

TEAC®

FD-235 SERIES

FD-235F / FD-235GF / FD-235HF / FD-235HG

MAR 12 1992

3.5-inch Micro Floppy Disk Drive

- Super slim, one-inch high design
- Low power consumption (Operating: 1.1 W)
- Operates on DC+5 V power
- A choice of models and interface types (TTL or CMOS) to match your system requirements: FD-235F (1MB), FD-235GF (1.6MB/1MB), FD-235HF (2MB/1MB), FD-235HG (2MB/1.6MB/1MB)
- Simplified mechanisms
- Long-life, precise, reliable brushless DD motor



Standard Bearers in Style and Performance

The FD-235 Series from TEAC provides outstanding performance in handsome, compact form. Each FDD stands just one inch in height, weighs only 350 grams, and is so efficient that it requires a mere +5V DC power supply.

TEAC gives you a choice of 1MB, 1.6MB or 2MB versions, as well as one versatile model that can operate at any of the 3 memory capacities. The FD-235 Series from TEAC—performance and style you can count on.

Now TEAC adds the next element in the evolution of the micro FDD. Elegance.

Simplified both mechanically and electronically, the compact FD-235 Series offers huge memory capacities despite being only a slim one-inch high and weighing only 350 grams. The improved design simplicity of the FD-235 Series results in rock-solid reliability and makes these micro FDDs the perfect choice for personal computers, word processors, etc.

Simplified Design

The new simplified design means that mechanical and electronic parts are extra reliable.

Compact Dimensions

Slim of the 3.5" FDDs, the mere one-inch high case means less weight and less bulk.

Low Power Consumption

TEAC combined efficient electronic circuits in custom LSIs with a high-performance drive motor to achieve low power consumption: only 1.1 W in operation (FD-235F).

Improved Reliability

The simplified mechanism with superior heat radiation capabilities reduces heat output and delivers highly precise, reliable operation.

Perfect for Laptops

No need for DC+12 V power. The lightweight FD-235 Micro FDDs run on a DC+5 V power source.

4 Versions to Choose From

Each model of the Series, which consists of the 1 Mbytes FD-235F, 1.6Mbytes FD-235GF and 2Mbytes FD-235HF/FD-235HG, can be purchased with either a TTL or CMOS interface.

3-Mode, Full-media-compatible Model

The FD-235HG enables your computer system to use a wide range of software since it is 1/1.6/2MB-compatible and, like the FD-235GF/FD-235HF, can read/write on up to 135tpi 1MB double-sided disks.

Highly Precise Motor

A long-lived, slim, and very reliable brushless direct drive motor is used.

A choice of bezel colors

In addition to the standard black bezel, PC/AT and PS/2 colored bezels are available.

Another option

A type in which the power source connector is installed within the interface connector is also available.

*IBM PC/AT and PS/2 are registered trademarks of the International Business Machines Corporation.

SPECIFICATIONS

Specifications of the TTL and CMOS interface types are the same.

Recording Method: FM or MFM

Media: High density (2HD) or normal density (2DD) 3.5-inch micro floppy disk

Motor Starting

Time: 480 msec or less

Average Latency

Time: 83.3 msec (360 rpm)

100 msec (300 rpm)

Index: 1/revolution, Detection interval:

166.7 msec (360 rpm)

200 msec (300 rpm)

MTBF: More than 30,000 hours

MTRR: 30 minutes or less

Error Rate: Soft read error: less than $1/10^9$ bits

Hard read error:

less than $1/10^{12}$ bits

Seek error: less than $1/10^6$ seeks

Safety Standards: Complies with UL, CSA and TÜV

Power

Requirements: DC +5 V $\pm 10\%$

(DC 12 V is not necessary)

Permissible ripple: less

than 100 mVp-p

Power

Consumption: FD-235F: TTL/CMOS Interface type

Standby:

15 mW typical

Read/Write:

1.1 W typical

Seek(3ms):

2.1 W typical

Dimensions:

101.6W x 25.4H x 145D (mm)

4" x 1" x 5.7" [approx.]

Weight: 350 g (0.77 lbs.) [typical]

Features and specifications are subject to change without notice.

			FD-235F		FD-235GF		FD-235HF		FD-235HG	
			High density	Normal density	High density	Normal density	High density	Normal density		
Data capacity (Kbyte)	Unformatted	Per disk	1,000	1,666.56	1,000	2,000	1,000	2,000	1,666.56	1,000
		Per track	6.25	10.416	6.25	12.50	6.25	12.50	10.416	6.25
	Formatted (512 byte/sector)	Per disk	737.28	1,228.80	737.28	1,474.56	737.28	1,474.56	1,228.80	737.28
		Per track	4.608	7.680	4.608	9.216	4.608	9.216	7.680	4.608
Data transfer rate (Kbits/sec.)		250	500	250	300	500	250	500	250	
Innermost track bit density (bpi)		8,717	14,528	8,717	17,434	8,717	17,434	14,528	8,717	
Innermost track flux density (frpi)		8,717	14,528	8,717	17,434	8,717	17,434	14,528	8,717	
Rotation speed (rpm)		300	360	300	360	300	360	300	360	
Tracks/disk		160								
Track density (tpi)		135								
Number of cylinders		80								
Track radius (mm)	Outermost							side 0: 39.500		
	Innermost							side 0: 24.6875	side 1: 23.1875	
Average access time (msec.) (includes settling time)		94								
Track to track time (msec.)		3								
Settling time (msec.)		15								

*Specifications apply when the MFM recording method is used.

