HPE Aruba Networking CX 8100 Switch Series

High performance enterprise campus and data center switch

Key features

- High-performance 1.76Tbps and 1,309 Mpps
- Intelligent monitoring and visibility with HPE Aruba Networking 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

Product overview

The HPE Aruba Networking CX 8100 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 1.76 Tbps of capacity, with line-rate Gigabit Ethernet interfaces including support for Smart Rate (1/2.5/5 Gbps), 10Gbps, 25Gbps, 40Gbps, and 100Gbps.

The CX 8100 series includes industry-leading line rate ports with 1/10GbE (SFP/SFP+) and 40/100GbE (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 requiring 1GbE/10GbEwith a mix of fiber and copper ports, and 40/100GbE uplink ports.

Product differentiators

The HPE Aruba Networking CX 8100 switch series is based on AOS-CX, a modern, database-driven operating system that automates and simplifies many critical and complex tasks. The enhanced capabilities of AOS-CX provide a unique set of differentiators for campus and data center switching.

Key features

- AOS-CX automation and programmability using built-in REST APIs and Python scripts
- Advanced Layer 2/3 feature set includes BGP, OSPF, VRF, and IPv6
- Addition of Smart Rate (1/2.5/5/10G) ports on the 8100-40XT8XF4C and 8100-24XT4XF4C

Modular Architecture with native cloud-native AOS-CX

The HPE Aruba Networking CX Operating System (AOS-CX) is a modern, database-driven operating system that automates and simplifies many critical and complex network tasks. Every CX switch includes AOS-CX at no cost and with an active, perpetual set of native features which has everything needed to deploy, connect, and troubleshoot an enterprise network, including:

- HPE Aruba Networking Analytics Engine (NAE)
- Dynamic Segmentation
- High Availability and Resiliency
- Quality of Service (QoS)
- Layer 2 Switching
- Layer 3 Services and Routing
- IP Multicast
- Network Security
- Support for HPE Aruba Networking NetEdit

In addition to the native features available in AOS-CX, we offer an optional, term-based HPE Aruba Networking CX Advanced Feature Pack that unlocks container infrastructure that can host HPE certified applications for flexible and reliable IT services.

For more information, read the HPE Aruba Networking CX Switch License Ordering Guide.

HPE Aruba Networking Central, Cloud-based network 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.

An HPE Aruba Networking Central Advanced license expands these capabilities with premium security and AIOps, including the HPE Aruba Networking Central NetConductor Fabric Wizard and Policy Manager to enable dynamic segmentation and distributed enforcement at a global scale.

Additionally, a Central Advanced subscription enables the CX Advanced Feature Pack so there is no need to separately purchase a CX Advanced Feature Pack. This streamlines operational efficiency, reducing the need for your IT team to keep track of multiple subscriptions, active terms, and renewal dates.

For more information on HPE Aruba Networking Central subscriptions, see the HPE Aruba Networking Central SaaS Subscription Ordering Guide.

HPE Aruba Networking Analytics Engine

AOS-CX includes HPE Aruba Networking 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.

HPE Aruba Networking Virtual Switching Extension

The ability of AOS-CX to maintain synchronous state across dual control planes allows a unique high availability solution called HPE Aruba Networking 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) - HPE Aruba Networking 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 1.76Tbps for bidirectional switching and 1,309 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

Variety of port density options
Four different base models, each sold in two airflow modes: a Front to Back airflow bundle, and Back to Front airflow bundle:

• 8100-48XF4C

+ 48 ports of 1GbE/10GbE\(SFP/SFP+)

+ 4 ports of 40GbE/100GbE (QSFP+/QSFP28)

• 8100-24XT4XF4C

+ 24 ports of 100M/1GbE/10GbE (10GBASE-T)

+ 4 1GbE/10GbE (SFP/SFP+)

+ 4 ports of 40GbE/100GbE (QSFP+/QSFP28)

+ Support Smart Rate (1/2.5/5/10G)

• 8100-24XF4C

+ 24 ports of 1GbE/10GbE (SFP/SFP+)

+ 4 ports of 40GbE/100GbE (QSFP+/QSFP28)

• 8100-40XT8XF4C

+ 40 ports of 100M/1GbE/10GbE (10GBASE-T)

+ 8 1GbE/10GbE (SFP/SFP+)

+ 4 ports of 40GbE/100GbE (QSFP+/QSFP28)

+ Support Smart Rate (1/2.5/5/10G)

All QSFP ports (QSFP+/QSFP28), on the 8100-24XT4XF4C and 8100-24XF4C support optional 4x10G/4x25G break out capability.

