

Hitachi Travelstar™ 5K100

HARD DISK DRIVES



100GB, 80GB, 60GB and 40GB | 5400 RPM | ATA-6

The most complete 2.5-inch hard disk drive

Highlights

- > Up to 100GB
- > Power dissipation comparable to 4200 RPM
- > Outstanding operating and non-operating shock
- > Doubling of industry standard load/unload cycles to 600,000
- > Enhancements to mechanical and electrical design
- > Supports both Parallel ATA and Serial ATA interfaces

Raising the bar of design

The Hitachi Travelstar 5K100 series delivers a winning combination of characteristics. With the industry's lowest idle power and enhancements to the mechanical and electrical design, this 5400 RPM drive is the ideal choice for notebook PCs. The Travelstar 5K100, at 100GB, offers the highest capacity in a 2.5" 5400 RPM drive. That, along with 300G of operating shock and 1000G of non-operating shock, makes Travelstar 5K100 the best all-around 2.5" hard drive.

The Travelstar 5K100 is the centerpiece of a new line-up of strong contenders.

Features and Benefits

	Feature / Function	Benefits
Capacity	100GB	*25,000 4-minute MP3 songs, or
		*40 hours professional audio, or
		*100 hours standard TV, 11.5 hrs HDTV
Reliability	300G operating shock 1000G non-operating shock	Exceptional ruggedness to withstand tougher handling and improve portability
	600,000 load/unload cycles	Double the industry standard specification
	Fewer electrical components	Reduces disk wear and protects user data
	Enhanced Error Correction Code (ECC)	Additional design robustness
Performance	493Mb/sec media transfer rate Optimized caching	Improved data integrity
		Best of breed 5400 RPM performance in Windows applications
Acoustics	Fluid Dynamic Bearing Motors (FDB)	Quiet operation
Power	0.60W low power idle Enhanced Adaptive Battery Life Extender™ (ABLE)	Leading low power for longer notebook battery life
Interface	PATA / SATA	Supports newest chip set technology

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

Advanced mobile systems

The Travelstar 5K100 design enhancements include a reduction in the chip set from 4 to 3 chips, and a redesigned actuator arm that will ensure it sets the new standard of ruggedness. With outstanding shock characteristics, very efficient power consumption, whisper quiet acoustics, and a range of speeds and capacities, Hitachi Travelstar drives deliver the best combination of attributes for notebook systems and demanding mobile applications.

Applications

- > Notebook systems
- > External storage
- > Multi-media
- > Digital audio

Hitachi quality and service

Hitachi Travelstar hard disk drives are designed to the highest quality standards and contain field-proven components to provide superior quality hard drives backed by Hitachi warranty. Hitachi provides worldwide technical support and services to enable global customers to bring their products to market quickly.

Hitachi Travelstar 5K100

Product Model names	Travelstar 5K100	Travelstar 5K100
	HTS541010G9AT00	HTS541010G9SA00
	HTS541080G9AT00	HTS541080G9SA00
	HTS541060G9AT00	HTS541060G9SA00
	HTS541040G9AT00	HTS541040G9SA00

Specifications

Configuration	Parallel ATA	Serial ATA
Interface	ATA-6	Serial ATA 1.5Gb/s
Capacity (GB) ¹	100 / 80 / 60 / 40	←
Sector size (Bytes)	512	←
Recording zones	24	←
Data heads (physical)	4 / 4 / 3 / 2	←
Data disks	2 / 2 / 2 / 1	←
Max. areal density (Gbits/sq. inch)	86 / 70 / 70 / 70	←

Performance

Data buffer (MB) ²	8	←
Rotational speed (RPM)	5400 ³	5400
Latency average (ms)	5.5	←
Media transfer rate (Mbits/sec, max)	493	←
Interface transfer rate (MB/sec, max)	100 Ultra DMA mode-5 16.6 PIO mode-4	150
Seek time (read, typical)		
Average (ms)	12	←

Reliability

Load/Unload cycle	600,000	←
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Power

Requirement	+5VDC (+-5%)	←
Dissipation (Typical)		
Startup (peak, max.)	5.0W	←
Read (avg.)	2.0W	←
Write (avg.)	2.0W	←
Active idle (avg.)	0.85W	1.2W
Low power idle (avg.)	0.60W	0.85W
Standby (avg.)	0.2W	0.4W
Sleep	0.1W	0.2W

Physical Size

Height (mm)	9.5	←
Width (mm)	70	←
Depth (mm)	100	←
Weight - typical (g)	102 / 102 / 102 / 95	←

Environmental characteristics

Operating		
Ambient temperature	5° to 55° C	←
Shock (half sine wave)	300 G / 2ms, 160G / 1ms	←
Non-operating		
Ambient temperature	-40° to 65° C	←
Shock (half sine wave)	1000 G / 1 ms	←
Acoustics (A-Weighted Sound Power (Bels))		
Idle (typ.)	2.5 / 2.5 / 2.5 / 2.2	←
Op (typ.)	2.7 / 2.7 / 2.7 / 2.4	←
RoHS compliant ⁴	yes	←

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

² Upper 417KB reserved for firmware

³ Part numbers OA25825 and OA25826 and others special bid parts are 5400 RPM drives with 4200 RPM emulation mode enabled. These part numbers are designed for applications where 4200 RPM performance is desired.

⁴ RoHS refers to the European Union Directive 2002/95/EC on the restriction of certain hazardous substances in electrical and electronic equipment.

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For more information:

Internet:

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

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- > 44 20 7133 0032 (EMEA and UK)
- > 49 6929 993601 (Germany)

How to Read the Travelstar Model Number

HTS541010G9AT00 = 100GB/8MB

H = Hitachi

T = Travelstar

S = Standard (E = Enhanced Availability)

54 = 5400 RPM³

10 = Full capacity - 100GB

10 = Capacity this model 10 = 100GB (80 = 80GB, 60 = 60GB, 40 = 40GB)

G = Generation code

9 = 9.5mm z - height

AT = ATA interface (SA = Serial ATA interface)

0 = Reserved

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