

DATA SHEET

ARUBA CX 8360 V2 SWITCH SERIES

High Performance Enterprise Campus and Data Center Switch

PRODUCT OVERVIEW

The Aruba CX 8360-48Y6C v2 Switch Series offers a flexible and innovative approach to addressing the application, security, and scalability demands of the mobile, cloud, and IoT era. These switches serve the needs of the next-generation core and aggregation layer of campuses, as well as virtual and highly dynamic data center environments. They provide up to 4.8Tbps of capacity, with line-rate Gigabit Ethernet interfaces including 1Gbps, 10Gbps, 25Gbps, 40Gbps, and 100Gbps.

The 8360-48Y6C v2 series includes industry-leading line rate ports with 1/10/25GbE (SFP/SFP+/SFP28) and 40/100 GbE (QSFP+/QSFP28) connectivity in a compact 1U form factor. 4x10Gbps and 4x25Gbps break out from 40/100G ports offer advanced flexibility in connectivity and aggregation. These switches deliver a fantastic investment for customers wanting to migrate from older 1GbE/10GbE to faster 25GbE, or from 10GbE/40GbE uplinks to 100GbE ports.

In addition, the switch supports low-density MACsec ports enabling secure connectivity at 10GbE and 25GbE over unsecured domains.

PRODUCT DIFFERENTIATORS

The Aruba CX 8360 switch series is based on ArubaOS-CX, a modern, database-driven operating system that automates and simplifies many critical and complex tasks. The enhanced capabilities of ArubaOS-CX provide a unique set of differentiators for campus and data center switching.

Modular Architecture with native cloud-native ArubaOS-CX

ArubaOS-CX is built on a modular Linux architecture with OVSDDB, providing the following unique capabilities:

- Safe and powerful access to all state at all times allows unique visibility and analytics capabilities
- REST APIs and Python scripting provide fine-grained microservices architecture enabling full integration with other workflow systems and services



KEY FEATURES

- High-performance 4.8Tbps and 2,678 Mpps
- Intelligent monitoring and visibility with Aruba Network Analytics Engine
- High availability with industry leading VSX redundancy, and redundant power supplies and fans
- Designed for core/aggregation in the campus or Top of Rack or End of Row in data center environments
- MACsec secured connectivity over untrusted domains
- ArubaOS-CX automation and programmability using built-in REST APIs and Python scripts
- Advanced Layer 2/3 feature set includes BGP, OSPF, VRF, and IPv6
- Compact 1U switch with 1/10/25GbE and 40/100GbE connectivity

- Supports Aruba Fabric Composer - a software-defined orchestration solution that simplifies and accelerates leaf-spine network provisioning and day-to-day operations across rack-scale compute and storage infrastructure.
- Continual state synchronization provides superior fault tolerance and high availability
- All software processes communicate with the database rather than with each other, ensuring high stability with minimal inter-process communication



Aruba Network Analytics Engine

ArubaOS-CX includes Aruba's Network Analytics Engine (NAE) for advanced telemetry and automation. The NAE framework is an industry-first monitoring and troubleshooting system, providing greatly improved network operations. NAE uniquely provides the ability to monitor and easily troubleshoot network health and congestion issues. The Time Series Database (TSDB) may be used to store configuration and operational state.

Customers can use data from the TSDB to write software modules to troubleshoot problems. This data may also be used to analyze trends, identify anomalies, and predict future capacity requirements.

Aruba Virtual Switching Extension

The ability of ArubaOS-CX to maintain synchronous state across dual control planes allows a unique high availability solution called Aruba Virtual Switching Extension (VSX). VSX is delivered through redundancy gained by deploying two chassis with an inter-switch link, with each chassis maintaining its independent control.

Designed using the best features of existing HA technologies such as Multichassis Link Aggregation (MC-LAG) and Virtual Switching Framework (VSF), Aruba VSX enables a distributed architecture that is highly available during upgrades or control plane events.

