

Mobile computing excellence: designed with industry-leading capacity for today's business needs

HITACHI
Inspire the Next

Hitachi Travelstar 4K80 2.5-inch hard disk drive

Highlights

- ▶ **Capacities range from 20 to 80GB, 4200rpm, ATA-5 hard disk drive**
- ▶ **Offering high capacity and high-performance with an 80GB, 9.5mm drive**
- ▶ **Travelstar 4K80 provides areal densities of up to 68.5**
- ▶ **Industry's highest operational shock rating at 250Gs (2ms)**



Driving technology for today's mobile hard disk drives

The Hitachi Travelstar 4K80 series is a 9.5mm high, 4200 RPM, 2.5-inch mobile hard disk drive ideal for today's business needs. The Travelstar 4K80 brings a new generation of 4200 RPM mobile solutions to the long legacy of the Travelstar family of hard disk drives.

This next generation of mobile hard disk drives provides a design which combines years of research and development with award-winning technology including; Giant Magnetoresistive (GMR) heads, Fluid Dynamic Bearing (FDB) motor technology, Partial Response Maximum Likelihood (PRML) digital channel, head load/unload technology, and an ATA/100 interface. With this design, the Travelstar 4K80 provides the storage capacity, performance, power management, quality and quiet acoustics

required by demanding computing/application requirements.

Performance, quality and reliability

Designed to meet the demanding needs of today's data-intensive requirements, the Travelstar 4K80 leverages proven technologies such as True Track Servo, which eases system integration, enhances hard disk drive reliability, and adds robustness against vibration and disk shift, and S.M.A.R.T. (Self-Monitoring Analysis and Reporting) technology which is designed to enable a hard drive to predict impending catastrophic failure.

As a result of the award-winning combination of technology designed into the Hitachi Travelstar 4K80 series of hard disk drives, they are suitable for demanding, high-capacity internet, digital audio and video

editing, video streaming, and real-time multimedia applications - whether users are in the office or on the road.

Innovation. Capability. Commitment.

Three reasons why Hitachi Global Storage Technologies is positioned to inspire and lead the evolution of storage technologies:

Hitachi quality, support, and service.

The Hitachi Travelstar mobile hard disk drives share common field-proven components to provide manufacturers with superior quality hard drives backed by Hitachi warranty and technical support and services.

Hitachi family of Travelstar 4K80 hard disk drives specifications

Product name Travelstar 4K80

Model name HTS428080F9AT00, HTS428060F9AT00,
HTS428040F9AT00, HTS428030F9AT00

Configuration

Interface	ATA-5
Capacity (GB)	80/60/40/30
Sector size (bytes)	512
Recording zones	16
Data heads	4/3/2/2
Disks	2/2/1/1
Max. areal density (Gbits/sq.inch)	68.5/68.5/68.5/66.7

Performance

Data buffer (MB) ¹	8/8/2/2
Rotational speed (rpm)	4,200
Latency (average ms)	7.1
Max. media transfer rate (MB/sec)	43.9/43.9/43.9/43.4
Max. interface transfer rate (MB/sec)	100MB/sec Ultra DMA mode-5 16.6MB/sec PIO mode-4
Seek time (ms)	
Average (typical)	13
Maximum (typical)	24
Minimum (typical)	3

Reliability

Error rate (non-recoverable)	< 1 per 10 ¹³ bits transferred
Load/unload cycle	300,000

Power

Requirement	+5VDC(±5%)
Dissipation (typical)	
Startup (max. peak)	4.5 W
Seek (average)	2.25 W
Read (average)	2.0 W
Write (average)	2.0 W
Low power idle (average)	0.65 W
Low power active (average)	1.65 W
Active idle (average)	0.90 W
Standby (average)	0.15 W
Sleep	0.1 W

Physical size

Height (mm)	9.5
Width (mm)	70
Depth (mm)	100
Weight (g)	95/95/91/91

Environmental characteristics

Operating

Ambient temperature	5° to 55° C
Relative humidity (non-condensing)	5% - 90%
Maximum wet bulb (non-condensing)	29° C
Shock (half sine wave)	250G/2ms
Vibration (sine wave)	1.0 G (22 - 500Hz)

Non-operating

Ambient temp	-40° to 70° C
Relative humidity (non-condensing)	5% - 95%
Maximum wet bulb (non-condensing)	40° C
Shock (half sine wave)	800G/1ms
Vibration (sine wave)	5.0G (22 - 500Hz)

Acoustics (A-Weighted Sound Power (Bels))

Idle (typical)	2.4
Op (typical)	3.0

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For more information

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