

2.5-Inch Travelstar XP 810 MB and 1.2 GB Disk Drives

Models DPRA-20810 DPRA-21215
DPRS-20810 DPRS-21215

The new Travelstar XP drive delivers the highest capacity in a 2.5-inch form factor. Available in 1.2 GB, an 810 MB configurations, the drive was developed to offer the enhanced performance and value required for notebook applications demanding fast access to large amounts of data. Multimedia applications, for example, are increasingly run on notebook systems. The Travelstar XP drive provides the capacity and performance points needed to run in this emerging environment.

The drive achieves its high capacity by using the industry-leading Magneto-Resistive (MR) head and No-ID tm sector format technologies developed by IBM. The MR head increases the amount of data stored per disk surface, reduces the number of disks and heads required for a given capacity, and creates an inherently more reliable design. No-ID sector format increases storage capacity by storing the information necessary to find the exact location of desired data on the disk in solid state memory instead of on the disk itself.

For multimedia applications, portability and reliability are no longer the sole factors considered in the selection of notebook computer--high performance and capacity are now major considerations as well. The Travelstar XP drive addresses this by providing an average access time of 12 ms, and media transfer rates of 36.3 - 57.0 Mbits/sec. The drive features 4900 RPM while maintaining a low power dissipation. Travelstar XP drives achieve this by incorporating advanced power management electronics to minimize current draw--a critical consideration in battery-powered mobile computing systems.

To ensure data integrity in transport, Travelstar XP drives undergo extensive testing and will withstand 100 Gs of operating shock and non-operating shocks of 300 Gs. In addition, these drives are engineered to withstand over 52,000 contact start-stop cycles, and offer over 300,000 power-on hours MTBF.

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 ensure product reliability and data integrity.

Highlights

- - 1215 and 810 MB capacity
- 300 Gs non-operating shock
- 100 Gs operating shock
- 11.1 MB/sec (PIO Mode-3) AT interface transfer rate
- 10.0 MB/sec SCSI-2F interface transfer rate

- MR Head technology
- No-ID sector formatting
- ATA-2 (IDE) and Fast SCSI-2 interfaces
- 12 ms average seek
- 300,000 poh MTBF
- Low power for extended notebook battery life
- MCC Compliance

Product Description

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2.5-inch Travelstar XP 810 MB and 1.2 GB Disk Drive      DPRA-20810,-21215
                                                         DPRS-20810,-21215
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Configuration

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Interface                ATA-2(IDE) / Fast SCSI-2
Device Capacity          Formatted      810/1215MB1
Sector Size              512 Bytes
Recording Zones          8
User Cylinders           3478
Data Heads               4/6
Disks                    2/3
Areal Density            700 Mb/sq.i
Recording Density        110,300 BPI
Track Density            6350 TPI
    
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Performance

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Rotational Speed        4900 RPM
Media Transfer Rate     36.3(Inner)57.0(Outer) Mbits/sec.
Interface Transfer Rate Maximum (AT)  11.1 MB/sec (PIO Mode-3)
                        Maximum (SCSI) 10 MB/sec (sync)
Data Buffer              Read Look-Ahead 64 KB (read & write
                        and Write      segmented buffer)
Latency                 Average          6.1 ms
Seek Time(Typical Read) Average (Read) 12 ms
                        Track to Track  4 ms
                        Full Track     23 ms
    
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Reliability

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MTBF2                   Power-on hours 300,000
Error Rates              Non-recoverable 1 per 1.OE13 Bits Transfer
    
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Power

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Requirements            +5VDC+-5%
Dissipation (typical)   Start Up          0.94 Amps
                        (Maximum Peak)
Seek (Average)          2.6 Watts
Read/Write              (Average)
                        Idle (Average)  1.35 Watts
Standby (Ave)           0.3 Watts
Sleep                   0.1 Watts
    
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Physical Size

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Height                  17mm
Width                   70mm
Depth                   100mm
Weight                  Maximum 186g
    
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Environmental Characteristics

Operating Non-Operating

Ambient Temperature		5 to 55C	-40 to 65 C
Relative Humidity	Non-Condensing	8 to 90%	8% to 95%
Maximum Wet Bulb	Non-Condensing	29.4C	40 C
Shock	Half-sine-wave	100 G/2 msec	300 G/2 msec
Vibration	Random(RMS)	0.67G (5-500z)	1.04 G (2-200Hz)

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1MB=1,000,000 Bytes
2MTBF Definition Available Upon Request

This is one of many storage product offerings from IBM.

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For further information about this product, please call:
1-800-IBM-3333, Department Star 30.

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