Avago Announces the World's Most Comprehensive Fiber Optic Portfolio for Data Center, Storage, Computing and Consumer Applications

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High-Bandwidth Embedded and Pluggable Parallel Solutions Driving Adoption of Fiber Optics in New Applications; Demonstrating Innovative Technology Partnerships at OFC

LOS ANGELES, Mar 08, 2011 (BUSINESS WIRE) -- Avago Technologies (Nasdaq: AVGO) today announced availability of multiple new solutions in its innovative portfolio of 10 to 120 Gigabit fiber optics, and is demonstrating technologies developed with partners and customers, here at the 2011 Optical Fiber Conference (OFC). The comprehensive set of optical solutions, which covers both advanced embedded parallel modules and industry-standard pluggable modules, enables designers to differentiate their products and solve interconnect bandwidth challenges.

New Avago optical solutions and demonstrations at OFC include:

- Sampling availability of its small-footprint MiniPOD(TM) embedded parallel optical transmitters and receivers that enable bandwidth of up to 120 Gigabits per second (Gbps)
- Announcement of the world's first QSFP+ 40G-iSR4 pluggable parallel optic transceiver module for 40 Gigabit Ethernet applications and high-density 10 Gigabit applications, along with a demonstration of the technology using new Top-of-Rack (ToR) data center switches from leading manufacturers
- Demonstration of the world's first multi-Gigabit consumer optical interconnect
- Demonstration of a 25-Gbps vertical-cavity surface-emitting laser (VCSEL) integrated into an SFP+ platform interoperating with the latest Avago 40-nm Serial/Deserializer (SerDes) core

"Avago is here at OFC demonstrating our innovative optical portfolio and our intentions to bring fiber optic solutions from the data centers of today to the consumer and home computing applications of tomorrow," said Philip Gadd, Vice President and General Manager of the Fiber Optics Product Division at Avago. "We differentiate *ourselves* by serving as a technology partner - helping customers differentiate *themselves*, and their products, leveraging our world-class engineering, innovative technology in lasers, photodetectors and CMOS ICs, and unrivaled supply chain expertise."

Avago is demonstrating its high-speed optical fiber solutions at OFC in booth number 2001, and more information on the portfolio is available at www.avagotech.com/pages/en/fiber_optics.

Embedded Parallel Optics Deliver World's Highest Bandwidth Interconnect

Avago embedded parallel optics allow fiber optic interfaces to be located close to an ASIC or FPGA and deliver the world's highest bandwidth. These benefits are leveraged in applications such as next-generation supercomputers powering scientific research breakthroughs, as well as for high-performance routers, switches and other data center equipment enabling cloud computing, server virtualization and video-on-demand. The Avago MicroPOD(TM) embedded parallel optics are the world's smallest 120-Gbps optical transmitters and receivers. They offer 12 transmit or receive channels at up to 10.3125 Gbps while consuming only 125 mW per channel. MicroPOD modules deliver high performance in both air-cooled and water-cooled environments, and are in production today powering the world's fastest supercomputers.

MicroPOD devices have an 8.2-mm by 7.8-mm footprint with an LGA electrical interface for ultra-dense embedded solutions, while the new MiniPOD arrays have a 22-mm by 18.5-mm footprint with a 9-mm by 9-mm MegArray(TM) connector for simplified embedded solutions and ease of manufacturing. Avago is announcing sampling availability of the MiniPOD interconnects, which feature a low-cost, removable fiber cable connection and a pluggable electrical connection that provide flexible cable management at installation, simplifying design and lowering cost for switching and supercomputing applications.

Demonstrating World's First High-Speed Multi-Gigabit Consumer Optical Interconnect

In a joint collaboration with VIA Labs and DisplayLink, Avago is demonstrating the world's first multi-gigabit consumer optical interconnect. This demonstration shows High-Definition (HD) video streaming through a USB 3.0 Active Optical Cable. This optical interconnect surpasses the limitations of existing copper interconnects in the computing and consumer electronic space, allowing longer distances at higher speed data rates while still maintaining low cost and low power.

Expanding MSA-Compatible Pluggable Optics Portfolio

Avago is expanding its portfolio of Multi-Source Agreement compliant pluggable optics with a new four-channel, parallel, QSFP+ transceiver for 40 Gigabit Ethernet applications with the added capability of interoperating with IEEE 10GBASE-SR compliant products. The transceiver integrates four data lanes in each direction with each lane operating at 10.3125 Gbps. This provides an aggregated bandwidth of 40 Gbps for short-range, multi-lane data communication and interconnect applications. The device allows optical interoperability with any 10 Gigabit Ethernet transceiver, compliant to the IEEE 802.3ae 10GBASE-SR specifications, of form factors such as SFP+, XFP and X2.

Avago is demonstrating connectivity between 10GBASE-SR (SFP+) and the new QSFP+ 40G-iSR4 module over 100 meters of OM3 multi-mode fiber. Using new ToR data center switches from a leading switch vendor, the demonstration connects two high-performance servers with 10GbE SFP+ network interface cards and shows real-time streaming of multiple HD movies simultaneously.

Avago recently announced two new mini-SFP+ (mSFP) fiber-optic transceivers that enable increased port density in Ethernet and storage equipment. The AFBR-54D7APZ transceiver addresses 8-Gbps Fibre Channel for storage applications and the AFBR-703SNZ transceiver targets next-generation 10-Gbps Ethernet equipment designs. Both pluggable modules increase port density by 30 percent over industry-standard SFP+ transceivers, while delivering the same data-transmission performance.

Demonstrating Innovative Technology for 25-Gbps Serial Interconnects and Beyond

A third demonstration at the Avago booth shows its best-in-class, high-temperature 25-Gbps 850-nm VCSEL integrated into an Avago high-volume SFP+ production platform operating over 100 meters of OM3 multi-mode fiber. The SFP+ is interoperating with the latest Avago 40-nm SerDes core. Avago Application-Specific Integrated Circuits (ASICs) integrate the SerDes cores, increasing the bandwidth of data communication for servers, routers and other networking, computing and storage applications. Avago recently announced demonstration of its first 28-nm SerDes core with industry-first 30-Gbps performance.

In a related announcement at OFC, Avago introduced the market's first 14-Gbps optical transceiver platform, including sampling of a 16 Gigabit Fibre Channel SFP+ module and a four-channel QSFP+ module.

About Avago Technologies

Avago Technologies is a leading supplier of analog interface components for communications, industrial and consumer applications. By leveraging its core competencies in III-V compound and silicon semiconductor design and processing, the company provides an extensive range of analog, mixed signal and optoelectronics components and subsystems to approximately 40,000 end customers. Backed by strong customer service support, the company's products serve four diverse end markets: wireless communications, wired infrastructure, industrial and automotive electronics, and consumer and computing peripherals. Avago has a global employee presence and heritage of technical innovation dating back nearly 50 years to its Hewlett-Packard roots. Information about Avago is available on the Web at www.avagotech.com.

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