VIKING
Enterprise Solutions
A Sanmina Division

PRODUCT BRIEF | 3U AI/ML Edge Platform

VSS3120

NVIDIA Certified

Artificial Intelligence, Machine Learning and Hybrid Edge Solutions

The Viking Enterprise Solutions (VES) VSS3120 is AMD EPYC™ based system which offers 6 PCIe Gen 5 slots (supporting up to two double-wide or three single-wide GPUs) and up to ten NVMe SSDs. CPU cores, GPU compute power, storage and connectivity can be adjusted to balance and optimize the system based on application needs.

The system is designed for maximum deployment flexibility: it's designed to fit in a 2-post or 4-post rack so it can be deployed at edge points of the network for minimizing network load. With its exceptional thermal management, the platform is highly reliable in environments up to 35C and 80% humidity. VSS3120 utilizes hot-swappable AC and HVDC redundant power supplies and can operate indefinitely with a fan fail (also hot-swappable), minimizing service complexity and frequency. Optional intrusion detection provides extra hardware and content security, even when the system is powered off.

The VES VSS3120, GPUs, and storage-server combination provide a powerful edge infrastructure for the most demanding workloads while eliminating the need for a high-speed network between the server and storage, which in turn helps simplify edge AI/ML deployment. Some key use cases that benefit from this synergy are:

Machine Learning and Deep Learning

Training complex neural networks involves processing massive datasets. Fast storage, such as high-performance NVMe SSDs is crucial to feed data to the GPU quickly, preventing it from becoming idle. This translates to faster training times and improved model accuracy.

High-Performance Computing (HPC)

HPC applications deal with large-scale simulations and calculations. Efficient storage solutions ensure smooth data flow for simulations, allowing the HPC system to handle complex problems faster.

Media and Entertainment

Video editing and animation heavily rely on processing large video files and rendering complex 3D graphics. High-speed storage allows for quick retrieval and manipulation of video and animation data, enabling faster editing workflows and smoother rendering.

Scientific Computing

Scientific research often involves processing and analyzing vast amounts of scientific data, like weather simulations or protein folding models. High-performance storage ensures researchers can access and analyze this data efficiently, leading to faster scientific discoveries.

Other Data-Intensive Workloads

Large-scale data analytics, real-time fraud detection, and complex financial modeling can all benefit from the processing power of GPUs combined with fast storage to handle massive datasets efficiently.

The Viking Enterprise Solutions (VES) Advantage

VES offers a broad portfolio of product offerings including:

- Leading-edge performance SSD arrays supporting SAS, GPU and NVMe technologies.
- Leading-edge, high-performance and high-availability solutions
- Industry-leading cold storage and object storage solutions
- Purpose-built compute and storage platforms.

VES provides accelerated time-to-market server and product needs, providing the opportunity to leverage a best-in-class portfolio of proven product designs.

Customers can rely on our industry-leading design team and our experiences as a world-class electronics manufacturing services organization.

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VSS3120

3U Rackmount Enclosure

- Dimensions:
  24" L X 17.5" W X 5.25" H
- Weight: 45lbs

Input Power

- Input Voltage: 180-264Vrms 50/60 Hz; 180-300VDC
- 1+1 Redundant 2200W PSUs (80Plus Titanium)

Drive Configuration

- 10 x NVMe Gen 5 U.3 or U.2 SSD
- 2 x M.2 Boot Drive

GPU Support

- Nvidia L4 and L40S
- Nvidia H100 NVL

GPU Population Options

- Up to 2 x Double-wide PCIe GPU
- Up to 3 x Single-wide PCIe GPU

Network Capability

- 2 x 1GbE (LOM)
- 2 x 10GbE (LOM)
- 2 x 100GbE (NIC)

PCIe Gen 5 Connectivity

- 6 x PCIe5.0 Slots
  - 4 x PCIe5.0 x16
  - 2 x PCIe5.0 x8

Compute

- Up to 128-Core CPU
- 8 x DDR5 DIMMs (256GB max per DIMM)
- Optional TPM 2.0
- 2 x USB 3.1
- 1 x VGA
- Optional intrusion Detection

Serviceability

- Hot-swap SSDs
- Hot-swap Fans
- Hot-swap Power Supplies

Safety Standards

- IEC/EN UL/CSA 62368-1
- US/CE Compliance

Monitoring & Reporting

- 1GbE data center connection for management
- System temperatures and CPU voltages monitored

Environment Protection

- RoHS & WEEE compliant

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For price, availability and sales information, please email us at channel@vikingenterprise.com or call us at +1 (855) 639-7838
www.vikingenterprisesolutions.com