

Datasheet

# 1.8" SATA SSD

## 3SE2-P\_AES series

- 1.8" SATA III solution for industrial field
- Hardware-based AES 256bits key
- iData Guard for abnormal power failure
- iCell technology for data protection (optional)
- Compliant with TCG OPAL 2.0
- Compliant with IEEE 1667
- iSMART disk health monitoring



## Introduction

Innodisk 1.8" SATA SSD 3SE2-P is SATA III 6Gb/s flash based disk, which delivers excellent performance, especially in random data transfer rate, which offers reliability making it the ideal solution for a variety of applications, including embedded system, industrial computing, and enterprise field. Innodisk 1.8" SATA SSD 3SE2-P is designed with AES engine, which is built-in the controller. When controller receives the data package from host, AES engine encrypts the data package and save the encrypted data into NAND flash. Thus, unauthorized personal has no access to decrypt the data in NAND flash. Innodisk 1.8" SATA SSD 3SE2-P supports several standard features, including TRIM, NCQ, and S.M.A.R.T and compliant with TCG OPAL 2.0 and IEEE 1667.

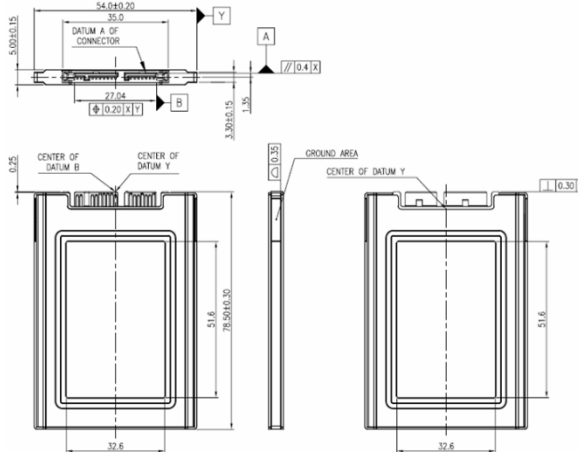
# 1.8" SATA SSD

## 3SE2-P series

**Contact us for more information about the 1.8" SATA SSD 3SE2-P**

Innodisk is a service-driven provider of industrial embedded flash and DRAM storage products and technologies, with a focus on the industrial/embedded, aerospace and defense, and cloud computing industries.

### Drawing



### Specifications

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|   |   |
|---|---|
| Interface   | SATA III  |
| Flash Type  | SLC   |
| Capacity  | 8GB~512GB   |
| Max. Channels   | 4   |
| Sequential R/W (MB/sec, max.)*                                    | 560 / 360 MB/s  |
| 4KB Random (QD32) R/W (IOPS)                                      | 80,000/ 72,000  |
| Max. Power Consumption  | 2.35 W (5V x 470mA )  |
| Thermal Sensor  | √   |
| External DRAM Buffer  | √   |
| H/W Write Protect   | NA  |
| iCell   | Optional  |
| ATA Security  | √   |
| S.M.A.R.T.  | √   |
| DEVSLP Mode   | √ (min. power consumption 3mW)  |
| Slumber Mode  | √ (min. power consumption 30mW)   |
| Dimension (WxLxH)   | 54.0 x78.5 x 5.0mm  |
| Environment   | Vibration: 20G @7~2000Hz<br>Shock: 1500G @ 0.5ms<br>Storage Temperature: -55°C ~ +95°C<br>MTBF: 3 million hours |
| * Performance based on CystalDiskMark 5.1.2 with file size 1000MB |   |

### Ordering Information

| Operation Temp.                     | 8GB  | 16GB   | 32GB   | 64GB   | 128GB  | 256GB  | 512GB  |
|-------------------------------------|--|--|--|--|--|--|--|
| Standard Grade<br>(0°C ~ +70°C)     | DES18-08GD82SCAQB(P)<br>DES18-08GD82SCBQB(P) | DES18-16GD82SCAQB(P)<br>DES18-16GD82SCBQB(P) | DES18-32GD82SCAQB(P)<br>DES18-32GD82SCBQB(P) | DES18-64GD82SCAQB(P)<br>DES18-64GD82SCBQB(P) | DES25-A28D82SCAQB(P)<br>DES18-A28D82SCBQB(P) | DES25-B56D82SCAQB(P)<br>DES18-B56D82SCBQB(P) | DES25-C12D82SCAQT(P)<br>DES18-C12D82SCBQB(P) |
| Industrial Grade<br>(-40°C ~ +85°C) | DES18-08GD82SWAQB(P)<br>DES18-08GD82SWBQB(P) | DES18-16GD82SWAQB(P)<br>DES18-16GD82SWBQB(P) | DES18-32GD82SWAQB(P)<br>DES18-32GD82SWBQB(P) | DES18-64GD82SWAQB(P)<br>DES18-64GD82SWBQB(P) | DES25-A28D82SWAQB(P)<br>DES18-A28D82SWBQB(P) | DES25-B56D82SWAQB(P)<br>DES18-B56D82SWBQB(P) | DES25-C12D82SWAQT(P)<br>DES18-C12D82SWBQB(P) |

\*P: reserved for iCell

\*\*A: 3.3v voltage version; B: 5v voltage version.

[www.innodisk.com](http://www.innodisk.com)