

## Rugged conductive cooled Computer with 9th Gen CPU NVIDIA RTX 5000

MPL designed a new conductive cooled Xeon E-2276ME & i7-9850HE CPU system with integrated NVIDIA RTX 5000 GPU cards with 3072 CUDA Cores. The total solution requires no fan and can be operated in an environment of -20°C up to +55°C.

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MPL's strength are computing and network solutions that work without the need of any active cooling. They have been providing passive cooling concepts for more than 35 years. Thousands of fanless solutions perform trouble free their services in the toughest environments for years.

The conductive cooling solutions from MPL are not achieved by using heat pipes. The concept starts with the design of the MPL CPU boards, its peripherals, and the selection of parts. This method allows to mount the solution in any orientation a customer needs or has space, compared to heat pipe solutions.

Only low power consumption and long-term available parts are selected. The heat generating components are being placed without any compromises on the back side of the base board. This, to connect all hot spots directly to the surface of the case. To achieve this specific design, special know-how is needed to allow changes of the reference design Intel provides. Most in the market available products are derived from the reference design of Intel, which are created for the commercial computers. Needless to point out that such designs are not ideal for a rugged environments.

With this special know-how, and many years of experience, MPL designed another milestone in its 35 years of engineering. The MILCOTS4x-GPU, a conductive cooled Xeon i7 9th generation CPU system with integrated NVIDIA RTX 5000 GPU card. Needless to mention that other GPU cards can be used in place of the RTX 5000. The total solution requires no fan and can be operated in an environment of -20°C up to +55°C. The D38999 MIL connectors are soldered on special MPL designed rigid-flex PCBs.

In addition to the GPU card, the system comes with additional features like:

- up to 128GB ECCDDR4
- GigE ports
- CAN ports
- Isolated serial ports
- Isolated digital IOs
- Dual HD-SDI
- Dual DVI
- 12-32V DC input according to MIL-STD-1275D
- Secure mounting of two 2.5" SSD
- All packaged into a IP67 conductive cooled housing

The MILCOTS4x-GPU has been designed to withstand any harsh environments and extreme temperature conditions. Particular precautions during the design have been taken that the entire system EMC is within the MIL-STD-461 standards and MIL-STD-810 can be met.

The rugged conductive cooled computer is 100% engineered and manufactured by MPL AG in Switzerland. This guarantees best quality, long-term availability, long-time repair, and gives you security you can trust.

For more specific information, please visit [www.mpl.ch/t2064.html](http://www.mpl.ch/t2064.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.

### **Contact information**

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