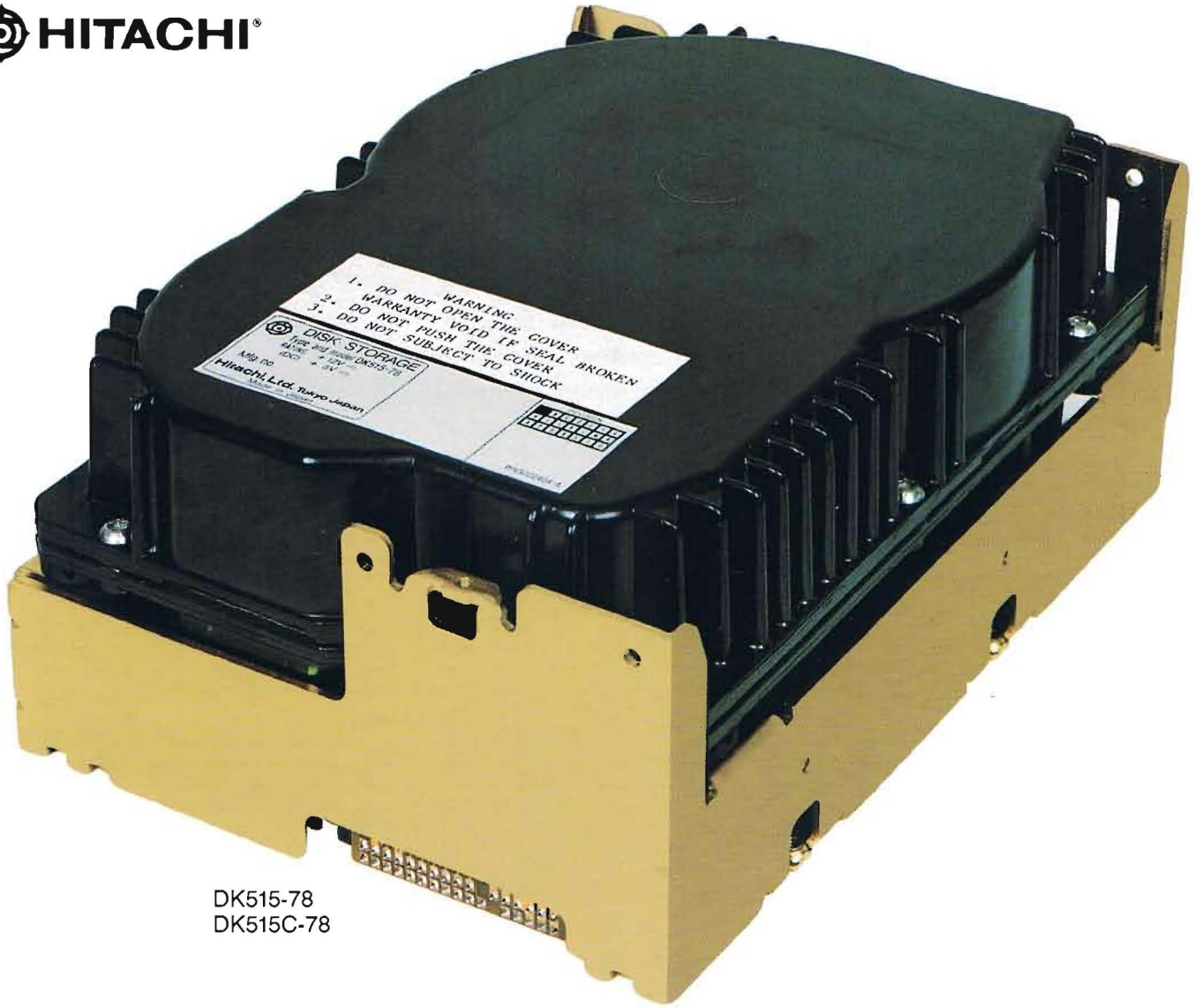
Winchester 5.25-inch Disk Drives

HITACHI®



DK515-78
DK515C-78

Winchester 5.25-inch Disk Drives

Ultra-High Capacity, 780-Megabyte Storage

The new DK515 series combines high storage capacity, super fast performance, and Hitachi's legendary reliability. Now Hitachi offers you a full 780 MB of storage in a compact, full-height 5.25-inch drive.

Design Features

Large Capacity, Fast Data Transfer.
Storage capacity of 780 Mbytes (unformatted) combines with a data transfer rate as fast as 2.46 Mbytes/sec. for state-of-the-art performance.

High Speed Access.
Advanced Hitachi technology has reduced average access time to an amazing 16ms.

Choice of Industry-Standard Interfaces.
The DK515-78 provides compatibility with ESDI or SCSI interfaces, for easy integration into a wide variety of systems.*

Outstanding Reliability.
In-house manufacturing of all key components gives a 40,000 hour MTBF, with unrecoverable error rates as high as 1 per 10^{14} bits read.

Maintenance-Free Operation.
The direct-drive DC motor is designed for continuous operation; no need for periodic parts replacement.

*E-SMD interface also available.

