

# Aruba R8N89A

## Datasheet



## Product Overview

- Aruba CX 6000 Series is a modern entry-level Layer 2 access switch family, designed to deliver simple, secure, and reliable wired connectivity.
- Ideal for branch offices, mid-sized businesses, and small enterprises needing dependable access for users, IoT endpoints, and critical devices.
- Powered by an Aruba ASIC and Aruba CX operating system, it delivers consistent performance, low latency, and efficient operations across the access layer.
- Built-in 1GbE uplinks and generous PoE budgets support security cameras, wireless access points, and a wide range of IoT devices.
- Flexible management through Aruba Central, Web GUI, CLI, and automation tools makes deployment and ongoing operations straightforward.
- With compact, fanless options and enterprise-grade features, CX 6000 helps future-proof access networks for cloud, mobile, and IoT workloads.

## Product Highlights

- **Simplified Access Connectivity:** Modern Layer 2 access design delivers entry-level yet reliable and convenient wired connectivity for small and medium networks.
- **High-Power PoE and Uplinks:** Integrated 1GbE uplinks and up to 740W of Class 4 PoE easily power APs, IP cameras, and diverse IoT devices at the edge.
- **Compact Fanless Options:** 8-port and 12-port fanless models fit quiet or space-constrained sites while maintaining enterprise-grade feature sets.
- **Flexible Management Choices:** Operate via Aruba Central, Switch MultiEdit, intuitive Web GUI, or standard CLI, and stay ready for software-defined networking.

## Detailed Features



R8N89A

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Component	Specification
Ports	12 × 10/100/1000BASE-T + 2 × 1G SFP + 2 × 1 GbE
PoE Budget	139W Class 4 PoE/PoE+
Switching Capacity	32 Gbps, 23.8 Mpps
Hardware Resources	Dual-core Arm Cortex-A9, 4 GB DDR3, 16 GB eMMC
Dimensions & Weight	4.4 × 25.4 × 25.5 cm, 2.8 kg



## Entry-Level Enterprise Access

The Aruba CX 6000 Series delivers true enterprise-class Layer 2 access at an entry-level price point. It offers Gigabit Ethernet connectivity and optional PoE, allowing small and midsize organizations to standardize on one platform across branch offices and SMB environments. Consistent Aruba CX software across the portfolio simplifies training, configuration templates, and ongoing lifecycle operations.

## Rich Layer 2 Feature Set

CX 6000 switches provide a complete Layer 2 feature set for secure and deterministic access networks. Support for static routing enables simple Layer 3 gateways at the edge, while ACLs, robust QoS, and traffic prioritization ensure that voice, video, and business-critical applications receive the right treatment. Built-in sFlow and IPv6 support help operators monitor and scale modern dual-stack networks with confidence.

## Right-Sized Model Options

The series includes 8, 12, 24, and 48-port 1U models, letting customers match port density and PoE capability to each site. Integrated 1GbE uplinks eliminate the need for separate uplink modules and reduce total cost and complexity. With PoE budgets up to 740W on select models, the platform can power dense deployments of APs, phones, and cameras from a single switch.

## Low-Latency ASIC Architecture

CX 6000 is built on a dedicated Aruba ASIC that delivers very low latency and optimized packet buffering, which is important for real-time and AI-driven workloads at the edge. The hardware design balances performance with power efficiency, supporting AI, Wi-Fi 7, and IoT scenarios without overprovisioning. Up to four built-in wire-speed 1GbE uplinks eliminate bottlenecks between access and aggregation layers.

## High-Power Class 4 PoE

Selected CX 6000 models support up to 740W of IEEE 802.3af/at Class 4 PoE, with up to 30W available per port. This allows full power delivery to next-generation wireless APs, PTZ cameras, and sensor gateways from one compact chassis. Intelligent PoE allocation ensures power is used efficiently while still meeting the startup and runtime demands of attached devices.

## Centralized Cloud Management

The series integrates tightly with Aruba Central to provide unified wired, wireless, and WAN management from a single cloud console. Operators can deploy zero-touch provisioning, apply consistent policies, and gain end-to-end visibility across branches. This reduces the time and skill required to roll out new sites or adapt networks to evolving business needs.

