



## WD\_BLACK™ 3.5-inch PERFORMANCE HARD DRIVE

### WHERE PERFORMANCE MEETS CAPACITY

#### INSPIRING PERFORMANCE AND CAPACITY

WD\_BLACK™ performance storage is designed to enhance your PC experience across heavier computing tasks whether you are a digital artist, video editor, photographer, or gamer. Available with an impressive 256 MB of DRAM cache on higher capacity models, the WD\_BLACK drive is optimized for drive performance so you can spend more time experiencing the things you love most. Enhance your PC's performance even further when you combine a WD\_BLACK drive with an SSD for a dual drive configuration, allowing you to benefit from the additional caching of your operating system onto the SSD for increased performance. All together, the WD\_BLACK drive gives you the hard drive performance, capacity and an industry leading 5-year limited warranty for an inspiring three-in-one storage solution.

#### PRODUCT HIGHLIGHTS

- Desktop performance hard drive
- Performance storage available in up to 10TB capacities
- 2X DRAM cache up to 256 MB for faster read operations
- Designed for creative professionals, gamers and system builders
- WD's StableTrac™ and Dynamic Cache Technology increase reliability and optimize performance
- Industry-leading 5-year limited warranty

**INTERFACE**  
SATA 6 Gb/s

**FORM FACTOR**  
3.5-inch

**CAPACITIES**  
500GB to 10TB

**MODEL NUMBERS**  
WD101FZBX  
WD8001FZBX  
WD6003FZBX  
WD4005FZBX  
WD2003FZEX  
WD1003FZEX  
WD5003AZEX

#### FOR GAMERS

The WD\_BLACK drive is the perfect storage solution for your gaming machine by offering large capacities to store your game's downloadable content (DLC), large cache sizes, and it is the perfect complement for maximum system performance when combined with an SSD.

#### FOR CREATIVE PROFESSIONALS

When it comes to storing your creativity and entire digital portfolio, look no further than WD\_BLACK™ performance storage for your best solution. Use the WD\_BLACK drive for storing your large multimedia files of photos, videos, games or applications and programs because with a WD\_BLACK drive, you get the best combination of speed, capacity and large cache sizes.

#### INCREASED RELIABILITY

The WD\_BLACK™ drive is equipped with StableTrac Technology (2TB and larger models). This secures the motor shaft inside of the hard drive to increase reliability and help reduce impact due to system-induced vibrations from other components such as additional gaming hardware. By stabilizing the platters inside, the WD\_BLACK drive results in more accurate tracking in a particular sector during read and write operations, optimizing performance and reliability.

#### AN INDUSTRY LEADING WARRANTY

Compared to standard hard drives such as WD Blue™, our WD\_BLACK™ hard drives pass more strenuous and aggressive internal testing over a longer period of time which is why the WD\_BLACK drive is backed by an industry leading 5-year limited warranty. Our success combined with innovation, refinement, and our passion for storage instills confidence in our consumers.

# WD BLACK™ 3.5-INCH PC HARD DRIVE

PRODUCT BRIEF

3.5-INCH PC HARD DRIVES

## SPECIFICATIONS

	10TB	8TB	6TB	4TB	2TB	1TB	500GB
<b>MODEL NUMBER<sup>1</sup></b>	WD101FZBX	WD8001FZBX	WD6003FZBX	WD4005FZBX	WD2003FZEX	WD1003FZEX	WD5003AZEX
Recording Technology	CMR	CMR	CMR	CMR	CMR	CMR	CMR
Formatted capacity <sup>2</sup>	10TB	8TB	6TB	4TB	2TB	1TB	500GB
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch
Advanced Format (AF)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RoHS compliant <sup>3</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>PERFORMANCE</b>							
Interface transfer rate (max) <sup>1</sup>							
Buffer to host	6 Gb/s	6 Gb/s	6 Gb/s	6 Gb/s	6 Gb/s	6 Gb/s	6 Gb/s
Host to/from drive (sustained)	263 MB/s	263 MB/s	227 MB/s	256 MB/s	164 MB/s	150 MB/s	150 MB/s
Cache (MB) <sup>1</sup>	256	256	256	256	64	64	64
Performance Class	7200 RPM	7200 RPM	7200 RPM	7200 RPM	7200 RPM	7200 RPM	7200 RPM
<b>RELIABILITY/DATA INTEGRITY</b>							
Load/unload cycles <sup>4</sup>	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Non-recoverable read errors per bits read	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>
Limited warranty (years) <sup>5</sup>	5	5	5	5	5	5	5
<b>POWER MANAGEMENT<sup>6</sup></b>							
Average power requirements (W)							
Read/Write	8.4	8.2	9.1	9.1	9.5	6.8	6.8
Idle	4.6	4.6	7.1	5.8	8.1	6.1	6.1
Standby and Sleep	0.5	0.45	1.0	1.0	1.3	0.8	0.8
<b>ENVIRONMENTAL SPECIFICATIONS<sup>7</sup></b>							
Temperature (°C)							
Operating	5 to 55	5 to 55	5 to 55	5 to 55	5 to 55	0 to 60	0 to 60
Non-operating	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock (Gs)							
Operating (2 ms, read/write)	30	30	30	30	30	30	30
Operating (2 ms, read)	70	70	70	70	70	70	70
Non-operating (2 ms)	250	250	300	300	300	350	350
Acoustics (dBA) <sup>8</sup>							
Idle	34	29	29	29	29	29	29
Seek (average)	38	36	36	36	34	30	30
<b>PHYSICAL DIMENSIONS</b>							
Height (in./mm, max)	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1
Length (in./mm, max)	5.787/147	5.787/147	5.787/147	5.787/147	5.787/147	5.787/147	5.787/147
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
Weight (lb/kg)	1.65/0.75 ± 3%	1.58/0.72 ± 3%	1.58/0.72 ± 3%	1.58/0.72 ± 10%	1.32/0.60	0.99/0.45	0.95/0.43

Specifications subject to change without notice.

<sup>1</sup> Not all products may be available in all regions of the world.

<sup>2</sup> 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](http://www.sata-io.org) for details.

<sup>3</sup> WD hard drive products manufactured and sold worldwide after June 8, 2011, meet or exceed Restriction of Hazardous Substances (RoHS) compliance requirements as mandated by the RoHS Directive 2011/65/EU.

<sup>4</sup> Controlled unload at ambient condition.

<sup>5</sup> See <http://support.wd.com/warranty> for regional specific warranty details.

<sup>6</sup> Power measurements at room-ambient temperature.

<sup>7</sup> No non-recoverable errors during operating tests or after non-operating tests.

<sup>8</sup> Sound power level.

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