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artificial intelligence machines

AIME T600-Workstation

The perfect multi GPU workstation for deep learning and machine learning development.

Train your Tensorflow and Pytorch models with up to 4 times the performance of a single high end GPU.

Have more then **2000 TeraTensor FLOPS** of AI performance at your desk.

All of our components have been selected for their energy efficiency, durability, compatibility and high performance. They are perfectly balanced, so there are no performance bottlenecks. We optimize our hardware in terms of cost per performance, without compromising endurance and reliability.

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AIME T600 – Deep Learning Performance Workstation

The elaborated cooling system of the **AIME T600** covers the CPU with liquid cooling and the GPUs with a multi GPU compatible air cooling concept supporting two whisper silent tripple fan GPUs or up to four high end turbo blower style fan GPUs.

The case is designed for maximum air intake supported by powerful and temperature controlled high air flow fans. The CPU is cooled by a closed AIO water loop to reduce its impact as additional heat source.

CPU and GPUs directly exhausts the hot air outside of the case to prevent building up heat inside the case. This prevents overheating of the GPU array and maintain high performance under full load in 24/7 scenarios.

Tested with Real Life Deep Learning Applications

The **AIME T500** was first designed for our own deep learning application needs and evolved in years of experience in deep learning frameworks and customized PC hardware building.

Start Right Out Of The Box

Our machines come with preinstalled Linux OS configured with the latest drivers and frameworks like Tensorflow, Keras, PyTorch and mxnet. Just login and start right away with your favourite Deep Learning framework.

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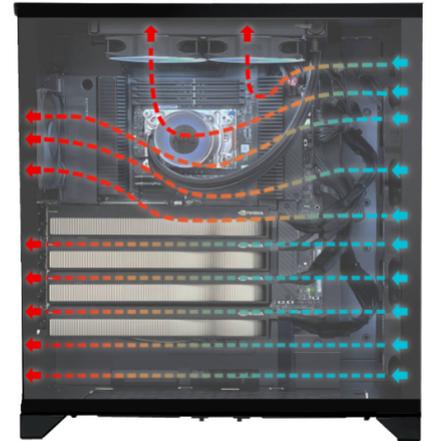
Up to 4x NVIDIA RTX 3090 24 GB - Ampere Power...

The **AIME T600** relies on NVIDIA RTX 3090 GPUs, the best price per performance GPUs for Deep Learning. Each NVIDIA RTX 3090 trains AI models with 10496 CUDA cores and 328 tensor cores of the third generation and 24 GB of ultra-fast GDDR6X memory.

The device supports NVIDIA's CUDA-X AI SDK, including cuDNN, TensorRT, and more than 15 other libraries - so it works with all popular deep learning frameworks.

With the **AIME T600** one can combine the power of up to 4 of those adding up to more than 2000 Tera Tensor FLOPS of AI performance.

...or up to 4x NVIDIA RTX A6000 48 GB GPUs

Alternatively, the **AIME T600** is available with up to four NVIDIA RTX A6000 GPUs.

The NVIDIA RTX A6000 features the same GPU processor (GA-102) as the RTX 3090 but with all processor cores enabled. It therefore outperforms the RTX 3090 with its 10752 CUDA and 336 third-generation Tensor Cores and the double amount of GPU memory: 48 GB GDDR6 ECC.

The NVIDIA RTX A6000 is currently the fastest available workstation GPU, best suited for the most compute and memory demanding tasks.

Threadripping Pro CPU Performance

The high-end 3rd generation AMD Threadripper CPU designed for workstations and servers delivers up to 64 cores with a total of 128 threads per CPU with an unbeaten price performance ratio.

The available 88 PCI 4.0 lanes of the AMD Threadripper CPU allow highest interconnect and data transfer rates between the CPU and the GPUs.

A large amount of available CPU cores can improve the performance immensely in case the CPU is used for tasks like prepossessing and delivering of data to optimal feed the GPUs with workloads.

Up to 24 TB High-Speed SSD Storage

Deep Learning is most often linked to high amount of data to be processed and stored. A high throughput and fast access time to the data are essential for fast turn around times.

