# WD Caviar® Blue™
## Desktop Hard Drives

WD Caviar Blue hard drives are available with either SATA or PATA interface in a variety of cache sizes with a multitude of available features to deliver rock solid performance and ultra-cool and quiet operation perfect for family and business computing.

| INTERFACES | WIDTH/HEIGHT | ROTATIONAL SPEED | CAPACITIES |
|---|---|---|---|
| SATA 6 Gb/s and 3 Gb/s<br>PATA 100 MB/s | 3.5-inch/1-inch | 7200 RPM | 80 GB to 1 TB |

### MODEL NUMBERS

| *SATA 6 Gb/s* | | *SATA 3 Gb/s* | *PATA 100 MB/s* |
|---|---|---|---|
| WD10EZEX | WD5000AAKX | WD5000AAKS | WD3200AAJB |
| WD10EALX | WD3200AAKX | | WD2500AAJB |
| WD7500AZEX | WD2500AAKX | | WD1600AAJB |
| WD7500AALX | | | WD800AAJB |

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

## Product Features

### The original
These drives are built utilizing the proven technology of the original award-winning WD Caviar 3.5-inch hard drives for desktop computers.

### Value
Built to the highest standards of quality and reliability, these drives offer features and capacity at an affordable price.

### Cool operation
WD continues to develop new and innovative ways to keep drives cool while they are operating which helps protect the drive and the data stored on it.

### Compatible
We perform tests on hundreds of systems and a multitude of platforms in our FIT Lab™ to give our customers confidence that our drives will work in their systems.

### NoTouch™ ramp load technology
The recording head never touches the disk media ensuring significantly less wear to the recording head and media as well as better drive protection in transit.

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

## Applications

- Family and business computing.
- Desktop / Consumer RAID Environments - WD Caviar Blue Hard Drives are tested and recommended for use in consumer-type RAID applications (RAID-0 / RAID-1).
  - Business Critical RAID Environments – WD Caviar Blue Hard Drives are not recommended for and are not warranted for use in RAID environments utilizing Enterprise HBAs and/or expanders and in multi-bay chassis, as they are not designed for, nor tested in, these specific types of RAID applications. For all Business Critical RAID applications, please consider WD's Enterprise Hard Drives that are specifically designed with RAID-specific, time-limited error recovery (TLER), are tested extensively in 24x7 RAID applications, and include features like enhanced RAFF technology and thermal extended burn-in testing.

