

S8 Series Switches

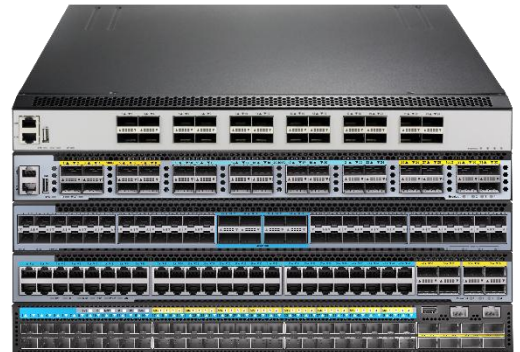
Datasheet

Version: V1.2

Release Date: 2026/3

Product Overview

The S8 Series Switch features high-performance Layer 3 aggregation and data center switches powered by a next-generation MAC SoC. Leveraging advanced hardware processes, the series provides full Layer 3 networking capabilities for high-speed enterprise, data center and operator environments



Highlight features

- Multi-Rate Connectivity: Flexible port density supporting 10G/25G/40G/100G speeds to accommodate diverse enterprise, operator and data center uplinks.
- Unified Converged Core: Full MPLS (L2/L3 VPN) stack to support multi-tenant, converged network architectures.
- Carrier-Grade Reliability: MLAG support for Active-Active redundancy, providing device-level failover and hitless upgrades.
- Data Center Fabric: Hardware-accelerated VXLAN with BGP-EVPN control plane for scalable overlay networks.
- Line-Rate Security: MACsec (AES-CMAC) encryption for secure, hardware-based switch-to-switch link protection.
- Nanosecond Precision: IEEE 1588 PTP (Precision Timing Protocol) for time-sensitive synchronization.
- Advanced Routing: Comprehensive L2/IPv4/IPv6 stack including OSPF, BGP, and PIM (Multicast).

The S8 Series switches provide redundant hot-swappable power supplies (AC and DC are both available) and 4 bays with Field replaceable fan modules. Generally, airflow of this series is front to rear (AFO), but a customization of rear to front (AFI) airflow is also acceptable.

Feasible PSU and airflow

Items	AC	DC	AFO	AFI	Power Input	FAN
S8332C	○	○	○	○	2	4
S8324C	○	○	○	○	2	4
S8248N-8C	○	○	○	○	2	5
S8148T-8C-EI	○	○	○	○	2	4
S8148T-8C-SI	○	X	○	X	1	4

Family of the S8 Series switches

Models	Ethernet Ports	Management	PSU 1/PSU 2	Cooling
S8332C	32 x 100G QSFP 28	Console: RJ45 to RS232 Ethernet: 1G Port Storage: USB	550W / 550W CRPS	4 x Fan Modules (front-to-back airflow)
S8324C	24 x 100G QSFP 28	Console: RJ45 to RS232 Ethernet: 1G Port Storage: USB	550W / 550W CRPS	4 x Fan Modules (front-to-back airflow)
S8248N-8C	48 x 10G/25G SFP28 + 8 x 100G QSFP28	Console: RJ45 to RS232 Ethernet: 1G Port Storage: USB	550W /550W CRPS	5 x Fan Modules (front-to-back airflow)
S8148T-8C-EI	48 x100M/1G/2.5G/5G/10 G Base-T + 8 x 100G QSFP 28	Console: RJ45 to RS232 Ethernet: 1G Port Storage: USB	550W / 550W CRPS	4 x Fan Modules (front-to-back airflow)
S8148T-8C-SI	48 x100M/1G/2.5G/5G/10 G Base-T + 8 x 100G QSFP 28	Console: RJ45 to RS232 Ethernet: 1G Port Storage: USB	Fixed single power supply	4 x Fan Modules (front-to-back airflow)
S8148X-8C-SI	48 x 10G SFP+ + 8 x 100G QSFP 28	Console: RJ45 to RS232 Ethernet: 1G Port Storage: USB	Fixed single power supply	4 x fixed fans (front-to-back airflow)
S8148X-8C-DI	48 x 10G SFP+ + 8 x 100G QSFP 28	Console: RJ45 to RS232 Ethernet: 1G Port Storage: USB	Fixed dual power supplies	4 x fixed fans (front-to-back airflow)

