MAD TECH

# DATASHEET
# SRV-ALHA-4500-S2

Delivering breakthrough innovation for traditional and emerging workloads, including high performance compute (HPC), virtual desktop integration (VDI) and virtualization, using the latest performance and density with optional acceleration.

2U rackmount server, fitting standard depth racks, customers can benefit from one of the densest Accelerator/GPU platforms with an extensive set of Accelerator options, enabling diverse cloud workload performance and optimization of AI and deep learning experiences.

Adaptable for diverse workloads and environments, the secure Madtech SRV-ALHA-4500-S2 delivers world-class performance with the right balance of expandability and scalability. Designed for supreme versatility and resiliency while being backed by a comprehensive warranty make it ideal for multiple environments from Containers to Cloud to Big Data. Standardize on the industry's most trusted compute platform.

We've reinvented our entire portfolio of rack and power products to make IT infrastructure more secure, more practical, and more efficient. In other words, we've created a stronger, smarter, and simpler infrastructure to help you get the most out of your IT equipment. As an industry leader, Mad tech is uniquely positioned to address the key concerns of power, cooling, cable management and system access.

MAD TECH will help you lower the cost of building on-premise solutions without sacrificing security and ease of use. SRV-ALHA-4500-S2 servers give you a simple, secure, and affordable operating system with an intuitive web based graphical user interface that provides a cloud-like experience on-premise. Whether you're starting out or scaling, you decide what applications you need and pay as you grow.

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**Breakthrough performance:**

**Extreme performance in a platform that grows with your business**

Using AMD EPYC 4th generation processor to deliver up to 50% more core count per single socket platform in an innovative air or liquid-cooled chassis.

Enables DDR5 at 4800 MT/s memory and PCIe Gen5 with double the speed of previous Gen4 for faster access and transport of data optimizing application output.

Optional DLC is available to more efficiently cool high-performance processors.

**Experience more virtual machine density to support the most demanding applications**

Deliver more virtual machines per physical host using increased core count and higher memory footprint than previous generations.

Improve responsiveness or reduce app load time for power users with up to 6x single-wide full-length or 2x double-wide full-length GPUs.

**Expect increased expandability by storing more data in one server, saving space in your datacenter**

Scale your storage using up to 33% more E3.S NVMe drives and reduce your carbon footprint.

Deliver more memory density with DDR5 (up to 6 TB of RAM) providing greater memory capacity.

Support lower latency higher performance NVMe SSD in a hardware RAID solution helps maximize compute performance.

**Cyber Resilient Architecture for Zero Trust IT environment & operations**

Security is integrated into every phase of the server lifecycle, including protected supply chain and factory-to-site integrity assurance. Silicon-based root of trust anchors end-to-end boot resilience while Multi-Factor Authentication (MFA) and role-based access controls ensure trusted operations.

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**Technical data**

| | |
|---|---|
| Processor family | Up to two AMD EPYC 4th Generation 9004 Series |
| Processor core available | Up to 128 cores per processor |
| System fan features | High performance Silver (HPR) fans/ High performance Gold (VHP) fans. Up to 6. |
| Memory | DDR4: 24 DDR5 DIMM slots, supports RDIMM 6 TB max, speeds up to 4800 MT/s |
| Storage | Front Bays: Up to 8 x 3.5-inch SAS/SATA (HDD/SSD) max 160 TB<br>Up to 12 x 3.5-inch SAS/SATA (HDD/SSD) max 240 TB<br>Up to 8 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 122.88 TB<br>Up to 16 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 245.76 TB<br>Up to 24 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 368.64 TB<br>Up to 8 x EDSFF E3.S Gen5 NVMe (SSD) max 61.44 TB<br>Up to 16 x EDSFF E3.S Gen5 NVMe (SSD) max 122.88 TB<br>Up to 32 x EDSFF E3.S Gen5 NVMe (SSD) max 245.76 TB<br>Rear Bays: Up to 2 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 30.72 TB<br>Up to 4 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 61.44 TB<br>Up to 4 x E3.S (NVMe Gen5 ) max 30.72 TB |
| Power Supplies | 800W/1100W/1400W/1800W/2400W Platinum/2800W/3200W Titanium |
| Dimension | Height: 86.8mm Width: 482.0mm Depth: 758.29mm<br>Weight: 37.3KG |
| Embedded NIC | 2 x 1GE LOM |
| Networking Options | 1 x OCP card 3.0 (optional) |
| GPU Options | Up to 2 x 300 W DW or 6 x 75 W SW |
| Front ports | 1 x Direct Micro-AB USB port; 1 x USB 2.0; 1 x VGA |
| Internal Ports | 1 x USB 3.0 (optional) |
| Rear Ports | 1 x USB 2.0; 1 x Serial (optional); 1 x USB 3.0; 1 x Ethernet; 1 x VGA; 1x Power Button |
| PCIe | Up to eight PCIe slots: Slot 1: 1 x8 Gen5 or 1 x8 Gen4 Full height, Half length<br>Slot 2: 1 x8/1 x16 Gen5 or 1 x8 Gen4 Full height, Half length or 1 x16 Gen5 Full height Full length<br>Slot 3: 1 x16 Gen4 Low profile, Half length<br>Slot 4: 1 x8 Gen4 Full height, Half length<br>Slot 5: 1 x8 Gen4 Full height, Half length or 1 x16 Gen4 Full height , Full length<br>Slot 6: 1 x16 Gen4 Low profile, Half length<br>Slot 7: 1 x8/1 x16 Gen5 or 1 x8 Gen4 Full height, Half length or 1 x16 Gen5 Full height, Full length<br>Slot 8: 1 x8 Gen5 or 1 x8 Gen4 Full height, Half length |

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