



GridStreams- High Performance Computing Servers

HPC GPU Servers

The dawn of Artificial Intelligence is upon us. Combined with Big Data, High Performance Computing (HPC) is a crucial key component in this A.I. race. As the demand for multi-GPU compute continues to carve its place in the High Performance Computing (HPC) market, leading ODMs like EchoStreams focus on innovative ways to achieve critical reliability in its unique designs. EchoStreams continues to deliver innovative solutions that solve the many industry challenges for managing, delivering, and analyzing data efficiently.

Our GridStreams server line is the newest addition to EchoStreams' diverse portfolio of supercomputing reference designs. As an expert ODM for many enterprise organizations, EchoStreams continues to engineer innovation and deliver next-gen building-blocks to help solve the on-going challenges in data storage/HPC applications. The EchoStreams GPU server design differentiates itself from the competition by solving critical thermal issues commonly recognized in other GPU servers. Using AMD's EPYC™ single-socket processor as the foundation for the GridStreams product line, EchoStreams is able to leverage both enterprise and consumer GPUs and the features of AMD's EPYC™ "Zen" architecture which provides 128 PCIe 3.0 lanes per CPU to design a powerful and cost-effective solution.

KEY ECHOSTREAMS BENEFITS:

HIGH PERFORMANCE AND DENSITY

Our GridStreams product family is designed with the most efficient and densest form factor. By unleashing the major performance benefits from six GPUs such as AMD's Radeon Instinct™ and NVidia Tesla for Machine Learning, the GridStreams product family can achieve up to 600 TeraFLOPS for TensorFlow half-precision in 2U rack space.

TRUE POWER REDUNDANCY

High Performance GPUs require high power consumption. With power efficiency in mind, GridStreams product lines utilize the most efficient power budget while still maintaining power redundancy even with a single power module failure.

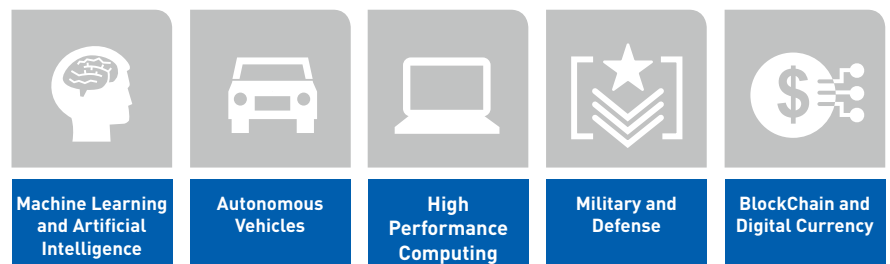
POWER BY AMD EPYC™

The GridStreams product family is supported by the latest "Zen" architecture from AMD'S EPYC™ processor. AMD EPYC™ architecture allows for a tremendous amount of I/O with up to 128 lanes of PCIe Gen 3 and 8 channels of fast 2TB DDR4 memory. With up to 32 cores per single-socket CPU and AMD's Secure Memory Encryption, the GridStreams GPU server is taking performance and data protection to the next level.

VERSATILE COOLING AND COST EFFECTIVE

The GridStreams product family supports multiple GPU card combinations compatible with high performance GPUs in both enterprise and consumer markets. This allows for a lower total cost of ownership (TCO) compared to some of our competitors. With a unique and carefully crafted innovative airflow tunneling design, the GridStreams GPU server maximizes power without compromising effective cooling, whether in an active or passive cooling environment. This innovative feature allows System Integrator technicians, IT administrators, and service technicians to optimize performance levels and sustain reliable GPU longevity, which ultimately helps with lowering TCO.

