DATA CENTER SWITCH
AS9817-64O/AS9817-64D

The Edgecore DCS560 is a high-performance, low-latency switch for high-performance data centers.
Application Scenarios:

- **Spine Switch**
A next-generation, highest-capacity switch for data center spine use case. Breakout options include 2 x 400G, 4 x 200G, and 8 x 100G per port, with a maximum of 320 logical ports. Offers reduced cost and power per bit. Scalable and enables migration to 400G leaf connectivity in data centers.
- **AI/ML Clusters**
Standards-based (Ethernet) networking for AI/ML training, leveraging low latency and high-throughput RoCEv2. Reduces Job Completion Time (JCT) using the cognitive routing and congestion management capabilities of the switch. Fully programmable telemetry enables sophisticated on-chip applications for heightened network insight and efficient network management.
- **High-Performance Computing**
The large number of high-capacity Ethernet ports enables server interfaces to transition to higher speeds and denser networks. Enables the virtualization of compute and storage with VxLAN switching and routing.
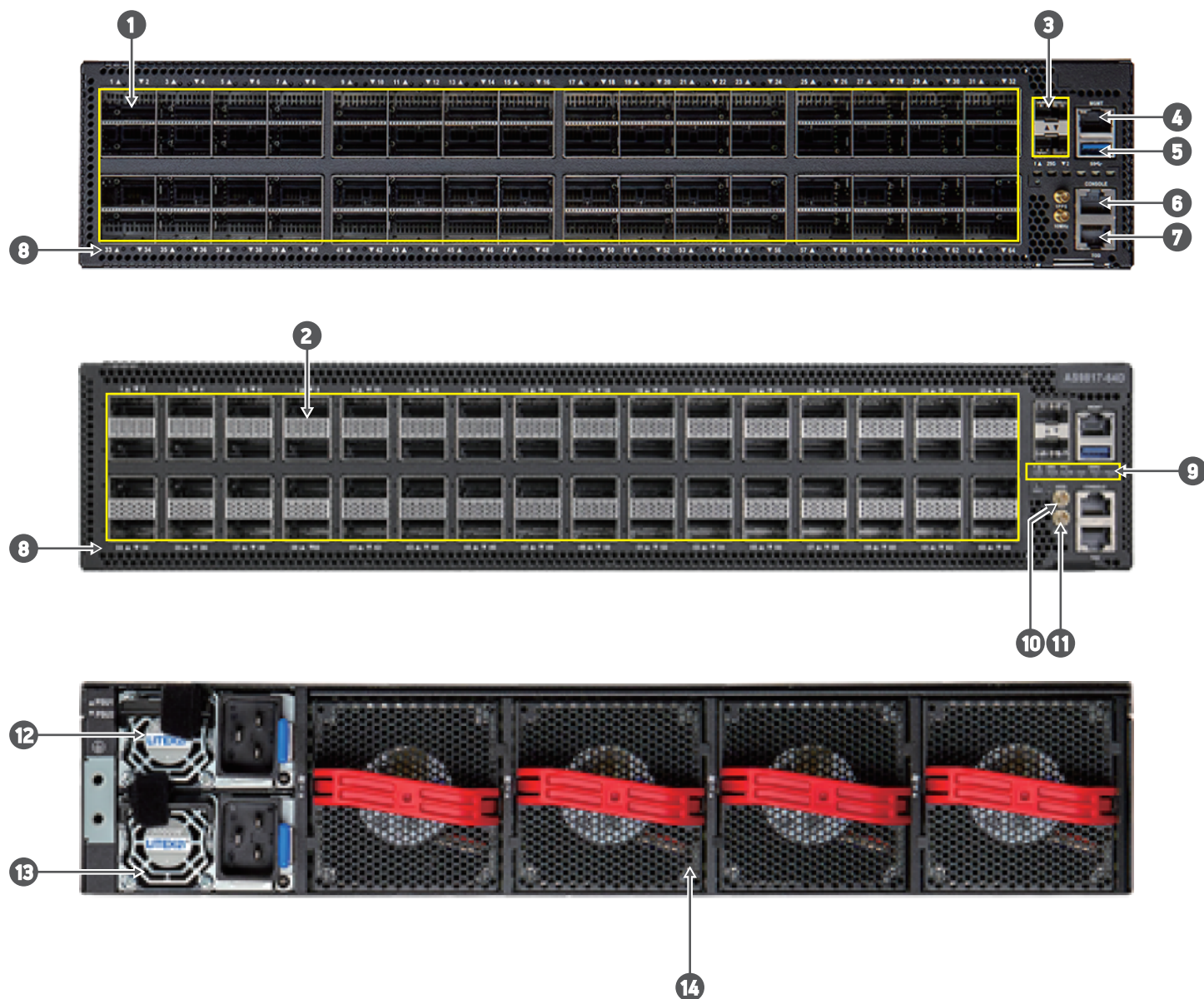
Key Features and Benefits

