WD AV-GP

Power-saving Hard Drives

24x7 Reliability
Cool Running
Whisper Quiet

Ideal for set top boxes, media servers, media centers, and mainstream surveillance systems.

Green Power for AV: Cool. Quiet. Reliable.

Power-conserving WD AV-GP SATA hard drives take advantage of WD GreenPower Technology™ to meet the extreme requirements of demanding audio and video environments. With power reduction of up to 40 percent, they deliver cool and quiet operation and reliability perfect for audio video applications such as PVRs, DVRs, set-top boxes (STBs) as well as surveillance video recording.

- **Long-term reliability** – These drives are designed to last in high temperature, always-on, streaming digital audio/video environments.
- **Reduced power consumption** – With the combination of WD's IntelliSeek™, IntelliPark™, and IntelliPower™ technologies, WD has reduced power consumption by up to 40 percent compared to competitors' drives.
- **Quiet** – Noise levels have been optimized to less than one sone* – virtually below the threshold of human hearing.

Technology Features

SilkStream™ – Optimized for smooth, continuous digital video playback of up to twelve simultaneous HD streams. SilkStream is compatible with the ATA streaming command set so CE customers can use standard streaming management and error recovery options.

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

IntelliPower – A fine-tuned balance of spin speed, transfer rate, and caching algorithms designed to deliver both significant power savings and solid performance.

IntelliPark – Delivers lower power consumption by automatically unloading the heads during idle to reduce aerodynamic drag.

Preemptive Wear Leveling (PWL) – The drive arm frequently sweeps across the disk to reduce uneven wear on the drive surface common to audio video streaming applications.

*A sone is a subjective unit of loudness as perceived by a person with normal hearing.

Western Digital®

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Specifications[1]	2 TB	1.5 TB	1 TB	750 GB	640 GB	500 GB	320 GB	250 GB	160 GB
Model numbers	WD20EVDS	WD15EVDS	WD10EVDS WD10EVVS	WD7500AVVS	WD6400AVVS	WD5000AVVS	WD3200AVVS	WD2500AVVS	WD1600AVVS
Formatted capacity	2,000,398 MB	1,500,301 MB	1,000,204 MB	750,156 MB	640,135 MB	500,107 MB	320,072 MB	251,059 MB	160,041 MB
User sectors per drive	3,907,029,168	2,930,277,168	1,953,525,168	1,465,149,168	1,250,263,728	976,773,168	625,142,448	490,350,672	312,581,808
Native command queuing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SATA latching connector	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Actuator latch/auto park	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch
RoHS compliant[2]									
Performance									
Data transfer rate (max) Buffer to host (SATA) Host to/from drive (sustained)	SATA 3 Gb/s 110 MB/s	SATA 3 Gb/s 110 MB/s	SATA 3 Gb/s 111 MB/s	SATA 3 Gb/s 111 MB/s	SATA 3 Gb/s 108 MB/s	SATA 3 Gb/s 108 MB/s	SATA 3 Gb/s 80 MB/s	SATA 3 Gb/s 80 MB/s	SATA 3 Gb/s 80 MB/s
Cache (MB)	32	32	32 (WD10EVDS) 8 (WD10EVVS)	8	8	8	8	8	8
Average latency (ms)	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Rotational speed (RPM)	IntelliPower	IntelliPower	IntelliPower	IntelliPower	IntelliPower	IntelliPower	IntelliPower	IntelliPower	IntelliPower
Average drive ready time (sec)	14.5	14.5	14.3	14.3	14.3	14.3	8	8	8
Configuration/Organization									
Reliability/Data Integrity									
Load/unload cycles[3]									
	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}
Limited warranty (years)[4]	3	3	3	3	3	3	3	3	3
Power Management									
Environmental Specifications[5]									
Temperature (°C) Base casting (max) Operating Non-operating	70 0 to 60 -40 to 70	70 0 to 60 -40 to 70	70 0 to 60 -40 to 70	70 0 to 60 -40 to 70	70 0 to 60 -40 to 70	70 0 to 60 -40 to 70	70 0 to 60 -40 to 70	70 0 to 60 -40 to 70	70 0 to 60 -40 to 70
Shock (Gs) Operating (2 ms, read) Operating (2 ms, read/write) Non-operating (2 ms)	30 65 250	30 65 250	30 65 250	30 65 250	30 65 300	30 65 300	30 65 350	30 65 350	30 65 350
Average acoustics (dBA)[6] Idle mode Quiet seek mode	25 26	25 26	24 25	24 25	24 25	24 25	22 22	22 22	22 22
Physical Dimensions									
Width (in./mm, ± .01 in.)	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6
Weight (lb./kg, ± 10%)	1.61/0.73	1.61/0.73	1.39/0.63	1.39/0.63	1.32/0.60	1.32/0.60	0.99/0.45	0.99/0.45	0.99/0.45

[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]

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

[6]

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