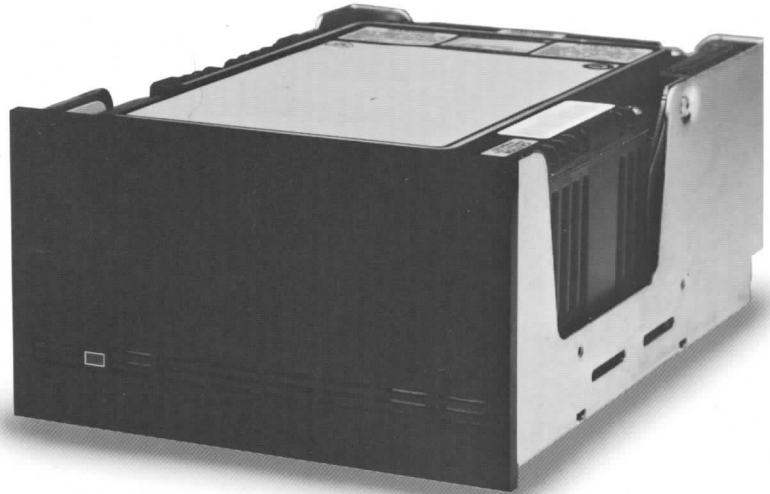


5 1/4-inch Full-Height Winchester Disk Drive

1518

Capacity: 1.53 GBytes
Access Time: 14.5 msec
Interface: 23.33 MHz ESDI
MTBF: 150,000 hours



The Micropolis 1518 high performance 5 1/4-inch Winchester disk drive offers 1.53 gigabyte capacity and an ESDI interface in a full-height form factor.

Using the same, field-proven mechanical package as in the 380-, 760-, and 1200 megabyte Micropolis drives, the 1518 is designed to provide a combination of high storage capacity, fast access and data transfer, and long periods of trouble-free operation.

■ Fast and Reliable

Data is transferred at 23.33 megahertz with an average access time of 14.5 milliseconds. And with an outstanding MTBF of 150,000 hours, repair and spare-parts costs can be substantially reduced.

■ ESDI-Standard

The 1518 drive implements the Serial Mode of the industry-standard Enhanced Small-Device Interface—ESDI. This ESDI interface enables the 1518 to achieve a sustained data transfer rate of 23.33 megabits per second.

By implementing the ESDI optional Power Sequencing feature, peak current demand on power supplies can be minimized in multi-drive installations.

■ Innovative Design Features

A sealed head-disk assembly contains all of the moving parts, including a patented high-speed, precision

balanced single-piece rotary positioner, 15 read/write heads and eight 5 1/4-inch disks, plus the patented in-spindle motor. The drive is mounted in a rigid metal frame and suspended on specially designed shock mounts to provide protection from the effects of shock and vibration.

■ Advanced Servo Technology

The 1518 drive uses an advanced servo system which provides superior on-track and seek performance throughout the range of environmental conditions. The dedicated disk surface for servo data eliminates format constraints and permits more user-data capacity on each disk surface, as compared to embedded servo systems.

■ Maintenance Free Design

Micropolis drives consistently top the list for high "plug and play" and 150,000 hour mean-time-between-failure performance. The 1518 board and mechanical assemblies are independently replaceable units. No electronic or mechanical adjustments are ever required, making field replacement of electronic assemblies a simple, 15-minute repair.

■ Better Design Flexibility

For all applications requiring very high storage capacity, the 1518 drive is the low-cost, high-reliability solution.

Micropolis is the industry leader in volume high-capacity, high-performance 5 1/4-inch full- and half-height disk drives. Micropolis drives offer up to 2.0 gigabytes of storage capacity and are available with either an ESDI or a SCSI interface.

For more information on this and other Micropolis disk drives, contact the Micropolis Sales Office or Authorized Distributor nearest you.

