

51.3 MByte 3½" Winchester Disk Drive

8051S

The 8051S represents MiniScribe's solution for the next generation of higher performance computers. Featuring 42.0 MBytes of formatted storage, the 8051S incorporates an on-board Small Computer System Interface (SCSI) controller. A unique rotary actuator provides a fast 28 msec. average access speed to maximize performance.

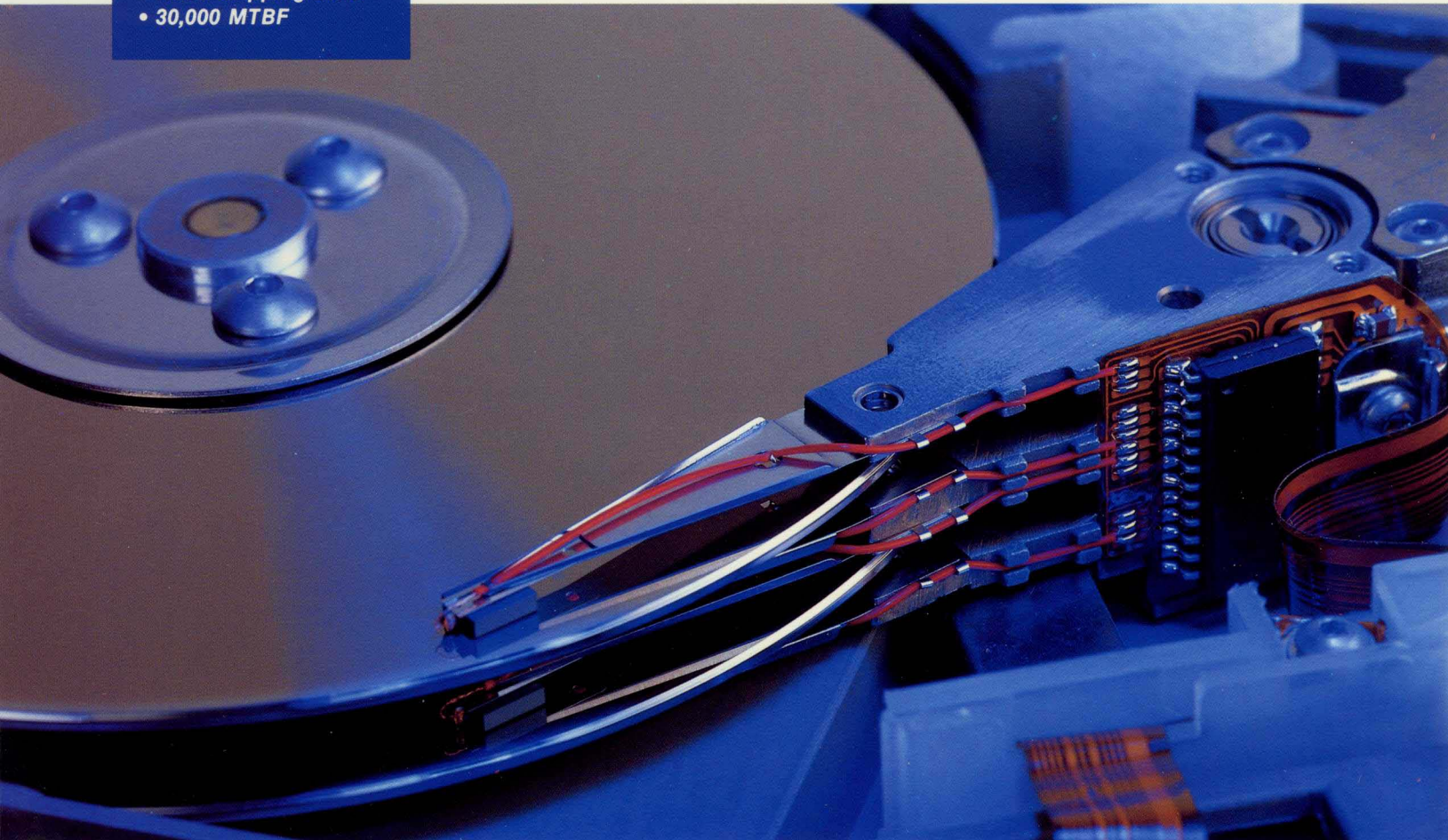
The single printed circuit board utilizes surface mount technology to increase reliability and decrease power consumption to a very cool 8 watts. The 8051S supports

the common command set as well as other options. Defect handling and error management is transparent to the user.

Like all MiniScribe products, the 8051S undergoes a rigorous testing and burn in process to insure the highest reliability.

The MiniScribe line of 3½-inch and 5¼-inch Winchester disk drives begin at 12.75 MBytes and extend to high capacity/high performance models.

- Fast 28 msec. average access speed
- On-board SCSI controller
- Rotary voice coil actuator
- Host transfer rate up to 1.0 MBytes/sec
- Cool 8 watts avg. power consumption
- Single printed circuit board for greater reliability
- Head shipping zone
- 30,000 MTBF



3 1/2" SCSI Winchester Disk Drive Specifications

8051S

Capacity Unformatted

Per Drive (MBytes)	51.3
Per Track (Bytes)	17,220

Capacity Formatted

(including alternatives)	
Per Drive (MBytes)	42.0
Per Track (Bytes)	14,336
Per Sector (Bytes)	512
Sectors Per Track	28

Functional

Disks	2
R/W Heads	4
Cylinders	745
Total Data Tracks	2,980
Track Density (tpi)	1,109
Recording Density (bpi)	23,202
Areal Density (Mbits/sq.in.)	25.73
Rotational Speed (RPM)	3,484

Data Transfer Rate

Device (Mbits per second)	8.0
Host (MBytes per second)	0 to 1.0

Access Time

(including settling)	
Average (msec.)	28
Track-to-track (msec.)	5
Maximum (msec.)	60
Latency (average, msec.)	8.61

Interface

SCSI

Reliability

MTBF	30,000 hours
PM	None
MTTR	30 minutes
Component Design Life	5 years

Error Rates

Soft Read Errors	1 per 10 ¹⁰ bits
Hard Read Errors	1 per 10 ¹² bits
Seek Errors	1 per 10 ⁶ seeks

DC Power Requirements

+ 5 VDC ±5%	0.5 amps typical
+12 VDC ±5%	0.5 amps typical
Max. Starting (5 sec.)	2.0 amps

Power Dissipation

8.0 watts avg.

Environmental Limits

Ambient Temperature	40°F to 122°F (5°C to 50°C)
Relative Humidity	8% to 80%
Maximum Wet Bulb	78°F (26°C)

Physical

Height	1.625 in. (41.3 mm)
Width	4.00 in. (101.6 mm)
Depth	5.75 in. (164 mm)
Weight	1.43 lbs. (.65 kg)

Features and specifications subject to change without notice.

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