

# HPERC-IBR-MC

Extreme Rugged™ Coldplate Mount System with 3rd Gen Intel® Core™ i7 Processor and MIL-STD-38999 Connectors



## Features

- SWaP efficient sealed SFF system
- VITA 75 coldplate mounting
- 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
- Simple user expansion and configuration
- Extreme Rugged temperature: -40°C to +85°C
- Dual independent displays (DVI/VGA)

## 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	Accepts NVIDIA via MXM (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	1x VGA, 2x DVI (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
USB	6x USB 2.0
Serial	7x RS-232/422
GPIO	8x digital IO

### Internal Storage

Removable SATA	2x 2.5" SLC/MLC SSD on SATA 6 Gb/s (up to 1 TB)
RAID	Supports RAID 0/1
Removable	1x SDHC - SLC (up to 64 GB)

### Security

TPM	Atmel AT97SC3204-U1A190
Secure Erase	Software triggered

### Power

Input	10-36VDC
Performance	P-States 0-16 (Speedstep & Turbo) S-States S3, S4

### Thermal

Internal Transfer	Passive conduction to body
Storage Temperature	-55°C to +85°C
Baseplate Point Temperature	Extreme Rugged: -40°C to +85°C (i7-3517UE); -40°C to +80°C (i7-3612QE) Coldplate conduction VITA 75.22 mount

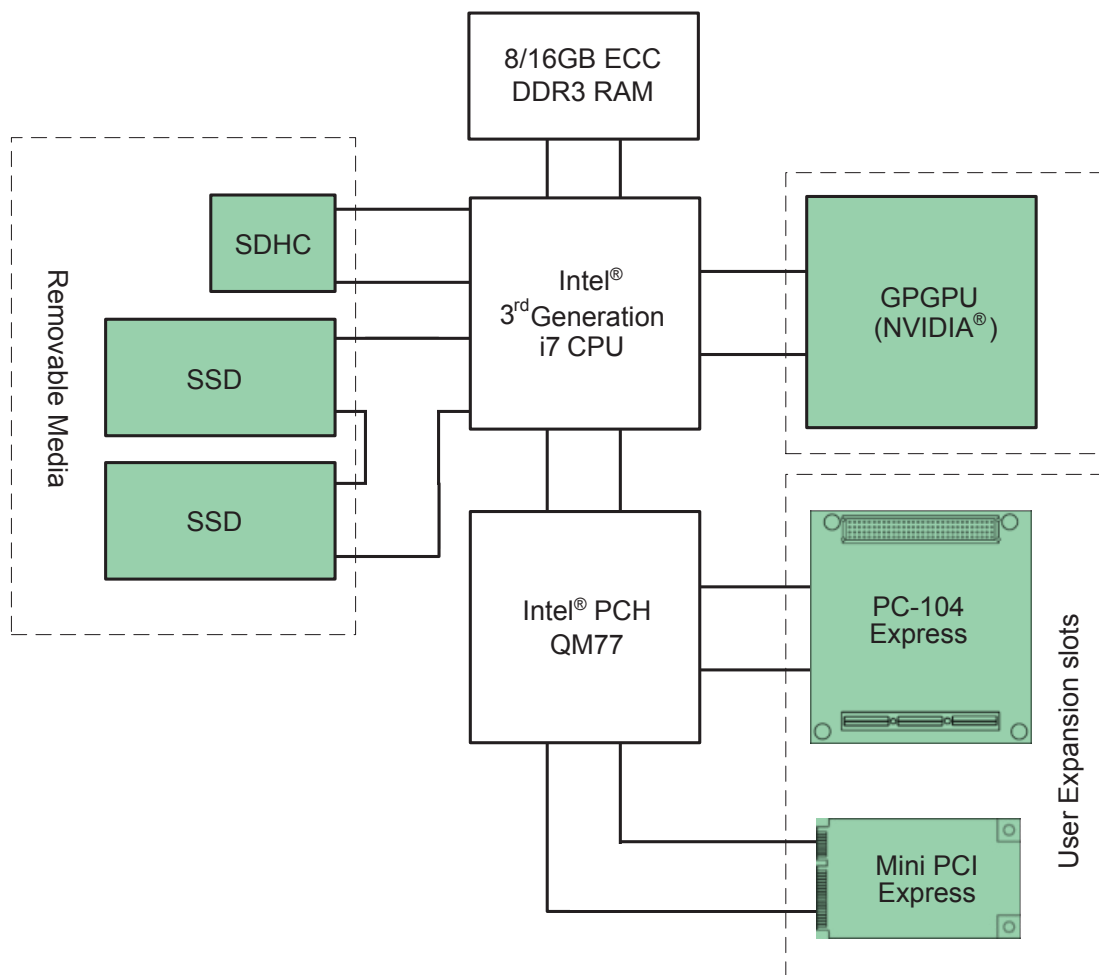
### Environmental

Immersion	IEC 529 - IP-67
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, Method 1 and 3 MIL-STD-810G - 502.5, Procedure 1 and 2
Altitude	50,000ft

### Mechanical

Form Factor	VITA-75.22 Conductive Coldplate
Dimension	63.5 x 150 x 203.4 mm
Weight	3.12 kg
IO Connectors	MIL-DTL-38999 (uniquely-keyed)

## Functional Diagram



## Ordering Information

### Accessories

Model Number	Description/Configuration
<b>HPERC Accessories</b>	
HPERC-X-03	HPERC™ breakout cable kit including Amphenol MIL-STD Nkey & Akey and AC adapter
M3N745M-JN-A	MXM NVIDIA GT 745M GPU card, with 2GB 128-bit GDDR5 memory

### Configurations

Model Number	Description/Configuration
<b>HPERC-IBR-MC</b>	
HPERC-IBRMC-100XN	Coldplate, Core™ i7 3517UE, 16GB RAM
HPERC-IBRMC-B00XN	Coldplate, Core™ i7 3517UE, 8GB RAM
HPERC-IBRMC-300XN	Coldplate, Core™ i7 3612QE, 16GB RAM
HPERC-IBRMC-D00XN	Coldplate, Core™ i7 3612QE, 8GB RAM