DATA CENTER SWITCH
AS9737-32DB

The Edgecore DCS511 is a high-performance, low latency switch for high-performance data centers. The switch provides L2 and L3 switching across the 32 x QSFP56-DD ports, each supporting 1 x 400 GbE or 1 x 100 GbE, or via breakout cables 2 x 200 GbE, 4 x 100 GbE, or 4 x 25 GbE. The DCS511 can be deployed as a leaf or spine switch supporting 100/400 GbE interconnects, as well as 400 GbE ZR or OpenZR+ transceivers for data center interconnect applications. 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 options, plus commercial NOS offerings.
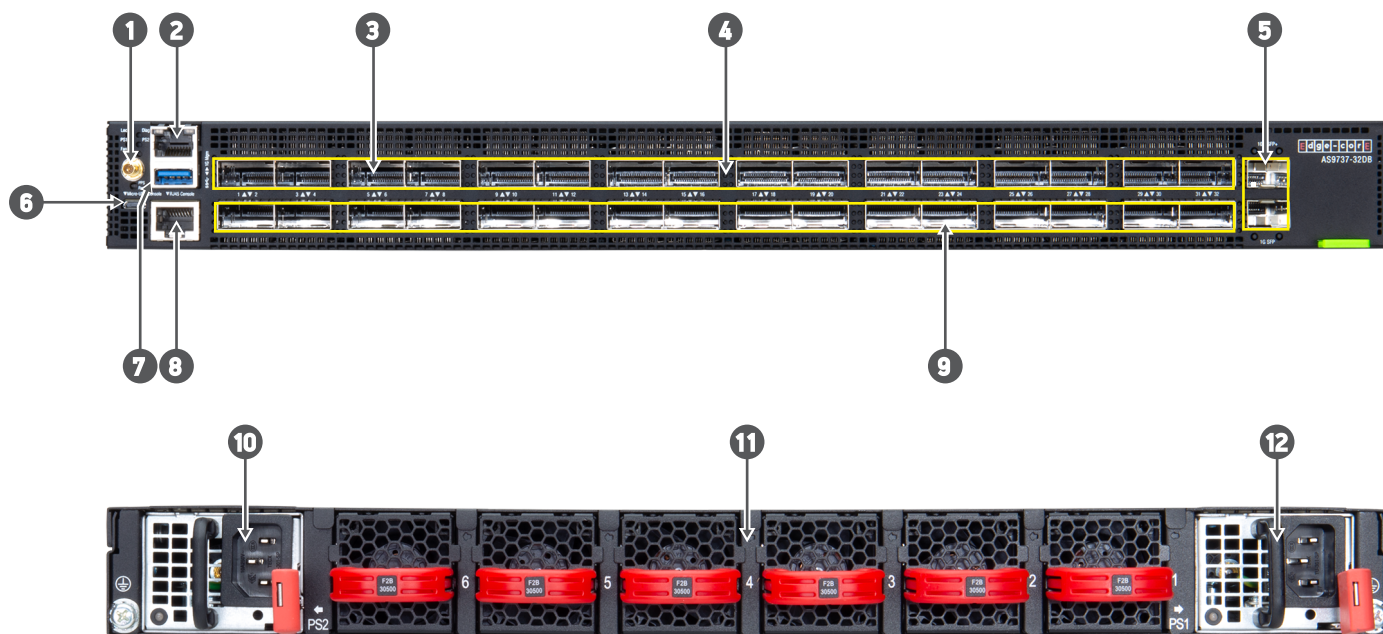
Key Features and Benefits

- QSFP56-DD switch ports, each supporting 1 x 400 GbE, or via breakout cables 2 x 200 GbE or 4 x 100 GbE.
  Upper 16 ports support up to 24 W per transceiver.
  Lower 16 ports support up to 14 W per transceiver.
- QSFP56-DD switch ports also support 100 GbE QSFP28 and 40 GbE QSFP+, and via breakout cables 4 x 25 GbE or 4 x 10 GbE.
- Supports 400G ZR/Open ZR+ coherent transceivers in the upper 16 QSFP56-DD ports.
- Incorporates Broadcom Tomahawk 4 switch series silicon.
- BMC module with Serial-over-LAN support
- SyncE and PTP support with 1PPS connector on the front panel
- Contains e-fuses to protect individual transceivers
- Standby power mode
- Ability to selectively power off individual ports
- 1 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 1500 W AC or 48VDC PSUs.
- 5+1 redundant, hot-swappable fan modules.
- Hardware switch pre-loaded with Open Network Install Environment (ONIE) for automated loading of compatible open source and commerical NOS offerings.