There is 1Gbps transceiver support, including 1GBASE-T, on SFP+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, 10G, 25G and 100G 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

Data Center Bridging (DCB)
- Supports lossless Ethernet networking standards to eliminate packet loss due to queue overflow
- Priority Flow Control (PFC) 2 priorities per port
- Enhanced Transmission Service (ETS)
- DCB Exchange Protocol (Pre-standard LLDP DCBX IEEE 1.01 version)

Flow-Control Guard
Prevents accumulation of excessive congestion with periodic flushing. Avoids packets buffering for an extended time period

ECN with slope
Marks packets as ECN-CE (Congestion Experienced). Helps TCP to reduce receive window size during congestion

Advanced lossless pool configuration
Global buffering statistics
Storage Solution Support
iSCSI, Lossless iSCSI, RDMA over Converged Ethernet version 2 (RoCE v1 and v2) and Non-Volatile Memory Express (NVMe over Fabrics)

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

HPE Aruba Networking 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 8 members per LAG with a user-selectable L1- 4 hashing algorithm

Management
In addition to the HPE Aruba Networking CX Mobile App, HPE Aruba Networking NetEdit and HPE Aruba Networking Network Analytics Engine, the 8100 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

IP SLA
- 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

IPFIX
IP Flow Information Export (IPFIX) is an integrated network flow analysis tool that allows to measure flow properties and send flow reports. The switch ASIC supports inline flow accounting of all the packets ingressing the switch. The telemetry can be used for network monitoring and capacity planning.

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

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

LACP-fallback
Enables Zero Touch Provisioning over Link Aggregation Groups

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 1,024 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
- 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 Group-Based Policy (GBP) and Role-based Policies

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

Dual stack support

- 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
- Support for DHCP smart relay

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

Loopback IP redistribution in OSPF
Allows redistribution of IPv4 and IPv6 addresses of loopback interface in OSFPv2/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

Dynamic BGP peering
Simplifies BGP configuration for ZTP scenarios and enables CX for Azure stack integration

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
- 8 way Equal-cost multi-path routing (ECMP)

Generic Routing Encapsulation (GRE) enables tunneling traffic from site to site over a Layer 3 path

Security

TAA compliance
HPE Aruba Networking CX 8100, a TAA compliant product runs AOS-CX, which 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

Port-access security
- 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
- 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

Multicast

Internet Group Management Protocol (IGMP)
Enables establishing multicast group memberships in IPv4 networks; supports IGMPv1, v2, and v3

PIM multicast boundary (v4)
VSX Graceful shutdown for IGMP/MLD
Multicast NSF

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 Rendezvous Point (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 63000:2018) 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 HPE Aruba Networking Support Services. Partner with HPE Aruba Networking product experts to increase your team productivity, keep pace with technology advances, software releases, and obtain break-fix support.

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

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

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

Warranty, services and support
Limited Lifetime Warranty
Visit https://www.arubanetworks.com/support-services/ product-warranties/ for warranty and support information included with your product purchase

