# WD_BLACK™ 3.5-Inch Gaming Hard Drive

## Gaming Performance And Capacity

WD_BLACK™ is purpose-built to enhance your PC gaming experience. Available with an impressive 512 MB[1] of DRAM cache on higher capacity models, the WD_BLACK HDD is performance-optimized so you can spend more time gaming and less time loading. Combine a WD_BLACK HDD with a WD_BLACK SSD for a dual-drive configuration that maximizes your gaming experience while letting you keep more of your favorite games. The WD_BLACK HDD gives you fast hard drive speeds, high capacity, and an industry-leading 5-year limited warranty[2] for an inspiring game storage solution.

## Highlights

- Desktop performance gaming hard drive

- Performance storage available in up to 10TB[1] capacities

- Designed for gamers, system builders, and creative professionals.

- Western Digital's StableTrac™ and Dynamic Cache Technology increase reliability and optimize performance

- An industry-leading 5-year limited warranty[2]

## Ideal for:

- High-performance PC systems

- Desktops

- All-In-One PCs

- Gaming PCs

- Home Media PCs

## Drive Your Game

The WD_BLACK™ HDD is the perfect storage solution for your gaming rig, offering large cache sizes plus large capacities to store your favorite titles and their down-loadable content (DLC). Paired with an SSD, the powerful drive delivers exceptional system performance and capacity.

## Store More, Play More

With capacities up to 10TB[1], WD_BLACK™ Gaming Hard Drives let you download the latest AAA titles while also keeping your ever-growing catalog of classics and favorites ready to play. Don't compromise on your game collection. Store more and game more with WD_BLACK.

## Increased Reliability

The WD_BLACK™ Gaming Hard Drive is equipped with StableTrac™ Technology (2TB[1] 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. 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.

## Commanding Performance

The WD_BLACK™ drive delivers high-speed read rates and transfers of your games with impressive cache sizes of up to 512 MB[1] of DRAM on our high-capacity models. Western Digital's Dynamic Cache Technology improves caching algorithms in real time to allocate and optimize cache between reads and writes. Spend less time loading and more time winning.

## Battle-Tested Dual Processor

When it comes to processing power, more is better for loading today's larger games. The WD_BLACK™ Gaming Hard Drive features a dual-core processor that offers twice the processing capability as a single-core processor to help maximize drive performance for geting into the game faster.

## An Industry-Leading 5-Year Limited Warranty

Compared to standard hard drives, our WD_BLACK™ Gaming 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[2].

# WD_BLACK™ 3.5-Inch Gaming Hard Drive

## Product Specifications

| Model Number | WD102FZBX | WD101FZBX | WD8002FZBX | WD8001FZBX | WD8002FZWX | WD6004FZBX | WD6003FZBX |
|---|---|---|---|---|---|---|---|
| Formatted capacity[1] | 10TB | 10TB | 8TB | 8TB | 8TB | 6TB | 6TB |
| Recording Technology | CMR | CMR | CMR | CMR | CMR | CMR | CMR |
| Interface | SATA | SATA | SATA | SATA | SATA | SATA | SATA |
| Form factor | 3.5-inch | 3.5-inch | 3.5-inch | 3.5-inch | 3.5-inch | 3.5-inch | 3.5-inch |
| RoHS compliant[2] | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Performance** | | | | | | | |
| Interface transfer rate (max)[3] | 6 Gb/s | 6 Gb/s | 6 Gb/s | 6 Gb/s | 6 Gb/s | 6 Gb/s | 6 Gb/s |
| Internal transfer rate (max) | 267 MB/s | 263 MB/s | 267 MB/s | 263 MB/s | 238 MB/s | 267 MB/s | 227 MB/s |
| Cache (MB)[1] | 512 | 256 | 256 | 256 | 128 | 256 | 256 |
| RPM | 7200 | 7200 | 7200 | 7200 | 7200 | 7200 | 7200 |
| **Reliability/Data Integrity** | | | | | | | |
| Load/unload cycles[4] | 300,000 | 300,000 | 300,000 | 300,000 | 300,000 | 300,000 | 300,000 |
| Non-recoverable read errors per bits read | <1 in 10^14 | <1 in 10^14 | <1 in 10^14 | <1 in 10^14 | <1 in 10^14 | <1 in 10^14 | <1 in 10^14 |
| Limited warranty[5] | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| **Power Management[6]** | | | | | | | |
| Average Power (W)<br>Read/Write<br>Idle<br>Standby/Sleep | 8.8<br>8.2<br>0.3 | 8.4<br>4.6<br>0.5 | 6.9<br>6.5<br>0.3 | 8.2<br>4.6<br>0.45 | 8.7<br>7.9<br>0.29 | 6.9<br>6.5<br>0.3 | 9.1<br>7.1<br>1 |
| **Environmental Specifications[7]** | | | | | | | |
| Temperature (°C) | | | | | | | |
| Operating<br>Non-operating | 5 to 60<br>-40 to 70 | 5 to 60<br>-40 to 70 | 5 to 60<br>-40 to 70 | 5 to 60<br>-40 to 70 | 5 to 60<br>-40 to 70 | 5 to 60<br>-40 to 70 | 5 to 60<br>-40 to 70 |
| Shock (Gs)<br>Operating (2 ms, read/write)<br>Operating (2 ms, read)<br>Non-operating (2 ms) | 70<br>70<br>250 | 30<br>70<br>250 | 70<br>70<br>300 | 30<br>70<br>250 | 30<br>70<br>250 | 70<br>70<br>300 | 30<br>70<br>300 |
| Acoustics (dBA)<br>Idle<br>Seek (average) | 34<br>39 | 34<br>38 | 29<br>36 | 29<br>36 | 28<br>34 | 29<br>36 | 29<br>36 |
| **Physical Dimensions** | | | | | | | |
| Height (in./mm, max) | 1.028/26.1 | 1.028/26.2 | 1.028/26.3 | 1.028/26.4 | 1.028/26.5 | 1.028/26.6 | 1.028/26.7 |
| Length (in./mm, max) | 5.787/147 | 5.787/148 | 5.787/149 | 5.787/150 | 5.787/151 | 5.787/152 | 5.787/153 |
| Width (in./mm, ± .01 in.) | 4/101.6 | 5/101.6 | 6/101.6 | 7/101.6 | 8/101.6 | 9/101.6 | 10/101.6 |
| Weight (lb/kg, ± 3%) | 1.65/0.75 | 1.65/0.75 | 1.58/0.715±10% | 1.58/0.72±10% | 1.65/0.75 | 1.58/0.715±10% | 1.58/0.72±10% |

