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## Maritime test approval for PIP10 Platform PCs Further prove of the ruggedness of MPLs Industrial PCs

The well known and widely used PIP10 embedded PC from MPL AG is now official accredited for Marine applications. MPL passed with their unique Industrial PC the therefore required maritime tests - IEC 60945: Fourth edition, 2002 and IACS E10: Rev. 5, Dec 2006. The Maritime test approval includes tests like dry heat, damp heat, low temperature, vibration, endurance vibration, conducted & radiated emission and radio frequency interference, burst & surge voltage, power supply variation, power supply failure, electrostatic discharges. With passing this challenging type of approval, the PIP concept once again showed its real robust, rugged and reliable design.

Like all PIPs the PIP10 is based on the MPL PIP-family specific features guideline that includes:



- Extreme low power consumption
- Extended temperature range possibility
- Designed for rugged & fanless operation
- Long-term availability
- Robust, rugged and reliable solution
- Compact but expandable housing
- A real total solution with maximum flexibility

The Marine approved PIP solutions are based on a standard MPL PIP10 platform CPU board combined with an internal galvanic isolated input voltage expansion module – allowing an input voltage between 18-48VDC.

These CPU boards are based on low power Pentium-M or Celeron-M CPUs from Intel's embedded program which guarantees long term availability. For best ruggedness and reliability the CPUs are soldered on board. They offer either 2MB or 512kB L2 cache and are running at processor speeds between 1.8GHz and 600MHz. On-board integrated are PC features like Ethernet, USB 2.0, 3D-Graphics, serial ports (RS232/422/485, galv. isolation) and more. All these interfaces can be accessed externally on standard connectors without any internal wiring.

There are several compact, flexible and robust housings (IP51 & IP67) with best EMC performance and in different colors available. Further the PIP10 platform has been successfully tested with Linux, Windows (XP, XPe, 2000), QNX and VxWorks.

Due to MPL's 20 years of experience in supplying products for the ambitious niche market and the unique board design made for rugged environments, the PIP10 platform CPU boards are well suited for Marine applications but will also fit in areas like:

- vehicles (cars, trucks, railways)
- open field (meteorology, monitoring)
- machines where dust, heat and/or vibration cannot be eliminated

Basically wherever a reliable, long-term available and/or rugged computer is needed, a PIP is the right choice. The PIPs can be assembled according to the customer requirements and needs. OEM and depopulated versions are offered as well.

For more information about the PIP10 platform and the PIP Concept please contact us via fax, email, or consult our homepage ([www.mpl.ch](http://www.mpl.ch)).