- OSFP800 or QSFP-DD800 switch ports, each supporting 1 x 800 GbE (100G PAM4), or via breakout cables 2 x 400G GbE, 4 x 200 GbE, or 8 x 100 GbE.
- OSFP800 or QSFP-DD800 switch ports also support 1 x 400 GbE (50G PAM4), 1 x 100 GbE (NRZ), and via breakout cables 2 x 200 GbE, 4 x 100 GbE, or 8 x 50 GbE.
- Up to 24 W power budget per OSFP800 and QSFP-DD800 port.
- Incorporates Broadcom Tomahawk 5 switch series silicon.
  - Highest Radix: Up to 320 logical ports on a single chip, low latency
  - Cognitive/adaptive routing and dynamic load balancing
  - Advanced shared buffering
  - Programmable in-band telemetry
  - Supports end-to-end congestion control
  - Power efficient due to a monolithic 5nm die
  - Hardware-based link failover for network resiliency and reduced job completion time
  - Support for SRv6
- BMC module with serial-over-LAN support
- SyncE and PTP support with 1PPS, 10MHz, and ToD connectors on the front panel
- Contains e-fuses to protect transceivers and internal components
- Standby power mode
- 2 RU form factor
- Supports hot/cold aisles with front-to-back airflow SKU.
- All ports on front; PSUs and fans accessible from rear.
- Hot-swappable, load-sharing, redundant 3000 W AC 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 commerical NOS offerings.

OPEN™ PLATINUM

OPEN Compute Project
SOLUTION PROVIDER

Freedom of choice

Greater control

Rapid innovation

Free Software Included

onie

Interfaces

Description			
1.	64 x 800G OSFP800 ports	8.	Port indicators
2.	64 x 800G QSFP-DD800 ports	9.	System LEDs
3.	2 x 25G SFP28 ports	10.	1PPS connector
4.	RJ-45 management port	11.	10 MHz connector
5.	USB storage port	12.	PSU1
6.	RJ-45 console port	13.	PSU2
7.	ToD port	14.	Hot-swappable 3 + 1 redundant fans

Ports

- Switch Ports: 64 x OSFP800 or QSFP-DD800 800GbE
- Logical Ports: Max. 320
- Port Modes:
  1 x 800G (8 lanes 100G PAM4)
  2 x 400G (4 lanes 100G PAM4) breakout
  4 x 200G (2 lanes 100G PAM4) breakout
  8 x 100G (1 lane 100G PAM4) breakout
  1 x 400G (8 lanes 50G PAM4)
  2 x 200G (4 lanes 50G PAM4) breakout
  4 x 100G (2 lanes 50G PAM4) breakout
  8 x 50G (1 lane 50G PAM4) breakout
  1 x 100G (4 lanes 25G NRZ)
- Management Ports on Port Side:
  1 x RJ-45 serial console
  1 x RJ-45 1000BASE-T management
  2 x SFP28 25G ASIC management
  1 x USB 3.0 storage port
- Supported Transceivers and Cables:
  TBD
  - Note: More optics and detailed cabling information can be found at www.edge-core.com.

Key Componets

- Switch Silicon: BCM78900 Tomahawk 5
- CPU Module:
  Processor: Intel® Xeon® Processor D-1713NTE 4-Core 2.2 GHz
  SPI Flash: 64MB x 2
  Memory: 32GB DDR4 SO-DIMM with ECC
  Storage: 240G m.2 2280 NVMe SSD
  TPM: TPM2.0
- BMC: AST2600 with OpenBMC
- Timing and Sync:
  1PPS port, 10 MHz port, ToD port, SyncE, IEEE 1588v2 PTP

Performance

- Switching Capability: 51.2 Tbps full duplex
- Forwarding Rate: TBD
- Latency: <1μs
- Jumbo Frames: Up to 9416 Bytes
- Packet Buffer Size: 165.2MB
- 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
  SRv6 support

