Press Release

Swiss Made "Elkhart Lake" Rugged Embedded Computer Family (CEC)

MPL has developed another ultra compact Computer Family with a case dimensions of only 62x162x118mm, based on the 10nm Intel Atom x6000 processor. Despite the small footprint, the system still has MPL's typical product characteristics like; robustness, the highest reliability, long-term availability of at least 10 years, lowest power consumption in the industry, extended temperature (-40°C to 85°C) capability, passive cooling (fanless), and easy internal expansion.

Dättwil Switzerland, April 2022 - The new CEC generation is a low power, highly integrated, flexible and rugged computer. The solution can be used for any computer application where a most reliable solution is needed. The Swiss designed solution integrates standard connectors for easy connection or lockable headers, depending on chassis choice. Therefore, the CEC20 Family can be used for any x86 application (Industry, Railways, Maritime, Defense) where a complete but still expandable and flexible solution is needed.

The CEC2x comes with onboard NVMe mass storage and supports various other types of mass storage. The onboard m.2 Key-B slot can be used for multiple expansion options. The board is equipped with a high density expansion connector with PCIe, USB, I2C, ... interfaces. This allows to expand the CEC2x with our standard I/O board or semi-custom designed I/O board according the customer needs and with minimal development effort. The CEC2x supports standard SO-DIMM DDR4 and has the possibility to support IBECC (In Band ECC).

Key features are:
- DDR4 RAM up to 32GB (support of IBECC)
- 1 & 2.5 Gbit Ethernet ports
- Fanless operation
- Longterm availability
  (until 2035 with selected CPUs)
- Expansion port for standard or custom IO board
- Intel Atom Processor x6000 Family
- Low power consumption 4.5 -12W (TPD CPU)
- On board NVMe Flash (120GB)
- USB3.1, isolated serial ports…

For maximum robustness the CEC2x is designed to operate in the range of -40°C up to 85°C and withstand reverse polarity voltage, overvoltage, surge and burst voltages, as well as electromagnetic discharges targeting the MIL-STD-461E, IEC60945 and EN50155 standards.

With the new design, a specific expansion board has been developed. The CEC2x expansion board (FIME) offers 2 x PCIe, 2 x HSIC, 2 x UART, SATA, SDIO, LPC and I2C. This allows a maximum on customization for any I/O Boards and extending the system with additional interfaces. For example: GPIOs, additional serial ports, Gigabit Fiber, CAN, miniPCIe slots even PCI/104-Express port.

The new CEC20 Family is available with a DIN-Rail or flange mount compact aluminum housing, a MIL housing with 38999 connectors according customer requirements, as a 19" rack solution, or as open frame with a cooling concept. OEM version of the CEC are available too. The CEC20 Family is 100% engineered and manufactured by MPL AG in Switzerland.

For more specific information, please visit www.mpl.ch/t2660.html or contact MPL AG directly.

About the Company
MPL AG is located in Switzerland and was founded in 1985. Since the beginning, MPL stands for robust designs, long-term availability, low power consumption, and fanless concepts. The products are designed from scratch to succeed in extended temperature and meeting the high demands of rugged environments.

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Hi-res Press Photo: **https://www.mpl.ch/info/CEC20-Rugged-Embedded-Computer-standard.jpg**
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