

# HPERC-KBL-MH

## Rugged Convection Cooled System with Intel® Xeon® Processor and MIL-DTL-38999 Connectors

### Features

- VITA 75 mount with passive convection cooling
- 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® Processor E3-1505M v6, quad-core

##### Chipset

Intel® CM238 Chipset

##### GPGPU

MXM NVIDIA Quadro P1000 with 4GB GDDR5 (optional)

##### Memory

16GB DDR4-2400 ECC soldered down

32GB DDR4-2400 ECC soldered down (optional)

##### 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 Ports

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

Support up to 12Gb/s

##### Removable SD

1x SDHC - SLC (up to 64 GB)

#### Security

##### TPM

Infineon SLB 9665XT2.0

##### Secure Erase (option for SSD)

Hardware input triggered

Software triggered

#### Power

Input: 18-36VDC

Performance: S-States S3, S4

#### Thermal

##### Internal Transfer

Top-cover heatsink cooled (free air convection)

VITA 75.21 mount

##### Storage Temperature

-40°C to +85°C

##### Operating Temperature

CPU Only: -40°C to +75°C ambient\*

With MXM-P1000: -40°C to +70°C ambient\*

\*Note: Airflow 30 CFM, 1 atm air

## Specifications

- **Certifications & Standards**

**Immersion**

IEC60529, IP-67

**Salt Spray**

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

**Altitude**

0 to 50,000 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-75.21 Finned Passive Convection

**Dimension**

304.8 (L) x 150 (W) x 130 (H) mm (with mounting brackets)

**Weight**

5.54 kg

**I/O Connectors**

MIL-DTL-38999 (uniquely-keyed)

- **Operating System**

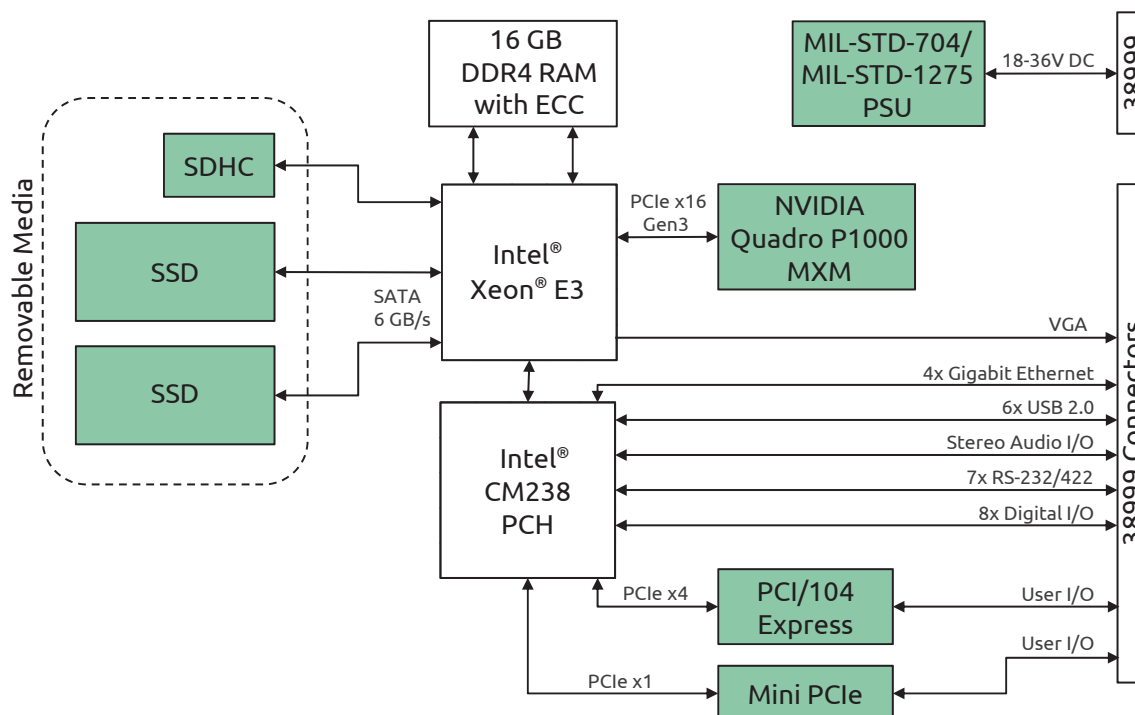
**OS**

Windows® 10 (64-bit)

