

2 1/2-INCH TRAVELSTAR LP*
360, 540 and 720 MB
LOW PROFILE DISK DRIVES
MODELS DBOA-2360, -2540, -2720

AN OEM OFFERING FROM IBM

IBM's new Travelstar LP family of low-profile 2.5-inch drives packs 360 MB, 540 MB, or 720 MB of data into a slimline 12.5 mm high package weighing only 140 grams. This family brings desktop-level compatibility to professional users of notebook and sub-notebook computers with capacities that are ideal for running storage-intensive applications and storing complex spreadsheets, sophisticated communications programs and graphics data sets.

These lightweight disk drives use IBM's advanced Magneto-Resistive (MR) head technology to increase the amount of data stored per disk surface, reduce the number of disks and heads, and create an inherently more reliable design. MR head technology, combined with IBM's No-ID* sector formatting and advanced encoding schemes, produces enhanced performance and value with outstanding reliability. The DBOA-2720 model offers almost twice the capacity of other 12.5 mm drives currently on the market.

To ensure data integrity in transport, Travelstar LP drives undergo extensive testing and will withstand 100 Gs of operating shock and non-operating shocks of 500 Gs--the highest in the industry. In addition, these drives are engineered to withstand over 52,000 contact start-stop cycles, and maintain over 300,000 poh MTBF. Conformance to the mounting standards of the Manufacturers Compatibility Committee (MCC) and a standard AT* interface makes integration easy.

The Travelstar LP family features an average access time of 13 ms and incorporates advanced power management circuits to minimize current draw--a critical consideration in battery-powered mobile computing systems.

QUALITY AND RELIABILITY

All IBM drives are manufactured to stringent standards for quality and performance, with sensitive components assembled in a rigidly controlled, clean environment.

Extensive quality control and testing procedures are used throughout the manufacturing process to assure product reliability and data integrity. Worldwide IBM manufacturing facilities provide multisite, high-volume production capability.

HIGHLIGHTS

- 360, 540 and 720 MB capacity
- Only 12.5mm high
- 500 Gs non-operating shock

- 100 Gs operating shock
- MR head technology
- No-ID* sector formatting
- ATA-2 (IDE) interface)
- 11.1 MB/sec data rate
- 13 ms average seek
- 4000 RPM
- 300,00 poh MTBF
- Low power for extended notebook battery life
- MCC Compliance

PRODUCT DESCRIPTION

2 1/2" Travelstar LP 360, 540 and 720 MB Disk Drives	DBOA-2360/ -2540/ -2720
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Configuration

Interface	ATA-2 (IDE)
Device Capacity	
Formatted	360/540/720 MB(1)
Sector Size	512 Bytes
Recording Zones	8
User Cylinders	3478
Data Heads	2/3/4
Disks	1/2/2
Areal Density	
Maximum	644 Mb/sq in
Recording Density	
Maximum	101,400 BPI
Track Density	6350 TPI

Performance

Rotational Speed	4000 RPM
Media Data Rate	26.9 (Inner), 39.5 (Outer) Mbits/sec
Interface Transfer Rate	
Maximum (AT only)	11.1 MB/sec (P10 Mode 3)
Data Buffer	
Read Look-Ahead and Write	32 KB (read) 32 KB (write)
Latency	
Average	7.5 msec
Seek Time (Typical Read)	
Average (Read)	13 msec
Track to Track	4 msec
Full Track	23 msec

Reliability

MTBF	
Projected power-on hours	300,000
Contact Start-stop Cycles	52,000

Power

Requirements	+5 VDC plus or minus 5%,
Dissipation (typical)	
Start Up (Maximum Peak)	0.93 Amps
Seek	2.3 Watts
Read/Write	2.3 Watts
Idle	0.95 Watts
Standby	0.3 Watts
Sleep	0.1 Watts

Physical Size

Height	12.5 mm
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Width	70 mm
Depth	100 mm
Weight	
Maximum	140 g

	Operating	Non-Operating
Environmental Characteristics		
Ambient Temperature	5 to 55 degrees C	-40 to 65 degrees C
Relative Humidity		
Non-Condensing	8% to 90%	5% to 95%
Maximum Wet Bulb		
Non-Condensing	29.4 degrees C	40 degrees C
Shock		
Half-sine-wave	100 G/2 msec	500 G/2msec
Vibration		
Random (RMS)	0.67 G (5-500 Hz)	1.04 G (2-200 Hz)

(1) 1 MB=1,000,000 Bytes

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