

SMART's Storage Solutions

XceedLite uSATA

XceedLite uSATA Storage Products

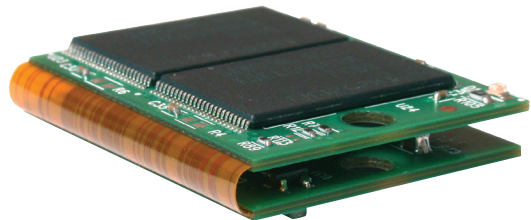
SMART's XceedLite uSATA industrial-grade embedded SATA module is a robust, single-level cell (SLC) solid state drive (SSD). A small form factor, low power consumption, and fast data throughput make the uSATA module ideal for server, storage cache/accelerators, networking, and data communications applications. Featuring sustained read/write performance up to 86MB/s and 55MB/s, and capacities ranging from 2GB to 16GB, SMART's uSATA is also a natural fit for mobile and embedded computing, medical, automotive, and industrial applications.

Product Family At-A-Glance

Connector	Power	Capacity
XceedLite uSATA		
20-pin	3.3V	2GB to 16GB

Features

- **Smallest SATA SSD footprint**
- **Whole Drive Static Wear Leveling**
- **Advanced Error Detection/Correction circuitry for superior data reliability**
- **Supports for 48bit LBA addressing with larger max transfer size**
- **Indicator LED to show drive access**
- **External LED Activity Signaling through the connector**
- **Hardware Reset available through the connector**
- **Write Protect Control available through the connector**
- **Provides Health Status Monitor**



Specifications

Performance		
Read (Maximum)	86MB/s	
Write (Maximum)	55MB/s	
Host Interface Transfer Rate (Maximum)	1.5Gbps	
Access Time (Typical)	600us	
Reliability		
Data Reliability	< 1 in 10 ¹⁴ bits read	
Data Retention	10 years @ 25°C	
Endurance	> 130 years @ 200GB/day write cycles, Unlimited reads (8GByte drive) ²	
Error Correction / Error Detection (BCH)	Up to 6 random bits for every 512-byte sector	
Power		
	Typical	Max
Vcc	3.3 ± 5%	3.465
Read	173mA	220mA
Write	206mA	400mA
Idle	130mA	148mA
Environmental		
Shock – Non-Operating	1500g half-sine, 0.5msec, 1 shock along each axis, X,Y,Z in each direction	
Operating Temperature - Commercial	0°C to 70°C	
Operating Temperature - Industrial	-40°C to 85°C	
Storage Temperature	-55°C to 95°C	
Humidity	5% to 95%, non-condensing, relative humidity ⁴	
Altitude	24,384m [80,000ft]	
Physical		
Length	30mm	
Width	25mm	
Height (Mounted)	7.6mm	

Ordering Information

Part Number	Form Factor	Capacity	Unformatted capacity
SG9STL7A2G4S03	With Standoff	2GB	2,007,040 KBytes
SG9STL7A4GDS03	With Standoff	4GB	4,014,080 KBytes
SG9STL7A8GCS03	With Standoff	8GB	8,028,160 KBytes
SG9STL7A16GBS03	With Standoff	16GB	16,056,320 KBytes
SG9STL7A2G403	No Standoff	2GB	2,007,040 KBytes
SG9STL7A4GD03	No Standoff	4GB	4,014,080 KBytes
SG9STL7A8GC03	No Standoff	8GB	8,028,160 KBytes
SG9STL7A16GB03	No Standoff	16GB	16,056,320 KBytes



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