Product Specifications

Packet Switch capacity (Tbps)

- S8332C-EI: 6.4 Tbps (bidirectional)
- S8324C-EI: 4.8 Tbps (bidirectional)
- S8248N-8C-EI: 4 Tbps (bidirectional)
- S8148T-8C-EI: 2560Gbps (bidirectional)
- S8148X-8C-SI: 2560Gbps (bidirectional)
- S8148X-8C-DI: 2560Gbps (bidirectional)

Layer 2/Layer 3 Throughput (Gpps)

- S8332C-EI: 9.52 Gpps (bidirectional)
- S8324C-EI: 7.14 Gpps (bidirectional)
- S8248N-8C-EI: 5.95 Gpps (bidirectional)
- S8148T-8C-EI: 3809.28Mpps (bidirectional)
- S8148X-8C-SI: 3809.28Mpps (bidirectional)
- S8148X-8C-DI: 3809.28Mpps

(bidirectional) Power consumption

Worst case, all ports used, line-rate traffic

- S8332C-EI: TBD
- S8324C-EI: 171W
- S8248N-8C-EI: 168W
- S8148T-8C-EI: 260W
- S8148X-8C-SI: 135W

CPU

- Dual-core processor, ARM A53

MTBF

- All Model \geq 90000H

Memory

- eMMc: 8GB on all models
- DRAM: 2GB on all models

Dimensions (W x H x D) without package

- S8332C-EI: 66.5x 15 x 56.5cm
- S8324C-EI: 66.5x 15 x 56.5cm
- S8248N-8C-EI: 66.5 x 15 x 56.5cm
- S8148T-8C-EI: 44.2 x 4.4 x 42 cm
- S8148X-8C-SI: 44.2 x 4.5 x 35.5 cm
- S8148X-8C-DI: 44.2 x 4.4 x 41 cm

Weight (Net weight/Gross weight)

- S8332C-EI: 9.2 kg/11kg
- S8324C-EI: 8.9 kg/10.7kg
- S8248N-8C-EI: 9kg/12.5kg
- S8148T-8C-EI: 8.18kg/10.3kg
- S8148X-8C-SI: 5.56kg/7.66kg
- S8148X-8C-DI: 6.8kg/8.9kg

Typical power consumption

- S8332C-EI: 180.4W
- S8324C-EI: 112W
- S8248N-8C-EI: 154W
- S8148T-8C-EI: 257W
- S8148X-8C-SI: 101W

Environmental ranges

- Operating temperature: 0°C to 45°C
- Storage temperature: -40°C to 70°C
- Running Humidity: 10% to 90% (No condensation)
- Store Humidity: 5 to 95% (No condensation)

Temperature alarm

- Alarm threshold: 50°C

Management

The S8 Series supports a comprehensive range of management options, including CLI, Web-based, and Cloud-managed platforms. Administrators can utilize SNMP v1/v2/v3, Telnet, and FTP, while security is bolstered by SSH2.0. Additionally, integrated OAM support ensures streamlined operations and more convenient network maintenance.

