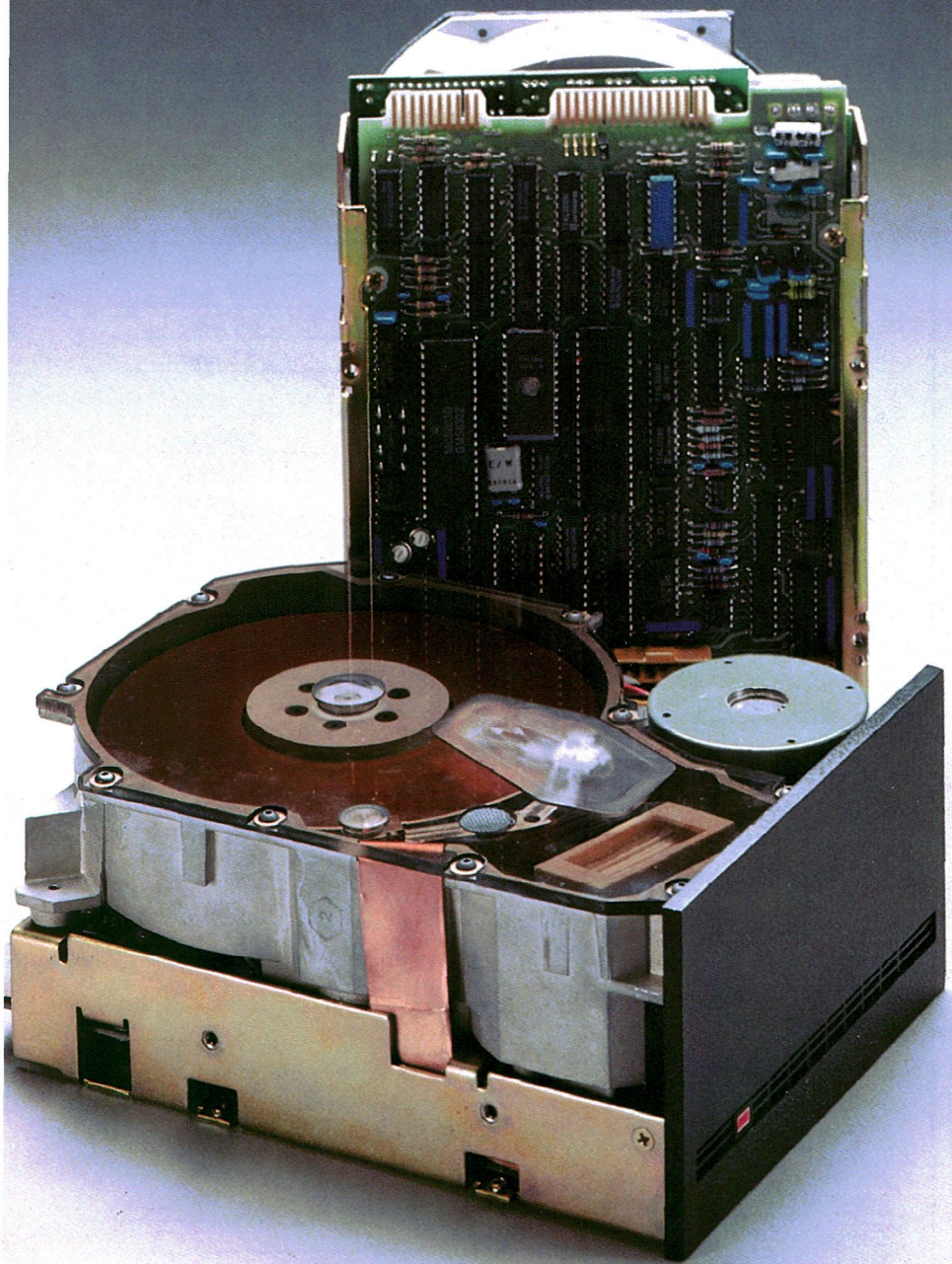


## Computer Memories 19 Megabyte, 5¼" Winchester Disk Drive.

### CM 5000 features:

- Capacities of 6.38, 12.76 and 19.14 megabytes unformatted
- 5 megabyte formatted data per platter
- Proven Winchester technology
- Identical mounting to standard 5¼" floppy drives
- Interface compatible with readily available controllers
- No-hysteresis positioning system
- Internal microprocessor
- Step-pulse buffering
- Head velocity profile control
- Optimized temperature compensation
- High output, high resolution heads
- All electronics and motors located outside clean area





