Credo Delivers Industry's Lowest Power 100G MUX Device Based on 50Gps SerDes Technology. New Chip Soluiton Leverages Analog PAM-4 SerDes to Enable 50Gbps/Lambda Optical Connectivity

January 12, 2016

New Chip Solution Leverages Analog PAM-4 SerDes to Enable 50Gbps/Lambda Optical Connectivity

Milpitas, Calif., January 12, 2016 – Credo Semiconductor, a global innovation leader in Serializer-Deserializer (SerDes) technology, today announced it is entering the chip market with a sub 1 Watt multiplexer (MUX)/retimer device that leverages the company's unique SerDes architecture and low-cost analog technology to enable 100G optical modules with 50G per lambda throughput. The Credo® CMX12550 MUX, sampling now, supports four bidirectional lanes running at 25Gbps with NRZ signaling and 2 bidirectional lanes running at 50Gbps with PAM-4 signaling.

"The combination of our unique analog architecture and advanced equalization techniques has allowed us to deliver a solution that solves the significant thermal and performance challenges associated with developing next-generation optical modules," said Jeff Twombly, vice president of business development for Credo. "As the first of many off-the-shelf semiconductor solutions to come from Credo, this new device demonstrates how our SerDes IP technology can be applied to enable accelerated throughput in the data center."

While other companies have had to resort to high power and expensive DSP architectures to achieve 50Gbps SerDes line rates, Credo's unique approach achieves these line rates with significantly lower power consumption while meeting the reach performance requirements of next-generation optical networking applications. In addition to optical modules, the CMX12550 device can also be deployed on line cards providing a native 50G PAM4 interface into optical modules, thus enabling a doubling of throughput on the front panel.

The device is compliant with many industry standards including CEI-28G-VSR/SR, CEI-56G-VSR-PAM4, CAUI-4, and CDAUI-8.

AVAILABILITY AND PACKAGING

Credo is currently sampling the CMX12550 device in a 10x10mm FCBGA package. Credo supports its offering with a comprehensive evaluation kit, also available now, that allows customers to quickly assess the performance in their specific application environments. Other device family members are expected to sample this summer.
Companies interested in learning more about the company's current silicon and intellectual property engagement options, as well as future developments should contact Sales@credosemi.com.

ABOUT CREDO SEMICONDUCTOR

Credo is a leading provider of high performance, mixed-signal semiconductor solutions for the data center, enterprise networking and high performance computing markets. Credo's advanced Serializer-Deserializer (SerDes) technology delivers the bandwidth scalability and end-to-end signal integrity for next generation platforms requiring single-lane 25G, 50G, and 100G connectivity. The company makes its SerDes available in the form of Intellectual Property (IP) licensing on the most advanced processing nodes and with complementary product families focused on extending reach and multiplexing to higher data rates. Credo is headquartered in Milpitas, California and has offices in Shanghai and Hong Kong. For more information: www.credosemi.com