# WD_BLACK™ 3.5-Inch Gaming Hard Drive

## Product Specifications

| Model Number | WD6004FZWX | WD4006FZBX | WD4005FZBX | WD2003FZEX | WD1003FZEX | WD5003AZEX |
|---|---|---|---|---|---|---|
| Formatted capacity[1] | 6TB | 4TB | 4TB | 2TB | 1TB | 500GB |
| Recording Technology | CMR | CMR | CMR | CMR | CMR | CMR |
| Interface | SATA | SATA | SATA | SATA | SATA | SATA |
| Form factor | 3.5-inch | 3.5-inch | 3.5-inch | 3.5-inch | 3.5-inch | 3.5-inch |
| RoHS compliant[2] | Yes | Yes | Yes | Yes | Yes | Yes |
| **Performance** | | | | | | |
| Interface transfer rate (max)[3] | 6 Gb/s | 6 Gb/s | 6 Gb/s | 6 Gb/s | 6 Gb/s | 6 Gb/s |
| Internal transfer rate (max) | 229 MB/s | 267 MB/s | 202 MB/s | 164 MB/s | 150 MB/s | 150 MB/s |
| Cache (MB)[1] | 128 | 256 | 256 | 64 | 64 | 64 |
| RPM | 7200 | 7200 | 7200 | 7200 | 7200 | 7200 |
| **Reliability/Data Integrity** | | | | | | |
| Load/unload cycles[4] | 300,000 | 300,000 | 300,000 | 300,000 | 300,000 | 300,000 |
| Non-recoverable read errors per bits read | <1 in 10^14 | <1 in 10^14 | <1 in 10^14 | <1 in 10^14 | <1 in 10^14 | <1 in 10^14 |
| Limited warranty[5] | 5 | 5 | 5 | 5 | 5 | 5 years |
| **Power Management[6]** | | | | | | |
| Average Power (W)<br>Read/Write<br>Idle<br>Standby/Sleep | 8.7<br>7.9<br>0.29 | 5.8<br>5.4<br>0.3 | 9.1<br>5.8<br>1 | 9.5<br>8.1<br>1.3 | 6.8<br>6.1<br>0.8 | 6.8<br>6.1<br>0.8 |
| **Environmental Specifications[7]** | | | | | | |
| Temperature (°C)<br>Operating<br>Non-operating | <br>5 to 60<br>-40 to 70 | <br>5 to 60<br>-40 to 70 | <br>5 to 60<br>-40 to 70 | <br>5 to 60<br>-40 to 70 | <br>5 to 60<br>-40 to 70 | <br>5 to 60<br>-40 to 70 |
| Shock (Gs)<br>Operating (2 ms, read/write)<br>Operating (2 ms, read)<br>Non-operating (2 ms) | <br>30<br>70<br>300 | <br>70<br>70<br>300 | <br>30<br>70<br>300 | <br>30<br>70<br>300 | <br>30<br>70<br>350 | <br>30<br>70<br>350 |
| Acoustics (dBA)<br>Idle<br>Seek (average) | <br>28<br>34 | <br>29<br>36 | <br>29<br>36 | <br>29<br>34 | <br>29<br>30 | <br>29<br>30 |
| **Physical Dimensions** | | | | | | |
| Height (in./mm, max) | 1.028/26.8 | 1.028/26.9 | 1.028/26.10 | 1.028/26.11 | 1.028/26.12 | 1.028/26.13 |
| Length (in./mm, max) | 5.787/154 | 5.787/155 | 5.787/156 | 5.787/157 | 5.787/158 | 5.787/159 |
| Width (in./mm, ± .01 in.) | 11/101.6 | 12/101.6 | 13/101.6 | 14/101.6 | 15/101.6 | 16/101.6 |
| Weight (lb/kg, ± 3%) | 1.65/0.75 | 1.58/0.715±10% | 1.58/0.72±10% | 1.32/0.60 | 0.99/0.45 | 0.95/0.43 |

[1] 1MB = 1 million bytes, 1GB = 1 billion bytes, and 1TB = 1 trillion bytes. Actual user capacity may be less depending on operating environment.

[2] This drive is in compliance with the European Union Directive 2011/65/EU and Directive (EU) 2015/863 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

[3] Up to stated speed. 1 MB/s = 1 million bytes per second. Based upon read speed, unless otherwise stated. Performance may vary depending upon host device, usage conditions, drive capacity and other factors.

[4] Controlled unload at ambient condition.

[5] See http://support.wd.com/warranty for regional specific warranty details.

[6] Power measurements at room-ambient temperature.

[7] No non-recoverable errors during operating tests or after non-operating tests.

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