

Aruba 6300M 12p Class8 PoE and 36p Class6 PoE HPE Smart Rate 1G/2.5G/5G and 2p 50G and 2p 10G Switch (R8S91A)



What's new

- Stackable Layer 3 switches with BGP, EVPN, VXLAN, VRF, and OSPF with robust security and QoS. Now supporting MACsec 256, PTP, AVB and LRM.
- High performance 880 Gbps system switching capacity, 660 MPPS of system throughput and up to 200 Gbps stacking bandwidth.
- Series includes full density HPE Smart Rate (1/2.5/5GbE) multi-gigabit and up to 90W PoE, SFP+ model and switch bundle with power-to-port airflow for data center 1GbE ToR and OOBM deployments.
- Built-in high speed 10GbE/25GbE/50GbE uplinks (50GbE

Overview

The Aruba CX 6300 Switch Series is a modern, flexible, and intelligent family of AOS-CX stackable switches ideal for access, aggregation, and data center top-of-rack (TOR) deployments. With a cloud-centric design that combines a fully programmable OS with the Aruba Network Analytics Engine, the Aruba CX 6300 extends industry-leading monitoring and troubleshooting capabilities to the access layer. Support of Aruba NetEdit and the Aruba CX Mobile App verify that configurations are flawless and easy to deploy.

A powerful Aruba Gen7 ASIC architecture delivers fast, non-blocking performance, meaning your network is ready for tomorrow's unpredictable demands. Aruba Virtual Stacking Framework (VSF) allows for stacking of up to 10 switches, providing scale and simplified

for DAC connectivity only) with intelligent monitoring and visibility via Aruba Network Analytics Engine.

- Manage via single pane of glass with Aruba Central across wired, wireless, and WAN.

Aruba Dynamic Segmentation enables enhanced security and simple access for users and IoT.

- New Aruba Data Center Networking Solution SKU (R9F63A) for HPE integrated and mixed use HPE compute, storage and Aruba networking configuration and deployments.

management. This flexible series has built-in highspeed uplinks and supports high density IEEE 802.3bt high power PoE with HPE Smart Rate multi-gigabit Ethernet for high speed APs and IoT devices.

Features

Automation and Analytics

The Aruba CX 6300 Switch Series delivers unparalleled visibility with built-in analytics for real-time monitoring and troubleshooting to help fix problems faster. The Aruba Network Analytics Engine (NAE) automatically interrogates and analyzes events that can impact network health.

Advanced telemetry and automation provide the ability to easily identify and troubleshoot network, system, application and security related issues easily, through the use of Python agents and REST APIs.

The Time Series Database (TSDB) stores configuration and operational state data, making it available to quickly resolve network issues.

Aruba NetEdit support provides automation that allows for rapid network-wide changes, and helps ensure policy conformance post network updates.

Performance and Power

The Aruba CX 6300 Switch Series uses a fully distributed architecture with Aruba Gen7 ASICs that deliver very low latency, increased packet buffering, and adaptive power consumption. All switching and routing are wire-speed to meet the demands of bandwidth-intensive applications.

Aruba Virtual Switching Framework (VSF) allows you to quickly grow your network using high performance front plane stacking. Four built-in QSFP28 ports support speeds of 1GbE, 10GbE, 25GbE, and 50GbE (50GbE for DAC connectivity only) for a total of up to 200 Gbps of stacking throughput per switch.

Deploy wireless access points and IoT devices with Aruba CX 6300 models that offer high density HPE Smart Rate multi-gigabit Ethernet with 60W PoE on every port for a total of 2880W of PoE.

48 port switch bundle with power-to-port airflow designed for top-of-rack (TOR) and out-of-band-management (OOBM) data center deployments.

Smarter Segmentation

The Aruba CX 6300 Switch Series supports Aruba Dynamic Segmentation that automatically applies and enforces user, device, and application-aware policies on Aruba wired and wireless infrastructures.

Automated device profiling, role-based access control, and Layer 7 firewall features deliver enhanced visibility and performance for a better overall experience for both IT and end-users alike.

Switch-to-switch tunnels enable scalable multi-tenancy support with VXLAN to VRF mapping, while allowing policy application via user roles.

New Aruba Data Center Networking Solution SKUs for HPE

Hewlett Packard Enterprise and Aruba offer customers highly differentiated pre-engineered IT infrastructure solutions that span a wide variety HPE compute, storage, networking that span virtualization, vSAN, HCI, HPC, MCS, Microsoft, SAP HANA, VMware, Nutanix application and IaaS service offerings.

Aruba 10/25 and 40/100G CX switches can be deployed as part of these

solutions and is often designed into these integrated solutions along with HPE ProLiant DL/DX servers, SimpliVity, Nimble, Synergy, Cray Shasta, Cray ClusterStor, Superdome Flex and HPE GreenLake.

These ready-to-deploy, integrated IT data center solutions help simplify and speed IT service delivery while reducing the time, risk, and expertise needed to deploy complex solutions.

Use these new tracking SKUs (R9FXXX) when Aruba CX switches are included in HPE integrated and mixed compute, storage and networking configuration and deployments.