HPE Aruba Networking Switch Feature Navigator

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/

Technical specifications

	HPE Aruba Networking 8100 24XF4C 3 Fans, 2 AC Power Supplies [R9W87A (Back to Front)]	HPE Aruba Networking 8100 24XT4XF4C 3 Fans, 2 AC Power Supplies [R9W89A (Back to Front)]	HPE Aruba Networking 8100 48XF4C 3 Fans, 2 AC Power Supplies [R9W91A (Back to Front)]	HPE Aruba Networking 8100 40XT8XF4C 3 Fans, 2 AC Power Supplies [R9W93A (Back to Front)]
I/O ports and slots				
	24 ports of 1GbE/10GbE (SFP/SFP+) 4 ports of 40GbE/100GbE (QSFP+/QSFP28)	24 ports of 100M/1/2.5/5/10GbE/ 10BaseT 4 ports of 1/GbE/10GbE (SFP/SFP+) 4 ports of 40GbE/100GbE (QSFP+/QSFP28)	48 ports of 1GbE/10GbE (SFP/SFP+) 4 ports of 40GbE/100GbE (QSFP+/QSFP28)	40 ports of 100M/1/2.5/5/10GbE/ 10BaseT 8 ports of 1/GbE/10GbE (SFP/SFP+) 4 ports of 40GbE/100GbE (QSFP+/QSFP28
Additional ports and slots				
Power supplies	2 field-replaceable and hot-swappable power supplies[1]			
Fans	3 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 16.0in (4.4cm x 44.25cm x 40.64cm)			
Full configuration weight	18.0 lbs (8.16 kg)	18.3 lbs (8.30 kg)	18.5 lbs (8.39 kg)	18.9 lbs (8.57 kg)
Memory and processor				
CPU	1.8 GHz 4-core 64-bit			
Memory and flash	16GB RAM, 32GB Flash/Storage			
Packet buffer	32MB			
Performance				
Switching capacity	1.28 Tbps/952 Mpps	1.36 Tbps/1,011 Mpps	1.76 Tbps/1,309 Mpps	1.76 Tbps/1,309 Mpps
MAC address table size	147,456			
IPv4 host table	65,636			
IPv6 host table	65,636			
IPv4 unicast routes	24,576			
IPv6 unicast routes	12,288			
Maximum number of Access Control List (ACL) entries ingress	IPv4 16,384, IPv6 4,096 , MAC 16,384			
Maximum number of Access Control List (ACL) entries egress	IPv4 2,048 , IPv6 512, MAC 2,048			
Maximum VLANs	1,024			
IGMP groups	4,096			
MLD groups	4,096			
IPv4 multicast routes	4,096			
IPv6 multicast routes	4,096			

1 Bundles include the 2 power supplies (2xJL712A in R9W87A, R9W89A, R9W91A, and R9W93A)

2 Bundles include the 3 fans (3x JL715A in R9W87A, R9W89A, R9W91A, and R9W93A)

Technical specifications

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Environment				
Operating temperature[3]	32°F to 104°F (0°C to 40°C) up to 5000 ft			
Operating relative humidity	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			
Max operating altitude	Up to 10,000ft (3.048Km)			
Max non-operating altitude	Up to 15,000ft (4.6Km)			
Primary airflow	Back to Front			
Heat dissipation#	1275 BTU/hr	1364 BTU/hr	1535 BTU/hr	1705 BTU/hr
Acoustic[4]	L_{WAd} = 5.9 Bel L_{pAm} (Bystander) = 41.2 dB	L_{WAd} = 6.6 Bel L_{pAm} (Bystander) = 47.7 dB	L_{WAd} = 6.3 Bel L_{pAm} (Bystander) = 44.9 dB	L_{WAd} = 6.8 Bel L_{pAm} (Bystander) = 49.3 dB
Electrical characteristics				
Frequency	47-63 Hz			
AC voltage current	100-127V – 7.1 A for 100-127VAC 200-240V – 3.4A for 200-240VAC			
Power consumption (230 VAC)	120W Idle Power / 375W Max Power	120W Idle Power / 400W Max Power	120W Idle Power / 450W Max Power	120 W Idle Power / 500W Max Power
Regulatory				
Compliance	Products comply with CE Markings according to directives 2014/30/EU (EMC) and 2014/35/EU (Safety)			
RoHS	EN 63000:2018			
Safety				
EU	EN62368-1, Ed.2:2014 EN62368-1, Ed.3:2020			
North America	UL62368-1, CSA 22.2 No 62368-1			
Worldwide	IEC 62368-1:2014 IEC 62368-1:2018			

[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 50% traffic on all ports. Measured in accordance with ECMA 74. Declared in accordance with ECMA 109. Values presented are the Declared A-Weighted Sound Power Level (LWAd) and the mean Bystander A-Weighted Sound Pressure Level (LpAm).

