

LOAD WARRIORS

5.25 inch Half-Height Disk Drives

HIGH PERFORMANCE 80 to 169 Mbytes

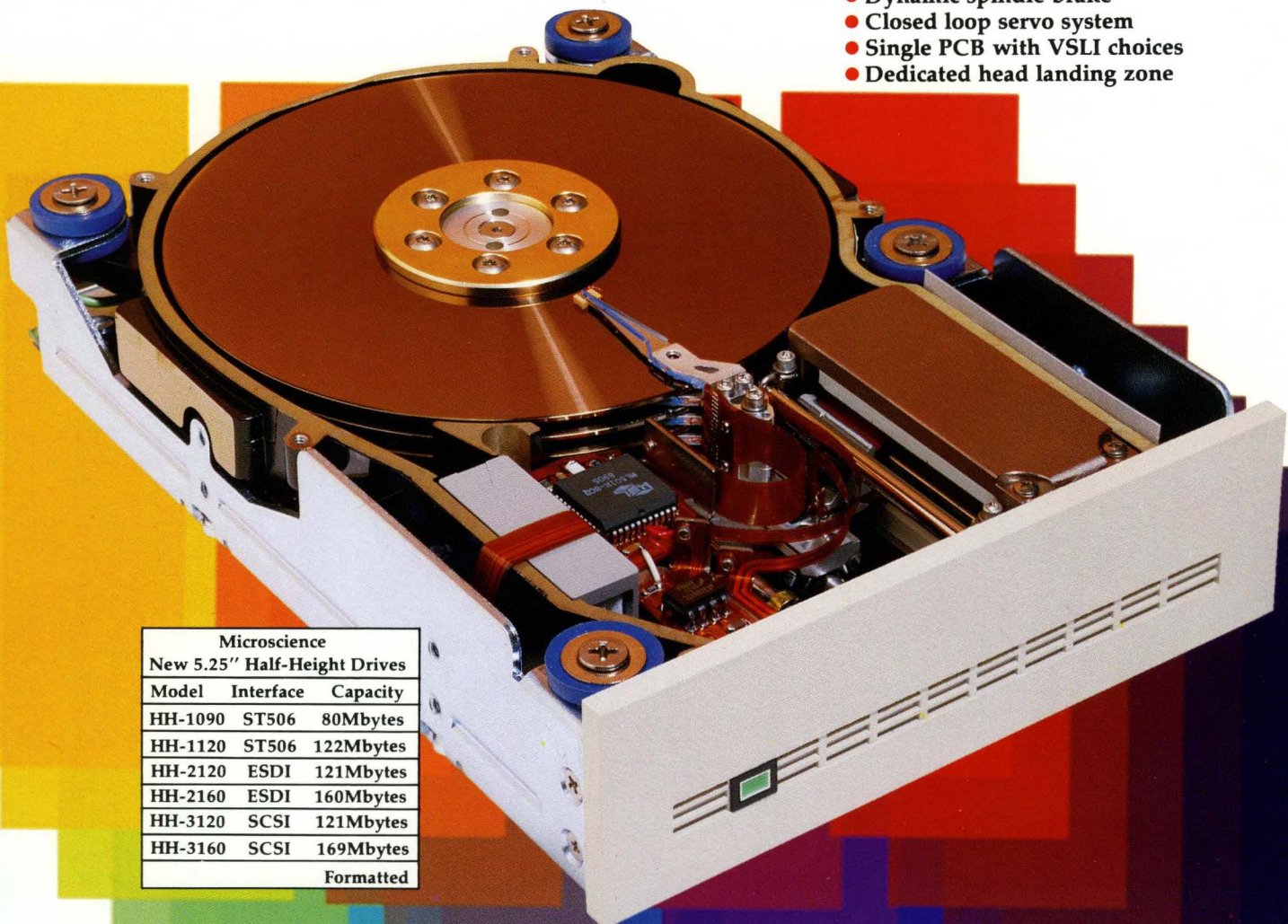
Store more. Access faster. Run cooler with the LOAD WARRIORS.

Proven technology and impressive specifications all backed by MICROSCIENCE quality and reliability.

We designed and manufactured the *first* Half-Height 5.25 inch Winchester Disk Drive and we *still* build them to *last*.