Technical specifications

Aruba 6300M 12p Class8 PoE and 36p Class6 PoE HPE Smart Rate 1G/2.5G/5G and 2p 50G and 2p 10G Switch

Product Number	R8S91A
Differentiator	<p>Aruba 6300M 12p Class8 PoE and 36p Class6 PoE HPE Smart Rate 48x ports HPE Smart Rate 100M/1G/2.5G/5G BaseT Class 8 PoE ports supporting up to 90W per port (on port 1-12), and up to 60W per port (on ports 13-48) 2x 10G/25G/50G SFP ports 2x 1/10G SFP ports (LRM + MACSEC) Supports PoE Standards IEEE 802.3af, 802.3at and 802.3bt (up to 90W) 1x USB-C Console Port 1x RJ Console Port 1x OOBM port 1x USB Type A Host port 1x Bluetooth dongle to be used with CX Mobile App</p>
Ports	<p>48x ports SmartRate 100M/1G/2.5G/5G BaseT Class 8 PoE ports supporting up to 90W per port (on port 1-12), and up to 60W per port (on ports 13-48) 2x 10G/25G/50G SFP ports 2x 1/10G SFP ports (LRM + MACSEC) Supports PoE Standards IEEE 802.3af, 802.3at and 802.3bt (up to 90W) 1x USB-C Console Port 1x RJ Console Port 1x OOBM port 1x USB Type A Host port 1x Bluetooth dongle to be used with CX Mobile App</p>
Memory and processor	<p>Quad Core ARM Cortex™ A72 @ 1.8GHz, 8 GBytes DDR4 32 GBytes eMMC 8 MB Shared Packet Buffer Memory</p>
Latency	<p>1Gbps: 4.24µSec, 10Gbps: 1.50µSec, 25Gbps: 2.91µSec, 50Gbps: 3.49µSec</p>
Throughput	660 Mpps
Routing/switching capacity	880 Gbps
Switching capacity	Up to 880 Gbps, depending on model and configuration
PoE capability	Max PoE Power: 2880W
Stacking capabilities	Up to 10 switches per stack
Management features	<p>Aruba AirWave Aruba Central Network Management Aruba NetEdit Command-line interface SNMP v2c/v3 RMON</p>
Power supply name	<p>2 field-replaceable, hotswappable power supply slots 1 minimum power supply required (ordered separately) Supported PSUs JL086A JL087A JL670A JL758A *new Max PoE Power: 2880W</p>
Input voltage	<p>JL670A PSU: 110V-120V/208V-240V JL086A PSU: 100V-240V JL087A PSU: 110V-240V</p>

Power consumption

With JL086A PSU:
 Hibernation (0 rpm fan): 39W
 Idle: 104W
 100% Traffic Rate: 168W
 With JL087A PSU:
 Hibernation (0 rpm fan): 41W
 Idle: 104W
 100% Traffic Rate: 168W
 With JL670A PSU:
 Hibernation (0 rpm fan): 37W
 Idle: 113W
 100% Traffic Rate: 179W

Product dimensions (metric)

4.4 x 44.2 x 38.5 cm

Weight

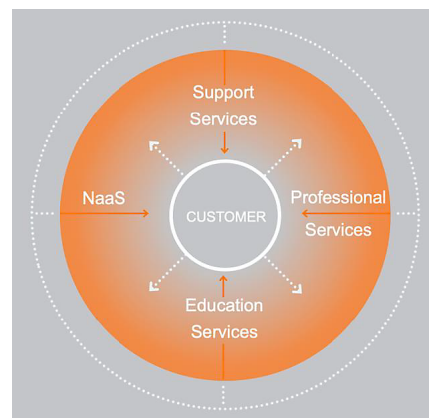
6.71 kg

For additional technical information, available models and options, please reference the [QuickSpecs](#)

Aruba Global Services

Aruba Global Services simplifies and accelerates the network technology lifecycle, enabling your network to scale with better predictability and cost-effectiveness. Whether you operate your own network and need to improve your IT efficiencies or you want to offload some of the burden, we have the services you need to reach your goals.

Learn more about what Aruba Global Services has to offer at: arubanetworks.com/services/



Support Services from Aruba

Support services reduce complexity and increase your team’s productivity, ensuring you keep pace with technology advances and software releases, and obtain break-fix support required to keep your network running. Access to premium services means you have the right help at the right time.

Professional Services from Aruba

With deep intellectual capital and purpose-built tools, our team delivers a range of standard and custom professional services designed to accelerate your value from Aruba technology.

QuickStart Services include:

- Planning, audit and assessment
- Intelligent Operations
- Architecture review and design

Proactive Engineering Services include:

- Customer Experience Management
- Deployment, migration, and knowledge transfer
- Network optimization

Our [Education Services](#) allow your team to come up to speed quickly.

Aruba Network as-a-Service (NaaS)

Our NaaS solution, Aruba Managed Connectivity Services, part of the HPE GreenLake services family, simplifies network operations, accelerates equipment handling, and increases the value of your Aruba network. If you need expert guidance and automation-based operations for your team, please explore the NaaS approach from Aruba [here](#).

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