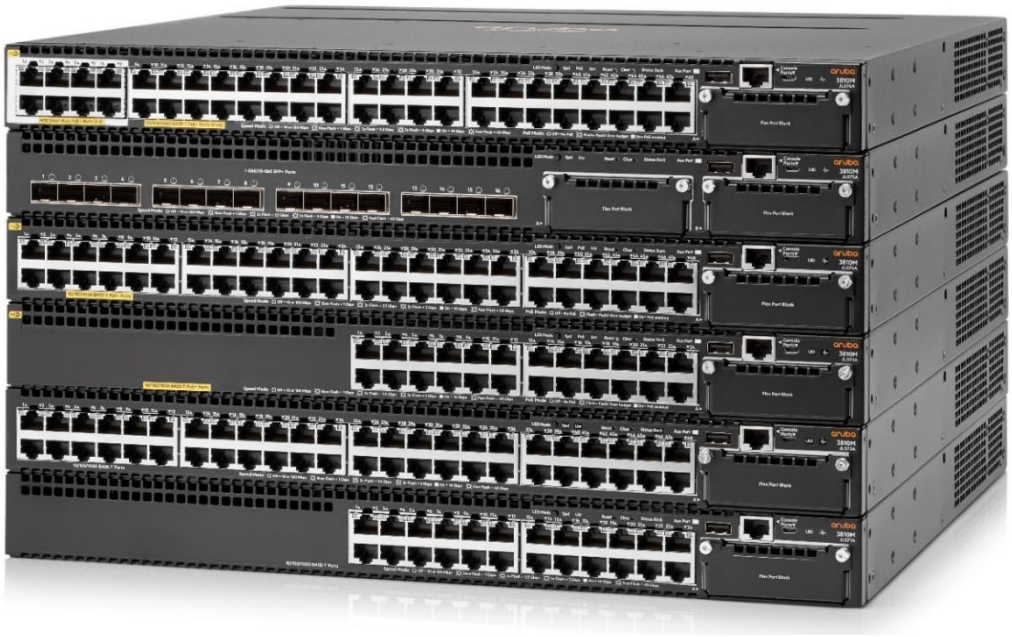
Overview

Aruba 3810M Switch Series

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 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.



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

Overview

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

Standard Features

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
- **Improved network simplicity and security**
  Aruba Dynamic Segmentation automatically enforces user, device and application-aware policies on Aruba wired and wireless networks. Automated device profiling, role-based access control, and Layer 7 firewall features deliver enhanced visibility and performance for a better overall experience for both IT and end-users alike.
- **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

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

Standard Features

- **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

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

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

Standard Features

- **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

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

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

Standard Features

- **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

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

Customer first, customer last support

When your network is important to your business, then your business needs the backing of Aruba Support Services. Partner with Aruba product experts to increase your team productivity, keep pace with technology advances, software releases, and obtain break-fix support.

- Foundation Care for Aruba support services include priority access to Aruba Technical Assistance Center (TAC) engineers 24x7x365, flexible hardware and onsite support options, and total coverage for Aruba products. Aruba switches with assigned Aruba Central subscriptions benefit with option for additional hardware support only.
- Aruba Pro Care adds fast access to senior Aruba TAC engineers, who are assigned as a single point of contact for case management, reducing the time spent addressing and resolving issues.

For complete details on Foundation Care and Aruba Pro Care, please visit: **https://www.arubanetworks.com/supportservices/**

Warranty, Services and Support

- Limited Lifetime Warranty
  See **https://www.arubanetworks.com/support-services/ product-warranties/** for warranty and support information included with your product purchase
- For Software Releases and Documentation, refer to **https://asp.arubanetworks.com/downloads**
- For support and services information, visit **https://www.arubanetworks.com/support-services/arubacare/**

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+**

Standard Features

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
- **Radius over TLS (RadSec)**
- allows users to use a more secure and reliable mode of communications between switch and radius servers over unsecure networks
- **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
- **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

Standard Features

- **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
- **Enrollment over Secure Transport (EST)**
  enhances the switch PKI infrastructure with a simpler, scalable and more secure method of certificate provisioning, re-enrollment and renewal

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.

