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® NETWORKS

# 100GbE Coherent Switch
## AS7716-24SC Switch



The Cassini packet transponder enables network operators to easily extend and migrate existing metro and long-haul Dense Wavelength Division Multiplexing (DWDM) networks to add new 100G capacities and extend inter-datacenter and Layer3 services.

The Cassini is a 1.5RU form factor with system throughput of 3.2Tbps based on Broadcom StrataXGS™ Tomahawk ™ Plus switch silicon. The Cassini design offers sixteen fixed 100 Gigabit Ethernet QSFP28 ports, plus eight linecard slots to incorporate a flexible mix of additional 200GbE ports or DCO optical ports based on coherent DSP and optical transceivers from leading optical technology partners.

The 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 Open Network Linux and other commercial NOS offerings.

Cassini supports Ethernet and optical line cards with MACsec security to enable secure encrypted connections on both client-side links and metro or wide area connections.
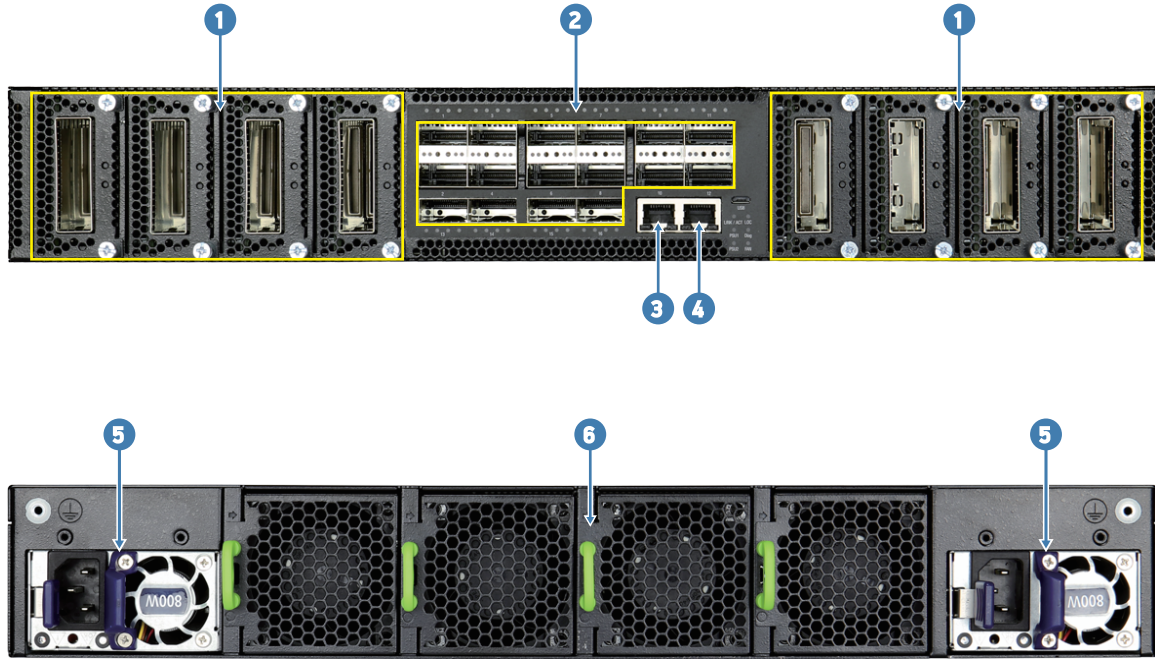
## Key Features and Benefits

- High Capacity: Full 3.2 Tbps switching fabric and future 6.4 Tbps switching fabric.
- Metro Transmission: 200G 16QAM coherent plug-in card.
- Cost Effective: Combined switch and transport function in one box.
- Open and Flexible: Line-side plug-in (CFP2-DCO, 2 x QSFP28). Non-coherent/coherent subscription ratios of 1:1 to 15:1 (also grey fiber/color fiber subscription ratios), "plug-and-play" with automatic conditioning of the analogue line.
- Easier to Use: Transport library supports API functionalities; automated monitoring, failure report, etc. Abstracts complexity of L1 transmission.
- OCP Compliant. Supports ONIE, OOM (TBD).
- Bare-metal hardware switch pre-loaded with diagnostics software and the Open Network Install Environment (ONIE) for automated loading of compatible open source and commercial NOS offerings.
- Long-Life Reliability: Redundant 60 mm fan (3+1 dual-rotor fan assemblies). Redundant Power (1+1 PSU).

