

Overview

Aruba 8320 Switch Series

The past several decades in networking have been defined by static, closed networking solutions designed for the client-server era. The Aruba CX 8320 campus core and aggregation switch is a game-changing solution offering a flexible and innovative approach to dealing with the demands of the mobile, cloud and IoT era. The Aruba CX 8320 also serves as a top of rack (ToR) switch for data centers needing 10GbE connectivity to servers and 40GbE to the spine.

The CX 8320 provides industry-leading line rate 1/10GbE (SFP/SFP+ and 10GBASE-T) and 40GbE connectivity in a compact 1U form factor. Together with the modular Aruba CX 8400 chassis and the Aruba CX 8325 series, the CX 8320 rounds out Aruba's switching portfolio with an enterprise core and aggregation solution that ensures higher performance and higher uptime.



Aruba CX 8320 Switch Series

Models

Aruba 8320 32p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle	JL579A
Aruba 8320 48p 10G SFP/SFP+ and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle	JL479A
Aruba 8320 48p 1G/10GBASE-T and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle	JL581A

Key features

- High performance 2.5Tbps with 1,905 mpps
- High availability with Aruba Virtual Switching Extension (VSX), and redundant, hot-swappable power supplies and fans
- AOS-CX enables automation and programmability using built-in REST APIs and Python scripts
- Intelligent monitoring, visibility, and remediation with Aruba Network Analytics Engine
- One touch deployment with the Aruba CX Mobile App
- Aruba NetEdit support for automated configuration and verification
- Advanced Layer 2/3 feature set includes BGP, OSPF, VRF, and IPv6
- Compact 1U switches with 1/10GbE (SFP+ and 10GBASE-T) and 40GbE connectivity

Standard Features

Product Differentiators

AOS-CX - a modern software system

The Aruba CX 8320 Switch Series is based on AOS-CX, a modern, database-driven operating system that automates and simplifies many critical and complex network tasks. A built-in time series database enables customers and developers to utilize software scripts for historical troubleshooting, as well as analysis of past trends. This helps predict and avoid future problems due to scale, security, and performance bottlenecks.

Our AOS-CX software also includes Aruba Network Analytics Engine (NAE) and support for Aruba NetEdit. Because AOS-CX is built on a modular Linux architecture with a stateful database, our operating system provides the following unique capabilities:

- Easy access to all network state information allows unique visibility and analytics
 - REST APIs and Python scripting for fine-grained programmability of network tasks
 - A micro-services architecture that enables full integration with other workflow systems and services
 - Continual state synchronization that provides superior fault tolerance and high availability
 - All software processes communicate with the database rather than each other, ensuring near real-time state and resiliency and allowing individual software modules to be independently upgraded for higher availability
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Aruba Central – unified single pane of glass management

Flexible cloud-based or on-premises management for unified network operations of wired, WLAN, SD-WAN, and public cloud infrastructure. Designed to simplify day zero through day two operations with streamlined workflows. Switch management capabilities include configuration, onboarding, monitoring, troubleshooting, and reporting.

Aruba Network Analytics Engine - advanced monitoring and diagnostics

For enhanced visibility and troubleshooting, Aruba's Network Analytics Engine (NAE) automatically interrogates and analyzes events that can impact a network's health. Advanced telemetry and automation provide the ability to easily identify and troubleshoot network, system, application and security related issues easily, through the use of python agents and REST APIs.

The Time Series Database (TSDB) stores configuration and operational state data, making it available to quickly resolve network issues. The data may also be used to analyze trends, identify anomalies and predict future capacity requirements.

Aruba NetEdit – automated switch configuration and management

The entire Aruba CX portfolio empowers IT teams to orchestrate multiple switch configuration changes for smooth end-to-end service rollouts. Aruba NetEdit introduces automation that allows for rapid network-wide changes, and ensures policy conformance post network updates. Intelligent capabilities include search, edit, validation (including conformance checking), deployment and audit features. Capabilities include:

- Centralized configuration with validation for consistency and compliance
- Time savings via simultaneous viewing and editing of multiple configurations
- Customized validation tests for corporate compliance and network design
- Automated large-scale configuration deployment without programming
- Network health and topology visibility via Aruba NAE integration

Notes: A separate software license is required to use Aruba NetEdit.

Aruba Virtual Switching Extension (VSX)

The ability of AOS-CX to maintain synchronous state across dual control planes allows a simplified carrier-class high availability solution called Aruba Virtual Switching Extension (VSX).

Designed using the best features of existing high availability technologies such as Multi-chassis Link Aggregation (MC LAG), Aruba VSX enables a distributed architecture that is highly available during upgrades or control plane events. Features include:

- Continuous configuration synchronization via AOS-CX
 - Flexible active-active network designs at Layers 2 and 3
 - Operational simplicity and usability for easy configuration
 - High availability by design during upgrades including support for VSX Live Upgrade with LACP traffic draining
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Standard Features

Aruba CX Mobile App – unparalleled deployment convenience

An easy to use mobile app simplifies connecting and managing Aruba CX 6300 switches for any size project. Switch information can also be imported into Aruba NetEdit for simplified configuration management and to continuously validate the conformance of configurations anywhere in the network. The Aruba CX Mobile App is available for [download](#).

Performance

- **High-speed fully distributed architecture**

Provides 2.5Tbps for switching and 1,905MPPS for forwarding. All switching and routing are wire-speed to meet the demands of bandwidth-intensive applications today and in the future.

- **Scalable system design**

Provides investment protection to support future technologies and higher-speed connectivity

Connectivity

- **High-density port connectivity**

Choice of compact 1U switches include models with:

- 32 ports of 40GbE (QSFP) with optional 4x10 breakout
- 48 ports of 1/10GbE (SFP/SFP+) with 1GBASE-T and 10GBASE-T transceiver support, and 6 ports of 40GbE (QSFP) with optional 4x10
- 48 ports of 1/10GbE (1GBASE-T/10GBASE-T), and 6 ports of 40GbE (QSFP) with optional 4x10 breakout

- **Jumbo frames**

Allows high-performance backups and disaster-recovery systems; provides a maximum frame size of 9K bytes

- **Unsupported Transceiver Mode (UTM)**

Allows to insert and enable all unsupported 1G and 10G transceiver and cable

No warranty nor support for the transceiver/cable when used.

- **Loopback**

Supports internal loopback testing for maintenance purposes and increased availability; loopback detection protects against incorrect cabling or network configurations and can be enabled on a per-port or per-VLAN basis for added flexibility.

