WD RE4-GP

Power-Saving Hard Drives

Faster Performance
Reduced Power Consumption
Lower Cost of Ownership

Interface

SATA

Width/Height

3.5-inch/1-inch

Rotational Speed

IntelliPower

Capacities

2 TB

Model Numbers

WD2002FYPS

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

Available in capacities up to 2 TB, WD RE4-GP SATA hard drives offer data-hungry organizations massive capacity with significant power savings and lower cost of ownership compared to competitors' standard enterprise-class drives. Based on WD's exclusive GreenPower™ platform, these drives are designed to deliver power savings as the primary attribute and are equipped with 64 MB cache, dual processors, and IntelliPower™, a fine-tuned balance of spin speed, transfer rate, and caching algorithms designed to deliver both significant power savings and solid performance.

Product Benefits

Faster — 64 MB cache, dual processors, and increased areal density yield twice the processing power which results in up to a 25 percent performance improvement over the previous generation.

Greener — Improvements in our power-conserving technologies — IntelliSeek™, IntelliPark™, and IntelliPower™ — deliver improved power consumption over our previous generation of WD RE-GP drives.

Improved rotary vibration tolerance — Optimized drive mechanics, system characterization, and process validation yields unmatched performance in high vibration environments.

Lower total cost of ownership — Large data-hungry financial institutions and web service providers can save up to $10 savings per drive per year in electricity costs (U.S). A large data center with 10,000 drives could realize up to $100,000 in savings per year.

24x7 reliability — With 1.2 million hours MTBF, these drives have the highest available reliability rating on a high-capacity drive.

Product Features

IntelliPower — A fine-tuned balance of spin speed, transfer rate, and caching algorithms designed to deliver both significant power savings and solid performance. Additionally, GreenPower™ drives consume less current during start up allowing more drives to spin up simultaneously resulting in faster system readiness.

IntelliSeek — Calculates optimum seek speeds to lower unnecessary power consumption, noise, and vibration.

IntelliPark — Delivers lower power consumption by automatically unloading recording heads during idle to reduce aerodynamic drag, and by disengaging read/write channel electronics.

Active Power Management — WD GreenPower drives monitor work load and automatically invoke idle mode whenever possible to further reduce unnecessary power consumption. Drive recovery time from idle mode is less than one second, providing seamless power management between the drive and the host controller.

StableTrac™ — Secures the motor shaft at both ends to reduce system-induced vibration and stabilize platters for accurate tracking during read and write operations.

RAID-specific time-limited error recovery (TLER) — Pioneered by WD, this feature prevents drive fallout caused by the extended hard drive error-recovery processes common to desktop drives.

Rotary Acceleration Feed Forward (RAFF™) optimizes operation and performance when the drives are used in vibration-prone multi-drive systems such as rackmounted servers.

GreenPower™ TECHNOLOGY

Western Digital®

PUT YOUR LIFE ON IT®

WD RE4-GP

Power Saving Hard Drives

Enterprise Hard Drives

Specifications[1]	**2 TB**
Model number	WD2002FYPS
Interface	SATA 3 Gb/s
Formatted capacity	2,000,398 MB
User sectors per drive	3,907,029,168
Native command queuing	Yes
SATA latching connector	Yes
Actuator latch/auto park	Yes
Form factor	3.5-inch
RoHS compliant[2]	Yes
Performance	
Data transfer rate (max) Buffer to host Host to/from drive (sustained)	 3 Gb/s 110 MB/s
Cache (MB)	64
Rotational speed (RPM)	IntelliPower
Average drive ready time (sec)	17
Configuration/Organization	
Heads/disks	8/4
Bytes per sector (STD)	512
Reliability/Data Integrity	
Load/unload cycles[3]	600,000
Non-recoverable read errors per bits read	<1 in 10^{15}
Limited warranty (years)[4]	5
Power Management	
12VDC (A, max)	1.8
Average power requirements (W) Read/Write Idle Standby Sleep	 6.8 3.7 0.8 0.8
Environmental Specifications[5]	
Temperature (°C) Operating Non-operating	 5 to 55 -40 to 70
Shock (Gs) Operating (2 ms, read) Operating (2 ms, read/write) Non-operating (2 ms)	 30 65 300
Average acoustics (dBA)[6] Idle mode Performance seek mode Quiet seek mode	 25 29 26
Physical Dimensions	
Height (in./mm, max)	1.028/26.1
Length (in./mm, max)	5.787/147
Width (in./mm, ± .01 in.)	4/101.6
Weight (lb./kg, ± 10%)	1.61/0.73

[1] *As 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.*

[2] *WD 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.*

[3] *Controlled unload at ambient condition.*

[4] *The term of the limited warranty may vary by region. Visit support.wdc.com/warranty for details.*

[5] *No non-recoverable errors during operating test or after non-operating tests.*

[6] *Sound power level.*

For service and literature:
support.wdc.com
www.westerndigital.com

800.ASK.4WDC	North America
800.832.4778	Spanish
+800.6008.6008	Asia Pacific
00800.27549338	Europe (toll free where available)
+31.880062100	Europe/Middle East/Africa

Western Digital
20511 Lake Forest Drive
Lake Forest, California 92630
U.S.A

2879-701312-A00 Apr 2009

Western Digital®