## Automated Configuration at Scale

Aruba Switch Multi-Edit introduces template-based automation and bulk configuration capabilities. Network engineers can push changes to many CX 6000 switches at once, with built-in validation to verify policy conformance after updates. Combined with an easy-to-use Web GUI and standard CLI, this approach streamlines both day-0 deployment and day-2 moves, adds, and changes.

## SDN-Ready with REST APIs

CX 6000 is prepared for software-defined networking environments through comprehensive REST APIs. These APIs expose fine-grained control of configuration and monitoring, enabling integration with orchestration tools, custom scripts, or third-party systems. Features like colorless ports with local user roles and local MAC authentication support dynamic, policy-based access without manual port-by-port tuning.

# Technical Specifications

## Product Specifications

Feature	Value
Differentiator	Class 4 PoE/PoE+
Power consumption (Max. Power w/o PoE)	Max. Power (w/o PoE): 21.9W
Power consumption (Max. Power w/ PoE)	Max. Power (w/ PoE): 170W
Input voltage Range	100–127 VAC / 200–240 VAC
10/100/1000BASE-T Ports	12 x 10/100/1000BASE-T ports
SFP Ports	2 x 1 G SFP ports
Additional 1 GbE Ports	2 x 1 GbE ports



Feature	Value
PoE Standards Supported	IEEE 802.3af, 802.3at
Console Port	1 x USB-C console port
USB Host Port	1 x USB Type-A host port
Latency at 1 Gbps	1 Gbps: 2.3 µSec
Switching capacity	32 Gbps
Throughput	23.8 Mpps
CPU Model	CPU: Dual-core Arm® Cortex-A9 @ 1016 MHz
System Memory	Memory: 4 GB DDR3
Flash Storage	Flash: 16 GB eMMC
PoE capability Budget	139W Class 4 PoE/PoE+
Management features	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	Maximum of 32°F to 113°F (0°C to 45°C) up to 5000 ft (1.5 km) derate -1°C for every 1000 ft (305 m) from 5000 ft (1.5 km) to 10000 ft (3.0 km)
Weight	2.8 kg
Product dimensions	4.4 x 25.4 x 25.5 cm

## Product Comparison

Feature	R8N89A	JL709A	C9200L-24P-4X-E
Product Type	Entry-level Gigabit Layer 2 access switch	Enterprise Gigabit access switch	Enterprise Gigabit Layer 3 access switch
Fixed Ports	12 × 10/100/1000BASE-T + 2 × 1G SFP + 2 × 1 GbE	Typically 24 × 10/100/1000BASE-T + 4 × 1G/10G uplinks*	24 × 10/100/1000BASE-T + 4 × 10G SFP+ uplinks
PoE Capability	139W Class 4 PoE/PoE+	Higher PoE budget options on selected models*	445W PoE+ (full 30W on all 24 ports)
Switching Capacity	32 Gbps	Higher switching capacity, suitable for larger access rings*	128 Gbps
Layer Features	Layer 2 with static routing, ACLs, QoS, IPv6	Layer 2/Light L3 depending on model*	Full Layer 3 with advanced routing and mGig options on family
Management	Aruba Central, Web GUI, CLI, Multi-Edit	Aruba Central, AirWave, Web, CLI*	Cisco DNA Center, Web UI, CLI, SNMP



Feature	R8N89A	JL709A	C9200L-24P-4X-E
Target Deployment	SMB branches, small offices, light IoT	Branch/SMB and campus access*	Medium to large enterprise campus access
Redundancy/ Stacking	No dedicated hardware stacking	VSF stacking on some Aruba models*	Stacking with StackWise-160 for resiliency

## Accessories

Category	Accessories
Included Accessories	<ul style="list-style-type: none"> <li>- AC Power Cord</li> <li>- Rack Mount Kit (ear brackets and screws)</li> <li>- Quick Installation Guide</li> </ul>
Optional Accessories	<ul style="list-style-type: none"> <li>- 1G SFP Transceivers (SX/LX)</li> <li>- External Grounding Kit</li> <li>- USB Console Cable</li> </ul>



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## References

[1] Hewlett Packard Enterprise. (2023). HPE Aruba Networking CX 6000 Switch Series R8N89A Technical Specifications. Retrieved from <https://www.hpe.com/psnow/doc/PSN1014132928WWEN.pdf>