



Luxtera Announces New Silicon CMOS Photonics Based Optical Engine

The optical engine launches Luxtera's transition from Active Optical Cables to chip-sets and serves as a stepping stone to next generation 100Gbps applications.

Carlsbad, Calif. – March 7, 2011 – [Luxtera](#), the worldwide leader in [Silicon CMOS Photonics](#), today announced its new optical engine chip-set supporting next generation high performance computing (HPC) and data center optical connectivity. The optical engine launches Luxtera's chip-set product line as the company transitions from the Active Optical Cable (AOC) business to the Semiconductor Component business model. The engine supports four fully-integrated 14 Gbps opto-electronic transceiver channels on a single CMOS chip. It is targeted for next generation InfiniBand, Ethernet, SAS and Fibre Channel applications and marks the next step in Luxtera's delivery of fully integrated, low cost, transceiver chip-set family spanning from 10 Gbps to 1 Tbps.

Increasing server network performance, driven by next generation CPUs and chipsets supporting PCI-Express 3.0, requires faster interconnect to balance computing and storage resources and maximize system performance. To meet this need, InfiniBand is migrating to 4x14 Gbps FDR while storage applications are migrating to 4x12 Gbps SAS and 16 Gbps Fibre Channel data rates – pushing past practical limits of passive copper interconnect longer than a few meters. In turn, this drives the need for next generation, high performance optical connectivity. By leveraging the benefits of its Silicon CMOS Photonics technology, Luxtera's new optical engine meets this demand with low cost and high performance single chip optical transceivers. Luxtera's LUX2020A optical engine will be incorporated into the AOC product family recently purchased by Molex Incorporated as part of Luxtera's transition to a fabless semiconductor chip-sets supplier business model.

“The introduction of Luxtera's optical engine marks the next step in advancement for QSFP AOCs,” said Tom Marrapode, director of marketing, fiber optic products group, Molex. “We recently formed a strategic partnership with Luxtera that outlined a product roadmap to support faster data rates and new form factors. Molex has been on the forefront of QSFP product family development from electrical connectors to copper and fiber cabling. Luxtera's new optical engine and its integration into Molex's optical transceivers extends our product family to next generation data rates and delivers on our commitment to customers to deliver the industry's leading portfolio of connectivity solutions.”

Luxtera's optical engine chip-set consist of a CMOS opto-electronic transceiver chip and a companion photonic power source. These devices are based on industry-leading Silicon CMOS Photonics technology that utilizes mainstream CMOS fabrication processes to deliver on-chip waveguide level modulation and photo-detection, along with



associated electronics, resulting in a fully-integrated single chip optical transceiver. The technology utilizes a low-cost, highly reliable companion Continuous Wave (CW) laser, acting as a continuous supply of photons to the chip – analogous to electrical power supplies in electronic applications. This allows the sharing of a single light source across multiple transmitters and eliminates the need for faster, more expensive and higher power-consuming directly modulated lasers. By utilizing a Silicon CMOS Photonics technology platform, Luxtera is able to reuse its baseline technologies to deliver next-generation higher speed products resulting in best price-performance and superior reliability versus traditional VCSEL based optics.

“Our new optical engine once again validates the significance and capabilities of Silicon CMOS Photonics,” said Marek Tlalka, vice president of marketing for Luxtera. “This new solution launches our new chip-set product line and is the next step in our drive to lead the industry in low cost 100 Gbps and Terabit per second optical connectivity for computing and data center applications. The technology will be delivered to end users in multiple form factors via our collaboration with Molex and other packaging partners.”

Luxtera will start sampling its new optical engine in Q2 of this year. Those interested in more information should contact Luxtera at sales@luxtera.com.

About Luxtera

Luxtera, Inc. is the world leader in Silicon CMOS Photonics. It is the first company to overcome the complex technical obstacles involved with integrating high performance optics directly with silicon electronics on a mainstream CMOS chip, bringing direct “fiber to the chip” connectivity to market. Headquartered in Carlsbad, California, Luxtera is a fabless semiconductor company that was founded in 2001 by a team of industry-renowned researchers and technology managers drawn from the communications and semiconductor industries. Luxtera has received funding from leading venture capitalists including August Capital, New Enterprise Associates, Sevin Rosen Funds and Lux Capital. More information can be found on the company's web site: www.luxtera.com

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