



GridStreams-

High Performance Computing 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. 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 storage solution platform. 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. Partnering with Advanced Micro Devices (AMD), a leading semiconductor company that designs x86 processors and GPU acceleration cards, EchoStreams is able to utilize the features from AMD's EPYC CPU and both consumer and enterprise GPUs in the GridStreams server line. With AMD's EPYC CPU architecture which provides 128 PCIe 3.0 lanes per CPU, GridStreams maximizes performance, minimizes data risk, and ultimately produces a powerful and cost-effective solution.

KEY ECHOSTREAMS BENEFITS:

HIGH PERFORMANCE AND DENSITY

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

TRUE POWER REDUNDANCY

High performance GPU requires high power consumption. With power efficiency in mind, the GridStreams product lines utilize the most efficient power budget without compromising environment stability while still maintaining power redundancy even with single power module failure.

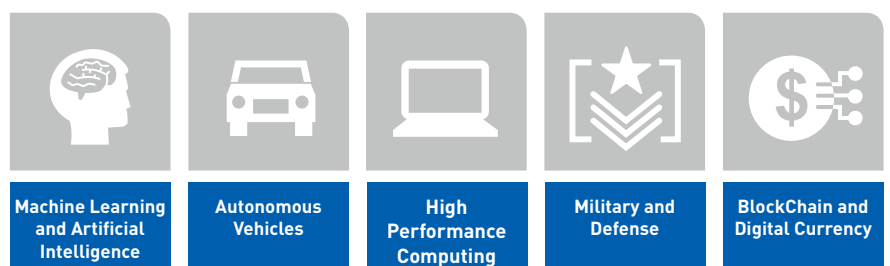
POWERED BY AMD EPYC

The GridStreams product family is supported by the latest x86 architecture from AMD's EPYC processor. AMD EPYC allows for a tremendous amount of I/O with up to 128 lanes of PCIe Gen 3 and 2TB of fast DDR4 memory through 8 channels. With up to 32 cores on the 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 ranging from enterprise all the way to budget GPUs in consumer markets, thus lowering the total cost of ownership (TCO) compared to some of our competitors. The flexibilities are carefully designed without compromising effective cooling, whether using active or passive cooling GPU cards by utilizing innovative airflow exhaust channels. This innovative feature allows System Integrator technicians, IT administrators, and Service Technicians the ability to save on replacement hardware and installation and service times, which ultimately helps with lowering the overall total cost of ownership (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

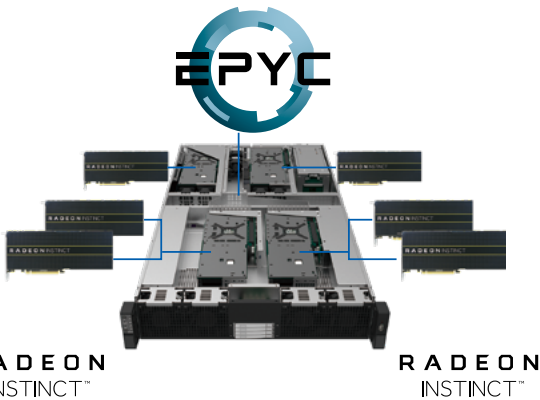
AMD EPYC EMPOWERS SINGLE SOCKET SERVERS

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 optims, 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

