Aruba JL076A

Datasheet

Product Overview

- Aruba 3810M JL076A is an advanced stackable access switch, built for high-density Gigabit and multi-gigabit campus networks with PoE+.

- Ideal for wired access in enterprises, schools, healthcare, and branch offices that need reliable PoE for APs, phones, and IP surveillance.

- It offers 40x 10/100/1000 PoE+ ports, 8x HPE Smart Rate multi-gigabit ports, and up to 480 Gbps switching capacity for demanding traffic.

- Differentiated by built-in MACsec on access and Smart Rate ports, plus flexible 10GbE/40GbE uplinks via the modular expansion slot.

- Centralized management, stacking support, and out-of-band management simplify deployment and day-two operations in distributed sites.

- JL076A delivers secure, low-latency access for Wi-Fi 6 backhaul, collaboration, and real-time applications across modern digital workplaces.

Product Highlights

- **High-Density PoE+ Access:** 40 RJ-45 autosensing 10/100/1000 PoE+ ports deliver power and data for APs, IP phones, and cameras, reducing cabling and powering separate devices in campus and branch networks.

- **Multi-Gigabit Smart Rate Ports:** 8 RJ-45 HPE Smart Rate multi-gigabit ports provide higher bandwidth for Wi-Fi 6/6E access points and high-performance endpoints, ensuring investment protection and future-ready edge capacity.

- **Flexible Uplink Expansion:** One open module slot supports up to 4 SFP+ 10GbE or 2x 40GbE uplink ports, allowing scalable aggregation and core connectivity as traffic and business needs grow.

- **Secure, Low-Latency Performance:** MACsec support on key ports, IPv6 Ready certification, and low forwarding latency combine to deliver secure, responsive access switching for real-time and critical enterprise services.

Detailed Features

JL076A

Component	Specification
Port Density	40 × 10/100/1000 PoE+ + 8 × HPE Smart Rate RJ-45
Uplink Expansion	1 module slot, up to 4 × SFP+ or 2 × 40GbE
Switching Capacity	480 Gb/s switching, 508 Gb/s fabric
Throughput	Up to 273.8 Mpps (64-byte packets)
Dimensions	1U, 4.39 × 44.25 × 43.13 cm

High-Density PoE+ and Multi-Gigabit Access

JL076A integrates 40 autosensing 10/100/1000 PoE+ ports and 8 HPE Smart Rate multi-gigabit ports in a 1U form factor, ideal for dense AP, IP phone, and camera deployments. PoE+ support based on IEEE 802.3at ensures sufficient power for most edge devices, while Smart Rate ports deliver higher speeds to Wi-Fi 6 APs and high-performance workstations without rewiring.

Flexible Uplink and Stacking Options

The switch includes an open module slot that supports either up to four SFP+ 10GbE ports or two 40GbE uplink ports, enabling flexible aggregation to distribution or core layers. A dedicated stacking module slot allows building a resilient stack, simplifying management and scaling performance horizontally as user counts and traffic volumes increase across campus networks.

Robust Performance and Low Latency

With a routing and switching capacity of 480 Gb/s and a switch fabric speed of 508 Gb/s, JL076A handles high volumes of traffic at the access layer. Latency figures under 2.8 µs at 1G, under 1.8 µs at 10G, and 1.5 µs at 40G help keep real-time applications such as voice, video, and VDI responsive, even under load, across wired and wireless access domains.

Secure Access with MACsec Support

MACsec is supported on ports 140 and on Smart Rate ports 18, enabling link-layer encryption between the switch and connected devices. This protects against eavesdropping and man-in-the-middle attacks on critical access links, supporting compliance in sectors such as finance, government, and healthcare, while preserving performance and operational simplicity.

Advanced Hardware and Memory Architecture

JL076A uses P2020 Dual Core @ 1.2 GHz with 4 GB DDR3 SDRAM and 1 GB SD Card, as well as Dual ARM Cortex A9 @ 1 GHz with 2 GB DDR3 SDRAM, paired with a 13.5 MB internal packet buffer. This hardware design supports concurrent services, large MAC and routing tables, and smooth handling of bursty traffic patterns without packet loss in demanding enterprise environments.

Scalable L2/L3 Forwarding Resources

The switch supports up to 64,000 MAC addresses, 10,000 IPv4 routes, and 5,000 IPv6 routes, making it suitable for medium and large campus deployments with segmented VLANs and dual-stack networks. IPv6 Ready certification ensures compatibility with modern IP schemes, and the large table sizes help maintain efficient forwarding in complex multi-VLAN designs with many clients and gateways.

Resilient Power and Cooling Design

Two power supply slots allow redundant PSU deployment for higher availability, with at least one power supply ordered separately. The device ships with a JL088A fan tray installed and supports replacement of spares when needed. This modular power and fan design reduces downtime, simplifies field service, and supports continuous operation in mission-critical wiring closets.

Enterprise-Grade Environmental Endurance

Operating temperature from 0°C to 45°C and humidity from 15% to 95% noncondensing at 40°C suit typical indoor telecom racks and equipment rooms. Support for up to 10,000 ft (3 km) altitude, along with controlled acoustic levels of 49 dB power and 31.5 dB pressure, makes JL076A appropriate for campus IDFs, MDFs, and branch cabinets where noise and environmental conditions must be managed.