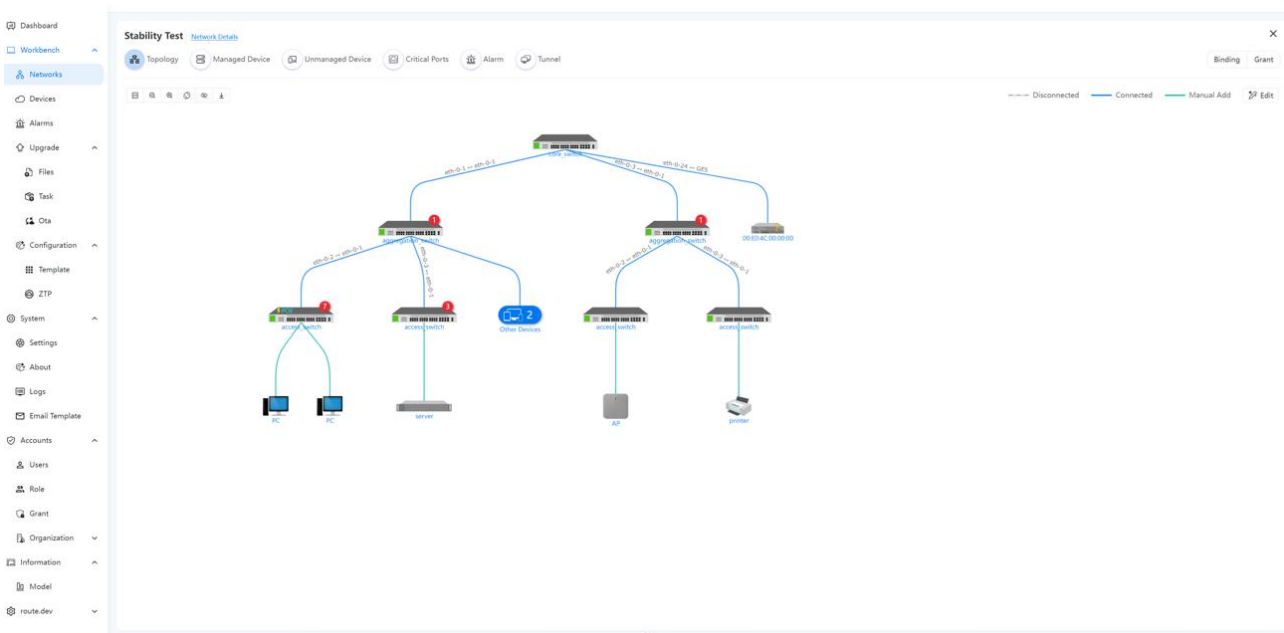
Cloud management

Leveraging deep expertise in campus and enterprise networking, ETHERNEXION introduces the UniCloud Management System. By integrating intelligent automation, UniCloud streamlines network maintenance, reduces operational costs, and ensures a secure, high-performance environment tailored to evolving user demands.

The platform designed to provide digital solutions for the entire lifecycle of network elements, including switches, routers, and wireless APs:

- Unified Device Management:** Provides a centralized platform for managing configuration policies, firmware upgrades, and statistical analysis of device operating data.
- Remote O&M Capabilities:** Utilizing a lightweight reverse proxy (FRP) and an integrated WebTerminal (SSH/Telnet), the system enables secure, cross-network access to intranet devices with latency under 200ms.
- Automated Deployment & Topology:** Supports Zero-Touch Deployment for large-scale automation. It also uses LLDP to automatically discover and draw intuitive, real-time network topology maps.
- Advanced Monitoring:** Includes a distributed MQTT engine for real-time status reporting (latency <50ms) and a multimodal database architecture (MySQL, InfluxDB, Redis, Elasticsearch) for efficient data analysis and logging.
- Security & Access Control:** Features a multi-level RBAC permission system, high-risk command interception, and WAF protection to block network attacks.

The following is a diagram illustrating cloud-managed ETHERNEXION switches. For more detailed information, please refer to “ETHERNEXION Cloud Controller specification”.



Visual WEB GUI

ENOS allows you to quickly configure common configuration items using a visual WEB GUI, which lowers the application threshold for users.

The screenshot shows the "Monitor" page in the ENOS WEB GUI. The left sidebar contains navigation options: Monitor, Configuration, Maintenance, and Network. The main content area is divided into several sections:

