



AIME T504 -Workstation

The high end workstation for deep learning and machine learning development.

Train your Tensorflow and Pytorch models with 4 times the performance of single GPU.

Gives you more then 1000 Trillion Tensor FLOPS of AI performance!

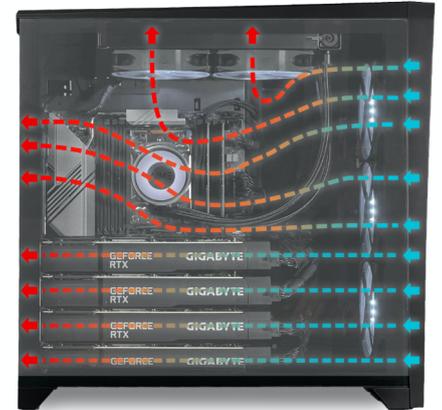
AIME T500 - Deep Learning Performance Workstation

The elaborated cooling system of the AIME T504 covers the CPU with liquid cooling and the GPUs with a multi GPU compatible air cooling concept of 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 an 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 maintane high performance under full load in 24/7 scenarios.



Well Balanced Components

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.



4 times NVIDIA RTX 3090 - Ampère Power

Due to the air cooling concept a high packing of GPUs is possible: With the AIME T504 4 high-end GPUs are packed into a system with the dimensions of a standard midi tower.

The AIME T504 relies on NVIDIA RTX 3090 high 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 AIME T504 combines the power of 4 of those adding up to more than 2000 Trillion Tensor FLOPS of AI performance.

Supported by NVIDIA's CUDA-X AI SDK, including cuDNN, TensorRT, and more than 15 other libraries that work with all popular deep learning frameworks.

Threadripping 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 dramatically in case the CPU is used for preprocessing and delivering of data to optimal feed the GPUs with workloads.

Up to 8 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 times to the data are essential for fast turn around times.

The AIME T504 can be configured with two NVMe SSDs, which are connected by PCI 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 archives
- **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



Tested with Real Life Deep Learning Applications

The AIME T504 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 latest drivers and frameworks like Tensorflow, Keras, PyTorch and mxnet. Just login and start right away with your favourite Deep Learning framework.

Technical Details

Type	Mid Tower Workstation
CPU Options	Threadripper 3960X (24 cores, 4.5 GHz) Threadripper 3970X (32 cores, 4.5 GHz) Threadripper 3990X (64 cores, 4.3 GHz)
RAM	64, 128 or 256 GB DDR4 3200 MHz
ECC	optional
GPUs	4x NVIDIA RTX 3090 24 GB
Cooling	CPU AIO liquid cooled GPU high air flow cooled 5x Low noise radiator fans > 100000h MTBF
Memory	Upto 2x 4TB NVMe SSD
SSD-Options	QLC: 1500 MB/s read, 1000 MB/s write TLC: 3500 MB/s read, 1750 MB/s, write MLC: 3500 MB/s read, 2700 MB/s write
Network	1x 10 GBit LAN RJ45 1x 2.5 GBit LAN RJ45
USB	1x USB Type-C™ port with USB 3.1 Gen 1 (front) 2x USB 3.0 ports (front) 1x USB 3.2 Gen 2 Type-C™ 4x USB 3.2 Gen 1 Tye-A 2x USB 3.2 Gen 2
PSU	1x 1500 Watt power, 1x 1200 Watt power 80 PLUS Platinum certified
Noise-Level	Idle < 30dBA, Full Load < 60dBA
Dimensions (WxHxD)	270 x 465 x 476 mm
Price	from 13.199,00 € excl. VAT