- 5ms track to track seek time
- Automatic carriage lock
- Low power consumption
- Dynamic spindle brake
- Closed loop servo system
- Single PCB with VSLI choices
- Dedicated head landing zone



Microscience New 5.25" Half-Height Drives		
Model	Interface	Capacity
HH-1090	ST506	80Mbytes
HH-1120	ST506	122Mbytes
HH-2120	ESDI	121Mbytes
HH-2160	ESDI	160Mbytes
HH-3120	SCSI	121Mbytes
HH-3160	SCSI	169Mbytes
Formatted		



Microscience™

5.25 inch High Performance Half-Height Winchester Disk Drive **SPECIFICATIONS**

Model No.	HH-1090	HH-1120	HH-2120	HH-2160	HH-3120	HH-3160	Model No.
Capacity Unformatted	95.8 MB	143.7 MB	149.3 MB	186.1 MB	136.8 MB	191.6 MB	Capacity Unformatted
Capacity Formatted	80.1 MB	122.4 MB	121.1 MB	160.1 MB	121.1 MB	169.5 MB	Capacity Formatted
Per sector	512 bytes	512 bytes	512 bytes	512 bytes	512 bytes	512 bytes	Per sector
Sectors per track	17	26	35	35	36	36	Sectors per track
Data Transfer Rate	5 Mb/s	7.5 Mb/s	10 Mb/s	10 Mb/s	10 Mb/s	10 Mb/s	Data Transfer Rate
Seek Time (incl. settling)							SeekTime (incl. settling)
Track to track	5 ms	5 ms	5 ms	5 ms	5 ms	5 ms	Track to track
Average	28 ms	28 ms	28 ms	28 ms	28 ms	28 ms	Average
Maximum	60 ms	60 ms	60 ms	60 ms	60 ms	60 ms	Maximum
Functional Specifications							Functional Specifications
Recording density	9,840 bpi	14,760 bpi	16,969 bpi	19,247 bpi	19,443 bpi	19,443 bpi	Recording density
Track density	1,250 tpi	1,250 tpi	1,250 tpi	1,250 tpi	1,250 tpi	1,250 tpi	Track density
Cylinders per surface	1,314	1,314	1,024	1,276	1,314	1,314	Cylinders per surface
Platters	4	4	4	4	3	4	Platters
Read write heads	7	7	7	7	5	7	Read write heads
Servo heads	1	1	1	1	1	1	Servo heads
Recording code	MFM	RLL (2,7)	RLL (2,7)	RLL (2,7)	RLL (2,7)	RLL (2,7)	Recording code
Typical power dissipation	11 watts	11 watts	12 watts	12 watts	12 watts	12 watts	Typical power dissipation
Interface	ST506/412	ST506/412	ESDI	ESDI	SCSI	SCSI	Interface

GENERAL SPECIFICATIONS:

Reliability Specifications MTBF (typical usage) 40,000 poh Preventive maintenance none Component life 5 years Error rates Soft read errors 1 in 10 ¹⁰ bit read Hard read errors 1 in 10 ¹² bit read Seek errors 1 in 10 ⁶ seeks	Environmental Limits (operating) Ambient temperature 50° to 122°F (10° to 50°C) Relative humidity 8% to 80% non-condensing Wet bulb, maximum 78°F non-condensing (25.5°C) Altitude 0 to 10,000 ft. Vibration 5 to 13.77 Hz, .036 in. p-p 13.77 to 500 Hz, .35 G pk Shock 10 G, 11 ms	Mechanical Dimensions Height 1.625 in. Width 5.750 in. Length 8.000 in. Weight 4.4 lb.
Power Requirements DC voltage + 12 volts ± 5% @ 0.7A typical 1.6A starting + 5 volts ± 5% @ 0.5A typical	Environmental Limits (non-operating) Ambient temperature -40° to 140°F (-40° to 60°C) Relative humidity 8% to 80% non-condensing Wet bulb, maximum 78°F non-condensing (25.5°C) Altitude -1,000 to 40,000 ft. Vibration 5 to 14.77 Hz, .047 in. p-p 14.77 to 500 Hz, 5 G pk Shock 40 G, 11 ms	Safety Approvals UL, CSA, TUV
Average Latency 8.33 ms	DISTRIBUTOR:	

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