HPE Aruba Networking 3810 Switch Series

Key features

— Advanced Layer 3 Switch Series with backplane stacking, dynamic segmentation, low latency and resiliency

— Advanced security and network management via HPE Aruba Networking ClearPass Policy Manager, HPE Aruba Networking AirWave and HPE Aruba Networking Central

— Modular line rate 10GbE and 40GbE ports for wireless aggregation

— HPE Smart Rate for high-speed multi-gigabit bandwidth (IEEE 802.3bz) and PoE+ power

— Software defined ready with REST APIs and OpenFlow support

Product overview

The HPE Aruba Networking 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 40 GbE for plenty of back haul capacity.

A powerful HPE Aruba Networking 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.

Easy to deploy, use and manage using HPE Aruba Networking AirWave or HPE Aruba Networking Central. HPE Aruba Networking ClearPass offers centralized security and external captive portal support. The switches offer a limited lifetime warranty.

Enhanced capabilities

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

— HPE Aruba Networking ClearPass Policy Manager provides profiling, authentication, and policy management across multi-vendor wired and wireless networks

— Switch auto-configuration automatically configures switch for different settings such as VLAN, CoS, PoE max power, and PoE priority when an HPE Aruba Networking 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

— For improved network simplicity and security, HPE Aruba Networking dynamic segmentation automatically enforces user, device and application-aware policies on HPE Aruba Networking 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 secure tunnel that transports network traffic on a per-port or per-user role basis to an HPE Aruba Networking Controller. In a per-user role Tunnel Node, users are authenticated by the ClearPass Policy Manager which directs traffic to be tunneled to an HPE Aruba Networking controller or switch locally.

— Static IP Visibility allows 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

  • Supports 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, 5400R, or 3500 Switch anywhere on the network

— Remote monitoring (RMON), Extended RMON (XRMON), and sFlow® 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

— HPE Aruba Networking 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 allow 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 provide 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 HPE Aruba Networking Activate- or 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 SLA for Voice Monitor quality of voice traffic with 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

Performance and efficiency

— Selectable queue configurations allow 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 Gbps of stacking throughput; each 4-port stacking module can support up to 42 Gbps in each direction per stacking port
- Ring, chain, and mesh topologies support up to a 10-member ring or chain and 5-member fully meshed stacks; meshed topologies offer increased resiliency vs. a standard ring
- Virtualized switching provides simplified management as the switches appear as a single chassis when stacked

— HPE Aruba Networking 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 back each other up dynamically to create highly available routed environments in IPv4 and IPv6 networks

— Nonstop switching and routing improve 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 providing 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+

— HPE Aruba Networking 3810 switch meshing dynamically load balances across multiple active redundant links to increase available aggregate bandwidth; allows concurrent Layer 3 routing

— GVRP and MVRP allows automatic learning and dynamic assignment of VLANs

Layer 3 services

— Loopback interface address defines an address in Routing Information Protocol (RIP) and Open Shortest 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 route, 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

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

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

— 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 automatically

— 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 enable 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 (1 Gbps or 10 Gbps) 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

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 network devices such as IP phones automatically

— 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 configure a VLAN automatically 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 HPE Aruba Networking Support Services. Partner with HPE Aruba Networking product experts to increase your team productivity, keep pace with technology advances, software releases, and obtain break-fix support.

HPE Foundation Care for HPE Aruba Networking support services include priority access to HPE Aruba Networking Technical Assistance Center (TAC) engineers 24x7x365, flexible hardware and onsite support options, and total coverage for HPE Aruba Networking products. HPE Aruba Networking switches with assigned HPE Aruba Networking Central subscriptions benefit with option for additional hardware support only.