PRODUCT CAPABILITIES

Performance

High-speed fully distributed architecture

Provides up to 2.4Tbps for bidirectional switching and 1,145 Mpps for forwarding 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

The Aruba 8360- 48Y6C v2 is available to two versions; a port-to-power airflow bundle, and a power-to-port airflow bundle:

- 44 ports of 1GbE/10GbE/25GbE (SFP/SFP+/SFP28)
- +4 ports of 10GbE/25GbE with MACsec
- +4 ports of 40GbE/100GbE (QSFP+/QSFP28)
- +2 ports of 40GbE/100GbE with MACsec

All QSFP ports (QSFP+/QSFP28) support optional 4x10G/4x25G break out capability.

There is 10GBASE-T transceiver support on the SFP+/SFP28 ports.

There is 1Gbps transceiver support, including 1GBASE-T, on non-MACsec SFP+/ SFP28 ports.

Jumbo frames

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

Unsupported Transceiver Mode (UTM)

- Allows users to insert and enable unsupported 1G and 10G transceivers and cables
- 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, multicast, or unicast storms with user-defined thresholds

Quality of Service (QoS)

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

Enables congestion avoidance

RDMA Over Converged Ethernet (RoCEv2)

RDMA over Converged Ethernet version 2 (RoCEv2) is an internet layer protocol, which means that RoCEv2 packets can be routed. RoCEv2 allows direct memory access over the network and relies on the Link-Layer Flow-Control IEEE 802.1Qbb (Priority-based Flow Control, PFC) to provide a lossless fabric. RoCEv2 Congestion Management (RCM) uses ECN (Explicit Congestion Notification) to signal the congestion to the destination and use the congestion notification to reduce the rate of injection and increase the injection rate when the extent of congestion decreases.

Data Center Bridging (DCB)

Supports lossless Ethernet networking standard Priority Flow Control (PFC), Enhanced Transmission Service (ETS) and DCB Exchange Protocol (DCBX) to eliminate packet loss due to queue overflow



Explicit Congestion Notification (ECN)

Marks packets rather than drops them, enabling the receiver to indicate the congestion to the sender, which in turn can reduce its transmission rate as if it detected a dropped packet.

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 accessory 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)

VSX enables a distributed and redundant architecture by deploying two switches with each switch, maintaining independent control yet staying synchronized during upgrades or failover. Also supports upgrades during live operation

Virtual Router Redundancy Protocol (VRRP)

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 rebalancing
- Enabled for both BGP IPv4 and IPv6

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 52 LAGs, with up to 16 members per LAG (32 for a VSX pair), with a user-selectable L1-4 hashing algorithm

Management

In addition to the Aruba CX Mobile App, Aruba NetEdit and Aruba Network Analytics Engine, the 8360 series offers the following:

REST API interface

Built-in, programmable and easy-to-use

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

- Monitors the network for degradation of various services, including voice.
- Monitoring is enabled via the NAE for history and for immediate 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

Supportability

Job scheduler framework

Debug and sampler utility

Supports ping and traceroute for 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

Precision Time Protocol

- Enables precise clock synchronization across distributed devices
- Needed for time critical applications like AVB and financial systems
- Support for transparent clock E-E and P-P
- Support for boundary clock

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

Layer 2 Switching

VLAN

Supports up to 4,094 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 local or remote 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)

Dynamic VXLAN with BGP-EVPN

Deep segmentation for Spine/Leaf data center networks or Layer 3 campus designs with centralized gateway and symmetric Integrated Routing and Bridging (IRB) based distributed gateways VXLAN tunnels

- Port PBR VXLAN support
- VXLAN DC Multi-fabric DCI support
- VSX Active Forwarding support for VXLAN underlay
- Route-map support BGP EVPN AF

IPv4 Multicast in VXLAN/EVPN Overlay

Enable PIM-SM/IGMP snooping in the VXLAN Overlay

IPv6 VXLAN/EVPN Overlay Support

Enables IPv6 traffic over the VXLAN overlay

VXLAN distributed anycast gateway

Addressing mechanism that enables the use of the same gateway IP addresses across all the leaf switches part of a VXLAN network

VXLAN ARP/ND suppression

Allows minimization of ARP and ND traffic flooding within individual VXLAN segments, thus optimizing the VXLAN network



Dynamic Segmentation

VXLAN GBP and Role-based Policies

- Enables micro segmentation and role-based policies across the VXLAN overlay

Dual VTEP termination and VXLAN GBP relay

Reserved GBP Tag for Infrastructure (Switch Generated) Traffic

- Allows stub fabric extender VTEPs to relay VXLAN GBP between static and dynamic VXLAN tunnels

