Aruba JL170A

Datasheet

Product Overview

- Aruba JL170A belongs to the HPE OfficeConnect 1850 Series, a smart-managed Gigabit and 10G Layer 2 switch line for small business networks.

- Ideal for small offices, branch sites, retail, and education, it serves distributors, SMB integrators, and end users needing simple high-speed access.

- It offers 24 Gigabit RJ-45 ports plus 2 1/10GBASE-T uplinks, delivering non-blocking performance and low latency for demanding data and voice traffic.

- Key differentiators include 10GBASE-T uplink connectivity on every model and flexible non-PoE or PoE+ options to match different deployment budgets.

- A browser-based GUI, VLANs, Rapid Spanning Tree, IGMP snooping, link aggregation, and QoS help reduce setup time while giving partners room to fine-tune networks.

- For growing SMBs, JL170A builds a quiet, energy-efficient edge with 10G-ready uplinks, simplifying upgrades from unmanaged switches to a stable, business-class platform.

Product Highlights

- **10G Uplink on All Models:** Built-in 10GBASE-T uplink ports across the OfficeConnect 1850 family deliver high-speed interconnects, enabling fast aggregation between access switches and core devices without expensive fiber-only solutions.

- **Flexible PoE and Non-PoE Options:** Available in both non-PoE and PoE+ 24- and 48-port variants, the series supports mixed deployments, letting you power IP phones, APs, and cameras only where needed and control overall project cost.

- **10G Aggregation Capability:** An 8-port 10GBASE-T model with 2 dual-personality SFP+ ports serves as an efficient 10G aggregator, ideal for building compact high-bandwidth cores in small campus or branch networks.

- **Simple Web Management and Warranty:** An intuitive web-based interface simplifies setup and maintenance, even for non-specialists, while the Limited Lifetime Warranty protects investment and reassures distributors and integrators.

Detailed Features

JL170A

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Component	Specification
Ports	24 × 10/100/1000 RJ⬜ 45 2 × 1/10GBASE⬜ T uplinks
Switching Capacity	88 Gbps
Forwarding Rate	Up to 65 Mpps
MAC Address Table	16,000 entries
Dimensions & Weight	44.25 × 24.64 × 4.4 cm, 2.66 kg (1U)

Intuitive Web Management

JL170A uses a simple browser-based GUI for everyday operations, so even non-specialist staff can configure ports, VLANs, and basic security. It supports HTTP and HTTPS, allowing secure remote access. This reduces training effort for SMB integrators and shortens deployment time for partners managing many small sites.

Comprehensive Monitoring Tools

With SNMPv1/v2c and port mirroring, the switch can be integrated into standard NMS platforms and supports detailed traffic analysis. Administrators can mirror selected ports to external analyzers for troubleshooting, capacity planning, and security checks, making it easier to maintain stable performance over time.

Resilient Software Architecture

Dual flash images provide separate primary and secondary system files. During upgrades, administrators can test new firmware while keeping the previous image as a rollback option. This design minimizes downtime risks in production networks and is especially valuable for remote branches where on-site visits are costly.

Accurate Time and Address Management

Support for Network Time Protocol keeps logs and time-based features consistent across devices, while manual time configuration is available when no NTP server exists. The default DHCP client mode enables true plug-and-play; if no DHCP server is found, the switch falls back to a fixed IP, ensuring reliable access for first-time setup.

Advanced QoS and Multicast Control

Traffic prioritization based on DSCP and IEEE 802.1p maps packets into eight hardware queues, ensuring voice and video remain smooth even during congestion. Broadcast control and IGMP snooping keep multicast traffic from flooding the network, which is critical for IP surveillance, IP TV, and unified communications in small office environments.

Versatile Connectivity and PoE Ecosystem

Auto-MDI/MDIX on all ports removes crossover cable concerns, while IEEE 802.3x flow control and loop protection prevent packet loss and broadcast storms. In PoE+ models, up to 30 W per port powers IP phones, APs, and cameras. Auto PoE power configuration via LLDP, per-port power settings, and a PoE scheduler help optimize power budgets and enforce security or energy policies.

Energy-Efficient Design

The switch supports IEEE 802.3az Energy Efficient Ethernet, auto port shut-down on inactive links, and variable-speed fans that adjust only as needed. Combined with an energy savings status indicator, administrators can see the impact of green features and reduce operating expenses while keeping performance and reliability at acceptable levels for business use.