HPE Aruba Networking Pro Care adds fast access to senior HPE Aruba Networking 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 HPE Foundation Care and HPE Aruba Networking Pro Care, please visit: arubanetworks.com/support-services/

Warranty, services, and support

— Limited Lifetime Warranty, see arubanetworks.com/support-services/product-warranties/ for warranty and support information included with your product purchase

— For software releases and documentation, refer to asp.arubanetworks.com/downloads

— For support and services information, visit HPE Aruba Networking Support Services

Technical specifications

	HPE Aruba Networking 3810M 24G 1-slot Switch (JL071A)	HPE Aruba Networking 3810M 48G 1-slot Switch (JL072A)	HPE Aruba Networking 3810M 24G PoE+ 1-slot Switch (JL073A)
Included accessories			
	1 HPE Aruba Networking 3810 Switch Fan Tray (JL088A)	1 HPE Aruba Networking 3810 Switch Fan Tray (JL088A)	1 HPE Aruba Networking 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

1 open module slot

Supports a maximum of 4 SFP+ ports or 1 40GbE ports, with optional module or 4 Smart Rate ports | 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 or 4 Smart Rate ports | 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 or 4 Smart Rate ports |
| **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) | 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) | 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) | 2 power supply slots
1 minimum power supply required (ordered separately) | 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. | Includes:
1 x JL088A
1 fan tray slot
Switch ships with 1 JL088A fan tray installed. Spares ordered separately. | 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)	17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height)	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)	13.20 lb (5.99 kg)	13.02 lb (5.91 kg)

Technical specifications (continued)

	HPE Aruba Networking 3810M 24G 1-slot Switch (JL071A)	HPE Aruba Networking 3810M 48G 1-slot Switch (JL072A)	HPE Aruba Networking 3810M 24G PoE+ 1-slot Switch (JL073A)
Memory and processor			
	P2020 Dual Core @ 1.2 GHz, 4 GB DDR3 SDRAM, 1 GB SD Card Dual Arm® Cortex 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	IPv6 Ready Certified	IPv6 Ready Certified
1000 Mb latency	< 2.8 µs (FIFO 64-byte packets)	< 2.8 µs (FIFO 64-byte packets)	< 2.8 µs (FIFO 64-byte packets)
10 Gbps latency	< 1.8 µs (FIFO 64-byte packets)	< 1.8 µs (FIFO 64-byte packets)	< 1.8 µs (FIFO 64-byte packets)
40 Gbps latency	< 1.5 µs (FIFO 64-byte packets)	< 1.5 µs (FIFO 64-byte packets)	< 1.5 µs (FIFO 64-byte packets)
Throughput	Up to 95.2 Mpps (64-byte packets)	Up to 190.5 Mpps (64-byte packets)	Up to 95.2 Mpps (64-byte packets)
Routing/switching capacity	160 Gbps	320 Gbps	160 Gbps
Switch fabric speed	169 Gbps	338 Gbps	169 Gbps
Routing table size	10000 entries (IPv4), 5000 entries (IPv6)	10000 entries (IPv4), 5000 entries (IPv6)	10000 entries (IPv4), 5000 entries (IPv6)
MAC address table size	64000 entries	64000 entries	64000 entries
Environment			
Operating temperature	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C).	32°F to 113°F (0°C to 45°C)
Operating relative humidity	15% to 95% @ 104°F (40°C), non-condensing	15% to 95% @ 104°F (40°C), non-condensing	15% to 95% @ 104°F (40°C), non-condensing
Non-operating/storage temperature	−40°F to 158°F (−40°C to 70°C)	−40°F to 158°F (−40°C to 70°C)	−40°F to 158°F (−40°C to 70°C)
Non-operating/storage relative humidity	15% to 90% @ 149°F (65°C), non-condensing	15% to 90% @ 149°F (65°C), non-condensing	15% to 90% @ 149°F (65°C), non-condensing
Altitude	up to 10,000 ft (3 km)	up to 10,000 ft (3 km)	up to 10,000 ft (3 km)
Acoustic	Power: 39 dB, Pressure: 22.8 dB	Power: 38 dB, Pressure: 21.8 dB	Power: 48 dB, Pressure: 30.7 dB
Primary airflow direction	Front to Side and Front to Rear	Front to Side and Front to Rear	Front to Side and Front to Rear

Technical specifications (continued)

