Innodisk SSDs with High Speeds and Large Capacity Provide Effective Data Security for Surveillance Systems

Security surveillance is common in most industries around the world. There exists a wide range of styles and features that meet surveillance needs ranging from factory overseeing and public safety, to traffic and weather monitoring, and more. It should be noted, however, that the key to any surveillance architecture is storage. No matter where or how these security systems are implemented, storage is essential, as data is captured and then analyzed 24 hours a day, 7 days a week.

Innodisk is committed to providing the best flash storage with high speeds, large capacities and effective data security functions that offer support to a variety of surveillance systems. Innodisk’s industrial-grade SSDs are compliant with military grade shock and vibration resistance, have obtained European E-Mark certification and have met EMI-resistance regulations.

To face the challenges of working in harsh environments, Innodisk utilizes wide-temperature components that can operate within temperature ranges of -40°C to 85°C, making it suitable for even the most extreme of climates.

Benefits

**Thermal Sensor**

When the surveillance system threatens to overheat, an immediate warning is issued. The SSD will automatically adjust the transmission frequency to ensure continued performance and reliability.

**iCell**

iCell technology provides a mechanism to instantaneously discharge data, stored in temporary volatile DRAM buffers, to flash storage. This ensures the safety of surveillance data during power failures.

**Quick Erase**

Data is destroyed immediately to avoid leakage of confidential images.

**iData Guard**

iData Guard is our patented Power Cycling data management system, which helps to ensure surveillance data integrity during and after unexpected power outages.

**Passive Cooling Solution**

Surveillance applications require high-capacity SSDs to input continuous image data. Since Flash may lose data due to overheating, Innodisk has redesigned the cable layout, using copper to separate controller and Flash. This reduces the degree of interference temperature transition and enhances data retention.
Features

- High capacity - up to 2TB
- Designed with external DDR3 Cache for high IOPS
- Low power consumption
- Supports industrial temperatures: -40°C to 85°C
- Supports ATA Security/TRIM/iSMART
- Intelligent error recovery system
- Supports data security (QEraser/SEraser/Destroy/Write Protect)
- Shock and vibration resistant, compliant with MIL-STD-810F
- Compliant with E-mark (E13) and in accordance with EMI-resistance regulations

Innodisk’s SSDs are suitable for surveillance applications such as:

- Smart City Surveillance
- Satellite Surveillance
- In-Vehicle Surveillance
- Unmanned Aerial Vehicles (UAVs) Video Surveillance

Product Information

<table>
<thead>
<tr>
<th>Model name</th>
<th>1.8” SATA 3MG2-P</th>
<th>1.8” SATA 3SR3-P</th>
<th>M.2 2280 3MG2-P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>16GB~1TB</td>
<td>8GB~512GB</td>
<td>16GB~128GB</td>
</tr>
<tr>
<td>Transfer Rate</td>
<td>SATA III 6Gb/s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controller</td>
<td>ID201 (4CH)</td>
<td>ID170 (4CH)</td>
<td>ID201 (4CH)</td>
</tr>
<tr>
<td>DRAM</td>
<td>DDR3</td>
<td>DDR3</td>
<td>DDR3</td>
</tr>
<tr>
<td>NAND Flash</td>
<td>Micron MLC 16nm</td>
<td>Toshiba SLC 24nm</td>
<td>Micron MLC 16nm</td>
</tr>
<tr>
<td></td>
<td>Toshiba SLC 20nm (512GB)</td>
<td>Toshiba MLC 15nm</td>
<td></td>
</tr>
<tr>
<td>Seq. Read/Write (max.)</td>
<td>520/450 MB/s</td>
<td>490/230 MB/s</td>
<td>520/450 MB/s</td>
</tr>
<tr>
<td>iData Guard</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Quick Erase</td>
<td>Optional</td>
<td>√</td>
<td>Optional</td>
</tr>
<tr>
<td>Security Erase</td>
<td>Optional</td>
<td>√</td>
<td>Optional</td>
</tr>
<tr>
<td>FW Destroy</td>
<td>Optional</td>
<td>√</td>
<td>Optional</td>
</tr>
<tr>
<td>Encryption</td>
<td>Optional</td>
<td>N/A</td>
<td>Optional</td>
</tr>
<tr>
<td>Operate Temp.</td>
<td>Standard: 0°C to 70°C; Wide: -40°C to 85°C</td>
<td></td>
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</tbody>
</table>
## Model name

<table>
<thead>
<tr>
<th>Model name</th>
<th>2.5” SATA SSD 3MG2-P</th>
<th>2.5” SATA SSD 3SR3-P</th>
</tr>
</thead>
</table>

### Capacity

- **8GB~2TB**
- **8GB~512GB**

### Transfer Rate

- SATA III 6Gb/s

### Controller

- ID201 (4CH)
- ID170 (4CH)
- ID170 (4CH)

### DRAM

- DDR
- DDR3

### NAND Flash

- Toshiba MLC 15nm
- Micron MLC 16nm
- Toshiba SLC 24nm
- Micron SLC 20nm (512GB)

### Seq. Read/Write (max.)

- 520/450 MB/s
- 490/230 MB/s

### iData Guard

- √
- √

### iCell

- √
- √

### Quick Erase

- Optional
- √

### Security Erase

- Optional
- √

### FW Destroy

- Optional
- √

### Physical Destroy

- N/A
- √

### Encryption

- Optional
- N/A

### Operate Temp.

- Standard: 0°C to 70°C
- Wide: -40°C to 85°C

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### About Innodisk

Innodisk is a service driven provider of flash and DRAM products for the industrial and enterprise applications. With satisfied customers across the embedded, military, enterprise computing markets and more, we have set ourselves apart with a commitment to dependable products and unparalleled service. This has resulted in products including embedded peripherals designed to supplement existing industrial solutions and the high IOPS flash arrays for industrial and enterprise applications. The new business lines are leading our next step in being a comprehensive industrial system service provider and flash storage solution provider.

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