Aruba R8S91A

Datasheet

Product Overview

- HPE Aruba Networking CX 6300 Series delivers modern, flexible, cloud-native stackable switches for dynamic networks.

- It is designed for access, aggregation, and data center ToR deployment, suiting enterprises, campuses, and edge computing users.

- Gen7 ASIC delivers high throughput, low latency, and support for up to 10-unit VSF stacking with non-blocking performance.

- Advanced features include high-speed built-in uplinks, robust IEEE 802.3bt PoE, and HPE Smart Rate multi-gigabit Ethernet.

- Seamless management with Central, Multi-Edit Software, and a mobile app simplifies configuration, deployment, and monitoring.

- The CX 6300 boosts operational agility, future-proofs capacity, and supports unified wired and wireless access for growing digital businesses.

Product Highlights

- **Rich Layer 3 & Layer 2 Options:** Supports advanced L3 protocols like BGP, OSPF, EVPN, VXLAN, and robust security with MACsec 256 encryption.

- **Flexible MultiGigabit Access:** Features HPE Smart Rate ports (1/2.5/5/10 GbE), full PoE up to 90W per port, and stackable Layer 2-only models for cost-effective scalability.

- **High-Speed Uplinks & Bandwidth:** Offers built-in 10/25/40/50/100 GbE uplinks and up to 400 Gbps stacking bandwidth for high-throughput needs.

- **Unified Management & Segmentation:** Centralized control via Aruba Central, with Dynamic Segmentation for secure and simple user and IoT access.

Detailed Features

R8S91A

Quote | Help

Component	Specification
Switching Capacity	880 – 1760 Gbps
Stacking Bandwidth	200 – 400 Gbps per switch
Uplink Ports	10/25/40/50/100 GbE built-in
PoE Support	IEEE 802.3bt, up to 90W per port
Management	Aruba Central, Multi-Edit, CX mobile app

Fully Distributed Architecture

The CX 6300 Series uses Gen7 ASICs with wirespeed switching and routing for ultra-low latency, enhanced packet buffering, and adaptive power use. This structure meets bandwidth-intensive applications' needs and yields optimal reliability.

Flexible High-Speed Stacking

Arubas Virtual Switching Framework (VSF) provides stacking of up to 10 switches, with up to 400 Gbps throughput per switch. Front plane stacking enables fast network expansion and simple management for dynamic enterprise environments.

Powerful Multi-Gigabit PoE

Models offer dense Smart Rate 1/2.5/5/10GbE ports supporting Class 4/6/8 PoE, up to 90W per port. With 720W, 1440W, and 2880W options, you can power APs and IoT devices efficiently at scale.

Scalable Layer 2 Options

CX 6300L delivers L2-only stackable access switches with static routing, allowing budget-friendly, high-capacity, and scalable access deployment for growing campus or branch sites.

Integrated Real-Time Analytics

Built-in Network Analytics Engine (NAE) provides real-time performance monitoring, time series data storage, and network insights, empowering quick troubleshooting and improved network health.

Automation & Intelligent Ops

Automation features include switch-wide configuration via Multi-Edit Software, validation, deployment, and audit. CLI, Python agents, and REST APIs ensure fast and policy-compliant changes with minimal manual effort.

Unified Cloud-Driven Management

Aruba Central integrates wired, wireless, and WAN management via single control point, offering expanded AI ops and dynamic segmentation to handle even mission-critical environments simply.

Dynamic User & Device Segmentation

Automated device profiling and role-based access policiesplus VXLAN-to-VRF mappingenable fine-grained control and security, supporting multi-tenancy and flexible scaling across deployments.

Technical Specifications

Product Specifications

Feature	Value
Switching Capacity	880 – 1760 Gbps
Stacking Bandwidth	200 – 400 Gbps per switch
Uplink Port Types	10/25/40/50/100 GbE
PoE Support	IEEE 802.3bt, Class 4/6/8, up to 90W/port
Stacking Support	Up to 10 switches via VSF
Management Options	Aruba Central, Multi-Edit, CLI, REST API
Analytics	Built-in Network Analytics Engine (NAE)
Operating System	Cloud-native, fully programmable
Deployment Scenarios	Access, Aggregation, Data Center ToR
Power Options	720W/1440W/2880W PoE budget
Security	MACsec 256, Device Profiling, Role-based Access
Supported Protocols	BGP, OSPF, EVPN, VXLAN, VRF
Mobile App	Supported for provisioning and management

Feature	Value
Access Ports	HPE Smart Rate, MultiGigabit Ethernet
Cost-Efficiency	Static L2 routing available (CX 6300L)
Configuration Tools	Multi-Edit Software, Policy Validation
Visualization	Real-time, network state analytics
AI/ML Supported	Enhanced with Aruba Central AI tools
Automation	Policy conformance, network-wide changes
Platform Scalability	Designed for future growth

Product Comparison

Feature	R8S91A	C1-WSC3850-24XUL	C1-N9K-C9272Q
Switching Capacity	880 – 1760 Gbps	640 Gbps	5.76 Tbps
Stacking Bandwidth	200 – 400 Gbps	480 Gbps	Not supported
Uplink Ports	10/25/40/50/100 GbE built-in	4 × 10G SFP+	Up to 72 × 40/100G QSFP
PoE Support	802.3bt, up to 90W/port	PoE+, up to 30W/port	Not supported
Stackable Units	Up to 10 via VSF	Up to 9	Not stackable
Layer 3 Support	BGP, OSPF, EVPN, VXLAN, VRF	RIP, OSPF, EIGRP, BGP	OSPF, BGP, VRF, VXLAN
Management	Aruba Central, Multi-Edit, Mobile App	Web UI, CLI, SNMP	NX-OS, CLI, API
AI/Analytics	Built-in NAE, AI Ops via Central	Not supported	Telemtry, analytics via NX-OS
Target Deployment	Access/Aggregation/Data Center	Campus/Enterprise	Data Center Core/ Aggregation

Accessories

Category	Accessories
Included Accessories	- Power Adapter - Mounting Bracket - Quick Installation Guide

Category	Accessories
Optional Accessories	- SFP Transceiver - Stack Module - Redundant Power Supply

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. (2024). Aruba CX 6300 Switch Series Data Sheet. Retrieved from https://www.hpe.com/psnow/doc/PSN1014655836WWEN.pdf?jumpid=in_pdp-psnow-dds