

# Rugged conductive cooled Computer

## with additional 3072 CUDA-Cores (NVIDIA RTX 5000)

### General Description

With the special engineering know-how and many years of experience, MPL designed another milestone in its 35 years of engineering. The MILCOTS4x-GPU, a conductive cooled Xeon E-2276 9th generation CPU system with integrated NVIDIA RTX 5000 GPU card with 3072 CUDA-Cores. 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. Available until 2035.



### PIP40 Family Highlights

Two mPCIe and three m.2 slots allow to expand the system very easy. The internal expansion bus allows to integrate PCIe/104, PCIe, or MXM cards. These expansion possibilities give a maximum on customization for additional interfaces and features. 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.

### Key features are:

- Rugged design
- Up to 64GB DDR4 memory
- Fanless operation from -20°C to +55°C
- Long term availability
- Extremely flexible
- AMT / vPro support

### Technical Features

Processor	Intel 9th Generation CPU ( Xeon E-2276ME, Intel i7-9850HE, Intel i3-9100HL, Celeron G4930E )
Number of cores	Up to 6 cores depending on CPU
Clock speed	1.6GHz up to 4.5GHz depending on CPU
L2 Cache 2	Up to 12 MB depending on CPU
Passmark (all cores)	2624 up to 14397 depending on CPU
TPM	2.0 with EAL4.0 support
Memory	Up to 64 GB DDR4 or ECC DDR4 depending on CPU
Mass storage	2x SATA 3.0 ports, removable ( NVMe, m.2, mSATA on request )
Raid compatibility	0/1 Intel RST
Watchdog Timer	Config. granularity 1-255 sec. or 1-255 min.
Indicator LED	Power
GPU	NVIDIA RTX MXM 5000 graphic card ( other MXM cards optional )

### Interfaces

The selected connectors in this solution are: (other connectors or interfaces are possible)

DIO:	TV06RW-17-35P	( 16 x digital I/Os )
CAN:	TV06RW-11-98S	( 2 x CAN )
LAN:	TV06RW-15-35P	( 2 x 1GB LAN, AMT / vPro support )
SDI:	BNC-Connector	( 2 x SDI ports, up to 4096 x 2160 )
Power:	D38999/26WD5SN	
Maintenance:	TV06RW-15-35PA	( 1 x DVI, 3 x USB 2.0 )
	USBFTV71ZN	( 1 x USB 3.1 )

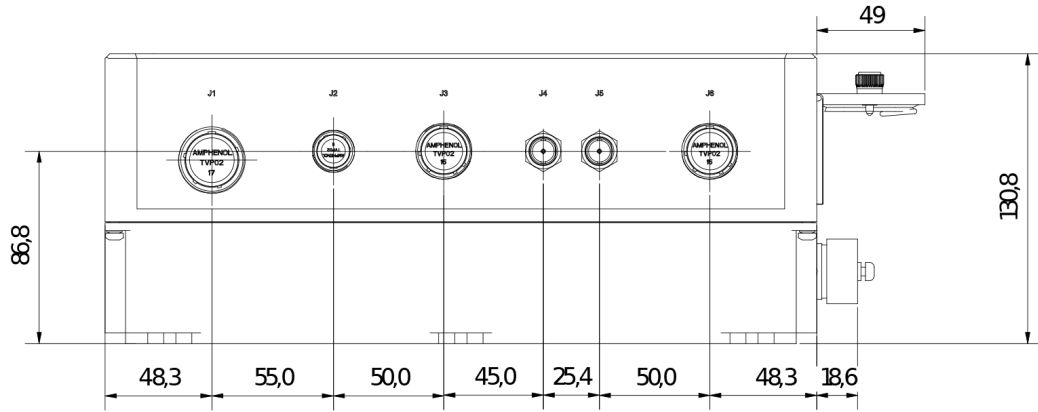
### Power

Input Voltage	28 VDC input +/- 20%, ESD and EMC protected input Protection against reverse polarity, up to 150V load dump MIL-STD-1275D and/or MIL-STD-704F
Consumption	For computer: 5-100 watt ( Enhanced Speed Step Technology ) For RTX 5000: up to 101 watt

### Environment

Storage Temperature	-45°C up to +85°C
Operating Temperature	-20°C to +55°C ( with external airflow )
Relative Humidity	5% to 95% non condensing, optional coating available
Dimension	322 mm x 220.5 mm x 130.8 mm, weight 12.4 kg

Dimension drawing of the MILCOTS4x-GPU



height of air-gap above unit

