Embedded Computer Expansion Options

Valued reader,

In this and the next couple issue we would like to bring you the unique MPL Expansion Concept for Rugged Embedded Computer closer. The expansion concept enhances MPL's Embedded Computers similar to the LEGO bricks.

The base of MPL's Embedded Computers is the CPU board, which is currently available with low performance Intel CPUs up to i7 Quad Core. The base CPU board comes with standard connectors and a rugged aluminum housing with DIN-Rail or flange mount. Optional available are also M12 or MIL 38999 connectors. With this base, any requirement can be fulfilled, even meeting standards like EN50155, IEC60945, and MIL-STD-810.

With this new LEGO concept, the base configuration of MPL's Embedded Systems can now be enhanced with the following expansion options:

**Power Options:** Standard input power range is 9-36 VDC with highly efficient on-board power circuitry.
**Networking Options:** Four LAN ports are integrated on the base board.
**Mass Storage Options:** Four SATA and one mSATA ports are integrated on the base board.
**Internal Expansions Ports:** The standard base board comes with 2x mPCIe and 1x PCI-104Express ports.
**Custom expansions:** MPL's engineering department is providing a development service for special interfaces based on the on-board PCIe/PCI interface.

**Today we would like to highlight the available Power Options.**

The standard input voltage covers already many of the common requirement, however depending on the application other requirements may need to be fulfilled. On the power side we can provide you with:
- Galvanic separation of the system. Isolation of system and board ground can be provided as well.
- Alternative input voltages independent whether it is 9-36VDC, 18-72VDC or 43-160VDC.
- Redundant input power for higher reliability
- UPS system that provides power during interruption and allows a graceful shutdown to secure data even for a temperature range from -40°C up to 75°C.
This expansion concept is unparalleled in the embedded and rugged computer market industry. It helps to differentiate the customers end product, but still have just one base board version and keeping maintenance, stock, and efforts on a very low level. This, paired with the fact that the products are available for 10+ years and can be repaired at MPL for 20+ years, makes the Total Cost of Ownership extremely attractive.

We look forward to your questions and requirements

Kind regards,
Your MPL team

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