



XceedUltraX Storage Products

SMART Modular Technologies' XceedUltraX 2.5" Serial ATA (SATA) and Parallel ATA (PATA) solid state drives (SSDs) deliver high-performance and large capacity storage solutions. Optimized for embedded applications, these drives are ideal for applications found in aerospace, industrial automation, transportation, medical, defense and telecommunication industries. Additionally, applications also benefit from the high-reliability, durability and ruggedness of SMART's "true" industrial-grade SSD products.

Powered by the patent-pending ArrayPro® Technology, XceedUltraX SSD products provide sustained read/write performance to meet the needs of high throughput applications such as flight data recorders, medical image capture, traffic surveillance and other video streaming.

SMART's 2.5" flash SSDs are available with SATA or PATA interfaces for easy integration into your applications. XceedUltraX SSD products are more reliable, offer superior performance, and require less power and cooling than hard disk drives (HDDs). Additionally, SMART's "true" industrial-grade SSDs are superior to traditional SSDs and HDDs in terms of ruggedness, resistance to shock and vibration, and environmental resilience – critical factors in many embedded applications.

True Industrial Grade

SMART's "true" industrial-grade XceedUltraX SSDs are set apart from the competition by rigorous verification and testing steps taken in all aspects of the product life cycle. During the design phase, SMART implements failure mode and effects analysis (FMEA) procedures and qualifies all components to industrial standards. The design verification stage includes thorough design verification testing, HALT testing, environmental testing on operational devices and regulatory compliance certification. During manufacture, each individual drive is tested, including an 8-hour temperature burn-in test, to eliminate early device failure in the field. Finally, ongoing quality assurance methods, such as beta testing and closed-loop corrective action through failure analysis procedures, are standard business practices.

When high reliability, environmental durability, and advanced performance are part of your application requirements, look to SMART's "true" industrial-grade products for your storage solutions.

Features

- **Highest SLC NAND flash capacity in a 9.5 mm height form factor**
- **Powered by ArrayPro performance engine**
- **True industrial grade storage solution for demanding applications**
- **Advanced flash management for enhanced reliability and durability**
- **S.M.A.R.T. support including Power-on Time, Minimum Spares, and Temperature**

XceedUltraX Product Family

	Capacity (GB)	Performance (Sustained)
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



XceedUltraX Specifications

	2.5" SATA	2.5" PATA
Performance		
Burst (MB/s)	300 MB/s R/W	100 MB/s R/W
Sustained (MB/s)	up to 100/74 MB/s R/W	up to 70/45 MB/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	
Endurance	> 260 years (@ 200 GB/day write/erase cycles, 64GB drive)	
Power		
Input Voltage	5V +/- 5%	
Idle (max)	2.3 W	1.1 W
Operational (max)	5.3 W	3.2 W
Environmental		
Operating Temp	Commercial (0°C to 70°C), Industrial (-40°C to 85°C)	
Operating Shock ²	50 g half-sine, 11 ms, 3 shocks along each axis, X, Y, Z, in each direction ³	
Vibration ²	16.4 g rms, 10-2000 Hz random, 3-axes ³	
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"	
Length (mm)	100.2	
Width (mm)	69.85	
Height (mm)	9.5 to 16 ⁴	9.5
Connector	3 Gb/s SATA	44-pin, 2 mm

¹ A/I25FB based on 32GB Drive; A/I25FBX based on 64GB Drive

² Based on MIL-STD-810F

³ Tested on 128GB Drive

⁴ 16mm only applies to 256GB SATA

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XceedUltraX Ordering Information

Part Number	Capacity (GB)	Interface
XceedUltraX2 - 2.5" SSD with ArrayPro Technology		
A25FBX-32Gtc33N	32	3 Gb/s SATA
A25FBX-64Gtc33N	64	3 Gb/s SATA
A25FBX-128Gtc33N	128	3 Gb/s SATA
A25FBX-256Gtc34N	256	3 Gb/s SATA
I25FBX-32Gtc33N	32	PATA
I25FBX-64Gtc33N	64	PATA
I25FBX-128Gtc33N	128	PATA

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)

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