	HPE Aruba Networking 3810M 24G 1-slot Switch (JL071A)	HPE Aruba Networking 3810M 48G 1-slot Switch (JL072A)	HPE Aruba Networking 3810M 24G PoE+ 1-slot Switch (JL073A)
Electrical characteristics			
Frequency	50 Hz/60 Hz	50 Hz/60 Hz	50 Hz/60 Hz
Voltage	JL085A PSU: 100-127/200-240 VAC	JL085A PSU: 100-127/200-240 VAC	JL086A PSU: 100-127/200-240 VAC JL087A PSU: 110-127/200-240 VAC
Current	JL085A PSU (Each): 1A/0.5A	JL085A PSU (Each): 1A/0.5A	JL086A PSU (Each): 5A/2.5A JL087A PSU (Each): 8.5A/5A
Max/idle power rating (Switch+ 1 PSU)	70W/55W	95W/78W	95W/82W
Second PSU power adder	10W	10W	10W
Max/idle uplink power adder	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W
Maximum heat dissipation* (max case)	310.31	395.56	395.56
PoE Power (max possible)	N/A	N/A	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; EN 62479:2010; 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 (continued)

	HPE Aruba Networking 3810M 24G 1-slot Switch (JL071A)	HPE Aruba Networking 3810M 48G 1-slot Switch (JL072A)	HPE Aruba Networking 3810M 24G PoE+ 1-slot Switch (JL073A)
Immunity			
Generic EN	EN55022: 2010		
ESD	EN55024: 2010		
Radiated	IEC 61000-4-2		
EFT/burst	IEC 61000-4-3; 3 V/m		
Surge	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line) 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			
	HPE Aruba Networking Central; HPE Aruba Networking 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)		

Technical specifications (continued)

	HPE Aruba Networking 3810M 48G PoE+ 1-slot Switch (JL074A)	HPE Aruba Networking 3810M 16SFP+ 2-slot Switch (JL075A)	HPE Aruba Networking 3810M 40G 8 HPE Smart Rate PoE+ 1-slot Switch (JL076A)
Included accessories			
	1 HPE Aruba Networking 3810 Switch Fan Tray (JL088A)	1 HPE Aruba Networking 3810 Switch Fan Tray (JL088A)	1 HPE Aruba Networking 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 or 4 Smart Rate ports	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 or 4 Smart Rate ports	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, 1/2.5/5GBaseT and 10GBaseT); Ports 1-8 support MACsec 1 open module slot Supports a maximum of 4 SFP+ ports or 2 40GbE ports, with optional module or 4 Smart Rate ports
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)	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)	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)

Technical specifications (continued)

	HPE Aruba Networking 3810M 48G PoE+ 1-slot Switch (JL074A)	HPE Aruba Networking 3810M 16SFP+ 2-slot Switch (JL075A)	HPE Aruba Networking 3810M 40G 8 HPE Smart Rate PoE+ 1-slot Switch (JL076A)
Power supplies			
	2 power supply slots 1 minimum power supply required (ordered separately)	2 power supply slots 1 minimum power supply required (ordered separately)	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.	Includes: 1 x JL088A 1 fan tray slot Switch ships with 1 JL088A fan tray installed. Spares ordered separately.	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)	17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height)	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)	13.28 lb (6.02 kg)	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 Cortex 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	IPv6 Ready Certified	IPv6 Ready Certified
1000 Mb latency	< 2.8 μs (FIFO 64-byte packets)	< 2.8 μs (FIFO 64-byte packets)	< 2.8 μs (FIFO 64-byte packets)
10 Gbps latency	< 1.8 μs (FIFO 64-byte packets)	< 1.8 μs (FIFO 64-byte packets)	< 1.8 μs (FIFO 64-byte packets)
40 Gbps latency	< 1.5 μs (FIFO 64-byte packets)	< 1.5 μs (FIFO 64-byte packets)	< 1.5 μs (FIFO 64-byte packets)
Throughput	Up to 190.5 Mpps (64-byte packets)	Up to 285.7 Mpps (64-byte packets)	Up to 273.8 Mpps (64-byte packets)
Routing/switching capacity	320 Gbps	480 Gbps	480 Gbps
Switch fabric speed	338 Gbps	508 Gbps	508 Gbps
Routing table size	10000 entries (IPv4), 5000 entries (IPv6)	10000 entries (IPv4), 5000 entries (IPv6)	10000 entries (IPv4), 5000 entries (IPv6)
MAC address table size	64000 entries	64000 entries	64000 entries

Technical specifications (continued)

