

Innovative Datacenter Switch

64 x 100GE QSFP28 Ports



High-performance 10/25/40/50/100GE top-of-rack open networking switch.

The demands by applications using higher and higher bandwidth has resulted in the need to develop even more dense networking environments. The acceleration towards next-generation infrastructure has only added to those demands. Leading the way along this path are dense 40 and 100 Gigabit Ethernet switching devices, and among that pack only a few carry the necessary technical development to fulfill the criteria facilitate the development of both leaf and spine networking tiers. The S9230-64X is one of the leading solutions for high performance, high density, fixed configuration, datacenter switches capable of delivering speed layer 2 and layer 3 features. For datacenters transitioning from existing 10GE and 40GE to 25GE, 50GE and 100GE, the S9230-64X provides the seamless transition point necessary to obtain both interface speed and density. The flexibility provided by the S9230-64X is most apparent in the ability to support speeds including 10GE, 25GE, 40GE, 50GE, and 100GE that allow to fulfill all manner of applications and challenging east-west traffic loading.

Simply put, the S9230-64X is a purpose built high density 64 QSFP28 100GE switch ports with an overall throughput of up to 12.8Tbps, latency of under 800ns and 40MB of buffer. Each QSFP28 port supports flexible configurations between 4 x 10GE, 4 x 25GE or 2 x 50GE modes for up to 128 ports without limitation. Maximum flexibility ensuring investment protection and the ability to develop next-generation datacenters, that is the S9230-64X Datacenter Switch solution.

Key applications

- High-density 10/25/40/50/100GE ToR server aggregation for high-performance data center environments.
- Deploy large fabric installation for flat, two-tier, non-blocking 10/25/40/50/100GE datacenter network designs with Active Fabric© implementation.
- Enable cost effective aggregation of 10/25/40/50/100GE uplinks through small-scale Active Fabric implementation in leaf and spine.
- Build scalable, easy-to-manage data center network platforms.
- Switch-on-Chip (SoC) single chip for central resource sharing (L2/L3/Flow) schemes.
- Deploy as a high-speed Layer 2 gateway to connect nonvirtualized infrastructure with hypervisor based overlay networks.

Key features

- 2 RU high-density 10/25/40/50/100GE fixed switch with up to 64 ports of 100GE (QSFP28).
- Full support for ONIE software installer.
- Redundant, hot-swappable power supplies and fans.
- Up to 12.8Tbps of switching I/O bandwidth (full duplex) available and non-blocking switching fabric delivering line-rate performance under full load.
- Next generation of spine-leaf architecture, enhancing workloads and optimizing network scaling.
- The S9230-64X is specifically designed for applications in high-performance datacenter environments.
- Non-blocking switching architecture.

Specifications

Physical

- Compact full featured 10/25/40/50/100GE datacenter switch
- 1 RJ45 console/management port with RS232 signaling
- 1 10/100/1000 Base-T Ethernet for Out-of-Band management
- 1 USB 2.0 Type-A port
- 2 SFP+ 10GE/1GE ports

Processor Intel® Broadwell-DE D-1527 4-Core 2.2GHz

Memory DDR4 16G w/ ECC SODIMM

Storage M.2 SSD 128GB

ASIC Nephos Taurus NP8369Q/A

Built-in Interfaces
 Total 10/25GE: 128
 Total 40/50GE: 64
 Total 100GE: 64

LED Power, system, link & activity, fan & PSU status

Chassis 2 RU, 440w x 88h x 597.25d mm
 (17.32" x 3.46" x 23.51")

Weight (including 2 x PSUs & 4 x fans):
 18 kg (39.68 lb)

Redundancy Two hot swappable power supplies with integrated fans and trays

Environmental

- Fresh air compliant to 45°C (113°F)
- Rack mounting kit

Power supply AC input: 100–240 Vac 50/60 Hz
 DC input: 240V, 2.75A (240Vdc China only)
 Typical/Max power draw: 739/860 Watts

Max. operating Specs. Operating temperature: 0°C to 45°C (32°F to 113°F)
 Operating humidity: 10% to 90% (RH), noncondensing

Max. non-operating Specs. Storage temperature: –40°C to 70°C (–40°F to 158°F)
 Storage humidity: 5% to 95% (RH), non-condensing

Performance

Switching Capacity 12.8Tbps

Packet throughput 5960Mpps

Regulatory compliance

EMC EN55032 Class A
 EN61000-3-2/EN61000-3-3
 EN55024
 FCC P15B Class A
 BSMI (CNS 13438) Class A
 CCC (GB9254) Class A
 RoHS: RoHS 6
 UL

Safety IEC/EN 60950-1/A2
 BSMI (CNS 14336-1)
 CCC (GB4943)

S9230-64X Views



S9230-64X front view



S9230-64X rear view

Supported Accessories

Transceiver

100GE, SR4 QSFP28 | 100GE, eSR4 QSFP28 | 100GE, LR4 QSFP28 | 100GE, CWDM4 2Km QSFP28
 100GE, PSM4 500m QSFP28 | 40GE, SR4 optic QSFP+ | 40GE, BIDI optic QSFP+ | 40GE, XSR4 optic QSFP+
 40GE, LR4 10Km, optic QSFP+ | 40GE, LR4L 1Km, optic QSFP+

Cable types

100GE, 4 x 25GE, QSFP28 to 4 x SFP28, DAC | 100GE, QSFP28 to QSFP28, AOC
 100GE, QSFP28 to QSFP28, DAC | 40GE, QSFP+ to QSFP+, AOC | 40GE, QSFP+ to QSFP+, DAC
 40GE, MTP to 4 x LC optical breakout | 40GE, 4 x 10GE, QSFP+ to 4 x SFP+, DAC

Power supply types

CPRS1200W-AC-FTB, 1200W AC/DC PSU, airflow from panel to rear side (front to rear)
 CPRS1200W-AC-BTF, 1200W AC/DC PSU, airflow from rear side to panel (rear to front)

Fan types

Fan normal airflow from panel to rear side
 Fan reverse airflow from rear side to panel
 Fan spare supports normal and reverse airflow operations