BTU/hr is derived from the max power

Technical specifications

	HPE Aruba Networking 8100 24XF4C 3 Fans, 2 AC Power Supplies [R9W87A (Back to Front)]	HPE Aruba Networking 8100 24XT4XF4C 3 Fans, 2 AC Power Supplies [R9W89A (Back to Front)]	HPE Aruba Networking 8100 48XF4C 3 Fans, 2 AC Power Supplies [R9W91A (Back to Front)]	HPE Aruba Networking 8100 40XT8XF4C 3 Fans, 2 AC Power Supplies [R9W93A (Back to Front)]
EMC				
		EN55032:2015/CISPR 32, Class A FCC CFR 47 Part 15:2018, Class A ICES-003, Class A CNS 13438 Class A KN32 Class A VCCI Class A AS/NZS CISPR 32 Class A EN55035:2017/CISPR 35 EN/IEC 61000-4-2 EN/IEC 61000-4-3 EN/IEC 61000-4-4 EN/IEC 61000-4-5 EN/IEC 61000-4-6 EN/IEC 61000-4-8 EN/IEC 61000-4-11 EN/IEC 61000-3-2:2019 EN/IEC 61000-3-3:2013		
Laser				
		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]			

[5] Rack mounting kit must be ordered separately

Technical specifications

	HPE Aruba Networking 8100 24XF4C 3 Fans, 2 AC Power Supplies [R9W86A (Front to back)]	HPE Aruba Networking 8100 24XT4XF4C 3 Fans, 2 AC Power Supplies [R9W88A (Front to back)]	HPE Aruba Networking 8100 48XF4C 3 Fans, 2 AC Power Supplies [R9W90A (Front to back)]	HPE Aruba Networking 8100 40XT8XF4C 3 Fans, 2 AC Power Supplies [R9W92A (Front to back)]
I/O ports and slots				
	24 ports of 1GbE/10GbE (SFP/SFP+) 4 ports of 40GbE/100GbE (QSFP+/QSFP28)	24 ports of 100M/1/2.5/5/10GbE/10BaseT 4 ports of 1/GbE/10GbE (SFP/SFP+) 4 ports of 40GbE/100GbE (QSFP+/QSFP28)	48 ports of 1GbE/10GbE (SFP/SFP+) 4 ports of 40GbE/100GbE (QSFP+/QSFP28)	40 ports of 100M/1/2.5/5/10GbE/10BaseT 8 ports of 1/GbE/10GbE (SFP/SFP+) 4 ports of 40GbE/100GbE (QSFP+/QSFP28
Additional ports and slots				
Power supplies	2 field-replaceable and hot-swappable power supplies[6]			
Fans	3 field-replaceable and hot-swappable fans[7]			
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 16.0in (4.4cm x 44.25cm x 40.64cm)			
Full configuration weight	18.0 lbs (8.16 kg)	18.3 lbs (8.30 kg)	18.5 lbs (8.39 kg)	18.9 lbs (8.57 kg)
Memory and processor				
CPU	1.8 GHz 4-core 64-bit			
Memory and flash	16GB RAM, 32GB Flash/Storage			
Packet buffer	32MB			
Performance				
Switching capacity	1.28 Tbps/952 Mpps	1.36 Tbps/1,011 Mpps	1.76 Tbps/1,309 Mpps	1.76 Tbps/1,309 Mpps
MAC address table size	147,456			
IPv4 host table	65,536			
IPv6 host table	65,536			
IPv4 unicast routes	24,576			
IPv6 unicast routes	12,288			
Maximum number of Access Control List (ACL) entries ingress	IPv4 16,384, IPv6 4,096 , MAC 16,384			
Maximum number of Access Control List (ACL) entries egress	IPv4 2,048 , IPv6 512, MAC 2,048			
Maximum VLANs	1,024			
IGMP groups	4,096			
MLD groups	4,096			
IPv4 multicast routes	4,096			
IPv6 multicast routes	4,096			

[8] Derate 1°C for every 1000 ft from 5000 ft to 10000 ft regardless of airflow direction

[6] Bundles include the 2 power supplies (2xJL600A in R9W86A, R9W88A, R9W90A and R9W92A)

[7] Bundles include the 3 fans (3xJL714A in R9W86A, R9W88A, R9W90A & R9W92A)

