

Data Center Switch

AS7816-64X



The Edgecore DCS500 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 DCS500 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 (NOS) software, including the open source plus commercial NOS offerings.

Key Features and Benefits

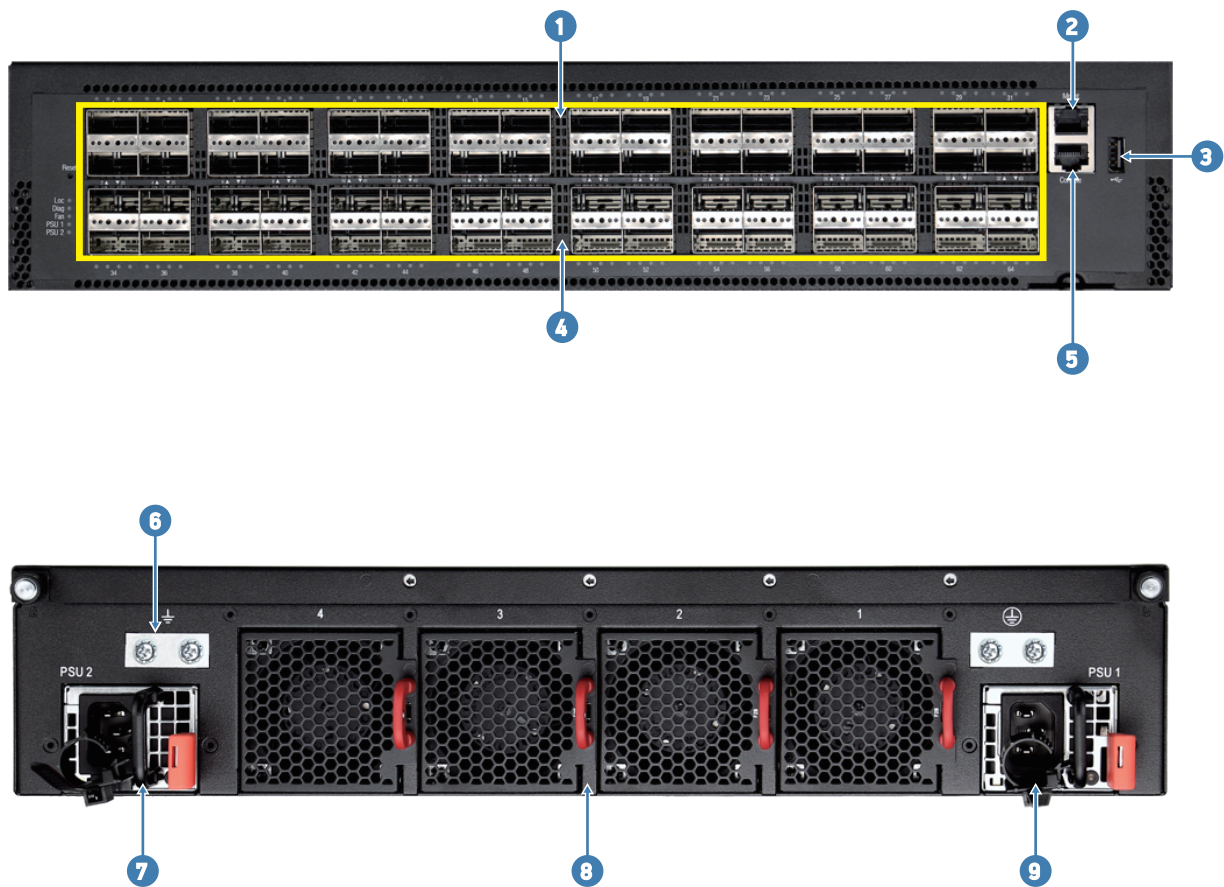
- Cost-effective, open network switch for data center fabric.
- 64 x QSFP28 switch ports, each supporting 1 x 100 GbE or 1 x 40 GbE, or via breakout cables 4 x 25 GbE or 4 x 10 GbE.
- Incorporates Broadcom StrataXGS Tomahawk II switch series silicon for non-blocking line rate performance.
- High performance 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.
- Hardware switch pre-loaded with Open Network Install Environment (ONIE) for automated loading of compatible open source and commercial NOS offerings.



Free Software Included

onle

Interfaces



Description

- | | |
|---------------------------|--|
| 1. 64 x 100G QSFP28 ports | 6. Grounding point |
| 2. Management port | 7. PSU 1 (AS7816-64X-OZ-series)
PSU 2 (AS7816-64X-O-series) |
| 3. USB Storage port | 8. Hot-swappable 3 + 1 redundant fans |
| 4. Port LED indicators | 9. PSU 0 (AS7816-64X-OZ-series)
PSU 1 (AS7816-64X-O-series) |
| 5. Console port | |

Ports

- Switch Ports: 64 x QSFP28 100 GbE
- Management ports on port side:
 - 1 x RJ-45 serial console
 - 1 x RJ-45 1000BASE-T management
 - 1 x USB Type A storage