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onie

Interfaces

Description

1	1PPS SMB connector Input/output	7	USB storage port
2	RJ-45 management port	8	RJ-45 console port
3	16 x 400G QSFP56-DD ports supporting up to 24W per port, supports 400G ZR/OpenZR+ transceivers.	9	16 x 400G QSFP56-DD ports supporting up to 14W per port
4	Port indicators	10	PSU 2
5	Top: 10G SFP+ port (MAC) Bottom: 1G SFP port (CPU)	11	Hot-swappable 5 + 1 redundant fans
6	Micro USB console port (higher priority)	12	PSU 1

Ports

- Switch Ports: 32 x QSFP56-DD 400 GbE
- Logical Ports: Max. 128
- Port Modes:
    1 x 400G (8 lanes 50G PAM4)
    2 x 200G (4 lanes 50G PAM4) QSFP56-DD breakout
    4 x 100G (2 lanes 50G PAM4) QSFP56-DD breakout
    1 x 100G (4 lanes 25G NRZ) QSFP28
    1 x 40G (4 lanes 10G NRZ) QSFP+
    4 x 25G (1 lane 25G NRZ) QSFP28 breakout
    4 x 10G (1 lane 10G NRZ) QSFP+ breakout
- Management Ports on Port Side:
    1 x RJ-45 serial console
    1 x Micro USB console port
    • Note: When both console ports are connected, only one is active.
    The Micro USB port has a higher priority.
    1 x RJ-45 1000BASE-T management
    1 x SFP+ 10G ASIC management
    1 x SFP 1G CPU management
    1 x USB 3.0 storage port
- Supported Transceivers and Cables:
    40GBASE-SR4/LR4
    40G-DAC Cable
    100GBASE-SR4/CWDM4/LR4
    100G-DAC/AOC Cable
    400GBASE-FR4/ZR
    400G-DAC/AOC Cable
    • Note: More optics and detailed cabling information can be found at www.edge-core.com.

Key Componets

- Switch Silicon: BCM56993 Tomahawk 4
- CPU Module:
    Processor: Intel® Xeon® Processor D-1713NTE 4-Core 2.2 GHz
    SPI Flash: 512MB x 2
    Memory: 32GB DDR4 SO-DIMM with ECC
    Storage: 128GB m.2 SATA SSD with PLP support
    TPM: TPM2.0
- BMC: AST2600 with OpenBMC
- Timing and Sync:
    1PPS Port, SyncE, IEEE 1588v2 PTP

Performance

- Switching Capability: 12.8 Tbps full duplex
- Forwarding Rate: 5.079 Bpps
- Latency: 649 ns
- Jumbo Frames: up to 9416 Bytes
- Packet Buffer Size: 56.83MB
- Subject to NOS:
    Shared TCAM space with the following maximum entries:
    MAC Addresses: 8K (exact)/128K (fuzzy)
    VRF: 8192
    L3 LPM: 4K IPv4/2K IPv6 64b/1K IPv6 (128b)
    ALPM: 850K IPv4/360K IPv6 64b/240K IPv6 128b
    VXLAN RIOT support

Physical and Environmental

- Dimensions (WxDxH): 43.84 x 59 x 4.35 cm (17.26 x 23.23 x 1.71 in.)
- Weight: 11.85 kg (26.12 lb), with 2 PSUs and 6 fans installed
- Fans: Hot-swappable 5 + 1 redundant fans
- Storage Temperature: -40°C to 70°C (-40°F to 158°F)
- Operating Temperature:
    (FtoB): 0°C ~ 45°C (32°F ~ 113°F)
    (BtoF): 0° C ~ 30° C (32°F to 86°F)
- Operating Humidity: 5% ~ 95% non-condensing

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.

System and Port LEDs

- Port LEDs: Link Status, Activity, Rate
- Ethernet Management Port LEDs: Link Status, Activity
    RJ-45 Port: Link Status, Activity
- System LEDs: Locator, Diagnostic, PSU and Fan Status
- Reset Button

Power

- PSUs: 2 redundant, load-sharing, hot-swappable AC or 48VDC
- AC PSU:
    AC input ranges:
    100-127VAC at 50-60Hz (12 A/1000 W max.)*
    200-240VAC at 50-60Hz (8 A/1500 W max.)
    *200-240VAC may be required for power redundancy under full loading.
    AC Inlet: IEC 60320 C14
    Power efficiency: >90%
- DC PSU:
    48VDC input ranges:
    -40 - -75VDC (1600 W/40 A max.)
    DC Inlet: Terminal screws
    Power efficiency: >88%
- Power Draw: 1370 W (Maximum)
- Power Budget: 24 W on upper 16 ports, 14 W on lower 16 ports

