

AS7500-32X Series Switch

100GbE Data Center Switch

Bare-Metal Hardware



Product Overview

The AS7500-32X switch is a Top-of-Rack (TOR) or spine switch for high-performance data centers. In a compact 1RU form factor, the switch provides line-rate L2 and L3 switching across to 32 x QSFP28 ports, supporting up to 32 x 40/100 GbE, 64 x 50 GbE, or 128 x 10/25 GbE connections. The AS7500-32X can be deployed as a TOR switch supporting 10/25/50 GbE to servers with 40/50/100 GbE uplinks, or as a spine switch supporting 40/50/100 GbE spine interconnects. The AS7500-32X is a bare-metal switch loaded with the Open Network Install Environment (ONIE) which supports the installation of compatible Network Operating System (NOS) offerings.

Key Features and Benefits

- Cost-effective, bare-metal switch infrastructure for data center fabric.
- Deploy as Top-of-Rack switch supporting 10 or 25 GbE to servers, with 40 or 50 or 100 GbE uplinks.
- Deploy as spine switch supporting 40, 50, or 100 GbE ToR and spine interconnects.
- 32 x QSFP28 switch ports, each supporting 1 x 100 GbE or 1 x 40 GbE, or via breakout cables, 2 x 50 GbE or 4 x 25 GbE or 4 x 10 GbE.
- Layer 2 or Layer 3 forwarding of 6.4 Tbps (full duplex).
- Supports hot/cold aisle with port-to-power and power-to-port airflow SKUs.
- All ports on front; PSUs and fans accessible from rear.
- Hot-swappable, load-sharing, redundant AC or -48V DC or 12V DC PSUs.
- 5+1 redundant, hot-swappable fan modules.
- Energy Efficiency: 370 W typical power consumption without pluggable optics.
- Hardware switch pre-loaded with diagnostics, and with Open Network Install Environment (ONIE) for automated loading of compatible NOS software.

Features

Ports

Switch Ports:
 32 x QSFP 28 ports. Each Port supports 1x40/100 GbE or 2 x 50 GbE or 4 x 10/25 GbE per port using splitter cables.
 Management ports on port side:
 1 x RJ-45 serial console
 1 x RJ-45 100/1000BASE-T management
 1 x USB Type A storage

Physical and Environmental

Dimensions (WxDxH): 438 x 515 x 43.5 mm
 (17.3 x 20.3 x 1.7 inches)
 Weight: 10 kg (23 pounds)
 Operating Temperature: 0°C to 45°C (32°F to 113°F)
 Storage Temperature: -40°C to 70°C (-40°F to 158°F)
 Operating Humidity: 5% to 95% non-condensing
 Operating Altitude: 0 to 10,000 feet

Key Components

Switch Silicon: Cavium Xpliant CNX88091 3.2 Tbps.
 No PHYs, No Retimers
 CPU Modules:
 7510-32X: Freescale T2080 quad-core 1.8 GHz
 16 GB DDR3 SDRAM SO-DIMM
 8 GB NAND Flash
 Optional 8 GB SD Card
 Optional 32 GB mSATA
 Optional 32 GB M.2
 7512-32X: Intel Broadwell-DE quad-core 2.3 GHz
 16 GB DDR4 SDRAM SO-DIMM
 8 GB NAND Flash
 Optional 32 GB mSATA
 Optional 32 GB M.2

Regulatory

EMI
 CE Mark
 EN55022 Class A
 EN55024 (Immunity) for IT Equipment
 EN 61000-3-2
 EN61000-3-3
 FCC Part 15 Class A
 VCCI
 Safety
 CB, EN 60950
 UL/CUL
 Environmental:
 Temperature: IEC 68-214
 Vibration: IEC 68-2-36, IEC 68-2-6
 Shock: IEC 68-2-29
 Drop: ISTA 2A
 Acoustic Level: 62dB@27°C
 RoHS-6 Compliant
 Country of Origin: Taiwan (TAA Compliant)

Performance

Switching Capacity: 6.4 Tbps full duplex, for packets > 140 bytes
 Forwarding Rate: 2.4B pps
 IPv4: 192k host entries; 2M prefixes
 IPv6: 96k host entries; 256k prefixes
 Packet Buffer Size: 24 MB shared buffer pool
 Latency: 600 ns

Warranty

Please check www.edge-core.com for the warranty terms in your country. The warranty provides return-to-factory hardware replacement for a three year period in North America.

LEDs

QSFP 28 Port LEDs: Link Status, Activity, Rate
 Ethernet Management Port LED: Link Status, Activity
 Console Port LED: Link Status
 System LEDs: Diagnostic, Locator, PSU & Fan Status

For More Information

To find out more about Edge-Core Networks products and solutions, visit www.edge-core.com

Software

Diagnostics
 U-Boot on Freescale CPU Module; BIOS on Intel CPU Module
 Open Network Install Environment (ONIE) software installer

About Edge-Core Networks

Edge-Core Networks is in the business of providing innovative network solutions. In the service provider network, in the data center or in the cloud, Edge-Core Networks delivers the software and systems that transform the way the world connects. Edge-Core Networks serves customers and partners worldwide. Additional information can be found at www.edge-core.com.

Edge-Core Networks is a subsidiary of Accton Technology Corporation, the leading network ODM company. The Edge-Core data center switches are developed and manufactured by Accton.

To purchase Edgecore solutions, please contact your Edge-Core Network representatives at +886 3 563 8888 (HQ) or +1 (877) 828-CORE (877-828-2673) or authorized resellers.

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Power

PSUs: 2 redundant, load-sharing, hot-swappable AC PSUs
 Input Voltage: 90 to 264 VAC at 50-60 Hz
 Output Voltage: 12V @ 52.9A, 5V @ 4A
 PSU Efficiency: Up to 93% for AC PSUs
 -48V DC PSUs
 Input Voltage: -36 to -72 VDC
 Output Voltage: 12V @ 52.9A, 5V @ 4A
 12V DC PSUs
 Input Voltage: 12 VDC +5%
 Output Voltage: 12V @ 52.9A, 5V @ 4A
 Max Power: 410 W, without pluggable optics
 Typical Power: 370 W, without pluggable optics