

SC2500 Stinger 2.5" SCSI Solid State Drive



- 9 Gbyte uncompressed capacity
- Full -40°C to +85°C industrial temperature range
- 2.5" drive form factor with 50-pin, 2mm SCSI interface
- Active Remap™ for exceptional data reliability
- 5 volt, low power operation
- Completely solid state - no moving parts
- 1000G operating shock
- 15G operating vibration
- 0.3 millisecond random access time
- 1.5 Mbyte/sec sustained data rate
- 256Kbyte SRAM buffer
- 10 year data integrity
- NO installable device drivers
- CE and CSA/UL Compliant (pending)

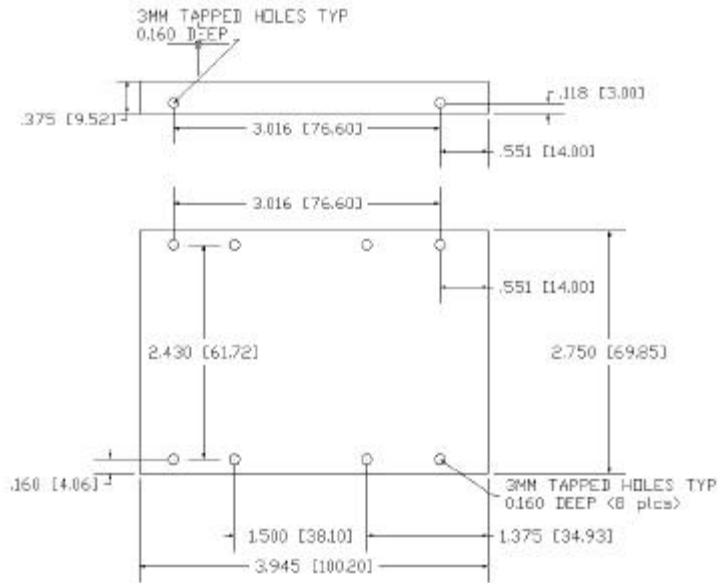


The SC2500 series is a new line of 100% compatible SCSI solid state drives offered in a standard 2.5-inch drive format. It is completely solid state, with no moving parts. This contributes to the unit's exceptional ruggedness and wide operating temperature range; with no moving parts, there is no mechanism for mechanical wear-out. Being 100% SCSI compatible, no special drivers or flash file managers are required. It is a virtual drop in replacement for standard rotating media.

The SC2500 employs sector erasable NAND E²PROMs (Flash) to deliver up to 9 Gbytes of uncompressed, non-volatile solid state storage in an extremely small, rugged form factor. The 0.3-millisecond access time permits hundreds of transactions to occur per second, which is critical in server and high I/O applications. With an internal data rate of 5 Mbytes/sec and a synchronous SCSI data rate of 1.5 Mbytes/sec, raw data throughput is also very fast.

The interface is implemented using a commercially available SCSI peripheral controller with a caching SRAM buffer and a Reed-Solomon error detection and on-the-fly correction mechanism that greatly improves data reliability over other drives. The ECC circuitry, in conjunction with Memtech's proprietary Active Remap™ technology, makes for a virtually bulletproof medium for data storage. All Direct Access Device commands, as well as synchronous data transfers are supported.

The drive is available in many standard capacities up to 9 Gbytes. Please contact the factory for specific sizes or custom requirements.



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

The SC2500 may be mounted in any orientation. Eight mounting holes are available: four on the bottom and four on the sides. All holes are tapped 3mm, with a maximum penetration of 4mm.

Dimensions are given as inches[mm] unless otherwise noted.

SPECIFICATIONS*

Interface

SCSI Compatibility	ANSI X3.131-1994
SCSI Device Type	0 - Direct Access Device
Maximum Capacity	9 Gbytes
Bytes/Block	512
Bus Width	8 or 16 bits

Performance

Average Access	0.3 ms
Power-On Time	<2 sec
Buffer	256 Kbytes
Media Transfer Rate	5 Mbytes/sec
Read Transfer Rate	1.5 Mbyte/sec sustained
Write Transfer Rate	700 Kbytes/sec sustained

Environmental

Operating Temperature Range	
Commercial	0° to +70°C
Extended	-20° to +75°C
Industrial	-40° to +85°C
Storage Temperature	-55° to +125°C
Shock - operating	1000G, 11ms 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
1 write/30 sec	200,000 hours
1 write/min	1,000,000 hours
Error Rate	<1 in 10 ¹⁵ bits read

Power Requirements

Voltage	5V +/- 5%
Current	9 Gbyte Drive
Idle	85 mA
Read	185 mA
Write	200 mA
Termination Power	Supplied by Initiator or drive

Mechanical

Length	3.95 inches (100.2 mm)
Width	2.75 inches (69.9 mm)
Height	
< 5Gbytes	0.39 inches (9.8 mm)
≤ 9Gbytes	0.50 inches (12.7 mm)
Cable Length	18 feet (6 m)
Weight (9 Gbytes)	5.8 oz (165 g)

*Specifications are subject to change without notice.

