



## XceedSecure2 Storage Products

SMART Modular Technologies' XceedSecure solid state drives (SSDs) deliver high performance, high capacity storage solutions optimized for defense, aerospace and other applications requiring durable, rugged and secure storage.

Powered by the patent-pending ArrayPro® technology, XceedSecure SSD products provide sustained read/write performance to meet the needs of high throughput applications such as flight data recorders and sensor data capture. XceedSecure storage products are also well suited for high-reliability telemetry, surveillance, and mission-critical applications.

SMART's XceedSecure SSDs are available in 2.5" and 3.5" form factors with SATA, PATA, and SCSI interfaces for easy integration into your applications. XceedSecure SSD products are more reliable, offer superior performance, and require less power and cooling than traditional hard disk drives (HDDs). Conforming to SMART's "true" industrial grade standards, the XceedSecure SSDs are superior to typical SSDs and HDDs in terms of ruggedness, vibration and shock resistance, and environmental resilience – critical factors in no-compromise applications.

### Secure Your Data

Designed to meet the needs of defense applications, EraSure® technology complies with current military data elimination standards, providing multiple levels of secure erase techniques.

- EraSure Clear provides a fast data elimination function that enables erasing of data in seconds.
- EraSure Sanitize uses agency defined or unique customer defined sanitization procedures, allowing full media declassification.
- EraSure complies with IRIG 106-09, addressing the specific needs of flash architectures and data structures. It allows for bad block handling, and for reviewing the secure erase results to verify that all classified data has been eliminated.

In addition, access control features include write protection for added data security.

#### Features

- **Highest SLC NAND flash capacity in a 9.5 mm height form factor**
- **EraSure technology meets current military and IRIG 106-09 data declassification standards**
- **Powered by ArrayPro performance engine**
- **True industrial grade storage solution for "no-compromise" applications**
- **Advanced flash management for enhanced reliability and durability**
- **Self Monitoring Analysis and Reporting Technology (S.M.A.R.T.) support**

#### XceedSecure SATA Product Family

|           | Capacity (GB)    | Performance (Sustained)      |
|-----------|------------------|------------------------------|
| 2.5" SATA | 32, 64, 128, 256 | 100MB/s Read<br>74MB/s Write |
| 2.5" PATA | 32, 64, 128      | 70MB/s Read<br>45MB/s Write  |
| 3.5" SCSI |                  | 55MB/s Read<br>40MB/s Write  |



## XceedSecure2 Specifications

|                                | 2.5" SATA  | 2.5" PATA            | 3.5" SCSI                 |
|--------------------------------|--|----------------------|---------------------------|
| <b>Performance</b>             |  |                      |                           |
| Burst (MB/s)                   | 300 MB/s R/W   | 100 MB/s R/W         | 70/75MB/s R/W (TBD)       |
| Sustained (MB/s)               | up to 100/74 MB/s R/W  | up to 70/45 MB/s R/W | Up to 55/40 MB/s R/W      |
| <b>Capacity</b>                |  |                      |                           |
| Min                            |  | 32GB                 |                           |
| Max                            | 256GB  |                      | 128GB                     |
| <b>Reliability</b>             |  |                      |                           |
| MTBF                           | 1,300,000 hrs (Based on Telcordia, Ground Benign, Controlled at 25°C) <sup>1</sup>       |                      |                           |
| Data Reliability               | 1 in 10 <sup>14</sup> bits read  |                      |                           |
| Data Retention                 | > 10 years @ 25°C  |                      |                           |
| Endurance                      | > 260 years @ 200 GBytes/day write/erase cycles (64 GByte drive)                         |                      |                           |
| <b>Power</b>                   |  |                      |                           |
| Input Voltage                  | 5V +/- 5%  |                      |                           |
| Idle (max)                     | 2.3 W  | 1.1 W                | 4.0 W                     |
| Operational (max)              | 5.3 W  | 3.2 W                | 7.0 W                     |
| <b>Environmental</b>           |  |                      |                           |
| Operating Temp                 | Commercial (0°C to 70°C), Industrial (-40°C to 85°C)                                     |                      |                           |
| Operating Shock <sup>2</sup>   | 50 g half-sine, 11 ms, 3 shocks along each axis, X, Y, Z, in each direction <sup>3</sup> |                      |                           |
| Vibration <sup>2</sup>         | 16.4 g rms <sup>3,4</sup>  |                      | 10.3 g rms <sup>3,4</sup> |
| Altitude <sup>2</sup> (ft)     | 80,000 (24,384 m)  |                      |                           |
| Relative Humidity <sup>2</sup> | 5% to 95% non-condensing   |                      |                           |
| Conformal Coating              | Optional   |                      |                           |
| Storage Temp                   | -55°C to 95°C  |                      |                           |
| <b>Physical</b>                |  |                      |                           |
| Form Factor                    | 2.5"   |                      | 3.5"                      |
| Length (mm)                    | 100.2  |                      | 146.6                     |
| Width (mm)                     | 69.85  |                      | 101.7                     |
| Height (mm)                    | 9.5 to 16 <sup>5</sup>   |                      | 25.53                     |
| Connector                      | 3 Gb/s SATA  | 44-pin, 2mm          | 68- or 80-pin SCSI        |

<sup>1</sup> Based on 32GB Drive

<sup>2</sup> Based on MIL-STD-810F

<sup>3</sup> Tested on 128GB Drive

<sup>4</sup> 10-2000 Hz random, 3-axes

<sup>5</sup> 16mm only applies to 256GB SATA

## XceedSecure2 Ordering Information

| Part Number  | Capacity (GB) | Interface    |
|--|---------------|--------------|
| <b>XceedSecure2 - 2.5" SSD with ArrayPro</b>                           |               |              |
| A25FBS-32Gtc33N  | 32            | 3 Gbp/s SATA |
| A25FBS-64Gtc33N  | 64            | 3 Gbp/s SATA |
| A25FBS-128Gtc33N   | 128           | 3 Gbp/s SATA |
| A25FBS-256Gtc34N   | 256           | 3 Gbp/s SATA |
| I25FBS-32Gtc33N  | 32            | PATA         |
| I25FBS-64Gtc33N  | 64            | PATA         |
| I25FBS-128Gtc33N   | 128           | PATA         |
| <b>XceedSecure2 - 3.5" SCSI with ArrayPro and EraSure Technologies</b> |               |              |
| S35FCS-32GtcyyN  | 32            | SCSI         |
| S35FCS-64GtcyyN  | 64            | SCSI         |
| S35FCS-128GtcyyN   | 128           | SCSI         |

t (temperature)

t = C (0°C to 70°C, Commercial),

t = I (-40°C to 85°C, Industrial)

c (conformal coating)

c = blank (no conformal coating),

c = C (with conformal coating)

yy (pin configuration)

01 = 68 Pins

02 = 80 Pins

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