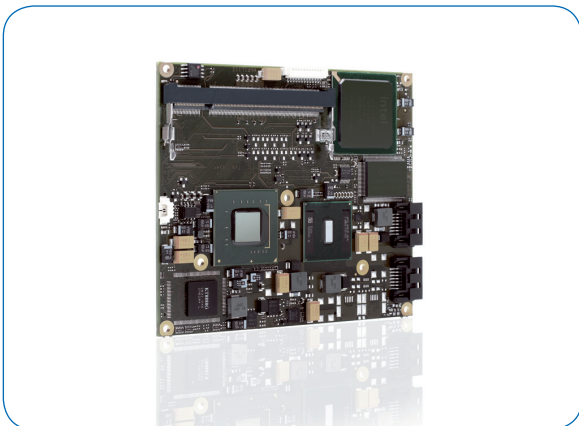


» Application Story «

ETX® Performs in Harsh Environment Industrial Computers



Kontron COMs help Glacier industrial computers keep their cool



Challenge: Glacier Computer needed a powerful and rugged small form factor embedded computing solution for its industrialbased Everest products.

Solution: With the Kontron ETX®-DC Computer-on-Modules, Glacier's Everest line of industrial computers can deliver high performance, high reliability operation in harsh environmental conditions.

Benefit: What was traditionally a complicated configuration and installation is now as simple as installing wireless access points on a network, enabling businesses to easily adopt access control, time and attendance or emergency response technology.

New ruggedized, sealed computers are being deployed for a broad variety of industrial applications. These new workhorses are used for receiving inventory, filling orders, moving freight, monitoring time and attendance or as HID's on industrial equipment such as press brakes. Computer requirements are especially challenging for industrial operations that demand high reliability for their 24/7 data collection needs that also must offer ultra-durability in harsh environmental conditions that test them with wide temperature extremes and almost constant shock and vibration.

The Situation: Glacier Computer Required a Rugged, Extended Temperature Embedded Computing Solution

Glacier Computer is a leading manufacturer and distributor of rugged industrial computers. The company designs, markets and supports industrial computer systems for a wide range of applications that require durability and ease of use. Its robust computer designs meet strict industry standards and are engineered to operate 24/7 in broad range of harsh environments.

When Glacier Computer was in the development phase for its new line of Everest industrial computers, the company evaluated rugged small form factor embedded computing solutions that would help them speed time-to-market and further optimize their design for demanding environments such as warehouses, construction sites, and manufacturing centers. The solution it sought needed to be a standards-based platform that could withstand its customers' main environmental concerns of wide temperature extremes as well as excessive shock and vibration conditions. Because the company's Everest computers were being designed to be used as an all-in-one industrial computer for forklift and fixed-mount harsh environment applications, it meant that Everest needed to support forklifts that operate in -20°F freezers and then out onto loading docks where temperatures can vary by more than 80 to 100 degrees. The computers are also expected to reliably perform in high levels of vibration, in many cases 24 hours a day.

While processor performance is not typically a top priority of industrial applications, Glacier's customers have come to expect the highest performing computer that delivers the greatest value for their demanding environments.

The Solution: The Kontron ETX®-DC Delivers Exceptional Thermal Management for Sealed Computers

For the Glacier Everest computer line, the Kontron ETX®-DC offered an optimal balance between excellent performance and very low power. Based on the energy-saving Intel®

Atom™ N270 processor, the ETX®-DC gave Glacier reduced power consumption with excellent thermal management characteristics. This Computer-on-Module requires a maximum of only 12-15 watts to run the processor, controller, I/O and other functionality for this specific application.

Because the Glacier Everest computer design is sealed and cannot utilize fans or venting holes to cool the processor, the ETX®-DC is an ideal solution for fanless designs in harsh environments that require passive cooling by keeping operational power levels low and minimizing heat generation. The ETX®-DC module also met Glacier's high Mean Time Between Failure (MTBF) requirements for the highest reliability.

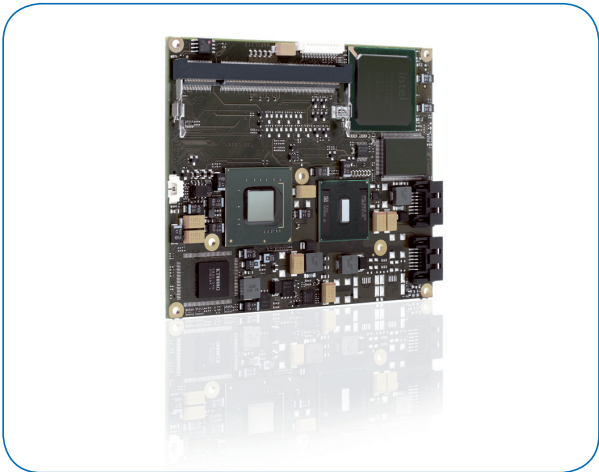
The Kontron ETX®-DC module also offers the latest processor technology in the well-established ETX® 3.0 form factor, giving Glacier a scalable standards-based computing platform.

The Result: A Robust and Full-Featured Industrial Computer Design

Because the warehouse environment can be tough on computers, Glacier Computer received the right combination of computing performance and low power needed to support its Everest design specifications. Computing performance of the Kontron ETX®-DC provides the capability to handle the intense information processing requirements in today's warehouse environment that include everything from receiving inventory, filling orders, moving freight, or monitoring time and attendance. Plus, the latest Everest computer is ensured low power consumption enabling it to meet its tough thermal management requirements with the Kontron ETX®-DC. The computing platform matches Everest's design goals of 24/7 operation in extremes of temperature, moisture, and vibration. Glacier Computer will introduce its latest line of Everest rugged computers with the Kontron ETX®-DC in Q2 of 2010.

Benefits of Kontron ETX®-DC

- » Intel® Atom™ N270 processor with Hyperthreading
- » Fanless use
- » Smooth migration path replacement for ETX®-PM and ETX®-PM3
- » 2x SerialATA
- » Up to 2 GB DDR2 system memory
- » Integrated with Intel® Graphics Media Accelerator
- » Customized firmware settings
- » Module and memory custom integration option
- » Full support for migration from one platform to the next



Kontron's ETX®-DC



Glacier's Everest

About Kontron

Kontron is a global leader in embedded computing technology. With more than 40% of its employees in research and development, Kontron creates many of the standards that drive the world's embedded computing platforms. Kontron's product longevity, local engineering and support, and value-added services, helps create a sustainable and viable embedded solution for OEMs and system integrators.

Kontron works closely with its customers on their embedded application-ready platforms and custom solutions, enabling them to focus on their core competencies. The result is an accelerated time-to-market, reduced total-cost-of-ownership and an improved overall application with leading-edge, highly-reliable embedded technology.

Kontron is listed on the German TecDAX stock exchanges under the symbol "KBC". For more information, please visit: www.kontron.com

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