Technical Specifications

Product Specifications

Feature	Value
Type	Aruba 3810M 40G 8 HPE Smart Rate PoE+ 1-slot Switch
Included accessories	1 Aruba 3810 Switch Fan Tray (JL088A)
I/O ports and slots - 10/100/1000 PoE+ ports	40 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+);
I/O ports and slots - Duplex	Duplex: 10BASE-T/100BASETX: half or full; 1000BASE-T: full only;
I/O ports and slots - MACSec on 10/100/1000 ports	Ports 1 - 40 support MACSec

Feature	Value
I/O ports and slots - HPE Smart Rate ports	8 RJ-45 HPE Smart Rate Multi-Gigabit ports;
I/O ports and slots - MACSec on Smart Rate ports	Ports 1 - 8 support MACSec
I/O ports and slots - module slots	1 open module slots
I/O ports and slots - uplink module support	Supports a maximum of 4 SFP+ ports or 2 40GbE ports, with optional module
Additional ports and slots - stacking	1 stacking module slot
Additional ports and slots - console port	1 RJ-45 serial console port
Additional ports and slots - OOB management	1 RJ-45 out-of-band management port
Additional ports and slots - dual-personality	1 dual-personality (RJ-45 or USB micro-B)
Power supplies - slots	2 power supply slots
Power supplies - minimum requirement	1 minimum power supply required (ordered separately)
Fan tray - included	Includes: 1 x JL088A
Fan tray - slot	1 fan tray slot
Fan tray - shipping note	Switch ships with 1 JL088A fan tray installed. Spares ordered separately.
Physical characteristics - dimensions metric	Dimensions (H x W x D): 4.39 x 44.25 x 43.13 cm
Physical characteristics - dimensions imperial	(1.73 x 17.42 x 16.98 in) (1U height)
Memory and processor - CPU 1	P2020 Dual Core @ 1.2 GHz
Memory and processor - memory 1	4 GB DDR3 SDRAM
Memory and processor - storage 1	1 GB SD Card
Memory and processor - CPU 2	Dual ARM Coretex A9 @ 1 GHz
Memory and processor - memory 2	2 GB DDR3 SDRAM
Memory and processor - packet buffer	Packet buffer size: 13.5 MB Internal
Mounting and enclosure - rack mounting	Mounts in an EIA-standard 19 in.
Mounting and enclosure - cabinet	telco rack or equipment cabinet (hardware included); Horizontal surface mounting only
Performance - IPv6 certification	IPv6 Ready Certified
Performance - latency 1000 Mb	1000 Mb Latency: < 2.8 µs (FIFO 64-byte packets)
Performance - latency 10 Gb/s	10 Gb/s Latency: < 1.8 µs (FIFO 64-byte packets)
Performance - latency 40 Gb/s	40 Gb/s Latency: 1.5 µs (FIFO 64-byte packets)
Performance - throughput	Throughput: Up to 273.8 Mp/s (64-byte packets)

Feature	Value
Performance - routing/switching capacity	Routing/Switching capacity:480 Gb/s
Performance - switch fabric speed	Switch fabric speed:508 Gb/s
Performance - routing table IPv4	Routing table size: 10000 entries (IPv4)
Performance - routing table IPv6	Routing table size: 5000 entries (IPv6)
Performance - MAC address table	MAC address table size: 64000 entries
Environment - operating temperature	Operating temperature: 0°C to 45°C (32°F to 113°F)
Environment - operating humidity	Operating relative humidity: 15% to 95% @ 40°C (104°F), noncondensing
Environment - storage temperature	Nonoperating/Storage temperature: -40°C to 70°C (-40°F to 158°F)
Environment - storage humidity	Nonoperating/Storage relative humidity: 15% to 90% @ 65°C (149°F), noncondensing
Environment - altitude	Altitude: Up to 10,000 ft (3 km)
Environment - acoustic power	Acoustic: Power: 49 dB
Environment - acoustic pressure	Acoustic: Pressure: 31.5 dB

Product Comparison

Feature	JL076A	JL625A	C9300L-48P-4G-E
Product Series	Aruba 3810M access switch	Aruba CX access/ aggregation switch	Cisco Catalyst 9300L access switch
Fixed Downlink Ports	40 × 10/100/1000 PoE+ + 8 × HPE Smart Rate	48 × multi-rate or 1G ports (model-dependent)	48 × 10/100/1000 PoE+ copper
Uplink Options	1 module slot, up to 4 × 10GbE SFP+ or 2 × 40GbE	Fixed 10G/25G SFP+ uplinks (model-dependent)	4 × 1G SFP uplink ports
Switching Capacity	480 Gb/s switching, 508 Gb/s fabric	Higher switching capacity for larger campus cores	Up to 176 Gbps switching capacity
Routing Features	Layer 3 with IPv4/IPv6 routing tables (10K/5K entries)	Advanced L3, modern Aruba CX OS capabilities	Full L3 with Cisco IOS XE and rich routing
PoE Capability	PoE+ across 40 × 10/100/1000 ports	PoE/PoE+ options, depending on SKU	Full 48-port PoE+ support
Stacking Support	Dedicated stacking module slot	Virtual switching/stacking supported	StackWise stacking supported
Target Deployment	High-density secure access with multi-gigabit AP backhaul	Next-gen Aruba CX deployments and aggregation	Enterprise access for Cisco-centric networks

Accessories

Category	Accessories
Included Accessories	- JL088A fan tray (pre-installed) - Rack mounting hardware kit - Console cable and basic documentation
Optional Accessories	- Redundant power supplies (ordered separately) - 10GbE/40GbE uplink modules (SFP+/QSFP+) - SFP/SFP+ optical transceivers and DAC cables

Support & Warranty

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References

[1] Aruba. (n.d.). Aruba 3810M 40G 8 HPE Smart Rate PoE+ 1-slot Switch (JL076A) Technical Specifications. Retrieved from https://www.hpe.com/psnow/doc/a00135896enw