

A new benchmark for ultra-portable mobile hard disk drive capacity, performance, and quality



IBM Travelstar 6GN Hard Disk Drive

Highlights

An industry-leading areal density of 5.7 Gbits/sq. inch and capacities of 6.4 GB, 4.8 GB, and 3.2 GB enable users to store and access the high volumes of data demanded by Internet, video, and multimedia applications.

The Travelstar* 6GN provides excellent performance, fast data rates, high RPM (4200), a 512 KB data buffer, and an interface transfer rate of 33.3 MB/sec.

Drive Fitness Test* (DFT), an innovative IBM technology, helps reduce end-user disruption and the expense of disk drive replacement.

The industry's best nonoperating shock rating of 700 G/1 ms and an operating shock rating of 150 G/2 ms help provide exceptional ruggedness.

Enhanced Adaptive Battery Life Extender* 3.0 power management technology selects the appropriate mode to help minimize power usage and increase battery life.

Industry's lightest 6.4 GB hard disk drive

The Travelstar 6GN demonstrates IBM leadership in the mobile hard disk drive market. Giant magnetoresistive (GMR) head technology increases areal density, reducing the number of disks and heads required to provide each capacity point. The results are greater storage capacity and the industry's lightest 6.4 GB hard disk drive.

Quality leadership

As a member of the Travelstar family, the Travelstar 6GN shares proven common components with the Travelstar 10GT and the Travelstar 14GS—PCBA, microcode, head, slider, and disks. The use of common components, combined with advanced design and state-of-the-art manufacturing, provides superior quality drives and reduces overall cost of ownership.

Time-to-market advantage

The Travelstar 6GN enables ultra-portable notebook manufacturers to quickly bring to market 6 GB capacity while providing industry-leading performance, power management, and shock resistance to notebook users.

IBM support and service

The Travelstar 6GN is backed by an array of IBM technical support and services. This support package is designed to help ensure that IBM customers can easily integrate the Travelstar 6GN into their design and quickly develop and manufacture high-quality, cost-effective systems.



Travelstar 6GN 2.5-inch 9.5 mm hard disk drive

IBM Travelstar 6GN at a glance**DBCA-206480/204860/203240****Configuration**

Interface	ATA-4
Capacity (GB)	6.4/4.8/3.2
Sector size (bytes)	512
Recording zones	12
User cylinders	11,648
Data heads	4/3/2
Disks	2/2/1
Areal density (max Gbits/sq. inch)	5.7
Recording density (max KBPI)	286.1
Track density (TPI)	19,900

Performance

Data buffer (KB)	512 ¹
Rotational speed (RPM)	4200
Latency (average ms)	7.1
Media transfer rate	69.0-118.0
Interface transfer rate (MB/sec)	33.3 MB/sec Ultra DMA mode-2, 16.6 MB/sec PIO mode-4
Seek time	
Average (ms)	13
Track-to-track (ms)	2.5
Full-track (ms)	23

Reliability

Error rate (non-recoverable)	< 1 per 1.0 E 13 bits transferred
Load/unload cycles	300,000

Power

Requirement	+5VDC(±5%)
Dissipation (typical watts)	
Startup (max peak)	4.7
Seek (average)	2.3
Read (average)	2.0
Write (average)	2.1
Performance idle (average)	1.85
Active idle (average)	0.85
Low power idle (average)	0.65
Standby (average)	0.25
Sleep	0.1
Power consumption efficiency (watts/MB)	0.00010/0.00014/ 0.00020

Physical size

Height (mm)	9.5
Width (mm)	70
Depth (mm)	100
Weight (g)	99

Environmental characteristics**Operating/nonoperating**

Ambient temperature	5 to 55° C/-40 to 65° C
Relative humidity (noncondensing)	8% to 90%/5% to 95%
Maximum wet bulb (noncondensing)	29.4° C/40.0° C
Shock (half sine wave)	150 G/2 ms / 700 G/1 ms
Vibration (random [RMS])	0.67G (5 to 500 Hz)/3.01G (5 to 500 Hz)
(swept sine)	1G 0-P (5 to 500 Hz)/NA

Drive Fitness Test (DFT)

Enabled

¹ Upper 92KB used for firmware.**Contact IBM**

Internet and e-mail:

- www.ibm.com/harddrive
- drive@us.ibm.com

IBM TECHFAX fax document server:

- 408-256-5418
(requires touch-tone phone)
- International customers must call from a fax machine

IBM hard disk drive product information:

- 1 888-IBM-5214 (United States)
- 507-253-4110 (outside of the United States)

**www.ibm.com/harddrive**

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