

# 25.0 or 50.0 MByte 3 1/2" AT Interface Winchester Disk Drive

NOV 16 1988

## 8225AT 8450AT

- 40 msec. average access time
- Industry standard PC AT interface
- Embedded single chip AT controller
- Rugged rack and pinion actuator system
- 30,000 P.O.H. MTBF
- Single printed circuit board
- 12 watts average power requirements
- Light weight - 1.6 lbs.
- 1:1 interleave maximizes system throughput
- Host transfer rate up to 5 MBytes per second
- 32K x 1 Byte data buffer

MiniScribe now offers low cost 3 1/2-inch AT\* compatible data storage solutions for portable and slim-line desktop computers. The 8225/8450AT drives provide 21/42 MBytes of formatted capacity and an embedded industry-standard AT controller. Average access time is 40 msec.

MiniScribe's 8225/8450AT delivers the benefit of high quality on-board intelligence at low cost. The 8225/8450AT draws upon the proven mechanics of the MiniScribe 3 1/2-inch disk drive line with over two million drives installed worldwide. In addition, the drive/controller integration onto a single printed circuit board increases system reliability and reduces the total cost of the system.

The 8225/8450AT drive utilizes a rack-and-pinion stepper actuator system to ensure 40 msec. average access time and high-density positioning accuracy across temperature extremes. The reliability of the drive is backed by its 30,000 power-on-hours MTBF rating.

Designed for portable and compact desktop systems, the drive weighs only 1.6 pounds. Superior shock and vibration characteristics — 10 Gs operational and 70 Gs non-operational — also make it ideal for portable applications.

The 21/42 MByte drive has been designed for MiniScribe's automated robotic assembly for high quality and consistent yields. Like all MiniScribe products, the 8225/8450AT undergoes rigorous burn-in and testing prior to shipment. During shipping and handling, the read/write heads can be positioned over a non-data area of the disk until power is applied.

MiniScribe now has over two million 3 1/2-inch drives in the field. In addition to MiniScribe's low-cost models, the company produces a complete line of 3 1/2-inch and 5 1/4-inch Winchester disk drives which begin at 20 MBytes, extend to high capacity/high performance models, and include a variety of standard, intelligent and custom interfaces.

\*AT is a trademark of IBM.



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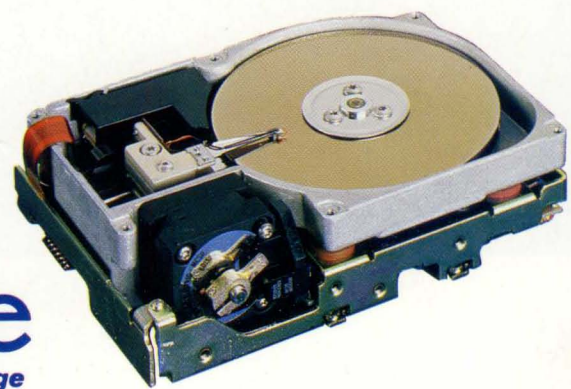
  
Solutions for Data Storage

# 25.0 or 50.0 MByte 3 1/2" AT Interface Winchester Disk Drive

	8225 AT	8450AT
<b>Capacity Unformatted</b>		
Per Drive (MBytes)	24.8	49.7
Per Track (Bytes)	16,666	16,666
<b>Capacity Formatted</b>		
Per Drive (MBytes)	21.3	42.7
Per Track (Bytes)	14,336	14,336
Per Sector (Bytes)	512	512
Sectors/Track	28	28
<b>Functional</b>		
Disks	1	2
Reading Heads	2	4
Cylinders	745	745
Total Data Tracks	1,490	2,980
Track Density (tpi)	898	898
Data Encoding Method	2,7 RLL	2,7 RLL
Rotational Speed (RPM)	3,600	3,600
<b>Access Time</b> (including settling)		
Average (msec)	40	
Track-to-Track (msec)	12	
Maximum (msec)	90	
Latency (avg., msec)	8.33	
<b>8225AT &amp; 8450AT</b>		
<b>Interface</b>		
	PC AT	
<b>Reliability</b>		
MTBF	30,000 POH	
PM	None	
MTTR	30 minutes	
Component Design Life	5 years	
<b>Error Rates</b>		
Soft Read Errors	1 per 10 <sup>10</sup> bits	
Hard Read Errors	1 per 10 <sup>12</sup> bits	
Seek Errors	1 per 10 <sup>6</sup> seeks	
<b>Data Transfer Rate</b>		
Device (Mbits per sec.)	8.0	
Host (MBytes per sec.)	Up to 5.0	

8225AT & 8450AT	
<b>DC Power Requirements</b>	
+ 5 VDC ± 5%	0.55 amps typical
+ 12 VDC ± 5%	0.75 amps typical
Max. Starting (5 sec.)	2.0 amps
<b>Power Dissipation</b>	
Seeking	12 watts max.
Low Power Option (idle state)	7 watts
<b>Environmental Limits</b>	
Ambient Temperature	40°F to 122° F (4°C to 50° C)
Relative Humidity	8% to 80%
Maximum Wet Bulb	78° F (26° C)
<b>Physical</b>	
Height	1,625 in. (41.3 mm)
Width	4.00 in. (101.6 mm)
Depth	5.90 in. (150 mm)
Weight	1.63 lbs. (.74 kg)
<b>Shock</b>	
Operational	10G's, 11 msec. 1/2 sine wave
Non-Operational	70G's, 11 msec. 1/2 sine wave

Features and specifications subject to change without notice.  
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Solutions for Data Storage

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