

# HPERC-IBR-MH

High Performance Extreme Rugged™  
Finned-convection System with Intel® Core™ i7 Processor

NEW



## Features

- SWaP efficient sealed SFF system
- VITA 75.21 mount with passive cooling
- Intel® Core™ i7 dual or quad core Processor
- Soldered DDR3L-1333 8GB, up to 16GB RAM
- Quad Gigabit Ethernet
- Ultra-fast Solid-State-RAID
- Available GPGPU on 16-lane 3rd Generation PCI Express
- Triple DisplayPort/HDMI/DVI
- Simple user expansion and configuration
- Extreme Rugged™ operating temperature: -40°C to +75°C

## Specifications

### Core System

CPU	Intel® Core™ i7-3517UE 1.7GHz, dual-core Intel® Core™ i7-3555LE 2.5GHz, dual-core Intel® Core™ i7-3612QE 2.1GHz, quad-core
Chipset	Intel® QM77 Express Chipset
GPGPU	Accepts Nvidia or AMD via MXM
Memory	16GB DDR3L-1333 ECC 8GB soldered down, 8GB SODIMM
BIOS	AMI EFI
Expansion Busses	PCI/104 Express (3rd Generation PCIe x16) PCI/104 Express® Type 2 (PCIe Gen2) PCI Express Mini Card (PCIe Gen2)

### Standard I/O

Video	3x HDMI/DP/DVI 1x VGA
Audio	1x amplified stereo output 1x mono Mic input
LAN Chipset	4x Intel® I210 Ethernet controller
LAN Speed	10/100/1000 Mbps
eSATA	2x SATA 3Gb/s (non-powered)
USB	4x USB 3.0 6x USB 2.0
Serial	7x RS-232/422
GPIO	8x digital IO

### Internal Storage

Removable SATA	2x 2.5" SLC 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	9-36VDC
Performance	P-States 0-16 (Speedstep & Turbo) S-States S3, S4, and IFFS

### Thermal

Internal Transfer	Passive conduction to body
Storage Temperature	-55°C to +85°C
Operating Temperature	Extreme Rugged™: -40°C to +75°C Heatsink (free air convection) VITA 75.21 mount

