Photo Release -- New Avago Active Optical Cable Family Surpasses Copper, Lowers 10G Link Costs, Boosts HPC/Server Design Integration

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Optics Doubles Reach, Improves Performance, Weighs 75 Percent Less Than DAC

SAN JOSE, Calif., and SINGAPORE, Nov. 13, 2012 (GLOBE NEWSWIRE) -- Avago Technologies (Nasdaq:AVGO), a leading supplier of analog interface components for wireless, wireline, and industrial applications, today announced its new Active Optical Cable (AOC) family, high density SFP+ QSFP+, and CXP solutions for high performance computing (HPC) and datacenter applications. These active optical cable assemblies use proprietary technology yielding a lower cost per 10G link than active copper cables. Combined with performance increases, lower weight and easier cable management, they enable a high data throughput interconnects up to 100 meters.

A photo accompanying this release is available at http://www.globenewswire.com/newsroom/prs/?pkgid=15601

Active Optical Cable

The wide Avago AOC portfolio includes 10GbE SFP+, 40GbE QSFP+ and 150G CXP active optical cable offerings. This collectively provides a clear alternative to copper cable while offering the benefits of optical fiber. AOCs use a cabling technology that accepts the same electrical inputs as a traditional copper cable, but use optical fiber "between the connectors" with electrical-to-optical conversion on the cable ends that improves speed and the link distance of the cables without sacrificing compatibility with standard electrical interfaces.

"These new AOC products strengthen our lead in high bandwidth pluggable optics technology," said Sharon Hall, Product Line Manager for Avago fiber optic products. "Applying our proven design technology and volume manufacturing expertise is expanding access to a broader variety of previously copper-only market segments."

Driven by the ever-increasing need for more bandwidth and applications in cloud computing environments, AOCs are the newest solutions for communications within data centers, server farms, network switches, telecom switching centers and many other high-performance embedded applications requiring high-speed data transfers. System applications include data aggregation, backplane communications, proprietary protocol data transfers, and other high-density/high-bandwidth applications.

The AOC market is forecasted to grow to just under $100 million by 2015, according to LightCounting's forecast. "The main market continues to be in HPC or supercomputers with the InfiniBand protocol," said Brad Smith, senior vice president and industry analyst for data center interconnects at Lightcounting. "Over the last couple of years AOC adoption in data centers using the Ethernet protocol to connect switch layers together and also in telecom applications, interconnecting long-haul DWDM and routers in central offices has grown."

The new SFP+ and QSFP+ AOC products are the first to be released using the new Avago Atlas^{TM} 75X embedded optical engine. This optical technology makes it possible to realize significantly higher performance and reach at a lower cost compared to copper cables. The CXP AOC offerings use the proven Atlas^{TM} 77X optical engines (also known as MicroPOD^{TM} modules) which deliver all the performance, link distance and features such as DMI available in discrete transceiver solutions at a cost savings.

AOCs have numerous advantages over direct attach copper (DAC) as used in previous generation applications which cannot provide the features that are required by today's performance-enhanced applications. The bit error rates (BER) for Avago AOCs are 10^{-15} compared to DAC that is 10^{-12}. Statistically, this translates to less than one bit error per day for the Avago AOC compared to a bit error every 1-2 minutes for a copper cable. EMI immunity is better than DAC as the high frequency EMI signal is confined within the pluggable modules while only the optical signal is transmitted along the cable. The reach of these AOCs is up to 20 meters for the SFP+ and QSFP+ versions compared to DAC with a reach of slightly over a 5 meters maximum at 10G. Additionally, the weight of an AOC is about 25% of DAC, has a smaller cable diameter and offers a minimum cable bending radius of only 30mm, much better than DAC. These positive advantages give customers the right solution and form factor to meet their high density optical interconnect specifications.

Product Features

SFP+ Active Optical Cables with Atlas 75X Embedded Optical Engines

Cable length to 20 meters

Typical power 275 mW per end, less than 1/2 that of SFP+ MSA transceivers

10 Gigabit Ethernet, 8 Gigabit Fibre Channel, Fibre Channel Over Ethernet

QSFP+ Active Optical Cables with Atlas 75X Embedded Optical Engines

Cable length to 20 meters

Typical power consumption 1.1W per QSFP+ end

40 Gigabit Ethernet, Infiniband 40G-IB-QDR, 20G-IB-DDR, 10G-IB-SDR

Breakout version supporting high density 10G Ethernet applications

CXP Active Optical Cables with Atlas 77X MicroPOD Embedded Optical Engines

10.3125 Gbps and 12.5 Gbps versions up to 12 lanes

Cable length to 100 meters

Full transceiver feature set including DMI

100 Gigabit Ethernet, Infiniband QDRx12, PCIe Gen3, Proprietary protocols

U.S. Pricing and Availability

Samples of the Avago AOC cables are available today. For pricing, contact your local Avago sales representative or distributor.

Further information on Avago fiber optics is available online at www.avagotech.com/fiber

About Avago Technologies

Avago Technologies is a leading supplier of analog interface components for wireless, wireline, and industrial 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. Avago has a global employee presence and heritage of technical innovation dating back 50 years to its Hewlett-Packard roots. Information about Avago is available on the Web at www.avagotech.com.

The Avago Technologies logo is available at http://www.globenewswire.com/newsroom/prs/?pkgid=14098

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