- **Packet storm protection**

Protects against unknown broadcast, unknown multicast, or unicast storms with user-defined thresholds

Layer 2 switching

- **VLAN**

Supports up to 4,040 port-based or IEEE 802.1Q-based VLANs

- **VLAN translation**

Remaps VLANs during transit across a core network

- **Bridge Protocol Data Unit (BPDU) tunneling**

Transmits STP BPDUs transparently, allowing correct tree calculations across service providers, WANs, or MANs

- **Port mirroring**

Duplicates port traffic (ingress and egress) to a monitoring port; supports 4 mirroring groups, with an unlimited number of ports per group

- **STP**

Supports standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)

- **Rapid Per-VLAN spanning tree plus (RPVST+)**

Allows each VLAN to build a separate spanning tree to improve link bandwidth usage in network environments with multiple VLANs

- **Internet Group Management Protocol (IGMP)**

Controls and manages the flooding of multicast packets in a Layer 2 network

- **Static VXLAN**

Allows operators to manually connect two or more VXLAN tunnel endpoints (VTEP)



Standard Features

Layer 3 Services

- **Address Resolution Protocol (ARP)**
Determines the MAC address of another IP host in the same subnet; supports static ARPs; gratuitous ARP allows detection of duplicate IP addresses; proxy ARP allows normal ARP operation between subnets or when subnets are separated by a Layer 2 network
- **IP Directed Broadcast**
Support directed broadcast on configured network subnets.
- **Dynamic Host Configuration Protocol (DHCP)**
Simplifies the management of large IP networks and supports client; DHCP Relay enables DHCP operation across subnets
- **DHCP Server**
Supports DHCP Services (for IPv4 and IPv6) in customer networks
- **DHCP relay coexistence with server**
Allows DHCP relay coexistence with DHCP server for both IPv4 and IPv6
- **Domain Name System (DNS)**
Provides a distributed database that translates domain names and IP addresses, which simplifies network design; supports client and server
- **Generic Routing Encapsulation (GRE)**
Enables tunneling traffic from site to site over a Layer 3 path
- **Loopback IP redistribution in OSPF**
Allows redistribution of IPv4 and IPv6 addresses of loopback interface in OSPFv2/v3

Layer 3 Routing

- **Static IPv4 routing**
Provides simple manually configured IPv4 routing
- **Open shortest path first (OSPF)**
Delivers faster convergence; uses link-state routing Interior Gateway Protocol (IGP), which supports ECMP, NSSA, and MD5 authentication for increased security and graceful restart for faster failure recovery
- **Border Gateway Protocol 4 (BGP-4)**
Delivers an implementation of the Exterior Gateway Protocol (EGP) utilizing path vectors; uses TCP for enhanced reliability for the route discovery process; reduces bandwidth consumption by advertising only incremental updates; supports extensive policies for increased flexibility; scales to very large networks
- **Routing Information Protocol version 2 (RIPv2)**
Easy to configure routing protocol for small networks relying on User Datagram Protocol (UDP).
- **Routing Information Protocol Next Generation (RIPng)**
Extension of RIPv2 for support of IPv6 networking.
- **Multiprotocol BGP (MP-BGP) with IPv6 Address Family**
Enables sharing of IPv6 routes using BGP and connections to BGP peers using IPv6.
- **Policy Based Routing (PBR)**
Enables using a classifier to select traffic that can be forwarded based on policy set by the network administrator.
- **6in4 tunnels**
Supports the tunneling of IPv6 traffic in an IPv4 network.
- **IP performance optimization**
Provides a set of tools to improve the performance of IPv4 networks; includes directed broadcasts, customization of TCP parameters, support of ICMP error packets, and extensive display capabilities
- **Static IPv6 routing**
Provides simple manually configured IPv6 routing
- **Dual IP stack**
Maintains separate stacks for IPv4 and IPv6 to ease the transition from an IPv4-only network to an IPv6-only network design
- **OSPFv3**
Provides OSPF support for IPv6
- **Equal-Cost multipath (ECMP)**

Standard Features

Enables multiple equal-cost links in a routing environment to increase link redundancy and scale bandwidth

- **Generic Routing Encapsulation (GRE)**

Enables tunneling traffic site to site over a Layer 3 path

Resiliency and high availability

- **Redundant and load-sharing fans, and power supplies**

Increases total performance and power availability while providing hitless, stateful failover

- **Hot swappable power supply and fan modules**

Allows replacement of accessories modules without any operational impact on other modules nor the switch operations

- **Separate data and control paths**

Separates control from services and keeps service processing isolated; increases security and performance

- **Aruba Virtual Switching Extension (VSX)**

Aruba VSX enables a distributed and redundant architecture that is highly available during upgrades inherently by architecture design. High availability is delivered through redundancy gained by deploying two chassis in the core with each chassis maintaining its independent control.

- **Virtual Router Redundancy Protocol (VRRP)**

Allows a group of switches to dynamically back each other up to create highly available routed environments

- **Bidirectional forward detection (BFD)**

Enable sub-second failure detection for rapid routing protocol re-balancing

- **Ethernet Ring Protection Switching (ERPS)**

Supports rapid protection and recovery in a ring topology

- **Unidirectional link detection (UDLD)**

Monitors link connectivity and shuts down ports at both ends if unidirectional traffic is detected, preventing loops in STP-based networks

- **IEEE 802.3ad LACP**

Supports up to 54 link aggregation groups (LAGs), each with 16 members per LAG, with a user-selectable L1- 4 hashing algorithm

Quality of Service (QoS)

- **Strict priority (SP) queuing and Deficit Weighted Round Robin (DWRR)**

Enable congestion avoidance

Security

- **TAA Compliance**

The Aruba CX 8320, a TAA compliant product, with the AOS-CX uses FIPS 140-2 validated cryptography for protection of sensitive information

- **Access control list (ACL) Features**

Supports powerful ACLs for both IPv4 and IPv6. Supports creation of object groups representing sets of devices like IP addresses. For instance, IT management devices could be grouped in this way. ACLs can also support protecting control plane services such as SSH, SNMP, NTP or web servers.

- **Enrollment over Secure Transport (EST)**

Enables secure certificate enrollment, allowing for easier enterprise management of PKI.