Troubleshooting on the Overlay

- Supports ping over VXLAN for IPv4 and IPv6
- Supports traceroute over VXLAN for IPv4 and IPv6 Services on the Overlay
- Supports RADIUS server over VXLAN for IPv4 and IPv6
- IPv4 DHCP relay over VXLAN for non-default VRF
- Route-leaking to/from default VRF

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

Supports directed broadcast on configured network subnets

Dynamic Host Configuration Protocol (DHCP)

- DHCP services are offered within a client network to simplify network management
- 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

Layer 3 Routing

Static IPv4 routing

Provides simple manually configured IPv4 routing

Sub-interface

- Allows multiple IP addresses on a single routed interface.
- Supports unicast and multicast routing for both IPv4 and IPv6
- Supports OSPF, BGP and PIM for both IPv4 and IPv6
- Supported on RoP, L3 lags and Hydra interfaces
- Network Load Balancing (NLB)
- PBR and Ingress Policy support

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

Configurable OSPF distance for type-5 LSA

Configurable default-metric for OSPF default-information guide

Loopback IP redistribution in OSPF

Allows redistribution of IPv4 and IPv6 addresses of loopback interface in OSPFv2/v3

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

MPLS, L3 VPN PE to CE routing, ECMP

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 use of 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)

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

Generic Routing Encapsulation (GRE)

Enables tunneling traffic from site to site over a Layer 3 path

Security

TAA Compliance

The Aruba CX 8360 with AOS-CX, a TAA compliant product, 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 protect control plane services such as SSH, SNMP, NTP or web servers
- 802.1x, Mac-auth, LUR, DUR, Port-Access Policy, Static Port Filtering
- MAC lockdown, MAC lockout, sticky MAC

Private VLAN

- Enables traffic isolation for users on the same VLAN
- Support for isolated, community and primary VLANs
- VSF, L3-Mcast, IGMP snooping, MLD snooping, ACL/QoS interop, L3 unicast (BGP, IPDB, L3 addressing, static routes)
- VSX support

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

- RADIUS Port-Access (Accounting, Tracking, CoA, v4/v6, Dead Only Server Tracking)

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

- AOS-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
- Dot1x supplicant: support for EAP-TLS

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

MACsec

High level encryption from AES128 and AES256 with 2SAK as well as 4SAK mode of Static Key provisioning enabling secure communication for all traffic on Ethernet links

Multicast

Internet Group Management Protocol (IGMP)

Enables establishing multicast group memberships in IPv4 networks; supports IGMPv1, v2, and v3

Multicast Listener Discovery (MLD)

Enables discovery of IPv6 multicast listeners; supports MLDv1 and v2

ROP Extension for VSX Border Leaf (Centralized/Distributed)



PIM-SSM

- ACL Support to define the PIM-SSM ranges
- VSX, IPv6, IGMPv3 for IPv4, MSDP and PIM-SSM interaction

Anycast RP

Two or more RPs configured with same /32 Host IP address on loopback interfaces. All the downstream routers will be configured to point to Anycast RP address for multicast routes. Device will automatically select the closest RP for each source and receiver. If equal costs routes exist, the process of registering the sources will be shared equally by all the RPs in the network.

Multicast Service Delivery Protocol (MSDP)

Efficiently routes multicast traffic through core networks

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 an MSDP peer in a group receives an 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)

FL and FFL for IGMP/MLD speeds up the process of blocking unnecessary Multicast traffic to a switch port that is connected to end nodes for IGMP. They help to eliminate the CPU overhead of having to generate an IGMP/MLD Group-Specific Query message.

Network Load Balancer (NLB)

- Supported for server applications
- Load balancing technology for server clustering developed on Microsoft Windows Server
- Supports load sharing and redundancy among servers within a cluster

IGMP/MLD Snooping

Prevent flooding of multicast traffic to non-listening ports

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)

Additional information

Green initiative support

Provides support for RoHS (EN 50581:2012) regulations

Korea Government Security Features

- Ensure configuration integrity
- Limit concurrent users for web access

Analytics

- AIOPS - NAE Agent & Engine Improvements – Unicast Routing
- AIOPS - NAE Agent & Engine Improvements – Client Services

Customer first, customer last support

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

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

Aruba Pro Care adds fast access to senior Aruba TAC engineers, who are assigned as a single point of contact for case management, reducing the time spent addressing and resolving issues.

