



# FMD-1 Floppy Media Disc System

## PRODUCT DESCRIPTION

The Floppy Media Disc System FMD-1 is a highly reliable low cost random access storage subsystem for use with Interdata's processor family. The basic single-disc subsystem provides formatted storage capacity of 256,256 bytes. When the system is expanded to full four-disc-drive capability, a capacity of more than 1 million bytes is provided.

With inexpensive, flexible diskettes, the FMD-1 provides a compact data interchange and software distribution medium for a variety of system applications.

The FMD-1 is IBM format compatible and is engineered for high data integrity at low cost. Diskette loading and unloading is made easy by a wide door opening and finger-tip control. High quality mechanical components ensure precise diskette alignment, ease of registration and damage free operation.

## FEATURES

- 256K Bytes Per Disc
- 128 Byte-Sector IBM Compatible Format
- Low Cost Diskette Media
- Up to 4 Drives Per Controller
- Multiplexor or Micro Bus Connection
- Full Software Support
- Write Protect
- Off-Line Formatting

## OPERATIONAL CHARACTERISTICS

The FMD-1 Floppy Media Disc is available in single- or dual-disc drive configurations with an overall expansion capability to four drives. The basic subsystem consists of one or two disc drives, a chassis capable of housing two drives, power conditioner for two drives and controller.

Each disc drive can handle one diskette with up to 256,256 bytes of formatted data. Disc drive MTBF is 5000 hours; ceramic head life at least 15,000 operational hours. Highly accurate uniball low friction head positioning assures positioning errors of less than one in  $10^6$  seek executions. Track-to-track movement is accomplished in only 6 milliseconds, full stroke in 462 milliseconds and 325 milliseconds average latency.

The controller is microprocessor based with complete control capabilities. Error control is extensive with automatic repositioning in the event of sector mismatch. Full-sector data buffering is provided and header and data integrity are assured with CRC methods. Status is always available to the operational software to maintain constant control but without overheads such as timing and positional control requirements. Sector and track boundaries are automatically crossed when transferring multiple sector blocks.

Controller-resident Auto Load capability allows FMD-1 diskette boot loading with single output command via the Auto Load feature of an Interdata processor. Diskettes can be automatically formatted with a unique format command to the controller without further direction from the processor.

The complete system is rack mountable in a standard Interdata cabinet or RETMA enclosure. When using the FMD-1 on the multiplexor bus of an Interdata processor, one-half I/O slot is required.

### SOFTWARE SUPPORT

The FMD-1 Floppy Disc System is fully supported by Interdata's wide range of software:

BOSS – Interdata's Basic Operating System  
OS/16 MT2 and OS/32 MT operating systems;  
FORTRAN; BASIC.

### SPECIFICATIONS

#### Capacity

Bit Density	3268 bits per inch (innermost track)
Cylinders	77
Tracks per Cylinders	1
Bytes per Sector	128
Sectors per Track	26
Formatted	256,256 bytes

#### Positioning Times

Track to Track	6 milliseconds
Full Stroke	462 milliseconds
Average Latency (full stroke)	325 milliseconds
Track to Track (Average Latency)	97 milliseconds
Average Latency (Track basis)	83 milliseconds

Rotation Speed	360 RPM
Data Transfer Rate	to 250K bytes per second

#### Dimensions

Height	10.5 inches (26.7 cm)
Width	19.0 inches (48.3 cm)
Depth	14.5 inches (36.8 cm)

#### Weight

Single Drive Unit	46 pounds (21 Kg)
Dual Drive Unit	60 pounds (27 Kg)

#### Power

Single	115VAC, 60 Hz, 3 Amps
	230VAC, 50 Hz, 1.5 Amps
Dual	115VAC, 60 Hz, 3.4 Amps
	230VAC, 50 Hz, 1.7 Amps

#### Environmental

Temperature	10° to 38° C
Humidity	20 to 80% no condensation

The information contained herein is intended to be a general description and is subject to change with product enhancement.

### INTERDATA PRODUCT NUMBERS

- M46-630** FMD-1 Flexible Media Single Disc System. Includes a 256KB disc drive, controller for up to four drives, power supply, chassis and cables. For use with multiplexor bus Interdata processors. 60 Hz.
- M46-631** FMD-1 Flexible Media Dual Disc System. Includes two 256KB disc drives, controller for up to four drives, power supply chassis and cables. For use with multiplexor bus Interdata processors. 60 Hz.
- M46-632** FMD-1 Flexible Media Single Disc System. Includes a 256KB disc drive, controller for up to four drives, power supply for two drives, chassis and cables. For use with microprocessor bus connection. 60 Hz.
- M46-633** FMD-1 Flexible Media Dual Disc System. Includes two 256KB disc drives, controller for up to four drives, power supply and cables. For use with microprocessor bus connection. 60 Hz.
- M46-634** FMD-1E Flexible Media Disc Expansion. Includes 256KB disc drive. For use as second or fourth drive. 60 Hz.
- M46-635** FMD-1E Flexible Media Disc Expansion. Includes a 256KB disc drive, power supply for up to two drives, chassis and cables. For use as third drive. 60 Hz.
- M46-636** Same as M46-630. 50 Hz.
- M46-637** Same as M46-631. 50 Hz.
- M46-638** Same as M46-632. 50 Hz.
- M46-639** Same as M46-633. 50 Hz.
- M46-640** Same as M46-634. 50 Hz.
- M46-641** Same as M46-635. 50 Hz.
- M46-462** Diskettes, package of 10.