Press Release 13/03



Intermas-Elcom CB-M Passively cooled Box Industry PC

Introducing Intermas CB-M, Intermas-Elcom GmbH presents an extra robust and passively cooled box industry PC. As a specialist for custom industry PCs and possessing a long tradition of the development of housings, Intermas focuses both on industry suitable electronics and on a functional as well as robust housing designs. With its modular hardware features and its robust housing, CB-M is perfectly qualified for applications in industry automation, transport engineering, and for graphics-intense kiosk systems as well as digital signal solutions.



The compact aluminum housing is based on Intermas *DiVar* profiles which allow variable geometric configurations in each of the three axes. The software is based on an AMD embedded-G processor that combines CPU (central processing unit) and GPU (graphic processing unit) within a silicon DIE. The wide range of available processors permits

scalable solutions with small power consumption and systems with high computer and graphics performance. Energy-efficient embedded systems or HD multimedia systems can be realized on this hardware platform.

CB-M's core part is formed by Advantech MIO-5270 single-board computer (SBC). The MI/O (multiple I/O) concept offers two significant advantages that provide a flexible and robust design. First, the MI/O extension is an open standard so that custom MI/O modules can be developed besides those of diverse providers. This allows you to differentiate yourself from the competition. Since Intermas develops and produces the CB-M housing itself, custom I/O bezels for your systems can be produced even in small quantities. Secondly, the whole concept including scalable hardware and configurable housings permits an efficient and flexible product development cycle with a significant time-to-market advantage.

In addition, the MI/O design arranges all the heat generating components on one side of the PCB so that the board is perfectly cooled by a cooling element. In combination with a SSD or CFast memory card, the system works without any rotating parts which makes it both noiseless, fanless, and vibration- and shockproof. The voltage supply is standard with 12V DC. For applications that require a wider input range , CB-M can be configured with a DC/DC converter designed for temperatures between -20 to +70°C and interconnected with the CB-M cooling element.

All components in detail: Long-term available AMD embedded-G APUs in different power classes (5,5W – 18W TDP) are used as processors. Single board computers can be designed for either industrial temperatures (0 – +60°C) or wider temperature ranges (-20 – +80°C). Data memory is integrated via SATA, mSATA or CFast.

Press Release 13/03 - page 2



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With a SODIMM interface main memory up to 4GB can be installed.

The graphics display connection is optionally realized with either VGA, HDMI or 24Bit LVDS or as dual display system by combining the interfaces above. The comprehensive offer of industrial interfaces suggests 4*USB 2.0, 2* Gigabit Ethernet, 3*RS-232, 1*RS-232/422/485 as well as 8Bit GPIO for the housing front. Besides On-Board I2C or SMBus the system can be expanded optionally with PCI and LCP at the MI/O extension. At customer's request, CM-B is configured with Windows XP Embedded or Windows Embedded Standard 7. For Linux applications the system can be equipped with Ubuntu 12.04 LTS.

About Intermas-Elcom: As a specialist for Electronic Packaging, Intermas offers 19" computers, box IPCs, panel IPCs as well as custom kiosk systems. Intermas encompasses it's own product development and production department, so each industrial computer can be adapted to custom requirements concerning mechanics and electronics. Thanks to this flexibility, Intermas products can be used in almost every area of industrial electronics, and automation as well as military and traffic engineering.

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