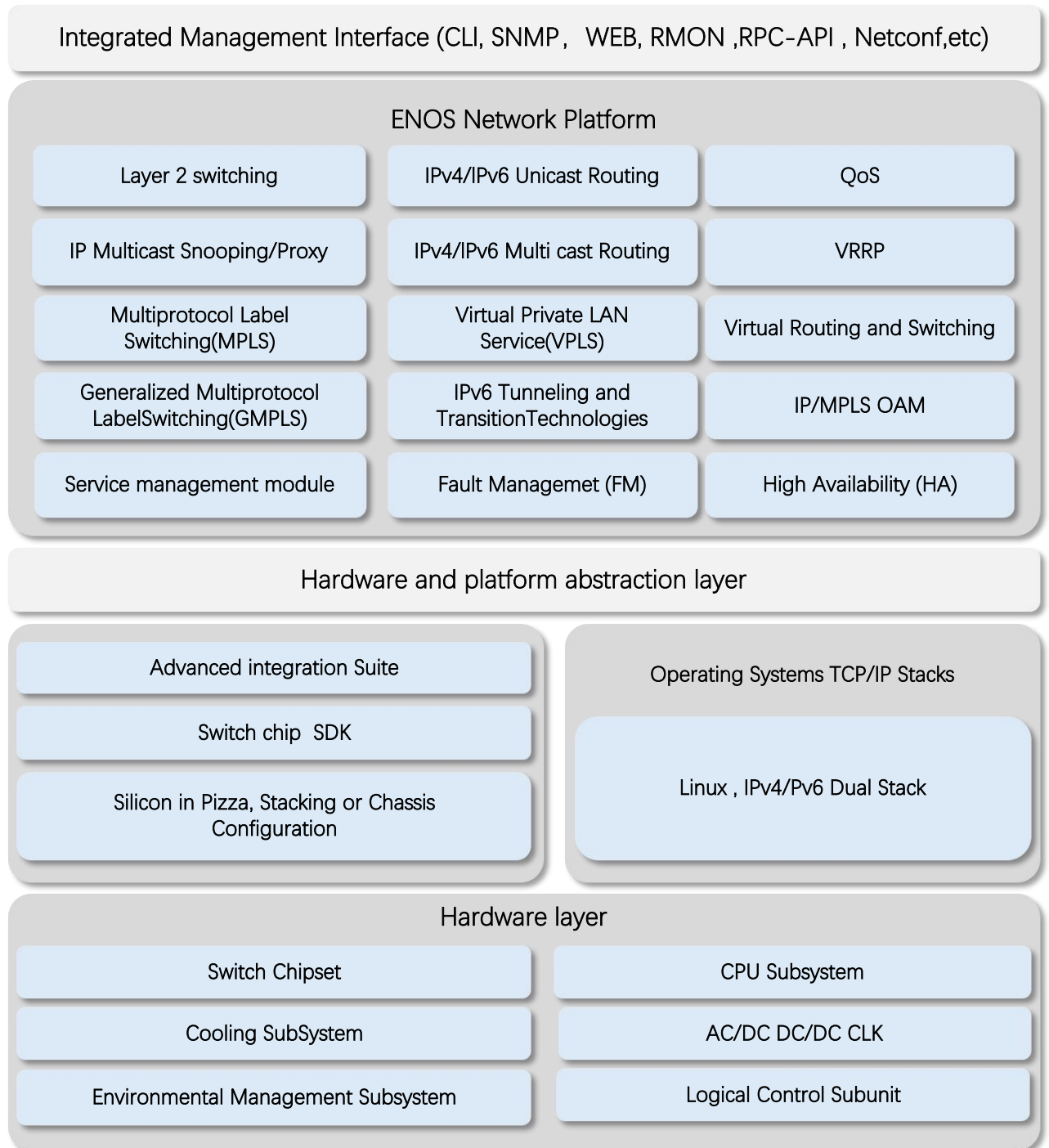
- Device Information:**

Product ID:	Software:	Hardware Version: 1.1	Uptime: 0 days, 6 hours, 42 minutes
Location: --	Image Name: ulmage.h1023a.e680.d	EPLD Version: 0.2	Device Name: 5648X
WebImage Name:	Serial Number:	Contact: --	BootRom Version: v1.0.2
MAC Address: D8-5B-22-00-02-02			
- Interface Panel:** A grid of 48 ports (1A-1F, 2A-2F, 3A-3F, 4A-4F) with status indicators (Active, Inactive, Shutdown). Legend: Active (green), Inactive (grey), Shutdown (black). Legend for port types: Copper (light blue), Fiber (dark blue), 40/100Gb (grey).
- Usage:**
 - CPU Usage: 7.53%
 - Memory Usage: 36.94%
- Temperature:** A bar chart showing temperature in °C for "AROUND_CHIP" and "SWITCH_CHIP".
- Fan:** A bar chart showing fan status for four fans (1-1, 1-2, 1-3, 1-4). Legend: OK (blue), Failed (red).