- **Remote Authentication Dial-In User Service (RADIUS)**

Eases security access administration by using a password authentication server

- **Terminal Access Controller Access-Control System (TACACS+)**

Delivers an authentication tool using TCP with encryption of the full authentication request, providing additional security

- **RadSec**

Enable RADIUS authentication and accounting data to be passed safely and reliably across insecure networks such as the internet

- **Management access security**



Standard Features

Aruba OS CX provides for both on-box as well as off-box authentication for administrative access. RADIUS or TACACS+ can be used to provide encrypted user authentication. Additionally, TACACS+ can also provide user authorization services

- **Secure shell (SSHv2)**

Uses external servers to securely log in to a remote device; with authentication and encryption, it protects against IP spoofing and plain-text password interception; increases the security of Secure FTP (SFTP) transfers

Management

In addition to the Aruba CX Mobile App, Aruba NetEdit and Aruba Network Analytics Engine, the 8320 series offers the following:

- **Built-in programmable and easy to use REST API interface**

- **Management interface control**

Enables or disables each of the following interfaces depending on security preferences: console port, or reset button

- **Industry-standard CLI with a hierarchical structure**

Reduces training time and expenses, and increases productivity in multivendor installations

- **Management security**

Restricts access to critical configuration commands; offers multiple privilege levels with password protection; ACLs provide SNMP access; local and remote syslog capabilities allow logging of all access

- **IPSLA**

Monitor the network for degradation of various services, including monitoring voice. Monitoring is enabled via the NAE for history and for automated gathering of additional information when anomalies are detected.

- **SNMP v2c/v3**

Provides SNMP read and trap support of industry standard Management Information Base (MIB), and private extensions

- **sFlow® (RFC 3176)**

Provides scalable ASIC-based wire speed network monitoring and accounting with no impact on network performance; this allows network operators to gather a variety of sophisticated network statistics and information for capacity planning and real-time network monitoring purposes

- **Remote monitoring (RMON)**

Uses standard SNMP to monitor essential network functions and supports events, alarms, history, and statistics groups as well as a private alarm extension group

- **TFTP, and SFTP support**

Offers different mechanisms for configuration updates; trivial FTP (TFTP) allows bidirectional transfers over a TCP/IP network; Secure File Transfer Protocol (SFTP) runs over an SSH tunnel to provide additional security

- **Debug and sampler utility**

Supports ping and traceroute for both IPv4 and IPv6

- **Network Time Protocol (NTP)**

Synchronizes timekeeping among distributed time servers and clients; keeps timekeeping consistent among all clock-dependent devices within the network. Can serve as the NTP server in a customer network.

- **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

- **Dual flash images**

Provides independent primary and secondary operating system files for backup while upgrading

- **Multiple configuration files**

Stores files easily to the flash image

Additional information

- **Green initiative support**

Provides support for RoHS and WEEE regulations



Standard Features

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.
 - **Software Releases and Documentation**
Refer to <https://asp.arubanetworks.com/downloads>
 - **Support and services information**
Visit <https://www.arubanetworks.com/support-services/arubacare/>
 - **Supportability**
Job scheduler framework
 - **Analytics**
AIOPS NAE Agent & Engine Improvements – Unicast Routing and Client Services
 - **Korea Government Security Features**
Ensure configuration integrity
Limit concurrent users for web access
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Multicast

- **Internet Group Management Protocol (IGMP)**
Enables establishing multicast group memberships in IPv4 networks; supports IGMPv1, v2, and v3
- **Multicast Listener Discovery (MLD)**
Enable discovery of IPv6 multicast listeners; supports MLDv1 and v2
- **Multicast Service Delivery Protocol (MSDP) for Anycast RP**
MSDP used for Anycast RP is an intradomain feature that provides redundancy and load-sharing capabilities.
- **MSDP Mesh Groups**
MSDP used for Anycast RP is an intradomain feature that provides redundancy and load-sharing capabilities. When MSDP mesh groups are used, SA messages are not flooded to other mesh group peers. When MSDP peer in group receives SA message from another MSDP peer in the group, it assumes that this SA message was sent to all the other MSDP peers in the group. It also eliminates RPF checks on arriving SA messages. With MSDP mesh group configured, SA messages are always accepted from mesh group peer.
- **PIM-Dense Mode**
Floods multicast traffic to every corner of the network (push-model). Method is for delivering data to receivers without receivers requesting the data. Can be efficient in certain deployments in which there are active receivers on every subnet in the network. Branches without downstream receivers are pruned from the forwarding trees.
- **FastLeave (FL) and Forced-FastLeave (FFL) for IGMP**
FL and FFL for IGMP/MLD speed up the process of blocking unnecessary Multicast traffic to a switch port that is connected to end nodes. They help to eliminate the CPU overhead of having to generate an IGMP/MLD Group-Specific Query message.
- **Support for Microsoft Network Load Balancer (NLB) for server applications**
- **IGMP/MLD Snooping**
Prevent flooding of multicast traffic to non-listening ports



Standard Features

- **Protocol Independent Multicast (PIM)**

Protocol Independent Multicast for IPv4 and IPv6 supports one-to-many and many-to-many media casting use cases such as IPTV over IPv4 and IPv6 networks. Support for PIM Sparse Mode (PIM-SM, IPv4 and IPv6)



Configuration Information

BTO Models

Standard Switch Enclosures

Rules #	Description	SKU
	Aruba 8320 48p 10G SFP/SFP+ and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle	JL479A
1, 2, 3, 4, 5	<ul style="list-style-type: none"> Aruba 8320 48p 10G SFP/SFP+ and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle Includes 2 Power Supplies (JL480A) with No open PS slots Includes 5 Fan Tray Bundles (JL481A) with No open FT Slots Includes 1 2-Post Rack Kit (JL482B) Min=0 \ Max= 48 SFP/SFP+ 1/10G Transceivers Min=0 \ Max = 6 QSFP+ 40G Transceiver QSA28 Adapter Min=0 \ Max=6 (rule5) 1U – Height 	
	Aruba 8320 48p 10G SFP/SFP+ and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle PDU	JL479A#B2B
	<ul style="list-style-type: none"> C13 PDU Jumper Cord (NA/MEX/TW/JP) 	
	Aruba 8320 48p 10G SFP/SFP+ and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle PDU	JL479A#B2C
	<ul style="list-style-type: none"> C13 PDU Jumper Cord (ROW) 	
	Aruba 8320 48p 10G SFP/SFP+ and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle 220 volt	JL479A#B2E
	<ul style="list-style-type: none"> HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A) 	
	Aruba 8320 48p 10G SFP/SFP+ and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle	JL479A#AC3
	<ul style="list-style-type: none"> No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6-20P) 	
3, 4, 5	Aruba 8320 32p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle	JL579A
	<ul style="list-style-type: none"> Aruba 8320 32p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle Includes 2 Power Supplies (JL480A) with No open PS slots Includes 5 Fan Tray Bundles (JL481A) with No open FT Slots Includes 1 2-Post Rack Kit (JL482B) Min=0 \ Max = 32 QSFP+ 40G Transceiver QSA28 Adapter Min=0 \ Max=32 (rule5) 1U - Height 	
	Aruba 8320 32p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle PDU NA, JP or TW	JL579A#B2B
	<ul style="list-style-type: none"> C13 PDU Jumper Cord (NA/MEX/TW/JP) 	
	Aruba 8320 32p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle PDU ROW	JL579A#B2C
	<ul style="list-style-type: none"> C13 PDU Jumper Cord (ROW) 	
	Aruba 8320 32p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle United States 220 volt	JL579A#B2E
	<ul style="list-style-type: none"> HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A) 	
	Aruba 8320 32p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle	JL579A#AC3
	<ul style="list-style-type: none"> No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6-20P) 	