	HPE Aruba Networking 3810M 48G PoE+ 1-slot Switch (JL074A)	HPE Aruba Networking 3810M 16SFP+ 2-slot Switch (JL075A)	HPE Aruba Networking 3810M 40G 8 HPE Smart Rate PoE+ 1-slot Switch (JL076A)
Environment			
Operating temperature	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C).	32°F to 113°F (0°C to 45°C)
Operating relative humidity	15% to 95% @ 104°F (40°C), non-condensing	15% to 95% @ 104°F (40°C), non-condensing	15% to 95% @ 104°F (40°C), non-condensing
Non-operating/storage temperature	−40°F to 158°F (−40°C to 70°C)	−40°F to 158°F (−40°C to 70°C)	−40°F to 158°F (−40°C to 70°C)
Non-operating/storage relative humidity	15% to 90% @ 149°F (65°C), non-condensing	15% to 90% @ 149°F (65°C), non-condensing	15% to 90% @ 149°F (65°C), non-condensing
Altitude	up to 10,000 ft (3 km)	up to 10,000 ft (3 km)	up to 10,000 ft (3 km)
Acoustic	Power: 42 dB, Pressure: 26 dB	Power: 39 dB, Pressure: 22.3 dB	Power: 45 dB, Pressure: 27.9 dB
Primary airflow direction	Front to Side and Front to Rear	Front to Side and Front to Rear	Front to Side and Front to Rear
Electrical characteristics			
Frequency	50 Hz/60 Hz	50 Hz/60 Hz	50 Hz/60 Hz
Voltage	JL086A PSU: 100-127/200-240 VAC JL087A PSU: 110-127/200-240 VAC	JL085A PSU: 100-127/200-240 VAC	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	JL085A PSU (Each): 1A/0.5A	JL086A PSU (Each): 5A/2.5A JL087A PSU (Each): 8.5A/5A
Max/idle power rating (Switch+ 1 PSU)	135W/103W	120W/95W	190W/158W
Second PSU power adder	10W	10W	10W
Max/idle uplink power adder	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W
Maximum heat dissipation* (max case)	531.96	480.81	719.51
PoE Power (max possible)	1440W	N/A	1440W

Technical specifications (continued)

	HPE Aruba Networking 3810M 48G PoE+ 1-slot Switch (JL074A)	HPE Aruba Networking 3810M 16SFP+ 2-slot Switch (JL075A)	HPE Aruba Networking 3810M 40G 8 HPE Smart Rate PoE+ 1-slot Switch (JL076A)
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; EN 62479:2010; 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 Class 1 Class 1 Laser Products/Laser Klasse 1; UL 62368-1 Ed.2		

Technical specifications (continued)

	HPE Aruba Networking 3810M 48G PoE+ 1-slot Switch (JL074A)	HPE Aruba Networking 3810M 16SFP+ 2-slot Switch (JL075A)	HPE Aruba Networking 3810M 40G 8 HPE Smart Rate PoE+ 1-slot Switch (JL076A)
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			
	HPE Aruba Networking Central; HPE Aruba Networking 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)		

Technical specifications (continued)

	HPE Aruba Networking 3810M 48G PoE+ 4SFP+ 680W Switch (JL428A)	HPE Aruba Networking 3810M 48G PoE+ 4SFP+ 1050W Switch (JL429A)	HPE Aruba Networking 3810M 24SFP+ 250W Switch (JL430A)
Included accessories			
	1 HPE Aruba Networking 3810 Switch Fan Tray (JL088A) 1 HPE Aruba Networking 3810M 4SFP+ Module (JL083A) 1 HPE Aruba Networking X372 54VDC 680W 100-240VAC Power Supply (JL086A)	1 HPE Aruba Networking 3810 Switch Fan Tray (JL088A) 1 HPE Aruba Networking 3810M 4SFP+ Module (JL083A) 1 HPE Aruba Networking X372 54VDC 1050W 110-240VAC Power Supply (JL087A)	1 HPE Aruba Networking 3810 Switch Fan Tray (JL088A) 2 HPE Aruba Networking 3810M 4SFP+ Module (JL083A) 1 HPE Aruba Networking X371 12VDC 250W 100-240VAC Power Supply (JL085A)
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 or 4 Smart Rate ports	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 or 4 Smart Rate ports	24 SFP+ fixed 1000/10000 SFP+ ports; Duplex: 100BASE-TX: half or full; 1000BASE-T: full only; Ports 1-24 support MACsec Supports a maximum of 24 SFP+ ports or 2 40GbE ports, with optional module(s) or 4 Smart Rate ports
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)	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)	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 power supply included 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.	Includes: 1 x JL088A 1 fan tray slot Switch ships with 1 JL088A fan tray installed. Spares ordered separately.	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)	17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height)	17.42(w) x 16.98(d) x 1.73(h) in (44.25 x 43.13 x 4.39 cm) (1U height)
Weight	15.82 lb (7.18 kg)	15.94 lb (7.23 kg)	15.56 lb (7.06 kg)