BTO Models

Rule #	Description	SKU
	Aruba 3810M 24G 1-slot Switch • 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	JL071A
	Aruba 3810M 48G 1-slot Switch • 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	JL072A
	Aruba 3810M 24G PoE+ 1-slot Switch • 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	JL073A
	Aruba 3810M 48G PoE+ 1-slot Switch • 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	JL074A
1, 3	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
	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

Configuration Information

Rule #	Description	SKU
1 ,2, 3	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
	Aruba 3810M 48G PoE+ 4SFP+ 680W Switch PDU NA, JP or TW • C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL428A#B2B
	Aruba 3810M 48G PoE+ 4SFP+ 680W Switch PDU ROW • C15 PDU Jumper Cord (ROW)	JL428A#B2C
	Aruba 3810M 48G PoE+ 4SFP+ 680W Switch United States 220 volt • NEMA L6-20P Cord (NA/MEX/JP/TW)	JL428A#B2E
	Aruba 3810M 48G PoE+ 4SFP+ 680W Switch • No Localized Power Cord Selected	JL428A#AC3
1 ,2, 3	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
	Aruba 3810M 48G PoE+ 4SFP+ 1050W Switch PDU NA, JP or TW • C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL429A#B2B
	Aruba 3810M 48G PoE+ 4SFP+ 1050W Switch PDU ROW • C15 PDU Jumper Cord (ROW)	JL429A#B2C
	Aruba 3810M 48G PoE+ 4SFP+ 1050W Switch United States 220 volt • NEMA L6-20P Cord (NA/MEX/JP/TW)	JL429A#B2E
	Aruba 3810M 48G PoE+ 4SFP+ 1050W Switch • No Localized Power Cord Selected	JL429A#AC3
1 ,2, 3	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
	Aruba 3810M 24SFP+ 250W Switch PDU NA, JP or TW • C15 PDU Jumper Cord (NA/MEX/TW/JP)	JL430A#B2B
	Aruba 3810M 24SFP+ 250W Switch PDU ROW • C15 PDU Jumper Cord (ROW)	JL430A#B2C

Configuration Information

	Aruba 3810M 24SFP+ 250W Switch United States 220 volt	JL430A#B2E
	• NEMA L6-20P Cord (NA/MEX/JP/TW)	
	Aruba 3810M 24SFP+ 250W Switch	JL430A#AC3
	• No Localized Power Cord Selected	
	Configuration Rules	
Rule #	**Description**	**SKU**
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
2	Localization required on orders without #B2B, #B2C, #B2E options.	
3	The following Transceivers install into this Switch : (For the 1000/10000 SFP+ Ports)	
	Aruba 1G SFP LC SX 500m MMF TAA Transceiver	JL745A
	Aruba 1G SFP LC LX 10km SMF TAA Transceiver	JL746A
	Aruba 1G SFP RJ45 T 100m Cat5e TAA Transceiver	JL747A
	Aruba 10G SFP+ LC SR 300m MMF TAA Transceiver	JL748A
	Aruba 10G SFP+ LC LR 10km SMF TAA Transceiver	JL749A

Rack Level Integration CTO Models

Rule #	**Description**	**SKU**
10, 11	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	
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	
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	

Configuration Information

Rule #	Description	SKU
10, 11	Aruba 3810M 48G PoE+ 1-slot Switch • 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	JL074A
1, 2, 10, 11	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
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
1, 2, 3, 4, 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
	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
	Aruba 3810M 48G PoE+ 4SFP+ 680W Switch • No Localized Power Cord Selected	JL428A#AC3
1, 3, 4, 10, 11	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

