



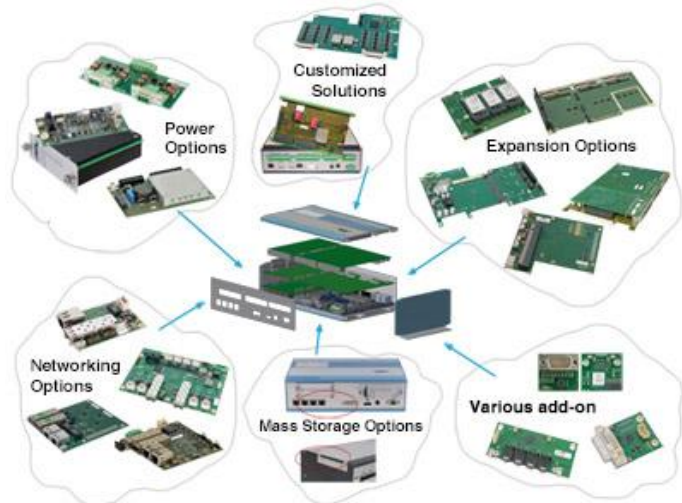
## MPL AG Newsletter May 2017

### Embedded Computer Expansion Options II

Valued reader,

In continuation of the Jan-2017 Newsletter, we bring you this time the expansion options a little closer.

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 our 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.

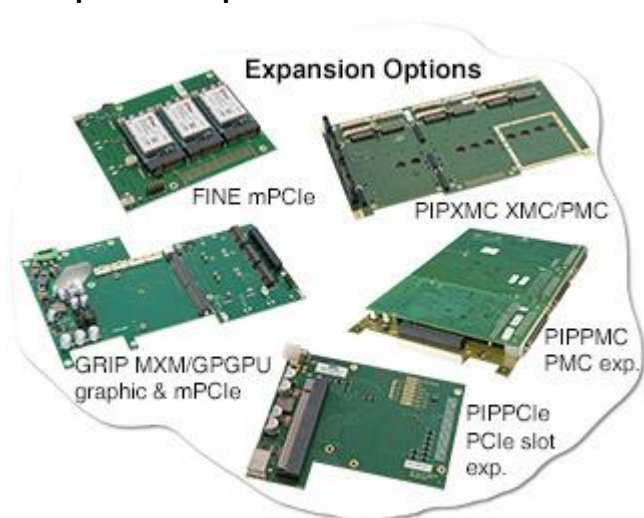
**Internal Expansions Ports:** The standard base board comes with 2x mPCIe and 1x PCI-104Express ports.

**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 Internal Expansions Options.

The standard PIP comes with a lot of connections, like USB, mPCIe, PCI104 etc. But in different cases you will need more flexibilities for your needs. This is a reason for the Board-Expansion Options. Following a list of the currently available options:

- **GRIP: for high performance MXM graphic cards** (NVIDIA, AMD...) and additional 4 x mPCIe slot & 4 mini-SIM
- **FINE: 4 x additional mPCIe slot**, giving up to 6 slots for universal expansion (WLAN, GPS, GPRS...)
- **PIPXMC: XMC / PMC adapter.** XMC / PMC cards can be mixed on the PIPXMC adapter card. They even can be stacked providing up to 6 slots.
- **PIPPCIex6-1:** The PCI-104 to PCIe x1 Bridge extends the industrial PCI-104 Bus with a PCI Express x1 Card
- **PIPPCI16-2:** The PCIe/104 to PCIe x1/x16 Adapter extends the industrial PCIe/104 Type 1 Bus with a PCI Express x1 or a x16 add-in card and offers two USB2.0 connectors
- **you miss a solution, please talk to MPL AG.**





This expansion concept is unparalleled in the embedded and rugged computer market industry. It helps to differentiate the customer's 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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