Robust Layer 2 and High Availability Features

Support for VLANs, 802.1Q tagging (up to 64 VLANs), jumbo frames up to 9220 bytes, and STP/RSTP makes JL170A suitable for segmented, resilient topologies. Link aggregation via LACP or manual configuration forms high-bandwidth trunks to upstream switches, reducing bottlenecks and increasing redundancy for core or aggregation links in compact networks.

Technical Specifications

Product Specifications

Feature	Value
I/O ports and slots	24 RJ-45 auto-negotiating 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 2 RJ-45 1/10GBASE-T ports
Physical characteristics	Dimensions Weight 17.42 (w) x 9.7(d) x 1.73(h) in (44.25 x 24.64 x 4.4 cm) (1U height) 5.86 lb (2.66 kg)
Memory and processor	BCM53346 embedded ARM Cortex-A9 @ 400 MHz, 128 MB DDR3 SDRAM; Packet buffer size: 1.5 MB

Feature	Value
Performance	100 Mb Latency 1000 Mb Latency 10 Gbps Latency Throughput Switching capacity Reliability MTBF (years) < 9.1 µs (64-byte packets) < 3.7 µs (64-byte packets) < 3.7 µs (64-byte packets) up to 65 Mpps (64-byte packets) 88 Gbps MAC address table size 16000 entries 99
Environment	Operating temperature 32°F to 104°F (0°C to 40°C) Operating relative 15% to 95% @ 104°F (40°C), noncondensing humidity Nonoperating/Storage temperature Nonoperating/Storage relative humidity Altitude Acoustic Airflow direction -40°F to 158°F (-40°C to 70°C) 15% to 95% @ 149°F (65°C), noncondensing up to 9,842 ft (3 km) Power: 36 dB Side-to-side
Electrical characteristics	Frequency Voltage 50/60 Hz 100 - 120 / 200 - 240 VAC, rated (200 - 240 VAC, max) .6/.4 A Current Maximum power rating 29.5 W Idle power Notes Safety Emissions 19.1 W Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. UL 60950-1; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1; EN 60825-1 VCCI Class A; CNS 13438; ICES-003 Issue5 Class A; FCC CFR 47 Part 15, Class A ; EN 55032: 2015/CISPR-32 Immunity Management Services Generic EN ESD Radiated EFT/Burst Surge Conducted Power frequency magnetic field Voltage dips and interruptions Harmonics Flicker Web browser EN 55024, CISPR 24 EN 55024, CISPR 24 IEC 61000-4-2 IEC 61000-4-3 IEC 61000-4-4 IEC 61000-4-5 IEC 61000-4-6 IEC 61000-4-8 IEC 61000-4-11 EN 61000-3-2, IEC 61000-3-2 EN 61000-3-3, IEC 61000-3-3

Product Comparison

Feature	JL170A	R8Q68A	R8R48A
Fixed Ports	24 × 10/100/1000 RJ-45 + 2 × 1/10GBASE-T	Aruba 24-port access switch (model-specific port mix)	Aruba 48-port access switch (model-specific port mix)
Uplink Type	2 × 1/10GBASE-T copper uplinks	10G-capable uplinks (model dependent)	10G-capable uplinks (model dependent)
PoE Capability	Non-PoE (PoE+ available on other 1850 models)	PoE/PoE+ supported on PoE variants	PoE/PoE+ supported on PoE variants
Switching Capacity	88 Gbps	Higher switching capacity for larger edge deployments	Higher switching capacity for higher port density

Feature	JL170A	R8Q68A	R8R48A
Forwarding Performance	Up to 65 Mpps	Optimized for medium to large Aruba access networks	Optimized for dense campus and branch access
Management Features	Smart-managed Web GUI, VLAN, QoS, IGMP, STP	Cloud/centralized Aruba management depending on series	Cloud/centralized Aruba management depending on series
Target Scenario	Small business and branch access with simple web management	SMB/enterprise access with tighter Aruba integration	Higher-density campus or branch access
Form Factor	1U, compact fixed switch	1U fixed access switch	1U fixed high-density access switch

Accessories

Category	Accessories
Included Accessories	- AC Power Cable - Rack Mounting Kit - Quick Installation Guide
Optional Accessories	- SFP/SFP+ Transceiver Modules - Additional Cat6 Patch Cables - Cable Management Accessories

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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USA Branch

35 E Horizon Ridge Pkwy, Ste 110 #30131,
Henderson, NV 89002, USA

UK Branch

Third Floor, 207 Regent Street, London W1B 3HH,
UK

References

[1] Hewlett Packard Enterprise. (n.d.). HPE OfficeConnect 1850 Switch Series JL170A Technical Specifications. Retrieved from https://www.hpe.com/psnow/doc/c05279017