Technical specifications

	HPE Aruba Networking 8100 24XF4C 3 Fans, 2 AC Power Supplies [R9W86A (Front to back)]	HPE Aruba Networking 8100 24XT4XF4C 3 Fans, 2 AC Power Supplies [R9W88A (Front to back)]	HPE Aruba Networking 8100 48XF4C 3 Fans, 2 AC Power Supplies [R9W90A (Front to back)]	HPE Aruba Networking 8100 40XT8XF4C 3 Fans, 2 AC Power Supplies [R9W92A (Front to back)]
Environment				
Operating temperature[8]	32°F to 104°F (0°C to 40°C) up to 5000 ft			
Operating relative humidity	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			
Max operating altitude	Up to 10,000ft (3.048Km)			
Max non-operating altitude	Up to 15,000ft (4.6Km)			
Primary airflow	Front-to-Back			
BTU/hr[#]	1275	1364	1535	1705
Acoustic[9]	L_{WAd} = 6.3 Bel L_{pAm} (Bystander) = 45.8 dB	L_{WAd} = 6.6 Bel L_{pAm} (Bystander) = 48.0 dB	L_{WAd} = 6.4 Bel L_{pAm} (Bystander) = 46.6 dB	L_{WAd} = 6.6 Bel L_{pAm} (Bystander) = 47.9 dB
Electrical characteristics				
Frequency	47-63 Hz			
AC voltage current	100-127V – 7.1 A for 100-127VAC 200-240V – 3.4A for 200-240VAC			
Power consumption (230 VAC)	120W Idle Power / 375W Max Power	120W Idle Power / 400W Max Power	120W Idle Power / 450W Max Power	120 W Idle Power / 500W Max Power
Regulatory				
Compliance	Products comply with CE Markings according to directives 2014/30/EU (EMC) and 2014/35/EU (Safety)			
RoHS	EN 63000:2018			
Safety				
EU	EN62368-1, Ed.2:2014 EN62368-1, Ed.3:2020			
North America	UL62368-1, CSA 22.2 No 62368-1			
Worldwide	IEC 62368-1:2014 IEC 62368-1:2018			

[9] Acoustics measured in 23°C semi-anechoic chamber with a loading of 50% traffic on all ports. Measured in accordance with ECMA 74. Declared in accordance with ECMA 109. Values presented are the Declared A-Weighted Sound Power Level (LWAd) and the mean Bystander A-Weighted Sound Pressure Level (LpAm).

[#] BTU/hr is derived from the max power

Technical specifications

	HPE Aruba Networking 8100 24XF4C 3 Fans, 2 AC Power Supplies [R9W86A (Front to back)]	HPE Aruba Networking 8100 24XT4XF4C 3 Fans, 2 AC Power Supplies [R9W88A (Front to back)]	HPE Aruba Networking 8100 48XF4C 3 Fans, 2 AC Power Supplies [R9W90A (Front to back)]	HPE Aruba Networking 8100 40XT8XF4C 3 Fans, 2 AC Power Supplies [R9W92A (Front to back)]
EMC				
	EN55032:2015/CISPR 32, Class A FCC CFR 47 Part 15:2018, Class A ICES-003, Class A CNS 13438 Class A KN32 Class A VCCI Class A AS/NZS CISPR 32 Class A EN55035:2017/CISPR 35 EN/IEC 61000-4-2 EN/IEC 61000-4-3 EN/IEC 61000-4-4 EN/IEC 61000-4-5 EN/IEC 61000-4-6 EN/IEC 61000-4-8 EN/IEC 61000-4-11 EN/IEC 61000-3-2:2019 EN/IEC 61000-3-3:2013			
Laser				
	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[10]			

[10] 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 802.1ak-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 802.3ab 1000BASE-T
- IEEE 802.3ad Link Aggregation Control Protocol (LACP)
- IEEE 802.3ae 10-Gigabit Ethernet
- IEEE 802.3an 10-GBASE-T-2006
- IEEE 802.3by 25 Gigabit Ethernet
- IEEE 802.3bz 2.5GBASE-T and 5GBASE-T
- IEEE 802.3cc 25 Gigabit Ethernet
- IEEE 802.3ba 40/100-Gigabit Ethernet
- IEEE 802.3cd 50-Gigabit Ethernet
- IEEE 802.3bj-100 Gigabit Ethernet
- 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-overoIPv4 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