**P U T   Y O U R   L I F E   O N   I T ®**

# WD Caviar Blue

| Specifications[1] | 1 TB | 1 TB | 750 GB | 750 GB | 500 GB | 500 GB |
|---|---|---|---|---|---|---|
| Model number | WD10EZEX | WD10EALX | WD7500AALX | WD7500AZEX | WD5000AAKX | WD5000AAKS |
| Interface | SATA 6 Gb/s | SATA 6 Gb/s | SATA 6 Gb/s | SATA 6 Gb/s | SATA 6 Gb/s | SATA 3 Gb/s |
| Formatted capacity | 1,000,204 MB | 1,000,204 MB | 750,156 MB | 750,156 MB | 500,107 MB | 500,107 MB |
| User sectors per drive | 1,953,525,169 | 1,953,525,169 | 1,465,149,168 | 1,465,149,168 | 976,773,168 | 976,773,168 |
| SATA latching connector | 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 |
| RoHS compliant[2] | Yes | Yes | Yes | Yes | Yes | Yes |
| **Performance** | | | | | | |
| Data transfer rate (max)<br>  Buffer to host<br>  Host to/from drive (sustained) | 6 Gb/s<br>150 MB/s | 6 Gb/s<br>126 MB/s | 6 Gb/s<br>126 MB/s | 6 Gb/s<br>150 MB/s | 6 Gb/s<br>126 MB/s | 3 Gb/s<br>126 MB/s |
| Cache (MB) | 64 | 32 | 32 | 64 | 16 | 16 |
| Rotational speed (RPM) | 7200 | 7200 | 7200 | 7200 | 7200 | 7200 |
| **Reliability/Data Integrity** | | | | | | |
| Load/unload cycles[3] | 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 (years)[4] | 2 | 2 | 2 | 2 | 2 | 2 |
| **Power Management** | | | | | | |
| 12VDC peak (A, ±10%) | 2.5 | 2.8 | 2.8 | 2.5 | 1.77 | 1.77 |
| Average power requirements (W)<br>  Read/Write<br>  Idle<br>  Standby<br>  Sleep | 6.8<br>6.1<br>1.2<br>1.2 | 7.3<br>6.1<br>0.7<br>0.7 | 7.3<br>6.1<br>1.2<br>1.2 | 6.8<br>6.1<br>0.8<br>0.8 | 6.0<br>5.6<br>0.9<br>0.9 | 5.4<br>4.9<br>0.7<br>0.7 |
| **Environmental Specifications[5]** | | | | | | |
| Temperature (°C)<br>  Operating<br>  Non-operating | 0 to 60<br>-40 to 70 | 0 to 60<br>-40 to 70 | 0 to 60<br>-40 to 70 | 0 to 60<br>-40 to 70 | 0 to 60<br>-40 to 70 | 0 to 60<br>-40 to 65 |
| Shock (Gs)<br>  Operating (2 ms, read/write)<br>  Operating (2 ms, read)<br>  Non-operating (1 ms) | 30<br>65<br>350 | 30<br>65<br>300 | 30<br>65<br>300 | 30<br>65<br>350 | 30<br>65<br>350 | 30<br>65<br>350 |
| Average acoustics (dBA)[6]<br>  Idle mode<br>  Performance seek mode | 29<br>30 | 28<br>33 | 28<br>33 | 29<br>30 | 29<br>30 | 29<br>30 |
| **Physical Dimensions** | | | | | | |
| Height (in./mm, max) | 1.028/25.4 | 1.028/25.4 | 1.028/25.4 | 1.028/25.4 | 1.028/25.4 | 1.028/25.4 |
| Length (in./mm, max) | 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 |
| Weight (lb./kg, ± 10%) | 0.97/0.44 | 1.52/0.69 | 1.52/0.69 | 0.97/0.44 | 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 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 RoHS Directive 2011/65/EU.

[3] Controlled unload at ambient condition.

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

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

[6] Sound power level.

# WD Caviar Blue

| Specifications[1] | 320 GB | 320 GB | 250 GB | 250 GB | 160 GB | 80 GB |
|---|---|---|---|---|---|---|
| Model number | WD3200AAKX | WD3200AAJB | WD2500AAKX | WD2500AAJB | WD1600AAJB | WD800AAJB |
| Interface | SATA 6 Gb/s | PATA 100 MB/s | SATA 6 Gb/s | PATA 100 MB/s | PATA 100 MB/s | PATA 100 MB/s |
| Formatted capacity | 320,072 MB | 320,072 MB | 250,059 MB | 250,059 MB | 160,041 MB | 80,026 MB |
| User sectors per drive | 625,142,448 | 625,142,448 | 488,397,168 | 488,397,168 | 312,581,808 | 156,301,488 |
| SATA latching connector | Yes | No | Yes | No | No | No |
| 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** | | | | | | |
| Data transfer rate (max)<br>  Buffer to host<br>  Host to/from drive (sustained) | 6 Gb/s<br>126 MB/s | 100 MB/s[3]<br>126 MB/s | 6 Gb/s<br>126 MB/s | 100 MB/s[3]<br>126 MB/s | 100 MB/s[3]<br>126 MB/s | 100 MB/s[3]<br>126 MB/s |
| Cache (MB) | 16 | 8 | 16 | 8 | 8 | 8 |
| Rotational speed (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 (years)[5] | 2 | 2 | 2 | 2 | 2 | 2 |
| **Power Management** | | | | | | |
| 12VDC peak (A, ±10%) | 1.77 | 1.77 | 1.77 | 1.77 | 1.77 | 1.77 |
| Average power requirements (W)<br>  Read/Write<br>  Idle<br>  Standby<br>  Sleep | 6.0<br>5.6<br>0.9<br>0.9 | 5.36<br>4.92<br>0.73<br>0.73 | 6.0<br>5.6<br>0.9<br>0.9 | 5.4<br>4.9<br>0.7<br>0.7 | 5.4<br>4.9<br>0.7<br>0.7 | 5.4<br>4.9<br>0.7<br>0.7 |
| **Environmental Specifications[6]** | | | | | | |
| Temperature (°C)<br>  Operating<br>  Non-operating | 0 to 60<br>-40 to 70 | 0 to 60<br>-40 to 65 | 0 to 60<br>-40 to 70 | 0 to 60<br>-40 to 65 | 0 to 60<br>-40 to 65 | 0 to 60<br>-40 to 65 |
| Shock (Gs)<br>  Operating (2 ms, read/write)<br>  Operating (2 ms, read)<br>  Non-operating (1 ms) | 30<br>65<br>350 | 30<br>65<br>350 | 30<br>65<br>350 | 30<br>65<br>350 | 30<br>65<br>350 | 30<br>65<br>350 |
| Average acoustics (dBA)[7]<br>  Idle mode<br>  Performance seek mode | 29<br>30 | 29<br>30 | 29<br>30 | 29<br>30 | 29<br>30 | 29<br>30 |
| **Physical Dimensions** | | | | | | |
| Height (in./mm, max) | 1.028/25.4 | 1.028/25.4 | 1.028/25.4 | 1.028/25.4 | 1.028/25.4 | 1.028/25.4 |
| Length (in./mm, max) | 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 |
| Weight (lb./kg, ± 10%) | 0.99/0.45 | 0.95/0.43 | 0.99/0.45 | 0.95/0.43 | 0.95/0.43 | 0.95/0.43 |

