



WD RE4-GP

Power-Saving Hard Drives

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. These drives are designed with WD GreenPower Technology™ 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.



INTERFACE

SATA

WIDTH/HEIGHT

3.5-inch/1-inch

ROTATIONAL SPEED

IntelliPower

CAPACITIES

1.5 TB and 2 TB

MODEL NUMBERS

WD2002FYPS

WD1502FYPS

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

Product Benefits

Faster

Massive 64 MB cache, dual processors, and increased areal density yield twice the processing power which results in up to 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, drives with WD GreenPower Technology 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

Drives with WD GreenPower Technology monitor the 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.



PUT YOUR LIFE ON IT®



WD RE4-GP

Specifications ¹	2 TB	1.5 TB
Model number	WD2002FYPS	WD1502FYPS
Interface	SATA 3 Gb/s	SATA 3 Gb/s
Formatted capacity	2 TB	1.5 TB
User sectors per drive	3,907,029,168	2,930,277,168
Native command queuing	Yes	Yes
SATA latching connector	Yes	Yes
Form factor	3.5-inch	3.5-inch
RoHS compliant ²	Yes	Yes
Performance		
Data transfer rate (max)		
Buffer to host	3 Gb/s	3 Gb/s
Host to/from drive (sustained)	110 MB/s	110 MB/s
Cache (MB)	64	64
Rotational speed (RPM)	IntelliPower	IntelliPower
Average drive ready time (sec)	17	17
Configuration/Organization		
Heads/disks	8/4	6/3
Bytes per sector (STD)	512	512
Reliability/Data Integrity		
Load/unload cycles ³	600,000	600,000
Non-recoverable read errors per bits read	<1 in 10 ¹⁵	<1 in 10 ¹⁵
Limited warranty (years) ⁴	5	5
Power Management		
12VDC (A, max)	1.8	1.8
Average power requirements (W)		
Read/Write	6.8	7.4
Idle	3.7	4.0
Standby	0.8	1.1
Sleep	0.8	1.1
Environmental Specifications⁵		
Temperature (°C)		
Operating	5 to 55	5 to 55
Non-operating	-40 to 70	-40 to 70
Shock (Gs)		
Operating (2 ms, read)	30	30
Operating (2 ms, read/write)	65	65
Non-operating (2 ms)	300	300
Average acoustics (dBA) ⁶		
Idle mode	25	25
Performance seek mode	29	29
Quiet seek mode	26	26
Physical Dimensions		
Height (in./mm, max)	1.028/26.1	1.028/26.1
Length (in./mm, max)	5.787/147	5.787/147
Width (in./mm, ± .01 in.)	4/101.6	4/101.6
Weight (lb./kg, ± 10%)	1.61/0.73	1.61/0.73

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.

²WD hard drive products manufactured and sold worldwide after June 1, 2006, 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.

³Controlled unload at ambient condition

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

⁵No non-recoverable errors during operating tests or after non-operating tests.

⁶Sound power level.

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