MICROPOLIS
Performance • Quality • Reliability

Specifications:

1518

Capacity

Unformatted

Model	1518-15
Per Drive (MB)	1,534
Per Track (B)	48,608
Per Surface (MB)	2,102.2
Cylinders	2,104
Data Heads	15

Formatted

Model	1518-15
Per Drive (MB)	1,346
Per Sector(B)	512
Sectors/Track	84
Cylinders	2,104
Data Heads	15

Performance

Seek Time (includes settling)

Track to Track	4 msec
Average	14.5 msec
Maximum	33 msec

Latency Time (average) 8.33 msec

Rotational Speed 3600 RPM

Transfer Rate 23.33 MHz

Interface

Data Transfer Rate	24 MBits/sec
Code (interface)	NRZ
Code (internal)	RLL

Features

- ESDI serial mode
- Hard sectoring
- Power sequencing
- Servo locked data
- Extensive status and diagnostic information
- Start/stop

Physical

Form Factor (Industry-standard for 5¹/₄-inch full-height)

Height	3.25 inches (82.6 mm)
Width	5.75 inches (146 mm)
Depth	8.00 inches (203 mm)
Weight	8.2 pounds (3.7 kg) nominal

Environmental

Shock	
operating	3 G - 5 msec 2 G - 11 msec 1 G - 20 msec
non-operating (unpackaged)	
free-fall drop	0.75"
1/2 sinusoidal	40 G - 5 msec 20 G - 11 msec 15 G - 20 msec 15 G - 50 msec 20 G - 100 msec

Vibration

operating	
5-40 Hz	0.006", peak-peak
40-300 Hz	0.5 G peak
non-operating (unpackaged)	
5-31 Hz	0.02", peak-peak
31-69 Hz	1 G peak
69-98 Hz	0.004", peak-peak
98-300 Hz	2 G peak

Ambient Temperature

operating	10° to 50°C gradient 2°C/ 5 minutes
non-operating	-40° to 65°C gradient 24°C/hour

Relative Humidity (non-condensing)

operating	10% to 90%
non-operating	10% to 90%
wet bulb max.	26.7°C (80°F)

Altitude

operating	-200 to 10,000 ft.
non-operating	-1,000 to 50,000 ft.

Other

- Power Requirements – typical
 - + 12V ± 5%, 2.0A Avg (4.3A max. during start-up)
 - + 5V ± 5%, 1.5A Avg
- Power Dissipation – typical 24 Watts
- Acoustic Noise 40 dBA
- Mounting standard 5¹/₄-inch disk drive, any orientation

Reliability

MTBF	150,000 power-on hours
MTTR	15 minutes

Preventive Maintenance	none
Electronic Adjustments	none

Error Rates

Soft Errors	≤ 10 in 10 ¹¹ bits read
Hard Errors	≤ 10 in 10 ¹³ bits read
Seek Errors	≤ 10 in 10 ⁷ seeks

Specifications subject to change without notice.

MICROPOLIS

Corporate Headquarters

21211 Nordhoff Street • Chatsworth, California 91311
Phone: (818) 709-3300 • Telex: 651486 • FAX: (818) 709-3396

European Operations

Acre Road • Reading Berkshire • RG2 0SU • England
Phone: 44 734 751315 • Telex: 848591 • FAX: 44 734 868168

Asia/Pacific

16, Nanking East Road • Section 5 • Suite 2 • 12th Floor • Taipei • Taiwan
Phone: (886)-2-760-8115 • FAX: (886)-2-763-1654

Singapore Sales Office • Phone: 65-4824191

U.S. Sales Offices

Northwest • Mountain View, CA 94043-1715 • Phone: (415) 964-8300
Southwest • Irvine, CA 92715 • Phone: (714) 476-0411
New England • Salem, NH 03079 • Phone: (603) 898-3550
Central • Irving, TX 75039 • Phone: (214) 402-8888
North Central • Addison, IL 60101 • Phone: (708) 834-3311
Southeast • Norcross, GA 30092 • Phone: (404) 729-6930

In Canada

Bytewise • 5225 Fairway Avenue
Lachine, Quebec H8T 1C1 • Phone: (514) 636-4121

European Sales Offices

U.K. • Berkshire, England • Phone: 44 734 751315
West Germany • Munich • Phone: 49 89 8595091
France • Massy • Phone: 33 1 69 20 15 18
Italy • Milano • Phone: 39 2 33200635
Sweden • Bromma • Phone: 46 8 280189