

## Kontron VM6250 doubles performance and adds 10 more years to PowerPC AltiVec applications with MPC8641D

Date: 06-16-2009 03:27 PM CET

Category: [IT, New Media & Software](#)

Press release from: [Kontron AG](#)

Agency: **SAMS Network**



Eching, Germany, June 15, 2009 – Kontron introduces the new long-term available Kontron VM6250 6U VME multi-processor board with Freescale MPC8640/8641 single or dualcore processors and AltiVec engine. With its scalable processor performance, high-data throughput, low-power dissipation and easy extensibility via XMCs, PMCs and FMCs (FPGA mezzanine cards) according to the VITA 57 specification the Kontron VM6250 offers extreme flexibility. With these features it upgrades VME based air or conduction cooled applications with extraordinary processing performance and innovative features.

With a power consumption down to only 27 W (typical with Freescale MPC8640 1.00 GHz) the Kontron VM6250 6U VME CPU board attains a new performance level while staying within a tight power envelope. With a choice of Freescale MPC8640 single- or dualcore processors with 1.00 or 1.25 GHz and Freescale MPC8641 single- or dualcore processors with 1.33 GHz it combines high processing power and exceptional memory bandwidth. With a 64 bit MPX bus running up to 667 MHz, the Kontron VM6250 boosts memory bandwidth up to 4.3 Gbit/s, which makes it 3 times faster than boards based on legacy G4 PowerPC processors. The 4 channel DMA controller and the integrated 128-Bit AltiVec vector unit (which processes large data quantities while ensuring minimal cache pollution) provide the turbo in the Kontron VM6250 to speed up data processing. High data throughput is guaranteed by the high speed backplane switch for PCI Express, Gigabit Ethernet and the double-edged source synchronous transfer VME 2eSST according to ANSI/VITA 1.5.

Kontron's new 6U VME board, in the rugged conduction cooled version (- 45 °C to + 85 °C), is destined for applications in harsh environments where extremely secure and reliable performance is a must. The Kontron VM6250 features soldered DDR2 SDRAM with Error Correcting Code (ECC) and on board USB Flash support for software storage without rotating non-volatile memory. Data security of the highest level is additionally ensured by 128 KB NOVRAM for back up of critical data in case of power failure. The Kontron VM6250 RC with rugged heat sink and conduction cooling offers all features to withstand even the harshest environments in mission critical applications with data intensive I/O and network-centric real time requirements such as defense and aerospace, traffic and safety engineering and video and image processing in medical technology.

Furthermore, the new Kontron VM6250 6U VME board offers extremely flexible assembly. One of the two mezzanine extension slots for XMCs and PMCs additionally supports FMCs. An optional dual PMC carrier allows up to 4 PMCs. Customers benefit from the new FMC standard which allows to easily change the I/O configuration of a FPGA design without having to redesign the core FPGA functionality. Thus a single FPGA design can be utilized in multiple applications by simply

using a different FMC. Thanks to this modular concept, Kontron's latest 6U VME board can be quickly and flexibly adapted to meet a large variety of application requirements. By using COTS components, the amount of effort required for both implementation and hardware upgrades at a later date is reduced to a minimum. Additionally, the Kontron VM6250 is legacy compatible and helps customers to preserve their investments by re-using established VME equipment with updated processing performance and innovative features.

The Kontron VM6250 provides on the front panel 2x Gigabit Ethernet, 1x USB 2.0 and 1 x serial port (EIA-232). Via the P0 connector (VITA 31.1) Gigabit Ethernet, SATA II, USB 2.0, PCI Express 1.0, SRIO, GPIO and 32 I/Os for PMC 1 are connected to the backplane. Besides the 64-bit VME bus (VME64x), Kontron's VM6250 provides support 2eSST, which enables data throughput speeds of up to 320 Mbyte/s on P1. P2 connects 64 I/Os from the FMC and PMC 2 slot and 32 I/Os from the PMC 1 slot to the backplane.

Kontron's new 6U VME CPU board comes with the Open Source U-Boot firmware and supports VxWorks 6.6 and Fedora 9 Linux. Furthermore, it is covered by Kontron's long term supply program. This guarantees customers a multi-year supply of the product beyond its active life.

For more information on the Kontron VM6250, please visit:  
[www.kontron.com/products/boards+and+mezzanines/6u+vme/pro...](http://www.kontron.com/products/boards+and+mezzanines/6u+vme/pro...)

For more information on VME, please visit: [www.kontron.com/vme/](http://www.kontron.com/vme/)

For more information on rugged COTS solutions, please visit:  
[www.kontron.com/about-kontron/custom-solutions/rugged-cots/](http://www.kontron.com/about-kontron/custom-solutions/rugged-cots/)

#### About Kontron

Kontron designs and manufactures embedded and communications standards-based, rugged COTS and custom 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 & mezzanines, Computer-on-Modules, HMIs & displays, systems & platforms, and rugged & custom capabilities. Kontron is a Premier member of the Intel Embedded and Communications Alliance and has been a VDC Platinum Vendor for Embedded Computer Boards 5 years running. Kontron is listed on the German TecDAX stock exchange under the symbol "KBC". For more information, please visit: [www.kontron.com](http://www.kontron.com)

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