Key Components

- Switch Silicon: BCM56970 Tomahawk II
- CPU Modules:
 - Intel Xeon D-1518 quad-core 2.2 GHz
 - 8 GB x 2 2133MHz with ECC (DDR4 SO-DIMM)
 - 16 MB x 2 SPI Flash (Boot)
 - m.2 SSD: 32 GB MLC
 - Reserve mSATA connector

Performance

- Switching Capability: 6.4 Tbps full duplex
- Forwarding Rate: 4.2 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
 - Pv6: 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): 43.84 x 58.0 x 8.77 cm (17.26 x 22.83 x 3.45 in)
- Weight: 14.11 kg (31.1 lb)
- Fans: Hot-swappable 3 + 1 redundant fans
- Operating Temperature: 0°C ~ 45°C (32°F ~ 113°F)
- Storage Temperature: -40°C ~ 70°C (-40°F ~ 158°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

Power

- PSUs: 2 redundant, load-sharing, hot-swappable AC or -48 VDC
- Input Voltage: 100-240 VAC, 50-60 Hz

Software

- Switch is loaded with Open Network Install Environment (ONIE) software installer
- Compatible with the following NOS options: open source options, plus commercial NOS offerings.

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 (949)-336-6801 or authorized resellers.

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Ordering Information

Base model: AS7816-64X-OZ series; Intel® Xeon® D-1518 Processor; 64-Port 100G QSFP28; ONIE software installer; port, fan and PSU numbering start at zero.

Model Number	Part Number	PSU	Airflow	Region (power cord)
7816-64X-OZ-AC-F-US	FP3AT7664403A	Dual AC PSUs	Port-to-Power airflow	N. America
7816-64X-OZ-AC-B-US	FP3AT7664402A	Dual AC PSUs	Power-to-Port airflow	N. America
7816-64X-OZ-AC-F-EU	FP3AT7664200A	Dual AC PSUs	Port-to-Power airflow	EU
7816-64X-OZ-AC-B-EU	FP3AT7664201A	Dual AC PSUs	Power-to-Port airflow	EU
7816-64X-OZ-AC-F-UK	FP3AT7664300A	Dual AC PSUs	Port-to-Power airflow	UK
7816-64X-OZ-AC-B-UK	FP3AT7664301A	Dual AC PSUs	Power-to-Port airflow	UK
7816-64X-OZ-AC-F-JP	FP3AT7664500A	Dual AC PSUs	Port-to-Power airflow	JP
7816-64X-OZ-AC-B-JP	FP3AT7664501A	Dual AC PSUs	Power-to-Port airflow	JP
7816-64X-OZ-AC-F-UN	FP3AT7664004A	Dual AC PSUs	Port-to-Power airflow	C13 - C14 Power Cord
7816-64X-OZ-AC-B-UN	FP3AT7664005A	Dual AC PSUs	Power-to-Port airflow	C13 - C14 Power Cord

Base model: AS7816-64X-O series; Intel® Xeon® D-1518 Processor; 64-Port 100G QSFP28; ONIE software installer; port, fan and PSU numbering start at one.

Model Number	Part Number	PSU	Airflow	Region (power cord)
7816-64X-O-AC-F-R-US	FP3ZZ7664402A	Dual AC PSUs	Port-to-Power airflow	N. America
7816-64X-O-AC-B-R-US	FP3ZZ7664401A	Dual AC PSUs	Power-to-Port airflow	N. America
7816-64X-O-AC-F-R-EU	FP3ZZ7664202A	Dual AC PSUs	Port-to-Power airflow	EU
7816-64X-O-AC-B-R-EU	FP3ZZ7664201A	Dual AC PSUs	Power-to-Port airflow	EU
7816-64X-O-AC-F-R-UK	FP3ZZ7664302A	Dual AC PSUs	Port-to-Power airflow	UK
7816-64X-O-AC-B-R-UK	FP3ZZ7664301A	Dual AC PSUs	Power-to-Port airflow	UK
7816-64X-O-AC-F-R-JP	FP3ZZ7664502A	Dual AC PSUs	Port-to-Power airflow	JP
7816-64X-O-AC-B-R-JP	FP3ZZ7664501A	Dual AC PSUs	Power-to-Port airflow	JP
7816-64X-O-48V-F-R	FP3ZZ7664024A	Dual 48 VDC PSUs	Port-to-Power airflow	
7816-64X-O-48V-B-R	FP3ZZ7664026A	Dual 48 VDC PSUs	Power-to-Port airflow	

(FRU) Model Number	Type	Airflow
YM-2851F, C01R	F0TAT7664003A	AC port-to-power
YM-2851F, D01R	F0TAT7664001A	AC power-to-port
DPS-850AB-5 A	F0TZZ7664004A	AC port-to-power
DPS-850AB-6 A	F0TZZ7664005A	AC power-to-port
YM-2851J ER	F0TAT7664000A	DC port-to-power
YM-2851J FR	F0TAT7664002A	DC power-to-port

(FAN) Model Number	Type	Airflow
FAN-1U-1x1G-F	F0TZZ7664002A	Port-to-Power airflow
FAN-1U-1x1G-B	F0TZZ7664003A	Power-to-Port airflow