

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

powerBridge
 Computer

Ehlbeek 15a
 30938 Burgwedel
 fon 05139-9980-0
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 info@powerbridge.de

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**

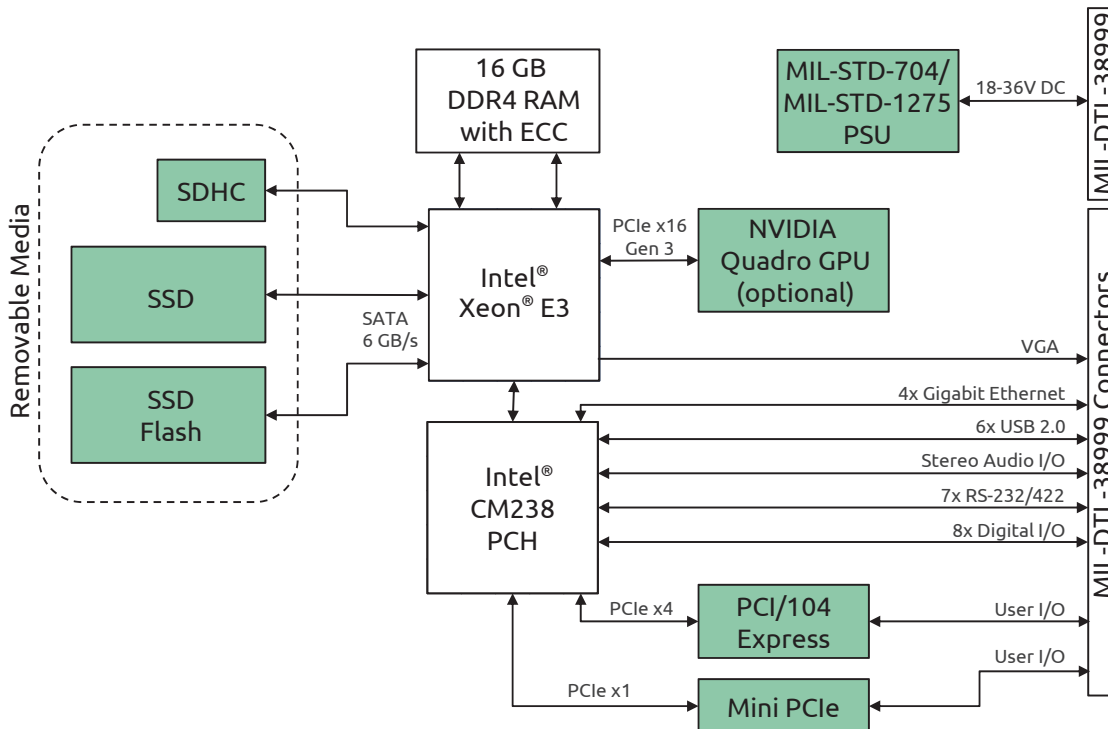
OS

Windows® 10 (64-bit)

RHEL 7.3

(Please contact ADLINK for other OS support)

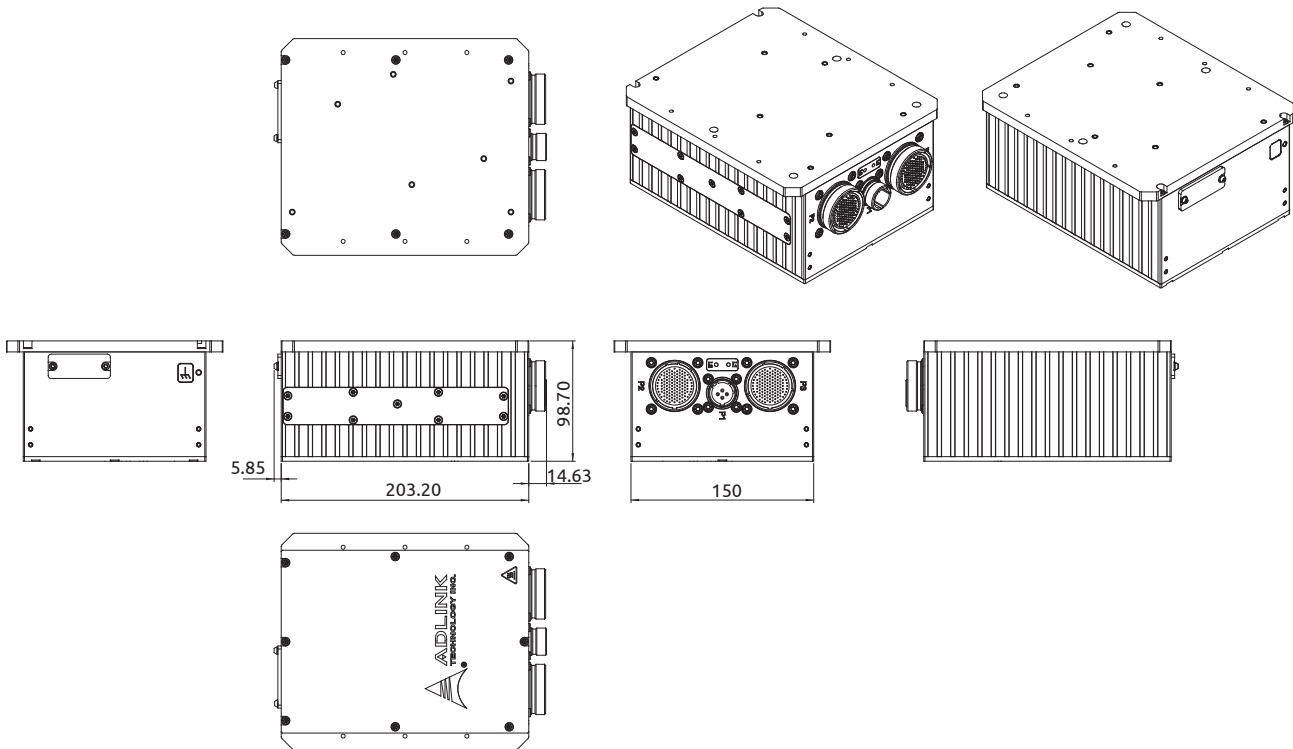
Functional Diagram



HPERC-KBL-MC

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)