

NEC FD1138H 3 1/2-Inch Low-Profile Floppy Disk Drive

Compact, lightweight, reliable
data storage – ideal for laptop
and notebook computers.

FEB 24 1994

- 1.44-MB formatted storage
- Weighs only 8.4 oz
- Measures only .75-inches high
- 26-pin or 34-pin interface
- Read/write compatible with 720-KB drives
- Consumes only .015 watts in standby mode
- 30,000 HR MTBF
- Available with 1" high Bezel



NEC

The FD1138H responds to industry demands for smaller, lighter, more reliable, and power-efficient storage devices.

The 3 1/2-inch floppy disk drive features 2 MB of unformatted storage as well as read/write compatibility with 1-MB drives. Only .75-inch high, the 8.4-oz drive weighs 45% less than a standard 1-inch microfloppy drive.

The FD1138H uses a linear stepper motor. This NEC-proprietary design features no rotating parts, increased

positioning precision, and low power consumption.

In addition to height and weight reduction, FD1138H power consumption is only 1.5 watts (W) in read/write mode. After 16 ms without a step pulse, the drive automatically enters stand-by mode where it uses just .015 W. For battery-powered systems, this is a perfect arrangement.

Integrating the floppy disk drive is easy with a choice between a 26- or 34-pin interface. A single 5-V power

line is included with the 26-pin interface cable. The 34-pin version requires a separate power cable.

A 30% reduction of mechanical parts in the FD1138H contributes to its increased reliability and shock resistance. The shock specifications are 5G operating and 40G non-operating.

The compact and power-efficient FD1138H weighs in as the ideal data storage solution for laptop and notebook computers.

FD1138H Disk Specifications

	720-KB Mode	1.44-MB Mode
Unformatted Capacity	1 MB	2 MB
Formatted Capacity	720 KB	1.44 MB
Data Transfer Rate (Kb/s)	250	500
Rotational Speed (rpm)	300	300
Recording Density		
Bit density (bpi)	8,717	17,434
Track density (tpi)	135	135
Number of tracks	160	160
Seek Time		
Track-to-track	3 ms	3 ms
Settling Time	15 ms	15 ms
DC Power Requirement	+5V	+5V
Power Dissipation (watts)		
Read/Write mode	1.5 W	1.5 W
Stand-by mode	.015 W	.015 W
Environmental		
Operating temperature	39° to 115°F (4° to 46°C)	39° to 115°F (4° to 46°C)
Non-operating temperature	-4° to 140°F (-20° to 60°C)	-4° to 140°F (-20° to 60°C)
Relative operating humidity	20% to 80%	20% to 80%
Non-operating humidity	10% to 90%	10% to 90%
Dimensions		
Height	.75 in. (19 mm)	.75 in. (19 mm)
Width	4.0 in. (101.6 mm)	4.0 in. (101.6 mm)
Depth	5.0 in. (127 mm)	5.0 in. (127 mm)
Weight	.485 lb (220 g)	.485 lb (220 g)
Reliability		
MTBF	30,000 POH	30,000 POH
MTTR	< 30 minutes	< 30 minutes
Device life	15,000 POH or 5 years	15,000 POH or 5 years

Information in this data sheet is subject to change without notice. For latest product information, call 1-800-NEC-INFO. In Canada, call 1-800-268-3997.

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