Configuration Information

	PDU Cable NA/MEX/TW/JP	JL429A #B2B
	• C15 PDU Jumper Cord (NA/MEX/TW/JP)	
	PDU Cable ROW	JL429A #B2C
	• C15 PDU Jumper Cord (ROW)	
	High Volt Power Supply to Wall Power Cord	JL429A #B2E
	• NEMA L6-20P Cord (NA/MEX/JP/TW)	
	No Power Cord	JL429A #AC3
	• No Localized Power Cord Selected	
1, 3, 4, 10, 11	Aruba 3810M 24SFP+ 250W Switch	JL430A
	• 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	
	PDU Cable NA/MEX/TW/JP	JL430A #B2B
	• C15 PDU Jumper Cord (NA/MEX/TW/JP)	
	PDU Cable ROW	JL430A #B2C
	• C15 PDU Jumper Cord (ROW)	
	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 #	Description	SKU
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
2	The following Transceivers install into this Switch : (For the 1000/10000 SFP+ Ports)	
	Aruba 1G SFP LC SX 500m MMF TAA Transceiver	JL745A
	Aruba 1G SFP LC LX 10km SMF TAA Transceiver	JL746A
	Aruba 1G SFP RJ45 T 100m Cat5e TAA Transceiver	JL747A
	Aruba 10G SFP+ LC SR 300m MMF TAA Transceiver	JL748A
	Aruba 10G SFP+ LC LR 10km SMF TAA Transceiver	JL749A
3	Localization required on orders without #B2B, #B2C, #B2E options.	

Configuration Information

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

Notes:

- 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 **Notes:** 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

Rule #	Description	SKU
	Stacking Modules	
	System (std 0 // max=1) User Selection (min 0 / max=1) per Chassis	
1	Aruba 3810M 4-port Stacking Module	JL084A
	• min=1 \ max=4 Stacking cables	
	Configuration Rules	
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	
1	Aruba 3810M/2930M 1-port QSFP+ 40GbE Module	JL078A
	• min=0 \ max=1 QSFP+ Transceiver	
1, 3	Aruba 3810M 2QSFP+ 40GbE Module	JL079A
	• min=0 \ max=2 QSFP+ Transceiver	
	Aruba 3810M 4 HPE Smart Rate PoE+ Module	JL081A
	• 4 x HPE Smart Rate Ports	
2, 4, 5	Aruba 3810M/2930M 4-port 100M/1G/10G SFP+ MACsec Module	JL083A
	• min=0 \ max=4 SFP/SFP+ Transceivers	
	Configuration Rules	
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

Configuration Information

	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
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
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
4	The following Transceivers install into this Switch (Use #0D1 qutoed to switch if switch is CTO) - if applicable :	
	Aruba 1G SFP LC SX 500m MMF TAA Transceiver	JL745A
	Aruba 1G SFP LC LX 10km SMF TAA Transceiver	JL746A
	Aruba 1G SFP RJ45 T 100m Cat5e TAA Transceiver	JL747A
5	The following Transceivers install into this Switch (Use #0D1 qutoed to switch if switch is CTO) - if applicable :	
	Aruba 10G SFP+ LC SR 300m MMF TAA Transceiver	JL748A
	Aruba 10G SFP+ LC LR 10km SMF TAA Transceiver	JL749A
Notes:	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

Remarks	Description	SKU
	SFP Transceivers	
	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
	Aruba 1G SFP LC SX 500m MMF TAA Transceiver	JL745A
	Aruba 1G SFP LC LX 10km SMF TAA Transceiver	JL746A
	Aruba 1G SFP RJ45 T 100m Cat5e TAA Transceiver	JL747A
	SFP+ Transceivers	
	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

Configuration Information

Aruba 10G SFP+ LC ER 40km SMF Transceiver	J9153D
Aruba 10G SFP+ LC SR 300m MMF TAA Transceiver	JL748A
Aruba 10G SFP+ LC LR 10km SMF TAA Transceiver	JL749A
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
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