Configuration Information

3, 4, 5	Aruba 8320 48p 1G/10GBASE-T and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle	JL581A
	<ul style="list-style-type: none"> • Aruba 8320 48p 1/10BASE-T and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle • Includes 2 Power Supplies (JL480A) with No open PS slots • Includes 5 Fan Tray Bundles (JL481A) with No open FT Slots • Includes 1 2-Post Rack Kit (JL482B) • Min=0 \ Max = 40 QSFP+ 40G Transceiver • QSA28 Adapter Min=0 \ Max=6 (rule5) • 1U – Height 	
	Aruba 8320 48p 1G/10GBASE-T and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle PDU	JL581A#B2B
	<ul style="list-style-type: none"> • C13 PDU Jumper Cord (NA/MEX/TW/JP) 	
	Aruba 8320 48p 1G/10GBASE-T and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle PDU	JL581A#B2C
	<ul style="list-style-type: none"> • C13 PDU Jumper Cord (ROW) 	
	Aruba 8320 48p 1G/10GBASE-T and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle US220v	JL581A#B2E
	<ul style="list-style-type: none"> • HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A) 	
	Aruba 8320 48p 1G/10GBASE-T and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle	JL581A#AC3
	<ul style="list-style-type: none"> • No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6-20P) 	

Configuration Rules

Rules #	Description	SKU
1	<p>The following Transceivers install into this Module: (Use BTO only when adding to switch)</p> <p>Aruba 1G SFP LC LX 10km SMF Transceiver</p> <p>Aruba 1G SFP LC LH 70km SMF Transceiver</p> <p>Aruba 1G SFP RJ45 T 100m Cat5e Transceiver</p> <p>Aruba 1G SFP LC SX 500m MMF TAA Transceiver</p> <p>Aruba 1G SFP LC LX 10km SMF TAA Transceiver</p> <p>Aruba 1G SFP RJ45 T 100m Cat5e TAA Transceiver</p>	<p>J4859D</p> <p>J4860D</p> <p>J8177D</p> <p>JL745A</p> <p>JL746A</p> <p>JL747A</p>
2	<p>The following Transceivers install into this Module: (Use BTO only when adding to switch)</p> <p>Aruba 10GBASE-T SFP+ RJ45 30m Cat6A Transceiver</p> <p>Notes: Available in CY18Q2</p> <p>Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver</p> <p>Aruba 10G SFP+ LC LR 10km SMF Transceiver</p> <p>Aruba 10G SFP+ LC ER 40km SMF Transceiver</p> <p>Aruba 10G SFP+ LC SR 300m MMF TAA Transceiver</p> <p>Aruba 10G SFP+ LC LR 10km SMF TAA Transceiver</p> <p>Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable</p> <p>Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable</p> <p>HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 3m Direct Attach Copper Cable</p> <p>HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 5m Direct Attach Copper Cable</p>	<p>JL563A</p> <p>J9150D</p> <p>J9151E</p> <p>J9153D</p> <p>JL748A</p> <p>JL749A</p> <p>J9281D</p> <p>J9283D</p> <p>487655-B21</p> <p>537963-B21</p>
3	<p>The following Transceivers install into this Module: (Use BTO only when adding to switch)</p> <p>HPE X142 40G QSFP+ MPO SR4 Transceiver</p> <p>HPE X142 40G QSFP+ LC LR4 SM Transceiver</p> <p>HPE X142 40G QSFP+ MPO eSR4 300M Transceiver</p> <p>Aruba 40G QSFP+ LC Bidirectional 150m MMF 2-strand Transceiver</p>	<p>JH231A</p> <p>JH232A</p> <p>JH233A</p> <p>JL308A</p>



Configuration Information

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
HPE BladeSystem c-Class 40G QSFP+ to 4x10G SFP+ 3m Direct Attach Copper Splitter Cable	721064-B21
HPE QSFP28 to SFP28 Adapter	845970-B21

4 Localization required on orders without #B2B, #B2C, #B2E or #AC3 options.

5 If qty1 of the following QSA28 Adapter(845970-B21) is selected, then increase max SFP28 Port qty by 1 allow user selection of the following SFP Transceivers. Refer to qty and port restrictions for individual Switch in the "Additional Info" sections: (Use BTO only when adding this QSA28 Adapter)

Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D
Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151E
Aruba 10G SFP+ LC ER 40km SMF Transceiver	J9153D
Aruba 10G SFP+ LC SR 300m MMF TAA Transceiver	JL748A
Aruba 10G SFP+ LC SR 300m MMF TAA Transceiver	JL748A

- 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 Power Cord - #AC3 Option
 - OCA Blue: Locking Power Cord (J9955A) L6-20P is available through the OCA Accessories tab
 - OCA Only Model Selection Form -
 - HPE Offering > Aruba > Switches - ArubaOS: > 8320 Switch Series

Rack Level Integration CTO Models

Standard Switch Enclosures

Rules #	Description	SKU
1, 2, 3, 4, 5, 6	Aruba 8320 48p 10G SFP/SFP+ and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle	JL479A
	<ul style="list-style-type: none"> • Aruba 8320 48p 10G SFP/SFP+ and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle • Includes 2 Power Supplies (JL480A) with No open PS slots • Includes 5 Fan Tray Bundles (JL481A) with No open FT Slots • Includes 1 2-Post Rack Kit (JL482B) • Min=0 \ Max= 48 SFP/SFP+ 1/10G Transceivers • Min=0 \ Max = 6 QSFP+ 40G Transceiver • QSA28 Adapter Min=0 \ Max=6 (rule5) • 1U – Height 	
	Aruba 8320 48p 10G SFP/SFP+ and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle PDU	JL479A#B2B
	Aruba 8320 48p 10G SFP/SFP+ and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle PDU	JL479A#B2C
	<ul style="list-style-type: none"> • C13 PDU Jumper Cord (ROW) 	
	Aruba 8320 48p 10G SFP/SFP+ and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle 220 volt	JL479A#B2E
	<ul style="list-style-type: none"> • HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A) 	
	Aruba 8320 48p 10G SFP/SFP+ and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle	JL479A#AC3

