

AS7816-64X

Bare-Metal Hardware



Product Overview

The Edgecore AS7816-64X is a Top-of-Rack (TOR) or spine switch for high-performance data centers. The switch provides line-rate L2 and L3 switching across the 64 x QSFP28 ports, each supporting 1 x 100 GbE or 1x 40 GbE, or via breakout cables 4 x 25 GbE or 4 x 10 GbE. The AS7816-64X can be deployed as a TOR switch supporting 10/25 GbE to servers with 40/100 GbE uplinks, or as a spine switch supporting 40/100 GbE spine interconnects. This open network switch is loaded with the Open Network Install Environment (ONIE), which supports the installation of compatible Network Operating System software, including the open source options Open Network Linux and SONiC, plus commercial NOS offerings.

Key Features and Benefits

- Cost-effective, open network switch for data center fabric.
- 64 x QSFP28 switch ports, each supporting 1 x 100 GbE or 1 x 40 GbE, or via breakout cables 4 x 25 GbE or 4 x 10 GbE.
- Incorporates Broadcom StrataXGS Tomahawk II switch series silicon for non-blocking line rate performance.
- High performance Intel Xeon D-1518 CPU with optional BMC.
- 2 RU form factor.
- Supports hot/cold aisles with front-to-back and back-to-front airflow SKUs.
- All ports on front; PSUs and fans accessible from rear.
- Hot-swappable, load-sharing, redundant 850 W PSUs.
- 3+1 redundant, hot-swappable fan modules.
- Bare-metal hardware switch pre-loaded with diagnostics software and with Open Network Install Environment (ONIE) for automated loading of compatible open source and commercial NOS offerings.
- Compatible with Open Network Linux (ONL), the open-source, OCP reference NOS.
- Compatible with SONiC open source network software.
- Supports the Redfish management API, now a requirement of the Open Compute Project.
- Compatible with Cisco IOS-XR software.
- Compatible with SnapRoute CN-NOS, Cloud Native - NOS, software.

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IOS-XR

snaprout

onie

SONiC



Features

Ports

Switch Ports: 64 x QSFP28 100 GbE
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

Key Components

Switch Silicon: BCM56970 Tomahawk II
CPU Modules:
Intel Xeon D-1518 quad-core 2.4 GHz
8 GB x 2 1600 MHz with ECC (SO-DIMM) DDR3L
8 MB x 2 SPI Flash (Boot)
m.2 SSD: 128 GB
Reserve mSATA connector

Performance

Switching Capability: 12.8 Tbps full duplex
Forwarding Rate: 9.5 bpps
Jumbo frames support up to 9 Kbytes
Packet Buffer Size: 42 MB integrated packet buffer
Subject to NOS:
MAC Addresses: 8 K min./264 K max.
VLAN IDs: 4 K
IPv4: 76 K min./128 K max. L3 hosts/extended view; IPv4/32: 32 K LPM entries with TCAM-only mode
IPv6: 46 K min./64 K max. L3 hosts/extended view; IPv6/64: 16 K LPM entries with TCAM-only mode

Physical and Environmental

Dimensions (WxDxH): 43.8 x 58.0 x 8.8 cm (17.2 x 22.8 x 3.5 in)
Weight: 14.11 kg (31.1 lb)
Fans: Hot-swappable 3 + 1 redundant fans
Operating Temperature: 0°C ~ 50°C (32°F ~ 122°F)
Operating Humidity: 5% ~ 95% non-condensing

QSFP28 Port LEDs

LED1: Blue (100 G), Orange (40 G), White (25 G), Green (10 G)
LED2~LED4: White (25 G), Green (10 G)
Management Port LED: Green: (10 M/100 M/1 G), Flashing: Activity
System LEDs: PSU1, PSU2, Fan, Diag, and Loc
Reset button

Software

Switch is loaded with Open Network Install Environment (ONIE) software installer
Compatible with the following NOS options:
Open Network Linux, the open-source, OCP reference NOS
SONiC open source network software.
Supports the Redfish management API, now a requirement of the Open Compute Project
Cisco IOS-XR software
CN-NOS software from SnapRoute

Power

PSUs: 2 redundant, load-sharing, hot-swappable AC or -48 VDC
Input Voltage: 90 to 240 VAC at 50-60 Hz or -36 to -72 VDC

Regulatory

EMI
CE Mark
EN 55032
AS/NZS CISPR 32
EN 55024
EN 61000 3-2
EN 61000 3-3
CISPR 32
FCC Part 15 Subpart B Class A
VCCI Class A
Safety
CB
UL
Environmental:
GR63-CORE (Pre-test)
RoHS-6 Compliant
Country of Origin: Taiwan (TAA Compliant)
Electrical and Electronic Equipment (WEEE Directive 2002/96/EC)

Warranty

Please check www.edge-core.com for the warranty terms in your country.

