

Travelstar™ 7K750

2.5-INCH HARD DISK DRIVES

HITACHI
Inspire the Next

High-performance, high-capacity mobile storage for notebook PCs and other applications

Highlights

- > Up to 750GB¹ of capacity
- > Advanced Format, industry standard 4K sector size
- > 512 byte emulation (512e)
- > 7200 RPM high-performance HDD
- > Low power consumption
- > Halogen-free for eco-friendly design
- > Self-encrypting models for data security
- > Enhanced availability (EA) models for applications needing around-the-clock access in lower-transaction environments

Applications

- > Notebook PCs
- > External storage
- > Compact desktop PCs
- > Gaming PCs
- > Small-form-factor video devices
- > Blade servers (EA)
- > Network routers (EA)
- > Video surveillance (EA)
- > Compact RAID systems (EA)



750, 640 and 500GB
7200 RPM | SATA 3Gb/s



Features and Benefits

	Feature / Function	Benefits
Capacity	Up to 750GB of storage	Up to 187 hours of high-definition video, 750 hrs of standard video, 260 movies, 188,000 4-min songs or 375 games*
Performance	Up to 1276Mb/s media transfer rate	Faster downloads and better application performance than 5400 RPM models at same capacity
Power	1.8W read/write power 0.7W 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
	True Track™ Technology	Tracking accuracy in high shock or vibration
Acoustics	Quiet acoustics	Richer audio-listening for music, movies and games
Interface	SATA 3Gb/s	High data throughput
Security Option	Bulk Data Encryption	Helps guard against data theft

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

High-capacity storage paves the way for new mobile platforms

Travelstar™ 7K750 is a 7200 RPM, 375GB/platter, 2.5-inch hard drive with capacities of 500GB, 640GB and 750GB. This standard 9.5mm, two-disk design, intended for use in notebook PCs, external storage and other mobile applications, uses the industry's new Advanced Format. Advanced Format increases the physical sector size on hard drives from 512 bytes to 4096 (4K) bytes, which increases drive capacities and improves error correction capabilities. The Travelstar 7K750 allows manufacturers to deliver high-capacity, power-efficient systems. Manufacturers can consult the Hitachi Advanced Format Technology Brief for more information on using these hard drives. The 7K750 continues Hitachi's tradition of ecological leadership and carries its EcoTrac classification. Travelstar 7K750 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.

Encryption option

Travelstar 7K750 is the fifth generation self-encrypting drive (SED) to feature Hitachi's Bulk Data Encryption. The SED encrypts data using protected keys in real time, providing users the highest level of data protection available. It also speeds and simplifies drive re-purposing. By deleting the encryption key, the data on the drive is rendered unreadable, thereby eliminating the need for time-consuming data-overwrite. For information about the SED models designed to meet the Trusted Computing Group (TCG) Opal Storage Security specification, please contact your Hitachi representative.

Enhanced Availability (EA)—for 24x7 access to data

Hitachi provides enhanced availability models that allow the Travelstar 7K750 to deliver 24x7 access to data for data-intensive applications requiring round-the-clock operation. The 7K750 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” applications in lower-transaction environments.

Specifications

Model(s)	Standard Models	BDE Option Models	EA Models
	HTS727575A9E364	HTS727575A9E361	HTE727575A9E364
	HTS727564A9E364	HTS727564A9E361	HTE727564A9E364
	HTS727550A9E364	HTS727550A9E361	HTE727550A9E364
Configuration			
Interface	SATA 3Gb/s	←	←
Capacity (GB) ¹	750 / 640 / 500	←	←
Sector size (bytes) ²	512e	←	←
Recording zones	24	←	←
Areal density (Gbit/sq.in. max.)	502	←	←
Performance			
Data buffer (MB) ³	16	←	←
Rotational speed (RPM)	7200	←	←
Latency average (ms)	4.2	←	←
Media transfer rate (Mbits/sec, max)	1276	←	←
Interface Transfer Rate (MB/sec, max)	300	←	←
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	+5 VDC (+ -5%)	←	←
Dissipation			
Startup (W, peak, max.)	5.5	←	←
Seek (W, avg.)	2.0	←	←
Read / Write (W, avg.)	1.8	←	←
Performance idle (W, avg.)	1.7	←	← Idle (avg.)
Active idle (W, avg.)	1.0	←	N/A
Low power idle (W, avg.)	0.7	←	N/A
Standby (W, avg.)	0.2	←	←
Sleep (W)	0.1	←	←
Physical size			
z-height (mm)	9.5	←	←
Dimensions (width x depth, mm)	70 x 100	←	←
Weight (g, max)	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/1ms	←	←
Ambient temperature	-40 to 65° C	←	←
Acoustics (A-weighted sound power)			
Idle (Bels, typical)	2.5	←	←
Seek (Bels, typical)	2.7	←	←

Hitachi quality and service

Hitachi Travelstar hard disk drives are designed to the highest quality standards and contain field-proven components. Hitachi 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

HTS727575A9E364 = 750GB, SATA 3Gb/s

H = Hitachi

T = Travelstar

S = Standard (vs E for Enhanced availability)

72 = 7200 RPM

75 = Full capacity — 750GB

75 = Capacity this model, 75 = 750GB
(64 = 640GB, 50 = 500GB)

A = Generation code

9 = 9.5mm z-height

E3 = Physical 4K block size with 512 emulation

6 = Cache = 16MB

4 = No encryption

(1 = BDE, 5 = TCG Opal Encryption)

Information and Technical Support

www.hitachigst.com (Main Web site)

www.hitachigst.com/partners (Partner Web site)

North America

support_usa@hitachigst.com

Toll free: 1 888 426-5214, Direct: 1 507 322-2370

Asia Pacific

support_ap@hitachigst.com / 65 6840 9595

EMEA and UK

support_uk@hitachigst.com / 44 20 7133 0032

Germany

support_uk@hitachigst.com / 49 6929 993601

Program Support

Partners First Program

channelpartners@hitachigst.com

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 A portion of buffer capacity 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 from application to application

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Hitachi Global Storage Technologies
3403 Yerba Buena Road
San Jose, CA 95135 USA

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The EcoTrac symbol identifies Hitachi hard drives that deliver on the principles of lower operating costs, smaller carbon footprint, safer product disposal and creation of a more sustainable environment.