HPERC-KBL-MC

Extreme Rugged Cold Plate Mount System with 7th Gen Intel® Xeon® Processor and MIL-DTL-38999 Connectors

Features

- VITA 75 Cold Plate mounting
- Intel® Xeon® Processor E3-1505M v6, quad-core
- 16GB DDR4-2400 with ECC soldered down
- Quad Gigabit Ethernet and 6x USB ports
- Available GPGPU on PCI Express x16 Gen3
- 3 independent displays (DVI/VGA)
- Wide temperature range: storage -40°C to +85°C, operating -40°C to +75°C
- OS support: Windows 10, RHEL 7.3

Specifications

Processor & System

CPU
Intel® Xeon® E3-1505M v6 3.0GHz, Quad core

Chipset
Intel® CM238 Chipset

GPGPU
NVIDIA Quadro P1000 MXM card with 4GB GDDR5 (optional)
NVIDIA Quadro T1000 MXM card with 4GB GDDR6 (optional)

Memory
16GB DDR4-2400 ECC soldered down

BIOS
AMI EFI

Expansion Busses
MXM (PCIe x16 GEN3)
PCI/104 Express Type 2 (PCIe Gen2)
PCI Express Mini Card (PCIe Gen2)

Standard I/O

Video
2x DVI and 1x VGA (3 simultaneous display outputs)

Audio
1x amplified stereo output
1x stereo input

LAN Chipset
4x Intel® I210 Ethernet controller

LAN Speed
10/100/1000 Mbps

USB
6x USB 2.0

Serial Port
7x RS-232/422

GPIO
8x digital IO

Internal Storage

Removable SATA
2x 2.5" SLC/MLC SSD on SATA 6 Gb/s

RAID 0/1
Intel RST

Removable SD
1x SDHC - SLC (up to 32 GB)

Security

TPM
Infineon SLB 9665XT2.0

Secure Erase
Hardware input triggered
Software triggered

Power

Input: 18-36VDC
Performance: S-States S3, S4

Thermal
Internal Transfer: Passive conduction to body
Cold plate conduction
VITA 75.22 mount

Storage Temperature
-40°C to +85°C

Operating Temperature
Extreme Rugged: -40°C to +75°C (ambient)
(Note: Max. operating temperature is dependent on an external thermal solution design that keeps the temperature at any point on the cold plate surface below +85°C.)
With EGX-MXM-P1000: -40°C to +74°C at cold plate
With EGX-MXM-T1000: -40°C to +71°C at cold plate

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Specifications

- **Certifications & Standards**

Immersion
IEC60529 - IP-67

Salt Spray
RTCA/DO-160G, Section 14, Category S

Altitude
0 to 50000 ft.

Relative Humidity
95% at +60°C non-condensing

Shock
MIL-STD-810G - 516.6 Procedures I and V

Vibration
MIL-STD-810G - 514.6 Procedure I
Categories 4, 9, 11, 21

EMI/EMC
MIL-STD-461F

Power
MIL-STD-704F & MIL-STD-1275E

Operating Temp.
MIL-STD-810G - 501.5 Procedure II
MIL-STD-810G - 502.5, Procedure 1 and 2

- **Mechanical**

Form Factor
VITA-75.22 Conductive Cold Plate

Dimension (mm)
223.7(L) x 177.8(W) x 98.7(H)

