis and accessories, please consult configurator.
Safety	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	
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013	

Technical Specifications

Immunity	**Generic**	EN55022: 2010
	EN	EN55024: 2010
	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	EN61000-3-2:2006 +A1:2009 +A2:2009 Class A
	Flicker	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 48G PoE+ 4SFP+ 1050W Switch (JL429A)

Included accessories	1 Aruba 3810M 48G PoE+ 1-slot Switch (JL074A) 1 Aruba X372 54VDC 1050W Power Supply (JL087A) 1 Aruba 3810M 4SFP+ Module (JL083A) 1 Aruba 3810 Switch Fan Tray (JL088A)	
I/O ports and slots	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	
Additional ports and slots	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)	
Power supplies	2 power supply slots 1 minimum power supply required (ordered separately)	
Fan tray	includes: 1 x JL088A 1 fan tray slot Switch ships with 1 JL088A fan tray installed. Spares ordered separately.	
Physical characteristics	**Dimensions**	17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height)
	Weight	13.62 lb (6.18 kg)
Memory and processor	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	
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	
Performance	IPv6 Ready Certified	
	1000 Mb Latency	< 2.8 µs (FIFO 64-byte packets)
	10 Gbps Latency	< 1.8 µs (FIFO 64-byte packets)

Technical Specifications

	40 Gbps Latency	< 1.5 µs (FIFO 64-byte packets)
	Throughput	up to 190.5 Mpps (64-byte packets)
	Routing/Switching capacity	320 Gbps
	Switch fabric speed	338 Gbps
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	MAC address table size	64000 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: 47 dB, Pressure: 29.4 dB
	Primary Airflow Direction	Front-to-side and front-to-rear

Technical Specifications

Electrical Characteristics	**Frequency**	50/60Hz
	Voltage	JL085A PSU: 100-127/200-240 VAC
	Current	JL085A PSU (Each): 1A/0.5A
	Max/Idle Power Rating (Switch+ 1 PSU)	70W/55W
	Second PSU Power Adder	10W
	Max/Idle Uplink Power Adder	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W
	Maximum Heat Dissipation *(Max Case)	310.31
	PoE Power (Max Possible)	N/A
	Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst case theoretical maximum numbers provide for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. This is a modular product. *Switch + 2 power supplies + one JL083A Uplink. For most accurate heat dissipation, idle and max power for any combination of chassis and accessories, please consult configurator.
Safety	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	
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013	
Immunity	**Generic**	EN55022: 2010
	EN	EN55024: 2010
	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	EN61000-3-2:2006 +A1:2009 +A2:2009 Class A
	Flicker	EN61000-3-3:2008

Technical Specifications

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 24SFP+ 250W Switch (JL430A)

Included accessories	1 Aruba 3810M 16SFP+ 2-slot Switch (JL075A) 1 Aruba X371 12VDC 250W Power Supply (JL085A) 2 Aruba 3810M 4SFP+ Module (JL083A) 1 Aruba 3810 Switch Fan Tray (JL088A)	
I/O ports and slots	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	
Additional ports and slots	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)	
Power supplies	2 power supply slots 1 minimum power supply required (ordered separately)	
Fan tray	includes: 1 x JL088A 1 fan tray slot Switch ships with 1 JL088A fan tray installed. Spares ordered separately.	
Physical characteristics	**Dimensions**	17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height)
	Weight	13.28 lb (6.02 kg)
Memory and processor	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	
Mounting and enclosure	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	
Performance	IPv6 Ready Certified	
	1000 Mb Latency	< 2.8 µs (FIFO 64-byte packets)
	10 Gbps Latency	< 1.8 µs (FIFO 64-byte packets)
	40 Gbps Latency	< 1.5 µs (FIFO 64-byte packets)
	Throughput	up to 285.7 Mpps (64-byte packets)
	Routing/Switching capacity	480 Gbps
	Switch fabric speed	508 Gbps
	Routing table size	10000 entries (IPv4), 5000 entries (IPv6)
	MAC address table size	64000 entries

