

SMART's Storage Solutions

XceedSecure

MEMORY • FLASH • STORAGE • DISPLAYS • EMBEDDED

XceedSecure Storage Products

SMART Modular Technologies' XceedSecure 2.5" Serial ATA (SATA) and Parallel ATA (PATA) 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 2.5-inch XceedSecure SSDs are available with SATA or PATA 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 106-07, chapter 10.8, 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.

Destructive Erase

ZAP technology uses a destructive erase technique that destroys access to a drive. Triggered by a hardware input, a high energy pulse destroys access to each flash chip on the drive, rendering the drive inoperable.

XCEEDSECURE Product Family At-A-Glance

	Capacity (GB)	Performance (Sustained)
XceedSecure		
2.5" SATA	8, 16, 24, 32, 48, 64, 80, 96,	74MB/s Read 45MB/s Write
2.5" PATA	128, 160	73MB/s Read 44MB/s Write
XceedSecure with ZAP Technology		
2.5" SATA	32, 64	74MB/s Read 45MB/s Write
XceedSecure2 (Preliminary)		
2.5" SATA	32, 64, 128	90MB/s Read 65MB/s Write

- **Highest SLC NAND flash capacity in a 9.5mm height form factor**
- **EraSure technology meets current military and IRIG 106-07 data declassification standards**
- **"ZAP" Destructive Erase technology**
- **Powered by ArrayPro performance engine**
- **True industrial grade storage solution for "no-compromise" applications**
- **Advanced flash management for enhanced reliability and durability**



Specifications

Ordering Information

	XceedSecure		XceedSecure2 2.5" SATA (Preliminary)
	2.5" SATA	2.5" PATA	
Performance			
Burst (MB/s)	150MB/s R/W	100MB/s R/W	300MB/s R/W
Sustained (MB/s)	Up to 74/45 MB/s R/W	Up to 73/44 MB/s R/W	Up to 90/65 MB/s R/W
Capacity			
Min	8GB		32GB
Max	160GB		128GB
Reliability			
MTBF	1,300,000 hrs (Based on Telcordia, Ground Benign, Controlled at 25°C) ¹		
Data Reliability	1 in 10 ¹⁴ bits read		
Data Retention	> 10 years		
Endurance	> 650 years @ 200 GBytes/day write/erase cycles (48GByte drive)	> 260 years @ 200 GBytes/day write/erase cycles (64GByte drive)	
Power			
Input Voltage	5V +/- 5%		
Idle (max)	3.62W	2.96W	1.29W
Operational (max)	5.67W	4.29W	3.41W
Environmental			
Operating Temp	Commercial (0°C to 70°C), Industrial (-40°C to 85°C)		
Operating Shock ²	50g half-sine, 11ms, 3 shocks along each axis, X, Y, Z, in each direction ³		
Vibration ²	16.4g rms, 10-2000Hz random, 3-axes ³		
Altitude ² (ft)	80,000 (24,384m)		
Relative Humidity ²	5% to 95% non-condensing		
Conformal Coating	Optional		
Storage Temp	-55°C to 95°C		
Physical			
Form Factor	2.5"		
Length (mm)	100.2		
Width (mm)	69.85		
Height (mm)	9.3	9.5	9.3
Connector	1.5Gb/s SATA	44-pin, 2mm	3Gb/s SATA

1 Based on 32GB Drive

2 Based on MIL-STD-810F

3 Tested on 128GB Drive

ArrayPro is a trademark and EraSure is a registered trademark of Adtron Corporation. Adtron is the SSD Storage Products business and a wholly-owned subsidiary of SMART Modular Technologies. Learn more at www.adtron.com

Part Number	Capacity (GB)	Interface
XceedSecure - 2.5" SSD with ArrayPro and EraSure Technologies		
2.5" Wide, 9.5mm Height - 20N		
A25FB-8Gtc20N I25FB-8Gtc20N	8	1.5Gb/s SATA PATA
A25FB-16Gtc20N I25FB-16Gtc20N	16	1.5Gb/s SATA PATA
A25FB-32Gtc20N I25FB-32Gtc20N	32	1.5Gb/s SATA PATA
2.5" Wide, 16mm Height - 21N		
A25FB-16Gtc21N I25FB-16Gtc21N	16	1.5Gb/s SATA PATA
A25FB-24Gtc21N I25FB-24Gtc21N	24	1.5Gb/s SATA PATA
A25FB-32Gtc21N I25FB-32Gtc21N	32	1.5Gb/s SATA PATA
A25FB-48Gtc21N I25FB-48Gtc21N	48	1.5Gb/s SATA PATA
A25FB-64Gtc21N I25FB-64tc21N	64	1.5Gb/s SATA PATA
A25FB-96Gtc21N I25FB-96tc21N	96	1.5Gb/s SATA PATA
2.5" Wide, 22mm Height - 22N		
A25FB-80Gtc22N I25FB-80Gtc22N	80	1.5Gb/s SATA PATA
A25FB-128Gtc22N I25FB-128Gtc22N	128	1.5Gb/s SATA PATA
A25FB-160Gtc22N I25FB-160Gtc22N	160	1.5Gb/s SATA PATA
XceedSecure - 2.5" SSD with ArrayPro, EraSure, and ZAP Technologies		
A25FB-32Gtz21N	32	1.5Gb/s SATA
A25FB-64Gtz22N	64	1.5Gb/s SATA
XceedSecure2 - 2.5" SSD with ArrayPro and EraSure Technologies (preliminary)		
A25FBS-32Gtc33N	32	3Gbps SATA
A25FBS-64Gtc33N	64	3Gbps SATA
A25FBS-128Gtc33N	128	3Gbps SATA

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)

For drives with ZAP technology

z = Z (no conformal coating),

z = Y (with conformal coating)

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