HiVe DevKit

HPEC Development Kit - Intel Xeon E3, Liquid Cooled

- **Optimized for Accelerated Workloads**
- **Modularity and Flexibility**
- **New Water Cooling Technology**
- **Energy Efficiency**
- **Ready to Test**

Features

Optimized for Accelerated Workloads - Push the workload speed up to the top with Intel Xeon and ARM64 processors combined with GPUs or coprocessors

Modularity and Flexibility - Configurable and high customizable in only 13 x 10.5 x 32.5 cm compact modules

New Water Cooling Technology - Lighter and more compact, allows higher effectiveness in heat extraction, maximizing efficiency and minimizing infrastructure costs

Energy Efficiency - Optimized architecture and direct hot liquid cooling to maximize Flops/Watt and minimize the datacenter PUE

Ready to Test - The DevKit packages together one complete HiVe server plus all components necessary to water cool it

Description

The HiVe DevKit is the ideal way to test and use the HiVe HPEC architecture, which maximizes efficiency, performance and Flops per dollar.

The system building block is the HiVe node, a highly modular integration of different components. It can have different configurations, depending on the kind of CPU card and accelerators used.

Noiseless, entirely hot water cooled, finely engineered, highly dense and compact, provided with software stack and monitoring tools, the HiVe series delivers a quality, reliable HPEC solution. The HiVe HPEC systems are optimized to accelerate workloads, offering density, flexibility, performance and energy efficiency like never before.

Designed to fit the application needs, the HiVe DevKit hosts a node which presents a combination of one CPU card and up to five PCIe modules. The DevKit is intended both for HPEC pros and final users operating in many fields, from academia to oil&gas, life sciences, machine learning, transportation and manufacturing.

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HiVe Server Specifications		
COMPUTING POWER	Performance	Up to 19 TFlops DP – 37 TFlops SP
PROCESSOR	CPU	Intel Xeon E3-12xx v3/v4 – Applied Micro XGene 1 ARMv8 64-bit
MODULE OPTIONS	Accelerators	NVIDIA Tesla K40/K80/P100 – NVIDIA GeForce GTX Titan X – Intel Xeon Phi 7120x (Other Modules Avaiable on Request)
	Network	Mellanox Connect-IB Dual Port Infiniband FDR – Mellanox ConnectX Dual Port 10/40/56/100 GbE
MEMORY	RAM	Up to 32GB DDR3 (8GB per Processor Core) Soldered High-Reliability Memory
STORAGE	SATA	Up to 4TB SATA SSD
I/O INTERFACES	Ethernet and Infiniband	2x 10/100/1000Mbps, 2x FDR Infiniband OR 2x 10/40/56/100 GbE
	USB	2x USB 2.0
	Serial	1x UART
	Video	1x VGA
POWER	Consumption	1300W Power Peak (Highly Dependant on Final Configuration) – Remote Power On (Gateway not Included)
MECHANICAL	Dimensions	13x10.5x32.5cm
SOFTWARE	OS	Linux CentOS 7
	Compilers and Libraries (*)	GCC, OpenMPI, Intel Compiler 15.0, ATLAS, FFTW3, intel MKL, OpeBLAS, Nvidia CUDA, Mellanox OFED, Environment Modules
	Application for Test (*)	GROMACS, HOOMD, LAMMPS, AMBER, HPL, STREAM2, LIKWID, OPEN|SPEEDSHOP

(*) the software available on shipped DevKit depends on the HW configuration chosen.

Cooling Unit Specifications		
COOLING	Capacity	2700W (9213BTU/hr) @25°C Liquid-Ambient (25°C dT)
	Display	OLED
	Flow Rate	6.8LPM (1.8GPM)
POWER	Consumption	90W Max

The HiVe DevKit is delivered with:
- *1x HiVe Server (Node + Power)*
- *1x Cooling Unit with Tubes*
- *1x Installation and User Manual*

The HiVe DevKit comes with pre-installed drivers and operating system plus all software necessary to test and try out.

需要详细信息？请通过**sales@hkaco.com**联系我们

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