SC35 Mastodon
3.5” SCSI Solid State Drive

- Over 13 Gbyte uncompressed capacity
- Full -40°C to +85°C industrial temp range
- Rugged, 3.5” half height drive formfactor
- Single-ended 50 pin SCSI-II interface
- Active Remap™ wear leveling Technology
- 5 volt only, low power operation
- Completely solid state - no moving parts
- 500G operating shock
- 10G operating vibration
- 1.0 millisecond random access time
- 1.5 Mbyte/sec sustained Read throughput
- 650 Kbyte/sec sustained Write throughput
- NO installable device drivers
- 10 year guaranteed data integrity

The SC35 is a modular, high performance solid state drive in a 3.5 inch half-height drive format, designed for implementation on systems conforming to the SCSI-II standard. It is composed of a large array of 128, 256 or 512 Mbit NAND E^2PROM memories that through on board processor control, can emulate the storage and retrieval operations of a hard disk, but with faster access and throughput. The drive is completely solid state, which makes it resistant to shock, vibration, dust and temperature, yet it offers the same ease of implementation and use as standard rotating media. No special drivers or flash file managers are required for read or write access to the device, which simplifies installation and makes the drive fully bootable.

The SC35 can be used in applications where operating conditions are harsh and when reliability is critical. A 100% CMOS logic design minimizes power consumption, and the +5 volt only power requirement simplifies system supply needs, as +12 volts is not necessary. An on-board microprocessor implements all control functions and implements the SCSI command set for the NCR 53C90A SCSI-II processor. Sustained read throughput for the SC35 is 1.5 Mbyte per second, and the sustained write throughput is over 650 Kbytes per second. The unit responds to all Direct-Access device commands, and as with all single-ended SCSI units, the SC35 may be placed up to 18 feet (6 m) from the host SCSI controller. Wear leveling is achieved through MemTech’s proprietary Active Remap™ technology.

The drive is available in capacities from 16 Mbytes to over 13 Gbytes in a number of standard sizes. Please contact the factory with your size requirements. Disk compression utilities may be used to effectively double the capacity of the drive.

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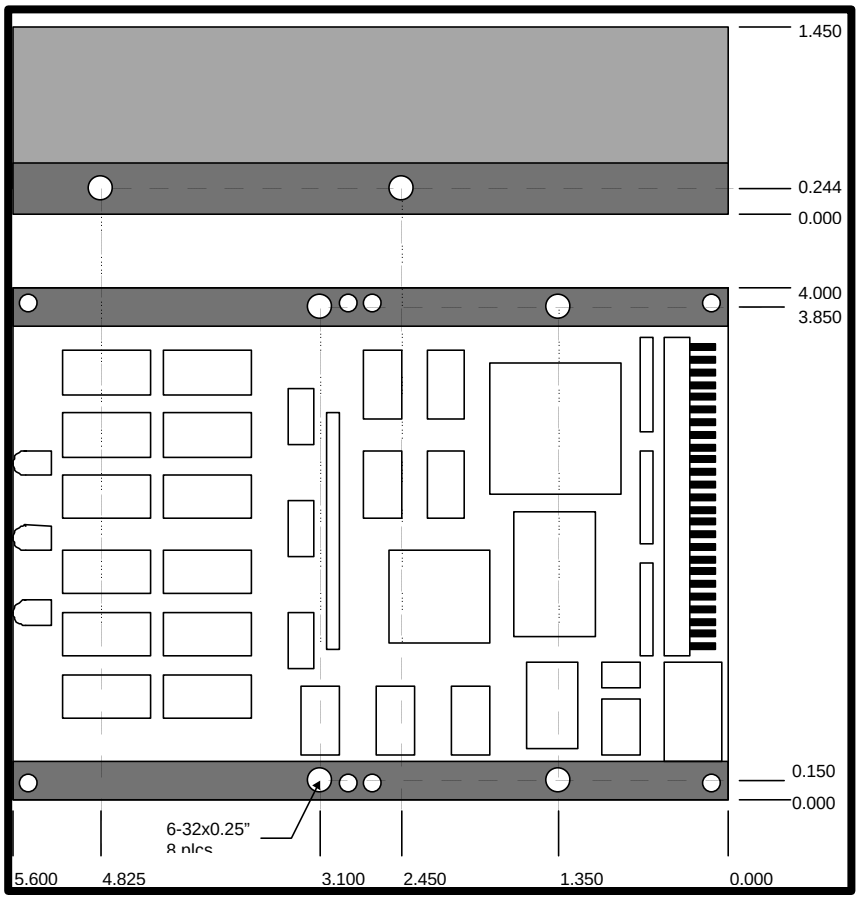

Every SC35 drive is fully tested under environmental and voltage extremes to guarantee data integrity under even the harshest conditions.

The drive may be mounted in any orientation. Eight mounting holes are provided: four on the bottom and four on the sides. All holes are tapped 6-32, with a maximum penetration of 0.25 inches.

The drive employs on-board active termination that may be enabled or disabled as needed.

SPECIFICATIONS

Interface

SCSI Compatibility	ANSI X3.131-1994
SCSI Device Type	0 - Direct Access Device
Maximum Capacity	13824 Mbytes
Bytes/Block	512
Bus Width	8 bits

Performance

Average Access	1.0 ms
Read Transfer Rate	1.5 Mbyte/sec sustained
Write Transfer Rate	650 Kbytes/sec sustained
Burst Transfers	5 Mbytes/sec

Environmental

Operating Temperature Range	
Commercial	0° to 70°C
Extended	-20° to +75°C
Industrial	-45°C to +85°C
Storage Temperature	-55°C to +125°C
Airflow	None required
Humidity	5% to 95% NC
Shock	500G operating
Vibration	10G random
Safety	CSA File LR114427
EMC	EN55022 and EN50082-1

Reliability

Endurance	Application Specific
1 write/10 sec	250,000 hours

Power Requirements

Voltage	5V +/- 5%
Current	
Standby	80 mA
Read	180 mA
Write	200 mA
Termination Power	Supplied by initiator

Mechanical

Length	5.60 inches (15.24 cm)
Width	4.00 inches (10.16 cm)
Height (example)	
384 Mbytes	0.87 inches (02.21 cm)
13824 Mbytes	1.45 inches (03.68 cm)
Cable Length	18 feet (6 m)
Interface Type	50-pin single ended
Weight	1b 5 oz (595 g) max

Mouser Electronics

Authorized Distributor

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STEC:

SC35-12288 SC35-512C SC35I-16384C SC35-20480 SC35I-512 SC35I-2048 SC35I-4096C SC35-1024C SC35-20480C SC35-4096 SC35I-12288 SC35-8192C SC35-2048C SC35I-20480 SC35-256 SC35-512 SC35I-20480C SC35-12288C SC35-256C SC35I-256 SC35I-1024C SC35-8192 SC35I-2048C SC35-16384 SC35I-8192C SC35I-4096 SC35-16384C SC35I-12288C SC35-1024 SC35-4096C SC35I-8192 SC35-2048 SC35I-16384 SC35I-256C SC35I-1024 SC35I-512C