KEY APPLICATIONS:



COMPLETE LINE OF STORAGE OPTIONS ALSO AVAILABLE :



Server & Storage Product Briefs:

- Flash Storage Server – FlacheStreams
- High Availability Servers- DuraStreams
- General Purpose Servers- OmniStreams
- High Density Servers- ScaleStreams
- High Performance Computing Servers- GridStreams

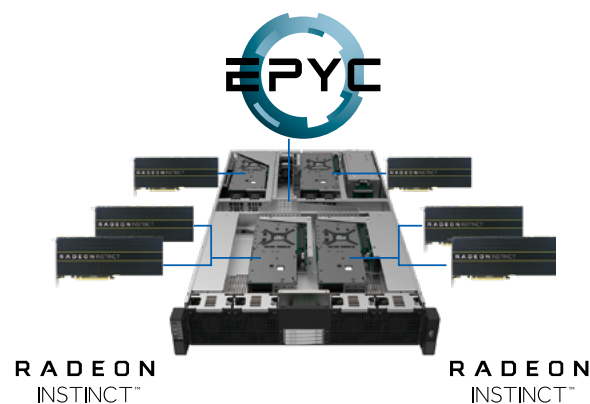
AMD EPYC EMPOWERS SINGLE SOCKET SERVERS

As IT / enterprise infrastructures expand and begin virtualizing their data into the cloud, data centers are faced with the challenges of managing complex customer workloads and being hyper-efficient with every IT dollar spent. Especially for many data-intensive applications today, a key value for data management is the ability to evaluate and architect solutions that deliver both a balance of high performance compute and also scalable memory bandwidth through its I/O's.

In addition, as hardware innovations continue to give way to better and more options, AMD's EPYC processors competitively situates itself in the needs of existing and emerging data center workloads. With industry leading core-density, scalable Memory Bandwidth, and unprecedented I/O's, AMD's EPYC sets a new standard for performance, scalability, and balance for the modern datacenter.

For enterprise applications, scientific research models, big data clusters, cloud computing, software-defined storage, machine learning, and the digital business transformation, AMD EPYC delivers:

- Up to 32 high-performance "Zen" cores
- Eight DDR4 channels per CPU
- Up to 2TB RAM per CPU
- 128 Gen-3 PCIe lanes
- Dedicated security subsystem
- Integrated chipset
- Socket-compatible with next-gen EPYC processors



| Features | Specifications |
|-------------------|---|
| Processor Support | Supports Single Socket AMD EPYC (Naples) CPU up to 180W TDP socket SP3 |
| Memory Support | Supports up to 16x DIMMs DDR4 RDIMM/RDIMM/LRDIMM 2666/2400 MHz |
| Expansion Slot | 6x PCIe Gen3 x16 Full Height Full Length for Double Width co-processing GPGPU cards; 1x PCIe Gen3 x16 Full Height slot for NIC |
| Drive Bays | 4x 2.5" hot-swap U.2 7mm NVMe drive bays; 2x internal M.2 NVMe on board |
| Network | 2x 1GbE Broadcom BCM5720; 1x GbE dedicated for IPMI |
| Power | 1+1 2200W AC/DC high efficiency Platinum redundant power supplies |
| Supported OS | Linux RHEL 6.9/7.3, SuSE SLES 11/12, Ubuntu 16.04.3 LTS VMWare vSphere 6.5 |
| Front Panel | Power On/Off switch & LED, Locate switch & LED, Reset switch, System warning LED, 4x LAN LED |
| Rear I/O | 2x USB 3.0 ports; 1x VGA port(s); 1x COM Port; 2x 1GbE ports; 1x 1GbE MGMT |
| Cooling | 4x 80mm fans with Smart Fan Control; 10x 40mm fans with Smart Fan Control |
| Other Features | Support up to 6 GPGPU AMD Radeon Vega Frontier or Radeon Instinct Dedicated GbE for IPMI 2.0 Aspeed AST2500 support Redfish DMTF RESTful API |
| Weight | Net Weight: 62lbs; Gross Weight: 72lbs |
| Dimension | System: 31.6"x19"x3.5" (LxWxH) ; Packaging: 40"x 24.5"x9"(LxWxH) |
| Logistic | HTS Code: 8473 30 5100; ECCN: 4A994 |
| Environmental | Operating Temperature: 0°C to 35°C ; Non-Operating Temperature: -20°C to 70°C Humidity: 5% to 95% non-condensing |
| Compliance | CE, FCC Class A, RoHS 6/6 compliant |