

Ultrastar™ C15K147

2.5-Inch SFF Enterprise 15K RPM Hard Disk Drives

Highlights

- 15,000 RPM performance for Tier 0/I applications
- 6Gb/sec SAS moves more data quickly and reliably
- Occupies 70% less space than its 3.5-inch siblings
- Advanced Power Management optimizes power consumption
- Industry's largest 64MB cache buffer in its class
- Capacities up to 147GB¹
- Self-encrypting models conform to TCG's Enterprise A specification

Applications/Environments

- Enhanced performance for space & power constrained environments
- Enterprise-class servers and networked storage arrays
- Blade, pedestal and rack-mounted servers
- Databases and intense Online Transaction Processing (OLTP)
- Business processing, HPC and other applications requiring 24x7 availability

License to Speed

HGST introduces its first small form factor drive spinning at 15,000 RPM that is ideal for high performance enterprise applications. This completes the portfolio of performance hard drives for enterprise-class applications in the mission critical storage tier. Compared to similar 3.5-inch drives from HGST, sequential performance is 29% higher and 11% higher as compared to its 10K RPM sibling. The 64MB cache buffer is the largest in the industry in its class. In addition, Advanced Power Management technology is included to optimize power consumption which lowers datacenter energy usage and cooling costs. This drive uses 50% less power than similar 3.5-inch drives in the HGST lineup. The Ultrastar™ C15K147 drive is designed on the same platform as its 10K RPM sibling to reduce qualification time.

Use Less Space

The C15K147 consumes 70% less space compared to standard 3.5-inch enterprise class drives for storage efficiency. Yet, this drive delivers the performance and reliability required in high performance computing and mission-critical environments running 24x7 operations. The 6Gb/sec SAS interface moves data quickly and reliably with improved availability and scalability.

Compromise Nothing

The Ultrastar C15K147 self-encrypting models conform to the Trusted Computing Group's Enterprise A Security Subsystem Class encryption specification. Now, customers can reduce the costs associated with drive retirement and extend drive life by enabling repurposing of drives.

Features and Benefits

	Feature / Function	Benefits
Return on Investment	15K RPM, 2.5-inch SAS	High performance for confined spaces
	TCG Enterprise A encryption	Reduces drive retirement cost
Performance	SAS 6Gb/s	Fastest interface for performance applications
	64MB cache buffer	Improves response time and data management
	15,000 RPM	Reduces latency for faster access to data
	Rotational Vibration Safeguard (RVS)	Improved system robustness in multi-drive systems
	Workload detector technology	Maximizes performance in RAID environments
Investment	Thermal Fly-height Control (TFC) with internal thermal sensor	Better soft error rate for improved reliability and performance
	Head load/unload	Protects disk during non-operation
	SMART command transport	Adaptive error correction



147GB and 73GB | 15,000 RPM
2.5-inch SFF | SAS 6Gb/s



HGST Quality and Service

HGST's Ultrastar C15K147 extends the company's long-standing tradition of performance and reliability leadership. A balanced combination of new and proven technologies enables high reliability and availability to customer data.

HGST drives are backed by an array of technical support and services, which may include customer and integration assistance. HGST is dedicated to providing a breadth of hard disk drive solutions to satisfy all of today's demanding computing needs.

How to read the Ultrastar model number

HUC151414CSS600 = 147GB, SAS 3Gb/s

H = HGST
 U = Ultrastar
 C = Compact (vs S for Standard)
 15 = 15,000 RPM
 14 = Full capacity — 147GB
 14 = Capacity this model, 14 = 147GB (73 = 73GB)
 C = Generation code
 S = 14.8mm z-height
 S6 = Interface, SAS 6Gb/s
 0 = Reserved
 0 = Reserved (1 = TCG encryption)

Information and Technical Support

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

North America

support_usa@hgst.com
 Toll free: 1 888 426-5214, Direct: 1 408 717-8087

Asia Pacific

support_ap@hgst.com / 65 6840 9595

EMEA and UK

support_uk@hgst.com / 44 20 7133 0032

Germany

support_uk@hgst.com / 49 6929 993601

Program Support

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Specifications

Models	HUC151414CSS600 HUC151414CSS601 HUC151473CSS600 HUC151473CSS601
Configuration	
Interface	SAS 6Gb/s
Capacity (GB) ¹	147GB / 73GB
Sector size (variable, bytes/sector)	512-528 (4 byte incr.)
Data heads (physical)	4 / 2
Data disks	2 / 1
Performance	
Data buffer (MB) ²	64
Rotational speed (RPM)	15,000
Latency average (ms)	1057
Interface transfer rate (MB/s, max)	600
Sustained transfer rate (MB/s, typical)	159 - 116
Seek time (read, ms, typical) ³	3.0
Reliability	
Error rate (non-recoverable, bits read)	1 in 10 ¹⁶
MTBF ⁴ (M hours)	1.6
Availability (hrs/day x days/wk)	24x7
Acoustics	
Idle (Bels, typical)	2.9
Power	
Requirement	+5 VDC (+/-5%), +12 VDC (+/-5%)
Operating, (W, typical)	7.3 / 6.8
Unload idle (W)	4.4 / 4.0
Physical size	
z-height (mm)	14.8
Dimensions (width x depth, mm)	70.1 x 100.5
Weight (g, max)	225
Environmental (operating)	
Ambient temperature	5° to 55° C
Shock (half-sine wave 2 ms, G)	60 (2ms)
Vibration (5 to 500 Hz)	1.5G, all axes
Environmental (non-operating)	
Ambient temperature	-40° to 70° C
Shock (half-sine wave, G)	300 (2ms)
Vibration (5 to 500 Hz)	2.5G, all axes

¹ One MB is equal to one million bytes, one GB is equal to one billion bytes and one TB equals 1,000GB (one trillion bytes) when referring to hard drive capacity. Accessible capacity will vary from the stated capacity due to formatting and partitioning of the hard drive, the computer's operating system, and other factors.

² Portion of buffer capacity used for firmware

³ Excludes command overhead

⁴ MTBF target is based on a sample population and is estimated by statistical measurements and acceleration algorithms under median operating conditions. MTBF ratings are not intended to predict an individual drive's reliability. MTBF does not constitute a warranty.

