High Bandwidth Data Recorders

When you can’t afford to miss important information – SIP’s High Bandwidth Data Recorders are designed to provide the most optimal price/performance systems for data capture, storage and processing.

Combined with SIP’s service and customer support, this provides the ideal platform for real-time capture of large quantities of data.

Features

Fast data capture for high-speed recording
- Internal Fusion-io ioDrive, up to 10TB
- Read/write speed greater than 1GB/s
- 10Gb/s Ethernet, Infiniband, high-speed ADC and FPGA inputs optional

Large RAID data storage
- Up to 8 removable drives (32TB maximum)
- Rotating or Solid State drives

Extreme processing power
- Dual 6 or 8-core Xeon™ CPUs
- Up to 288GB main memory

System Overview

SIP’s High Bandwidth Data Recorders provide the ability to incorporate program-specific high-volume data streams into high-performance data collection, storage and processing systems.

In a single 4U rackmount chassis, you can include your custom FPGA-based high-speed data input, and you can store up to 10 Terabytes of real-time information into a Fusion-io ioDrive at data rates of over 1GB per second. The data samples can be time-stamped using input from the system’s IRIG card. The captured data can then be moved to a local RAID system with up to eight 4 Terabyte removable hard drives, for a total drive capacity of 32TB.

The system’s motherboard has dual six-core 3.46GHz Xeon processors and up to 288GB of main memory for maximum data collection and processing power.

Coupled with SIP’s unsurpassed customer support, SIP provides a two-year basic system warranty. The Fusion-io board, RAID controller and Fiber Channel HBA are warranted for three years. The motherboard, processors and hard drives are warranted for five years.

Hardware Specifications

- Rackmount computer system: SIP-SM400 chassis (4U x 26in, black, 2x front USB 2.0, removable drive bays, locking front door with removable air filters, temperature/fan monitor, slide rails, 920W or greater redundant power supply)
- Supermicro Dual Xeon motherboard: Dual 3.46GHz (or faster) processors, up to 288GB main memory
- Dual 10/100/1000 Mb/s Ethernet ports (10Gb/s Ethernet optional)
- Six USB 2.0 ports, on-board video
- RAID controller for data drives: Up to eight SAS/SATA 6Gb/s drives
- Solid State system drive: 100GB or larger
- Symmetricom IRIG timing card with D-to-BNC adapter
- Quad-channel 8Gb/s Fiber Channel Host Bus Adapter
- Fusion-io ioDrive Duo or ioDrive Octal
- Linux or Windows 64-bit Operating System
- High-speed FPGA-based data input (customer-supplied)
- Other high-speed data acquisition & GPGPUs can be installed