

Hitachi Travelstar® E5K100

2.5-INCH HARD DISK DRIVES



40GB | 5400 RPM | ATA-6 and SATA 1.5Gb/sec

Enhanced Availability for around-the-clock access to data

Highlights

- > Small size for high capacity compact systems
- > Minimal heat emission
- > Low power consumption
- > Offered in both Serial ATA and Parallel ATA interfaces
- > Designed for applications needing around-the-clock access in lower transaction environments

Raising the bar of design

The Hitachi Travelstar E5K100 is designed to be powered on around-the-clock. With low power consumption and minimal heat emission, this 5400 rpm drive is the ideal choice for more demanding data-access applications. The "always-on" Travelstar E5K100, delivers a winning combination of characteristics. With native Serial ATA interface, the E5K100 brings the advantages of 300G of operating shock, 1000G of non-operating shock, and proven technology of Hitachi's Travelstar 2.5" product line, the Travelstar E5K100 has the fortitude to win the race.

The Travelstar E5K100 series extends Hitachi's broad product line to allow users the fullest range of choices to suit each application need.

Applications

- > Blade servers
- > Network routers
- > Point-of-sale terminals
- > Telephony applications
- > Web hosting

Features and Benefits

	Feature / Function	Benefits
Reliability	300G operating shock 1000G non-operating shock	Exceptional ruggedness to withstand tougher handling
	600,000 load/unload cycles	Double the industry standard specification Reduces disk wear and protects user data
	Fewer electrical components	Additional design robustness
	Enhanced Error Correction Code (ECC)	Improved data integrity
Performance	493Mb/sec media transfer rate Optimized caching	Outstanding 5400 rpm performance
Interface	PATA / SATA	Higher performance OS transparency Thinner, longer cabling Lower pin count Point-to-point connectivity Denser systems packaging
Acoustics	Fluid Dynamic Bearing Motors (FDB)	Quiet operation
Power	Industry leading low power consumption	Systems design with minimal current draw

Advanced technology for demanding applications

Hitachi Travelstar E5K100 series is designed specifically for environments that require a high storage capacity in a small space with low power and minimal heat characteristics, while delivering excellent performance and reliability. The E5K100 design utilizes proven storage technologies of Hitachi's award winning Travelstar line of products, such as TrueTrack Servo, Drive Fitness Test (DFT), and Self-Monitoring Analysis and Recording Technology (S.M.A.R.T.) to deliver performance and reliability in around-the-clock environments.

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® E5K100

Product	Travelstar E5K100	Travelstar E5K100
Model names	HTE541040G9AT00	HTE541040G9SA00

Specifications

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

Performance

Data buffer (MB) ²	8	←
Rotational speed (RPM)	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	←
Power on hours (POH) per month	730	←
Availability ³ (days/week)	24x7	←

Power

Requirement	+5VDC (+/-5%)	←
Dissipation (Typical)		
Startup (peak, max.)	5.0W	←
Read (avg.)	2.0W	←
Write (avg.)	2.0W	←
Idle (avg.)	2.0W	←
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)	95	←

Environmental characteristics

Operating		
Ambient temperature	5° to 40° 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.)	2.2	←
Op (typ.)	2.4	←
RoHS compliant ³	yes	←

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

² Upper 417KB reserved for firmware; 418KB reserved on SATA models

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

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

Hitachi Global Storage Technologies



For more information:

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How to Read the Travelstar Model Number

HTE541040G9AT00 = 40GB/8MB

H = Hitachi

T = Travelstar

E = Enhanced Availability (S = standard)

54 = 5400 RPM

10 = Full capacity - 100GB

40 = Capacity this model 40 = 40GB

G = Generation code

9 = 9.5mm z - height

AT = ATA interface (SA = Serial ATA interface)

0 = Reserved

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