



# Microdata Peripheral

## Series 6000 Magnetic Tape Units

Write or read with high precision and reliability at a practical price. That's what Microdata, the leader in microprogrammed minicomputers, offers in its new line of Magnetic Tape Units. *Precision* means error-free tape interchangeability with the most sophisticated IBM systems. *Reliability* means simplified design for trouble-free operation year after year.

### COMPATIBILITY

- Industry-compatible interface
- Four-unit daisy chaining
- No programming restrictions
- 7- or 9-track, one-half inch tape
- All standard densities and tape speeds
- 10.5 or 8.5 inch reel size
- Ac power from 47 Hz to 400 Hz



### DATA RELIABILITY AND PRECISION

- Automatic multi-level read thresholds
- Better data recovery from marginal tapes
- Head location and head guide spacing is identical to IBM systems
- Channel-by-channel electronic deskewing — method is the same as used in IBM systems

### FEATURES

- File protect, prevents accidental erase
- Automatic reel-seating hold-down hubs
- Automatic retracting buffer arms
- Controlled dynamic braking
- High-speed (200 ips) fast forward and rewind. File marks can be read at 200 inches per second.
- Loss of line (power fail) detector

### SOUND MECHANICAL DESIGN

- Tape transport is one-piece precision casting for rigidity, lightness and precision tape tracking
- Tape path alignment is in a single plane
- Simplified mechanisms to minimize moving parts — no belts or pulleys
- Blade-type tape cleaner located just ahead of read/write head
- Single capstan drive
- Ceramic edge guides
- Fewer modules to minimize electrical connectors
- Vertical, hinged transport chassis for ease of maintenance
- Quiet running
- Gentle tape unload

## INNOVATIVE ELECTRONIC DESIGN

- Speed (including rewind) is encoder-controlled for excellent short- and long-term stability
- Light-emitting diodes (LED) used in place of incandescent lamps for longer life. Also used in the EOT/BOT sensor.
- Low-voltage front panel power switch
- Photo diode isolation between data electronics and servo electronics
- All electronics are contained on three circuit boards

## SPECIFICATIONS

Tape Speeds . . . . . 12.5 to 45 IPS  
Data Transfer Rate . . . 72K Characters/second @ 1600 BPI  
Number of Tracks and Densities:  
7-track IBM . . . . . 200, 556, or 800 BPI, NRZ1  
9-track ASCII . . . . . 800 BPI, NRZ1, or 1600 BPI, P.E.

Rewind and Fast Forward Speed . . . . . 200 IPS

Skew . . . . . 150 microinches maximum

Write-To-Read Crosstalk . . . . . 5% maximum of normal read signal

Read-To-Read Crosstalk . . . . . 5% maximum of normal read signal

### Read Thresholds:

Read After Write . . . . . 40% of nominal full output  
Read Only . . . . . 20% of nominal full output  
Remote, Program Selectable . . . . . 12% of nominal full output

Start/Stop Times (seconds) . . . . . 0.370 divided by tape speed in IPS

Start/Stop Distance . . . . . 0.190 inch  $\pm$ 0.02 inch

### Tape Speed Stability:

Instantaneous . . . . .  $\pm$ 1%  
Long-Term . . . . .  $\pm$ 0.5%

### Tape Size:

Width . . . . . One-half inch  
Thickness . . . . . 1.5 mils

Reel Diameter . . . . . 10.5 or 8.5 inches

Tape Tension . . . . . 8 ounces  $\pm$ 0.5 ounce

### Environmental:

Temperature Range . . . . . 32° to 131°F  
Relative Humidity . . . 5% to 95%, without condensation

### Power Requirements:

Voltage . . . . . 115/230 Vac  
Frequency . . . . . 47 Hz to 400 Hz

Logic Levels . . . . . 0 to +5 volts, DLT/TTL compatible

Weight . . . . . 125 pounds maximum

Mounting . . . . . Mounts in standard 19-inch rack



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