Configuration Information

	<ul style="list-style-type: none"> No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6-20P) 	
3, 4, 5, 6	<p>Aruba 8320 32p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle JL579A</p> <ul style="list-style-type: none"> Aruba 8320 32p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle Includes 2 Power Supplies (JL480A) with No open PS slots Includes 5 Fan Tray Bundles (JL481A) with No open FT Slots Includes 1 2-Post Rack Kit (JL482B) Min=0 \ Max = 32 QSFP+ 40G Transceiver QSA28 Adapter Min=0 \ Max=32 (rule5) 1U – Height 	
	<p>Aruba 8320 32p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle PDU NA, JP or TW JL579A#B2B</p> <ul style="list-style-type: none"> C13 PDU Jumper Cord (NA/MEX/TW/JP) 	
	<p>Aruba 8320 32p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle PDU ROW JL579A#B2C</p> <ul style="list-style-type: none"> C13 PDU Jumper Cord (ROW) 	
	<p>Aruba 8320 32p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle United States 220 volt JL579A#B2E</p> <ul style="list-style-type: none"> HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A) 	
	<p>Aruba 8320 32p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle JL579A#AC3</p> <ul style="list-style-type: none"> No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6-20P) 	
3, 4, 5, 6	<p>Aruba 8320 48p 1G/10GBASE-T and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle JL581A</p> <ul style="list-style-type: none"> Aruba 8320 48p 1/10BASE-T and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle Includes 2 Power Supplies (JL480A) with No open PS slots Includes 5 Fan Tray Bundles (JL481A) with No open FT Slots Includes 1 2-Post Rack Kit (JL482B) Min=0 \ Max = 40 QSFP+ 40G Transceiver QSA28 Adapter Min=0 \ Max=6 (rule5) 1U – Height 	
	<p>Aruba 8320 48p 1G/10GBASE-T and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle PDU JL581A#B2B</p> <ul style="list-style-type: none"> C13 PDU Jumper Cord (NA/MEX/TW/JP) 	
	<p>Aruba 8320 48p 1G/10GBASE-T and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle PDU JL581A#B2C</p> <ul style="list-style-type: none"> C13 PDU Jumper Cord (ROW) 	
	<p>Aruba 8320 48p 1G/10GBASE-T and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle US220v JL581A#B2E</p> <ul style="list-style-type: none"> HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A) 	
	<p>Aruba 8320 48p 1G/10GBASE-T and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle JL581A#AC3</p> <ul style="list-style-type: none"> No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6-20P) 	

Configuration Rules

Rule #:	Description	SKU
1	The following Transceivers install into this Module (Use #0D1 quoted to switch if switch is CTO) - if applicable:	
	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



Configuration Information

- | | | |
|---------------|--|------------|
| | 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 |
| 2 | The following Transceivers install into this Module(Use #0D1 quoted to switch if switch is CTO) - if applicable: | |
| | Aruba 10GBASE-T SFP+ RJ45 30m Cat6A Transceiver | JL563A |
| | Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver | J9150D |
| | Aruba 10G SFP+ LC LR 10km SMF Transceiver | J9151E |
| | 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 |
| | HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 3m Direct Attach Copper Cable | 487655-B21 |
| | HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 5m Direct Attach Copper Cable | 537963-B21 |
| 3 | The following Transceivers install into this Module(Use #0D1 quoted to switch if switch is CTO) - if applicable: | |
| | Aruba 40G QSFP+ LC ER4 40km SMF Transceiver | Q9G82A |
| | 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 |
| | HPE BladeSystem c-Class 40G QSFP+ to 4x10G SFP+ 3m Direct Attach Copper Splitter Cable | 721064-B21 |
| | HPE QSFP28 to SFP28 Adapter | 845970-B21 |
| 4 | Localization required on orders without #B2B, #B2C, #B2E or #AC3 options. | |
| 5 | If qty1 of the following QSA28 Adapter(845970-B21) is selected, then increase max SFP28 Port qty by 1 allow user selection of the following SFP Transceivers. Refer to qty and port restrictions for individual Switch in the "Additional Info" sections: (Use BTO only when adding this QSA28 Adapter) | |
| | Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver | J9150D |
| | Aruba 10G SFP+ LC LR 10km SMF Transceiver | J9151E |
| | Aruba 10G SFP+ LC ER 40km SMF Transceiver | J9153D |
| | Aruba 10G SFP+ LC SR 300m MMF TAA Transceiver | JL748A |
| | Aruba 10G SFP+ LC SR 300m MMF TAA Transceiver | JL748A |
| 6 | 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: | <ul style="list-style-type: none"> - 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 Power Cord - #AC3 Option - OCA Blue Locking Power Cord (J9955A) L6-20P is available through the OCA Accessories tab | |

Configuration Information

Transceivers

Remarks	Description	SKU
	SPF Transceivers	
	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
	SPF+ Transceivers	
	Aruba 10GBASE-T SFP+ RJ45 30m Cat6A Transceiver	JL563A
Notes:	Limit 12 per switch/module, only to be installed in ports 1-12	
	Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D
	Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151E
	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
	HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 3m Direct Attach Copper Cable	487655-B21
	HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 5m Direct Attach Copper Cable	537963-B21
Notes:	OCA Blue A maximum qty of 12 XCVRs (JL563A) can be installed into ports 1-12 within the JL479A Switch.	
	QSFP+ Transceivers	
	Aruba 40G QSFP+ LC ER4 40km SMF Transceiver	Q9G82A
	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
	HPE BladeSystem c-Class 40G QSFP+ to 4x10G SFP+ 3m Direct Attach Copper Splitter Cable	721064-B21
Notes:	A maximum qty of 24 Splitter Cables (721064-B21) can be installed into ports 5-28 within the JL579A Switch.	
	QSA28 Adapter	
	HPE QSFP28 to SFP28 Adapter	845970-B21
Notes:	<ul style="list-style-type: none"> – Limit 24 per switch/module, only to be installed in ports 5-28 (JL579A) – OCA Display Notes: If selecting the 845970-B21 - QSFP28 to SFP28 Adapter, then see Aruba Transceiver Guide for details. 	

