

NEW



Features

- 3rd Generation Intel® Core™ i7 Processor
- Soldered DDR3L-1333 8GB – Up to 16GB RAM
- Quad Gigabit Ethernet
- Ultra-Fast 12GB/s Solid-State-RAID with Secure Erase
- 16-lane 3rd Generation PCI Express to optional GPGPU
- Small SWaP-efficient Sealed Enclosure
- Three Digital DisplayPort/HDMI/DVI
- Simple Expansion and Configuration

Sealed rugged COTS computing platform

Inside the tiny footprint of HPERC™ lives the power of 3rd generation Intel® Core™ i7 processor and optional GPGPU parallel processing engine. Dual removable secure erase RAID-0 SSDs provide 12Gb/s throughput and security for deployment in hostile environments.

Easy configuration and expansion allows for fast integration of custom rugged embedded applications. HPERC™ reserves connector pins for expansion interfaces. The GPGPU sits on a 16-lane 3rd generation PCI Express interface. Uniquely-keyed MIL-DTL-38999 connectors provide a wide array of fast IO.

Built with proven Ampro reliability, the rugged capabilities of HPERC™ are ideal for ground, air and sea deployments. HPERC™ systems survive shock, resist corrosion and galvanic oxidation, and perform in the humid jungle, the heat of the desert, and the bitter cold of frozen mountain passes.

Specifications

Core System

Processors	3 rd Generation Intel® Core™ i7 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	Nvidia or AMD via MXM
Memory	16GB DDR3L-1333 ECC 8GB soldered down, 8GB SODIMM
BIOS	AMI EFI
Expansion Busses	MXM (3 rd Generation PCIe) PCI/104 Express® (Gen2 PCIe) PCI Express Mini Card (Gen2 PCIe)

Standard I/O

Video	3x HDMI/DP/DVI 1x VGA/NTSC
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 3.0 6x 2.0
Serial	4x RS-232/422
GPIO	8x digital IO

Internal Storage

Removable SATA	2 - 2.5" SLC SSD on SATA 3 Gb/s (Up to 1 TB)
RAID	0/1 supports up to 12Gb/s
Removable	SD 1 - SLC SDHC (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
HPERC-IBR-MC	Operating temperature: -40°C to +85°C Coldplate conduction VITA-75.22 mount
HPERC-IBR-M	Operating temperature: -40°C to +75°C Heatsink (free air convection) VITA-75.20 or 21 mount

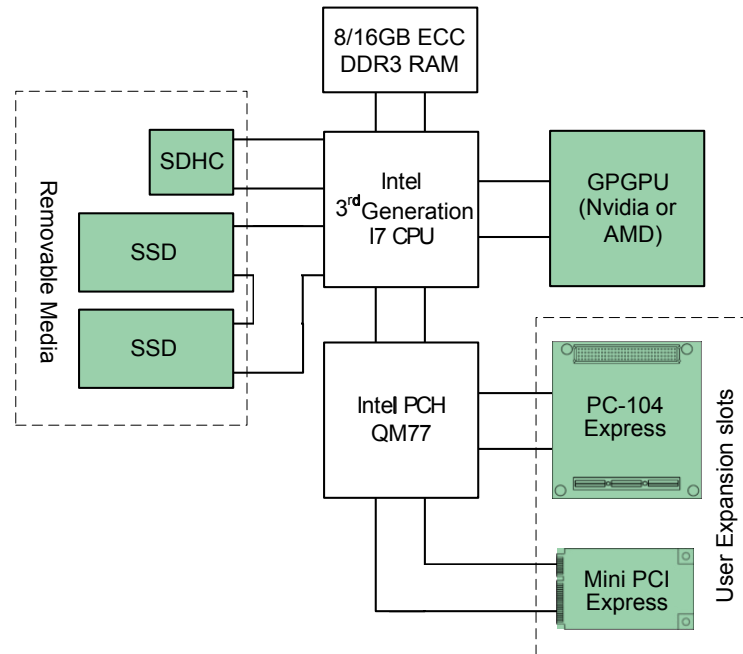
Environmental

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-75.20/21/22 SFF mount
HPERC-IBR-MC	Coldplate - 2.5 x 5.9 x 8 inches 4.6 Lbs (63.5mm x 150mm x 203.4mm 2.0 Kg)
HPERC-IBR-M	Heatsink - 3.9 x 5.9 x 8 inches 6.7 Lbs (100mm x 150mm x 203.4mm 3.0 Kg)
IO Connectors	MIL-DTL-38999 (uniquely-keyed)

Functional Diagram



Ordering Information

Model Number	Description/Configuration
HPERC-IBR-M	
HPERC-IBR-M-R17	HPERC™ System with Intel® Core™ i7-3517UE, 2C, 17W, 8GB solder down DDR3L-1333 RAM, D38999
HPERC-IBR-M-L17	Quick-start kit including: HPERC™-IBR-MR17, HPERC-X-01, and USB stick with BSP/drivers and manuals
HPERC Accessories	
HPERC-X-01	HPERC™ breakout cable kit including all IO and AC Adapter
DDR3L	HPERC™ 16GB RAM option
CC-DDR3	Conformal Coating option for HPERC 16GB RAM option
CC-HPERC-IBR	Conformal Coating option for HPERCIBR
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

Model Number	Description/Configuration
HPERC-IBR-MC	
HPERC-IBR-MC-R17	HPERC™ System with Intel® Core™ i7-3517UE 1.7GHz, 2C, 17W, 8GB solder down DDR3L-1333 RAM, D38999
HPERC-IBR-MC-R25	HPERC™ System with Intel® Core™ i7-3555LE 2.5GHz, 2C, 25W, 8GB solder down DDR3L-1333 RAM, D38999
HPERC-IBR-MC-R35	HPERC™ System with Intel® Core™ i7-3612QE 2.1GHz, 4C, 35W, 8GB solder down DDR3L-1333 RAM, D38999
HPERC-IBR-MC-L17	Quick-start kit including: HPERC-IBRMC-R17, HPERC-X-01, and USB stick with BSP/drivers and manuals
HPERC-IBR-MC-L25	Quick-start kit including: HPERC-IBRMC-R25, HPERC-X-01, and USB stick with BSP/drivers and manuals
HPERC-IBR-MC-L35	Quick-start kit including: HPERC-IBRMC-R35, HPERC-X-01, and USB stick with BSP/drivers and manuals

(All options ship installed, not all options are available in all systems, not all options/systems can be combined)