

Data Center Switch

AS7712-32X



The Edgecore DCS501 switch is a Top-of-Rack (TOR) or spine switches for high-performance data centers. In a compact 1RU form factor, the switches provide line-rate L2 and L3 switching across the 32 x QSFP28 ports, supporting up to 32 x 40/100 GbE, 64 x 50 GbE, or 128 x 10/25 GbE connections. The DCS501 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. These open network switches are loaded with the Open Network Install Environment (ONIE) which supports the installation of compatible Network Operating System (NOS) software, including the open source options Open Network Linux and SONiC, plus commercial NOS offerings.

Key Features and Benefits

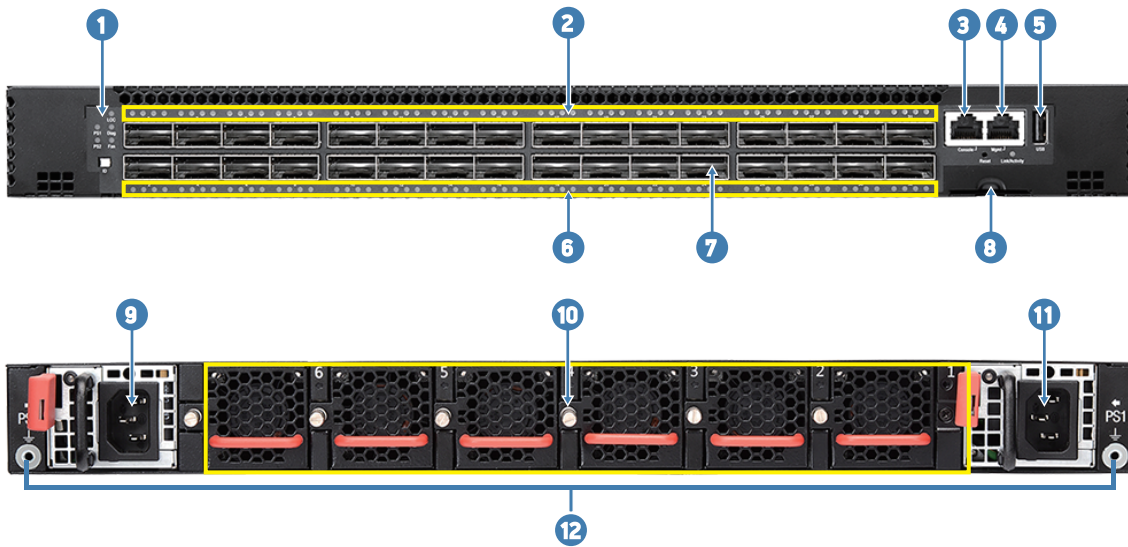
- Cost-effective, open network switch for data center fabric.
- Deploy as Top-of-Rack switch supporting 10 or 25 GbE to servers, with 40 or 50 or 100 GbE uplinks.
- Deploy as spine switch supporting 40, 50, or 100 GbE ToR and spine interconnects.
- 32 x QSFP28 switch ports, each supporting 1 x 100 GbE 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.
- Hardware switch pre-loaded 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.



Software Supported




Interfaces



Description

- | | |
|-------------------------------------|--|
| 1. System LEDs | 7. 32 x 100G QSFP28 ports |
| 2. 100G QSFP28 port LEDs | 8. Luggage tag |
| 3. Console port | 9. PSU 2 |
| 4. Management port | 10. Hot-swappable 4 + 1 redundant fans |
| 5. USB storage port | 11. PSU 1 |
| 6. 40G/100G port breakout mode LEDs | 12. Grounding point |

Ports

- Switch Ports:
32 x QSFP28 ports. Each port supports 1 x 40/100 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: Broadcom BCM56960 Tomahawk 3.2 Tbps
No PHYs, No Retimers
CPU Modules:
Intel® Atom® C2538 quad-core 2.4 GHz x86 processor
DDR3: SO-DIMM 8 GB x 2
SPI Flash: 8 MB x 2
mSATA SSD: 64 GB MLC

