



## FlacheStreams- High Performance Solid State Drive Servers

At a time when the digitization of data is ever so critical for business applications, EchoStreams continues to deliver innovative storage solutions that solve the many industry challenges for managing and delivering data effortlessly.

Our FlacheStreams line provides the fastest and highest density rackmount servers available on the market today. Each model has been designed to provide uncompromising performance and has been tested to promise reliability. With an impressive 20GB/s throughput and 3.5 Million IOPS, your information is available faster than ever. Ranging from 20 bays to 52 bays, the FlacheStream line is built to scale your SSD storage with your business. EchoStreams’s flash storage servers also support the latest processor innovations from AMD EPYC technology. Our Value-Added Services provide a level of configuration and adaptation that no other provider can match.

### KEY ECHOSTREAMS BENEFITS:

#### HIGH PERFORMANCE AND DENSITY

Our FlacheStreams product family is designed with the solid-state technology in mind. By unleashing the major performance benefits from SATA, SAS, and NVMe drives, the FlacheStreams product family can achieve above industry standards with performance benchmarks up to 60GB/s and 8 Million IOPS.

#### BALANCE ARCHITECTURE

Like all of our server products, FlacheStreams is designed around the belief of a balanced architecture. The FlacheStreams product family is designed to ensure that all SSD / NVMe performance boosts are equally distributed throughout the network by implementing throughput with Infiniband, Omnipath, 100G NIC, and Fibre Channels.






#### SATA, SAS3, NVME TECHNOLOGY

The FlacheStreams product family supports a variety of storage protocols such as cost effective SATA SSDs, durable 12G SAS SSDs, and high performance NVMe SSDs. This is relatively important for use cases that range from budget conscious application, mission critical applications, and extreme performance All Flash Array Storage applications.

#### PATENTED DESIGN

The FlacheStreams product family comes with a patented design that features high-density options and double the storage capacity of some of our competitors. This innovative feature allows system integrator technicians, IT administrators, and Service Technicians the ability to save on installation and service times, which ultimately helps with lowering the overall total cost of ownership (TCO).

### KEY APPLICATIONS:

				
Content Delivery Networks	Public and Private Cloud	Software Defined Storage	Web 2.0	Military



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

### 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 optimized platforms, AMD's EPYC processors competitively situates itself in the needs of existing and emerging data center workloads. With industry leading Core Counts, 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 PCIe lanes
- Dedicated security subsystem
- Integrated chipset
- Socket-compatible with next-gen EPYC processors

FlacheStreams	FlacheStreams FlacheSAN1L-UN		FlacheStreams FlacheSAN2V-UN		FlacheStreams FlacheSAN1N20U-UN
	1U 20 BAYS 2.5" 12G SAS AMD SINGLE EPYC 500W HRP		2U 48 BAYS 2.5" 12G SAS AMD SINGLE EPYC 800W HRP		1U 20 BAYS U.2 NVMe AMD SINGLE EPYC 850W HRP
Ordering P/N	BB1202FUNTY14-A	BB1202FUNTY14E-A	BB2482FUNGB16-A	BB2482FUNGB16E-A	BB120NFUNTY16-A
CPU	1x AMD EPYC		1x AMD EPYC		1x AMD EPYC
Memory	16x DDR4 slots (Max 2TB)		16x DDR4 slots (Max 2TB)		16x DDR4 slots (Max 2TB)
Drive Bays	20x 2.5" 7mm 12G SAS/SATA (Hot-Swap) 2x2.5" (internal)	20x 2.5" 7mm 12G SAS/SATA (Hot-Swap)	48x 2.5" 7mm SATA (Hot-Swap) 2x2.5" (internal)	48x 2.5" 7mm SATA (Hot-Swap) 2x2.5" (internal)	20x U.2 NVMe 7mm (Hot-Swap) 2x2.5" (internal)
Storage Expander	N/A		N/A		N/A
Onboard Network	2xGbE, 1xOCP2.0 x16 Mezz.		2x10GbE		2xGbE, 1xOCP2.0 x16 Mezz.
Expansion Slots	2x Gen3x16 (FH)		5x Gen3x16 (LP) 2x Gen3x8 (LP)		2x Gen3x16 (FH)
IPMI	✓		✓		✓