



XceedSecure 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 106-07, chapter 10.8, addressing the specific needs of flash architectures and data structures. It allows for bad block handling, and for reviewing these 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 inoperable⁵.

XCEEDSECURE Product Family At-A-Glance

	Capacity (GB)	Performance (Sustained)
XceedSecure2		
2.5" SATA	32, 64, 128, 256	100MB/s Read 74MB/s Write
2.5" PATA	32, 64, 128	70MB/s Read 45MB/s Write
3.5" SCSI		55MB/s Read 40MB/s Write

Features

- 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 technology⁵
- 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



Specifications

	XceedSecure2		
	2.5" SATA	2.5" PATA	3.5" SCSI
Performance			
Burst (MB/s)	300MB/s R/W	100MB/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 55/40MB/s R/W
Capacity			
Min	32GB		
Max	256GB	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 @ 25°C		
Endurance	> 260 years @ 200GBytes/day write/erase cycles (64GByte drive)		
Power			
Input Voltage	5V +/- 5%		
Idle (max)	2.3W	1.1W	4.0W
Operational (max)	5.3W	3.2W	7.0W
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 ^{3,4}	10.3g rms ^{3,4}	
Altitude ² (ft)	80,000 (24,384 m)		
Relative Humidity ²	5% to 95% non-condensing		
Conformal Coating	Optional		
Storage Temp	-55°C to 95°C		
Physical			
Form Factor	2.5"	3.5"	
Length (mm)	100.2	146.6	
Width (mm)	69.85	101.7	
Height (mm)	9.5 to 16 ⁶	25.53	
Connector	3Gb/s SATA	44-pin, 2mm	68- or 80-pin SCSI

¹ Based on 32GB Drive

² Based on MIL-STD-810F

³ Tested on 128GB Drive

⁴ 10-2000 Hz random, 3-axes

⁵ ZAP technology is available via custom order

⁶ 16mm only applies to 256GB SATA

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Ordering Information

Part Number	Capacity (GB)	Interface
XceedSecure2 - 2.5" SSD with ArrayPro		
A25FBS-32Gtc33N	32	3Gbps SATA
A25FBS-64Gtc33N	64	3Gbps SATA
A25FBS-128Gtc33N	128	3Gbps SATA
A25FBS-256Gtc34N	256	3Gbps SATA
I25FBS-32Gtc33N	32	PATA
I25FBS-64Gtc33N	64	PATA
I25FBS-128Gtc33N	128	PATA
XceedSecure2 - 3.5" SCSI with ArrayPro and EraSure Technologies		
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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