

FlashServer™ Rugged Server FS-1600 Series

**Rugged Dual Processor Intel Xeon 5600 Server - Up To 12 Cores
For Demanding Environments at COTS Prices**

Rugged FlashServer FS-1600

FlashServer FS-1600 is a rugged 1U dual Intel Xeon 5600 server with robust design with single or dual 64-bit processors with 4 or 6 cores each. It is NEBS-3 compliant for stringent telco demands - and to meet MIL-STD-810G environmental specs. The rugged 1U server delivers high performance in demanding environments. This new system combines Intel Dual Xeon processors with advanced thermal and mechanical design techniques. At only 20" deep, it runs 50% cooler than typical 28" to 30" servers. The rugged FlashServer provides high reliability in shock and vibration environments of up to 20G. The door features a removable bezel with removable filter that protects against dust and humidity. FlashServer is cooled by four redundant, hot-swappable fans with temperature driven fan speed for optimal cooling on demand - and is available with AC or DC power. FlashServer can be configured with various Intel Xeon 5600 Series Processors. Featuring two full-height, full-length PCIe expansion slots, extensive high speed I/O, and multiple storage options FlashServer allows users versatile configurability and system expansion. FlashServer is easily expanded by adding off-the-shelf networking cards and I/O peripherals as needed.



Combine Rugged FlashServer FS-1600 with Rugged FlashDisk data storage expandable to 336 TB per disk array for complete rugged environment from one vendor.

Expandability and Outstanding Performance In a Small Space

FlashServer's 20" deep, 1U high chassis packs up to twelve cores of processing power into a compact footprint. Two locking hot-swap 2.5" SAS drive bays support mirrored boot devices and nominal storage. Two expansion slots enable I/O configurability. FlashServer brings state-of-the-art server technology to demanding environments with its small size, rugged construction, and multi-core processors. The Intel 5600 chipset supports processor speeds to 2.93 GHz and supports up to 96 GB DDR3 memory to provide the highest possible performance and scalability in a reliable server for demanding environments.



FlashServer FS-1600 rear shown with four added Ethernet and two added Fibre Channel ports.

Rugged FlashDisk External Data Storage

Significant external storage can be added to 336 TB per RAID array. The companion product line of Rugged FlashDisk RAID Disk Arrays offer 1U, 2U and 3U families of high capacity, high performance rugged storage meant to accompany FlashServer into demanding environments. The 1U product offers 2.5" disk drives for compact size and exceptional performance and low power. The 2U and 3U systems offer both 2.5" and 3.5" SAS disk drives with 12 and 16 drives per shelf, expandable to seven shelves total with a maximum capacity per array of 336 TB. Multiple arrays can be attached to a single server. Best of all, acquiring rugged servers and storage designed to work together from one vendor provides a single point of service and great peace of mind.

FlashServer FS-1600

**Designed for High Reliability
in harsh operating environments**

Rugged Features

- NEBS-3 certification
- Designed for MIL-STD-810G
- Heavy-duty dust filters - easy to replace
- Shock isolated boot disks
- Quad removable temperature drive fans
- Rugged strain reliefs for host cables

Server Capabilities

- Single or Dual Intel Xeon 5600 processors
- Up to 96 GB memory
- 2 full and 1 half PCIe expansion slots
- Supports 336 TB storage per RAID array
- Supports iSCSI, SAS and Fibre hosts
- Optional rackmount slides

FlashServer FS-1600 Specifications

Dimensions	19" x 20" x 1.75"
Processors	Single or Dual Intel Xeon 5600 up to 12 cores
Chassis	NEBS-3 compliant; designed to MIL-STD-810G
Maximum Memory	96 GB (DDR3) in (12) 240-pin DIMM sockets
PCIe Expansion Slots	2 full & 1 half slot; Fibre Channel, SAS, 10 GbE
Disk Bays	2 locking hot-swap disks in shock isolated cage
Power Supplies	450W/650W AC auto-ranging or 450W DC -48V
AC Power	Dual 110-240VAC, 50-60 Hz, 5-10A
Cooling	8 redundant hot-swap temperature-driven fans
Front Panel	Removable with dust filter
Standard Ports	4 GbE, 2 USB, 1 VGA, 1 RS-232
Weight	24 pounds loaded
Operating Temp.	0° to 40° C
Non-Operating Temp.	-20° to -60° C
Altitude	0 - 10,000 feet
Humidity	5% to 95% (38° C) non-condensing

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