



PRODUCT BRIEF | 2U 24 Bay NVMe Dual Storage Server

VSS2249R

Ultra Performance Enterprise Class Storage Using PCIe v4.0 NVMe SSD and AMD EPYC™ CPUs

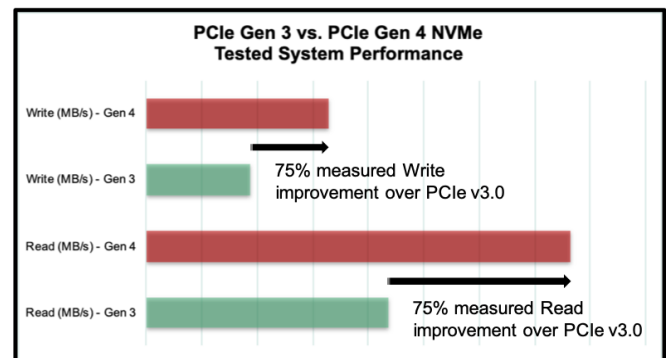
The Viking Enterprise Solutions (VES) VSS2249R storage server offers 24, 2.5" PCIe v4.0 NVMe drives (U.2) combined with two server modules. Each server has access to all 24 NVMe drives with dual port devices. The VSS2249R is a dense High Availability solution that provides the ultimate storage performance in a small package.

The enclosure contains two hot swappable server modules. Each of the server modules includes an AMD EPYC™ CPU with two x16 PCIe v4.0 and one OCPNIC 3.0 PCIe v4.0 add in card slots, and up to 8 DIMMs. The VSS2249R fits into an industry standard 19" wide by <1m deep rack. Its flexible configuration allows it to be deployed in a variety of applications. Extremely fast 2U storage with 24 PCIe v4.0 NVMe drives and two servers supporting 96 PCIe lanes to the drives and 96 PCIe lanes to the network, delivering a non-blocking architecture.

The VSS2249R alleviates job pipeline congestion, a common limitation caused by I/O bottlenecks in many high-performance applications such as edge computing storage, analytics, Machine Learning, AI, OLTP transactional databases, high frequency trading, as well as modeling, simulation, scientific research, and other HPC use-cases.

FEATURES

- ▶ Dimensions: 3.43 in. H x 17.2 in. W x 27.44 in. D (87 mm H x 438 mm W x 697 mm D)
- ▶ Latest AMD CPU technology provides 128 PCIe v4.0 lanes per CPU and 24 Hot-pluggable NVMe PCIe v4.0 drives
- ▶ High Availability system, each server accessing all drives
- ▶ Management interface for drive access & provisioning
- ▶ Hot-pluggable servers, power supplies, fans & drives
- ▶ SFF-8639, PCIe v4.0 NVMe (U.2) dual port, drive support (up to 25W per drive)
- ▶ Environmental operation up to 35°C ambient inlet
- ▶ Standard chassis customization & branding available
- ▶ Optional rail kit with CMA (cable management arm)
- ▶ Optional TPM (Trusted Platform Module)

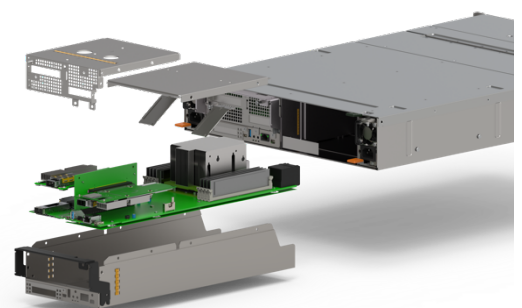


VES offers a broad portfolio of product offerings:

- ▶ Leading edge performance SSD arrays, SAS & NVMe
- ▶ Leading edge high performance & high availability solutions
- ▶ Industry leading cold storage & object storage solutions
- ▶ Purpose built compute and storage platforms

Working with VES provides an accelerated time-to-market for your server and storage product needs, and allows you to leverage our portfolio of proven product designs. Customers are backed by an industry leading design team and a world-class Electronics Manufacturing Services organization.

A front load enclosure with 24 U.2 NVMe drives. Each server has access to all 24 drives providing a highly available system



VSS2249R

AC Power

- ▶ Nominal Input Range: 200 - 240VAC
- ▶ Input frequency: 50-60 Hz
- ▶ Power Source: dual redundant 1600W
- ▶ Input current: 4 amps max @ 180V AC per power supply
- ▶ Inrush current: 40 amps peak per power supply
- ▶ Maximum system output power rating: 2200W

Hot-Swappable Components

- ▶ Two Server Modules
- ▶ Six fans
- ▶ Two AC to DC power supplies – each supply provides up to 1600W of power
- ▶ Two independent AC power inputs
- ▶ 24 NVMe PCIe v4.0 drives (hot pluggable)

Firmware

- ▶ IPMI and Redfish management
- ▶ CLI and GUI control for drive management & status of the enclosure

Drive Partitioning

- ▶ Management software controls the visibility & access to each drive

2U Enclosure

- ▶ Dimensions: 3.43 in. H x 17.2 in. W x 27.44 in. D (87 mm H x 438 mm W x 697 mm D)
- ▶ Weight with drives: 56.2 lbs (22.8 kg) max
- ▶ Optional rail kit with CMA (cable management arm)
- ▶ Optional TPM (Trusted Platform Module)

Failure Notifications

- ▶ Status & fault LEDs for the enclosure, drives & servers

Performance

- ▶ Up to 96 GB/s bandwidth between both servers
- ▶ 24-drive capacity
- ▶ U.2 NVMe PCIe v4.0 drives
- ▶ Dual port drive support
- ▶ Up to 25W per drive

Operating Environment

- ▶ Temperature: 5° to 35°C
- ▶ Relative humidity: 20% to 80% (non-condensing)
- ▶ Altitude: -200 to 10,000 ft
- ▶ Shock: 3G at 11ms, 1/2 sine wave pulse
- ▶ Vibration: 0.10G at 5 Hz to 500 Hz

Non-Operating Environment

- ▶ Temperature: -40° to 60°C
- ▶ Relative humidity: 10% to 90% (non-condensing)
- ▶ Altitude: -200 to 40,000 ft
- ▶ Shock: 10G at 11ms, 1/2 sine wave pulse
- ▶ Vibration: 0.5G at 5 Hz to 500 Hz

Drive Partitioning

- ▶ Management software controls the visibility and access to each drive

Safety Standards

- ▶ IEC 62368 -1:2014

Quality Standards

- ▶ Manufactured under an ISO 9002 registered quality system

Servers

- ▶ One or two single CPU Server modules
- ▶ AMD EPYC™ processors
- ▶ I/O at PCIe v4.0
- ▶ Each CPU sees all 24 drives
- ▶ Each drive is dual ported and connected to each server module
- ▶ Highly available system

Electromagnetic Emissions & Immunity Standards

- ▶ EN 55035:2017
- ▶ EN 55024:2010
- ▶ EN 55032:2015 + AC:2016
- ▶ EN 61000-3-2:2014
- ▶ EN 61000-3-3:2013
- ▶ FCC 47 CFR PART 15 SUBPART B
- ▶ ICES-003 ISSUE 6:2016

Monitoring & Reporting

- ▶ Monitoring for temperature, power, cooling (including fan speed control), drives, as well as error rates & quality of service
- ▶ Reporting of all serial number, part number, & revisions of the server modules, power supplies, drives & chassis

