

CinemaStar™ 7K500

3.5-INCH CE HARD DISK DRIVES

HITACHI
Inspire the Next

Main stream storage

Highlights

- > SATA 3.0 Gb/s and PATA 133 interfaces
- > Capacities from 250 GB up to 500 GB ¹
- > Silent-seek acoustics for CE applications
- > Low power idle for cooler system operation
- > Ramp load design for increased shock protection
- > Thermal Monitoring and Fly Height Control for enhanced reliability
- > SMART Command Transport optimized streaming

Applications

- > HD Digital Video Recorders
- > DVD/HDD recorders
- > DVR-enabled televisions
- > Digital audio jukeboxes
- > Media center PCs



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

CinemaStar 7K500

The new CinemaStar™ hard disk drive is optimized for streaming consumer electronics applications like High Definition Digital Video Recorders. Hitachi has designed CinemaStar to provide features for quiet acoustics and low power management to deliver customer satisfaction and field reliability. Advanced features include SMART Command Transport and Thermal Fly-height Control to adapt error correction and environmental system conditions to improve the streaming experience and overall video quality.

Hitachi Design Studios

Hitachi's consumer electronics design studios provide customer hard disk drive and system qualification services. These services include but are not limited to selection of appropriate Hitachi hard drives, evaluation / optimization, integration and design-in consultation, software compatibility assessment, performance profiling, problem analysis and reliability consultation.

Specifications

Model(s)	HCS725050VLAT80 HCS725040VLAT80 HCS725032VLAT80 HCS725025VLAT80	HCS725050VLA380 HCS725040VLA380 HCS725032VLA380 HCS725025VLA380
Interface	Parallel ATA 133	Serial ATA 3Gb/s
Capacity (GB) ¹	500 / 400 / 320 / 250	←
Data heads (physical)	6 / 6 / 4 / 4	←
Data Disks	3 / 3 / 2 / 2	←
Performance		
Data buffer (MB) ²	8	←
Rotational speed (RPM)	7200	←
Media transfer rate (Mbits/sec, max)	998	←
Interface transfer rate (MB/sec, max)	133	300
Seek time (read, typical) (avg. ms) ³	14	←
Reliability		
Error rate (non-recoverable)	1 in 10E14	←
Start/stops (at 40° C)	50,000	←
Availability ³	24x7	←
Power		
Requirement	+5 VDC (+/-5%) +12 VDC (+10%/-8%)	←
Startup (max. A)	2.0 (12V) & 1.1 A (5V)	2.0 (12V) & 1.3 A (5V)
Idle	6.0 (3 disk) 5.0 (2 disk)	7.0 (3 disk) 6.0 (2 disk)
Physical size		
z-height (mm)	26.1	←
Dimensions (width x depth, mm)	101.6 x 147	←
Weight (g, max.)	640	←
Environmental (operating)		
Ambient temperature	0° to 70° C	←
Relative humidity (non-condensing)	8% to 90%	←
Shock (half-sine wave G/2ms)	70	←
Vibration	0.67 for horizontal 0.67 for vertical	←
Environmental (non-operating)		
Ambient temperature	-40° to 65° C	←
Relative humidity (non-condensing)	5% to 95%	←
Shock (half-sine wave G/2ms)	300 (3 disk) 350 (2 disk)	←
Vibration random (G RMS)	1.04 (XYZ)	←
Acoustics (A-weighted sound power)		
Idle (Bels, typ.)	3.0 (3 disk) 2.8 (2 disk)	←

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

² Buffer capacity includes 270 or less KB used for drive firmware

³ Does not include command overhead

⁴ Low duty cycle, non mission-critical applications in PC, nearline and consumer electronics. Customer environments are different from application to application .

Hitachi quality and service

The Hitachi CinemaStar 7K500 extends on the company's reliability and performance leadership. Hitachi's optimized features for consumer electronics products enable quiet acoustics, low power utilization and better shock protection.

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 CinemaStar model number

HCS725050VLAT80 = 500 GB/8 MB buffer

H = Hitachi

C = CinemaStar

S = Standard

72 = 7200 RPM

50 = Full capacity — 500 GB

50 = Capacity this model, 50 = 500 GB

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

V = Generation code

L = 26.1mm z-height

AT = PATA 133 (A3 = SATA 3.0Gb/s)

8 = 8 MB buffer

0 = Reserved

Information and Technical Support

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