

# HPERC-KBL-MH

*Rugged Convection Cooled System with 7th Gen 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

#### 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

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

**IO Connectors**

MIL-DTL-38999 (uniquely-keyed)

- **Operating System**

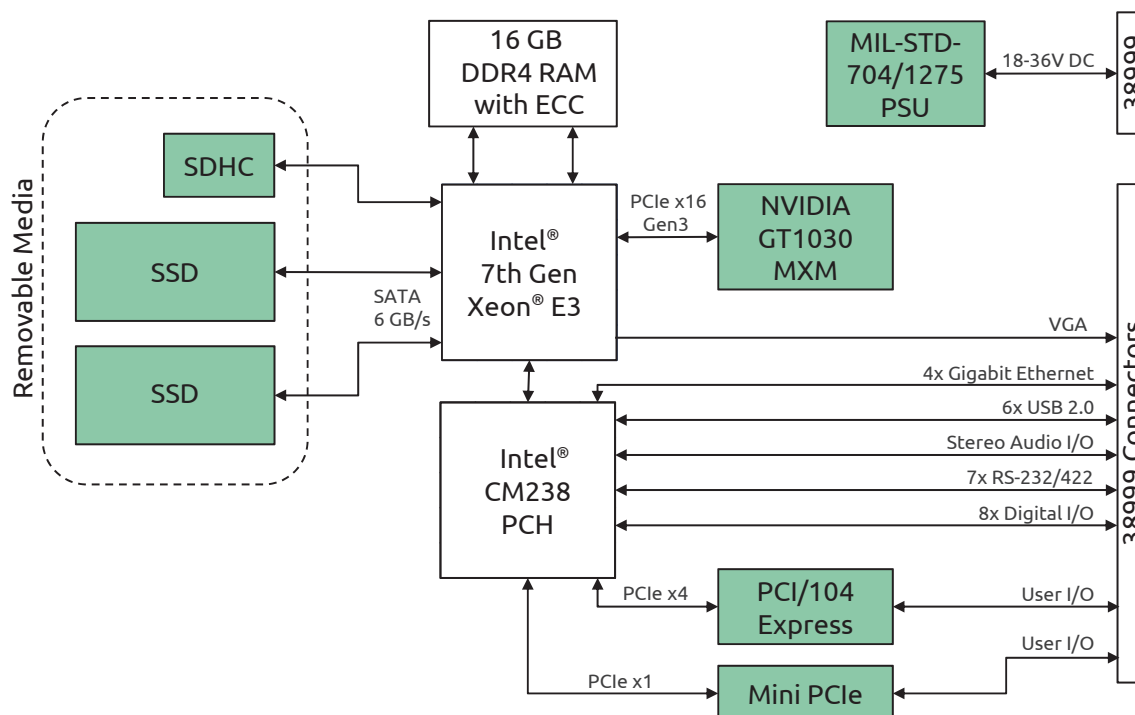
**OS**

Windows® 10 (64-bit)

RHEL 7.3

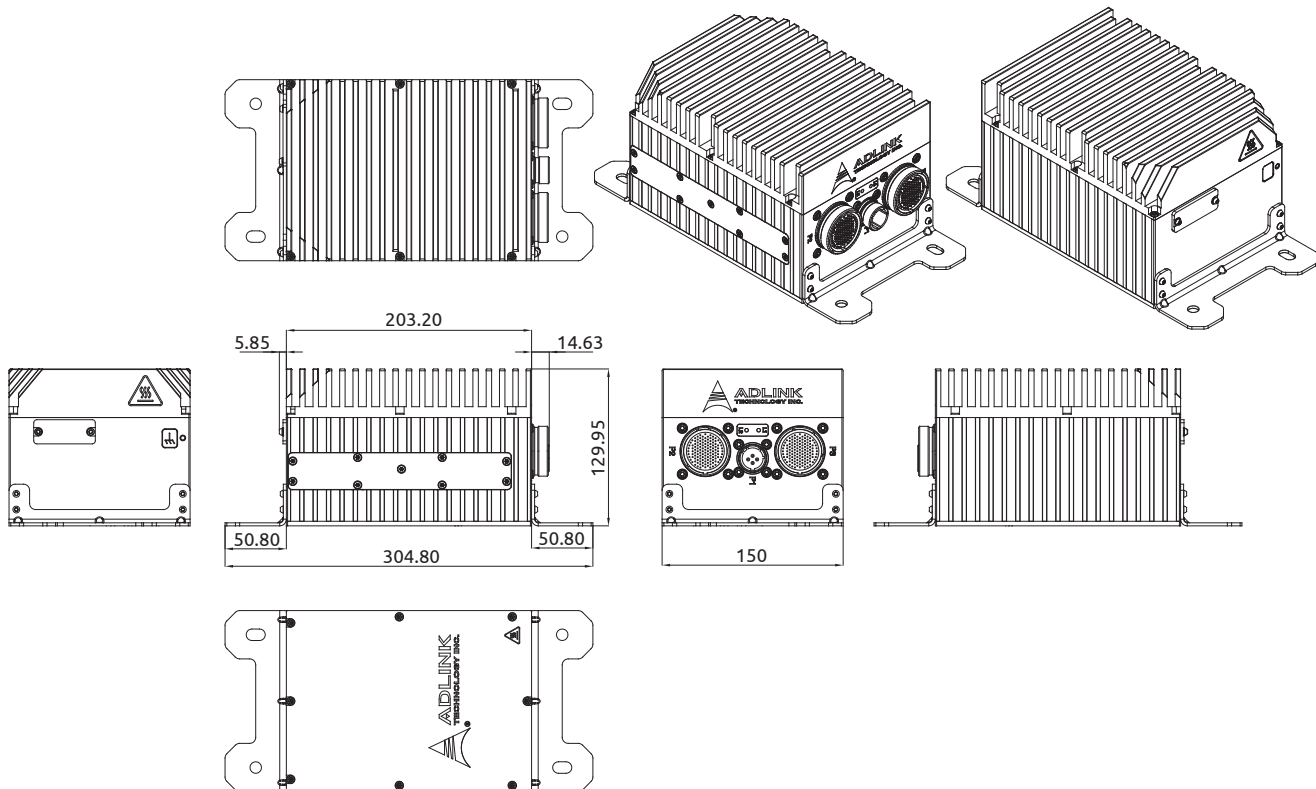
(Please contact ADLINK for other OS support)

## Functional Diagram



## 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)