

Dual-Redundant Industrial Switch

AZALEA 801-2S



Product Introduction

This is a professional dual-redundant power supply industrial Ethernet switch designed for broadcast, live sound, industrial automation, and AV system integration. The device features 16 snap-in (RJ45) Gigabit Ethernet ports and 4 SFP fiber optic ports, supporting high-speed data transmission and long-distance fiber connections (>10 km). The dual redundant power supply design ensures high availability, utilizing a DC 12V 1A power input for stable and reliable power delivery. This switch delivers an optimal balance of port density, redundancy reliability, and industrial-grade durability, making it ideal for backbone network deployments in harsh environments.

Product Features

- ✧ Dual redundant power supply: Supports dual power inputs (primary/backup) with automatic switching < 5 ms, ensuring zero-interruption operation;
- ✧ High-density ports: 16 Gigabit RJ45 snap-in ports (10/100/1000 Mbps auto-negotiation) + 4 SFP fiber slots (supports 100/1000 Mbps multimode/single-mode modules);
- ✧ Unmanaged design: Plug-and-play operation compliant with IEEE 802.3 standard, featuring automatic MDI/MDI-X crossover detection for simplified deployment;
- ✧ Industrial-grade protection: IP30-rated metal housing with extended operating temperature range (-40°C~75°C), supporting shock/dust resistance;
- ✧ Long-distance transmission: SFP ports support fiber links >10 km, RJ45 ports support Cat5e/6 cables >100 m;
- ✧ Low power consumption and heat dissipation: Passive cooling design, fanless, <15 W power consumption, suitable for noise-sensitive environments;
- ✧ Monitoring Indicators: LED displays for power status, link/activity, and SFP connection for easy field diagnostics.

Specification

Category	Parameter Item	Parameter Description
Ports and Interfaces	RJ45 Ethernet Ports	16 x 10/100/1000 Mbps (Snap-in RJ45, auto-negotiation, supports full/half-duplex)
	SFP Fiber Ports	4 x 100/1000 Mbps SFP slots (supports LC connectors, multimode/single-mode modules)
	Transmission Speed	Gigabit Ethernet (IEEE 802.3ab), Fast Ethernet (IEEE 802.3u)
	Maximum Throughput	20 Gbps (non-blocking switching)
	Cable Support	RJ45: Cat5e/6/6a (>100 m); SFP: multimode 550 m / single-mode 10-120 km
	MDI/MDI-X	Auto-crossover detection, no need for straight-through/crossover cables
Performance and Switching	MAC Address Table	8K entries
	Packet Forwarding Rate	14.88 Mpps (64-byte packets)
	Jitter Buffer	1 Mbit (per port)
	Forwarding Mode	Store-and-Forward (automatic filtering of error packets)
Physical and Environmental	Dimensions (L x W x H)	481 mm x 88 mm x 44 mm
	Weight	1.41 kg
	Enclosure Material	Metal housing with IP30 protection, powder-coated
	Operating Temperature	-40°C~75°C (fanless)
	Storage Temperature	-40°C~85°C
	Humidity	5%~95% (non-condensing)
	MTBF	> 500,000 hours (at 25°C)

	Mounting Method	Rack-mount installation
Power and Safety	Power Input	DC 12V 1A (master/standby redundant)
	Failover Time	< 5 ms (auto failover)
	Power Consumption	< 15 W (typical, all ports active)
	Surge Protection	Built-in TVS diodes (IEC 61000-4-5 compliant, >2 kV)
	Grounding	Independent ground terminal (M4 screw)
Software and Management	Management Type	Unmanaged (plug-and-play)