



Source Photonics and Credo Semiconductor Demonstrate Single Lambda 100G Connectivity over 20km of Fiber with Compact TOSA and ROSA Assemblies

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ECOC, Gothenburg, Sweden – September 18, 2017 – Source Photonics and Credo Semiconductor are pleased to announce a single lambda 100Gbits/sec connectivity demonstration over 20km of fiber using a compact TOSA and ROSA capable of 53Gbaud PAM4 operation.

Increasing demand for more bandwidth in Cloud Data Centers is creating the need for more efficient and higher throughput optical transceivers beyond the currently deployed 100G 4x25G WDM technology. These next generation transceivers will need to support higher order modulation techniques such as PAM4 and higher data rate operation at 53Gbaud. Implementations that can be supported with this technology include 400G-DR4/FR4 in addition to 100G-DR/FR/LR.

The demonstration consists of Source Photonics internally packaged TOSA and ROSA sub-assemblies in an optical loopback configuration through 20km of single-mode fiber using a single 100G channel of Credo's low power PAM4 IC technology . The bit-error-rate (BER) after 20Km of fiber remained better than the KP4 FEC requirement and was around 5×10^{-5} . The TOSA is based on Source Photonics' EML laser technology which provides the necessary bandwidth to achieve a TDECQ value below 2.5dB. The room temperature link budget of 10dB provides considerable margin for the most significant link specifications under development in the industry, allowing production margin for performance variations. These results show that the building blocks necessary to realize 53Gbaud single lambda operation are available and ready to serve the needs of next generation data center deployments.

What this demonstration achieves with one laser and one receiver currently requires four lasers and four receivers – facilitating not only lower cost future 100G but also accelerating the development of 400G products.

"We are continuing to invest in next generation technology, such as Single Lambda 100G, as part of our commitment to providing leading edge solutions for data centers." said Doug Wright, CEO of Source Photonics.

"The HyperScale Cloud Providers have spoken and 100G per lambda solutions are a key connectivity priority." said Rajan Pai, vice president of system applications at Credo. "Our unique SerDes architecture allows us to deliver single-lane 100G performance at the lowest power which will enable the volume deployments of 100G and 400G optical modules."

Source Photonics will be hosting a private demonstration at their booth number 162 at ECOC 2017 to be held in Gothenburg, Sweden from September 18-20, 2017. To schedule an appointment to view the demo, please contact Jasmin Basa at jasmin.basa@sourcephotonics.com.

About Source Photonics:

Source Photonics is a leading provider of innovative and reliable optical communications technology that enables communications and connectivity in data centers, metro, and access networks. We invent next-generation solutions to provide customers with enabling technologies to support the rapidly increasing demands of cloud infrastructure, wireless communications, routing, and fiber-to-the-premises worldwide. Source Photonics is headquartered in West Hills, California, with manufacturing facilities, R&D, and sales offices worldwide.

For more information about Source Photonics, please visit www.sourcephotonics.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