

Deskstar™ 7K1000.B

3.5-INCH HARD DISK DRIVES

HITACHI
Inspire the Next

Energy-efficient storage for power-friendly PCs

Highlights

- > Up to 43% idle power savings over previous generation products
- > Capacities up to 1TB¹
- > Bulk Data Encryption option
- > Built on industry's most reliable PMR technology

Applications

- > Consumer and commercial computers
- > Personal storage
- > PC gaming



1TB, 750, 640, 500, 320,
250 and 160GB
7200 RPM | SATA 3Gb/s

Features and Benefits

	Feature / Function	Benefits
Power	Advanced Power Management	Reduces power during idle periods
	HiVERT™ technology	Best-of-breed power consumption
Capacity	160GB to 1TB	Full range of capacity points
Reliability	Thermal Fly-height Control (TFC)	Better soft error rate for improved reliability and performance
	Head load/unload	Protects disk during non-operation
	ECC and CRC protection	Data integrity enhanced throughout circuits
	SMART command transport	Adaptive error correction
	Internal thermal sensor	Improves data integrity
Performance	Up to 16MB cache buffer	Faster data processing
Security	Bulk Data Encryption option	Helps guard against data theft

Balanced power and performance for desktop computing

The Deskstar™ 7K1000.B hard drive provides an exceptional blend of power efficiency and performance making it an ideal solution for power-friendly consumer and commercial PCs. Leveraging seventh-generation power management technology as well as power-saving innovations pioneered on the popular 2.5-inch line of notebook hard drives from Hitachi, this new breed of desktop drive delivers best-in-class power management and thermal emissions, while maintaining high standards of performance.

Energy efficiency helps manufacturers deliver ENERGY STAR 4.0 compliant systems

The ENERGY STAR 4.0 specifications released by the U.S. Environmental Protection Agency (EPA) are recognized around the world as a way of identifying energy-efficient PCs and other computer equipment. PCs that meet the ENERGY STAR 4.0 criteria are expected to become increasingly popular with both corporations and consumers. Some corporations are choosing to purchase ENERGY STAR PCs as part of their “green” initiatives. The Deskstar 7K1000.B hard drive delivers industry-leading low-power consumption—up to 43% idle power savings over previous generation products—contributing to a reduction in overall system power requirements, which helps PC manufacturers achieve ENERGY STAR ratings.

Data security option

Deskstar 7K1000.B features optional Bulk Data Encryption (BDE) that uses an Advanced Encryption Standard (AES) certified by the National Institute of Standards and Technology (NIST) to deliver the strongest commercially available data security protection. Data is scrambled using a key as it is written to the disk then descrambled with the key as it is retrieved. BDE also speeds and simplifies the drive re-deployment process. By deleting the encryption key, the data on the drive is rendered unreadable, thereby eliminating the need for time-consuming data-overwrite. For information on how to order this optional feature, contact your Hitachi sales representative.

Specifications

Model(s)	HDT721010SLA360 HDT721075SLA360 HDT721064SLA360 HDT721050SLA360 HDT721032SLA360 HDT721025SLA380 HDT721016SLA380
Configuration	
Interface	SATA 3Gb/s
Capacity (GB) ¹	1TB / 750 / 640 / 500 / 320 / 250 / 160
Max. areal density (Gbits/sq. in.)	270
Performance	
Data buffer (MB) ²	16 / 8
Rotational speed (RPM)	7200
Media transfer rate (Mbits/s, max)	1388
Interface transfer rate (MB/s, max)	300
Reliability	
Error rate (non-recoverable, bits read)	1 in 10 ¹⁴
Load/unload cycles (at 40° C)	300,000
Availability ³ (hrs/day x days/wk)	24x7
Acoustics	
Idle (Bels, typical)	1TB 2.7 750GB / 640GB / 500GB 2.4 320GB / 250GB / 160GB 2.5
Power	
Requirement	+5 VDC (+/-5%) +12 VDC (+/-10%)
Startup current (A, max.)	0.5 (+5V), 2.0 (+12V)
Idle (W)	1TB 5.2 750GB / 640GB / 500GB 4.4 320GB / 250GB / 160GB 3.6
Physical size	
z-height (mm)	26.1
Dimensions (width x depth, mm)	101.6 (+/-0.25) x 147
Weight (typical, g, max.)	1TB 680 750GB / 640GB / 500GB 400 320GB / 250GB / 160GB
Environmental (operating)	
Ambient temperature	0° to 60° C
Relative humidity (non-condensing)	8% to 90%
Shock (half-sine wave)	70
Vibration, random (G RMS 5 to 500 Hz)	0.67 (XY)
Environmental (non-operating)	
Ambient temperature	-40° to 70° C
Relative humidity (non-condensing)	5% to 95%
Shock (half-sine wave, G (2ms))	1TB 300 <1TB 350
Vibration, random (G RMS 5 to 500 Hz)	1.04 (XYZ)

Hitachi quality and service

All Hitachi hard drives are designed to the highest quality standards with field-proven components. They are backed by Hitachi's worldwide technical support and integration services, enabling customers around the globe to bring their products to market quickly.

How to read the Deskstar model number

HDT721010SLA360 = 1TB, 16MB buffer

H = Hitachi

D = Deskstar

T = Series prefix

72 = 7200 RPM

10 = Full capacity—1TB

10 = Capacity this model, 10 = 1TB

(75 = 750GB, 64 = 640GB, 50 = 500GB,
32 = 320GB, 25 = 250GB, 16 = 160GB)

S = Generation code

L = 26.1mm z-height

A3 = Interface, SATA 3Gb/s

6 = 16MB buffer (8 = 8MB)

0 = Reserved

Information and Technical Support

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

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Program Support

Partners First™ Program

channelpartners@hitachigst.com

¹ One GB is equal to one billion bytes and one TB equals 1,000GB (one trillion bytes) when referring to hard drive capacity. Accessible capacity may be less.

² Portion of buffer capacity used for drive firmware

³ Intended for low duty cycle, non mission-critical applications in PC, nearline, and consumer electronics environments, which may vary from application to application. Note that customer environments may vary from application to application.

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