PRODUCT BRIEF > OPTICAL

Optical DSP
Seagull 200

4x53G PAM4 ⇌ 4x53G PAM4

Seagull 200 (CFD50502) is used in the next generation low-power, high performance QSFP56 optical modules that support 200GbE SR4, DR4, FR4, LR4, and 400GbE SR8 applications. It accepts four lanes of 53.125Gbps (26.5625Gbaud) PAM4 on the client (host) interface and sends the traffic to four lanes of 53.125Gbps PAM4 signal on the optical (line) interface.

Seagull 200 integrates high-performance equalization techniques to compensate for optical impairments while achieving good BER performance and maintaining low power dissipation. The unique architecture is optimized for die size and mainstream silicon process technology, enabling low cost-of-ownership and accelerating 200GbE market adoption.

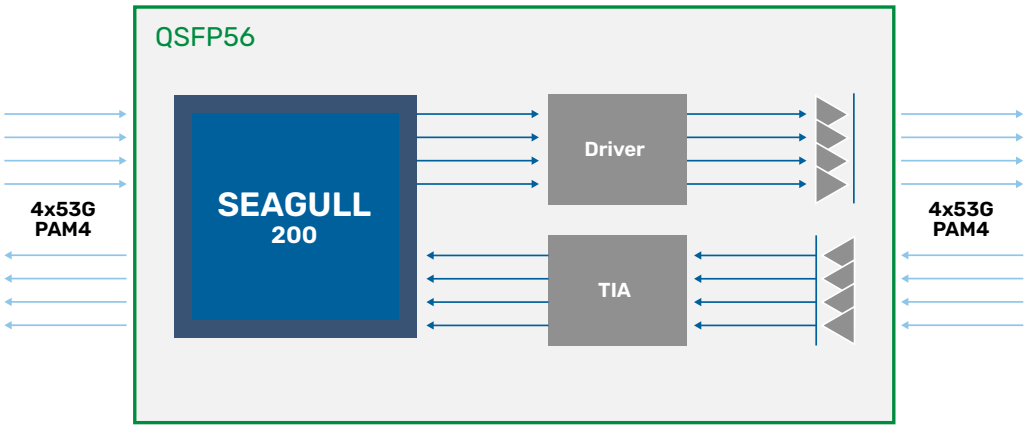
Seagull 200 has industry leading performance and low power dissipation. The device footprint is compatible with Credo's Dove 200 Optical DSP, enabling the option to design a common PCB for both components, then choosing the DSP that best meets the application need.

Applications

- Hyperscale data centers
- Cloud networks
- 200GbE optical transceivers
- 4x50GbE breakout systems

Key Parameters

Host Side	4x53G PAM4
Line Side	4x53G PAM4
Package Size	8mm x 10mm
Operating Temp	0° to 85°C
Communication Interface	MDIO / I²C
Process	CMOS



Key Features

- DSP with industry-leading performance
- Adaptive CTLE and multi-tap DFE and FFE on line and host side receivers
- Multi-tap FIR filter on line and host side transmitters•Independent PLLs per lane, enabling breakout configuration
- LOS and LOL detection
- Diagnostic features including pattern generators and checkers, eye monitor and loopbacks
- Optimized, compact firmware
- Low power dissipation enables 3.5W QSFP56 optical transceivers

Supported Standards and Interfaces

- IEEE 802.3 200GBASE-SR4/ DR4/FR4 and LR4
- IEEE 802.3 400GBASE-SR8
- IEEE 802.3 200GAUI-4
- CEI-56G-VSR-PAM4

About Credo

Credo's mission is to advance high-speed connectivity solutions that deliver optimized performance, reliability, energy efficiency, and security for the next generation of AI driven applications, cloud computing, and hyperscale networks.

Optimized for both optical and electrical applications, our solutions support port speeds up to 1.6Tb. At the core of our technology is our proprietary Serializer/Deserializer (SerDes) IP. Our diverse solutions portfolio includes system-level products such as Active Electrical Cables (AECs), a range of Integrated Circuits, including Retimers, Optical DSPs, SerDes chipsets, and SerDes IP Licensing.

For more information please visit **www.credosemi.com**
or email **sales@credosemi.com**

REV 031325