FOR IMMEDIATE RELEASE

AAEON supports the open-standard nanoETXexpress credit card sized Computer-on-Modules form factor

Kontron initiated open-standard form factor nanoETXexpress gains momentum

Eching, Germany, November 13, 2008 – Developed by Kontron, the credit card sized open-standard nanoETXexpress Computer-on-Module form factor (84 mm x 55 mm) for developing ultra-mobile mini-computer devices based on x86 processors with 45nm technology now has its first second source partner: AAEON.

In response to the increasing demand for ever smaller Computer-on-Modules with ever better performance-per-watt values, AAEON is presenting its first nanoETXexpress Computer-on-Module at electronica in Munich. Conforming 100 percent to the COM Express™ specification in terms of the location and assignment of the pinouts, the nanoETXexpress open-standard form factor offers the highest investment security for the next generation of ultra-mobile designs. Other Computer-on-Module manufacturers are expected to launch further nanoETXexpress modules soon.

“We support the nanoETXexpress form factor because it fits perfectly into our product portfolio. We have already implemented the Intel® Atom™ processor on our COM-U15 COM Express™ Computer-on-Module. The step to implementing the nanoCOM-U15 was therefore easy. The new COM perfectly fits the requirements of small Mobile Internet Devices (MID) and similarly sized, long-term available embedded computer solutions. Above all, for our OEM customers nanoETXexpress means maximum investment security for their designs “, explains Peter Yang, AAEON Product Manager ECD, responsible for Computer-on-Modules at AAEON.

“Ever since the availability of the 45nm Intel® Atom™ processor OEM customers have been exploring the new possibilities opened up by this processor and the new form factor technology. As a result, the demand for nanoETXexpress is growing rapidly. This is a clear sign that the market has accepted nanoETXexpress and we are delighted to have AAEON on board as the first competitor to officially follow this small form factor trend. More companies will soon follow to give nanoETXexpress a big push towards adoption in the PICMG® specification”, says Joseph Behammer, Director of Marketing of Kontron’s Embedded Modules Division.

PICMG® certification

The PICMG® COM Express™ specification currently incorporates the “basic” and “extended” form factors. Kontron is now heading an initiative to incorporate the nanoETXexpress (84 mm x 55 mm) and slightly larger microETXexpress (95 x 95mm) form factor, which is already supported by five different manufacturers, into the COM Express™ specification. Upon successful acceptance, these

will be known as COM Express™ “ultra” and COM Express™ “compact” respectively. Certification will establish a comprehensive specification that guarantees OEMs the highest degree of reliability and long-term availability to reduce design risks to a minimum. Competing mini Computer-on-Modules come with significantly higher design risks since no other specification recognizes different sized modules.

The nanoETXexpress form factor was derived from the guidelines of the PICMG COM Express™ specification and follows the specification 100 percent (as far as the dimensions permit). The only differences are the size of the form factor and some of the mounting holes. This enables scalability with COM Express™ Computer-on-Modules of different sizes. More important for nanoETXexpress customers, however, is the high reliability and wide spread know-how for COM Express™ conforming designs as well as a universally recognized standard that allows customers (according the Pareto Principle) to meet 80 percent of all market requirements with one major form factor specification only.

The latest nanoETXexpress specification and design guidelines for carrier boards can be downloaded free of charge from www.nanoetxexpress.com. Other suppliers of embedded computer technology are encouraged to develop Computer-on-Modules that accord with this specification.

About nanoETXexpress

nanoETXexpress Computer-on-Modules are 100 percent compatible with the COM Express™ COM.0 Type 1 with respect to the pin definition and connectors’ physical positioning on the module. Therefore, the various sizes of COM Express™ compatible Computer-on-Modules (basic, extended, compact and ultra) are interchangeable and carrier board designs are reusable. This enables developers to draw upon their existing experience with COM Express™ modules. Only the dimensions are reduced to a minimum in the nanoETXexpress form factor. In designing this “nano” COM Express™ form factor, Kontron was able to draw upon its experience from developing DIMM-PC (ISA) and X-board (PCI) designs as well as the Intel® processor roadmap to ensure the highest degree of design security. Additionally, Kontron conducted extensive research among ultra mobile designers to best understand their performance, integrated features and size needs.

The nanoETXexpress specification defines all of the long-term relevant interfaces such as Gigabit Ethernet, SATA, USB and PCI Express (including PCIe Gen 2) as well as audio and graphics. Memory and Flash are also already on board – as they are with DIMM-PC and X-board. Compared with card edge connectors, the nanoETXexpress connector is significantly more future proof. Since it has less electronic attenuation, it enables longer pathways on the carrier board. This is important since green IT trends will reduce the possible pathway length in the long term. In addition, it offers greater shock and vibration resistance as well as a clear advantage when it comes to EMC. This is also important since the demands on shielding are increasing due to factors such as second generation PCIe, for example, that doubles the wire speed and thereby the frequency, resulting in the need for greater shielding. Therefore, it makes the most sense to use this Computer-on-Module design that clearly offers the longest lifecycle.

Download the specification: http://www.nanoetxexpress.com/datasheet/nanoetxexpress_specification_rev08.2.pdf

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About AAEON

AAEON Technology, established in 1992, develops, manufactures and markets a wide range of industrial computer solutions, embedded computer systems, BOX PCs, PC/104, Computer-on-Modules, medical PCs and more. AAEON has approx. 450 employees working in several offices around the world, including the USA, Europe, China and Singapore. We are committed to providing our customers with reliable, high quality embedded motherboards, panel PCs, medical PCs, industrial PCs, Computer-on-Modules and the necessary accessories for turnkey systems. Our tailor made OEM/ODM solutions are valued by our long-term and renowned customers who receive exactly the right custom-designed IPC solution for their projects. Our large OEM/ODM customers thereby play a central role in our worldwide growth. For more information, please visit: http://www.aaeon.com

About Kontron

Kontron designs and manufactures standard-based and custom embedded and communications solutions for OEMs, systems integrators, and application providers in a variety of markets. Kontron engineering and manufacturing facilities, located throughout Europe, North America, and Asia-Pacific, work together with streamlined global sales and support services to help customers reduce their time-to-market and gain a competitive advantage. Kontron's diverse product portfolio includes: boards and mezzanines, Computer-on-Modules, HMIs and displays, systems, and custom capabilities. Kontron is a Premier member of the Intel® Embedded and Communications Alliance. The company is a recent three-time VDC Platinum vendor for Embedded Computer Boards. Kontron is listed on the German TecDAX stock exchange under the symbol "KBC". For more information, please visit: www.kontron.com.

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