RHEL 7.3

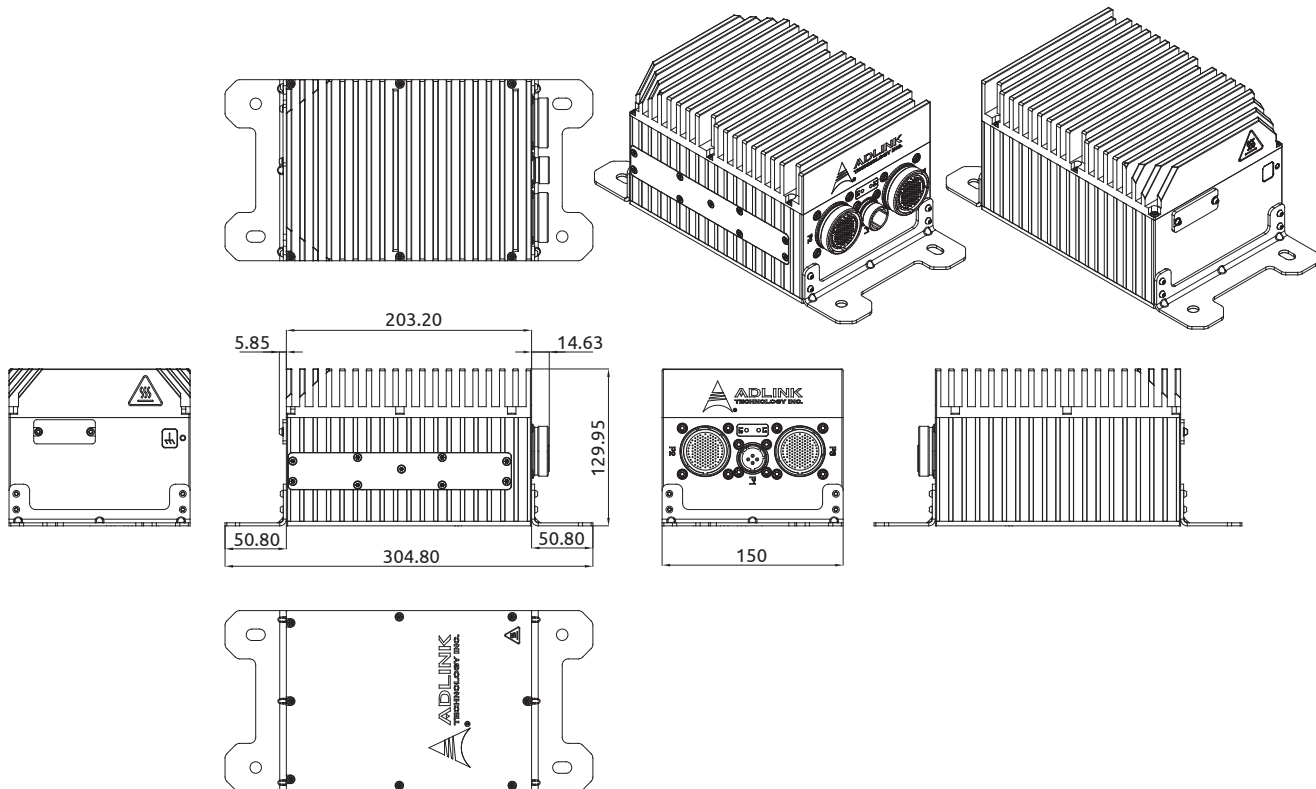
(Please contact ADLINK for other OS support)

## Functional Diagram



## Mechanical Drawing

(Units: mm)



## Ordering Information

- **HPERC-KBLMH-100XN**  
Finned-convection, 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
- **GPU MXM module**  
MXM NVIDIA Quadro P1000 GPU card, with 4GB GDDR5 memory (must be pre-assembled at ADLINK factory)