**OPEN** PLATINUM

**OPEN** Compute Project
SOLUTION PROVIDER

**Freedom** of choice

**Greater** control

**Rapid** innovation

**Reduced** CAPEX and OPEX

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## Software Supported

onie

## Interfaces



### Description

| | | | |
|---|---|---|---|
| 1 | 8 x DCO cards | 4 | Console port |
| 2 | 16 x QSFP28 100G Ethernet ports | 5 | PSUs |
| 3 | Management port | 6 | Hot-swappable 3 + 1 redundant fans |

## Ports

- Switch ports:
  16 x QSFP28 ports. Each Port supports 1 x 40/100 GbE
  8 line-card slots for QSFP28, DCO modules
- 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 BCM56965 Tomahawk+
- CPU Modules:
  Intel® Xeon® D-1518 quad-core x86 Processor
  DDR4: SO-DIMM 8 GB x 2
  SPI Flash: 16MB
  m.2 SSD: 32 GB MLC

## Performance

- Switching Capacity: 6.4 Tbps full duplex
- Jumbo frames support up to 9216 Bytes
- Subject to NOS:
  MAC Addresses: 8 K min./136 K max.
  VLAN IDs: 4 K
  IPv4: 8 K min./84 K max. host entries; 16 K LPM entries with
    TCAM-only mode
  IPv6: 4 K min /36 K max. host entries; IPv6/64= 8 K TCAM-only mode

## Physical and Environmental

- Dimensions (WxDxH): 44.25 x 55.0 x 6.6 cm (17.42 x 21.65 x 2.6 in.)
- Operating Temperature: 0°C to 45°C (32°F to 113°F)
- Storage Temperature: -40° C to 70° C (-40° F to 158° F)
- Operating Humidity: 5% to 95% (non-condensing)

| Weight | AS7716-24SC | DCO | QSFP28 |
|---|---|---|---|
| Net Weight | 11.6 kg | 0.372 kg | 0.322 kg |

## Software

- Switch is loaded with Open Network Install Environment (ONIE) software installer

## LEDs

- QSFP28 Port LEDs: Link Status, Activity, Speed
- Ethernet Management Port LED: Link Status, Activity
- System LEDs: Diagnostic, Locator, PSU and Fan Status
- Modules LED: Link Status, Activity, Speed

## Power

- PSUs: 2 redundant, load-sharing, hot-swappable AC
- Input Voltage: 90 to 240 VAC at 50-60 Hz.
- PSU Efficiency: Up to 93% for AC PSUs

Full loading, the total power consumption is approximately 1100 W.
1. Under the operation of full loading, the system of AS7716-24SC can support 1 PSU operation if the VAC is set up at high line mode.
2. It's necessary to use 2 PSUs when the VAC is configured at low line mode.

## Regulatory Compliance

- EMI
  CE Mark
  EN55032 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
- RoHS 2.0 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.

# Ordering Information

**Base Model: AS7716-24SC; 16x100GbE and 8 module slot; ONIE software installer**

| Model Number | CPU Module | PSU | Airflow | Region (power cord) |
|---|---|---|---|---|
| 7716-24SC-O-AC-F-US | Intel® Xeon® D-1518 Processor | dual AC PSUs | port-to-power airflow | N. America |
| 7716-24SC-O-AC-F-EU | Intel® Xeon® D-1518 Processor | dual AC PSUs | port-to-power airflow | EU |
| 7716-24SC-O-AC-F-UK | Intel® Xeon® D-1518 Processor | dual AC PSUs | port-to-power airflow | UK |
| 7716-24SC-O-AC-F-JP | Intel® Xeon® D-1518 Processor | dual AC PSUs | port-to-power airflow | EU |

| Model Number | CPU Module |
|---|---|
| AS7716-24SC (QSFP28) | QSFP28 module for AS7716-24SC |
| AS7716-24SC (DCO) | DCO module for AS7716-24SC |