

# HPERC-IBR-HH

*Rugged System with 3rd Gen Intel® Core™ i7 Processor  
and MIL-DTL-38999 High Speed Connectors*

## Features

- High speed eSATA, USB 3.0
- VITA 75 mount with passive cooling
- Intel® Core™ i7 dual or quad core Processor
- Soldered DDR3L 8GB, up to 16GB RAM
- Quad Gigabit Ethernet
- Available GPGPU on 16-lane 3rd Generation PCI Express
- Dual independent displays (HDMI/DVI/VGA)
- Simple user expansion and configuration
- Rugged temperature: -40°C to +70°C
- Tested to MIL-STD-810G and MIL-STD-461F standards;  
IP67 rating
- OS support: VxWorks 6.9, Ubuntu, Windows® 7 and WES7



## Specifications

### • Core System

#### CPU

Intel® Core™ i7-3517UE 1.7GHz, dual-core  
Intel® Core™ i7-3612QE 2.1GHz, quad-core

#### Chipset

Intel® QM77 Express Chipset

#### GPGPU

MXM NVIDIA GeForce GT 745M / GTX 950M with 2GB 128-bit GDDR5 (optional)

#### Memory

16GB DDR3L-1333 ECC  
8GB soldered down, 8GB SODIMM

#### BIOS

AMI EFI

#### Expansion Busses

MXM (3rd Generation PCIe x16)  
PCI/104 Express® Type 2 (PCIe Gen2)  
PCI Express Mini Card (PCIe Gen2)

### • Standard I/O

#### Video

2x DVI, 1x HDMI and 1x VGA (only 2 display outputs supported concurrently)

#### Audio

1x amplified stereo output  
1x stereo input

#### LAN Chipset

4x Intel® I210 Ethernet controller

#### LAN Speed

10/100/1000 Mbps

#### eSATA

2x SATA 3Gb/s (non-powered)

#### USB

2x USB 3.0  
4x USB 2.0

#### Serial

7x RS-232/422

#### GPIO

8x digital IO

## Specifications

### ● Internal Storage

Removable SATA: 2x 2.5" SLC/MLC SSD on SATA 6 Gb/s (up to 1 TB)

RAID: 0/1 supports up to 12Gb/s

Removable: 1x SDHC - SLC (up to 64 GB)

### ● Security

#### TPM

Atmel AT97SC3204-U1A190

#### Secure Erase

Hardware input triggered

Software triggered

### ● Power

Input: 10-36VDC

Performance: S-States S3, S4

### ● Thermal

#### Internal Transfer

Passive conduction to body

#### Storage Temperature

-55°C to +85°C

#### Ambient Temperature

-40°C to +70°C at 1 atm air

Heatsink (free air convection)

VITA 75.21 mount

### ● Environmental

#### Immersion

IEC 529 - IP-67

#### Salt Spray

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

#### Altitude

0 to 50K ft.

#### 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

#### Temperature

MIL-STD-810G - 501.5 Procedure II

MIL-STD-810G - 502.5, Procedure 1 and 2

### ● Mechanical

#### Form Factor

VITA-75 Finned Passive Convection

#### Dimension

304.8(L) x 150(W) x 101.95(H) mm (with mounting brackets)

#### Weight

3.91 kg

#### IO Connectors

MIL-DTL-38999 (uniquely-keyed)