# CM 5000 Specifications

## Performance Specifications:

Capacity	CM 5206	CM 5412	CM 5619
<i>Unformatted</i>			
Per Drive	6.38 Mbytes	12.76 Mbytes	19.14 Mbytes
Per Surface	3.19 Mbytes	3.19 Mbytes	3.19 Mbytes
Per Track	10.4 Kbytes	10.4 Kbytes	10.4 Kbytes
<i>Formatted</i>			
Per Drive	5.0 Mbytes	10.0 Mbytes	15.0 Mbytes
Per Surface	2.5 Mbytes	2.5 Mbytes	2.5 Mbytes
Per Track	8.2 Kbytes	8.2 Kbytes	8.2 Kbytes
Per Sector	256 bytes	256 bytes	256 bytes
Sectors/Track	32	32	32
Transfer Rate	5.00 Mbits/sec	5.00 Mbits/sec	5.00 Mbits/sec
<i>Access Time (Excluding Settle Time)</i>			
Track to Track	2 msec	2 msec	2 msec
Average	77 msec	77 msec	77 msec
Maximum	179 msec	179 msec	179 msec
Settling Time	16 msec	16 msec	16 msec
Average Latency	8.3 msec	8.3 msec	8.3 msec

## Functional Specifications:

Rotational Speed	3,600 rpm	3,600 rpm	3,600 rpm
Recording Density	9,180 bpi	9,180 bpi	9,180 bpi
Flux Density	9,180 fci	9,180 fci	9,180 fci
Track Density	345 tpi	345 tpi	345 tpi
Cylinders	306	306	306
Tracks	612	1,224	1,836
R/W Heads	2	4	6
Disks	1	2	3

## Physical Specifications:

### Environmental Limits

Ambient Temperature = 50°F to 115°F (10°C to 46°C)

Relative Humidity = 8% to 80%

### DC Power Requirements

+12VDC ± 10% 1.5A typical, 3.5A max

+5VDC ± 5% 0.9A typical, 1.0A max

### Mechanical Dimensions:

Height = 3.25 in. (82.6 mm)

Width = 5.75 in. (146.1 mm)

Depth = 8.00 in. (203 mm)

Weight = 5 lbs. (2.3 Kg)

Heat Dissipation = 78 BTU/hr. typical (22.5 watts)

### Reliability Specifications:

MTBF 12,000 POH typical usage

PM: Not required

MTTR: 30 minutes

Component Life: 5 years

### Error Rates:

Soft Read Errors: 1 per 10<sup>10</sup> bits read

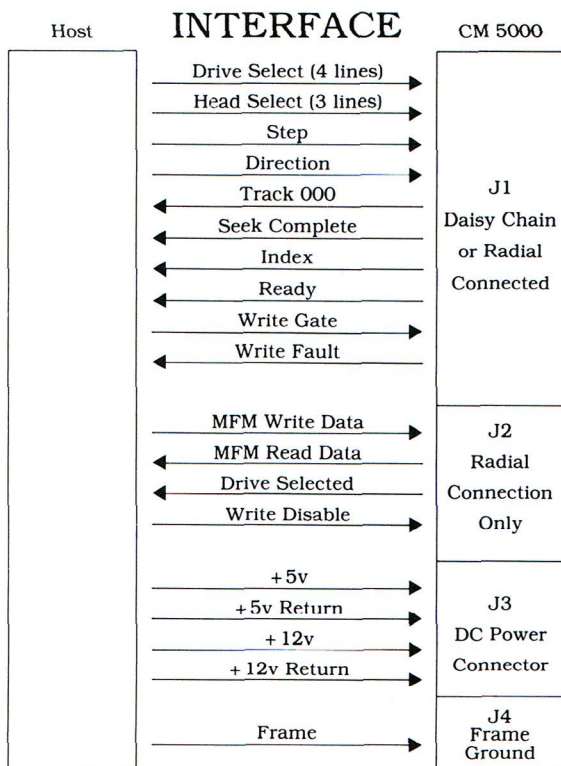
Hard Read Errors: 1 per 10<sup>12</sup> bits read

Seek Errors: 1 per 10<sup>6</sup> seeks

**CM 5000 disk drive product information.** The Computer Memories series of Winchester technology disk drives offers high storage capacities in a minifloppy size package. The CM 5000 series is available in 6.38, 12.76, and 19.14 M Byte versions. By means of a combination of Winchester technology and proven design techniques, the OEM is assured of the ultimate in quality and reliability.

In order to ease system integration, the CM 5000 has the same physical dimensions and mounting hole locations as a standard 5¼" floppy disk drive. DC voltage requirements are also the same as a minifloppy drive thus enabling the use of a single power supply for both types of drives.

The high capacities of the CM 5000 are achieved by the utilization of a high-torque, high precision stepper motor, on-board microprocessor, and manganese-zinc heads. The combination of the swing-arm actuator, associated electronics, and head allow the CM 5000 to achieve a track density of 345 TPI and bit density of 9180 BPI.



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