Technical specifications (continued)

	HPE Aruba Networking 3810M 48G PoE+ 4SFP+ 680W Switch (JL428A)	HPE Aruba Networking 3810M 48G PoE+ 4SFP+ 1050W Switch (JL429A)	HPE Aruba Networking 3810M 24SFP+ 250W Switch (JL430A)
Memory and processor			
	P2020 Dual Core @ 1.2 GHz, 4 GB DDR3 SDRAM, 1 GB SD Card Dual Arm Cortex 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	IPv6 Ready Certified	IPv6 Ready Certified
1000 Mb latency	< 2.8 µs (FIFO 64-byte packets)	< 2.8 µs (FIFO 64-byte packets)	< 2.8 µs (FIFO 64-byte packets)
10 Gbps latency	< 1.8 µs (FIFO 64-byte packets)	< 1.8 µs (FIFO 64-byte packets)	< 1.8 µs (FIFO 64-byte packets)
40 Gbps latency	< 1.5 µs (FIFO 64-byte packets)	< 1.5 µs (FIFO 64-byte packets)	< 1.5 µs (FIFO 64-byte packets)
Throughput	Up to 190.5 Mpps (64-byte packets)	Up to 190.5 Mpps (64-byte packets)	Up to 285.7 Mpps (64-byte packets)
Routing/switching capacity	320 Gbps	320 Gbps	480 Gbps
Switch fabric speed	338 Gbps	338 Gbps	508 Gbps
Routing table size	10000 entries (IPv4), 5000 entries (IPv6)	10000 entries (IPv4), 5000 entries (IPv6)	10000 entries (IPv4), 5000 entries (IPv6)
MAC address table size	64000 entries	64000 entries	64000 entries
Environment			
Operating temperature	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C).	32°F to 113°F (0°C to 45°C)
Operating relative humidity	15% to 95% @ 104°F (40°C), non-condensing	15% to 95% @ 104°F (40°C), non-condensing	15% to 95% @ 104°F (40°C), non-condensing
Non-operating/storage temperature	−40°F to 158°F (−40°C to 70°C)	−40°F to 158°F (−40°C to 70°C)	−40°F to 158°F (−40°C to 70°C)
Non-operating/storage relative humidity	15% to 90% @ 149°F (65°C), non-condensing	15% to 90% @ 149°F (65°C), non-condensing	15% to 90% @ 149°F (65°C), non-condensing
Altitude	Up to 10,000 ft (3 km)	Up to 10,000 ft (3 km)	Up to 10,000 ft (3 km)
Acoustic	Power: 47 dB, Pressure: 29.4 dB	Power: 47 dB, Pressure: 29.4 dB	Power: 39 dB, Pressure: 22.3 dB
Primary airflow direction	Front to Side and Front to Rear	Front to Side and Front to Rear	Front to Side and Front to Rear

Technical specifications (continued)