### ● Operating System

#### OS

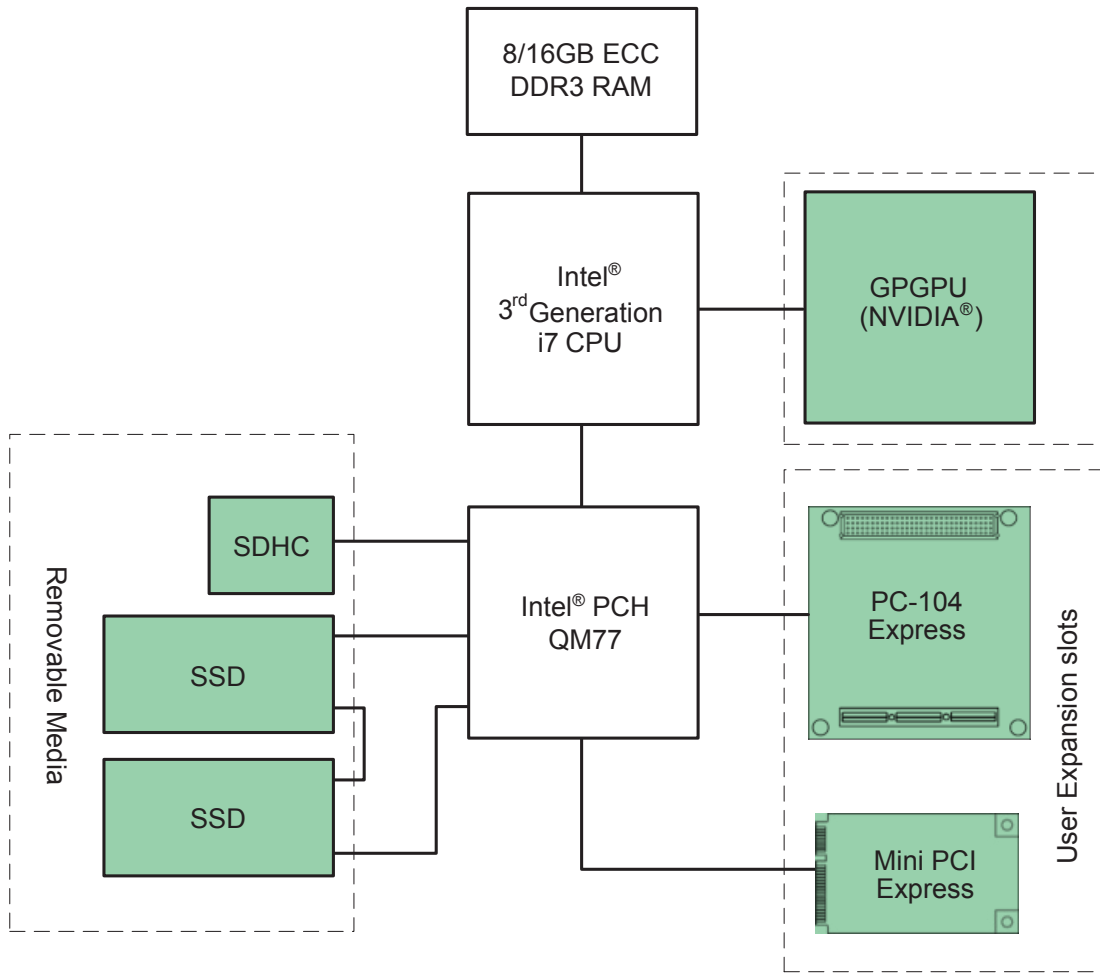
Ubuntu 16.04

VxWorks 6.9.3.1 (Please contact ADLINK for other OS support)

Windows® 7 (64-bit)

WES 7 (64-bit/32-bit)

## Functional Diagram



## Ordering Information

- **HPERC-IBRHH-100XN**  
Finned-Convection, Intel® Core™ i7 3517UE, 16GB RAM
- **HPERC-IBRHH-B00XN**  
Finned-Convection, Intel® Core™ i7 3517UE, 8GB RAM
- **HPERC-IBRHH-300XN**  
Finned-Convection, Intel® Core™ i7 3612QE, 16GB RAM
- **HPERC-IBRHH-D00XN**  
Finned-Convection, Intel® Core™ i7 3612QE, 8GB RAM

### HPERC Accessories

- **HPERC-H-03**  
HPERC™ breakout cable kit including MERITEC MIL-STD Nkey & Akey I/O cables, and AC Adapter
- **M3N745M-JN-A**  
MXM NVIDIA GeForce GT 745M GPU card, with 2GB 128-bit GDDR5 memory (must be pre-assembled at ADLINK factory)
- **M3N950M-JN1A-A**  
MXM NVIDIA GeForce GTX 950M GPU card, with 2GB 128-bit GDDR5 memory (must be pre-assembled at ADLINK factory)