Performance

- Switching Capacity: 6.4 Tbps full duplex
- Forwarding Rate: 3.2 Bpps
- Jumbo frames support up to 9416 Bytes
- Packet Buffer Size: 16 MB integrated packet buffer
- Subject to NOS:
MAC Addresses: 8 K min./136 K max.
VLAN IDs: 4 K
IPv4: 8 K min./72 K max. host entries; 16 K LPM entries with TCAM-only mode
IPv6: 4K /36 K max. host entries; IPv6/64= 8 K TCAM-only mode

Physical and Environmental

- Dimensions (WxDxH): 43.8 x 51.5 x 4.35 cm (17.3 x 20.3 x 1.7 in)
- Weight: 10.87 kg (23.96 lb), with two installed PSUs
- Operating Temperature:
(F2B) 0° C to 45° C (32° F to 113° F)
(B2F) 0° C to 40° C (32° F to 104° 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

Software

- Switch is loaded with Open Network Install Environment (ONIE)
- Compatible with the following NOS options:
Open Network Linux (ONL)

LEDs

- QSFP28 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 or -48 VDC
- Input Voltage: 90 to 240 VAC at 50-60 Hz. -36 to -72 VDC
- PSU Efficiency: Up to 93% for AC PSUs
- Power Input Option: 12 VDC
- Max Power: 550 W

Regulatory

- EMI:
CE Mark
EN55022 Class A
EN55024
EN61000-3-2
EN61000-3-3
- FCC Part 15 Subpart B Class A
- VCCI Class A
- 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: 62dB@ 27°C
- RoHS-6 Compliant
- Country of Origin: Taiwan (TAA Compliant)

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 (949)-336-6801 or authorized resellers.

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Ordering Information

Base Model: AS7712-32X; Intel® Atom® C2538 processor; 32-Port 100G QSFP28; ONIE software installer

Model Number	Part Number	PSU	Airflow	Region (power cord)
7712-32X-0-AC-F-US	FP3ZZ7632406A	dual AC PSUs	port-to-power airflow	N. America
7712-32X-0-AC-B-US	FP3ZZ7632407A	dual AC PSUs	power-to-port airflow	N. America
7712-32X-0-AC-F-EU	FP3ZZ7632200A	dual AC PSUs	port-to-power airflow	Europe
7712-32X-0-AC-B-EU	FP3ZZ7632201A	dual AC PSUs	power-to-port airflow	Europe
7712-32X-0-AC-F-UK	FP3ZZ7632301A	dual AC PSUs	port-to-power airflow	UK
7712-32X-0-AC-B-UK	FP3ZZ7632300A	dual AC PSUs	power-to-port airflow	UK
7712-32X-0-AC-F-JP	FP3ZZ7632500A	dual AC PSUs	port-to-power airflow	Japan
7712-32X-0-AC-B-JP	FP3ZZ7632501A	dual AC PSUs	power-to-port airflow	Japan
7712-32X-0-48V-F	FP3ZZ7632028A	dual -48V DC PSUs	port-to-power airflow	
7712-32X-0-48V-B	FP3ZZ7632031A	dual -48V DC PSUs	power-to-port airflow	
7712-32X-0-12V-F	FP3ZZ7632022A	one 12 VDC power input	port-to-power airflow	
7712-32X-0-12V-B	FP3ZZ7632025A	one 12 VDC power input	power-to-port airflow	
PSU-AC-650A-F	F0TA06632003A	650W AC Power Supply FRU	port-to-power airflow	no power cord
PSU-AC-650A-B	F0TA06632002A	650W AC Power Supply FRU	power-to-port airflow	no power cord
PSU-48V-650-F	F0TZZ7632004A	650W 48VDC Power Supply	port-to-power airflow	no power cord
PSU-48V-650-B	F0TZZ7632003A	650W 48VDC Power Supply	power-to-port airflow	no power cord
FAN-1U-1x1C-F	F0TA06632000A	Fan Module FRU	port-to-power airflow	
FAN-1U-1x1C-B2	F0TZZ7632000A	Fan Module FRU	power-to-port airflow	
Model Number	Part Number	Description		
77xx-32X-SVC-RTF	REWECECWA027Z	AS77xx-32X series, Annual Hardware Service, Return-to-Factory, after warranty. 3 year warranty included already with the product, maximum 2 additional years per product.		