Configuration Information

Switch Options

Remarks	Description	SKU
	Rack Mount Kits	
	For Switch JL479A, JL579A, JL581A System (std 0 // max 1) User Selection (min 0 // max 1) per enclosure	
	Aruba X472 2-post Rack Kit	JL482B
	Aruba X474 4-post Rack Kit	JL483B
	<ul style="list-style-type: none"> includes 1 x c19, 2750w 	
Notes:	<ul style="list-style-type: none"> If the switch will be factory racked into an HPE Universal Rack, then this 4 Post Rack Mount kit is required. OCA Blue 1 2-Post Rack Mount Kit(JL482B) is included with the JL479A Switch Bundle 	

Software

Remarks	Description	SKU
	Central	
Notes:	For details and complete listing of Aruba Central licensing options, please see https://www.arubanetworks.com/assets/ds/DS_ArubaCentral.pdf and Aruba Central Data Sheet. https://www.arubanetworks.com/assets/ds/DS_ArubaCentral.pdf	
	Aruba Central Switch Chassis Foundation Sub 1yr E-STU	R3K03AAE
	Aruba Central Switch Chassis Foundation Sub 3yr E-STU	R3K04AAE
	Aruba Central Switch Chassis Foundation Sub 5yr E-STU	R3K05AAE
	Aruba Central Switch Chassis Foundation Sub 7yr E-STU	R3K06AAE
	Aruba Central Switch Chassis Foundation Sub 10yr E-STU	R3K07AAE
Notes:	Add the Central Cloud Skus to the Aruba Catalog as Standalone: Aruba > Network Management > Central > Cloud Services	
	Aruba Central On-Premises Switch 84xx/83xx/64xx/54xx Foundation 1 year Subscription E-STU	R6U88AAE
	Aruba Central On-Premises Switch 84xx/83xx/64xx/54xx Foundation 3 year Subscription E-STU	R6U89AAE
	Aruba Central On-Premises Switch 84xx/83xx/64xx/54xx Foundation 5 year Subscription E-STU	R6U90AAE
	Aruba Central On-Premises Switch 84xx/83xx/64xx/54xx Foundation 7 year Subscription E-STU	R6U91AAE
	Aruba Central On-Premises Switch 84xx/83xx/64xx/54xx Foundation 10 year Subscription E-STU	R6U92AAE
	Aruba Central On-Premises 8xxx Switch Foundation 1 year Subscription COP only TAC E-STU	R8M20AAE
	Aruba Central On-Premises 8xxx Switch Foundation 3 year Subscription COP only TAC E-STU	R8M21AAE
	Aruba Central On-Premises 8xxx Switch Foundation 5 year Subscription COP only TAC E-STU	R8M22AAE
	Aruba Central On-Premises 8xxx Switch Foundation 7 year Subscription COP only TAC E-STU	R8M23AAE
	Aruba Central On-Premises 8xxx Switch Foundation 10 year Subscription COP only TAC E-STU	R8M24AAE
Notes:	Add the Central On-Prem Skus to the Aruba Catalog as Standalone: Aruba > Network Management > Central > On-Prem Services	



Related Options

Accessories

Remarks	Description	SKU
	Spare Items	
	For Switch JL479A, JL579A, JL581A System (std 0 // max 99) User Selection (min 0 // max 99) per enclosure	
	Power Supply	
	Aruba X371 400W AC Power Supply	JL480A
	<ul style="list-style-type: none"> includes 1 x c13, 400w 	
Notes:	Localization required on orders without #B2B, #B2C, #B2E or #AC3 options	
	Aruba X371 400W AC Power Supply PDU NA, JP or TW	JL480A#B2B
	<ul style="list-style-type: none"> C13 PDU Jumper Cord (NA/MEX/TW/JP) 	
	Aruba X371 400W AC Power Supply PDU ROW	JL480A#B2C
	<ul style="list-style-type: none"> C13 PDU Jumper Cord (ROW) 	
	Aruba X371 400W AC Power Supply United States 220 volt	JL480A#B2E
	<ul style="list-style-type: none"> HPE 2.3M C13 to NEMA L6-20P Power Cord(J9936A) 	
	Aruba X371 400W AC Power Supply	JL480A#AC3
	<ul style="list-style-type: none"> No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6-20P) 	
	Aruba X721 Front-to-Back Fan	JL481A
	Aruba X472 2-post Rack Kit	JL482B
	Console Cable	
	Aruba X2C2 RJ45 to DB9 Console Cable	JL448A
	HPE 2.5M C15 to NEMA L6-20P Power Cord	J9955A
Notes:	<ul style="list-style-type: none"> Drop down under power supply should offer the following options and results: Switch/Router to PDU Power Cord - #B2B in NA, 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 OCA Blue Locking Power Cord (J9955A) L6-20P is available in the Accessories tab OCA Blue 2 Power Supply is included with the Switch Bundle 	

Technical Specifications

Aruba 8320 48p 10G SFP/SFP+ and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle (JL479A)		
I/O ports and slots	Supports 48 ports of 1/10G for use with SFP and SFP+ transceivers, and 6 ports of 40G for use with QSFP+ transceivers. Optional 1GBASE-T and 10GBASE-T transceivers and 4x10G breakout cables.	
Additional ports and slots	Module VoQ	16 MB Packet Buffer
	Power supplies	Field-replaceable, hot-swappable, and up to 2 power supplies. Bundles (JL479A, JL579A, and JL581A) include 2 power supplies.
	Fans	Field-replaceable, hot-swappable, and up to 5 fans. Bundles (JL479A, JL579A, and JL581A) include 5 fans.
	MTBF	314,721 hrs
Physical characteristics	Dimensions	17.4in (442mm) (w) x 19.9in (505.5mm) (d) x 1.7in (43.2mm) (h)
	Full configuration weight	20.7lbs (9.4kg)
Memory and Processor	CPU	2.4GHz
	Memory Drive	16 GB RAM, 64 GB SSD, and 8 GB Flash
Performance*	Switching Capacity	2.5Tbs
	IPv4 Host Table	120,000
	IPv6 Host Table	52,000
	IPv4 Unicast Routes	131,072
	IPv6 Unicast Routes	32,732
	MAC Address Table Size	98,304
	IGMP Groups	4,094
	MLD Groups	4,094
	IPv4 Multicast Routes	4,094
IPv6 Multicast Routes	4,094	
Notes: * Some of these scaling numbers assume shared tables.		
Mounting and enclosure	Mounts in an EIA standard 19-inch rack or other equipment cabinet (hardware included); horizontal surface mounting only	
Environment	Operating Temperature	0°C to 40°C (32°F to 104°F) up to 10,000 ft (3Km)
	Operating Relative Humidity	5% to 95% at 40°C (104°F) non-condensing
	Non-Operating	-40°C to 70°C (-40°F to 158°F) up to 15,000ft (4.6Km)
	Non-Operating/ Storage Relative Humidity	5% to 95% @ 65°C (149°F)
	Max Operating Altitude	Up to 10,000ft (3.048 Km)
	Max Non-Operating	Up to 15,000ft (4.6 Km)
	Acoustic	Sound Pressure (LpAm) (Bystander) 61.1 dB
	Primary Airflow Direction	Front-to-Back
Electrical characteristics	Frequency	50-65 Hz
	AC voltage	100-127 and 200-240 with either 50 or 60Hz VAC
	Current	6A (low voltage) - 3A (high voltage)
	Power output	357 W
Safety	EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; EN60825-1; IEC60950-1:2005 Ed.2; Am 1:2009+A2:2013; IEC 60825-1; UL60950-1, CSA 22.2 No 60950-	
EMC	EN 55032:2012, Class A; EN 55024:2010; EN 61000-3-2:2014, Class A; EN 61000-3-3:2013; FCC CFR 47 Part 15:2010, Class A; EN 50581:2012 (RoHS)	
Lasers	EN60825-1:2014 / IEC 60825-1: 2014 Class 1; Class 1 Laser Products / Laser Klasse 1	
Management	SNMP; RJ-45 serial; USB micro USB console; RJ-45 Ethernet port	



