

# Lenovo ThinkSystem SR780a V3

## Powerful, Liquid-Cooled, AI & HPC Server



### Tackling Compute-Demanding AI Workloads

The ThinkSystem SR780a V3 harnesses the might of eight NVIDIA H100/H200/B200 Tensor Core GPUs, paired with two 5th Gen Intel® Xeon® Scalable processors and 32 DDR5 DIMMs. Through Lenovo Neptune™ liquid cooling, this system achieves the extensive computational prowess crucial for handling demanding AI and HPC workloads. Housed in a compact 5U design, it seamlessly fits into a standard 19" rack.

### Ultimate GPU Acceleration

The ThinkSystem SR780a V3 offers top-notch acceleration with 8 NVIDIA H100/H200/B200 Tensor Core GPUs interconnected via high-speed NVLink, ensuring peak GPU performance for AI tasks like LLM, machine learning, model training, and demanding HPC workloads.

NVIDIA Tensor Core GPU platforms deliver unprecedented acceleration — at every scale — to power the world's highest-performing elastic data centers for AI and HPC applications.

### Liquid-cooled for Higher Performance

Data Centers are challenged with providing high-performance results on a limited energy threshold. Lenovo designed the ThinkSystem SR780a V3 with energy thresholds in mind.

Neptune™ liquid cooling enables the 5U ThinkSystem SR780a V3 to run eight of the latest high-power GPUs with higher sustained performance over longer periods of time.

Liquid cooling removes heat more efficiently than traditional air cooling, requires less space than traditional fans and allows the GPUs and CPUs to run in accelerated mode for longer periods of time. This reduced footprint using Neptune™ liquid cooling enables the high-performance of the ThinkSystem SR780a V3 to be placed in a 5U chassis.

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## Massive Computational Performance

NVIDIA Tensor Core GPU platforms deliver unprecedented acceleration — at every scale — to power the world's highest-performing elastic data centers for AI and HPC applications. They can efficiently scale up or be partitioned into seven isolated GPU instances. Second-Generation Multi-Instance GPU (MIG) provides a unified platform that enables elastic data centers to dynamically adjust to shifting workload demands.

## Lenovo Makes “AI for All” Possible

Lenovo delivers AI to data deployed inside your data center and at the edge. We have the industry's most comprehensive AI portfolio with over 80 products designed for AI workloads. Lenovo partners with over 50 AI Innovator partners globally to deliver turnkey Hybrid Cloud and Edge AI solutions.

Unique in the industry, Lenovo can deliver AI “from pocket to cloud” with servers, workstations, and AI-enabled devices. Whether you are a public cloud provider or building your AI model on-prem, Lenovo provides systems and solutions that scale to meet your needs. We bring AI to your data where and when you need it the most, in a truly hybrid approach: public, private, or personal.

## Lenovo Professional Services

Offering a breadth of services, solutions and platforms, Lenovo's AI Professional Services help businesses of all sizes navigate the AI landscape, find the right solutions, and put AI to work for their organizations quickly, cost-effectively and at scale. Lenovo experts bring AI from concept to reality — from designing AI roadmaps to deploying platforms.

## Specifications

Form Factor	5U rack
Processor	2x 5th Gen Intel® Xeon® Scalable processors, up to 350W
Memory	Up to 4TB using 32x DDR5 DIMMs with maximum frequency at 5600MHz
GPU	Supports 8x high-performance GPUs: <ul style="list-style-type: none"> <li>8x NVIDIA HGX™ H100/H200/B200 GPUs with NVLink interconnects at 900GB/s</li> </ul>
I/O Expansion	Up to 10x PCIe Gen5 x16 FHHL adapters 8x in front connected to PCIe switch for GPU connectivity 2x in rear connected directly to the CPUs
Storage	Up to 8x U.2 or U.3 hot-swap NVMe SSDs Up to 2x M.2 for boot (RAID via VROC)
Power	Up to 8x hot-swap power supplies, allowing full N+N redundancy
Cooling	Direct Liquid Cooling for CPU, GPU, and NVLink Switches Air cooled with N+1 hot-swap fan solution for the rest of the system
Management	XClarity Controller2 (XCC2), which provides advanced service-processor control, monitoring, and alerting functions. The XCC2 consolidates the service processor functionality, super I/O, video controller, and remote presence capabilities into a single chip on the server system board.
OS Support	RHEL, Ubuntu, Alma Linux, Rocky Linux, ESXi

*Preliminary product image and specifications, subject to change.*

## About Lenovo

Lenovo (HKSE: 992) (ADR: LNVGY) is a US\$62 billion revenue global technology powerhouse, ranked #171 in the Fortune Global 500, employing 77,000 people around the world, and serving millions of customers every day in 180 markets. Focused on a bold vision to deliver smarter technology for all, Lenovo is expanding into new growth areas of infrastructure, mobile, solutions and services. This transformation is building a more inclusive, trustworthy, and sustainable digital society for everyone, everywhere.

## For More Information

To learn more about the Lenovo ThinkSystem SR780a V3, contact your Lenovo representative or Business Partner or visit [lenovo.com/thinksystem](https://lenovo.com/thinksystem).



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