Physical and Environmental

- Dimensions (WxDxH): 44 x 64.92 x 8.7 cm (17.32 x 25.56 x 3.43 in.)
- Weight: 21.5 kg (47.4 lb), with 2 PSUs and 4 fans installed
- Fans: Hot-swappable 3 + 1 redundant fans
- Storage Temperature: -40°C to 70°C (-40°F to 158°F)
- Operating Temperature: 0°C – 40°C
- Operating Humidity: 5% – 95% non-condensing
- Operating Altitude: 1800 m
- MTBF: TBD

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
- Management Port LEDs: Link Status, Activity
  RJ-45 Port: Link Status, Activity
- System LEDs: Locator, Diagnostic, PSU, Fan Status, Alarm
- Reset button

Power

- PSUs: 2 redundant, load-sharing, hot-swappable 3000W AC
- AC PSU:
  AC Input Ranges:
  100-127VAC at 50-60Hz (16 A/1500 W max.)*
  200-240VAC at 50-60Hz (16 A/3000 W max.)
  *200-240VAC may be required for power redundancy under full loading.
  AC Inlet: IEC 60320 C20
  Power Efficiency: >88%
- Power Draw: TBD (<2775 W)
- Power Budget: 24W on OSFP800 and QSFP-DD800 ports

Regulatory

- Emissions:
  EN 55032 Class A
  AS/NZS CISPR32
  EN 61000-3-2
  EN 61000-3-3
  FCC Class A
  ICES-003
  VCCI-CISPR32
- Immunity:
  EN 55035
  IEC 61000-4-2/3/4/5/6/8/11
- Safety:
  UL (CSA 22.2 No 62368-1 & UL 62368-1)
  CB (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: AS9817-64O; Intel® Xeon® Processor D-1713NTE 4-Core; 64-Port 800G OSFP800; ONIE Software Installer.

Model Number	Part Number	PSU	Airflow	Power Cord
AS9817-64O-O-AC-F	FP6ZZ9664001A	Dual AC PSUs	Front-to-Back	Without power cord
AS9817-64O-O-AC-F-UN	FP6ZZ9664007A	Dual AC PSUs	Front-to-Back	IEC 60320 C19-C20, 16 A
AS9817-64O-O-AC-F-EU	FP6ZZ9664201A	Dual AC PSUs	Front-to-Back	IEC 60083 Type E/F (CEE 7/7) EU, 16 A, 2 m
AS9817-64O-O-AC-F-UK	FP6ZZ9664301A	Dual AC PSUs	Front-to-Back	IEC 60083 Type G (BS 1363) UK, 13 A, 2 m
AS9817-64O-O-AC-F-US	FP6ZZ9664402A	Dual AC PSUs	Front-to-Back	NEMA 6-20, 20 A, 2 m
AS9817-64O-O-AC-F-JP	FP6ZZ9664501A	Dual AC PSUs	Front-to-Back	JIS C 8303 (NEMA L6-20P), 20 A, 2 m

Base Model: AS9817-64D; Intel® Xeon® Processor D-1713NTE 4-Core; 64-Port 800G QSFP-DD800; ONIE Software Installer.

Model Number	Part Number	PSU	Airflow	Power Cord
AS9817-64D-O-AC-F	FP6ZZ9664003A	Dual AC PSUs	Front-to-Back	Without power cord
AS9817-64D-O-AC-F-UN	FP6ZZ9664008A	Dual AC PSUs	Front-to-Back	IEC 60320 C19-C20, 16 A
AS9817-64D-O-AC-F-EU	FP6ZZ9664202A	Dual AC PSUs	Front-to-Back	IEC 60083 Type E/F (CEE 7/7) EU, 16 A, 2 m
AS9817-64D-O-AC-F-UK	FP6ZZ9664302A	Dual AC PSUs	Front-to-Back	IEC 60083 Type G (BS 1363) UK, 13 A, 2 m
AS9817-64D-O-AC-F-US	FP6ZZ9664403A	Dual AC PSUs	Front-to-Back	NEMA 6-20, 20 A, 2 m
AS9817-64D-O-AC-F-JP	FP6ZZ9664502A	Dual AC PSUs	Front-to-Back	JIS C 8303 (NEMA L6-20P), 20 A, 2 m

PSU FRUs (Power Cord Not Included)

Model Number	Part Number	PSU	Airflow	Region
PS-2302-6L		AC	Front-to-Back	Worldwide

Fan FRUs

Model Number	Part Number	Airflow
FAN-2U-1x1A-F	F0OZZ8664003A	Front-to-Back

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.