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



Warranty, services and support

Limited Lifetime Warranty

See <https://www.arubanetworks.com/support-services/product-warranties/> for warranty and support information included with your product purchase.

For **Software Releases and Documentation**, refer to <https://asp.arubanetworks.com/downloads>

For **support and services** information, visit <https://www.arubanetworks.com/support-services/arubacare/>

For **global services** information, see <https://www.arubanetworks.com/services/>



SPECIFICATIONS		
	Aruba 8360-48Y6C v2 MACsec Front-to-Back 5 Fans, 2 AC Power Supplies [JL704C]	Aruba 8360-48Y6C v2 MACsec Back-to-Front 5 Fans, 2 AC Power Supplies [JL705C]
I/O ports and slots		
	44 ports of 1GbE/10GbE/25GbE (SFP/SFP+/SFP28) 4 ports of 10GbE/25GbE (SFP+/SFP28) with MACsec 4 ports of 40GbE/100GbE (QSFP+/QSFP28) 2 ports of 40GbE/100GbE (QSFP+/QSFP28) with MACsec	
Additional ports and slots		
Power Supplies	2 field-replaceable and hot-swappable power supplies ¹	
Fans	5 field-replaceable and hot-swappable fans ²	
Management	RJ-45 serial and USB-C console; RJ-45 Ethernet port; USB-Type A	
Physical characteristics		
Physical Dimensions (HxWxD)	1.73in x 17.4in x 22.0in 44.0mm x 442.5mm x 558.8	
Full configuration weight	23.65lb 10.73kgs	
Memory and Processor		
CPU	1.8 GHz 4-core 64-bit	
Memory, Drive and Flash	16GB RAM, 32GB Flash/Storage	
Packet Buffer	32MB	
Performance		
Switching Capacity	4.8Tbps	
MAC Address Table Size	212,992	
IPv4 Host Table	145,780	
IPv6 Host Table	145,780	
IPv4 Unicast Routes	606,977	
IPv6 Unicast Routes	630,784	
Maximum Number of Access Control List (ACL) Entries Ingress	IPv4 65,536, IPv6 16,384, MAC 65,536	
Maximum Number of Access Control List (ACL) Entries Egress	IPv4 8,192, IPv6 2,048, MAC 8,192	

¹ Bundles include the 2 power supplies (2x JL601A in JL704C, 2x JL713A in JL705C, 2x JL600A in JL700A & JL702A, 2x JL712A in JL701A & JL703A)

² Bundles include the 3 fans (5x JL714A in JL704C, 5x JL715A in JL705C, 3x JL714A in JL700A & JL702A and 3x JL715A in JL701A & JL703A)



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Performance		
Maximum VLANs	4,094	
IGMP Groups	7,000	
MLD Groups	7,000	
IPv4 Multicast Routes	7,000	
IPv6 Multicast Routes	7,000	
Environment		
Operating Temperature ³	32°F to 113°F (0°C to 45°C) up to 5000 ft	32°F to 104°F (0°C to 40°C) up to 5000 ft
Operating Relative Humidity	15% to 95% relative humidity at 113°F (45°C), non-condensing	15% to 95% relative humidity at 104°F (40°C), non-condensing
Non-Operating Temperature	-40°C to 70°C (-40°F to 158°F) up to 4.6km (15,000 ft.)	
Non-Operating/ Storage Relative Humidity	15% to 95% at 149°F (65°C) non-condensing	
Maximum Operating Altitude	Up to 10,000ft (3.048Km)	
Maximum Non-Operating Altitude	Up to 15,000ft (4.6Km)	
Primary Airflow	Front-to-Back (Frnt-to-Bck) or Back-to-Front (Bck-to-Front)	
BTU/hr	1,450	1,450
Acoustics ⁴	L _{WAd} = 6.3 Bel L _{pAm} (Bystander) = 45.4 dB	L _{WAd} = 6.4 Bel L _{pAm} (Bystander) = 45.8 dB
Electrical Characteristics		
Frequency	47-63 Hz	
AC Voltage	7.1A for 100-127VAC	100-127V/200-240V
Current	3.4A for 200-240VAC	10A (Low Voltage) / 5A (High Voltage)
Power Consumption	230W Idle Power / 725W Max Power	
Regulatory		
Compliance	Products comply with CE Markings according to directives 2014/30/EU (EMC) and 2014/35/EU (Safety)	
RoHS	EN 50581:2012	