	HPE Aruba Networking 3810M 48G PoE+ 4SFP+ 680W Switch (JL428A)	HPE Aruba Networking 3810M 48G PoE+ 4SFP+ 1050W Switch (JL429A)	HPE Aruba Networking 3810M 24SFP+ 250W Switch (JL430A)
Electrical characteristics			
Frequency	50 Hz/60 Hz	50 Hz/60 Hz	50 Hz/60 Hz
Voltage	JL086A PSU: 100-127/200-240 VAC JL087A PSU: 110-127/200-240 VAC	JL086A PSU: 100-127/200-240 VAC JL087A PSU: 110-127/200-240 VAC	JL085A PSU: 100-127/200-240 VAC
Current	JL086A PSU (Each): 5A/2.5A JL087A PSU (Each): 8.5A/5A	JL086A PSU (Each): 5A/2.5A JL087A PSU (Each): 8.5A/5A	JL085A PSU (Each): 1A/0.5A
Max/idle power rating (Switch+ 1 PSU)	146W/107W	146W/107W	142W/103W
Second PSU power adder	10W	10W	10W
Max/idle uplink power adder	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W	JL078A: 4W/3W JL079A: 7W/3W JL081A: 4W/3W JL083A: 11W/4W
Maximum heat dissipation* (max case)	531.96	531.96	480.81
PoE Power (max possible)	1440W	1440W	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; EN 62479:2010; 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 Class 1 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		

Technical specifications (continued)

	HPE Aruba Networking 3810M 48G PoE+ 4SFP+ 680W Switch (JL428A)	HPE Aruba Networking 3810M 48G PoE+ 4SFP+ 1050W Switch (JL429A)	HPE Aruba Networking 3810M 24SFP+ 250W Switch (JL430A)
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			
	HPE Aruba Networking Central; HPE Aruba Networking 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)		

Standards and protocols (applies to all products in series)

BGP

— RFC 1997 BGP Communities Attribute
— RFC 2918 Route Refresh Capability
— RFC 4271 A Border Gateway Protocol 4 (BGP-4)
— RFC 4456 BGP Route Reflection: An Alternative to Full Mesh Internal BGP (IBGP)
— RFC 4724 Graceful Restart Mechanism for BGP
— RFC 5492 Capabilities Advertisement with BGP-4

Denial of service protection

— CPU DoS Protection
— Device management
— RFC 1591 DNS (client)
— RFC 2576 (Coexistence between SNMP V1, V2, V3)
— RFC 2579 (SMIv2 Text Conventions)
— RFC 2580 (SMIv2 Conformance)
— RFC 3416 (SNMP Protocol Operations v2)
— RFC 3417 (SNMP Transport Mappings)
— HTML and telnet management

General protocols

— IEEE 802.1ad Q-in-Q
— IEEE 802.1AX-2008 Link Aggregation
— IEEE 802.1D MAC Bridges
— IEEE 802.1p Priority
— IEEE 802.1Q VLANs
— 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 2.5 Gbps and 5 Gbps 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

IPv6

— RFC 1981 IPv6 Path MTU Discovery
— RFC 2080 RIPng for IPv6
— RFC 2081 RIPng Protocol Applicability Statement
— RFC 2082 RIP-2 MD5
— RFC 2375 IPv6 Multicast Address Assignments
— RFC 2460 IPv6 Specification
— RFC 2464 Transmission of IPv6 over Ethernet Networks
— RFC 2710 Multicast Listener Discovery (MLD) for IPv6
— RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations (Ping only)
— RFC 3019 MLDv1 MIB
— RFC 3315 DHCPv6 (client only)
— RFC 3484 Default Address Selection for IPv6
— RFC 3587 IPv6 Global Unicast Address Format
— RFC 3596 DNS Extension for IPv6
— RFC 3810 MLDv2 (host joins only)
— RFC 4022 MIB for TCP
— RFC 4087 IP Tunnel MIB
— RFC 4113 MIB for UDP

- RFC 4213 Basic Transition Mechanisms for IPv6 Hosts and Routers
- RFC 4251 SSHv6 Architecture
- RFC 4252 SSHv6 Authentication
- RFC 4253 SSHv6 Transport Layer
- RFC 4254 SSHv6 Connection
- RFC 4291 IP Version 6 Addressing Architecture
- RFC 4293 MIB for IP
- RFC 4294 IPv6 Node Requirements
- RFC 4419 Key Exchange for SSH
- RFC 4443 ICMPv6
- RFC 4541 IGMP & MLD Snooping Switch
- RFC 4861 IPv6 Neighbor Discovery
- RFC 4862 IPv6 Stateless Address Auto-configuration
- RFC 5095 Deprecation of Type 0 Routing Headers in IPv6
- RFC 5340 OSPFv3 for IPv6
- RFC 5453 Reserved IPv6 Interface Identifiers
- RFC 5519 Multicast Group Membership Discovery MIB (MLDv2 only)
- RFC 5722 Handling of Overlapping IPv6 Fragments
- RFC 6620 FCFS SAVI
- draft-ietf-savi-mix

