

# AS7512-32X Switch

## 100GbE Data Center Switch

### Bare-Metal Hardware



#### Product Overview

The Edgecore AS7512-32X 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 AS7512-32X 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 AS7512-32X 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.
- Bare-Metal hardware switch pre-loaded with diagnostic and with Open Network Install Environment (ONIE) for automated loading of compatible open source and commercial NOS offerings. Compatible with Open Network Linux (ONL), an open-source, OCP reference NOS.
- Supports Switch Abstraction Interface (SAI), the OCP abstraction layer for NOS interface to multi-vendor switch silicons.
- Compatible with OpenSwitch the open-source NOS.
- Compatible with future release of PicOS™ from Pica8, Inc.

Data Center Switch



## 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

### Key Components

Switch Silicon: Cavium Xpliant CNX88091 3.2 Tbps.  
No PHYs, No Retimers  
CPU Modules:  
Intel Atom C2538 quad-core 2.4GHz x86 processor  
16 GB DDR3 SDRAM SO-DIMM  
8 GB NAND Flash  
16 MB SPI NOR Flash  
32 GB m.SATA SSD MLC

### Performance

Switching Capacity: 3.2 Tbps  
Forwarding Rate: 4.7 Bpps  
IPv4: 192 k host entries; 2 M prefixes  
IPv6: 96 k host entries; 256 k prefixes  
Packet Buffer Size: 24 MB shared buffer pool  
Latency: 600 ns

### Physical and Environmental

Dimensions (WxDxH): 43.8 x 51.5 x 4.35 cm (17.3 x 20.3 x 1.7 in)  
Weight: 10 kg (23 lb)  
Operating Temperature: 0°C to 45°C (32°F to 113°F)  
Storage Temperature: -40°C to 70°C (-40°F to 158°F)  
Fans: 5+1 redundant, hot-swappable  
Operating Humidity: 5% to 95% non-condensing  
Operating Altitude: 0 to 10,000 feet

### 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  
OpenSwitch open-source NOS  
PicOS™ future release

### 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 and Fan Status

### Power

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

### Regulatory

EMI  
CE Mark  
EN55022 Class A  
EN55024 (Immunity) for IT Equipment  
EN 61000-3-2  
EN 61000-3-3  
FCC Part 15 Class A  
VCCI  
Safety  
CB  
UL/CUL  
Environmental:  
Temperature: IEC 68-2-14  
Vibration: IEC 68-2-36, IEC 68-2-6  
Shock: IEC 68-2-29  
Drop: ISTA 2A  
Acoustic Level: 65 dB@25°C with AC PSU  
RoHS-6 Compliant

### Warranty

Please check [www.edge-core.com](http://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](http://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](http://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 (949)-336-6801 or authorized resellers.

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## Ordering Information

<b>Base Model: AS7512-32X; 32-Port 100G QSFP28; ONIE software installer</b>				
<b>Model Number</b>	<b>CPU Module</b>	<b>PSU</b>	<b>Airflow</b>	<b>Region (power cord)</b>
7512-32X-O-AC-F-US	Intel Atom C2538 processor	dual AC PSUs	port-to-power airflow	N. America
7512-32X-O-AC-B-US	Intel Atom C2538 processor	dual AC PSUs	power-to-port airflow	N. America
7512-32X-O-AC-F-EU	Intel Atom C2538 processor	dual AC PSUs	port-to-power airflow	Europe
7512-32X-O-AC-B-EU	Intel Atom C2538 processor	dual AC PSUs	power-to-port airflow	Europe
7512-32X-O-AC-F-UK	Intel Atom C2538 processor	dual AC PSUs	port-to-power airflow	UK
7512-32X-O-AC-B-UK	Intel Atom C2538 processor	dual AC PSUs	power-to-port airflow	UK
7512-32X-O-AC-F-JP	Intel Atom C2538 processor	dual AC PSUs	port-to-power airflow	Japan
7512-32X-O-AC-B-JP	Intel Atom C2538 processor	dual AC PSUs	power-to-port airflow	Japan
PSU-AC-650A-F		650W AC Power Supply FRU	port-to-power airflow	no power cord
PSU-AC-650A-B		650W AC Power Supply FRU	power-to-port airflow	no power cord
FAN-1U-1x1C-F		Fan Module FRU	port-to-power airflow	
FAN-1U-1x1C-B		Fan Module FRU	power-to-port airflow	
<b>Model Number</b>	<b>Description</b>			
75xx-32X-SVC-RTF	AS75xx-32X series, Annual Hardware Service, Return-to-Factory, after warranty. 3 year warranty included already with the product, maximum 2 additional years per product.			
CBL-PWR-US	AC Power Cable - US (125V/13A, 1830mm) – only required with spare power supplies			
CBL-PWR-EU	AC Power Cable - Europe (250V/10A, 1830mm) – only required with spare power supplies			
CBL-PWR-UK	AC Power Cable - UK (250V/10A, 1830mm) – only required with spare power supplies			
CBL-PWR-JP	AC Power Cable - Japan – only required with spare power supplies			