For More Information

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

About Edgecore Networks Corporation

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

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

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

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AS7816-64X Product Specifications

www.edge-core.com

Features

Base Model: AS7816-64X 64-Port 100G QSFP28; ONIE software installer

Model Number	CPU Module	PSU	Airflow	Region (power cord)
7816-64X-O-AC-F-JN-US	Intel® Xeon® Processor D-1518	Dual AC PSUs	Port-to-Power airflow	N. America
7816-64X-O-AC-B-JN-US	Intel® Xeon® Processor D-1518	Dual AC PSUs	Power-to-Port airflow	N. America
7816-64X-O-AC-F-US	Intel® Xeon® Processor D-1518	Dual AC PSUs	Port-to-Power airflow	N. America
7816-64X-O-AC-B-US	Intel® Xeon® Processor D-1518	Dual AC PSUs	Power-to-Port airflow	N. America
7816-64X-O-AC-F-JN-EU	Intel® Xeon® Processor D-1518	Dual AC PSUs	Port-to-Power airflow	Europe
7816-64X-O-AC-B-JN-EU	Intel® Xeon® Processor D-1518	Dual AC PSUs	Power-to-Port airflow	Europe
7816-64X-O-AC-F-EU	Intel® Xeon® Processor D-1518	Dual AC PSUs	Port-to-Power airflow	Europe
7816-64X-O-AC-B-EU	Intel® Xeon® Processor D-1518	Dual AC PSUs	Power-to-Port airflow	Europe
7816-64X-O-AC-F-JN-UK	Intel® Xeon® Processor D-1518	Dual AC PSUs	Port-to-Power airflow	UK
7816-64X-O-AC-B-JN-UK	Intel® Xeon® Processor D-1518	Dual AC PSUs	Power-to-Port airflow	UK
7816-64X-O-AC-F-UK	Intel® Xeon® Processor D-1518	Dual AC PSUs	Port-to-Power airflow	UK
7816-64X-O-AC-B-UK	Intel® Xeon® Processor D-1518	Dual AC PSUs	Power-to-Port airflow	UK
7816-64X-O-AC-F-JN-JP	Intel® Xeon® Processor D-1518	Dual AC PSUs	Port-to-Power airflow	Japan
7816-64X-O-AC-B-JN-JP	Intel® Xeon® Processor D-1518	Dual AC PSUs	Power-to-Port airflow	Japan
7816-64X-O-AC-F-JP	Intel® Xeon® Processor D-1518	Dual AC PSUs	Port-to-Power airflow	Japan
7816-64X-O-AC-B-JP	Intel® Xeon® Processor D-1518	Dual AC PSUs	Power-to-Port airflow	Japan
7816-64X-O-AC-F-JN-UN	Intel® Xeon® Processor D-1518	Dual AC PSUs	Port-to-Power airflow	C13 - C14 Power Cord
7816-64X-O-AC-B-JN-UN	Intel® Xeon® Processor D-1518	Dual AC PSUs	Power-to-Port airflow	C13 - C14 Power Cord
7816-64X-O-AC-F-UN	Intel® Xeon® Processor D-1518	Dual AC PSUs	Port-to-Power airflow	C13 - C14 Power Cord
7816-64X-O-AC-B-UN	Intel® Xeon® Processor D-1518	Dual AC PSUs	Power-to-Port airflow	C13 - C14 Power Cord
7816-64X-O-48V-F	Intel® Xeon® Processor D-1518	Dual 48 VDC PSUs	Port-to-Power airflow	
7816-64X-O-48V-B	Intel® Xeon® Processor D-1518	Dual 48 VDC PSUs	Power-to-Port airflow	