



sysGen devCUBE™H₂O – Water cooled Deep Learning Machine

High end deep learning power with up to 4x NVIDIA® GTX 1080 GPUs and dual Intel® Xeon® CPUs stays cool and quiet with a complete water cooling system.

Deep Learning is one of the fastest growing and maybe the most exciting area in high end computing. Advanced neural networks and learning mechanism need absolute high end performance, but not everyone is interested in a loud and big server-rack system. The devCUBE is one of the best desktide solution for deep learning and we are proud to present its even cooler brother: **The devCUBE™H₂O – a sysGen Original**

The heart of the devCUBE™H₂O is the package of 4 water cooled NVIDIA® Geforce® GTX 1080 Pascal GPUs each with 8GB of fast GDDR5X memory and 2560 CUDA® Cores. These new high end GPUs are highly energy efficient and equipped with new, ultra-fast GDDR5X memory. The modern Pascal-Chipset allow frequencies up to 2 GHz. To support this power package, we used two high end Intel Xeon CPUs with up to 3.5 GHz, integrated into the cooling cycle. Next to the 32GB of pure graphic memory, the devCUBE offers space for up to 512GB system memory. With 8 possible slots for SSDs or HDDs, there are enough options for storage and is expandable with an ultra-fast M.2 SSD for the OS.

To enable the best possible start in the world of deep learning, we configure and install all relevant software like

- NVIDIA DIGITS – Interactive Deep Learning GPU Training System
- Ubuntu
- Deep learning frameworks – e.g. Caffe, Torch, Theano and BIDMach
- NVIDIA CUDA Deep Learning Neural Network library (cuDNN)
- NVIDIA CUDA Toolkit



Since the devCUBE is meant to be a desktide solution, sysGen put a focus on silencing this tremendous deep learning power. All relevant components are included into a system wide water cooling system with multiple radiators and fans. This low maintenance cooling system will protect the hardware and your ears.

Key Features:

- Up to 4x NVIDIA GTX 1080 with a total of 32GB GDDR5X Memory and 10240 CUDA Cores
- Dual Intel Xeon E5-2687W v4 CPUs with up to 3.5 GHz
- Highest level of silent computing with a system wide, low maintenance water cooling system
- Pre-Installed and Pre-configured software package for deep learning
- Up to 512GB ECC DDR4 LrDIMM / RegDIMM Memory
- Space for 8x SSDs / HDDs
- Proven sysGen quality and support



Specifications

Graphic	
Multi-GPU Support	Supports up to 4 NVIDIA Geforce GTX 1080 <ul style="list-style-type: none"> - 2560 NVIDIA CUDA® Cores - 8GB GDDR5X memory - 1733MHz Boost Clock - 320 GB/sec Memory Bandwidth - 10 Gbps Memory Speed
CPU	
Dual Intel® Xeon® Processor E5-2687W v4	3.5 GHz Max Turbo Frequency 30M SmartCache 9.6 GT/s QPI 12 Cores / 24 Threads
Memory	
Max. 512GB DDR4	8 DIMM Slots ECC DDR4 memory - LrDIMM or RegDIMM Up to 2400MHz
Case	
Obsidian Series® 900D Super Tower Case	Case dimensions (WxHxD): 252 x 692 x 650mm Brushed Aluminum and Steel 9x Drive Bays (combo 3.5" / 2.5") External USB (4x USB 2.0 and 2x USB 3.0) and Audio Full side panel window
Mainboard Asus Z10PE-D8	
Chipset	Intel® C612 PCH
Expansion Slots	4 x PCIe 3.0/2.0 x16 (dual x16 or quad x8) 2 x PCIe 3.0/2.0 x16 (dual x16) 1 x PCIe 3.0/2.0 x16 (dual x8)
Storage	4 x SATA 6Gb/s port(s) 4 x SATA 6Gb/s port(s) 1 x SATA Express port 1 x M.2 Socket 3 Support Raid 0, 1, 5, 10
LAN	Intel® I210-AT, 2 x Gigabit LAN Controller(s)
Back I/O Ports	1 x PS/2 keyboard/mouse combo port(s) 2 x LAN (RJ45) port(s) 6 x USB 3.0 (blue) and 2x USB 2.0 1 x Optical S/PDIF out 1 x USB BIOS Flashback Button(s) 1 x Q-Code Logger button 1 x 8-channel Audio I/O
Manageability	WfM 2.0, DMI 2.0, WOL by PME, PXE
Power Supply	
Corsair 80 PLUS® Platinum	1200 Watt 100,000 hours MTBF
Cooling	
System wide Water Cooling	Low maintenance , high quality parts and multiple radiators