Rule #	Description	SKU
1, 3, 4	Aruba X371 12VDC 250W 100-240VAC Power Supply	JL085A
	• PDU Cable NA/MEX/TW/JP	JL085A #B2B
	C15 PDU Jumper Cord (NA/MEX/TW/JP)	
	• PDU Cable ROW	JL085A #B2C
	C15 PDU Jumper Cord (ROW)	
	• High Volt Power Supply to Wall Power Cord	JL085A #B2E
	NEMA L6-20P Cord (NA/MEX/JP/TW)	
	• No Power Cord	JL085A #AC3
	No Localized Power Cord Selected	
2, 3, 4	Aruba X372 54VDC 680W 100-240VAC Power Supply	JL086A
	PDU Cable NA/MEX/TW/JP	JL086A #B2B
	• C15 PDU Jumper Cord (NA/MEX/TW/JP)	
	PDU Cable ROW	JL086A #B2C
	• C15 PDU Jumper Cord (ROW)	
	High Volt Power Supply to Wall Power Cord	JL086A #B2E
	• NEMA L6-20P Cord (NA/MEX/JP/TW)	
	No Power Cord	JL086A #AC3
	• No Localized Power Cord Selected	
2, 3, 4	Aruba X372 54VDC 1050W 110-240VAC Power Supply	JL087A
	PDU Cable NA/MEX/TW/JP	JL087A #B2B
	C15 PDU Jumper Cord (NA/MEX/TW/JP)	
	• PDU Cable ROW	JL087A #B2C
	C15 PDU Jumper Cord (ROW)	
	High Volt Power Supply to Wall Power Cord	JL087A #B2E
	• NEMA L6-20P Cord (NA/MEX/JP/TW)	
	No Power Cord	JL087A #AC3
	• No Localized Power Cord Selected	

Configuration Information

	Configuration Rules
1	If this Power supply is selected, Then JL071A, JL072A, JL075A, JL430A must be the switch its installed into.
2	If this Power supply is selected, Then JL073A, JL074A, JL076A, JL428A, JL429A must be the switch its installed into.
3	Localization required on orders without #B2B or #B2C options.
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.)

Notes:

- 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 **Notes:** It is recommended that both power supplies match for full redundancy in the case of a fully populated switch, but not required.

Cables

Remarks	Description	SKU
	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

Configuration Information

Switch Enclosure Options

Remarks	Description	SKU
	Mounting Kit (std 0 // max 1) User Selection (min 0 // max 1) per switch	
	Aruba X414 1U Universal 4-post Rack Mount Kit	J9583B
Notes:	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	

Software

Remarks	Description	SKU
	Central	
	Cloud Services / 63XX/38XX Switch Foundation Subscriptions	
	Aruba Central 63xx or 38xx Switch Foundation 1 year Subscription E-STU	Q9Y78AAE
	Aruba Central 63xx or 38xx Switch Foundation 3 year Subscription E-STU	Q9Y79AAE
	Aruba Central 63xx or 38xx Switch Foundation 5 year Subscription E-STU	Q9Y80AAE
	Aruba Central 63xx or 38xx Switch Foundation 7 year Subscription E-STU	Q9Y81AAE
	Aruba Central 63xx or 38xx Switch Foundation 10 year Subscription E-STU	R3K02AAE
Notes:	Add the Central Cloud Skus to the Aruba Catalog as Standalone: Aruba > Network Management > Central > Cloud Services	
	On-Prem Services / 63XX/38XX Switch Foundation Subscriptions	
	Aruba Central On-Premises 63xx or 38xx Switch Foundation 1 year Subscription E-STU	R6U83AAE
	Aruba Central On-Premises 63xx or 38xx Switch Foundation 3 year Subscription E-STU	R6U84AAE
	Aruba Central On-Premises 63xx or 38xx Switch Foundation 5 year Subscription E-STU	R6U85AAE
	Aruba Central On-Premises 63xx or 38xx Switch Foundation 7 year Subscription E-STU	R6U86AAE
	Aruba Central On-Premises 63xx or 38xx Switch Foundation 10 year Subscription E-STU	R6U87AAE
Notes:	Add the Central On-Prem Skus to the Aruba Catalog as Standalone: Aruba > Network Management > Central > On-Prem Services	
	On-Prem Services / 64XX/54XX Switch Advanced Subscriptions	
	Aruba Central On-Premises 64xx/54xx Switch Advanced 1year Subscription E-STU	S0T55AAE
	Aruba Central On-Premises 64xx/54xx Switch Advanced 3 year Subscription E-STU	S0T58AAE
	Aruba Central On-Premises 64xx/54xx Switch Advanced 5 year Subscription E-STU	S0T60AAE
	Aruba Central On-Premises 64xx/54xx Switch Advanced 7 year Subscription E-STU	S0T62AAE
	Aruba Central On-Premises 64xx/54xx Switch Advanced 10 year Subscription E-STU	S0T64AAE
Notes:	Add the Central On-Prem Skus to the Aruba Catalog as Standalone: Aruba > Network Management > Central > On-Prem Services	
	Advanced Services / 63XX/38XX Switch Advanced Subscriptions	
	Aruba Central 63xx/38xx Switch Advanced 1 year Subscription E-STU	JZ535AAE
	Aruba Central 63xx/38xx Switch Advanced 3 year Subscription E-STU	JZ536AAE
	Aruba Central 63xx/38xx Switch Advanced 5 year Subscription E-STU	JZ537AAE
	Aruba Central 63xx/38xx Switch Advanced 7 year Subscription E-STU	JZ538AAE
	Aruba Central 63xx/38xx Switch Advanced 10 year Subscription E-STU	JZ539AAE
Notes:	Add the Central Advanced Service Skus to the Aruba Catalog as Standalone: Aruba > Network Management > Central > Advanced	