[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 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 RoHS Directive 2011/65/EU.

[3] Maximum burst rate running the Mode 5 Ultra ATA transfer mode.

[4] Controlled unload at ambient condition.

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

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

[7] Sound power level.

**WD Caviar Blue is part of WD's complete lineup of desktop hard drives.**

**WD Caviar® Blue™**
Desktop Hard Drives
Value and reliability for everyday computing.

**WD Caviar® Green™**
Desktop Hard Drives
Cool, quiet, eco-friendly.

**WD Caviar® Black™**
Desktop Hard Drives
Maximum performance for power computing.

N3565

**Canada ICES-003 Class B / NMB-003 Classe B**

2879-701277-A15   Jun 2012

## A Commitment to Quality

Western Digital customers – ranging from the world's largest computer makers to the individual user saving a music collection – require exacting quality and performance from our data storage products. Rigorous testing helps ensure that these standards are met.

WD team members are dedicated to testing drives, ensuring they adhere to rigorous quality standards covering hundreds of performance characteristics. About 1,000 PCs in WD's Functional Integrity Testing (F.I.T.) Lab put WD drives through the paces around the clock. Other groups up the ante, simulating extreme real-world conditions including high and low temperatures, shaking, electronic and magnetic interference and even torturous drop testing. Only after a new drive family passes these rigorous tests does it get shipped.

This comprehensive approach to testing ensures that the customer gets a drive of the highest quality that is F.I.T. Lab certified for its intended application.

## A Name You Can Trust

As digital storage expands beyond traditional computer and server environments and into almost every aspect of your life, you need a company you can trust.

We are committed to providing our customers with reliable, high-performance storage products and superior customer support and services.

**Experience** – WD is one of the data storage industry's pioneers and longtime leaders.

**Performance** – WD is consistently a leader in technology and product innovation and is one of the best performing companies worldwide.

**Quality** – WD performs rigorous in-house testing to assure quality and reliability.

**Data Integrity** – All WD drives feature Data Lifeguard™ embedded error detection and repair features that automatically detect, isolate, and repair problem areas that may develop over extended use of the hard drive.

**Customer Support** – WD stands behind our products with telephone support and state-of-the-art online services that include a comprehensive knowledge base and express RMA service.

WD understands the importance of the data trusted to our drives. We focus our passion, knowledge and innovation on products that reliably keep your information and content safe and secure from loss.