

CinemaStar™ Z5K320

2.5-Inch 7mm 5400 RPM CE Hard Disk Drives

Highlights

- Low-profile, 7mm, 2.5-inch design
- Video hard drive with capacities up to 320GB¹
- 24x7 availability²
- Excellent power utilization to help reduce energy costs
- SmoothStream™ technology
- Silent-seek acoustics for quiet operation
- SMART Command Transport (SCT) for streaming optimization

Applications/Environments

- Digital Video Recorders (DVR)
- Set-top Boxes
- Portable Video Players
- DVR-enabled Televisions
- High-end Audio Systems
- Video Surveillance Systems

Expanding the CinemaStar Family

CinemaStar™ Z5K320 is a 7mm, 5400 RPM, 2.5-inch consumer electronics hard drive with capacities from 160GB to 320GB. The 320GB per platter one-disk models have been customized to support digital video and surveillance applications. The slimmer Z5K320 is designed as a direct replacement for standard 9.5mm HDD and is well suited for TV integration and portable video products. HGST SmoothStream technology supports the ATA-7 streaming command set, and SCT provides time-limited error recovery and thermal monitoring capabilities. CinemaStar Z5K320 is offered with silent-seek acoustics for excellent sound quality. With outstanding acoustics, HGST continues to provide near silent operation to make the Z5K320 an ideal choice for home DVR applications and surveillance systems. The Z5K320 demonstrates HGST's ecological leadership with its halogen-free production and focus on low power consumption, and carries the HGST EcoTrac classification. This fifth generation 2.5-inch CinemaStar drive delivers the right balance of capacity, power-management and ruggedness to provide manufacturers with more design flexibility for next-generation ultra-compact video systems.

Reliability Leadership

CinemaStar Z5K320 elevates hard drive reliability to new levels with an improved protection scheme for power fluctuation and enhanced TFC for improved error rates. HGST offers customers system design and integration services including, but not limited to hard drive selection, optimization, software compatibility assessment, performance profiling and problem analysis and reliability consultation. Team HGST is ready to help you deliver a successful video device. The HGST CinemaStar product line is optimized for video applications on any size system.

Features and Benefits

	Feature / Function	Benefits
Capacity	Up to 320GB storage	Up to 80 hours of high-definition video, 320 hours of standard video, 114 movies, 80,000 4-min songs or 160 games *
Reliability	Thermal Fly-height Control (TFC) Media Maintenance	Improved reliability Extends recording life and capabilities
Performance	SMART Command Transport (SCT) ERP Control	Smother streaming and improved error recovery timing for optimum A/V performance
Eco-friendly	1.4W operating power Halogen-free design	Reduces energy cost in A/V applications Smaller carbon footprint
Acoustics	Silent seek	Ultra-quiet operation for improved sound quality
Interface	SATA 3Gb/s	Fast data throughput

* Actual storage may vary depending on the compression rate applied. Capacities may not be combined.



320GB, 250GB and 160GB
5400 RPM | SATA 3Gb/s



HGST Quality and Service

HGST's mobile hard drives are designed to the highest quality standards and contain field-proven components. HGST provides worldwide technical support and integration services to enable global customers to bring their products to market quickly.

How to read the CinemaStar model number

HCC543232A7A380 = 320GB, SATA 3Gb/s

H = HGST

C = CinemaStar

C = Compact

54 = 5400 RPM

32 = Full capacity — 320GB

32 = Capacity this model, 32 = 320GB
(25 = 250GB, 16 = 160GB)

A = Generation code

7 = 7mm z-height

A3 = SATA 3Gb/s

8 = 8MB cache

0 = Reserved

Information and Technical Support

www.hgst.com (Main Web site)

www.hgst.com/partners (Partner Web site)

North America

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Toll free: 1 888 426-5214, Direct: 1 408 717-8087

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support_uk@hgst.com / 44 20 7133 0032

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Program Support

Partners First Program

channelpartners@hgst.com

Specifications

Models	HCC543232A7A380 HCC543225A7A380 HCC543216A7A380
Configuration	
Interface	SATA 3Gb/s
Capacity (GB) ¹	320 / 250 / 160
Sector size (bytes)	512
Recording zones	24
Aerial density (max, Gbit/sq.in)	477
Performance	
Data buffer (MB) ³	8
Rotational speed (RPM)	5400
Latency average (ms)	5.5
Media transfer rate (Mbits/s, max)	994
Interface transfer rate (MB/s)	300
Seek time (ms, typical) ⁴	15
Reliability	
Load/Unload cycle	600,000
Power on hours (POH) per month	730
Availability ² (hrs/day x days/wk)	24x7
Power	
Requirement	+5VDC (+/-5%)
Startup (W, peak, max)	3.5
Operating ⁵ (W, average)	1.4
Low power idle (W, average)	0.55
Physical size	
Height (mm, max)	7
Dimensions (width x depth, mm)	70 x 100
Weight (g, max)	95
Environmental (operating)	
Shock (half-sine wave)	400G/2ms, 225G/1ms
Operating temperature ⁶	0° to 70° C
Environmental (non-operating)	
Shock (half-sine wave)	1000G/1 ms
Ambient temperature	-40° to 65° C
Acoustics (A-weighted sound power)	
Idle (Bels, typical)	1.9
Seek (Bels, typical)	2.0

¹ One GB is equal to one billion bytes when referring to hard drive capacity. Accessible capacity will vary depending on the operating environment and formatting.

² Designed for low duty cycle, non mission-critical applications in PC, nearline and consumer electronics environments, which vary application to application

³ Upper 1568KB out of 8MB used for firmware

⁴ Excludes command overhead

⁵ Assumes CE operational conditions

⁶ Temperature measurement at center of top cover

