

# DISAGGREGATED OPTICAL TRANSPONDER

Edgecore Cassini - the best 3.2Tbps combination of a coherent optical transponder with a 100 GbE network switch



Model : AS7716-24SC



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Front view

Edgecore Networks designed the Cassini AS7716-24SC to meet challenging data center requirements. The transponder enables optical transport for business-critical use cases such as:

- Data Center Interconnect
- Backhaul of access edge services
- Metro Ethernet services
- Long haul using ACO with appropriate DSP

## HIGH CAPACITY AND TRANSMISSION

The Cassini is a 1.5RU form factor with a system throughput of 3.2Tbps based on Broadcom StrataXGS™ Tomahawk™ Plus switch silicon. The Cassini design offers sixteen fixed 100GbE QSFP28 ports, plus eight line card slots and a 200G 16QAM coherent plug-in card. Existing Dense Wavelength Division Multiplexing (DWDM) networks can easily be extended and migrated to add new 100G capacities and extend inter-datacenter and Layer3 services.

The Cassini packet transponder combines switch and transport function in one device. The transport library supports API functionalities such as automated monitoring and failure report, and abstracts the complexity of L1 transmission.

## OcNOS CASSINI FEATURES

- Complete IPBASE features (L2/L3/VXLAN)
- Point-Point L2 or L3 service
- CLI, SNMP and Netconf
- Openconfig models and integration testing with a controller such as ONOS



## RELIABLE AND SECURE

The open network switch supports Ethernet and optical line cards with MACsec security to enable secure encrypted connections on both client-side links and metropolitan or wide area connections.

Redundant 60mm fans (3+1 dual-rotor fan assemblies) and redundant power supplies (1+1 PSU) ensure a high availability.

## ONIE AND AUTOMATION

The Cassini is pre-loaded with diagnostics software and the Open Network Install Environment (ONIE) for automated loading of compatible open network operating systems, including the open source options Open Network Linux, as well as commercial network operating system software.

## 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 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:** 8K min./136K max.

**VLAN IDs:** 4K

**IPv4:** 8K min./84K max. host entries; 16K LPM entries with TCAM-only mode

**IPv6:** 4K min /36K max. host entries; IPv6/64= 8K TCAM-only mode

## PHYSICAL AND ENVIRONMENTAL

**Dimensions (WxDxH):** 44.25 x 55.0 x 6.6cm (17.42 x 21.65 x 2.6in.)

**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)

## SOFTWARE

The Cassini AS7716-24SC is pre-loaded with Open Network Install Environment (ONIE) software installer and supports OcNOS from IP Infusion

## 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 1100W.

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 is 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

