

## New convection cooled Compact Rugged Computer Solution with multiple XMC, PMC, and mPCIe Modules

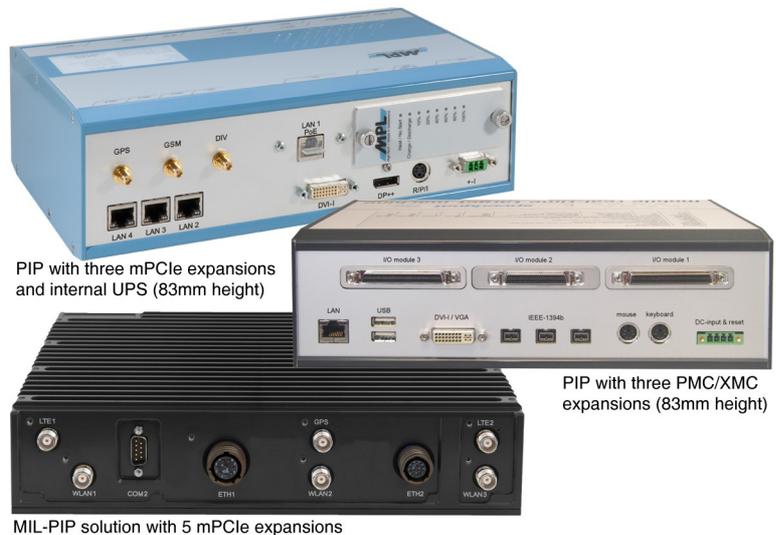
MPL AG introduces a new XMC/PMC and mPCIe expansion for its PIP (rugged Embedded fanless Computer) Solution. The expansion cards interfaces direct to the internal on-board PCIe x16 bus.

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This unique solution allows to integrate several XMC, PMC, as well as mPCIe mezzanine cards into the various housing solutions (Industrial PIP housing in various colors, 19" Rack, Open Frame, or MIL enclosures). The systems also support the extended temperature option (-40°C to +85°C).

### XMC and PMC expansion

The new XMC/PMC expansion (PIPXMC-1) allows to integrate up to 3/6 XMC or PMC modules. XMC and PMC cards can be mixed on the PIPXMC adapter card according your needs. Any on the market available XMC and PMC mezzanine card (ADC/DAC, FPGA, Avionics XMC/PMC, Graphics, Network, ...) can be used and easily be integrated. The integration can be done by MPL during assembly or by the customer. Also a potential conductive cooling concept is available. The size of a PIP enclosure with 8 add-on modules (XMC/PMC) measures only 270 x 162 x 83mm (LxWxH).



### mPCIe expansion

The new mPCIe adapter (FINE-41S) allows to expand the PIP Family with up to 4 additional mPCIe modules. Full size or half size mPCIe available on the market can be installed. Each FINE comes with one additional SIM slot (optionally, all 4 slots can be equipped with a SIM card connector). The FINE expansion makes the PIP Family to a very flexible, compact, and rugged Embedded Computer. With this capability, the PIP Solution can be expanded with up to 6 mPCIe modules with functions like GPS, LTE, 3/4G, Serial, Fieldbus (CAN, Profibus...). Avionics modules (ARINC, 1553...), MVB for Railways... can simply be inserted and accessed externally on the required connector. The size of a PIP case is only 65mm in height and allows to install 6 mPCIe.

These two new (expansion) adapters make the rugged Embedded Computers from MPL even more flexible for the use in any Industrial, Railway, Avionic, Defense, or other special applications. Independent if it is for Data Acquisition, Measurements, Communications, or Gateways. The new expansion options from MPL are the perfect fit when a compact, flexible, and reliable solution is required.

All MPL products are developed in Switzerland based on more then 30 years company tradition with a huge know how in lowest power consumption and extended temperature operation. According to the company slogan "MPL High-Tech • Made in Switzerland", all products are 100% designed & produced in Switzerland by MPL AG.

Additional integration options & expansions for the PIP Solution (ie. extended temperature -40°C to 85°C, integrated wide temperature UPS, ...) are listed on MPL's homepage. Please visit [www.mpl.ch](http://www.mpl.ch)

### About the Company

MPL AG was founded in 1985 by Rudolf Hug and is located in Switzerland. Since 1985, MPL has been developing and manufacturing embedded computers and systems for tough environments and for applications with highest reliability requirements. The success of the company is based on unique solutions: ruggedness, long-term availability, low power consumption, extended temperature range, and passive cooling concepts (fanless).

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