Aruba R8N87A

Datasheet

Product Overview

- The HPE Aruba Networking CX 6000 Series is a modern family of entry-level access switches built to deliver simple, secure, and reliable wired connectivity.

- Ideal for branch offices, midsize businesses, and small enterprises, it supports users, IoT endpoints, and cloud-connected services at the edge.

- With gigabit access ports, integrated 1GbE uplinks, and high PoE power options, it supplies both data and power to access points, cameras, and smart devices.

- A powerful ASIC and the HPE Aruba Networking CX Switch OS provide low-latency forwarding, unified features, and a consistent experience across CX platforms.

- Flexible management through Aruba Central, MultiEdit, Web GUI, and CLI streamlines deployment, monitoring, and lifecycle operations for IT teams.

- Designed for today's mobile and IoT-driven networks, the CX 6000 prepares your access layer for future growth while keeping cost and complexity under control.

Product Highlights

- **Simplified Access Switching:** Modern Layer 2 entry-level switch platform delivers reliable, cost-effective gigabit wired access for users and devices in branch and SMB networks.

- **High-Power PoE and Uplinks:** Built-in 1GbE uplinks and up to 740W Class 4 PoE let you connect and power access points, IP cameras, phones, and IoT endpoints without extra power gear.

- **Compact, Silent Deployment Options:** Fanless 8-port and 12-port models are ideal for space-constrained or noise-sensitive areas such as retail counters, small offices, and meeting rooms.

- **Flexible, SDN-Ready Management:** Manage via Aruba Central, MultiEdit, Web GUI, or CLI, and integrate with software-defined workflows using REST APIs for automation and programmability.

Detailed Features

R8N87A

Component	Specification
Switching Capacity	56 Gbps
Forwarding Rate	41.6 Mpps
Downlink Ports	24 × 10/100/1000BASE-T
Uplink Ports	4 × 1G SFP
PoE Budget	370W Class 4 PoE/PoE+

Entry-Level Enterprise Access

As an entry-level Layer 2 access switch, the HPE Aruba Networking CX 6000 Series provides reliable gigabit Ethernet connectivity for branch offices and SMB networks. It is designed to extend enterprise-class wired access to cost-sensitive sites without sacrificing stability or essential security and management features.

Consistent CX Operating System

The series runs the HPE Aruba Networking CX Switch Operating System, shared across Aruba CX platforms. This unified OS brings a consistent CLI, monitoring, and policy model, simplifying operations for IT teams managing mixed CX environments and enabling standardized configuration practices across sites.

Rich Layer 2 Feature Set

CX 6000 switches offer a full set of Layer 2 capabilities, including VLANs, static routing for simple inter-VLAN use cases, access control lists, robust QoS, traffic prioritization, sFlow, and IPv6 support. These features help segment traffic, enforce policy, and maintain performance for critical business applications.

Right-Sized Hardware Options

Multiple fixed-port models, including 8, 12, 24, and 48-port 1U variants, allow right-sizing of access deployments. Built-in 1GbE uplinks and up to 740W of Class 4 PoE power let you match port density and power budgets to site requirements, from small remote offices to dense wiring closets.

License-Free Simplicity

The CX 6000 Series eliminates ongoing software licensing or subscription requirements for basic switching functionality. This reduces total cost of ownership and simplifies budget planning, making it attractive for organizations that need predictable, low-overhead access switching.

AI-Ready Performance Architecture

A dedicated ASIC architecture delivers very low latency, deep packet buffering, and optimized power consumption. This design is well suited to AI-driven analytics traffic, Wi-Fi 7 backhaul, and dense IoT deployments, ensuring stable performance even under bursty or mixed workloads.

PoE and Uplink Optimization

Models supporting up to 740W IEEE 802.3at Class 4 PoE with 30W per port can power full stacks of wireless APs, IP cameras, and smart sensors from a single switch. Up to four built-in wire-speed 1GbE uplinks help prevent bottlenecks at the access layer, maintaining efficient aggregation to the distribution network.

