AT2515 Bulldog
2.5” IDE Solid State Drive

- 128Mbyte to 8 Gbyte uncompressed capacity
- Full -40°C to +85°C industrial temperature range
- Low profile 2.5” drive form-factor
- Standard 44 pin, 2 mm IDE interface
- PIO Mode-4 and DMA Mode-2 support
- 72-bit ECC for exceptional data reliability
- 5 volt, low power operation
- Completely solid state - no moving parts
- 1000G operating shock, 15G operating vibration
- 6 Mbytes/sec sustained Read throughput
- 6 Mbytes/sec sustained Write throughput
- 10 year data integrity

The AT2515 is an entry-level low cost solid-state flash drive, with a maximum capacity of 8 Gbyte in an extremely compact low profile 2.5” form-factor. It is completely solid state, with no moving parts. This contributes to the unit’s exceptional ruggedness and wide operating temperature range; with no moving parts, there is no mechanism for mechanical wear-out. Being 100% IDE compatible, no special drivers or flash file managers are required. It is a virtual drop in replacement for standard rotating media.

The AT2515 employs sector erasable NAND E^2PROMs (Flash) to deliver up to 8 Gbytes of uncompressed, non-volatile solid state storage in an extremely small, rugged form factor. Sequential sustained data throughput is up to 6 Mbytes/sec for reads and 6 Mbytes/sec for writes. The drive supports up to PIO Mode-4 and DMA Mode-2 bus access, multi-sector transfers, as well as LBA addressing. It is 100% IDE compatible and requires no special drivers to operate

The drive is implemented using a custom IDE Flash controller with multi-tasking technology. An integrated 72-bit Reed-Solomon error detection and correction mechanism and proprietary remapping and wear-leveling technology along with a power hold-up circuit greatly improve data reliability. Its cost effectiveness and low-power operation make the AT2515 ideal for applications requiring high reliability at a low cost up to 8 Gbytes of data storage.

The drive is available in a number of standard capacities from 128 to 8 Gbyte. Please contact the factory for specific size availability.

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Each drive is fully tested under environmental and voltage extremes to guarantee data integrity under even the harshest conditions.

The drive may be mounted in any orientation. Both bottom and side mounting holes are available that conforms to the 2.5” IDE drive standard.

SPECIFICATIONS*

Interface

IDE Compatibility	X3T10 2008D, Rev. 6
IDE Drive Number	Drive 0 or 1
Physical Capacity	8 Gbytes
Physical Sector Size	512 bytes

Performance

Sequential Read	6 Mbytes/sec
Sequential Write	6 Mbytes/sec
Burst Read	16.6 Mbytes/sec
Burst Write	16.6 Mbytes/sec

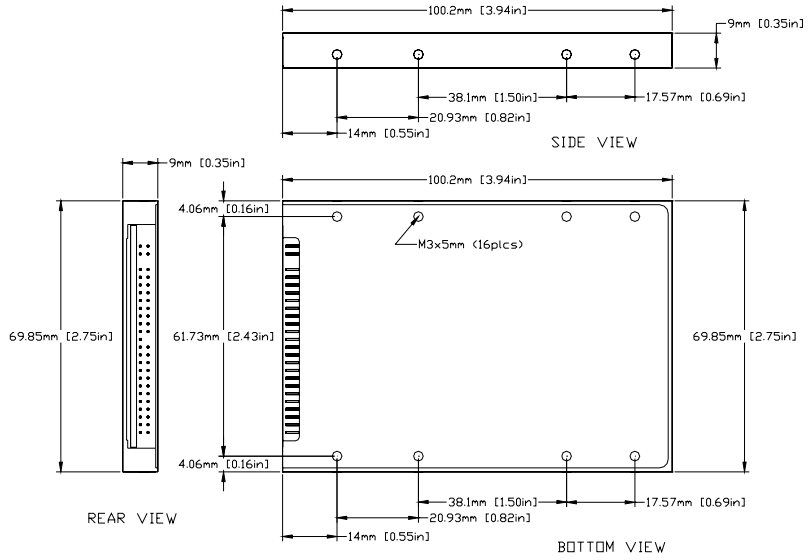
Environmental

Operating Temperature Range	
Commercial	0^{o} to $+70^{o}$C
Extended	-20^{o} to $+75^{o}$C
Industrial	-40^{o} to $+85^{o}$C
Storage Temperature	-65^{o} to $+135^{o}$C
Shock - operating	1000G, half sine
Vibration - operating	15G Random
Airflow	None required
Humidity	5% to 95% NC
Safety	CSA File LR114427
EMC	EN55022 and EN50082-1

Reliability

Endurance	Application Specific
8Kbytes/30 sec	3.2 million hours
Error Rate	<1 in 10^{15} bits read
ECC	72-bit Reed Solomon

* Specifications subject to change without notice.



Power Requirements

Voltage	5V +/- 5%
Current	AT2515-1GB (rms)
Sleep	45 mA
Read	90 mA
Write	112 mA

Mechanical

Length	3.94 inches (102.00 mm)
Width	2.75 inches (69.85 mm)
Height	0.35 inches (9.00 mm)
Cable Interface	44-pin, 2mm
Max. Cable Length	18 inches (457 mm)
Rec. Cable Length	12 inches (305 mm)
Weight (1 GBytes)	2.9 oz (90 g)