Luxtera Introduces Industry's First 40G Optical Active Cable, World's First CMOS Photonics Product

Enables InfiniBand backbones to become ubiquitous for high capacity applications

Carlsbad, Calif. – August 14, 2007 – Luxtera Inc., the world leader in Silicon Photonics, today announced the industry's first 40 Gigabit optical active cable (OAC), Blazar, which is also the world's first CMOS Photonics product. Blazar combines the benefits of optical modules and copper cables to cost-effectively deliver high bandwidth interconnect. By utilizing CMOS Photonics technology in its first commercial product, Luxtera breaks traditional optical interconnect cost-barriers by providing a 40G solution at 20G pricing.

The target markets for Blazar are High Performance Computing InfiniBand and 40G proprietary rack to rack interconnect applications. With support for Quad Data Rate (QDR), Blazar's 40G bandwidth and extended reach of up to 300 meters overcomes the speed and range barriers that have limited InfiniBand applications to small computer clusters. This enables InfiniBand to become a ubiquitous datacenter interconnect for a wide range of applications that demand higher capacity and performance.

According to IDC, the "factory revenue for InfiniBand switches will increase at 45.2% CAGR over the next five years." InfiniBand is rapidly being adopted in datacenters, fueled by its current transition from 10G Single Data Rate (SDR) to 20G Double Data Rate (DDR). This adoption rate may further accelerate given the upcoming transition to 40G QDR. To enable transition to QDR, an interconnect technology at price points comparable to currently shipping DDR rates is needed. An interconnect technology, like Blazar, can enable this transition and potentially allow InfiniBand to increase its market share over competing technologies.

"This is groundbreaking technology, offering 40G OACs using the innovative CMOS Photonics technology," said Jag Bolaria, Senior Analyst at The Linley Group. "Migration to 40G connectivity allows for denser clusters, and the 300 meter range extends the reach of these clusters. This should have a positive impact for high performance computing and data centers."

Blazar eases constraints on computer cluster design and location, as its high density and reach enable datacenter customers to fully populate racks with servers and switches. This can eliminate the need to expand physical facilities in order to increase computing capacity. Blazar also provides customers with significant improvements in power consumption, footprint density and reliability, by combining high performance, low-cost single mode fiber media with simple and rugged Quad Small Form-factor Pluggable (QSFP) MSA connectors. Blazar's power consumption is 2.2W per cable-end, resulting in unprecedented 0.05W per gigabit of data. This reduces the overall power consumption

that datacenters require to power the network equipment and significantly reduces cooling costs.

“Optical active cables are the new trend in optical interconnects, combining the benefits of optical modules and copper cables to deliver a high performance, low-cost connectivity option,” said Marek Tlalka, Luxtera’s vice president of marketing. “Datacenters are in need of cost-effective, high performance connectivity solutions and Blazar is filling that need with 40G fiber performance at price points comparable to existing 20G interconnect.”

By permanently attaching fiber cable to optical transceivers, and powering four transmitters with a single hermetically sealed laser, Blazar delivers a number of benefits to users. This includes a preassembled plug and play solution which significantly reduces installation and maintenance costs while providing superior reliability as compared with traditional VCSEL-based solutions.

Blazar connects to a system via a QSFP MSA-compliant connector cage. The electrical interface is SFP+ compliant which enables it to support data rates of one to 10.5 gigabits per transport lane for a total throughput of up to 42 gigabits per second. Blazar utilizes single mode fiber, which is lower cost and higher performance than multimode fiber, further reducing interconnect costs while extending reach to 300 meters without the need for additional electronic dispersion compensation (EDC) electronics traditionally associated with VCSEL based optical modules.

“Blazar is an amazing accomplishment, not only for Luxtera, but for the industry. As the world’s first CMOS Photonics product, Blazar breaks traditional optical module cost-barriers by combining electronics and optical components into a single CMOS die,” said Alex Dickinson, CEO and co-founder of Luxtera. “We are very excited about this feat, and Luxtera continues to push the envelope, accelerating the industry's adoption of optics for mainstream applications.”

Blazar OAC is available in multiple cable lengths from one to 300 meters. Luxtera will begin sampling Blazar in Q4 2007, with production quantities available in 2008.

About Luxtera

Luxtera, Inc. is a fabless semiconductor company and the world leader in silicon photonics. Luxtera’s silicon photonics technology platform enables a new breed of monolithic opto-electronic devices manufactured in a low cost CMOS process, fulfilling the world’s insatiable demand for bandwidth by uniting the high performance of fiber-optic communications with the low-cost, high-volume manufacturing advantages of mainstream silicon CMOS fabrication. The company was founded in 2001 by a team of industry-renowned researchers and technology managers drawn from the communication and semiconductors industries. Luxtera is funded by leading venture capitalists: Sevin Rosen Funds, August Capital and New Enterprise Associates. Luxtera is headquartered in Carlsbad, CA. More information can be found on the company's web site: www.luxtera.com.

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