HGST
a Western Digital brand

Travelstar® 7K1000

Highlights

- Up to 1TB[1] of capacity
- Advanced Format, industry standard 4K sector size
- 512 byte emulation (512e)
- 7200 RPM high-performance HDD
- 6Gb/s SATA interface
- Low power consumption
- Halogen-free for eco-friendly design
- Self-encrypting models for data security (AES256)
- Enhanced-availability (EA) models for applications needing around-the-clock access in lower-transaction environments

Applications/ Environments

- Notebook PCs
- External storage
- Compact desktop PCs
- Gaming consoles
- Small-form-factor video devices
- Network routers (EA)
- Video surveillance (EA)

1TB and 750GB | 7200 RPM
SATA 6Gb/s

High Performance and High Capacity for Mobile Platforms

Travelstar® 7K1000 is the industry's only seventh-generation 7200 RPM mobile hard drive and ideally suited for notebook PC upgrades and portable, high-capacity personal storage products. At 500GB/platter, this 2.5-inch hard drive offers up to 1TB capacity and leverages Advanced Format, which increased the physical sector size from 512 bytes to 4,096 (4K) bytes to improve drive capacities and error correction capabilities. The Travelstar 7K1000 is the industry's first high-performance 1TB 2.5-inch HDD with a 6Gb/s SATA interface and delivers the highest mobile HDD performance in PCMark© Vantage benchmark testing.

HGST provides best-of-breed operating shock and outstanding power management in Travelstar 7K1000 for sturdy unplugged notebook performance. Highlights include proven seventh-generation technology, 1TB capacity, low power consumption, industry's highest shock tolerance, halogen-free design for an eco-friendly footprint and Serial ATA 6Gb/s for high data throughput. Some models offer HGST Bulk Data Encryption, delivering a self-encrypting drive (SED) with hardware-based data security. These SED models provide one of the highest levels of data protection available (AES256).

The Travelstar 7K1000 allows manufacturers to deliver high-capacity, power-efficient systems with desktop-like performance. Manufacturers can consult the HGST Advanced Format Technology Brief for more information on using these hard drives. Travelstar 7K1000 delivers speed and capacity, without sacrificing battery life or audio quality, to meet the multi-tasking demands of commercial and consumer users on the go.

Enhanced Availability (EA)—for 24x7 Access to Data

HGST provides enhanced availability models of the Travelstar 7K1000 that allow 24x7 access to data to support applications that require around-the-clock operation. The 7K1000 provides high capacity, durability and low power utilization on a proven platform for quality and reliability. EA models support the stringent demands of "always-on" application in lower-transaction environments.

Features and Benefits

	Feature / Function	Benefits
Capacity	Up to 1TB storage	Up to 250 hours of high-definition video, 1000 hours of standard video, 350 movies, 250,000 4-min songs or 500 games*
Performance	Up to 1284Mb/s media transfer rate	Faster downloads and better application performance than 5400 RPM models at same capacity
Power	1.8W read/write power 08W low power idle	Low energy use and long battery life for more "unplugged" notebook time
Reliability	• 400G operating shock • 1000G non-operating shock	Best protection against bumps and rough handling
	• Thermal Fly-height Control (TFC)	Better soft error rate for improved reliability
	• TrueTrack™ technology	Tracking accuracy in high shock or vibration environments
Acoustics	Quiet acoustics	Richer audio-listening experience for music, movies and games
Interface	SATA 6Gb/s	High data throughput
Security Option	Bulk Data Encryption (AES256)	Helps guard against data theft

* Actual storage may vary depending on the compression rate applied. Capacities may not be combined.

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Specifications

		Standard Models	EA Models
Model / Part No.	1TB	HTS721010A9E630 / 0J22423 HTS721010A9E631 / 0J22428	HTE721010A9E630 / 0J30573
	750GB	HTS721075A9E630 / 0J22422 HTS721075A9E631 / 0J22427	
Configuration			
Interface		SATA 6Gb/s	←
Capacity (GB)[1]		1TB / 750GB	1TB
Sector size (bytes)[2]		512e	←
Recording zones		30	←
Areal density (max, Gbit/sq.in.)		676	←
Performance			
Data buffer (MB)[3]		32	←
Rotational speed (RPM)		7200	←
Latency average (ms)		4.2	←
Media transfer rate (max, Mbits/sec)		1284	←
Interface transfer rate (MB/sec)		600	←
Seek time			
Average (typical) ms (read)[4]		12	←
Track to track (typical) ms (read)		1	←
Full stroke (typical) ms (read)		20	←
Reliability			
Load/Unload cycle		600,000	←
Power on hours (POH) per month		N/A	730
Availability[5]		N/A	24x7
Power			
Requirement		+5VDC (+-5%)	←
Dissipation			
Startup (W, peak, max)		5.5	←
Seek, (W, avg.)		2.1	←
Read/Write, (W, avg.)		1.8	←
Performance idle, (W, avg.)		1.7	← Idle (W, avg.)
Active idle, (W, avg.)		1.0	N/A
Low power idle, (W, avg.)		0.8	N/A
Standby, (W, avg.)		0.2	←
Sleep (W)		0.1	←
Physical size			
Height (max, mm)		9.5	←
Dimensions (width x depth, mm)		70 x 100	←
Weight (max, g)		115	←
Environmental (operating)			
Shock (half-sine wave)		400G/2ms, 225G/1ms	←
Ambient temperature		0° to 60° C	←
Environmental (non-operating)			
Shock (half-sine wave)		1000G/1 ms	←
Ambient temperature		-40° to 65° C	←
Acoustics (A-weighted sound power)			
Idle (typical, Bels)		2.5	←
Seek (typical, Bels)		2.7	←

HGST Quality and Service

HGST Travelstar hard disk drives are designed to the highest quality standards and contain field-proven components. HGST provides worldwide technical support and integration services to enable global customers to bring their products to market quickly.

How to read the Travelstar model number

HTS721010A9E630 = 1TB, SATA 6Gb/s
H = HGST
T = Travelstar
S = Standard (E = EA)
72 = 7200 RPM
10 = Full capacity — 1TB
10 = Capacity this model, 10 = 1TB
(75 = 750GB)
A = Generation code
9 = 9.5mm z-height
E6 = SATA 6Gb/s with 512 emulation
3 = 32MB cache
0 = No encryption (1 = Bulk Data Encryption)

[1] One GB is equal to one billion bytes when referring to hard drive capacity. Accessible capacity will vary depending on the operating environment and formatting.
[2] Advanced Format drive: 4K physical sectors with 512 byte emulation
[3] Portion of buffer used for firmware
[4] Excludes command overhead
[5] Designed for low duty cycle, non mission-critical applications in PC, nearline and consumer electronics environments, which vary application to application

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channelpartners@hgst.com
www.hgst.com/partners