Configuration Information

As a Service

Central

Cloud Services / 63XX/38XX Switch Foundation Subscriptions

Aruba Central 63xx/38xx Switch Foundation 1-year Subscription SaaS	Q9Y78AAS
Aruba Central 63xx/38xx Switch Foundation 3-year Subscription SaaS	Q9Y79AAS
Aruba Central 63xx/38xx Switch Foundation 5-year Subscription SaaS	Q9Y80AAS
Aruba Central 63xx/38xx Switch Foundation 7-year Subscription SaaS	Q9Y81AAS
Aruba Central 63xx/38xx Switch Foundation 10-year Subscription SaaS	R3K02AAS

Notes: Add the Central Cloud Skus to the Aruba Catalog as Standalone:
Aruba > Network Management > Central > Cloud Services

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
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/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
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/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
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 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
Environment	**Operating temperature**	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/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

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)	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	
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 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	
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
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/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	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.
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 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	
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
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/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

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)	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
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 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 (100M, 1/2.5/5GBASE-T and 10GBASE-T); 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)
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
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/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
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 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
Environment	**Operating temperature**	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/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
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 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)
	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
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/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
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 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
Environment	**Operating temperature**	32°F to 113°F (0°C to 45°C)
	Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing
	Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
	Non-operating/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

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)	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	
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

Standards and protocols

Applies to all products in series

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)

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

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

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

Denial of service protection

- CPU DoS Protection

Technical Specifications

IP Multicast

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

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

Technical Specifications

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 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)
- RFC 6614 Transport Layer Security (TLS) Encryption over Radius (RadSec)
- RFC 7030 Enrollment over Secure Transport
- Secure Sockets Layer (SSL)
- SSHv2 Secure Shell

Summary of Changes

Date	Version History	Action	Description of Change
05-Dec-2022	Version 26	Changed	Configuration Information sections was updated.
07-Nov-2022	Version 25	Changed	Configuration Information sections was updated.
28-Jun-2021	Version 24	Changed	Standard Features and Configuration Information sections were updated.
08-Mar-2021	Version 23	Changed	SKUs added in Configuration Information section.
08-Sep-2020	Version 22	Changed	Configuration Information sections was updated.
06-Apr-2020	Version 21	Changed	Standard Features- Warranty and Configuration Information sections were updated.
01-Jul-2019	Version 20	Changed	Standard Features and Technical Specifications sections were updated. Obsolete SKUs were removed.
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-Jun-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	New	New QuickSpecs

Copyright

Make the right purchase decision.
Contact our presales specialists.

Get updates

Hewlett Packard Enterprise

To learn more, visit: **http://www.hpe.com/networking**

c04843019 - 15438 - Worldwide - V26 - 05-December-2022