

## 2.5" SATA Solid State Drive

### General Description

The SATA Flash Drive FSD8/16/32/64/28/56GC25H series is a Serial ATA interface solid state drive (SSD) that features a flash disk controller chip and NAND type flash memory devices. This 2.5 inch form factor SSD series is available in 8GB, 16GB, 32GB, 64GB, 128GB and 256GB capacities. The drive uses a 5-volt power supply and supports SATA data transfer. This SATA SSD Drive is geared specifically to military and industrial markets for use in such products as avionics, video on demand, ATM, factory automation machines, POS terminals, measuring products, ticket vending machines, parking systems and other industrial products that require high tolerance to environmental conditions.

### Features

- Capacity: 8GB to 256GB
- Form factor: 2.5 inch type (HDD compatible)
- SATA interface: Serial ATA command set compatible
- Power supply: Vcc=5.0V +/-5%
- Operating temperature:  Commercial: 0C to +70C
- Performance:
  - Sequential Read Rate:  65MB/sec (max)
  - Sequential Write Rate:  50MB/sec (max)
  - Sequential Read IOPS:  58,675 IOPS
  - Access Time:   0.1ms
- Shock: 1500G (operating)
- Vibration: 16G (operating)

### Specifications

- Compatibility: Full SATA hard disk compatible
- OS Support: All
- Package: Complete metal housing
- Reliability:
  - MTBF: >1,000,000 hours
  - Data reliability: Built-in EDC/ECC function
  - Patent pending Wear-leveling algorithms
- Endurance: 
  - Read: Unlimited
  - Write/Erase: >140 years @ 50GB write-erase /day



Designed and Manufactured in USA

### Ordering Information

| Capacity | Model No.  |
|----------|------------|
| 8GB      | FSD8GC25H  |
| 16GB     | FSD16GC25H |
| 32GB     | FSD32GC25H |
| 64GB     | FSD64GC25H |
| 128GB    | FSD28GC25H |
| 256GB    | FSD56GC25H |

## 2.5" SATA Solid State Drive

### SATA Flash Drive Pin Assignment

#### Signal Segment

| Pin | Signal Name | Description                             |
|-----|-------------|---|
| S1  | GND         |   |
| S2  | RxP         | Differential Signal<br>Pair for Receive |
| S3  | RxN         |   |
| S4  | GND         |   |
| S5  | TxN         | Differential Signal<br>Pair for Receive |
| S6  | TxP         |   |
| S7  | GND         |   |

#### Power Segment

| Pin | Signal Name               | Description |
|-----|---------------------------|-------------|
| P1  | Not Used (3.3V)           | N/A         |
| P2  | Not Used (3.3V)           | N/A         |
| P3  | Not Used (3.3V Precharge) |             |
| P4  | GND                       | 1st mate    |
| P5  | GND                       | 2nd mate    |
| P6  | GND                       |             |
| P7  | 5V Precharge              | 5V Power    |
| P8  | 5V Precharge              | 5V Power    |
| P9  | 5V Precharge              |             |
| P10 | GND                       |             |
| P11 | Reserved                  |             |
| P12 | GND                       | 1st mate    |
| P13 | Not Used (12V Precharge)  | N/A         |
| P14 | Not Used (12V)            |             |
| P15 | Not Used (12V)            |             |

#### Revision History

March 21, 2008 Rev-A Preliminary Product Specification Released

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### Mechanical Specifications