Technical Specifications

Aruba 8320 32p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle (JL579A)		
I/O ports and slots	Supports 32 ports of 40G for use with QSFP+ transceivers. Optional 4x10G breakout cables.	
Additional ports and slots	Module VoQ	16 MB Packet Buffer
	Power supplies	Field-replaceable, hot-swappable, and up to 2 power supplies. Bundles (JL479A, JL579A, and JL581A) include 2 power supplies.
	Fans	Field-replaceable, hot-swappable, and up to 5 fans. Bundles (JL479A, JL579A, and JL581A) include 5 fans.
	MTBF	296,526 hrs
Physical characteristics	Dimensions	17.26in (438mm) (W) 20.28in (515mm) (D) 1.71in (43.5mm) (H)
	Full configuration weight	21.27lbs (9.7kb)
Memory and Processor	CPU	2.4GHz
	Memory Drive	16 GB RAM, 64 GB SSD, and 8 GB Flash
Performance*	Switching Capacity	2.5Tbs
	IPv4 Host Table	120,000
	IPv6 Host Table	52,000
	IPv4 Unicast Routes	131,072
	IPv6 Unicast Routes	32,732
	MAC Address Table Size	98,304
	IGMP Groups	4,094
	MLD Groups	4,094
	IPv4 Multicast Routes	4,094
IPv6 Multicast Routes	4,094	
Notes: * Some of these scaling numbers assume shared tables.		
Mounting and enclosure	Mounts in an EIA standard 19-inch rack or other equipment cabinet (hardware included); horizontal surface mounting only	
Environment	Operating Temperature	0°C to 40°C (32°F to 104°F) up to 10,000 ft (3Km)
	Operating Relative Humidity	5% to 95% at 40°C (104°F) non-condensing
	Non-Operating	-40°C to 70°C (-40°F to 158°F) up to 15,000ft (4.6Km)
	Non-Operating/ Storage Relative Humidity	5% to 95% @ 65°C (149°F)
	Max Operating Altitude	Up to 10,000ft (3.048 Km)
	Max Non-Operating	Up to 15,000ft (4.6 Km)
	Acoustic	Sound Pressure (LpAm) (Bystander) 79 dB
Electrical characteristics	Primary Airflow Direction	Front-to-Back
	Frequency	50-65 Hz
	AC voltage	100-127 and 200-240 with either 50 or 60Hz VAC
	Current	6A (low voltage) - 3A (high voltage)
	Power output	310 W
Safety	EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; EN60825-1; IEC60950-1:2005 Ed.2; Am 1:2009+A2:2013; IEC 60825-1; UL60950-1, CSA 22.2 No 60950-	
EMC	EN 55032:2012, Class A; EN 55024:2010; EN 61000-3-2:2014, Class A; EN 61000-3-3:2013; FCC CFR 47 Part 15:2010, Class A; EN 50581:2012 (RoHS)	
Lasers	EN60825-1:2014 / IEC 60825-1: 2014 Class 1; Class 1 Laser Products / Laser Klasse 1	
Management	SNMP; RJ-45 serial; USB micro USB console; RJ-45 Ethernet port	



Technical Specifications

Aruba 8320 48p 1G/10GBASE-T and 6p 40G QSFP+ with X472 5 Fans 2 Power Supply Switch Bundle (JL581A)		
I/O ports and slots	Supports 48 ports of 10GBaseT and 6 ports of 40G for use with QSFP+ transceivers. Optional 4x10G breakout cables.	
Additional ports and slots	Module VoQ	16 MB Packet Buffer
	Power supplies	Field-replaceable, hot-swappable, and up to 2 power supplies. Bundles (JL479A, JL579A, and JL581A) include 2 power supplies.
	Fans	Field-replaceable, hot-swappable, and up to 5 fans. Bundles (JL479A, JL579A, and JL581A) include 5 fans.
	MTBF	275,339 hrs
Physical characteristics	Dimensions	18.6in (473mm) (W) 17.4in (443mm) (D) 1.71in (43.9mm) (H)
	Full configuration weight	20.94lbs (9.5kg)
Memory and Processor	CPU	2.4GHz
	Memory Drive	16 GB RAM, 64 GB SSD, and 8 GB Flash
Performance*	Switching Capacity	2.5 Tbs
	IPv4 Host Table	120,000
	IPv6 Host Table	52,000
	IPv4 Unicast Routes	131,072
	IPv6 Unicast Routes	32,732
	MAC Address Table Size	98,304
	IGMP Groups	4,094
	MLD Groups	4,094
	IPv4 Multicast Routes	4,094
IPv6 Multicast Routes	4,094	
Notes: * Some of these scaling numbers assume shared tables.		
Mounting and enclosure	Mounts in an EIA standard 19-inch rack or other equipment cabinet (hardware included); horizontal surface mounting only	
Environment	Operating Temperature	0°C to 40°C (32°F to 104°F) up to 10,000 ft (3Km)
	Operating Relative Humidity	5% to 95% at 40°C (104°F) non-condensing
	Non-Operating	-40°C to 70°C (-40°F to 158°F) up to 15,000ft (4.6Km)
	Non-Operating/ Storage Relative Humidity	5% to 95% @ 65°C (149°F)
	Max Operating Altitude	Up to 10,000ft (3.048 Km)
	Max Non-Operating	Up to 15,000ft (4.6 Km)
	Acoustic	Sound Pressure (LpAm) (Bystander) 61.1 dB
Electrical characteristics	Primary Airflow Direction	Front-to-Back
	Frequency	50-65 Hz
	AC voltage	100-127 and 200-240 with either 50 or 60Hz VAC
	Current	6A (low voltage) - 3A (high voltage)
	Power output	348 W
Safety	EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011+A2:2013; EN60825-1; IEC60950-1:2005 Ed.2; Am 1:2009+A2:2013; IEC 60825-1; UL60950-1, CSA 22.2 No 60950-	
EMC	EN 55032:2012, Class A; EN 55024:2010; EN 61000-3-2:2014, Class A; EN 61000-3-3:2013; FCC CFR 47 Part 15:2010, Class A; EN 50581:2012 (RoHS)	
Lasers	EN60825-1:2014 / IEC 60825-1: 2014 Class 1; Class 1 Laser Products / Laser Klasse 1	
Management	SNMP; RJ-45 serial; USB micro USB console; RJ-45 Ethernet port	