³ Derate -1°C for every 1000 ft from 5000 ft to 10000 ft regardless of airflow direction

⁴ Acoustics measured in 23°C semi-anechoic chamber with a loading of 30% traffic on all ports. Measured in accordance with ISO 7779. Declared in accordance with ISO 9296. Values presented are the Declared A-Weighted Sound Power Level (LWAd) and the mean Bystander A-Weighted Sound Pressure Level (LpAm).



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Safety		
EU	EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 EN62368-1, Ed.2:2014	
North America	UL60950-1, CSA 22.2 No 60950-1	
Worldwide	IEC60950-1:2005 Ed.2 + Am 1:2009 + A2:2013 IEC 62368-1:2014	
EMC		
	EN 55024:2010+A2016/CISPR24:2015 EN55032:2015/CISPR 32, Class A EN55035:2017/CISPR 35 EN61000-3-2:2014, Class A EN61000-3-3:2013 FCC CFR 47 Part 15:2010, Class A ICES-003, Class A VCCI Class A CNS 13438 CNS 13438 Class A	
Laser		
Transceivers	EN60825-1:2014 / IEC 60825-1: 2014 Class 1 Class 1 Laser Products / Laser Klasse 1	
Mounting		
	Mounts in an EIA standard 19-inch rack or other equipment cabinet; horizontal surface mounting only; 2-post and 4-post mounting options available ⁵ ; air duct available for 4-post deployments and sold separately	

⁵ Rack mounting kit must be ordered separately



STANDARDS AND PROTOCOLS

The following standards and protocols are supported.

- CPU DoS Protection
- IEEE 802.1AB-2009
- IEEE 802.1AE MACSEC
- IEEE 802.1AEbn-2011 GCM-AES-256 Cipher Suite
- IEEE 802.1AEbw-2013 Extended Packet Numbering
- IEEE 802.1ak-2007
- IEEE 802.1AX-2008 Link Aggregation
- IEEE 802.1p Priority
- IEEE 802.1p Traffic Class Expediting and Dynamic Multicast Filtering
- IEEE 802.1Q VLANs
- IEEE 802.1s Multiple Spanning Trees
- IEEE 802.1t-2001
- 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 802.3ae 10-Gigabit Ethernet
- IEEE 802.3an 10-GBASE-T-2006
- IEEE 802.3ba 40 and 100 Gigabit Ethernet Architecture
- IEEE 802.3by 25 Gigabit Ethernet-2016
- IEEE 802.3cc 25 Gigabit Ethernet-2017
- IEEE 802.3x Flow Control
- IEEE 802.3z 1000BASE-X
- IEEE 802.3z Gigabit Ethernet
- RFC 1215 Convention for defining traps for use with the SNMP
- RFC 1256 ICMP Router Discovery Messages
- RFC 1350 TFTP Protocol (revision 2)
- RFC 1393 Traceroute Using an IP Option
- RFC 1403 BGP OSPF Interaction
- RFC 1519 CIDR
- RFC 1583 OSPF Version 2
- RFC 1591 Domain Name System Structure and Delegation
- RFC 1657 Definitions of Managed Objects for BGP-4 using SMIv2
- RFC 1757 Remote Network Monitoring Management Information Base
- RFC 1772 Application of the Border Gateway Protocol in the Internet
- RFC 1812 Requirements for IP Version 4 Router
- RFC 1918 Address Allocation for Private 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 2131 DHCP
- RFC 2131 DHCP Options and BOOTP Vendor Extensions
- RFC 2236 IGMP
- RFC 2328 OSPF Version 2
- RFC 2375 IPv6 Multicast Address Assignments
- 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 2439 BGP Route Flap Damping
- RFC 2460 Internet Protocol, Version 6 (IPv6) Specification
- RFC 2464 Transmission of IPv6 over Ethernet Networks
- RFC 2545 Use of BGP-4 Multiprotocol Extensions for IPv6 Inter-Domain Routing
- RFC 2576 Coexistence between SNMP V1, V2, V3)
- RFC 2710 Multicast Listener Discovery (MLD) for IPv6
- RFC 2711 IPv6 Router Alert Option
- 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 3019 MLDv1 MIB
- RFC 3056 Connection of IPv6 Domains via IPv4 Clouds
- RFC 3065 Autonomous System Confederation for BGP
- RFC 3101 OSPF Not-so-stubby-area option
- RFC 3137 OSPF Stub Router Advertisement
- RFC 3176 InMon Corporation's sFlow: A Method for Monitoring Traffic in Switched and Routed Networks
- RFC 3376 IGMPv3
- RFC 3416 (SNMP Protocol Operations v2)
- RFC 3417 (SNMP Transport Mappings)
- RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)
- RFC 3484 Default Address Selection for IPv6
- RFC 3509 Alternative Implementations of OSPF Area Border Routers
- RFC 3623 Graceful OSPF Restart
- RFC 3768 VRRP
- RFC 3810 Multicast Listener Discovery Version 2 (MLDv2) for IPv6
- RFC 3973 PIM Dense Mode
- RFC 4022 MIB for TCP
- RFC 4113 MIB for UDP
- RFC 4213 Basic Transition Mechanisms for IPv6 Hosts and Routers
- RFC 4251 The Secure Shell (SSH) Protocol