HPE Aruba Networking CX 8100 switches and accessories

HPE Aruba Networking CX 8100 bundles[12]

- R9W86A HPE Aruba Networking 8100 24x10G SFP+ 4x40/100G QSFP28 Front-to-Back Airflow 3Fan 2ACPSU Bdl[13, 17]
- R9W87A HPE Aruba Networking 8100 24x10G SFP+ 4x40/100G QSFP28 Back-to-Front Airflow 3Fan 2ACPSU Bundle[13, 17]
- R9W88A HPE Aruba Networking 8100 24x10G Base-T 4x10G SFP+ 4x40/100G QSFP28 Front-to-Back Airflow 3Fan 2ACPSU Bdl[14, 17]
- R9W89A HPE Aruba Networking 8100 24x10G Base-T 4x10G SFP+ 4x40/100G QSFP28 Back-to-Front Airflow 3Fan 2ACPSU Bdl[14, 17]
- R9W90A HPE Aruba Networking 8100 48x10G SFP+ 4x40/100G QSFP28 Front-to-Back Airflow 3Fan 2ACPSU Bdl[15, 17, 18]
- R9W91A HPE Aruba Networking 8100 48x10G SFP+ 4x40/100G QSFP28 Back-to-Front Airflow 3Fan 2ACPSU Bdl[15, 17, 18]
- R9W92A HPE Aruba Networking 8100 40x10G Base-T 8x10G SFP+ 4x40/100G QSFP28 Front-to-Back Airflow 3Fan 2ACPSU Bdl[16, 17, 18]
- R9W93A HPE Aruba Networking 8100 40x10G Base-T 8x10G SFP+ 4x40/100G QSFP28 Back-to-Front Airflow 3Fan 2ACPSU Bdl[16, 17, 18]

Power supply

- JL600A HPE Aruba Networking X391 550W Port to Power AC Power Supply unit
- JL712A HPE Aruba Networking X391 550W Power to Port AC Power Supply unit

Accessories

- JL714A HPE Aruba Networking X741 Port to Power Airflow Fan unit
- JL715A HPE Aruba Networking X741 Power to Port Airflow Fan unit

[12] HPE Aruba Networking Central support in future release 12 8100 bundles include redundant fan, redundant power supply, and a 2-post rack kit. 4-post rack kit must be ordered separately.

[13] R9W86A and R9W87A include the 8100-24XF4C base switch [R9W94A] which can be purchased as spare

[14] R9W88A and R9W89A include the 8100-24XT4XF4C base switch [R9W95A] which can be purchased as spare

[15] R9W90A and R9W91A include the 8100-48XF4C base switch [R9W96A] which can be purchased as spare

[16] R9W92A and R9W93A include the 8100-40XT8XF4C base switch [R9W97A] which can be purchased as spare

[17] 8100 Series Switches do not support the use of 10G LRM technology, nor 7M 10G DAC lengths

[18] Breakout cable not supported on 8100 48XF4C and 40XT8XF4C models R9W90A/R9W91A/R9W92A/R9W93A/R9W96A/R9W97A (no support for split ports)

Base unit spares (fans, PS not included)

- R9W94A HPE Aruba Networking 8100 24x10G SFP+ 4x40/100G QSFP28 Switch[17]
- R9W95A HPE Aruba Networking8100 24x10G Base-T 4x10G SFP+ 4x40/100G QSFP28 Switch[17]
- R9W96A HPE Aruba Networking 8100 48x10G SFP+ 4x40/100G QSFP28 Switch[17, 18]
- R9W97A HPE Aruba Networking 8100 40x10G Base-T 8x10G SFP+ 4x40/100G QSFP28 Switch[17, 18]
- Mounting kit (switch bundles include a 2-post rack kit.
- 4-post RM kits must be ordered separately if required).
- JL602A HPE Aruba Networking X412 1U Universal 2-post RM Kit
- J9583B HPE Aruba Networking X414 1U Universal 4-post RM Kit

