



Luxtera Transforms Optical Industry with Launch of First Single Chip Transceiver for Motherboard Deployment

OptoPHY paves the way to breaking one dollar per Gbps cost barrier

Carlsbad, Calif. – November 10, 2009 – Luxtera, the worldwide leader in Silicon [CMOS Photonics](#), today announces an evolution milestone for the optical industry with the launch of the OptoPHY™ product line. The family of Printed Circuit Board (PCB) mountable optical transceivers delivers low cost optical connectivity and paves the way to breaking the one dollar per Gbps cost barrier. Combining electronics and optics on a single CMOS chip, OptoPHY's small form-factor enables optics on a motherboard deployment for high performance, reliable point-to-point connectivity. The new product line reinforces Luxtera's leadership in the optical industry and signifies the next step in optical technology evolution from pluggable modular solutions to chip-on-board solutions with future opto-electronic system-on-a-chip integration.

"10Gbps is the new system interconnect 'currency,'" said Brad Smith, senior vice president analyst at LightCounting, LLC. "But the current generation of high-speed systems for switch/routers, supercomputers, telecom equipment, datacom and servers are built internally with 2.5G/5G SNAP12 technology developed in 1998 – 3 years before the iPod! This requires four transmitter/receivers, at 2.5W, costing \$400+ each. Full duplex connections cost \$1,600, burn 10W power, a large board space. The market begs for a new solution. Optical technology, once relegated to the long haul and inter-system interconnects, now moves inside the box and is clearly heading for optics-on-a-chip."

With OptoPHY, Luxtera replaces legacy optical modules with high density, integrated chip-on-board transceivers. Currently available in one and four channel, and next year 12 channel configurations, OptoPHY offers 10 Gbps per channel data rates to produce high bandwidth parallel connectivity. OptoPHY also features the highest footprint density per Gigabit, which enables flexible system design and allows the transceivers to be placed inside a system to maximize front panel connector density – simplifying thermal and EMI management. Utilizing only 20mW of power per Gigabit, OptoPHY is the lowest power optical transceiver solution on the market to date.

"To address the need for increasing data rates, data centers have had to choose between lower cost, lower performance electrical interconnects or higher performance, higher cost optical interconnects. Using Silicon Photonics technology, Luxtera's new OptoPHY product line is designed to address this problem by delivering high performance optical interconnects at costs below one dollar per Gbps," said Steve Conway, IDC research vice president for HPC. "Providing high performance connectivity in a small form factor at more affordable price points represents a major milestone for optical communication."

OptoPHY also builds on Luxtera's award-winning Active Optical Cable (AOC) product line by providing data centers with extended reach of up to 4,000 meters, enabling flexible data center layouts in a multi-building campus environment. Overcoming the



100-meter range barriers of legacy multimode fiber VCSEL optics, OptoPHY offers the longest reach for on-board optics, making the solution ideal for enterprise networking, InfiniBand, Storage, Ethernet and backplane applications.

“Today’s announcement is a milestone for the industry. It marks Luxtera’s leadership in optical technology as well as the company’s vision to achieve full system-on-a-chip integration,” said Greg Young, CEO of Luxtera. “By utilizing Luxtera’s Silicon CMOS Photonics technology platform, the OptoPHY product line breaks cost and power consumption barriers of traditional optics and positions us to ultimately deliver optical interconnects at the price points of copper. Using the same chip design platform as our award-winning AOC, OptoPHY successfully enables optical deployment on a motherboard to offer a new direction for the architecture of system interconnects.”

Luxtera will demonstrate OptoPHY at SC09, taking place in Portland, Oregon during November 17-19, 2009, in booth number 2896. The company is currently sampling one (LUX6001) and four channel (LUX6004) OptoPHY chips with production scheduled for mid 2010. Twelve channel OptoPHY will sample next year. The devices are available with multiple optical connector options for serial and parallel 10Gbps applications. Pricing varies depending on the number of channels, connector options and volume, reaching sub one dollar per Gbps price points in 12 channel configurations.

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. With its award-winning Blazar active optical cable and optics on motherboard OptoPHY transceiver family, Luxtera is breaking cost barriers associated with traditional multimode optics and offers a roadmap to high performance optical connectivity and copper cost points. 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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