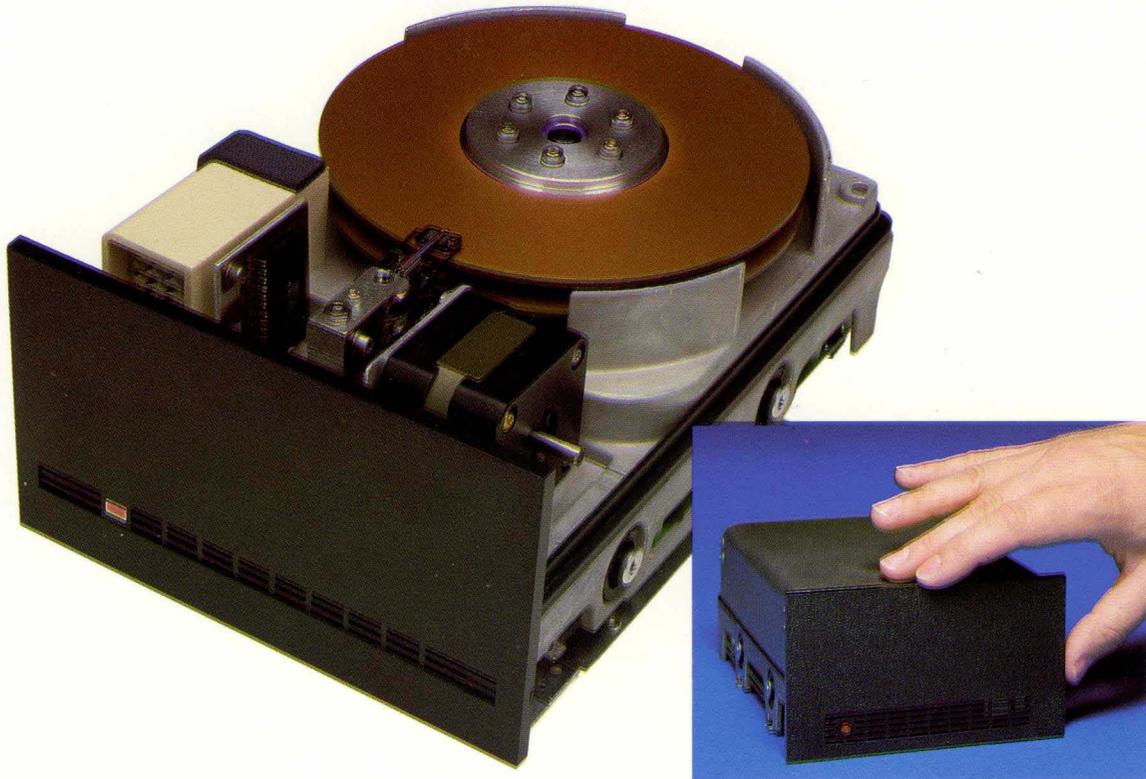




MAY

1983

MiniScribe IV



5 1/4" Winchester Disk Drive 10 or 20 MBytes unformatted storage capacity

The MiniScribe IV series of highly reliable 5 1/4-inch Winchester disk drives offers 10 or 20 megabytes of unformatted storage on one or two platters in an attractive cost-per-byte alternative to the standard 6.4/12.8 megabyte drive.

In achieving 20 megabyte capacity on only two platters, MiniScribe IV provides high reliability and lower cost by virtue of fewer parts and lower power consumption. This series enables microcomputer systems manufacturers to offer up to 15.7 megabytes of formatted data storage to their customers for little more than they are paying for 10 megabytes. The extra capacity is the result of an innovative, temperature-compensated rack-and-pinion head positioning system, which assures greater accuracy.

- Field proven rack-and-pinion motion translator allows an increased number of recording tracks, yet retains the full-step holding torque and positioning repeatability of the stepper-motor actuator.
- IC preamplifier, within the sealed enclosure and in close proximity to the read/write heads, assures data reliability in electrically noisy environments.
- Efficient temperature compensation system (patent pending) enhances the positioning repeatability over the operating temperature range.
- Unique breather filter arrangement (patent pending), plus a recirculating air system, guarantees a clean pressurized operating environment to the heads and disks.
- Microprocessor-controlled buffered seek takes full advantage of the stepper motor high-speed slew characteristics. This results in a fast 120 millisecond average access time.
- Crystal control assures constant spin-motor speed, regardless of temperature variations and effects of motor life, and eliminates all adjustments.
- Microprocessor-controlled internal self diagnostics provide fast performance verification.
- A head shipping zone in a non-data area of the disk, coupled with a carriage locking feature, prevents disk damage during transport.
- ST412 hardware and software interface compatibility, coupled with form factor and voltage requirements identical to the 5 1/4" floppy drive, simplify system integration.

MiniScribe IV

MODEL SPECIFICATIONS

	Model 4010	Model 4020
Storage Capacity-Unformatted		
Per Drive	10.0 MBytes	20.0 MBytes
Per Track	10,416 Bytes	10,416 Bytes
Storage Capacity-Formatted		
Per Drive	7.85 MBytes	15.7 MBytes
Per Track	8,192 Bytes	8,192 Bytes
Per Sector	256 Bytes	256 Bytes
Sectors per Track	32	32
Data Tracks	960 (1 disk)	1920 (2 disks)

GENERAL SPECIFICATIONS

Recording Density	
Areal	5.04 x 10 ⁶ bits per square inch
Linear (MFM)	8575 bpi
Radial	588 tpi
Cylinders	480
Data Transfer Rate	5.0 Mbits per second
Access Time	
Average Latency	8.33 msec
Seek Time	
Track-to-Track	3.0 msec
Average	120 msec (including settling)
Maximum	310 msec (including settling)
MTBF	10,000 hours (continuous operation)
MTRR	30 minutes
Preventive Maintenance	None
Data Reliability	
	1 soft error in 10 ¹⁰ bits read
	1 permanent error in 10 ¹² bits read
	1 seek error in 10 ⁶ seeks
Input Power Required	
	+12VDC ± 5%, 1.5 amps
	3.5 amps start (15 seconds)
	+5VDC ± 5%, 1.0 amp
Operating Temperature	40°F (4°C) to 115°F (46°C)
Relative Humidity	
	8% to 80%, non condensing
	78°F (26°C) maximum wet bulb
Physical Size	3.25 in. H x 5.75 in. W x 8.00 in. D
Weight	5.5 pounds

Features and specifications subject to change without notice.

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