Aruba JL681A

Datasheet

Product Overview

- Aruba Instant On 1930 Series switches deliver smart-managed Gigabit connectivity for SMBs that need reliable, secure, always-on networking.

- Ideal for cafés, retail shops, design studios and startups that must support many mobile users, IP cameras and POS or IoT devices.

- JL681A offers 8x 10/100/1000 PoE copper ports plus 2x 1G SFP uplinks, built-in security and performance tuned for voice and video traffic.

- Advanced features like Layer 2+ switching, traffic segmentation, and access control lists help protect small business networks without extra licenses.

- Cloud portal, mobile app and local web GUI provide flexible deployment, easy monitoring and remote troubleshooting from any location.

- Designed for growing SMEs, JL681A simplifies wired access, powers key devices, and keeps critical applications running smoothly and securely.

Product Highlights

- **Compact Smart-Managed Design:** JL681A is part of the Aruba Instant On 1930 smart-managed Layer 2+ Gigabit switch family, giving small businesses enterprise-grade features in an 8-port PoE model.

- **High-Power PoE for Edge Devices:** Delivers up to 124 W of Class 4 PoE across 8 copper ports, ideal for powering access points, IP phones, surveillance cameras and door locks without extra power bricks.

- **Fiber Uplinks for Smooth Traffic:** Two dedicated 1G SFP fiber uplink ports remove bottlenecks, simplify backbone connections and keep voice, video and data traffic flowing across the network.

- **Silent, Secure and License-Free:** Fanless hardware ensures quiet operation, while ACLs, 802.1X and VLAN segmentation enhance security; all features are included with no recurring license or subscription fees.

Detailed Features

JL681A

Component	Specification
Port Configuration	8 × 10/100/1000Base-T Class 4 PoE + 2 × 1G SFP
Switching Capacity	20 Gbps
Forwarding Rate	14.88 Mpps
Processor & Memory	ARM Cortex-A9 800 MHz, 512 MB SDRAM, 256 MB flash
PoE Budget	124 W Class 4 PoE, internal PSU

Instant Cloud and App Management

Aruba Instant On cloud and mobile app let administrators deploy, configure and monitor JL681A and associated access points directly from a smartphone or browser. Step-by-step workflows reduce setup time, while secure cloud access supports remote changes, firmware upgrades and status checks without on-site visits or extra controller hardware.

Optimized PoE and Voice Integration

The platform automatically detects Aruba Instant On access points and assigns them the highest PoE priority to prevent power loss. End-to-end QoS ensures wired and wireless voice traffic receives preferential treatment, improving call clarity and video meetings, even when data traffic is heavy across the small business network.

Quiet, Aesthetic Hardware Design

JL681A uses a compact, fanless design that blends easily into offices, boutiques or customer-facing areas. The silent operation suits meeting rooms and reception desks, while consistent industrial styling across Instant On switches and APs keeps visible installations tidy and professional without the need for dedicated network closets.

Flexible Performance and Advanced Features

Although targeted at SMBs, JL681A supports rich features including VLANs, link aggregation, Layer 3 IPv4 static routing, ACLs, Spanning Tree Protocols and IPv6 host mode. Dual 1G SFP uplinks and non-blocking switching capacity help eliminate network bottlenecks, making the switch suitable for bandwidth-heavy applications like HD video and cloud services.

Unified User Experience and Remote Operations

The Instant On mobile app provides unified workflows for both switches and APs, enabling consistent configuration and monitoring from a single interface. Administrators can perform cloud-based firmware updates on their schedule, view health summaries per site, and avoid extra devices such as cloud keys or on-premises controllers in distributed deployments.

Intuitive Site Inventory and Topology Views

A built-in inventory view lists all Instant On switches and access points on the site, while the topology view maps physical and logical connections. This visualization helps identify offline or misconfigured devices quickly. Integrated tools like Ping and Traceroute assist in diagnosing connectivity problems without complex CLI knowledge, lowering troubleshooting time for small IT teams.

Strong Security, Classification and Policy Controls

Security is reinforced with Two-Factor Authentication for management access, Access Control features that restrict client traffic by IP destination, and automated wired client classification. The system can recognize device categories and OS families, allowing more granular policies. Port Profiles encapsulate security, authentication and power settings for rapid, consistent deployment across multiple ports.

Multi-Site Management and Scheduled Automation

For MSPs and multi-branch businesses, the cloud portal supports logical separation of sites, each with its own configuration, statistics and guest access controls. Up to three admin accounts per site can be defined with role-based privileges. Global scheduling applies time-based ACLs, PoE power windows and interface shutdown rules, while QoS, auto-voice VLANs and detailed logging maintain predictable performance for critical services.

Technical Specifications

Product Specifications

Feature	Value
Model	JL681A
Brand	Aruba
I/O Ports and Slots	8 x RJ-45 autosensing 10/100/1000 Class 4 PoE ports (IEEE 802.3 10BASE-T, 802.3u 100BASE-TX, 802.3ab 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full, 1000BASE-T: full only; 2 x SFP 1GbE ports
Dimension	10(w) x 10(d) x 1.73(h) in (25.4 x 25.4 x 4.39 cm), 1U height

Feature	Value
Processor	ARM Cortex-A9 @ 800 MHz
SDRAM	512 MB SDRAM
Flash	256 MB flash
Packet Buffer	1.5 MB packet buffer
Throughput	14.88 Mpps
Switching Capacity	20 Gbps
Operating Temperature	32°F to 104°F (0°C to 40°C)
Operating Relative Humidity	15% to 95% @ 104°F (40°C)
Nonoperating/Storage Temperature	-40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage Relative Humidity	15% to 95% @ 140°F (60°C)
Altitude	Up to 10,000 ft (3 km)
Idle Power	11.7 W
PoE	124 W Class 4 PoE
Power Supply	Internal power supply

Product Comparison

Feature	JL681A	JL700A	MS120-8FP-HW
Switching Capacity	20 Gbps	Higher capacity 1930-series 24/48-port model (varies by SKU)	20 Gbps class for small Meraki edge deployments
Fixed Ports	8 × 10/100/1000Base-T PoE + 2 × 1G SFP	24/48 × 10/100/1000Base-T (PoE/Non-PoE options) + 4 × 1G/10G SFP+	8 × 10/100/1000Base-T PoE+ only (no SFP uplinks)
PoE Budget	124 W Class 4 PoE	Up to 370 W PoE on higher-port models	124 W PoE+ budget (cloud-managed)
Management Mode	Cloud portal, mobile app, local web GUI (Instant On)	Local web, Aruba Central/ Instant On cloud (model dependent)	Cisco Meraki cloud-only management license required
Layer Features	Layer 2+ with IPv4 static routing, VLAN, QoS	Layer 2+/3 features, more routes and larger tables on higher models	Primarily Layer 2 with basic Layer 3 on some Meraki SKUs
Form Factor & Noise	1U, fanless, silent operation	1U; some higher-port PoE models use fans	Desktop/wall-mount, fanless and silent
Target Scenario	SMB branch, retail, small offices needing fiber uplinks	Larger SMB networks needing more ports and 10G uplinks	Small cloud-managed sites prioritizing Meraki ecosystem integration

Accessories

Category	Accessories
Included Accessories	- Internal Power Supply (built-in) - Rack/Wall Mounting Kit - Quick Installation Guide
Optional Accessories	- 1G SFP Transceivers (SX/LX)

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References

[1] Hewlett Packard Enterprise. (2023). HPE Networking Instant On 1930 Switch Series JL681A Technical Specifications. Retrieved from https://www.hpe.com/psnow/doc/a00098249enw