

OMP800 Open Modular Platform

100G Switching for Data Center Spine

Design Contributed to OCP



Product Overview

The Edgecore OMP800 open modular platform meets the high performance and high capacity 100G networking requirements of cloud data centers. The OMP800 provides full line-rate switching at Layer 2 and Layer 3 across 256 ports of 100 GbE. The OMP platform, deployed to form the data center spine network, lowers equipment cost and power consumption, simplifies cabling, and supports independent NOS and SDN software.

The OMP800 hardware provides the high availability features required for data center operation, including redundant, hot-swappable AC PSUs, multiple fan zones with redundant fans, and chassis management firmware.

Key Features and Benefits

- Cost-effective, bare-metal switch infrastructure for data center fabric.
- 256 x QSFP28 non-blocking switch ports, each supporting 1 x 100G, 2 x 50G, 1 x 40G, 4 x 25G or 4 x 10G.
- 4 fabric cards, up to 8 line cards, each with 32 x QSFP28 ports
- Full line-rate Layer 2 or Layer 3 forwarding.
- All ports on front; PSUs, fan modules on rear.
- Hot-swappable, load sharing, redundant AC power input options.
- Hot swappable redundant fan modules.
- Hardware switch pre-loaded with Open Network Install Environment (ONIE) for automated loading of compatible open source and commercial NOS offerings.
Compatible with the following NOS options: Supports Cumulus Linux versions are version 3.5 or greater.

Bare-Metal Hardware



Features

Ports

Switch Ports:
256 x 100 G QSFP28 each supporting
100G/40G and 2 x 50G/4 x 25G/4 x 10G break-out cable

Management Ports on Front Panel:

Line card

2 x USB console port
2 x USB data port

Fabric card

1 x RJ-45 management port
2 x RJ-45 console port
2 x USB data port

Key Components

Switch Silicon: Broadcom BCM56960 Tomahawk 3.2 Tbps
BCM56960 x 2 for each line and fabric card
CPU modules x 2 for each line and fabric card
CPU Modules (2 CPU modules on each line card and fabric card):
Intel Rangeley 2.4 GHz processor
DDR4 SO-DIMM Max: 32GB x 2 slots
NOR Flash 64 MB
NAND Flash 32GB

Performance

Wire Speed Forwarding: L2 and L3
Switching Capacity: 25.6 Tbps
Jumbo frames: 9 K Bytes
Packet Buffer Size: 16 MB integrated packet buffer
Subject to NOS:
MAC Addresses: 8 K min./136 max.
VLAN IDs: 4K
IPv4: 16 K min./112 K max. host entries; 16 K LPM entries with
TCAM-only mode
IPv6: 8 K min./56 K max. host entries; IPv6/64=8 K TCAM-only
mode

Supported Optics and Cables

QSFP Ports:
40GBASE-CR4 DAC: up to 3 m passive; up to 10 m active
40GBASE-CR4 DAC to 4 x SFP+ up to 3 m passive, up to 10 m
active
40GBASE-SR4: up to 100 m over OM3 MMF, 150 m over OM4 MMF
40GBASE-LR4: up to 10 km over SMF
QSFP28 Ports:
100GBASE Active Optical Cables
100GBASE-SR4: up to 70 m over OM3 MMF, 100 m over OM4 MMF
100GBASE-LR4: up to 10 km over SMF

Physical

Dimensions (WxDxH): 76.2 x 53.34 x 44.45 cm
Weight of the line cards: 5.42 kg
Weight of the fabric cards: 5.19 kg
Weight of Chassis with Fabric card x 4 and Line card x 8: 200 kg
Fans: hot-swappable redundant fan modules
16 fans

Environmental

Operating Temperature: 0°C to 40°C (32°F to 104°F)
Storage Temperature: -40°C to 40°C (-40°F to 104°F)
Operating Humidity: 5% to 95% non-condensing

Software

Switch is loaded with Open Network Install Environment (ONIE)
software installer
Compatible with the following NOS options: Supports Cumulus
Linux versions are version 3.5 or greater

Power

PSUs: Redundant hot swappable power supply modules
OMP800: 3 + 3
AC input range: 220 V ~ 240 VAC/47 ~ 63 Hz

Regulatory

EMI
CE Mark
EN55032 Class A, EN55024, EN61000-3-2, EN61000-3-3
FCC Part 15 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
RoHS-6 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
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