Automated, Unified Management

The series integrates with HPE Aruba Networking Central and Switch Multi-Edit Software for centralized, automated configuration and monitoring. Features such as colorless ports with local user roles and local MAC authentication (LMA), plus REST APIs for SDN, reduce manual tasks during adds, moves, and changes across wired, wireless, and WAN domains.

Technical Specifications

Product Specifications

Feature	Value
Differentiator	Class 4 PoE/PoE+
Power consumption (Max. Power w/o PoE)	32.7W
Power consumption (Max. Power w/ PoE)	455W
Input voltage range 1	100–127 VAC
Input voltage range 2	200–240 VAC
Downlink ports	24 x 10/100/1000BASE-T ports
Uplink ports	4 x 1 G SFP ports
PoE standards supported 1	IEEE 802.3af
PoE standards supported 2	IEEE 802.3at
Console interface	1 x USB-C console port
USB host interface	1 x USB Type-A host port

Feature	Value
Latency at 1 Gbps	1 Gbps: 1.5 µSec
Switching capacity	56 Gbps
Throughput	41.6 Mpps
CPU Model	Dual-core Arm® Cortex-A9 @ 1016 MHz
CPU Cores	Dual-core
CPU Frequency	1016 MHz
System Memory	4 GB DDR3
Flash Storage	16 GB eMMC
PoE capability	370W Class 4 PoE/PoE+
Management platforms	Management flexibility with support for HPE Aruba Networking Central, easy-to-use Web GUI, CLI, and HPE Aruba Networking Switch Multi-Edit Software
Operating temperature range 1	Maximum of 32°F to 113°F (0°C to 45°C) up to 5000 ft (1.5 km)
Operating temperature derating	derate -1°C for every 1000 ft (305 m) from 5000 ft (1.5 km) to 10000 ft (3.0 km)
Weight	4.2 kg
Product dimensions (H)	4.4 cm
Product dimensions (W)	44.2 cm
Product dimensions (D)	26.8 cm

Product Comparison

Feature	R8N87A	C1000-24FP-4X-L	C9300L-48PF-4G-E
Product Type	Entry-level Layer 2 access switch	Gigabit Layer 2/Layer 3 lite access switch	Stackable enterprise Layer 3 access switch
Fixed Ports	24 × 10/100/1000BASE-T + 4 × 1G SFP	24 × 10/100/1000BASE-T PoE+ + 4 × 10G SFP+	48 × 10/100/1000BASE-T PoE+ + 4 × 1G SFP
Switching Capacity	56 Gbps	56 Gbps (typical for 24-port Gigabit)	104 Gbps (typical for 48-port models)
PoE Budget	370W Class 4 PoE/PoE+	Full PoE+ on all 24 ports (up to approx. 370–740W model dependent)	High PoE+ budget supporting 48 ports (up to approx. 740W)
Management Features	Aruba Central, Web GUI, CLI, Multi-Edit, REST APIs	Cisco Web UI, CLI, SNMP, basic Smart management	Cisco IOS XE, Web UI, CLI, SNMP, NETCONF/ RESTCONF, advanced automation

Feature	R8N87A	C1000-24FP-4X-L	C9300L-48PF-4G-E
Routing Support	Layer 2 with static routing	Layer 2 with limited static routing	Full Layer 3 including static and dynamic routing (model dependent)
Stacking Capability	Not supported (standalone only)	Not supported (standalone only)	Supported virtual stacking for simplified management
Target Deployment	SMB/branch access, PoE for APs and IoT	SMB access, simple PoE+ for phones and APs	Medium to large enterprise access with higher scale and services

Accessories

Category	Accessories
Included Accessories	- Power cord - Rack mounting kit - Quick Installation Guide
Optional Accessories	- SFP transceivers (1G SFP modules) - Replacement power cord and regional plug options - Cable management accessories

Support & Warranty

24/7 Online Service	**3-Year Premium Warranty**	**Professional Technical Support**	**100% Low Price Guarantee**	**100% Quality Assurance**	**100% Money Back Guarantee**

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References

[1] Hewlett Packard Enterprise. (2023). HPE Aruba Networking CX 6000 Switch Series Datasheet (R8N87A). Retrieved from https://www.hpe.com/psnow/doc/PSN1014138707IEEN.pdf