MIBs

- IEEE 802.1ap (MSTP and STP MIBs 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 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 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 5424 Syslog Protocol
- ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)
- SNMPv1/v2c/v3
- XRMON
- OSPF
- RFC 2328 OSPFv2
- RFC 3101 OSPF NSSA
- RFC 3623 Graceful OSPF Restart (Unplanned Outages only)
- RFC 5340 OSPFv3 for IPv6 QoS/CoS
- RFC 2474 DiffServ Precedence, including 8 queues/port
- RFC 2475 DiffServ Architecture
- RFC 2597 DiffServ Assured Forwarding (AF)
- RFC 2598 DiffServ Expedited Forwarding (EF)

Security

— IEEE 802.1X Port Based Network Access Control
— RFC 1321 The MD5 Message-Digest Algorithm
— RFC 2698 A Two Rate Three Color Marker
— RFC 2818 HTTP Over TLS RFC 1492 TACACS+
— 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
— RFC 7030 Enrollment over Secure Transport
— RFC 6614 Transport Layer Security (TLS) Encryption over Radius (RadSec)

HPE Aruba Networking 3810 switches and accessories

Switch models

— HPE Aruba Networking 3810M 24G 1-slot Switch (JL071A)
— HPE Aruba Networking 3810M 48G 1-slot Switch (JL072A)
— HPE Aruba Networking 3810M 24G PoE+ 1-slot Switch (JL073A)
— HPE Aruba Networking 3810M 48G PoE+ 1-slot Switch (JL074A)
— HPE Aruba Networking 3810M 16SFP+ 2-slot Switch(JL075A)
— HPE Aruba Networking 3810M 40G 8 HPE Smart Rate PoE+ 1-slot Switch (JL076A)
— HPE Aruba Networking 3810M 48G PoE+ 4SFP+ 680W Switch (JL428A)
— HPE Aruba Networking 3810M 48G PoE+ 4SFP+ 1050W Switch (JL429A)
— HPE Aruba Networking 3810M 24SFP+ 250W Switch(JL430A)

Modules

— HPE Aruba Networking 3810M/2930M 4 1/2.5/5/10 GbE HPE Smart Rate Module (JL081A)
— HPE Aruba Networking 3810M 4-port Stacking Module (JL084A)
— HPE Aruba Networking 3810M/2930M 1QSFP+ 40GbE Module (JL078A)
— HPE Aruba Networking 3810M/2930M 4SFP+ MACsec Module (JL083A)
— HPE Aruba Networking 3810M 2QSFP+ 40GbE Module (JL079A)

TAA-compliant transceivers

— HPE Aruba Networking 1G SFP LC SX 500m MMF TAA XCVR (JL745A)
— HPE Aruba Networking 1G SFP LC LX 10km SMF TAA XCVR (JL746A)
— HPE Aruba Networking 1G SFP RJ45 T 100m Cat5e TAA XCVR (JL747A)
— HPE Aruba Networking 10G SFP+ LC SR 300m MMF TAA XCVR (JL748A)
— HPE Aruba Networking 10G SFP+ LC LR 10km SMF TAA XCVR (JL749A)

Transceivers

— HPE Aruba Networking 100M SFP LC FX 2km MMF XCVR (J9054D)
— HPE Aruba Networking 1G SFP RJ45 T 100m Cat5e XCVR (J8177D)
— HPE Aruba Networking 1G SFP LC SX 500m MMF XCVR (J4858D)
— HPE Aruba Networking 1G SFP LC LX 10km SMF XCVR (J4859D)
— HPE Aruba Networking 1G SFP LC LH 70km SMF XCVR (J4860D)
— HPE Aruba Networking 10G SFP+ LC SR 300m MMF XCVR (J9150D)
— HPE Aruba Networking 10G SFP+ LC LR 10km SMF XCVR (J9151E)
— HPE ANW 10G SR SFP+ LC 400m OM4 C-XCVR (S2P30A)
— HPE ANW 10G LR SFP+ LC 10km SMF C-XCVR (S2P31A)
— HPE ANW 10G ER SFP+ LC 40km SMF C-XCVR (S2P32A)
— HPE Aruba Networking 10G SFP+ LC LRM 220m MMF XCVR (J9152D)
— HPE Aruba Networking 10G SFP+ LC ER 40km SMF XCVR (J9153D)
— HPE Aruba Networking 10G SFP+ to SFP+ 1m DAC Cable (J9281D)
— HPE Aruba Networking 10G SFP+ to SFP+ 3m DAC Cable (J9283D)
— HPE Aruba Networking 10G SFP+ to SFP+ 7m DAC Cable (J9285D)
— HPE Aruba Networking 40G QSFP+ LC BiDi 150m MMF XCVR (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 XCVRx (JH233A)