Technical Specifications

Standards and Protocols

Applies to all products in series:

- IEEE 802.1AB-2009
- IEEE 802.1ak-2007
- IEEE 802.1t-2001
- IEEE 802.1AX-2008 Link Aggregation
- IEEE 802.1p Traffic Class Expediting and Dynamic Multicast Filtering
- IEEE 802.1Q VLANs
- IEEE 802.1s Multiple Spanning Trees
- IEEE 802.1w Rapid Reconfiguration of Spanning Tree
- IEEE 802.3ad Link Aggregation Control Protocol (LACP)
- IEEE 802.3x Flow Control
- IEEE 802.3z Gigabit Ethernet
- IEEE 802.3ae 10 Gigabit Ethernet
- IEEE 802.3ba 40 Gigabit Ethernet Architecture
- RFC 768 UDP
- RFC 791 IP
- RFC 792 ICMP
- RFC 793 TCP
- RFC 826 ARP
- RFC 768 User Datagram Protocol
- RFC 813 Window and Acknowledgement Strategy in TCP
- RFC 815 IP datagram reassembly algorithms
- RFC 879 TCP maximum segment size and related topics
- RFC 896 Congestion control in IP/TCP internetworks
- RFC 917 Internet subnets
- RFC 919 Broadcasting Internet Datagrams
- RFC 922 Broadcasting Internet Datagrams in the Presence of Subnets (IP_BROAD)
- RFC 925 Multi-LAN address resolution
- RFC 1215 Convention for defining traps for use with the SNMP
- RFC 1256 ICMP Router Discovery Messages
- RFC 1393 Traceroute Using an IP Option
- RFC 1591 Domain Name System Structure and Delegation
- RFC 1657 Definitions of Managed Objects for BGP-4 using SMIv2
- RFC 1772 Application of the Border Gateway Protocol in the Internet
- RFC 1981 Path MTU Discovery for IP version 6
- RFC 1997 BGP Communities Attribute
- RFC 1998 An Application of the BGP Community Attribute in Multi-home Routing
- RFC 2385 Protection of BGP Sessions via the TCP MD5 Signature Option
- RFC 2401 Security Architecture for the Internet Protocol
- RFC 2402 IP Authentication Header
- RFC 2406 IP Encapsulating Security Payload (ESP)
- RFC 2460 Internet Protocol, Version 6 (IPv6) Specification
- RFC 2545 Use of BGP-4 Multiprotocol Extensions for IPv6 Inter-Domain Routing
- RFC 2710 Multicast Listener Discovery (MLD) for IPv6
- RFC 2787 Definitions of Managed Objects for the Virtual Router Redundancy Protocol
- RFC 2918 Route Refresh Capability for BGP-4
- RFC 2934 Protocol Independent Multicast MIB for IPv4
- RFC 3137 OSPF Stub Router Advertisement



Technical Specifications

- RFC 3176 InMon Corporation's sFlow: A Method for Monitoring Traffic in Switched and Routed Networks
 - RFC 3484: Default Address Selection for Internet Protocol version 6 (IPv6)
 - RFC 3509 Alternative Implementations of OSPF Area Border Routers
 - RFC 3623 Graceful OSPF Restart
 - RFC 3810 Multicast Listener Discovery Version 2 (MLDv2) for IPv6
 - RFC 4213 Basic Transition Mechanisms for IPv6 Hosts and Routers
 - RFC 4251 The Secure Shell (SSH) Protocol
 - RFC 4271 A Border Gateway Protocol 4 (BGP-4)
 - RFC 4273 Definitions of Managed Objects for BGP-4
 - RFC 4291 IP Version 6 Addressing Architecture
 - RFC 4292 IP Forwarding Table MIB
 - RFC 4293 Management Information Base for the Internet Protocol (IP)
 - RFC 4360 BGP Extended Communities Attribute
 - RFC 4486 Subcodes for BGP Cease Notification Message
 - RFC 4552 Authentication/Confidentiality for OSPFv3
 - RFC 4724 Graceful Restart Mechanism for BGP
 - RFC 4760 Multiprotocol Extensions for BGP-4
 - RFC 4940 IANA Considerations for OSPF
 - RFC 5095: Deprecation of Type 0 Routing Headers in IPv6
 - RFC 5701 IPv6 Address Specific BGP Extended Community Attribute
 - RFC 6987 OSPF Stub Router Advertisement
 - RFC 7047 The Open vSwitch Database Management Protocol
 - RFC 7059 A Comparison of IPv6-over-IPv4 Tunnel Mechanisms
 - RFC 7313 Enhanced Route Refresh Capability for BGP-4
 - RFC 8201 Path MTU Discovery for IP version 6
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Summary of Changes

Date	Version History	Action	Description of Change
07-Sep-2021	Version 19	Changed	Overview and Standard Features sections were updated.
07-Jun-2021	Version 18	Changed	Configuration Information section was updated.
08-Mar-2021	Version 17	Changed	SKUs added in Configuration Information section.
07-Dec-2020	Version 16	Changed	Standard Features and Technical Specification sections were updated.
05-Oct-2020	Version 15	Changed	Configuration Information section was updated.
10-Aug-2020	Version 14	Changed	Standard Features and Technical Specification sections were updated.
06-Jul-2020	Version 13	Changed	Configuration Information section was updated.
04-Nov-2019	Version 12	Changed	Overview, Standard Features and Configuration Information were updated.
03-Jun-2019	Version 11	Changed	Overview, Standard Features and Technical Specifications sections were updated.
02-Apr-2019	Version 10	Changed	SKU JL483A was replaced with JL483B Obsolete SKUs were removed.
04-Mar-2019	Version 9	Changed	SKU J9151D was replaced with J9151E Obsolete SKUs were removed.
03-Dec-2018	Version 8	Changed	Features and benefits updated
02-Jul-2018	Version 7	Changed	Product overview, Key features, Features and benefits changed due to a Software feature update
04-Jun-2018	Version 6	Changed	Configuration section updated
07-May-2018	Version 5	Changed	SKU added: JL563A; Q9G82A
16-Apr-2018	Version 4	Changed	Standards and protocols updated
02-Apr-2018	Version 3	Changed	SKU added to the Configuration section: JL581A
05-Mar-2018	Version 2	Changed	SKU added: JL579A Updates made on product image, Overview, Technical Specifications and Configuration section.
04-Dec-2017	Version 1	New	New QuickSpecs



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