SDD910
SATA Disk Drive Module

The SDD910 is a high-performance, high-reliability, solid-state disk drive module to provide large capacity storage in rugged 3U VPX systems such as in simulation, digital mapping or terrain visualisation applications. Based on state-of-the-art NAND Flash technology, the SDD910 offers disk capacities up to 128 GBytes.

The module offers burst read and write speeds up to 150 MBytes/second, and features sustained read and write speeds of 44 MBytes/second and 40 MBytes/second respectively. The SDD910 implements error detection and correction algorithms to ensure data integrity. Each cell is guaranteed for five million writes and the module additionally incorporates both static and dynamic wear levelling algorithms to further extend the life of the Flash.

In order to protect sensitive mission data, the module is capable of sanitizing the entire contents of the disk in seconds. The sanitization can be initiated under software control. To provide further security, the SDD910 automatically resumes an initiated sanitization following a power interrupt.

The SDD910 provides two SATA interfaces at the VPX backplane: the primary interface is used for the on-board solid state disk, while the secondary interface is routed to a SATA connector mounted on the front panel. This front panel interface allows an external disk to be connected to the system for maintenance updates.

With disk capacities up to 64 GBytes, the module fits into a single 0.8” pitch 3U VPX slot. For higher capacities, the module also requires the adjacent slot (does not use the second VPX connector).

For development use, or for benign applications, rotary drive options are available to offer a cost-effective alternative solution.

Features
- Solid state memory device
- 5,000,000 writes per cell
- High performance
- Sustained read: up to 45 MBytes/sec
- Sustained write: up to 40 MBytes/sec
- Access time: <0.04 ms
- Sanitize / Purge / Declassify
- Extended temperature operation
- -40°C to +85°C
- MIL-STD-810F
- Rotary drive options available for benign environments
SDD910 SATA Disk Drive Module

Specifications

**Disk interface**
- Serial ATA (SATA)

**Technology**
- NAND Flash

**Performance**
- Burst speed:
  - 150 MBytes/sec
- Sustained read speed: 44 MBytes/sec
- Sustained write speed: 40 MBytes/sec
- Access time: < 0.04 ms

**Reliability**
- > 5,000,000 writes per cell

**Capacity**
- Up to 64 GBytes in a single VPX slot
- Up to 128 GBytes in a double-width VPX slot

**Power consumption**
- Sustained read/write: 3 W
- Sanitize: 6.5 W

**Operating temperature**
- -40 °C to +85 °C

**Form factor**
- 3U VPX

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GE Fanuc Embedded Systems is a leading global provider of embedded computing solutions for a wide range of industries and applications. Our comprehensive product offering includes many types of I/O, single board computers, high performance signal processors, fully integrated, rugged systems including flat panel displays, plus high speed networking and communications products. The company is headquartered in the U.S. and has design, manufacturing and support offices throughout the world. Whether you’re looking for one of our standard products or a fully custom solution, GE Fanuc Embedded Systems has the breadth, experience and 24/7 support to deliver what you need. For more information, visit www.gefanucembedded.com.

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