Ray Alderman
Executive Director
VITA
480-837-7486
exec@vita.com

VITA Issues Call for Participation to
Research Optical Architectures

Study group to focus on innovation that enables architectures for high density optical interconnects in critical embedded systems.

SCOTTSDALE, AZ, March 9, 2010 — VITA, the trade association dedicated to fostering American National Standards Institute (ANSI) accredited open system architectures in critical embedded system applications announced the formation of the VITA Architectures for Optical (VAO) Study Group that will be researching high density optical interconnect technology and developing a proposal for next generation architectures for critical embedded systems. A call for participation in the study group goes to non-VITA members to make presentations and participate in discussions with the Study Group. A study group is the initial step in the process of developing an ANSI/VITA standard.

VITA members recognize the need for higher density, higher performing interconnect technologies to meet the speeds of 10 gigabit serial channels and higher that will be used in next generation critical embedded systems. As the transfer rates continue to increase, it is clear that optical technology offers many advantages. Since optical interconnects work best as a point-to-point connection, future systems are going to need much higher density supporting hundreds of connections in a single board or line-replaceable unit (LRU).

Achieving the projected level of combined performance and connector density is no easy challenge. The lead-time to develop technologies and supporting specifications is very long. To that end, VITA is launching a study group now to research potential technologies and propose an architecture that could become part of future solutions.

"VITA recognizes the challenges with optical technology and feels that work needs to begin now to ensure the right solutions in the future," stated Ray Alderman, executive director of VITA. "VITA anticipates that systems in the future will depend heavily on cost effective high density optical interconnect technology."

The mission of the VITA Architectures for Optical Study Group is to research and determine the feasibility of developing a standard architecture for optical interconnects suitable for deployment in critical embedded systems. The study group will focus on high-density options for backplanes and connections between line-replaceable units, mezzanines, and daughter cards. Critical embedded systems are high-performance, distributed computing systems, and they manage high bandwidth I/O; involve real-time processing; and are environmentally constrained in size, weight, and power (SWaP).

A study group explores the needs and ascertains the interest in developing a standard. A study group can move to working group status by meeting defined working group formation criteria.

Existing standards and those under development by Standards Developing Organizations (SDOs), and appropriate industry alliances, community collaboration efforts, and other groups will be used whenever practical. The Study Group will proactively reach out to such groups to facilitate their early involvement.

Individuals and companies that are interested in participating should contact exec@vita.com, Subject: VITA Architectures for Optical Study Group.

VITA has set up a webpage at www.vita.com/vao to track information related optical technology.

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, OpenVPX™, 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

Quote Sheet

"Aitech is following the application of high density interconnects in critical embedded systems very closely to ensure that what we deliver provides the very highest levels of computing system integrity, reliability and availability used by our warfighters. The application and adaptation of commercial electronics for defense, aerospace and space requires that ultimate attention be paid to long term effects. Aitech will continue to forge new areas of high speed computing, including those using optical technologies which are surely the next technology wave front." Doug Patterson, vice president – international sales and marketing, Aitech Defense Systems, Inc., www.rugged.com

"Themis has been deploying bladed servers with industry leading SWaP, thermal and kinetic management, for more than five years. These products have internal 40-Gbit fabrics on Cu-backplanes. Chassis are interconnected by 10-Gbit fiber, using port aggregation to support required data rates. We've been very vocal in VITA, promoting optical interconnects and lend our full support to researching new high density optical interconnect technology." Bill Kehret, CEO, Themis Computer, www.themis.com