Technical Specifications

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: 39 dB, Pressure: 22.3 dB
	Primary Airflow Direction	Front-to-side and front-to-rear
Electrical Characteristics	**Frequency**	50/60Hz
	Voltage	JL085A PSU: 100-127/200-240 VAC
	Current	JL085A PSU (Each): 1A/0.5A
	Max/Idle Power Rating (Switch+ 1 PSU)	142W/103W
	Second PSU Power Adder	10W
	Max/Idle Uplink Power Adder	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W
	Maximum Heat Dissipation *(Max Case)	310.31
	PoE Power (Max Possible)	N/A
	Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst case theoretical maximum numbers provide for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. This is a modular product. *Switch + 2 power supplies + one JL083A Uplink. For most accurate heat dissipation, idle and max power for any combination of chassis and accessories, please consult configurator.
Safety	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	
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A; EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013	

Technical Specifications

Immunity	**Generic**	EN55022: 2010
	EN	EN55024: 2010
	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	EN61000-3-2:2006 +A1:2009 +A2:2009 Class A
	Flicker	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.	

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

Technical Specifications

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 802.3az Energy Efficient Ethernet
IEEE 802.3x Flow Control
IEEE 802.3bz 2.5Gb/s and 5Gb/s interfaces
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
UDLD (Uni-directional Link Detection)

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

Technical Specifications

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

Technical Specifications

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)
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

Technical Specifications

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 2698 A Two Rate Three Color Marker
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 3810M Switch Series accessories

Modules	
Aruba 3810M 4-port Stacking Module	JL084A
Aruba 3810M/2930M 4-port 100M/1G/10G SFP+ MACsec Module	JL083A
Aruba 3810M/2930M 1-port QSFP+ 40GbE Module	JL078A
Aruba 3810M 2QSFP+ 40GbE Module	JL079A
Transceivers	
Aruba 100M SFP LC FX 2km MMF Transceiver	J9054D
Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177D
Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858D
Aruba 1G SFP LC LX 10km SMF Transceiver	J4859D
Aruba 1G SFP LC LH 70km SMF Transceiver	J4860D
Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D
Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151E
Aruba 10G SFP+ LC LRM 220m OM2 MMF Transceiver	J9152D
Aruba 10G SFP+ LC ER 40km SMF Transceiver	J9153D
Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281D
Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283D
Aruba 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285D
Aruba 40G QSFP+ LC Bidirectional 150m MMF 2-strand Transceiver	JL308A
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
Cables	
Aruba X2C2 RJ45 to DB9 Console Cable	JL448A
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
Aruba X372 54VDC 1050W 110-240VAC Power Supply	JL087A
Fan Tray	
Aruba 3810 Switch Fan Tray	JL088A
Mounting Kit	
HPE X410 1U Universal 4-post Rackmount Kit	J9583A

Summary of Changes

Date	Version History	Action	Description of Change
04-Mar-2019	Version 19	Changed	SKU J9151D was replaced with J9151E CTO models were removed. Obsolete SKUs were removed.
03-Dec-2018	Version 18	Changed	Software feature update: Key features, Product overview and Enhanced Capabilities updated
02-Jul-2018	Version 17	Changed	Software feature update
07-May-2018	Version 16	Added	Edits made on Configuration section and Technical Specifications
05-Mar-2018	Version 15	Changed	Configuration section updated.
05-Feb-2018	Version 14	Changed	Configuration section updated. Document name updated to match Product Master.
08-Jan-2018	Version 13	Changed	Software feature update
07-Aug-2017	Version 12	Added	SKU added: JL308A
03-Jul-2017	Version 11	Added	SKU added: JL448A
08-May-2017	Version 10	Changed	Configuration section updated
03-Apr-2017	Version 9	Changed	Modules updated on Configuration section
17-Feb-2017	Version 8	Changed	Configuration section updated (Adding #B2B, #B2C, and #B2E Options on SKUs JL428A; JL429A and JL430A)
09-Jan-2017	Version 7	Added	Models added: JL428A, JL429A, JL430A
07-Nov-2016	Version 6	Changed	Product overview, Features and Benefits updated
19-Aug-2016	Version 5	Changed	Configuration section updated. Minor changes made on Technical Specifications.
06-June-2016	Version 4	Changed	Features and Benefits, Standards and Protocols, Accessories updated. SKU descriptions updated.
18-Mar-2016	Version 3	Changed	Minor edits on Features and Benefits, Switch family photo added.
11-Dec-2015	Version 2	Changed	Standards and protocols and Configuration Menu updated
01-Dec-2015	Version 1	Created	Document creation

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