At the bottom, there is an "Auto refresh" dropdown set to "Manual" and a "Refresh" button. The footer contains "Copyright ©. All Rights Reserved."

Software Specifications

ETHERNEXION implements a unified software platform, and the software capabilities supported by the devices are listed in the document [‘ENOS Software features’](#).



- * All ETHERNEXION switches use a normalized software platform and image package file
- * Unified software version iteration plan
- * Unified user experience

Ordering Information

Items	Description
S8332C	Data Center switch, 32*100G QSFP28, 2*CRPS550W hot swappable power module, 4*Intelligent fan module
S8324C	Data Center switch, 24*100G QSFP28, 2*CRPS550W hot swappable power module, 4*Intelligent fan module
S8248N-8C	Data Center switch, 48*25G SFP28, 8*100G QSFP28, 2*hot swappable power module, 5*Intelligent fan module
S8148T-8C-EI	Data Center switch, 48*100M/1G/2.5G/5G/10G Base-T, 8*100G QSFP28, 2*CRPS550W hot swappable power module, 4*Intelligent fan module
S8148T-8C-SI	Enterprise and Campus Network switch, 48*100M/1G/2.5G/5G/10G Base-T, 8*100G QSFP28, 1*fixed power supply, 4*fixed fan
S8148X-8C-SI	Enterprise and Campus Network switch, 48*10G SFP+, 8*100G QSFP28, 1*200W fixed power supply, 4*fixed fan
S8148X-8C-DI	Enterprise and Campus Network switch, 48*10G SFP+, 8*100G QSFP28, 2*200W fixed power supply, 4*fixed fan

AC/DC Power Supplies use for all models

Items	Description
PSU-200-AC-AFO	S8 Series 200 W AC power supply (front-to-back airflow)
PSU-300-AC-AFO	S8 Series 300 W AC power supply (front-to-back airflow)
PSU-350-DC-AFO	S8 Series 350W DC power supply (front-to-back airflow) Input: 48V DC; Output: 48V DC
PSU-550-AC-AFO	S8 Series 550W AC power supply (front-to-back airflow) Input: 100–240V AC; Output: 12V DC
PSU-550-DC-AFO	S8 Series 550W DC power supply (front-to-back airflow) Input: 48V DC; Output: 48V DC

Software Licenses

Items	Description
Software License	MS, L3 enhance features software license key, Preinstalled
Software License	MA, MPLS features software license key

Accessory

Items	Front Mounting	Rear Mounting	Screw	Power Cord	Console (RS232 to RJ45)	Grounding Cable
S8332C	2	2	14	2	1	1
S8324C	2	2	14	2	1	1
S8248N-8C	2	2	14	2	1	1
S8148T-8C-EI	2	2	14	2	1	1
S8148T-8C-SI	2	2	14	2	1	1
S8148X-8C-SI	2	2	14	2	1	1
S8148X-8C-DI	2	2	14	2	1	1

About ETHERNEXION:

ETHERNEXION is an innovation-driven technology enterprise specializing in high-performance networking and communication solutions. Dedicated to creating tangible value for global clients, the company delivers a comprehensive portfolio of enterprise-grade, carrier-class hardware and intelligent, cloud-managed software. Ethernexion empowers enterprises, data centers, and small-to-medium service providers by providing high-performance, ultra-reliable, and highly cost-effective solutions that optimize operational efficiency and maximize return on investment. Driven by technical excellence, Ethernexion is committed to being a trusted partner in building scalable, secure, and future-ready network infrastructures.

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