

# Canopus<sup>™</sup> 400G Multi-rate Coherent DSP

#### Part No.

INDM400-S02

#### **Product Type**

Coherent DSP

### **Market Segments**

Long Haul/Metro/DCI

## Applications

100G-400G Ethernet/OTU

# **Features/Highlights**

- Industry's first merchant 7nm 400G Coherent DSP for ZR/ZR+
- Supports 100G to 400G
- Enables QSFP-DD, OSFP and CFP2-DCO coherent pluggable modules
- High-performance FEC and Probabilistic shaping
- Software configurable to extend the range of applications with a single DCO design
- Interoperable "Standard" 400GE-ZR and Extended reach 400GE ZR+ modes increase the reach for Data Center Interconnect.
- Long-haul

## **Description**

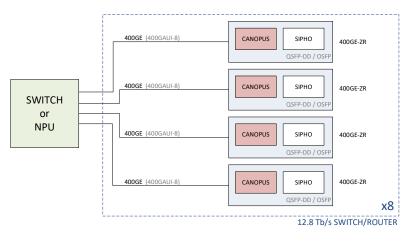
Canopus is a 400G Multi-rate Coherent DSP enabling Small Form Factor pluggable optical modules for high-density / low-power Datacenter, Metro, and Long-haul communication networks.

Developed using advanced 7nm CMOS process technology, the Canopus Coherent DSP supports a wide range of applications from Hyperscale DCI to Metro/Long-haul. Canopus makes high density IP over DWDM on switch and router platforms a reality, and it is designed to deliver the performance required for metro and long haul networks.

Canopus' power efficient and high-performance DSP architecture implements probabilistic shaping, a technique that maximizes data rate at longer fiber distances and delivers lower deployment cost per bit. For the first time, coherent pluggables are powered with probabilistic shaping technology. Canopus' innovative low power implementation in 7nm silicon geometry delivers over 75% reduction in DSP power dissipation and size as compared to the current generation of coherent DSPs.

Canopus devices are in production today.

# **Application Diagram**





To deliver the data infrastructure technology that connects the world, we're building solutions on the most powerful foundation: our partnerships with our customers. Trusted by the world's leading technology companies for 25 years, we move, store, process and secure the world's data with semiconductor solutions designed for our customers' current needs and future ambitions. Through a process of deep collaboration and transparency, we're ultimately changing the way tomorrow's enterprise, cloud, automotive, and carrier architectures transform—for the better.

Copyright © 2021 Marvell. All rights reserved. Marvell and the Marvell logo are trademarks of Marvell or its affiliates. Please visit <u>www.marvell.com</u> for a complete list of Marvell trademarks. Other names and brands may be claimed as the property of others.