

Travelstar™ 7K500

2.5-INCH HIGH-PERFORMANCE HARD DRIVES

HITACHI
Inspire the Next

High-performance storage for notebook PCs with optional data encryption technology

Highlights

- > Proven fifth-generation technology
- > Up to 500GB¹ of capacity
- > Low power consumption
- > Highest operating shock
- > Halogen-free for eco-friendly footprint
- > Serial ATA 3Gb/s
- > Encryption options for data security
- > Enhanced-availability (EA) models for applications needing around-the-clock access in lower-transaction environments

Applications / Environments

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



500, 320, 250, 160 and 120GB
7200 RPM | SATA 3Gb/s



Features and Benefits

	Feature / Function	Benefits
Capacity	Up to 500GB storage	Up to 125 hours of high-definition video, 500 hours of standard video, 178 movies, 125,000 4-min songs or 250 games *
Performance	Up to 1245Mb/s media transfer rate	Outstanding application performance in PCMark® Vantage testing
Reliability	400G operating shock 1000G non-operating shock	Industry-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
Power	1.8W read/write power 0.2W standby power	Long battery life for more “unplugged” notebook time
Acoustics	Quiet acoustics	Nearly inaudible operation
Interface	SATA 3Gb/s	High data throughput
Security	Bulk Data Encryption	Helps guard against data theft

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

High-performance mobile storage without sacrificing capacity or power

Travelstar™ 7K500 is the industry’s only fifth-generation 7200 RPM 2.5-inch hard drive with capacities ranging from 120GB to 500GB, matching Hitachi 5400 RPM capacities. The 250GB per platter one- and two-disk models deliver up to 56% higher capacity and 16% better application performance than its predecessor. Hitachi provides best-of-breed operating shock and outstanding power management in Travelstar 7K500 for sturdy unplugged notebook performance. With its halogen-free production and low power consumption, the 7K500 carries the Hitachi EcoTrac classification. Designed to support the high-performance needs of multi-tasking commercial users and consumers on-the-go, Travelstar 7K500 offers speed without sacrificing battery life, capacity or audio quality. Hitachi offers optional hard-drive-level encryption for users looking for increased data security and models with enhanced availability to deliver high-capacity storage for non-stop environments.

Encryption option

Travelstar 7K500 features optional Bulk Data Encryption (BDE), now with a 3Gb/s SATA interface, for hard-drive-level data security. The data is scrambled using a key as it is written to the disk then descrambled with the key as it’s retrieved, giving users a higher level of data protection than traditional password-based security. It also speeds and simplifies the drive re-deployment process. By deleting the encryption key, the data is rendered unreadable, thereby eliminating the need for time-consuming data-overwrite. For information about the 7K500 encryption model designed to the Trusted Computing Group Opal specification, please contact your Hitachi representative.

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

Hitachi offers enhanced-availability models that employ specific microcode to allow the Travelstar 7K500 to provide 24x7 access to data. These models broaden the product line to make it more suitable for data-intensive applications requiring around-the-clock operation. The 7K500 provides high performance, capacity, durability and efficient 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
	HTS725050A9A364 HTS725032A9A364 HTS725025A9A364 HTS725016A9A364 HTS725012A9A364	HTS725050A9A361 HTS725032A9A361 HTS725025A9A361 HTS725016A9A361 HTS725012A9A361	HTE725050A9A364 HTE725032A9A364 HTE725025A9A364 HTE725016A9A364
Configuration			
Interface	SATA 3Gb/s	←	←
Capacity (GB) ¹	500 / 320 / 250 / 160 / 120	←	500 / 320 / 250 / 160
Sector size (bytes)	512	←	←
Recording zones	24	←	←
Areal density (max, Gbit/sq.in.)	370	←	←
Performance			
Data buffer (MB) ²	16	←	←
Rotational speed (RPM)	7200	←	←
Latency average (ms)	4.2	←	←
Media transfer rate (max, Mbits/sec)	1245	←	←
Interface transfer rate (MB/sec)	300	←	←
Seek time		←	←
Average (typical) ms (read) ³	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 ⁴	N/A	←	24x7
Power			
Requirement	+5VDC (+/-5%)	←	←
Dissipation (typical)			
Startup (peak, max)	5.5W	←	←
Seek (average)	2.0W	←	←
Read / Write (average)	1.8W	←	←
Performance idle (average)	1.7W	←	← Idle (Avg.)
Active idle (average)	1.0W	←	N/A
Low power idle (average)	0.69W	←	N/A
Standby (average)	0.2W	←	←
Sleep	0.1W	←	←
Physical size			
Height (mm)	9.5	←	←
Dimensions (width x depth, mm)	70 x 100	←	←
Weight (max, g)	115 / 95	←	←
Environmental (Operating)			
Shock (half sine wave)	400 G/2ms, 225 G/1ms	←	←
Ambient temperature	5° - 55° C	←	←
Environmental (Non-Operating)			
Shock (half sine wave)	1000 G/1 ms	←	←
Ambient temperature	-40° - 65° C	←	←
Acoustics (A-weighted sound power)			
Idle (typical, Bels)	2.5	←	←
Seek (typical, Bels)	2.8	←	←

Hitachi quality and service

Hitachi mobile hard 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

HTS725050A9A364 = 500GB, SATA 3Gb/s

H = Hitachi

T = Travelstar

S = Standard (vs E for Enhanced Availability)

72 = 7200 RPM

50 = Full capacity—500GB

50 = Capacity this model, 50 = 500GB

(32 = 320GB, 25 = 250GB,

16 = 160GB, 12 = 120GB)

A = Generation code

9 = 9.5mm z-height

A3 = Interface, SATA 3Gb/s (SA = 1.5Gb/s)

6 = 16MB cache

4 = No encryption (0 = No BDE hardware,

1 = Bulk Data Encryption,

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 may be less.

² Upper 830KB out of 16MB used for firmware

³ Excludes command overhead

⁴ Designed for low duty cycle, non mission-critical applications in PC, nearline and consumer electronics environments, which vary application to application

Hitachi Global Storage Technologies' trademarks are authorized for use in countries and jurisdictions in which Hitachi Global Storage Technologies has the right to use, market and advertise the brands. The Travelstar trademark is authorized for use in the Americas, EMEA, and the following Asia-Pacific countries and jurisdictions: Australia, Hong Kong, Japan, New Zealand, South Korea and Taiwan. Contact Hitachi Global Storage Technologies for further information. Hitachi Global Storage Technologies shall not be liable to third parties for unauthorized use of Hitachi Global Storage Technologies trademarks.

References in this publication to Hitachi Global Storage Technologies' products, programs, or services do not imply that Hitachi Global Storage Technologies intends to make these available in all countries in which it operates. Some countries have laws that may affect encryption-enabled devices. Hitachi GST assumes no responsibility for compliance with laws that apply to our products after they are sold or outside of our control. Accordingly, we suggest that you review all laws of the countries where you conduct business.

Product specifications provided are sample specifications and do not constitute a warranty. Information is true as of the date of publication and is subject to change. Actual specifications for unique part numbers may vary. Please visit the Support section of our website, www.hitachigst.com/support, for additional information on product specifications. Photographs may show design models.

© 2011 Hitachi Global Storage Technologies

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

Produced in the United States 9/09, Rev. 9/09, 10/09, 11/10, 2/11.
All rights reserved.

Travelstar and TrueTrack are trademarks of Hitachi Global Storage Technologies. Other trademarks are the property of their respective companies.

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

 **Hitachi Global Storage Technologies**