— HPE X242 40G QSFP+ to QSFP+ 1m DAC Cable (JH234A)

— HPE X242 40G QSFP+ to QSFP+ 3m DAC Cable (JH235A)

— HPE X242 40G QSFP+ to QSFP+ 5m DAC Cable (JH236A)

Cables

— HPE Aruba Networking X2C2 RJ45 to DB9 Console Cable (JL448A)

— HPE 3800 0.5m Stacking Cable (J9578A)

— HPE 3800 1m Stacking Cable (J9665A)

— HPE 3800 3m Stacking Cable (J9579A)

Power supply

— HPE Aruba Networking X371 12VDC 250W 100-240VAC Power Supply (JL085A)

— HPE Aruba Networking X372 54VDC 680W 100-240VAC Power Supply (JL086A)

— HPE Aruba Networking X372 54VDC 1050W 110-240VAC Power Supply (JL087A)

Fan tray

— HPE Aruba Networking 3810 Switch Fan Tray (JL088A)

Mounting kit

— HPE X410 1U Universal 4-post Rack Mounting Kit(J9583A)

— HPE Aruba Networking X414 1U Universal 4-post Rack Mounting Kit (J9583B)

HPE Aruba Networking Foundational Licenses

— HPE Aruba Networking Central Switch 6300/38xx Foundation 1-Year Subscription E-STU (Q9Y78AAE)

— HPE Aruba Networking Central Switch 6300/38xx Foundation 3-Year Subscription E-STU (Q9Y79AAE)

— HPE Aruba Networking Central Switch 6300/38xx Foundation 5-Year Subscription E-STU (Q9Y80AAE)

— HPE Aruba Networking Central Switch 6300/38xx Foundation 7-Year Subscription E-STU (Q9Y81AAE)

— HPE Aruba Networking Central Switch 6300/38xx Foundation 10-Year Subscription E-STU (R3K02AAE)

— HPE Aruba Networking Central On-Premises 63xx or 38xx Switch Foundation 1-Year Subscription E-STU (R6U83AAE)

— HPE Aruba Networking Central On-Premises 63xx or 38xx Switch Foundation 3-Year Subscription E-STU (R6U84AAE)

— HPE Aruba Networking Central On-Premises 63xx or 38xx Switch Foundation 5-Year Subscription E-STU (R6U85AAE)

— HPE Aruba Networking Central On-Premises 63xx or 38xx Switch Foundation 7-year Subscription E-STU (R6U86AAE)

— HPE Aruba Networking Central On-Premises 63xx or 38xx Switch Foundation 10-year Subscription E-STU (R6U87AAE)

For details and complete listing of HPE Aruba Networking Central licensing options, please see the HPE Aruba Networking Central Data Sheet.

Support

— JL071A: 4 Hour Onsite 3 Year (U6TY0E)

— JL072A: 4 Hour Onsite 3 Year (U7CP6E)

— JL073A: 4 Hour Onsite 3 Year (U7CY7E)

— JL074A: 4 Hour Onsite 3 Year (U7DH8E)

— JL075A: 4 Hour Onsite 3 Year (U6TD8E)

— JL076A: 4 Hour Onsite 3 Year (U6TN9E)

— JL428A: 4 Hour Onsite 3 Year (U7DH8E)

— JL429A: 4 Hour Onsite 3 Year (U7DH8E)

— JL430A: 4 Hour Onsite 3 Year (H6BF8E)

For HPE Aruba Networking Central hardware only support, 24x7 TAC support, and many other support options, go to Support Services Central SKU lookup tool.

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