MPI Flexible Disk Series B51
Designed for Original Equipment Manufacturers

FEATURES:
• Band-Driven
• Highest Accuracy Positioning
• Double Density
• High Performance
• Hard or Soft Sectoring
• Single Electronics Card
• Automatic Diskette Position and Ejection
• Single Supply Voltage
• Industry Compatible (SA 400)
• Attractive Versatile Styling

The MPI Series B51 is a fast access, high reliability, high accuracy micro-sized flexible disk drive. It uses a band-driven design concept similar to IBM and is industry compatible.

The B51 is very small. Its dimensions are only 3.25 x 5.75 x 7.50 inches and it weighs only 3.0 pounds. It is perfect for virtually any microcomputer application. And at the most attractive price available.

Highest Data Capacity for Micros MPI offers the highest data capacity available for industry compatible micros. Up to 249.4K bytes for a 40-track double density drive with single side recording. 109.4K bytes on 35 tracks is standard. With 40 tracks, 124.7K bytes are available. The drives use MFM, FM, M²FM and GCR encoding techniques.

Fastest Access The new Series B51 offers the fastest access in its class. 75 milliseconds for 15 tracks. And that's about 5 times faster than its nearest competition. The band-drive design allows the head to be moved at a very fast rate. And the drive is friction-free. Data is transferred at 125K bps in FM encoding and 250K bps for double density.

High Accuracy Positioning With the MPI design approach, the B51 has extremely high positioning accuracy. Because only the diameter of the pulley determines accuracy.

Automatic Diskette Position and Ejection With this unique feature, the operator just pushes in the diskette and closes the door — the diskette is positioned automatically. For ejection, the operator just pushes the automatic ejector button and the diskette pops out.

Standard Media MPI micro disk drives uses standard 5.25-inch diskettes that are available from any number of manufacturers and MPI. Media life is projected at $3 \times 10^6$ passes per track.

The drives are designed to be modular. Their attractive styling can accommodate a range of colors. The front bezel is removable and can easily be changed to meet OEM requirements.

Applications A growing number of applications are suited to the B51. The small size and low cost makes it a perfect replacement for cassettes ... in systems such as word processing, small business computers, intelligent terminals.
Physical Specifications
Height .................. 3.25 in.
Width .................. 5.75 in.
Length .................. 7.5 in.
Weight .................. 3.0 lbs.

Operating Attitudes
Vertical, front load;
Vertical, top load;
Horizontal, front load

Media Requirements
MPI Diskette 50 or equivalent
5.25 in. sq. x 0.075 in. thk.
Soft or Hard Secteded

Environmental Specifications
Ambient Temperature
(operating) ........... 50 to 105°F
Relative Humidity ........... 20 to 80%

Electrical Specifications
D.C. Power ............ +12 Volts DC, ±5%
Optional ............... +5 Volts ± 5%, 0.8 Amps
Typical Power .......... 15 Watts Operating
Dissipation ............ 6 Watts Standby

Reliability Specifications
MTBF ..................... 10,000 Hours
MTTR ..................... 0.5 Hour
Media Life ............... 3 x 10⁶ Passes Per Track
Design Life ............. 5 Years
Data Integrity
Soft Errors ............... 1 per 10⁸ Bits Read
Hard Errors ............... 1 per 10¹⁰ Bits Read
Seek Errors ............... 1 per 10⁶ Seeks
Preventive Maintenance .... None

Performance Specifications
Capacity; Single Density, Unformatted:
Per Disk ................... 1 M Bits
Per Track .................. 25 K Bits
Recording Density .......... 2580 BPI
Flux Density ............... 5160 FCI

Double Density, Unformatted:
Per Disk ................... 2 M Bits
Per Track .................. 50 K Bits
Recording Density .......... 5160 BPI
Flux Density ............... 5160 FCI
Track density ............. 48 TPI
Tracks ...................... 40
Physical Sectors .......... 1,10 or 16
Rotational Speed ........... 300 RPM ±1%
Average Latency ........... 100ms
Transfer Rate ..............
FM Encoding ............... 125K Bits/Sec
Double Density ............ 250K Bits/Sec
Access
Track to Track ........... 5ms
Average ................... 75ms
Settle ..................... 15ms
Head Load Time ........... 35ms
Power Up Delay ........... 1 Sec

SIGNAL INTERFACE

HOST SYSTEM

SERIES 851

TRANSMISSION SYSTEM

SN7438

SN7414

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