# **λ** Lambda

# **Lambda Vector Pro**

4 GPU deep learning workstation with AMD Ryzen™ Threadripper™ processor







**Carnegie Mellon** 

Anthem.

**λ** Lambda



# TECHNICAL SPECIFICATIONS

#### **GPU DETAILS**

Up to 4x NVIDIA RTX professional dual-width GPUs

#### **PROCESSOR**

AMD Ryzen™ Threadripper™ PRO

#### SYSTEM RAM

128 GB to 1024 GB DDRS5

#### **STORAGE**

OS - Up to 3.84 TB M.2 (NVMe)
Data - Up to 3x 3.84 TB M.2
(NVMe) + 2x 15.36 TB U.2 (NVMe)

#### **NETWORK INTERFACE**

1 x Intel® dual 10Gb RJ45 Ethernet
1 x Realtek 1Gb RJ45 Ethernet
(Dedicated management LAN for AST2600)

# Designed for silence and performance in AI research

The Lambda Vector Pro is the ultimate AI and ML research workstation, featuring up to four NVIDIA RTX professional GPUs, including the flagship NVIDIA RTX™ 6000 Ada Generation, with 48 GB of VRAM each. Equipped with an advanced 420mm AIO cooling system, along with three 140mm fans, each 30mm thick, this setup ensures that the workstation operates quietly, even during the most intensive AI model training and data analysis tasks.

# Unparalleled computational power for AI development

Armed with professional GPUs such as the NVIDIA RTX 6000 Ada Generation, the Lambda Vector Pro stands as a titan of computational capability, providing up to 4 GPUs with 48 GB of VRAM each. This enormous power is crucial for running complex AI models, deep learning simulations, and extensive data processing tasks. The workstation is engineered to handle the most demanding AI challenges, enabling researchers and developers to push the boundaries of what's possible in artificial intelligence and machine learning.

# **Designed for AI/ML perfection**

With extensive research and expertise poured into AI/ML system configuration, we've eliminated the complexity of manual setups, offering pre-tuned peak performance straight out of the box. Augmented by a one-year hardware warranty—extendable to three years—and optional dedicated technical support for Ubuntu and all pre-installed ML frameworks and drivers, it offers not just superior capabilities but peace of mind.

## Ready for AI exploration from day one

The Lambda Vector Pro stands as more than a workstation; it's a gateway to accelerating your AI projects. Equipped with all the essential software needed for neural network training from the get-go, it ensures you're set to start your AI journey immediately. Embrace the future of AI development with the Vector Pro, where unmatched power, precision, and peace of mind merge to create the ultimate environment for AI professionals.

O PyTorch 🏗





NVIDIA.

# Lambda Vector Pro



Up to 4x full-length double-width PCIe 4.0x16 cards Options:

NVIDIA RTX 6000 Ada Generation - Up to 4x (208V+ Required)

NVIDIA RTX 5000 Ada Generation - Up to 4x

NVIDIA RTX 4500 Ada Generation - Up to 4x

NVIDIA RTX 4000 Ada Generation - Up to 4x

NVIDIA RTX A6000 - Up to 4x with NVLink (208V+ Required)

NVIDIA RTX A5500 - Up to 4x with NVLink

NVIDIA RTX A5000 - Up to 4x with NVLink

NVIDIA RTX A4500 - Up to 4x with NVLink

NVIDIA RTX A4000 - Up to 4x

#### CPU

AMD Ryzen™ Threadripper™ Pro 7975WX (32 cores, 4.0 GHz)
AMD Ryzen™ Threadripper™ Pro 7985WX (64 cores, 3.2 GHz)
AMD Ryzen™ Threadripper™ Pro 7995WX (96 cores, 2.5 GHz)

## MEMORY

128 GB to 1024 GB DDR5 RDIMM 4800 MHz 8 DIMM slots

#### **MOTHERBOARD**

ASUS Pro WS WRX90E-SAGE SE

# **STORAGE**

OS storage: Up to 3.84 TB M.2 (NVMe)

Extra storage: Up to 2x 15.36 TB U.2 (NVMe) + 3x 3.84 TB

M.2 (NVMe)

## **POWER SUPPLY**

2000W 80 Plus Platinum (208V+) 1600W 80 Plus Titanium ATX 3.0 power supply

#### **NETWORKING**

1 x Intel® dual 10Gb RJ45 Ethernet

1 x Realtek 1Gb RJ45 Ethernet (Dedicated management LAN for AST2600)

### FORM FACTOR

Full tower desktop or 4U Rackmount

#### INPUT/OUTPUT

#### Front panel:

- •1x USB 3 Type-C 10Gbps
- •2x USB 3 Type-A 5Gbps
- •2x USB 2 Type-A
- •Microphone/Headphone Combo
- •Reset Button
- •Power Button

#### Rear panel:

- •2x USB 4 Type-C 40Gbps with ASMedia ASM4242 controller
- •6 x USB 3 Type-A 10Gbps
- •1 x USB 2 Type A
- •2 x 10Gb RJ45 Ethernet
- •1 x 1Gb RJ45 Ethernet (Dedicated Management LAN for AST2600)
- •1x VGA port
- •2x mini DisplayPort IN
- •2 x Audio jack

#### COOLING

CPU Liquid Cooling:

420mm AIO with 3x 140mm 30mm thick fans

## **SOFTWARE**

Ubuntu Linux

Lambda Stack with CUDA, cuDNN, TensorFlow, PyTorch, Keras Windows 11 Pro

## **DIMENSIONS**

## Desktop:

W  $9.5" \times H 22.8" \times D 22.0"$  (W  $240mm \times H 580mm \times D 560mm$ )

Rackmount 4U:

W 17.0" x H 6.96" x D 19.9" (W 432mm x H 177mm x 505mm)

## COMPLIANCE

RoHS Compliant

TAA Compliant

PSU: 80 Plus Titanium/Platinum, CE mark

## **WARRANTY AND SUPPORT**

Up to 3 years of hardware coverage, plus technical support from Lambda engineer  $\,$