

WD VelociRaptor™

SATA Hard Drives

Killer Speed
Rock-solid Reliability
5-year Limited Warranty



Interface

SATA 3 Gb/s

Width/Height

3.5-inch/1-inch

Rotational Speed

10,000 RPM

Capacities

150 and 300 GB

Model Numbers

WD3000HLFS
WD1500HLFS

Note: Not all products may be available in all regions of the world.

Engineered for maximum speed! WD VelociRaptor, the newest member of our unique class of 10,000 RPM SATA hard drives, combines a SATA 3 Gb/s interface and 16 MB cache to deliver performance that's up to 35% faster than its speedy older brother, the WD Raptor®.

Product Benefits

Killer speed – Built on the performance bloodlines of WD Raptor, these 10,000 RPM drives, with SATA 3 Gb/s interface and 16 MB cache, deliver mind-bending performance. Not only are they 35% faster than the previous generation of WD Raptor drives, but they also beat out all other competitors in the field.

Rock-solid reliability – Designed and manufactured to mission-critical enterprise-class standards to provide enterprise reliability in high duty cycle environments. With 1.4 million hours MTBF, these drives have the highest available reliability rating on a high-capacity SATA drive.

Double the capacity – State-of-the-art technology packs twice the capacity per disk compared to its older brother WD Raptor, resulting in up to 300 GB of high-performance storage space in this enterprise-class 2.5-inch drive.

Ultra-cool operation – WD VelociRaptor consumes 35% less power than the previous generation of WD Raptor.

IcePack™ mounting frame – The 2.5-inch WD VelociRaptor is enclosed in a backplane-ready 3.5-inch enterprise-class mounting frame with a built-in heat sink that keeps this powerful little drive extra cool when installed in high-performance desktop chassis.

Rotary Acceleration Feed Forward (RAFF™) – Optimizes operation and performance when the drives are used in vibration-prone, multi-drive chassis.

NoTouch™ ramp load technology – The recording head never touches the disk media ensuring significantly less wear to the recording head and media as well as better drive protection in transit.

The WD Promise



WD understands the importance of the information you save to your hard drive and we are committed to protecting that data with exceptionally reliable products, advanced data protection technology, and superior customer support. No one does more to safeguard your data than WD.

WD VelociRaptor

SATA Hard Drives

Physical Specifications¹

	150 GB	300 GB
Formatted capacity	150,039 MB	300,069 MB
User sectors per drive	293,046,768	586,072,368
WD model number	WD1500HLFS	WD3000HLFS
SATA latching connector	Yes	Yes
Bytes per sector (STD)	512	512
Form factor ²	3.5-inch	3.5-inch
Interface	SATA 3 Gb/s	SATA 3 Gb/s
RoHS compliant ³	Yes	Yes



Performance Specifications¹

Average latency	3 ms
Buffer	16 MB
Cache	
Read	Adaptive
Write	Yes
Data transfer rate (maximum)	
Buffer to host	3 Gb/s
Host to/from drive	126 MB/s sustained
Drive ready time	7.0 sec (average), 10 sec (maximum)
Error rate (non-recoverable)	<1 in 10 ¹⁵ bits read
Rotational speed	10,000 RPM
Seek time	
Read	4.2 ms (average)
Write	4.7 ms (average)
Track-to-track seek time	0.7 (maximum)
Load/unload cycles	50,000 minimum
Limited warranty ⁴	5-year



For service and literature:

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¹As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, and gigabit per second (Gb/s) = one billion bits per second. Effective maximum SATA 3 Gb/s transfer rate calculated according to the Serial ATA specification published by the SATA-IO organization as of the date of this specification sheet. Visit www.sata-io.org for details.

²A 2.5-inch drive in a 3.5-inch IcePack heat sink mounting frame.

³WD products manufactured and sold worldwide after August 1, 2005, meet or exceed Restriction of Hazardous Substances (RoHS) compliance requirements as mandated by the European Union for electrical and electronic products. The RoHS Directive 2002/95/EC of the European Parliament, which is effective in the EU beginning July 1, 2006, aims to protect human health and the environment by restricting the use of certain hazardous substances in new equipment, and consists of restrictions on lead, mercury, cadmium, and other substances.

⁴Standard five-year limited warranty, unless otherwise required by law. For extended warranty information, visit our Web site at support.wdc.com.

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