



# Alvesta and Mellanox First to Demonstrate 10-Gigabit Optical InfiniBand Interoperability

## **Solution enables 10Gb/s InfiniBand links at much greater distances**

SUNNYVALE and SANTA CLARA, CA, January 8, 2002 – Mellanox Technologies, Ltd., the leading provider of InfiniBand™ silicon, together with Alvesta, a provider of optical communications products to high-end telecom, datacom, and storage systems companies, today announced the industry's first interoperability demonstration of 10-Gigabit per second (Gb/s) InfiniBand over a single fibre optical cable. The two companies successfully demonstrated 4X InfiniBand packets traversing through a pair of Alvesta's 3100 optical transceivers, 150 meters of fiber optic cable, and Mellanox's InfiniScale™ switch silicon.

"There is a strong need to extend InfiniBand beyond the reach of copper," said Robert Nalesnik, VP of Marketing at Alvesta. "Most InfiniBand rack-to-rack connections will require 10-gigabit data rates. Data center managers prefer optical connections for additional reach and to insure switching gear is adequately isolated and protected."

"This is another milestone in the validation of the IBTA specification and the advancement of InfiniBand into the data center," said Roni Ashuri, VP of Engineering at Mellanox. "Our IBTA compatible InfiniBridge and InfiniScale devices are designed to run over either copper or fiber optics and this demonstration again proves the excellence that went into the IBTA specification and into every Mellanox product."

## **InfiniBand 4X Optics**

The InfiniBand Architecture specifies both 10-gigabit electrical and optical connections. The 10-gigabit optical link is designated IB-4X-SX, which is specified as four full-duplex, 2.5 Gb/s links operating at an 850 nanometer wavelength over a single parallel fiber ribbon. The 4X fiber ribbon is terminated with industry standard MPO optical connectors. A maximum distance of 125 meters is specified when using 50/125 micron multimode fiber with a bandwidth product of 500 MHz\*km.

The Alvesta 3100 is the first optical transceiver in the market conforming to the IB-4X-SX specification. The 3100 operates up to 300 meters, which more than doubles the InfiniBand specified distance requirement for multimode fiber and extends InfiniBand distance beyond the 17 meter 4X copper connector limit. These longer distances give data center managers more flexibility in data center design and equipment placement.

With an extremely small footprint (0.6” wide by 1.4” long), the Model 3100 enables a 40% higher system port count as compared to InfiniBand 4X copper connectors. The Model 3100 has been shipping in production since February 2001 into the IP/Sonet/SDH market. Coupled with the availability of InfiniBand 4X switch silicon from companies such as Mellanox, the Alvesta 3100 provides the first low-cost, production available, 10Gb/s InfiniBand 4X optical solution in the industry.

## **10 Gb/s InfiniBand Switch**

Mellanox’s InfiniScale MT43132 is an eight-port full wire speed 4X (10 Gb/s) switching device that has been shipping since October 2001. This device integrates the physical layer in the form of thirty-two 2.5Gb/s serializer/deserializers (SerDes) on-chip.

Details of the InfiniBand interoperability testing can be obtained by contacting either Alvesta or Mellanox.

## **About Alvesta**

Alvesta designs and manufactures optical technology for telecommunications, data communications, and storage infrastructure equipment. Alvesta's products enable cost-effective bandwidth transport for central office, enterprise data center, and storage area networks. Based on a highly manufacturability and scalable 10 Gigabit-per-second parallel optics module, Alvesta's products accelerate the transition from electrical to optical communication for IP/SONET/SDH, InfiniBand, 10 Gigabit Ethernet, and next-generation Fibre Channel systems.

Founded in April 1999, Alvesta Corporation is headquartered in Sunnyvale, California and is privately held. Key financial backers include Enterprise Partners, Intel Corporation, Quantum Technology Ventures, Cypress Semiconductor, and Hammered Holdings Ltd. For more information, visit [www.alvesta.com](http://www.alvesta.com).

## **About Mellanox Technologies**

Mellanox is the leading supplier of InfiniBand semiconductors, providing Switches, Host Channel Adapters, and Target Channel Adapters to the server, communications, and data storage markets. In January 2001, Mellanox Technologies delivered the InfiniBridge™ MT21108, the first 1X/4X InfiniBand device to market, and is now shipping second generation InfiniScale silicon. The company has raised more than \$33 million to date and has strong corporate and venture backing from Intel Capital, Raza Venture Management, Sequoia Capital, and US Venture Partners.

In May 2001, Mellanox was selected by the Red Herring Magazine as one of the 50 most important private companies in the world and to Computerworld Magazine Top 100 Emerging Companies for 2002. Mellanox currently has more than 200 employees in multiple sites worldwide. The company's business operations, sales, marketing, and customer support are headquartered in Santa Clara, CA; with the design, engineering, software, system validation, and quality and reliability operations based in Israel. For more information on Mellanox, visit [www.mellanox.com](http://www.mellanox.com).

Mellanox Media Contact:  
Chip Dehnert  
Wilson McHenry Company  
415-227-1207  
[cdehnert@wilsonmchenry.com](mailto:cdehnert@wilsonmchenry.com)

Mellanox Business Contact:  
Kevin Deierling  
Vice President, Product Marketing  
Mellanox Technologies, Inc.  
408-970-3400 x 302  
[kevind@mellanox.com](mailto:kevind@mellanox.com)

Alvesta Business and Media Contact:  
Robert Nalesnik  
Vice President of Marketing  
408.331.4862  
[rnalesnik@alvesta.com](mailto:rnalesnik@alvesta.com)

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