Deneb^{TM} 400G Multi-rate Coherent DSP

Part No.

INDD400-S01

Product Type

Coherent DSP

Market Segments

Long Haul/Metro/DCI

Applications

100G –400G Ethernet/OTU

Features/Highlights

- 7nm 400G Coherent DSP for Access Aggregation, Metro, Long-Haul, DCI, IPoDWDM, and Cloud links
- Compliments the market-leading Canopus™ 7nm 400G Coherent DSP for ZR/ZR+
- 400Gb/s bandwidth over one optical wavelength with up to four 100G, two 200G, or one 400G 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 ITU/OpenROADM and Open ZR+ standards
- High-performance FEC and Probabilistic shaping
- 5G Access Backhaul 100G networks with Industrial Temperature (I-temp)
- Software configurable to extend the range of applications with a single DCO design
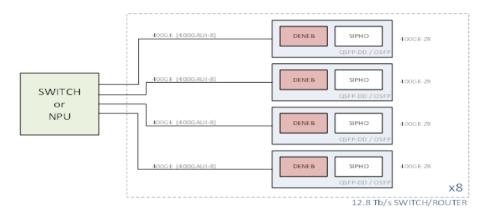
Description

Deneb is a 400G Multi-rate Coherent DSP enabling Small Form Factor QSFP-DD, OSFP and CFP2-DCO pluggable optical modules for high-density / low-power Datacenter, Metro, and Long-haul communication networks.

Developed using advanced 7nm CMOS process technology, the Deneb Coherent DSP compliments the market-leading 400G Canopus Coherent DSP utilizing the same 7nm high-performance and low-power architecture while adding support for newly formed ITU/OpenROADM and Open ZR+ standards. The Deneb Coherent DSP also enables next generation 5G access backhaul networks with multi-rate 100G support over the extended Industrial Temperature (I-temp) specification.

Deneb'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. Both Deneb and Canopus utilize the same BGA package dimensions providing flexibility to equipment designers addressing multiple end markets with quicker time-to-market.

Deneb devices are sampling today.

Application Diagram