Specifications

Model			DK515-78	DK515C-78
Total Capacity	Unformatted		780 Mbytes	—
	Formatted		673 Mbytes	660.9 Mbytes
	Per Sector		512 Bytes	512 Bytes
Number of Sectors Per Track			69	69
Number of Cylinders			1,361	1,361
Number of Disks			8	8
Number of Heads	Data/Servo		14/1	14/1
Access Time (Nominal)	Average		16ms	16ms
	Maximum		40ms	40ms
	Minimum		4ms	4ms
	Average Latency		8.3ms	8.3ms
Disk Speed (rpm)			3,600	3,600
Recording Density (bpi)			40,210	40,210
Track Density (tpi)			1,296	1,296
Data Transfer Rate			2,458 Kbytes/Sec.	1,500 Kbytes/Sec. Max. (Async.), 4,000 Kbytes/Sec. Max. (Sync.)
Recording Method			2-7	2-7
Data Transfer Method			NRZ	NRZ
Interface			ESDI	SCSI
Dimensions	Height		82.5mm (3.25 in.)	82.5mm (3.25 in.)
	Width		146mm (5.75 in.)	146mm (5.75 in.)
	Depth		203mm (8.00 in.)	203mm (8.00 in.)
Weight			3.5 kg (7.7 lbs.) 3.8 kg (8.41 lbs.) Approx.	3.5 kg (7.7 lbs.) Approx.
Power Requirements			+12V±5% 2.0A (Average) 4.5A (Startup/Peak) +5V±5% 1.5A	+12V±5% 2.0A (Average) 4.5A (Startup/Peak) +5V±5% 1.6A (Max.) 1.2A (Average)
Environmental Conditions	Temperature	Operating	5°-45°C (41°-113°F)	5°-45°C (41°-113°F)
		Non-Operating	-20°-50°C (-4°-122°F)	-20°-50°C (-4°-122°F)
	Relative Humidity	Operating	8-80%	8-80%
		Non-Operating	8-90%	8-90%
	Shock	Operating	2G or Less	2G or Less
		Non-Operating	20G or Less	20G or Less
	Vibration	Operating	0.25G or Less	0.25G or Less
		Non-Operating	0.5G or Less	0.5G or Less
Reliability	Mean Time Between Failures (MTBF)		40,000 Power-On Hours	40,000 Power-On Hours
	Preventative Maintenance		Not Required	Not Required
	Mean Time To Repair (MTTR)		Less Than 15 Minutes	Less Than 15 Minutes
	Error Rates	Recoverable Errors	1 Per 10^{14} Bits Read	1 Per 10^{10} Bits Read
		Unrecoverable Errors	1 Per 10^{7} Bits Read	1 Per 10^{14} Bits Read
		Seek Errors	1 Per 10^{6} Seeks	1 Per 10^{7} Seeks

(The above specifications are subject to change without prior notice.)

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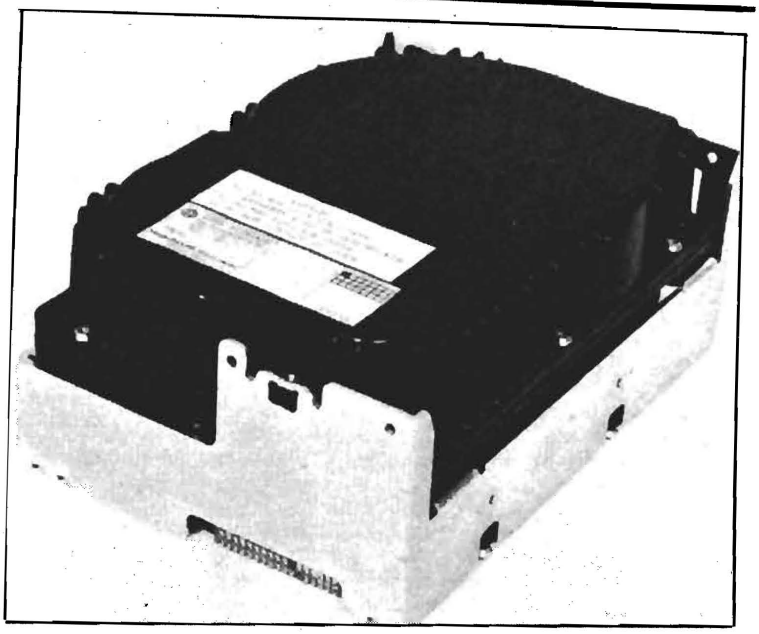

MEDIA SWAP: Hitachi has switched to thin-film disks for its latest Winchester drives.

Hitachi America Expands 5.25-Inch Winchester Line

SAN BRUNO, Calif. — Hitachi America Ltd. last week supplemented its 5.25-inch Winchester drive line with a 780MB capacity disk using thin-film sputtered media instead of metal-oxide.

Hitachi offered two versions of the drives, one with the Small Computer System Interface (SCSI) and the other with the Enhanced Small Device Interface (ESDI). They join the 5.25-inch 380MB-class Winchesters introduced last year by Hitachi (EN, June 15).

The DK515-78, a 780MB (673MB formatted) ESDI version of the drive, has a single-unit sample price of $3,100. The DK515C-78 SCSI version, with a formatted capacity of 660.9MB, is priced at $3,200 in OEM quantities of 100, Hitachi said.

The new drives feature an average seek time of 16 milliseconds, as does the earlier 380MB DK514. They use the same minimonolithic ferrite heads as the earlier drives but have an improved metalling gap, Hitachi said.

The drives use 8 platters of thin-film sputtered media, offer a 2.4MB/second data transfer rate and have a higher density of 40,207 bits per inch. Hitachi said both versions of the drives will be available in sample quantities by December, with volume shipments planned for next March.