

Media Advisory:

Companies Collaborate on New Embedded I/O Expansion Standard

“The Most Significant Embedded System Expansion Innovation Since the Birth of PC/104 in 1992”

Feb. 1, 2010; Mountain View, Calif. – Diamond Systems today announced that a group of companies in the global board-level embedded computing market will jointly launch an exciting new embedded system expansion standard at Embedded World 2010 in Nuremberg, Germany on March 2, 2010.

The new mezzanine-style standard, originated by Diamond, defines a highly compact, low cost way to add application-oriented capabilities to single-board computers (SBCs), computer-on-module (COM) baseboards, and fully-custom embedded electronics. Diamond claims the standard to be highly synergistic with existing and emerging bus-, I/O-, chip- and board-level technologies. Additionally, the standard leverages the latest high-speed serial expansion standards and is suitable for use with both x86 and RISC architecture host processors, the company said.

Following its initial public announcement and demonstration, Diamond will transfer ownership of the new embedded I/O expansion standard — including its specifications, trademark, and logo — to a suitable standards organization, the company said. Thereafter, the standard itself will be usable by anyone without charge; however, rights to use of the logo in association with products will be restricted to members of its parent organization

“This new I/O expansion standard satisfies the desire of customers to be able to add application-specific capabilities to SBCs and COM baseboards without adding height to the system,” noted Diamond Founder and President Jonathan Miller.

Colin McCracken, Diamond’s VP of Marketing and co-creator of the SUMIT standard, added that the new standard “passes along to system OEMs and end users the substantial benefits of size, weight, and power savings resulting from Moore’s Law.”

“It represents the most significant embedded system expansion Innovation since the birth of PC/104 in 1992,” concluded Rick Lehrbaum, Strategic Development Specialist at Diamond and author of the original PC/104 specification.

According to Diamond, several companies will demonstrate products compatible with the new standard at Embedded World 2010. Products demonstrated will include I/O expansion modules based on the standard and both single-board computers and application baseboards having sockets for the modules.

For further information, email Colin McCracken (cmccracken@diamondsystems.com) or Rick Lehrbaum (rick@diamondsystems.com).

Key Features of the New Standard
<ul style="list-style-type: none">• Compact, low profile form-factor — three-fifths the size of a credit card, and one-third the size of a PC/104 module• Single low-cost connector integrates all host and external I/O interfaces• Provides up to 100 I/O points per module• Leverages industry-standard buses such as PCI Express, USB, and I2C• Host form-factor and processor agnostic• Coexists with PC/104, SUMIT, Qseven, ETX, XTX, COM Express, etc.• Multiple I/O expansion modules may be present within one system• Open industry standard• Rugged and reliable
Key Benefits of the New Standard
<ul style="list-style-type: none">• Shortens time-to-market• Reduces board-level development costs and risks• Simplifies system design• Eliminates cables, resulting in higher reliability, lower cost, and faster assembly• Enables scalable and reconfigurable system design• Enables easy product upgrades• Protects from component obsolescence• Encapsulates intellectual property• Suitable for SBCs, baseboards, and proprietary all-in-one hardware designs• Ideal for rapid-prototyping through high-volume applications• Ideal format for silicon vendor reference designs• Open standard increases market acceptance