- RFC 4252 SSHv6 Authentication
- RFC 4253 SSHv6 Transport Layer
- RFC 4254 SSHv6 Connection
- 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 4419 Key Exchange for SSH
- RFC 4443 ICMPv6
- RFC 4456 BGP Route Reflection: An Alternative to Full Mesh Internal BGP (IBGP)
- RFC 4486 Subcodes for BGP Cease Notification Message
- RFC 4541 IGMP & MLD Snooping Switch
- RFC 4552 Authentication/Confidentiality for OSPFv3
- RFC 4601 PIM Sparse Mode
- RFC 4724 Graceful Restart Mechanism for BGP
- RFC 4750 OSPFv2 MIB [partial support no Set MIB]
- RFC 4760 Multiprotocol Extensions for BGP-4
- RFC 4861 IPv6 Neighbor Discovery
- RFC 4862 IPv6 Stateless Address Auto-configuration
- RFC 4940 IANA Considerations for OSPF
- RFC 5065 Autonomous System Confederation for BGP
- RFC 5095 Deprecation of Type 0 Routing Headers in IPv6
- RFC 5187 OSPFv3 Graceful Restart
- RFC 5340 OSPFv3 for IPv6
- RFC 53492 Capabilities Advertisement with BGP-4
- RFC 5424 Syslog Protocol
- RFC 5519 Multicast Group Membership Discovery MIB (MLDv2 only)
- RFC 5701 IPv6 Address Specific BGP Extended Community Attribute
- RFC 5722 Handling of Overlapping IPv6 Fragments
- RFC 5798 VRRP (exclude Accept Mode and sub-sec timer)
- RFC 5880 Bidirectional Forwarding Detection
- 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 768 User Datagram Protocol
- RFC 783 TFTP Protocol (revision 2)
- RFC 791 IP
- RFC 792 ICMP
- RFC 793 TCP
- RFC 813 Window and Acknowledgement Strategy in TCP
- RFC 815 IP datagram reassembly algorithms
- RFC 8201 Path MTU Discovery for IP version 6
- RFC 826 ARP
- 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

ARUBA CX 8360 V2 SWITCHES AND ACCESSORIES

Aruba CX 8360 Bundles⁶

- JL704C Aruba 8360-48Y6C v2 48p 25G SFP+/28 4 Sec 6p 100G QSFP+/28 2 Sec Frnt-to-Bck 5 Fans 2 AC Bdl⁷
- JL705C Aruba 8360-48Y6C v2 48p 25G SFP+/28 4 Sec 6p 100G QSFP+/28 2 Sec Bck-to-Frnt 5 Fans 2 AC Bdl⁷

Power supply

- JL601A Aruba X391 850W Port-to-Power AC PSU
- JL713A Aruba X391 850W Power-to-Port AC PSU

Accessories

- JL714A Aruba 8360 Port-to-Power Fan
- JL715A Aruba 8360 Power-to-Port Fan

Mounting kit (required when ordering a bundle)

- JL602A Aruba X412 1U Universal 2-post RM Kit
- J9583B Aruba X414 1U Universal 4-post RM Kit

Air duct

- JL716A 4-post Air Duct kit (4-post rack mount kit sold separately. Duct kit is only required when operating above 40degC in a Back to Front installation).

