FOR IMMEDIATE RELEASE:

FPGA Mezzanine Card (FMC) Standard Ratified

Modular I/O scheme for FPGA designs provides a standard method of putting I/O devices on mezzanines connected to and directly controlled by FPGAs residing on a carrier card.

SCOTTSDALE, AZ, September 23, 2008 — VITA, the trade association dedicated to fostering American National Standards Institute (ANSI) accredited, open system architectures in critical embedded system applications today announced the ratification by ANSI of the FPGA Mezzanine Card standard under ANSI/VITA 57.1-2008. This standard describes a new small form factor I/O mezzanine card that can be connected to all leading carrier board form factors. It assumes that FMCs connect to an FPGA device or other device with reconfigurable I/O capability.

The purpose of this standard is to create an I/O mezzanine module which works intimately with an FPGA processing device and minimizes the handling and formatting of the transceived data. The aims are to:

- Maximize data throughput
- Minimize latency
- Reduce FPGA design complexity
- Minimize system cost
- Reduce system overhead

The standard describes FMC I/O modules and introduces an electro-mechanical standard that creates a low overhead bridge between front panel I/O, on the mezzanine module, and an FPGA processing device on the carrier card, which accepts the mezzanine module.

"There is a greater need for different front panel I/O functionality within systems. Typically, this front panel I/O functionality was fixed on many cards, or it was configured with PMC or XMC

modules", stated Dr Malachy Devlin, Senior VP and CTO at Nallatech and chairman of the FMC VITA Standards Organization (VSO) working group. "This standard takes a new approach on interface protocols by removing the need to inject protocol data into the raw data to be processed. It assumes that the FPGA has a unique closeness with the I/O mezzanine module. This enables modification of the FPGA to process the raw data formats that the module sources and sinks."

"A large percentage of designers use FPGAs to interface to high-speed I/O," says Dave Barker, Vice President of Marketing at VMETRO. "With the advent of the FMC standard, it is easy for developers to tailor an off-the-shelf FPGA board to their specific I/O needs. We are excited to have several FPGA boards with FMC sites and the industry's first A/D FMC module." (www.vmetro.com/article4604-4205.html)

"The FMC standard will reduce design costs and time-to-market for our partners and customers by bringing the benefits of modular design much closer to the FPGA user community," states Raj Seelam, Sr. Marketing Manager, Platform Solutions at Xilinx. "A number of products are already using this approach to successfully meet the needs of solutions providers and customers". (www.xilinx.com/vsk_s3)

Previously, many processing carrier cards used a fixed front panel I/O, which addressed a particular function. Changing the front panel I/O functionality meant replacing the entire board. PMC and XMC modules have provided configurable front panels but these modules use much of the carrier card area and incur, in some cases, an unacceptable data overhead and system complexity.

The VITA Standards Organization's FMC working group consists of a mix of FPGA , mechanical, board, and SW / IP suppliers that worked together to develop the FMC specification. The effort has resulted in a specification that enables product developers to bring more complete solutions to customers and reduces their time to market.

Several products have been announced that support the FMC standard. Visit the VITA product directory at www.vita.com to learn more about this standard and these products.

The standards documents are available from VITA. Logos, roadmaps and other images are available upon request.

About VITA

Founded in 1984, VITA is an incorporated, non-profit organization of suppliers and users who share a common market interest in critical embedded systems. VITA champions open system architectures. Its activities are international in scope, technical, promotional and user-centric. VITA aims to increase total market size for its members, expand market exposure for suppliers, and deliver timely technical information. VITA has ANSI and IEC accreditation to develop standards (VME, VXS, VPX, XMC, FMC, etc) for embedded systems used in a myriad of critical applications and harsh environments. For further information, visit www.vita.com .

Source: VITA