MICRO PERIPHERALS INC. B51/B52

HIGHEST DATA CAPACITY DOUBLE DENSITY DUAL HEADS FASTEST ACCESS SIMPLICITY IN DESIGN



Industry Standard • Single or Dual Sided Single or Dual Density • Fast Access 5.25 inch Flexible Disk Drive **MIGHTY MINI**

SINGLE SIDED, 5.25 INCH FLEXIBLE DISK DRIVE

HIGHEST DATA CAPACITY

The MPI B51 Mighty Mini is a compact, 5¼" flexible disk drive designed to handle both single and double density data storage. The Mighty Mini will accommodate FM, MFM, M²FM or GCR encoding techniques and by utilizing double density recording, store up to 250K bytes of data on a single side.

HIGH ACCURACY POSITIONING

The pulley-band design offers extremely high positioning accuracy. Due to the almost nonexistent friction and high temperature stability, on-track repeatability is guaranteed over the life of the drive.



AUTOMATIC DISKETTE POSITIONING AND EJECTION

One of the critical areas for any floppy disk is the media handling. A unique door/ejection mechanism assures the user the best media handling available. On inserting the media the dual purpose ejector mechanism exactly positions the media over the spindle hub. When closing the door, the media is guaranteed a clean, dustfree environment. Upon releasing the door button, the media is ejected to a position making the media removal convenient for the operator.

FASTEST ACCESS

The Mighty Mini's exclusive band-positioning design sets an industry standard for fast and accurate positioning. Track to track access time is only five (5) milliseconds, which is more than twice as fast as the nearest competitor.

APPLICATIONS

The B51/52 Mighty Mini offers the system user a highly reliable, random access storage device, which greatly enhances system reliability and through put. Used as a program input device or daisy chained for maximum storage capacity, the application ranges from Word processing Text Editing to the personal computer system market.



DOUBLE SIDED, 5.25 INCH FLEXIBLE DISK DRIVE

DUAL HEADS

The MPI B52 Super Mini, doubles the storage capacity of the B51. The addition of a second head gives the system direct access to 500K bytes of data, without going through a cumbersome media-flip operation. The head design approach, which is superior in the 5" floppy market, was based on an IBM compatable design, and far exceeds the data reliability specifications commonly quoted in the industry.

DESIGN COMMONALITY

The Mighty and Super Mini Flexible disk drives share the same basic components. The difference between the two products is the Read/ Write head assembly. This commonality in design and components assures ease of manufacturing, which in turn means higher reliability and lower cost. This, coupled with the commonality in spares inventory, is a direct cost effective technique which is passed on to the user.



PRODUCT GROWTH

The natural system growth is to steadily increase storage capacity and transfer rate. MPI offers the systemdesigner an opportunity to expand performance with a minimum change in hardware configuration. Tailor your system requirements from the adjoining chart.

	Single Density	Double Density
B 51	124.7k	249.4k
B52	249.4k	498.8k



PHYSICAL DIMENSIONS

Height	3.25 in
Width	5.75 in
Length	7.50 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 Sectored

ENVIRONMENTAL SPECIFICATIONS

Ambient Temperature

(operating)	40° to 110°F
Relative Humidity	20 to 80%

ELECTRICAL SPECIFICATIONS

D.C. Power	+12 Volts \pm 5%, 1.2 Amp
	+ 5 Volts ± 5%, 0.7 Amp
Typical Power	15 Watts Operating
Dissipation	6 Watts Standby

RELIABILITY SPECIFICATIONS

MTBF		10,000 Hours
MTTR		0.5 Hour
Media Life		3x10 ⁶ Passes/Track
Design Life		5 Years
Data Integrity:		
Soft Errors		1 per 10 ⁸ Bits Read
Hard Errors		1 per 1011 Bits Read
Seek Errors	_	1 per 10 ⁶ Seeks
Preventive Mai	nten	ance-None

SIGNAL INTERFACE

	12 RETURN 5 RETURN +5 V	1 2 3 4	
	+12 V	12	
and the second	SPARE SPARE	32	
	READ DATA	30	影響改進南
Sales Shire	WRITE PROTECT	20	
	TRACK 00	24	
	WRITE GATE	22	
SYSTEM	WRITE DATA	20	51/52
HOST	DIRECTION	18	SERIES
1944 - 1810 S.	MOTOR ON	16	
- 10 K 12 5 2	SELECT 3	$\frac{12}{14}$	
	SELECT 2	10	
	SELECT 1	8	
	INDEX/SECTOR	6-	(B52only)
	SPARE	4	
	SPARE		

CAPACITY; SINGLE DENSITY, UNFORMATTED:

Per Disk (B51)	.124.7K bytes
Per Disk (B52)	.249.4K bytes
Per Track	.6.25K bytes
Recording Density	.2590 BPI
Flux Density	.5160 FCI

FORMATTED B51

18 Sectors @ 128 bytes/sector ...184.3K bytes 10 Sectors @ 256 bytes/sector ...204.8K bytes

CAPACITY; DOUBLE DENSITY, UNFORMATTED:

249.4K bytes
498.8K bytes
12.5K bytes
5160 BPI
5160 FCI

FORMATTED B52

18 Sectors @ 128 bytes/sector ...368.6K bytes 10 Sectors @ 256 bytes/sector ...409.6K bytes

Track Density	48 TPI
Tracks	
Physical Sectors	1, 10 or 16
Rotational Speed	
Average Latency	100 ms
Transfer Rate:	
FM Encoding	125K Bits/Sec
Double Density	
Access:	
Track to Track	5 ms
Average	75 ms
Settle	15 ms
Head Load Time	35 ms
Power Up Delay	1 Sec

TRANSMISSION SYSTEM





21201 Oxnard Street Woodland Hills, Ca. 91367 (213) 999-2870