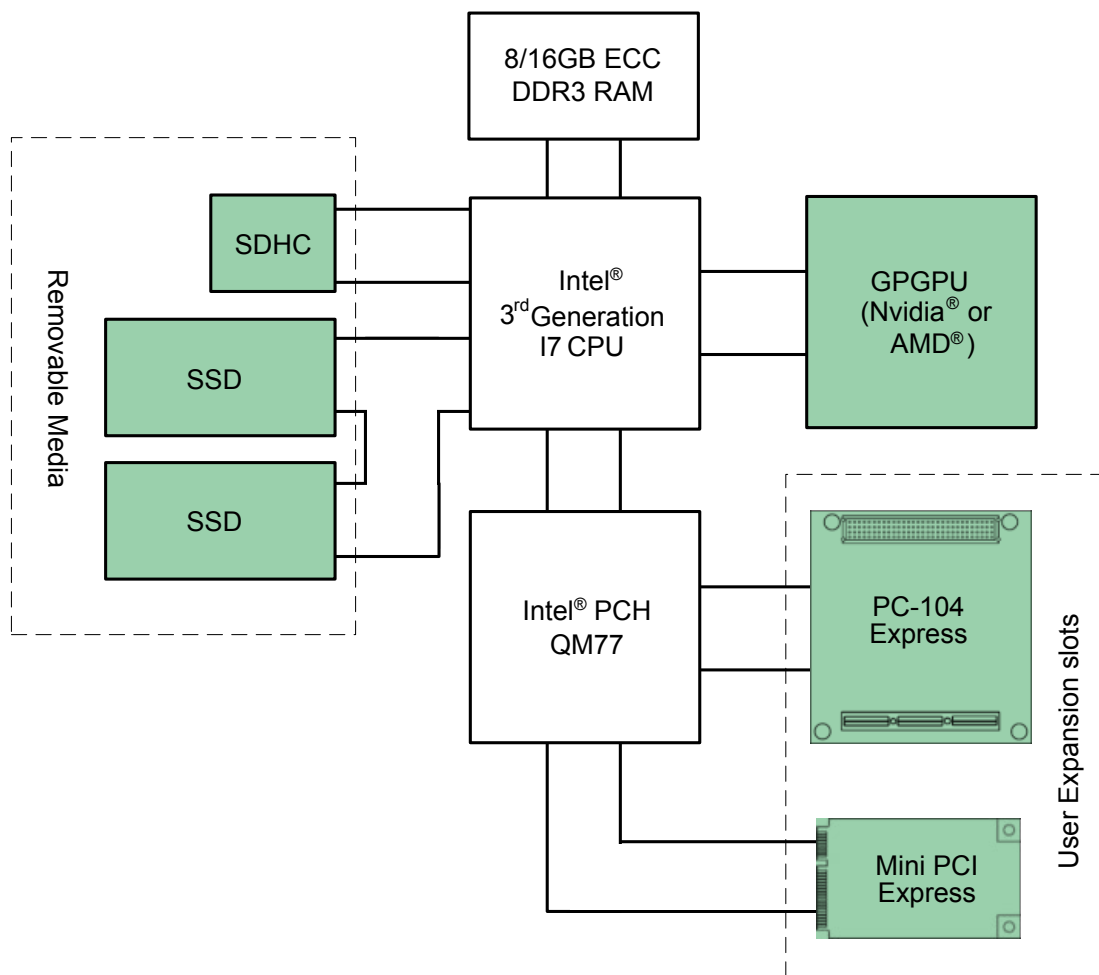
### Environmental

Immersion	IEC 529 - IP-67 MIL-STD-810G - 512.5 Procedure I
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, 7-9, 13-15
EMI/EMC	MIL-STD-461F FCC EN55022 ClassB
Temperature	MIL-STD-810G - 501.5 Procedure II, Method 1 and 3 MIL-STD-810G - 502.5, Procedure 1 and 2

### Mechanical

Form Factor	VITA-75.20/21 Finned Passive Convection
Dimension	100 x 150 x 203.4mm
Weight	4.24 kg
IO Connectors	MIL-DTL-38999 (uniquely-keyed)

## Functional Diagram



## Ordering Information

### Modules

Model Number	Description/Configuration
<b>HPERC Accessories</b>	
HPERC-X-01	HPERC™ breakout cable kit including all IO and AC Adapter
DDR3L-HPERC	HPERC™ 16GB RAM option
CC-DDR3	Conformal Coating option for HPERC™ 16GB RAM option
CC-HPERC-IBR	Conformal Coating option for HPERC-IBR
1553-HPERC	PC-104 Express MIL-STD-1553 option
429-HPERC	PC-104 Express ARINC-429 option
E6760-HPERC	AMD® E6760 600 MHz GPGPU with 800MHz 128-bit 1GB GDDR5 Memory

### Accessories

Model Number	Description/Configuration
<b>HPERC-IBR-MH</b>	
HPERC-IBRMH-102NS7	D38999 connectors, Finned, 2.8 GHz Gen3 Dual Core 17W i7 (3517UE), 2x 128GBSLC noRAID, 16GB RAM, Windows Standard 7 (64-bit)
HPERC-IBRMH-B02NS7	D38999 connectors, Finned, 2.8 GHz Gen3 Dual Core 17W i7 (3517UE), 2x 128GBSLC noRAID, 8GB RAM, Windows Standard 7 (64-bit)
HPERC-IBRMH-101NS7	D38999 connectors, Finned, 2.8 GHz Gen3 Dual Core 17W i7 (3517UE), 2x 64GBSLC noRAID, 16GB RAM, Windows Standard 7 (64-bit)
HPERC-IBRMH-B01NS7	D38999 connectors, Finned, 2.8 GHz Gen3 Dual Core 17W i7 (3517UE), 2x 64GBSLC noRAID, 8GB RAM, Windows Standard 7 (64-bit)