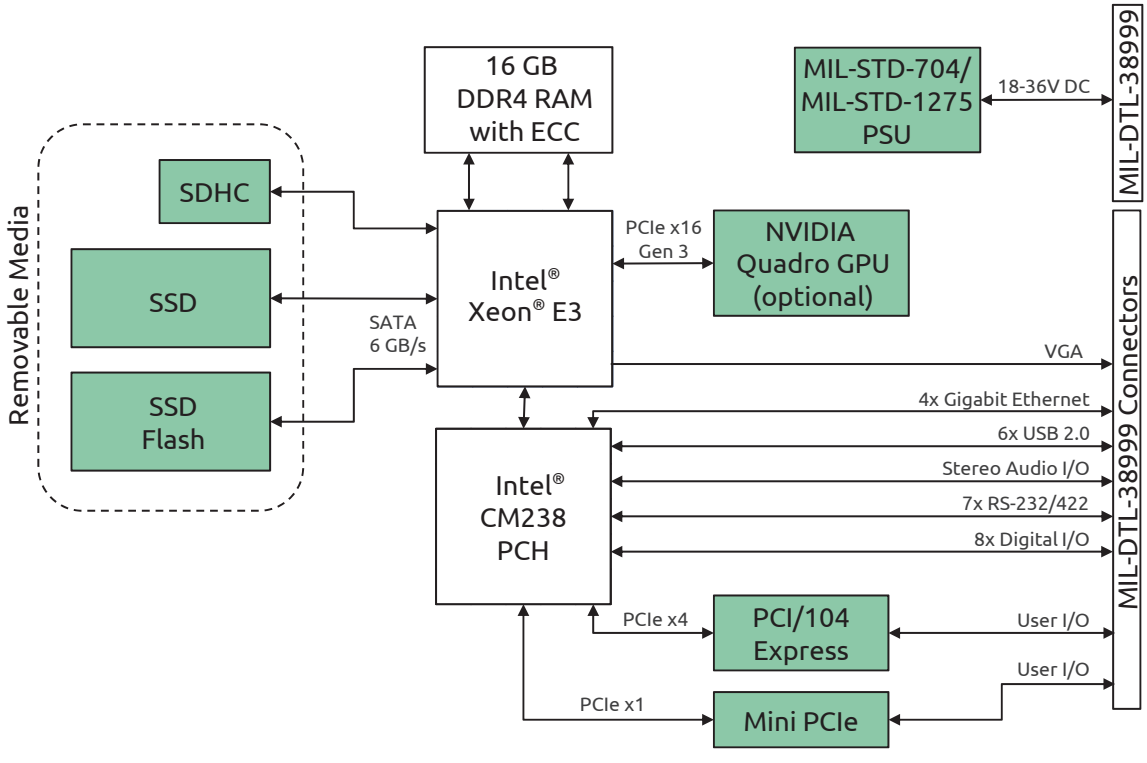
Weight
4.68 kg

IO Connectors
MIL-DTL-38999 (uniquely-keyed)

- **Operating System**

OS
Windows® 10 (64-bit)
RHEL 7.3
(Please contact ADLINK for other OS support)

Functional Diagram



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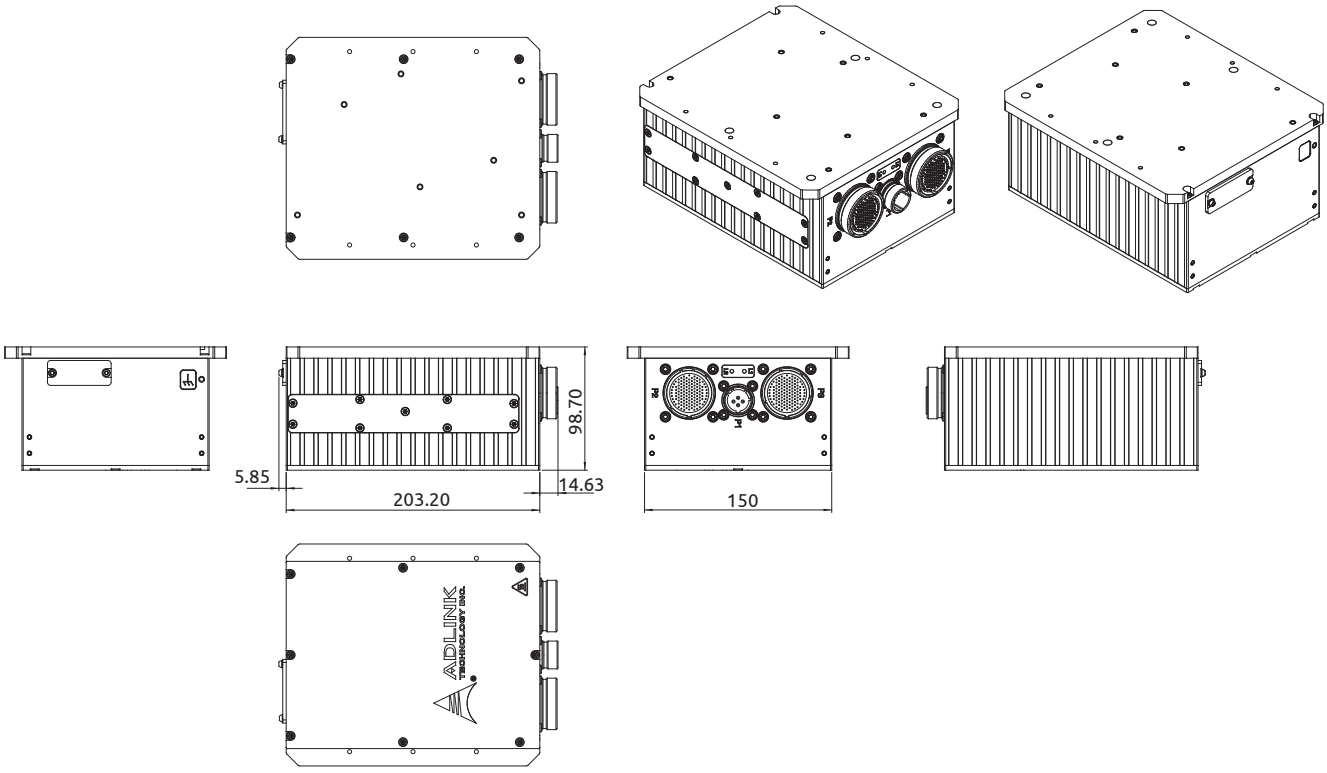
Mechanical Drawing

(Units: mm)



Ordering Information

- **HPERC-KBLMC-100XN**
  Cold plate, Intel® Xeon® E3-1505M v6, 16GB RAM

HPERC Accessories

- **HPERC-X-03**
  HPERC breakout cable kit including Amphenol MIL-STD Nkey & Akey (I/O cables), and AC Adapter
- **EGX-MXM-P1000**
  NVIDIA Quadro P1000 MXM GPU card, with 4GB GDDR5 memory (Card must be pre-assembled at ADLINK factory)
- **EGX-MXM-T1000**
  NVIDIA Quadro T1000 MXM GPU card, with 4GB GDDR6 memory (card must be pre-assembled at ADLINK factory)