## SFF-SIG Adopts CoreExpress® Specification to Strengthen PCIe 2.0-Ready COM Portfolio

Enhanced version supports PCI Express Gen2 and DisplayPort with pins reserved for USB 3.0 support in the future

Nuremberg, Germany, March 2, 2010 - The Small Form Factor Special Interest Group (SFF-SIG), a collaboration of leading suppliers of embedded component, board and system technologies, today announced the adoption and release of the CoreExpress® Specification revision 2.1. CoreExpress was originally developed as a proprietary standard by LiPPERT Embedded Computers GmbH. Under the terms of an agreement between SFF-SIG and LiPPERT, the entire embedded community will now be able to develop CoreExpress modules and applications without regard to confidentiality and without royalties of any kind. Use of the CoreExpress logo will require membership in SFF-SIG.

"The dynamic and vibrant nature of SFF-SIG enabled the group to move rapidly to embrace the CoreExpress Specification", said Paul Rosenfeld, SFF-SIG President. "Eight companies participated in the review process which was completed within a 90 day window. The structure of SFF-SIG and hard work by its members has given the SIG a strong leadership position in the development and release of next-generation COM standards."

"I'm thrilled that CoreExpress has achieved the status of an open standard through SFFSIG", said Peter Lippert, President of LiPPERT Embedded Computers GmbH. "This is an ideal vehicle to make advanced CoreExpress technology available to the entire embedded community."

The newly released version of the specification contains a number of enhancements proposed by SFF-SIG members during the evaluation process. These include the support of the emerging DisplayPort interface and the addition of sufficient reserve pins to enable upward compatible support for USB 3.0 in the future. The new version is upward compatible from the current CoreExpress 2.0 version previously published by LiPPERT. CoreExpress uses a single connector baseboard interface, eliminating the registration problems frequently found with two-connector Computer on Module products. Fully digital to reduce system noise and EMI, CoreExpress is the smallest x86 computer-on module in the market, measuring a mere 58x65mm. With dedicated interface pins for optional CAN bus support, CoreExpress ushers in a new era of 'application COMs' tailored for vertical markets. Three characteristics establish the CoreExpress Specification as the first of a new generation of Computer on Module. First, the connector used by CoreExpress modules has been confirmed to operate at the speeds required for PCI Express Generation 2. Secondly, the specification contains an option to configure the SDVO interface pins for the new DisplayPort interface. Third, sufficient reserved pins are included in thedefinition to enable inclusion of at least two USB 3.0 ports in a future release of the specification. The CoreExpress baseboard interface includes PCI Express (configured as 1 x4 lane or 4x1 lanes), RGMII Ethernet Interface, 2 SATA ports, 1 CAN bus port, 8 USB 2.0 ports (one of which may be configured as a client), LPC bus, SM bus, High Definition Audio, SDVO(multiplexed with Display Port), 24-bit LVDS flat panel interface, backlight control and an SD/SDIO/MMC 8-bit interface.

The CoreExpress Specification is available for download from the SFF-SIG web site at www.sff-sig.org.

CoreExpress modules are available today from LiPPERT Embedded Computers.

## **About the Small Form Factor SIG**

The Small Form Factor Special Interest Group is an international organization devoted to identifying, creating, and promoting standards that help electronics system and device manufacturers and integrators move to small form factor technologies and building blocks in their products, and protect their investments. Benefits of small form factor products include smaller size, reduced power consumption (eco-friendly, "green" products), and greater reliability compared to larger legacy products. The SIG's philosophy is to embrace the latest technologies, as well as maintain legacy compatibility and enable smooth transition solutions to next-generation interfaces. For more information about the SFF SIG, visit www.sff-sig.org or e-mail info@sff-sig.org.

## **About LiPPERT Embedded Computers**

LiPPERT Embedded Computers develops and sells embedded PC modules. It supplies system integrators and OEM's in markets as diverse as automotive, automation, medical devices, military, as well as aerospace. The company is headquartered in Mannheim, Germany. Customers in the USA and Canada are supported by a sales office in Atlanta, Georgia.

Embedded PC's from LiPPERT use the latest technologies and feature high integration levels. Most of the products are available for extended ambient temperatures and rated for rough environments. Custom designs are available on request. For more information about LiPPERT, visit <a href="www.lippertembedded.com">www.lippertembedded.com</a>, or e-mail <a href="mailto:info@lippertembedded.com">info@lippertembedded.com</a>.

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