⁶ Bundles include Aruba 8360 switches fully equipped with redundant fan and power supply unit accessories; Rack mounting accessories are not included and shall be ordered separately

⁷ JL704C and JL705C include the 8360-48Y6C base switch [JL719C], which can be purchased as Spare.



Console Cable

- Aruba X2C2 RJ45 to DB9 Console Cable (JL448A)

Transceivers^{8,9}

- Aruba 1G SFP LC SX 500m MMF XCVR (J4858D)
- Aruba 1G SFP LC SX 500m MMF TAA XCVR (JL745A)
- Aruba 1G SFP LC LX 10km SMF XCVR (J4859D)
- Aruba 1G SFP LC LX 10km SMF TAA XCVR (JL746A)
- Aruba 1G SFP LC LH 70km SMF XCVR (J4860D)
- Aruba 1G SFP RJ45 T 100m Cat5e XCVR (J8177D)
- Aruba 1G SFP RJ45 T 100m Cat5e TAA XCVR (JL747A)
- Aruba 10G SFP+ LC SR 300m MMF XCVR (J9150D)
- Aruba 10G SFP+ LC SR 300m MMF TAA XCVR (JL748A)
- Aruba 10G SFP+ LC LR 10km SMF XCVR (J9151E)
- Aruba 10G SFP+ LC LR 10km SMF TAA XCVR (JL749A)
- Aruba 10G SFP+ LC ER 40km SMF XCVR (J9153D)
- Aruba 10GBASE-T SFP+ RJ45 30m Cat6A XCVR (JL563A)
- Aruba 10G SFP+ to SFP+ 1m DAC Cable (J9281D)
- Aruba 10G SFP+ to SFP+ 3m DAC Cable (J9283D)
- HPE (Compute) BLc 10G SFP+ 3m Direct Attach Cable (487655-B21)
- HPE (Compute) BLc 10G SFP+ 5m Direct Attach Cable (537963-B21)
- Aruba 25G SFP28 LC SR 100m MMF Transceiver (JL484A)
- Aruba 25G SFP28 LC eSR 400m MMF Transceiver (JL485A)
- Aruba 25G SFP28 LC LR 10km SMF Transceiver (JL486A)
- Aruba 25G SFP28 to SFP28 0.65m Direct Attach Copper Cable (JL487A)
- Aruba 25G SFP28 to SFP28 3m Direct Attach Copper Cable (JL488A)
- Aruba 25G SFP28 to SFP28 5m Direct Attach Copper Cable (JL4849)
- HPE (Compute) 25G SFP28 to SFP28 3m Direct Attach Cable (844477-B21)
- HPE (Compute) 25G SFP28 to SFP28 5m Direct Attach Cable (844480-B21)
- Aruba 25G SFP28 to SFP28 3m Active Optical Cable (R0M44A)
- Aruba 25G SFP28 to SFP28 7m Active Optical Cable (R0M45A)
- Aruba 25G SFP28 to SFP28 15m Active Optical Cable (R0Z21A)
- Aruba 40G QSFP+ LC BiDi 150m MMF XCVR (JL308A)