Regulatory

- Emissions:
    EN 55032 Class A
    EN 61000-3-2
    EN 61000-3-3
    FCC Class A
    VCCI
    ICES
    CSPR32 (AU/NZS)
- Immunity:
    EN 55035
    EN 55024
    IEC 61000-4-2/3/4/5/6/8/11
- Safety:
    UL (CSA 22.2 No 62368-1 & UL62368-1)
    CB (IEC/EN60950-1 & IEC/EN 62368-1)
- Environmental:
    GR63-CORE (Pre-test)
- RoHS-2.0 Compliant
- Electrical and Electronic Equipment (WEEE Directive 2002/96/EC)
- Country of Origin: Taiwan (TAA Compliant)

Ordering Information

Base Model: AS9737-32DB; Intel® Xeon® Processor D-1713NTE 4-Core 2.2 GHz; 32 x QSFP56-DD 400GbE; ONIE Software Installer.

Model Number	Part Number	PSU	Airflow	Power Cord
AS9737-32DB-O-AC-F	FP5EC8632004Z	Dual AC PSUs	Front-to-Back	Without Power Cord
AS9737-32DB-O-AC-B	FP5EC8632005Z	Dual AC PSUs	Back-to-Front	Without Power Cord

200-240VAC, 1500 W max. (power redundancy under full loading)

Model Number	Part Number	PSU	Airflow	Power Cord
AS9737-32DB-O-AC-F-UN		Dual AC PSUs	Front-to-Back	IEC 60320 C13-C14
AS9737-32DB-O-AC-B-UN		Dual AC PSUs	Back-to-Front	IEC 60320 C13-C14
AS9737-32DB-O-AC-F-EU		Dual AC PSUs	Front-to-Back	IEC 60083 Type E/F (CEE 7/7) EU
AS9737-32DB-O-AC-B-EU		Dual AC PSUs	Back-to-Front	IEC 60083 Type E/F (CEE 7/7) EU
AS9737-32DB-O-AC-F-UK		Dual AC PSUs	Front-to-Back	IEC 60083 Type G (BS 1363) UK
AS9737-32DB-O-AC-B-UK		Dual AC PSUs	Back-to-Front	IEC 60083 Type G (BS 1363) UK

100-120VAC, 1000 W max. (may not have power redundancy under full loading, depending on type and number of transceivers present)

Model Number	Part Number	PSU	Airflow	Power Cord
AS9737-32DB-O-AC-F-US		Dual AC PSUs	Front-to-Back	NEMA 5-15
AS9737-32DB-O-AC-B-US		Dual AC PSUs	Back-to-Front	NEMA 5-15
AS9737-32DB-O-AC-F-JP		Dual AC PSUs	Front-to-Back	JIS C 8303, Class I
AS9737-32DB-O-AC-B-JP		Dual AC PSUs	Back-to-Front	JIS C 8303, Class I

48VDC, 1600 W max. (includes 6/8AWG (4.3/6.4mm²) power cord 3 x ring terminal to 3 x ring terminal, 3m)

Model Number	Part Number	PSU	Airflow	Power Cord
AS9737-32DB-O-48V-F	FP5EC8632006Z	Dual 48VDC PSUs	Front-to-Back	
AS9737-32DB-O-48V-B	FP5EC8632007Z	Dual 48VDC PSUs	Back-to-Front	

PSU FRUs (power cord not included)

Model Number	Part Number	PSU	Airflow	Region
FSJ001-612G	F0ZZ8632002A	AC	Font-to-Back	Worldwide
FSJ004-612G	F0ZZ8632003A	AC	Back-to-Front	Worldwide
SPAACTN-01 S539	F0ZZ8632004A	AC	Font-to-Back	Worldwide except Japan, Taiwan
SPAACTN-02 S540	F0ZZ8632005A	AC	Back-to-Front	Worldwide except Japan, Taiwan
FSJ035-610G	F0ZZ8632008A	48VDC	Font-to-Back	Worldwide
FSJ036-610G	F0ZZ8632009A	48VDC	Back-to-Front	Worldwide

Fans

Model Number	Part Number	Airflow
FAN-1U-1x1N-F	F0ZZ8632006A	Front-to-Back
FAN-1U-1x1N-B	F0ZZ8632007A	Back-to-Front

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 productsand 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.