

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 E²PROMs (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.

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 |

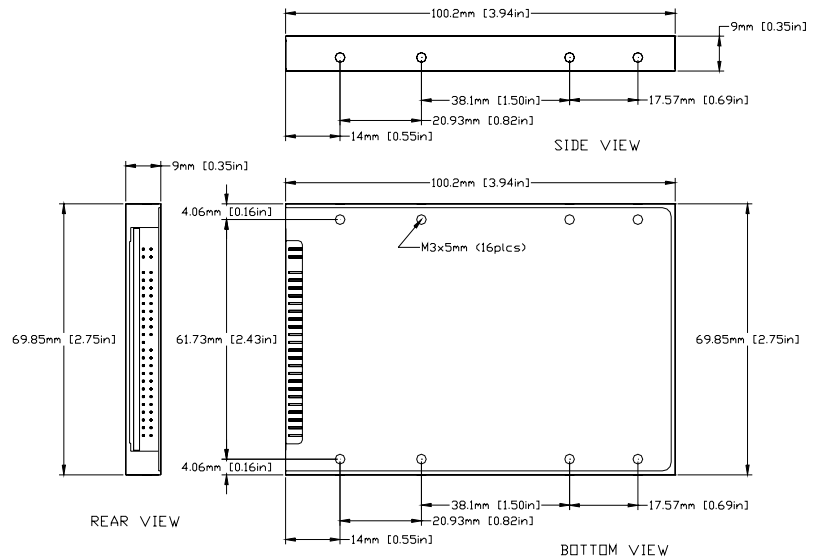
Environmental

| | |
|------------------------------------|-----------------------|
| Operating Temperature Range | |
| Commercial | 0° to +70°C |
| Extended | -20° to +75°C |
| Industrial | -40° to +85°C |
| Storage Temperature | -65° to +135°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) |