- HPE X142 40G QSFP+ MPO SR4 Transceiver (JH231A)
- HPE X142 40G QSFP+ MPO eSR4 300M XCVR (JH233A)
- HPE X142 40G QSFP+ LC LR4 SM Transceiver (JH232A)
- Aruba 40G QSFP+ LC ER4 40km SMF XCVR (Q9G82A)
- 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)
- HPE (Compute) QSFP+ to 4xSFP+ 3m Breakout Direct Attach Cable (721064-B21)
- HPE (Compute) HPE BLc QSFP+ to 4x10G SFP+ AOC 15m Opt (721076-B21)
- Aruba 100G QSFP28 MPO SR4 MMF Transceiver (JL309A)
- Aruba 100G QSFP28 LC LR4 SMF Transceiver (JL310A)
- Aruba 100G QSFP28-QSFP28 1m Direct Attach Copper Cable (R0Z25A)
- Aruba 100G QSFP28-QSFP28 3m Direct Attach Copper Cable (JL307A)
- Aruba 100G QSFP28-QSFP28 5m Direct Attach Copper Cable (R0Z26A)
- Aruba 100G QSFP28 to QSFP28 7m AOC (R0Z27A)
- Aruba 100G QSFP28 to QSFP28 15m AOC (R0Z28A)
- Aruba 100G QSFP28 to QSFP28 30m AOC (R0Z29A)
- HPE (Compute) QSFP28 to 4x25G SFP28 7m AOC (845420-B21)
- HPE (Compute) QSFP28 to 4x25G SFP28 15m AOC (845424-B21)
- HPE (Compute) QSFP28 to 4xSFP28 3m Breakout Direct Attach Cable (845416-B21)⁸

Aruba Central Foundation Licenses

- Aruba Central 8xxx Switch Foundation 1 year Subscription E-STU (R3K03AAE)
- Aruba Central 8xxx Switch Foundation 3 year Subscription E-STU (R3K04AAE)
- Aruba Central 8xxx Switch Foundation 5 year Subscription E-STU (R3K05AAE)
- Aruba Central 8xxx Switch Foundation 7 year Subscription E-STU (R3K06AAE)
- Aruba Central 8xxx Switch Foundation 10 year Subscription E-STU (R3K07AAE)
- Aruba Central On-Premises 8xxx Switch Foundation 1 year Subscription E-STU (R6U88AAE)

⁸ 8360 Series Switches do not support the use of 10G LRM technology, nor 7M 10G DAC lengths

⁹ Consult the ArubaOS-Switch and AOS-CX Transceiver Guide in the Aruba Support Portal for the minimum required software releases to support these transceivers. Guide also provides certain limitations for specific transceivers for use on switch models.



- Aruba Central On-Premises 8xxx Switch Foundation 3 year Subscription E-STU (R6U89AAE)
- Aruba Central On-Premises 8xxx Switch Foundation 5 year Subscription E-STU (R6U90AAE)
- Aruba Central On-Premises 8xxx Switch Foundation 7 year Subscription E-STU (R6U91AAE)
- Aruba Central On-Premises 8xxx Switch Foundation 10 year Subscription E-STU (R6U92AAE)
- For details and complete listing of Aruba Central licensing options, please refer to the Aruba Central Data Sheet.

Aruba Fabric Composer Ordering Information

- Description (SKUs for CX 6400, 8325, 8360, 8400, and 10000 Series Switches)
- Aruba Fabric Composer Device Management Service Tier 4 Switch 1 year Subscription E-STU R7G99AAE
- Aruba Fabric Composer Device Management Service Tier 4 Switch 3 year Subscription E-STU R7H00AAE
- Aruba Fabric Composer Device Management Service Tier 4 Switch 5 year Subscription E-STU R7H01AAE
- Aruba Fabric Composer Device Management Service Tier 4 Switch 7 year Subscription E-STU R7H02AAE
- Aruba Fabric Composer Device Management Service Tier 4 Switch 10 year Subscription E-STU R7H03AAE

Support

- JL700A: 4 Hour Onsite 3 Year (HU7U7E)
- JL701A: 4 Hour Onsite 3 Year (HU7U7E)
- JL702A: 4 Hour Onsite 3 Year (HU7U7E)
- JL703A: 4 Hour Onsite 3 Year (HU7U7E)
- JL706A: 4 Hour Onsite 3 Year (HU7U7E)¹⁰
- JL707A: 4 Hour Onsite 3 Year (HU7U7E)¹⁰
- JL708A: 4 Hour Onsite 3 Year (HU7U7E)
- JL709A: 4 Hour Onsite 3 Year (HU7V9E)
- JL710A: 4 Hour Onsite 3 Year (HU7U7E)
- JL711A: 4 Hour Onsite 3 Year (HU7U7E)
- For Aruba Central hardware only support, 24x7 TAC support, and many other support options, go to Support Services Central SKU lookup tool.

¹⁰ Breakout cable not supported on 8360 48XT4C models JL706A/JL707A (no support for split ports)