

# AS7716-24SC Switch

## 100GbE Coherent Switch



### Product Overview

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 ACO/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 and future 400G coherent plug-in card.
- Cost Effective: Combined switch and transport function in one box.
- Open and Flexible: Line-side plug-in (CFP2-ACO, CFP2-DCO, 2 x QSFP28). Non-coherent/coherent subscription ratios of 1:1 to 15:1 (also grey fiber/color fiber subscription ratios), ACO "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).

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## Features

### Ports

- Switch ports:
  - 16 x QSFP28 ports. Each Port supports 1 x 40/100 GbE
  - 8 line-card slots for QSFP28, DCO ACO 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 Componets

- 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 | ACO      | DCO      | QSFP28   |
|------------|-------------|----------|----------|----------|
| Net Weight | 11.6 kg     | 0.387 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 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

- Full loading, the total power consumption is approximately 1100 W.
- 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.
  - It's necessary to use 2 PSUs when the VAC is configured at low line mode.

### Regulatory

- 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](http://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](http://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](http://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: AS7716-24SC; 16x100GbE and 8 module slot; ONIE software installer**

| Model Number        | CPU                          | 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-B-US | Intel®Xeon® D-1518 Processor | dual AC PSUs | power-to-port airflow | N. America          |
| 7716-24SC-O-AC-F-EU | Intel®Xeon® D-1518 Processor | dual AC PSUs | port-to-power airflow | Europe              |
| 7716-24SC-O-AC-B-EU | Intel®Xeon® D-1518 Processor | dual AC PSUs | power-to-port airflow | Europe              |
| 7716-24SC-O-AC-F-UK | Intel®Xeon® D-1518 Processor | dual AC PSUs | port-to-power airflow | UK                  |
| 7716-24SC-O-AC-B-UK | Intel®Xeon® D-1518 Processor | dual AC PSUs | power-to-port airflow | UK                  |
| 7716-24SC-O-AC-F-JP | Intel®Xeon® D-1518 Processor | dual AC PSUs | port-to-power airflow | Japan               |
| 7716-24SC-O-AC-B-JP | Intel®Xeon® D-1518 Processor | dual AC PSUs | power-to-port airflow | Japan               |

| Model Number         | Description                      |
|----------------------|----------------------------------|
| AS7716-24SC (ACO)    | ACO module for AS7716-24SC       |
| AS7716-24SC (QSFP28) | QSFP28 module for AS7716-24SC    |
| AS7716-24SC (DCO)    | DCO module for AS7716-24SC       |
| AC200-D13-005        | Acacia CFP2-DCO 200G transceiver |
| CFP2-ACO             | Lumentum TRB100BA-02 transceiver |
| FIM38550/307         | FOC CFP2-ACO 200G transceiver    |