

# Travelstar™ 5K750

2.5-INCH HARD DISK DRIVES

**HITACHI**  
Inspire the Next

High-capacity mobile storage for notebook PCs and other applications

## Highlights

- > Up to 750GB<sup>1</sup> of capacity
- > Advanced Format, industry standard 4K sector size
- > 512 byte emulation (512e)
- > 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
- > Gaming consoles
- > Small-form-factor video devices
- > Blade servers (EA)
- > Network routers (EA)
- > Video surveillance (EA)



750, 640 and 500GB  
5400 RPM | SATA 3Gb/s



## Features and Benefits

	Feature / Function	Benefits
<b>Capacity</b>	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*
<b>Power</b>	1.4W read/write power 0.5W low power idle	Lowest energy use and long battery life for more “unplugged” notebook time
<b>Reliability</b>	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
<b>Performance</b>	Up to 996Mb/s media transfer rate	Excellent application performance in PCMark Vantage testing
<b>Acoustics</b>	Quiet acoustics	Richer audio-listening for music, movies and games
<b>Interface</b>	SATA 3Gb/s	High data throughput
<b>Security Option</b>	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™ 5K750 is a 5400 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, gaming consoles and other mobile applications, is Hitachi's first to leverage 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 5K750 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 5K750 continues to demonstrate Hitachi's ecological leadership, with its halogen-free and low-power products, and carries the EcoTrac classification. Travelstar 5K750 delivers the balance of capacity, ruggedness and low-power to meet the needs of consumers and commercial users in an eco-friendly design.

## Encryption option

Travelstar 5K750 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 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 5K750 to deliver 24x7 access to data for data-intensive applications requiring round-the-clock operation. The 5K750 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
	HTS547575A9E384	HTS547575A9E381	HTE547575A9E384
	HTS547564A9E384	HTS547564A9E381	HTE547564A9E384
	HTS547550A9E384	HTS547550A9E381	HTE547550A9E384
<b>Configuration</b>			
Interface	SATA 3Gb/s	←	←
Capacity (GB) <sup>1</sup>	750 / 640 / 500	←	←
Sector size (bytes) <sup>2</sup>	512e	←	←
Recording zones	24	←	←
Areal density (Gbit/sq.in. max.)	472	←	←
<b>Performance</b>			
Data buffer (MB) <sup>3</sup>	8	←	←
Rotational speed (RPM)	5400	←	←
Latency average (ms)	5.5	←	←
Media transfer rate (Mbits/sec, max)	996	←	←
Interface Transfer Rate (MB/sec, max)	300	←	←
Seek time			
Average (typical) ms (read) <sup>4</sup>	12	←	←
Track to track (typical) ms (read)	1	←	←
Full stroke (typical) ms (read)	20	←	←
<b>Reliability</b>			
Load / unload cycle	600,000	←	←
Power on hours (POH) per month	N/A	←	730
Availability <sup>5</sup>	N/A	←	24x7
<b>Power</b>			
Requirement	+5 VDC (+ -5%)	←	←
<b>Dissipation</b>			
Startup (W, peak, max.)	4.5	←	←
Seek (W, avg.)	1.7	←	←
Read / Write (W, avg.)	1.4	←	←
Performance idle (W, avg.)	1.5	←	← Idle (avg.)
Active idle (W, avg.)	0.8	←	N/A
Low power idle (W, avg.)	0.5	←	N/A
Standby (W, avg.)	0.2	←	←
Sleep (W)	0.1	←	←
<b>Physical size</b>			
z-height (mm)	9.5	←	←
Dimensions (width x depth, mm)	70 x 100	←	←
Weight (g, max)	102	←	←
<b>Environmental (Operating)</b>			
Shock (half-sine wave)	400G/2ms, 225G/1ms	←	←
Ambient temperature	0 to 60° C	←	←
<b>Environmental (Non-operating)</b>			
Shock (half-sine wave)	1000G/1ms	←	←
Ambient temperature	-40 to 65° C	←	←
<b>Acoustics (A-weighted sound power)</b>			
Idle (Bels, typical)	2.4	←	←
Seek (Bels, typical)	2.6	←	←

## 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

HTS547575A9E384 = 750GB, SATA 3Gb/s

H = Hitachi

T = Travelstar

S = Standard (vs E for Enhanced availability)

54 = 5400 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

8 = Cache = 8MB

4 = No encryption

(1 = BDE, 5 = TCG Opal Encryption)

### Information and Technical Support

[www.hitachigst.com](http://www.hitachigst.com) (Main Web site)

[www.hitachigst.com/partners](http://www.hitachigst.com/partners) (Partner Web site)

### North America

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### EMEA and UK

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### Germany

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### Program Support

Partners First Program

[channelpartners@hitachigst.com](mailto:channelpartners@hitachigst.com)

<sup>1</sup> 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.

<sup>2</sup> Advanced Format drive: 4K physical sectors with 512 byte emulation

<sup>3</sup> A portion of buffer capacity used for firmware

<sup>4</sup> Excludes command overhead

<sup>5</sup> 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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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.