Console cables

- HPE Aruba Networking USBA-RJ45 PIN3TX-6RX Cable(R8Z87A)
- HPE ANW USB-A to RJ45 PC-to-Switch Cable(R9G48B)
- HPE Aruba Networking USB-A to USB-C PC-to-Switch Cable(R9J32A)
- HPE Aruba Networking USB-C to USB-C PC-to-Switch Cable(R9J33A)

Transceivers17,18,19

- HPE Aruba Networking1G SFP LC SX 500m MMF XCVR (J4858D)
- HPE Aruba Networking 1G SFP LC SX 500m MMF TAA XCVR (JL745A)
- HPE Aruba Networking 1G SFP LC LX 10km SMF XCVR (J4859D)
- HPE Aruba Networking 1G SFP LC LX 10km SMF TAA XCVR (JL746A)
- HPE Aruba Networking 1G SFP LC LH 70km SMF XCVR (J4860D)
- HPE Aruba Networking 1G SFP RJ45 T 100m Cat5e XCVR (J8177D)
- HPE Aruba Networking 1G SFP RJ45 T 100m Cat5e TAA XCVR (JL747A)
- HPE Aruba Networking 10G SFP+ LC SR 300m MMF XCVR (J9150D)
- HPE Aruba Networking 10G SFP+ LC SR 300m MMF TAA XCVR (JL748A)
- HPE Aruba Networking 10G SFP+ LC LR 10km SMF XCVR (J9151E)
- HPE Aruba Networking 10G SFP+ LC LR 10km SMF TAA XCVR (JL749A)
- HPE Aruba Networking 10G SFP+ to SFP+ 1m DAC Cable (J9281D)
- HPE Aruba Networking 10G SFP+ to SFP+ 3m DAC Cable (J9283D)
- HPE Aruba Networking 10GBASE-T SFP+ RJ45 30m Cat6A XCVR (JL563B)
- HPE (Compute) BLc 10G SFP+ 3m Direct Attach Cable (487655-B21)
- HPE (Compute) BLc 10G SFP+ 5m Direct Attach Cable (537963-B21)
- 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)
- 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 Aruba Networking 40G QSFP+ to QSFP+ 7m AOC (R0Z22A)
- HPE Aruba Networking 40G QSFP+ to QSFP+ 15m AOC (R0Z23A)
- HPE Aruba Networking 40G QSFP+ to QSFP+ 30m AOC (R0Z24A)
- HPE Aruba Networking 40G QSFP+ LC BiDi 150m MMF XCVR (JL308A)
- HPE Aruba Networking 40G QSFP+ LC ER4 40km SMF XCVR (Q9G82A)
- HPE Aruba Networking 100G QSFP28 MPO SR4 MMF Transceiver (JL309A)
- HPE 100G QSFP28 BiDi 100m LC MM XCVR (845972-B21)
- HPE Aruba Networking 100G QSFP28 LC FR1 2km SMF XCVR (R9B63A)
- HPE Aruba Networking 100G QSFP28 LC CWDM4 2km SMF XCVR (R0Z30A)
- HPE Aruba Networking 100G QSFP28 LC LR4 SMF Transceiver (JL310A)
- HPE (Compute) QSFP+ to 4xSFP+ 3m Breakout Direct Attach Cable (721064-B21)[18]
- HPE (Compute) HPE BLc QSFP+ to 4x10G SFP+ AOC 15m Opt (721076-B21)[18]
- HPE (Compute) QSFP28 to 4xSFP28 3m Breakout Direct Attach Cable (845416-B21)[18]
- HPE (Compute) QSFP28 to 4x25G SFP28 7m AOC (845420-B21)[18]
- HPE (Compute) QSFP28 to 4x25G SFP28 15m AOC (845424-B21)[18]
- HPE Aruba Networking 100G QSFP28-QSFP28 1m Direct Attach Copper Cable (R0Z25A)
- HPE Aruba Networking 100G QSFP28-QSFP28 3m Direct Attach Copper Cable (JL307A)
- HPE Aruba Networking 100G QSFP28-QSFP28 5m Direct Attach Copper Cable (R0Z26A)
- HPE Aruba Networking 100G QSFP28 to QSFP28 2m AOC (JL856A)
- HPE Aruba Networking 100G QSFP28 to QSFP28 7m AOC (R0Z27A)
- HPE Aruba Networking 100G QSFP28 to QSFP28 15m AOC (R0Z28A)
- HPE Aruba Networking 100G QSFP28 to QSFP28 30m AOC (R0Z29A)
- HPE Aruba Networking 200G QSFP-DD to 2xQSFP28 100G 3m AOC (R9B60A)[20]
- HPE Aruba Networking 200G QSFP-DD to 2xQSFP28 100G 7m AOC (R9B58A)[20]
- HPE Aruba Networking 200G QSFP-DD to 2xQSFP28 100G 15m AOC (R9B62A)[20]
- HPE Aruba Networking 200G QSFP-DD to 2xQSFP28 100G 30m AOC (R9B61A)[20]
- HPE Aruba Networking 200G QSFP-DD to 2xQSFP28 100G 50m AOC (R9B59A)[20]
- HPE (Compute) QSFP28 to SFP28 Adapter (845970-B21)

