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Orion™ 800G Multi-rate Coherent DSP

Part No.

MV-CDO0800-A0-FE150AA-C000

Product Type

Coherent DSP

Market Segments

Long Haul/Metro/DCI

Applications

Long Haul/Metro/DCI

Applications

200G–800G Ethernet/OTU

Features

- 5nm 800G Coherent DSP for Metro, Long-Haul, Data Center Interconnects
- 800Gb/s bandwidth over one optical wavelength with up to 8x 100G, 4x200G, 2x400G and 1x800G client-side interfaces
- Enables QSFP-DD, OSFP and CFP2-DCO coherent pluggable modules
- Expands ecosystem to open standards compliant solutions for multi-vendor DSP interoperability
- Supports OIF, ITU/OpenROADM ,Open ZR+ standards
- High-performance FEC and Probabilistic shaping
- Software configurable to extend the range of applications with a single DCO design

Description

Orion is an ultra-low power, multi-mode, 800G coherent digital signal processor (DSP) ASIC, purposely designed for pluggable applications. Orion utilizes low power 5nm CMOS technology for power and cost sensitive metro, long-haul and cloud links. Orion supports up to 800Gb/s bandwidth over one optical wavelength with a flexible combination of client side interfaces.
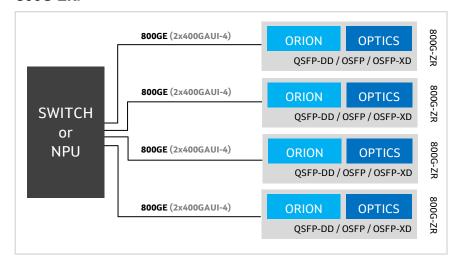
Developed using advanced 5nm CMOS process technology, the Orion coherent DSP has high-performance and low-power flexible architecture while supporting OIF, Open ZR+, OpenROADM and IEEE standards. The Orion coherent DSP also enables CFP2 based 400G long haul and 800G metro solutions. Orion is optimized developed to drive IPoDWDM architecture.

Orion's power efficient and high-performance DSP architecture implements probabilistic shaping, a technique that maximizes the data rate at longer fiber distances and delivers lower deployment cost per bit.

Orion devices are sampling today.

Application Diagram

800G-ZR: