

MILPC-4000

Rugged Small Form Factor High Performance
Multi-Mission Edge Computer



Key Features

- CPU: Intel Xeon or Core i7 Quad-Core
- GPU: NVIDIA GeForce or Quadro
- Up to 48GB DDR4 Dual Channel Memory
- (2) x Removable SATA 2.5" SSD
- Ultra-Dense I/O with Expansion Capability
- Adaptable to Support Sensor/Video Capture/Encode
- Adaptable to Support Multiple Ground or Airborne Data Bus Architectures Including CAN/ARINC
- Wide-Range DC Input 18-36VDC
- MIL-STD-810H Shock and Vibration
- MIL-STD-461E EMI/EMC
- MIL-STD-1275E and MIL-STD-704F Power
- IP66 Sealed Dust/Water Ingress
- Windows/Linux OS Compatible
- -40°C to +60°C Operating Temperature (Passive Conduction Cooling)

Product Highlights

The MILPC-4000 is a fully rugged, high-performance, multi-mission embedded edge computer. MILPC-4000 boasts a rich feature set built around an extreme rugged form factor, providing an economy of capability within a superior SWaP-C optimization effort. MILPC-4000 supports and enables real-time AI training and inferencing by integrating multiple immediate-future technologies.

The MILPC-4000 is purpose-built converging to today's C5ISR demands by providing the advanced computing capability and ruggedization demanded for mission-critical applications in ground, airborne, and shipboard platforms. MILPC-4000 offers robust configuration options and expansion capability for any desired mission feature set.

The MILPC-4000 is engineered and manufactured in a single LRU to reduce the demand on platform SWaP, exactly meeting ruggedized vehicle computer requirements for unlimited deployment.

REV 1.15.02.22

SPECIFICATIONS

ENCLOSURE

| | |
|----------------------------------|--|
| Material | Black Anodized Aluminum Exterior w/Clear Alodine Interior |
| Indicators | Power |
| Controls | Power |
| Dimensions | (W x D x H) 8.5" x 13.25" x 5.1" |
| Sealing | O-ring Sealed for IP66 Dust/ Water Ingress Protection |
| System Boards | |
| CPU | Intel Xeon or Core Quad-Core |
| GPU | NVIDIA GeForce or Quadro |
| Memory | Up to 48GB Dual Channel DDR4 ECC or Non-ECC |
| Power | Input 18-36VDC (28VDC Nominal) Filtered |
| Operating System | Supports Windows and Linux OS |
| System I/O | |
| Serial | Up to (2) x RS232 and (2) x RS485/RS422 |
| LAN | Up to (2) x GbE |
| USB | Up to (2) x USB 3.0; (4) x USB 2.0 |
| Video Inputs/ Encoder | (4) x PAL/NTSC Composite Video, up to (4) x HD/SD- SDI, or up to (2) x 3G-SDI Inputs; Supports CoT and KLV Metadata; Low Latency |
| Video Outputs | Up to (4) x DVI; VGA and SDI Options |
| Connectors | All 38999 Mil-Circular; USB 3.0 Field in 38999 Shell |
| Expansion | Robust I/O Expansion Options Including 10GbE SFP+, Multi-Port GbE Switch, CAN, ARINC-429, 1553, USB, Serial, GPS, mSATA SSD |

Storage

Removable

Up to (2) x 2.5" SSD SATA
III with Toolless Removal

Environment

Temperature*

-40 °C to +60 °C, Operating
-40 °C to +85 °C, Storage

Altitude**

MIL-STD-810H Method 500.6
Procedure I and II

Humidity**

MIL-STD-810H Method 507.6,
Procedure II (Aggravated)

Vibration

Certified to MIL-STD-810H,
Method 514.8, Procedure I
(Operational Service), Category
4, Composite Two-Wheeled
Trailer, Composite Wheeled
Vehicle. Rotary/Fixed-Wing
Aircraft**

Shock**

MIL-STD-810H, Method 516.8,
Procedure I (Functional) 20G
at 11ms; Procedure V (Crash
Hazard) 40G at 11ms

Explosive Atmosphere**

MIL-STD-810H Method 511.7,
Procedure I

EMI/EMC

Certified to MIL-STD-461E
CE101, CE102, CS101, CS114,
CS115, CS116, RE101, RE102,
RS101, RS103

Power**

MIL-STD-1275E/704F

Sand and Dust/Water**

MIL-STD-810G Method 510.6;
IP66 Sealed

**System operating temperature is configuration-dependent. All systems are temperature tested via 24-hour burn-in at 50C. MILPC-4000 has been validated from -40C to +60C operating temperature. Specific configuration extended temperature testing can be conducted on-site per customer request and requirement.*

***Designed to meet certain test methods, procedures, and levels of MIL-STD.*