The **AIME T600** can be configured with three NVMe SSDs, which are connected by PCIe lanes directly to CPU and main memory. We offer following 3 class types of SSD to be configured:

- **QLC-Typ**: high read rates, average write speed - best suitable for reading of static data libraries or archieves

- **TLC-Typ**: highest read and high write speed - best suitable for fast read/write file access

- **MLC-Typ**: highest read and write speed - best suitable for high performance databases, data streaming and virtualization

Additional 2x 16 TB SATA HDDs can be added as backup storage.
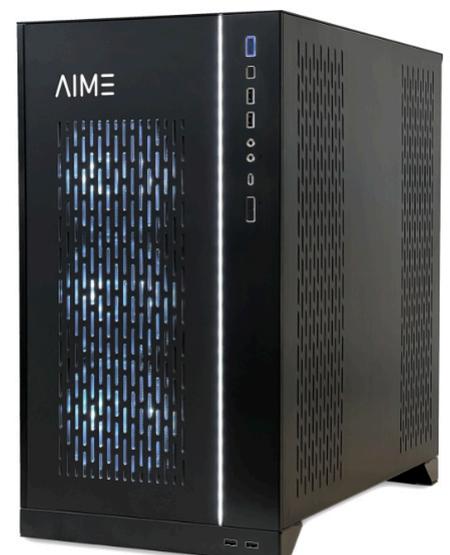
A Workstation suitable for Office & Server Room

The **AIME T600** was designed as an office compatible PC workstation with server grade hardware. We recommend to limit the configuration with a maximum of 2 GPUs for use in an office environment.

When setup in an air ventilated dedicated server room the use of up to 4 GPUs with no restraints is possible.

The **AIME T600** supports IPMI LAN and a BMC (Board Management Controller) to remote control and monitor the hardware, essential for serious server setups.

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Technical Details

Type	Tower Workstation
CPU Options	Threadripper Pro 3955WX (16 cores, 4.3 GHz) Threadripper Pro 3975WX (32 cores, 4.2 GHz) Threadripper Pro 3995WX (64 cores, 4.2 GHz)
RAM	64 to 512 GB DDR4 3200 MHz ECC
GPU Options	1 to 2 NVIDIA RTX 3080 TI 12 GB Tripple Fan 1 to 2 NVIDIA RTX 3090 24 GB Tripple Fan 1 to 2 NVIDIA RTX 3090 TI 24 GB Tripple Fan 3 to 4 NVIDIA RTX 3080 TI 12 GB Turbo 3 to 4 NVIDIA RTX 3090 24 GB Turbo 2 to 4 NVIDIA RTX A5000 24 GB 1 to 4 NVIDIA RTX A6000 48 GB
Cooling	CPU AIO liquid cooled GPU high air flow cooled 6 x low noise fans > 100000h MTBF
Storage	Up to 3x 8TB M.2 NVMe SSD PCIe 4.0
SSD-Options	QLC: 1500 MB/s read, 1000 MB/s write TLC: 5500 MB/s read, 3800 MB/s, write MLC: 7000 MB/s read, 5000 MB/s write
HDD-Options	2x 3,5" SATA HDD/SSD bays hot plug (rear)
Network	2x 10 GBit LAN (Intel X550) RJ45 (IPMI LAN capable) Intel Wifi 6 AX200

USB	Front
	    1 x USB 3.2 Gen 2 Type-C
	    2 x USB 3.2 Gen 1 Type-A
	    2 x USB 2.0 Type-A (bottom)
	Back
	    2 x USB 3.2 Gen 2 Type-C
	    8 x ZSB 3.2 Gen 2 Type-A

PSU	1 and 2 GPUs:
	    1500 Watt power
	    80 PLUS Titanium certified (96% efficiency)
	3 and 4 GPUs:
	    additional 1200 Watt power
	    80 PLUS Titanium certified (96% efficiency)

Noise-Level	Idle < 30dBA, Full Load < 60 dBA
Dimensions (WxHxD)	285 x 513 x 471 mm

NVIDIA.

AMD RYZEN THREADRIPPER

K Keras

TensorFlow

PyTorch

mxnet