



## Xcel-10 2.5" SATA SSD

SMART Storage Systems™ Xcel-10 2.5" SATA solid state drive (SSD) is a rugged, high performance, highly reliable storage solution for applications requiring both sequential and random I/O performance. Embedded applications found in defense, industrial automation, transportation, medical, and telecommunications industries will benefit from the high reliability and low total cost-of-ownership of SMART's rugged solid state drives.

SMART's 2.5-inch Xcel-10 SSDs are available with a SATA interface for easy integration into your storage environment.

SMART's rugged Xcel-10 SSDs are designed to meet the needs of mission-critical applications in the defense, aerospace and industrial markets where high shock, vibration and temperature tolerances are as important as high performance and reliability. The Xcel-10 also includes both Normal and Enhanced Security Erase modes as defined by ATA-7 for applications where data security is important.

Xcel-10 SSDs are more reliable, offer higher data integrity and require less power and cooling than traditional hard disk drives (HDDs). The result is the lowest possible total cost-of-ownership for your storage application.

### Features

- High Random and Sequential I/O Performance
- SLC NAND Flash for Enhanced Reliability and Durability
- Ideal for Rugged Applications.
- Highest SLC NAND Flash Capacity in a 9.5 mm Height Form Factor

### Xcel-10 Product Family

	Capacity (GB)	Performance (sustained)	Random
2.5" SATA	32, 64, 128	110 MB/s Read 110 MB/s Write	Sustained Read – 95MB/s Sustained Write – 100MB/s Random Read– 5570 IOPS Random Write - 270 IOPS



## Xcel-10 SATA Specifications

Rugged	
<b>Performance</b>	
Burst	300 MB/s
Sequential	110 MB/s Read 110 MB/s Write
Random (1)	Sustained Read – 95MB/s, Sustained Write – 100MB/s Random Read – 5570 IOPS, Random Write – 270 IOPS
<b>Capacity</b>	
Min	32 GB
Max	128 GB
<b>Reliability</b>	
MTBF	> 1.1 M hours, Telcordia 25°C, 32 GB Drive
Data Reliability	< 1 non-recoverable error in 10 <sup>14</sup> bits read
Data Retention	> 10 years at 25°C
<b>Flash Management</b>	
Wear Leveling	Static
Endurance (2)	> 50 years @ 200 GB/day write/erase cycles
<b>Power</b>	
Input Voltage	5V +/-5%
Idle (typ)	1.1 W
Operational (typ)	1.2 W
<b>Environmental</b>	
Operating Temp	Industrial (-40°C to +85°C)
Operating Shock (3)	50g half-sine, 11ms, 3 shocks along each axis: X, Y, Z (pending)
Vibration (3)	16.4g rms, Jet (pending)
Altitude (ft) (3)	80,000 (24,384m)
Relative Humidity (3)	5% to 95% non-condensing
Conformal Coating	Available
Storage Temp	-55°C to 95°C
<b>Physical</b>	
Form Factor	2.5"
Length (mm)	100.2
Width (mm)	69.9
Height (mm)	9.5
Connector	SATA

(1) Based on 32GB Drive

(2) Based on 128 KByte block transfers and continuous, sequential writes to the drive. The number does not include file system overhead, which may vary depending on the file system. The total life span of the drive depends on both the write endurance numbers and MTBF. One kilobyte, or KByte, equals 1024 bytes.

(3) Based on MIL-STD-810F, tested on a 128GB drive

## Xcel-10 SATA Ordering Information

Part Number	Capacity (GB)
A25FD-32GI32N	32
A25FD-64GI32N	64
A25FD-128GI32N	128

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