

High-performance. Capacity. Technology.

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Hitachi Travelstar C4K40 1.8-inch hard disk drive

Highlights

- ▶ **20 & 40 GB 4200 rpm in 9.5mm and 7.0mm high package for maximum capacity slimline portable applications**
- ▶ **300G/2ms operating shock**
- ▶ **ATA-5 interface with 2 MB data buffer**
- ▶ **Ultra DMA mode 5 (100 MB/s max.) supported**
- ▶ **GMR head and ME²PRML read channel technology**
- ▶ **Shock sensor, S.M.A.R.T.**
- ▶ **Use of Fluid Dynamic Bearing Motor to improve acoustic and shock characteristics**



Cutting-edge storage technology

Redefining state-of-the-art storage for mobile computing, Hitachi introduces the new Hitachi Travelstar C4K40, 1.8-inch, 4200 rpm hard disk drive. Available in 20 and 40 GB, the Travelstar C4K40 leverages the award-winning Travelstar technology legacy in a new form-factor, providing high capacity storage for a wide range of portable mobile equipment.

Designed with Fluid Dynamic Bearing (FDB) motor technology, Giant Magnetoresistive (GMR) heads, and a ME²PRML read channels for exceptional quietness and performance required by today's demanding computing needs.

Ideal for PC, non-PC, and removable mobile storage applications

Delivering both high-capacity and performance, light-weight, with a small form factor, the Travelstar C4K40 is an ideal storage device for not only traditional computing needs, but also for non-traditional products such as handheld PDA's, MP3 players, printers, fax-copiers, and other removable storage devices.

Performance and reliability

Incorporating both a shock sensor and Self-Monitoring Analysis and Report Technology (S.M.A.R.T.), the Travelstar C4K40 is well equipped to help maintain high-performance and fast seek times in applications that require a rugged, slimline form factor.

Hitachi family of Travelstar C4K40 hard disk drives specifications

Product name

Travelstar C4K40

Model number	HTC424020F7AT00 HTC424040F9AT00
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Configuration

Interface	ATA-5
Capacity (GB)	40/20
Sector size (bytes)	512
Number of cylinders	38,957
Data heads	4/2
Disks	2/1

Performance

Data buffer (MB) ¹	2
Rotational speed (rpm)	4,200
Latency (average ms)	71
Max. interface transfer rate (MB/sec)	100MB/sec Ultra DMA mode-5 16.6MB/sec PIO mode-4 Multiword DMA mode-2
Seek time (ms)	
1 track (typical)	3
Average (typical)	15
Full stroke (typical)	26
Read technology	ME ² PRML, ID-less format
Internal transfer rate (MB/s)	16.8-30.0
Recording density (Max. Mbpm)	29.3
Track density (Mtpm)	3.54

Reliability

Error rate (non-recoverable)	< 1 per 10 ¹³ bits transferred
Preventative maintenance	Not required

Power

Requirement	+3.3VDC(±5%)	+5VDC(±5%)
Seek (average)	1.122 W	1.7 W
Spin up (average)	1.485 W	2.25 W
Active idle (average)	0.33W	0.5W
Write (average)	1.555 W	1.75W
Sleep	0.066W	0.1W
Standby (average)	0.099 W	0.15W

Physical size

Height (mm)	9.5 (2 disk) / 7.0 (1 disk)
Width (mm)	70
Depth (mm)	60
Weight (g)	62 (2 disk) / 47 (1 disk)

Environmental characteristics

Operating

Ambient temperature	5° to 55° C (5V) / 5° to 60° C (3.3V)
Relative humidity (non-condensing)	5% - 90%
Maximum wet bulb (non-condensing)	29.4° C (84.2° F)
Shock (half sine wave)	300G/2ms
Vibration (sine wave)	1G (22-500Hz)

Non-operating

Ambient temp	-40° to 70° C (-40° to 158° F)
Relative humidity (non-condensing)	5% - 95%
Maximum wet bulb (non-condensing)	40° C (104° F)
Shock (half sine wave)	1,000G/1ms (2 disk) 1,200G/1ms (1 disk)
Vibration (sine wave)	5G (22-500Hz)

Acoustics (A-Weighted Sound Power (Bels))

Idle (typical)	2.0 (2 disk) 1.8 (1 disk)
Seek (typical)	2.6 (2 disk) 2.5 (1 disk)

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For more information

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