

NEC FD1158C 5 1/4-Inch Low-Profile Floppy Disk Drive

Energy-efficient, 1-inch high
data storage for smaller computers
needing 5 1/4-inch compatibility.

FEB 20 1993

- 1.2-MB formatted storage
- Weighs only 1.4 lb
- Measures only 1-inch high
- Standard floppy interface
- Read/write compatibility with 720-KB drives
- Consumes only 2.6 watts while operating; .4 watts in standby
- 30,000 HR MTBF

FFP 1 2 1993



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NEC's low-profile, 5 1/4-inch floppy disk drive offers compact, energy-efficient data storage for the latest downsized computer designs.

While operating, the FD1158C consumes only 2.6 watts (W), 46% less than a standard 5 1/4-inch drive. In stand-by mode, the drive uses only 0.4 W.

The drive's reduced height (1" instead of the standard 1.6") and weight (1.4 lb, 48% less) make it ideal for manufacturers designing small footprint systems.

To decrease the drive's size, micro-floppy features like head-positioning and media clamping mechanisms are incorporated in the FD1158C. The interface and power connectors are also the pin-header types found on microfloppy drives.

The head-positioning mechanism uses a miniature stepper motor and lead-screw actuator. At one end, the lead screw is attached to the motor shaft. At the other end, it is attached to the head-carriage assembly. As the motor turns, the lead

screw drives the carriage assembly. This space-efficient mechanism helps minimize drive size.

While decreasing size, weight, and power consumption nearly in half, the FD1158C still reads and writes to 5 1/4-inch diskettes using conventional interface control lines.

The FD1158C is a cost-effective, lightweight solution to the size and compatibility concerns of small footprint systems.

FD1158C Disk Specifications

	720-KB Mode	1.2-MB Mode
Unformatted Capacity	1 MB	1.6 MB
Formatted Capacity	720 KB	1.2 MB
Data Transfer Rate (Kb/sec)	250	500
Rotational Speed (rpm)	300	360
Recording Density		
Bit density (bpi)	5,922	9,870
Track density (tpi)	96	96
Number of tracks	160	160
Seek Time		
Track-to-track	3 ms	3 ms
Settling Time	15 ms	15 ms
DC Power Requirement	+5V, +12V	+5V, +12V
Power Dissipation (watts)		
Read/Write mode	2.6 W	2.6 W
Stand-by mode	.4 W	.4 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	1.0 in. (25.4 mm)	1.0 in. (25.4 mm)
Width	5.75 in. (146 mm)	5.75 in. (146 mm)
Depth	7.5 in. (190 mm)	7.5 in. (190 mm)
Weight	1.4 lb (670 g)	1.4 lb (670 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