[19] Consult the HPE Aruba Networking OS-Switch and AOS-CX Transceiver Guide in the HPE Aruba Networking 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.

[20] QSFP28 end supported on the QSFP28 ports on the 8100

HPE Aruba Networking CX advanced feature packs

- HPE Aruba Networking CX Soft 8/9xxx Sw Adv 1y E-STU (S0T87AAE)
- HPE Aruba Networking CX Soft 8/9xxx Sw Adv 3y E-STU (S0T88AAE)
- HPE Aruba Networking CX Soft 8/9xxx Sw Adv 5y E-STU (S0T89AAE)
- HPE Aruba Networking CX Soft 8/9xxx Sw Adv 7y E-STU (S0T90AAE)
- HPE Aruba Networking CX Soft 8/9xxx Sw Adv 10y E-STU (S0T86AAE)

HPE Aruba Networking Central CX Switch subscription SKUs

- HPE Aruba Networking Central 8xxx/9xxx/10xxx Switch Foundation 1 year Subscription E-STU (R3K03AAE)
- HPE Aruba Networking Central 8xxx/9xxx/10xxx Switch Foundation 3 year Subscription E-STU (R3K04AAE)
- HPE Aruba Networking Central 8xxx/9xxx/10xxx Switch Foundation 5 year Subscription E-STU (R3K05AAE)
- HPE Aruba Networking Central 8xxx/9xxx/10xxx Switch Foundation 7 year Subscription E-STU (R3K06AAE)
- HPE Aruba Networking Central 8xxx/9xxx/10xxx Switch Foundation 10 year Subscription E-STU (R3K07AAE)
- HPE Aruba Networking Central On-Premises 8xxx Switch Foundation 1 year Subscription E-STU (R6U88AAE)
- HPE Aruba Networking Central On-Premises 8xxx Switch Foundation 3 year Subscription E-STU (R6U89AAE)
- HPE Aruba Networking Central On-Premises 8xxx Switch Foundation 5 year Subscription E-STU (R6U90AAE)
- HPE Aruba Networking Central On-Premises 8xxx Switch Foundation 7 year Subscription E-STU (R6U91AAE)
- HPE Aruba Networking Central On-Premises 8xxx Switch Foundation 10 year Subscription E-STU (R6U92AAE)

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

HPE Aruba Networking CX 8100 support options

24 port switch options

- 4 Hour Onsite 3 Year (H83Q3E)
- NBD 3 Year (H83P8E)
- SBD Onsite 3 Year (H83Q1E)
- HPE Aruba Networking 8100 24XF4C FB 3F2AC (R9W86A)
- HPE Aruba Networking 8100 24XF4C BF 3F2AC (R9W87A)
- HPE Aruba Networking 8100 24XT4XF4C FB 3F2AC (R9W88A)
- HPE Aruba Networking 8100 24XT4XF4C BF 3F2AC (R9W89A)

40/48 port switches options

- 4 Hour Onsite 3 Year (H84A4E)
- NBD 3 Year (H83Z9E)
- SBD Onsite 3 Year (H84A2E)
- HPE Aruba Networking 8100 48XF4C FB 3F2AC (R9W90A)
- HPE Aruba Networking 8100 48XF4C BF 3F2AC (R9W91A)
- HPE Aruba Networking 8100 40XT8XF4C FB 3F2AC (R9W92A)
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