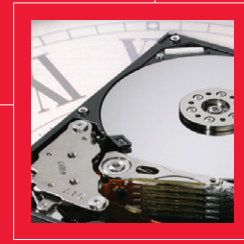


Hitachi Deskstar® E7K500

3.5-INCH HARD DISK DRIVES



500GB & 400GB | 7200 RPM | Serial ATA 3.0Gb/s

Seemingly Infinite Enterprise Storage

Highlights

- > Up to 500 GB of capacity with SATA 3.0Gb/s
- > 1,000,000 hour MTBF reliability⁴
- > Native Command Queuing (NCQ) for superior performance
- > Rotational Vibration Safeguard for high density storage configurations
- > Iridium Manganese Chromium head sensor technology for high reliability
- > Low-power mode

Applications

- > Nearline storage
- > Disk-to-disk back-up
- > Digital video surveillance
- > RAID arrays
- > Tiered storage

Rotational Vibration Safeguard (RVS) Feature

The Deskstar E7K500 hard drive is optimized for use in nearline/low duty cycle enterprise environments with capabilities such as Rotational Vibration Safeguard (RVS), which maintains the hard drive's performance in high rotational vibration environments where multiple drives reside in a single enclosure.

Advanced Serial ATA 3.0Gb/s Support

- > 3.0 Gb/s (300 MB/s) interface data rate
- > NCQ (native command queuing)
- > Staggered (delayed) spin-up
- > Hot-swap capability

The E7K500 provides all of these enhancements to enable faster data access, better power management to the system and higher performance.

Features and Benefits

	Feature / Function	Benefits
Capacity	500GB & 400GB models	High capacity storage solutions
Cache	16 MB Buffer	Improved transfer performance
Performance	High interface transfer rates	Faster system boot-up
	SATA 3.0 Gb/s interface	300MB/s burst data rate for faster data access
	Rotational Vibration Safeguard	Optimum performance in multi-drive systems
Reliability	ECC and CRC protection	Data integrity enhanced throughout circuits
	Low-power mode	Reduces system heat/cooling requirements
	Load / unload ramp	Protects user data when power is removed
	Internal thermal sensor	Improves data integrity at high temperatures

*Actual storage may vary depending on the compression rate applied.

Hitachi 5-year Warranty Provides Superior Quality and Service

The Hitachi Deskstar E7K500 extends the company's long-standing tradition of performance and reliability leadership. Hitachi's enterprise features for storage applications enable high capacity, fast transfers, low power and high reliability. These features combine to make the Deskstar E7K500 ideal for nearline/low duty cycle, disk-to-disk back-up and other enterprise storage solutions.

The Deskstar E7K500 carries the industry's most comprehensive 5-year warranty with product replacement values throughout the life of the warranty that exceed those available from other hard drive suppliers.

Hitachi Deskstar® E7K500

Product	Deskstar E7K500
Model numbers	HDS725050KLA360 HDS725050KLA361

Specifications

Configuration

Interface	SATA 3.0Gb/s
Capacity (GB) ¹	500; 400
Disks / heads	5 / 10

Performance

Data buffer ² (MB)	16
Rotational speed (RPM)	7,200
Media transfer rate (max. Mbits/sec)	817
Interface transfer rate (max. MB/sec)	300
Sustained data rate (MB/sec)	64.8 - 31 (zone 0 - 29)
Seek time, average (read, typical (ms)) ³	8.5

Reliability

Error rate (non-recoverable)	1 in 10E14
Start/stops (at 40° C)	50,000
Availability ⁴	24x7
MTBF ⁴	1,000,000 hours

Acoustic

Idle (Bels)	3.1
-------------	-----

Power

Requirement	+5 VDC (+/- 5%) +12 VDC (+10 %/-8%)
Dissipation	
Startup current (max. A)	2.0 (+12V) & 1.2 (+5V)
Idle (W)	9.6

Physical Size

Height (mm)	25.4
Width (mm)	101.6
Depth (mm)	146
Weight (max. g)	700

Environmental Characteristics

Operating	
Ambient temperature	5° to 55° C
Relative humidity (non-condensing)	8% to 90%
Shock (half sine wave, 2ms) (G)	55
Vibration (random (RMS)) (G)	0.67 for horizontal 0.56 for vertical

Non-operating

Ambient temperature	-40° to 65° C
Relative humidity (non-condensing)	5% to 95%
Shock (half sine wave, 2ms) (G)	225
Vibration (random (RMS)) (G)	1.04 (XYZ)

RoHS compliant ⁵	Yes
-----------------------------	-----

Hitachi Global Storage Technologies



For more information:

Internet:

- > www.hitachigst.com (Main Web site)
- > www.hitachigst.com/vpp (Reseller Web site)

Technical Support E-mail:

- > support_usa@hitachigst.com (N. America)
- > support_ap@hitachigst.com (Asia Pacific)
- > support_uk@hitachigst.com (EMEA and UK)

Technical Support Phone Numbers:

- > 1 888 426-5214 (N. America)
- > 65 6840 9595 (Asia Pacific)
- > 44 20 7133 0032 (EMEA and UK)
- > 49 6929 993601 (Germany)

How to Read the Deskstar Model Number

Example:

HDS725050KLA360 = 500GB/16MB

H = Hitachi

D = Deskstar

S = Standard (vs T for Two-disk for example)

72 = 7200 RPM

50 = full capacity = 500GB

50 = model capacity = 500GB (unless 1 in last position)

K = generation code

L = height

A3 = SATA 3.0Gb/s

6 = 16MB buffer

0 = 500GB model (1=400GB mode)

© 2006 Hitachi Global Storage Technologies

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

Produced in the United States 8/06, rev. 10/06
All rights reserved.

Deskstar® is a trademark of Hitachi Global Storage Technologies. 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.

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.

¹ GB equals one billion bytes when referring to hard drive capacity; accessible capacity may be less.

² Buffer capacity includes 271 KB used for drive firmware.

³ Includes 0.3ms command overhead.

⁴ Low duty cycle, non mission-critical applications in PC, nearline and consumer electronics customer environments are different from application to application. An MTBF measurement is based on a sample population and is estimated by statistical measurements and acceleration algorithms under nearline / low duty cycle workload. MTBF ratings are not intended to predict an individual drive's reliability. MTBF is not a warranty measurement.

⁵ RoHS refers to the European Union Directive 2002/95/EC on the restriction of certain hazardous substances in electrical and electronic equipment.

Specific application environments such as temperature and duty cycle will affect the overall reliability rates. For specific application environment reliability rates, please consult Hitachi technical support.