

# Deskstar™ P7K500

3.5-INCH HARD DISK DRIVES

**HITACHI**  
Inspire the Next

Energy-efficient storage for power-friendly PCs

## Highlights

- > Up to 40 percent operational power savings over previous generation products
- > Capacities up to 500GB<sup>1</sup>
- > Built on industry's most reliable PMR technology
- > Choice of Parallel ATA or Serial ATA interface

## Applications

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

## Features and Benefits

	Feature / Function	Benefits
<b>Power</b>	Advanced Power Management	Reduces power during idle periods
	HIVERT™ technology	Best-of-breed power consumption
<b>Capacity</b>	500, 400, 320, 250 and 160GB	Popular capacity points
<b>Reliability</b>	Thermal Fly-height Control (TFC)	Better soft error rate for improved reliability
	Head load/unload	Protects disk during non-operation
	CRC detection and ECC correction	Data integrity enhanced throughout circuits
	SMART command transport	Adaptive error correction
	Internal thermal sensor	Improves data integrity
<b>Performance</b>	Up to 16 MB cache buffer	Faster data processing
<b>Configuration</b>	Choice of PATA or SATA interface	Design flexibility



500, 400, 320, 250 and 160GB  
7200 RPM | PATA-133 and SATA 3Gb/s

## Balanced power and performance for desktop computing

The Deskstar™ P7K500 hard drive provides an exceptional blend of power efficiency and performance making it an ideal solution for consumer and enterprise power-friendly PCs. Leveraging sixth-generation power management technology as well as power-saving innovations pioneered on Hitachi's popular 2.5-inch line of notebook PC hard drives, this new breed of desktop drive delivers best-in-class power management and thermal emissions to help manufacturers meet energy compliance targets and extend drive life.

## Power efficiency helps manufacturers deliver ENERGY STAR® 4.0 compliant systems

The ENERGY STAR 4.0 specifications are recognized around the world as a way of identifying energy-efficient PCs and other office equipment. PCs that meet the ENERGY STAR 4.0 criteria are expected to become increasingly required by government agencies, corporations and consumers. Some corporations are choosing to purchase ENERGY STAR PCs as part of their "green" initiatives. The Deskstar P7K500 hard drive delivers industry-leading low-power consumption – up to 40 percent operational power savings over previous generation products – contributing to a reduction in overall system power requirements which helps PC manufacturers achieve ENERGY STAR ratings. Additionally, less power required by the hard drive means more power budget available in an ENERGY STAR PC for additional features and functions.

## Robust technology and configuration flexibility

Featuring a choice of Parallel ATA or Serial SATA interface options to meet the needs of many design configurations, the Deskstar P7K500 is also built using the industry's most reliable perpendicular magnetic recording (PMR) techniques to maximize capacity, performance and field reliability.

## Specifications

Model(s)	HDP725050GLAT80 HDP725040GLAT80 HDP725032GLAT80 HDP725025GLAT80 HDP725016GLAT80	HDP725050GLA380 HDP725050GLA360 HDP725040GLA380 HDP725040GLA360 HDP725032GLA380 HDP725032GLA360 HDP725025GLA380 HDP725016GLA380
<b>Configuration</b>		
Interface	PATA-133	SATA 3Gb/s
Capacity (GB) <sup>1</sup>	500 / 400 / 320 / 250 / 160	←
Data heads (physical)	4 / 4 / 3 / 2 / 2	←
Data disks	2 / 2 / 2 / 1 / 1	←
Max. areal density (Gbits/sq. in.)	185	←
<b>Performance</b>		
Data buffer (MB) <sup>2</sup>	8	16 / 8 <sup>3</sup>
Rotational speed (RPM)	7200	←
Media transfer rate (Mbits/sec, max)	1138	←
Interface transfer rate (MB/sec, max)	133	300
<b>Reliability</b>		
Error rate (non-recoverable, bits read)	1 in 10 <sup>14</sup>	←
Starts/stops (at 40° C)	50,000	←
Availability <sup>4</sup> (hrs/day x days/wk)	24x7	←
<b>Acoustics</b>		
Idle (Bels, typical)	2.6 (2 disk) 2.8 (1 disk)	←
<b>Power</b>		
Requirement	+5 VDC (+/-5%) +12 VDC (+/-10%)	←
Startup current (A, max.)	2.0 (+12V), 1.1 (+5V)	2.0 (+12V), 1.3 (+5V)
Idle (W)	4.5 (2 disk) 3.3 (1 disk)	4.8 (2 disk) 3.6 (1 disk)
<b>Physical size</b>		
z-height (mm)	26.1	←
Dimensions (width x depth, mm)	101.6 (+/-0.25) x 147	←
Weight (typical, g, max.)	550	←
<b>Environmental (operating)</b>		
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 (XYZ)	←
<b>Environmental (non-operating)</b>		
Ambient temperature	-40° to 70° C	←
Relative humidity (non-condensing)	5% to 95%	←
Shock (half-sine wave, G (2ms))	350	←
Vibration, random (G RMS 5 to 500 Hz)	1.04 (XYZ)	←

<sup>1</sup> One GB is equal to one billion bytes when referring to hard drive capacity. Accessible capacity may be less.

<sup>2</sup> Portion of buffer capacity used for drive firmware

<sup>3</sup> 250GB and 160GB capacity available with 8 MB only

<sup>4</sup> Intended for low duty cycle, non mission-critical applications in PC, nearline, and consumer electronics environments, which may vary from application to application

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## Hitachi quality and service

Hitachi drives are backed by an array of technical support and services, which may include customer and integration assistance. Hitachi is dedicated to providing a breadth of hard disk drive solutions to satisfy all of today's demanding computing needs.

## How to read the Deskstar model number

HDP725050GLA360 = 500GB, 16 MB buffer

H = Hitachi

D = Deskstar

P = Series prefix

72 = 7200 RPM

50 = Full capacity — 500GB

50 = Capacity this model, 50 = 500GB

(40 = 400GB, 32 = 320GB, 25 = 250GB)

G = Generation code

L = 26.1mm z-height

A3 = Interface, SATA 3Gb/s (AT = PATA)

6 = 16 MB buffer (8 = 8 MB)

0 = Reserved

## 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)

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## Program Support

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