



# WD Caviar® Blue™

## Desktop Hard Drives

With SATA and PATA interfaces, and cache sizes ranging from 8 MB to 16 MB, WD Caviar Blue drives offer a full range of performance features. Pick the drive that suits your needs with the confidence in knowing that all WD Caviar Blue drives are built to the highest standards of quality and reliability.

**INTERFACES**

SATA and PATA

**WIDTH/HEIGHT**

3.5-inch/1-inch

**ROTATIONAL SPEED**

7200 RPM

**CAPACITIES**

80 GB to 640 GB

**MODEL NUMBERS**

WD6400AAKS	WD3200AAJB	WD1600AAJB
WD5000AAKS	WD2500AAKS	WD800AAJS
WD5000AAKB	WD2500AAJS	WD800AAJB
WD3200AAKS	WD2500AAJB	
WD3200AAJS	WD1600AAJS	

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

## Product Features

**Cache**

WD Caviar Blue is available in 8 MB and 16 MB cache sizes. Bigger cache memory yields faster performance.

**Quiet**

The technology that Tom's Hardware Guide called "very fast and nearly silent" is used throughout this family of drives. Our WhisperDrive™ technology minimizes noise to levels near the threshold of human hearing. To cut seek noise, SoftSeek™ technology streamlines read/write seeking algorithms, resulting in more efficient operation.

**Capacity**

We offer drives ranging from 80 GB to 640 GB. Pick the biggest capacity your budget will allow. You can never have too much storage space.

**Compatible**

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

**Reliability**

We understand the importance of your data, and we are committed to protecting that data with exceptionally reliable products, advanced data protection technology and superior customer support.

**Cool**

Keeping the drive cool enhances reliability. WD continues to develop new and innovative ways to keep drives cool while they are operating.

**PUT YOUR LIFE ON IT®**



# WD Caviar Blue

Specifications <sup>1</sup>	640 GB	500 GB	500 GB	320 GB	320 GB
Model number	WD6400AAKS	WD5000AAKS	WD5000AAKB	WD3200AAKS WD3200AAJS	WD3200AAJB
Interface	SATA 3 Gb/s	SATA 3 Gb/s	PATA 100 MB/s	SATA 3 Gb/s	PATA 100 MB/s
Formatted capacity	640,135 MB	500,107 MB	500,107 MB	320,072 MB	320,072 MB
User sectors per drive	1,250,263,728	976,773,168	976,773,168	625,142,448	625,142,448
LBA support	Yes	Yes	Yes	Yes	Yes
SATA latching connector	Yes	Yes	No	Yes	No
Actuator latch/auto park	Yes	Yes	Yes	Yes	Yes
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch
RoHS compliant <sup>2</sup>	Yes	Yes	Yes	Yes	Yes
<b>Performance</b>					
Data transfer rate (max)					
Buffer to host	3 Gb/s	3 Gb/s	100 MB/s <sup>3</sup>	3 Gb/s	100 MB/s <sup>3</sup>
Host to/from drive (sustained)	126 MB/s	126 MB/s	126 MB/s	126 MB/s	126 MB/s
Cache (MB)	16	16	16	16 (WD3200AAKS) 8 (WD3200AAJS)	8
Rotational speed (RPM)	7200	7200	7200	7200	7200
<b>Reliability/Data Integrity</b>					
Load/unload cycles <sup>4</sup>	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>15</sup>	<1 in 10 <sup>14</sup>	<1 in 10 <sup>15</sup>	<1 in 10 <sup>15</sup>
Limited warranty (years) <sup>5</sup>	3	3	3	3	3
<b>Power Management</b>					
12VDC (A, peak)	1.375	1.77	1.375	1.77	1.77
Average power requirements (W)					
Read/Write	8.3	6.0	8.3	5.36	5.36
Idle	7.7	5.6	7.7	4.92	4.92
Standby	1.0	0.9	1.0	0.73	0.73
Sleep	1.0	0.9	1.0	0.73	0.73
<b>Environmental Specifications<sup>6</sup></b>					
Temperature (°C)					
Operating	0 to 60	0 to 60	0 to 60	0 to 60	0 to 60
Non-operating	-40 to 70	-40 to 70	-40 to 70	-40 to 65	-40 to 65
Shock (Gs)					
Operating (2 ms, read)	30	30	30	30	30
Operating (2 ms, read/write)	65	65	65	65	65
Non-operating (1 ms)	300	350	300	350	350
Average acoustics (dBA) <sup>7</sup>					
Idle mode	25	29	25	29	29
Performance seek mode	29	30	29	30	30
<b>Physical Dimensions</b>					
Height (in./mm, max)	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
Width (in./mm, ± .01 in.)	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6
Weight (lb./kg, ± 10%)	1.32/0.60	0.99/0.45	1.32/0.60	0.95/0.43	0.95/0.43

<sup>1</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>2</sup> 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 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.

<sup>3</sup> Maximum burst rate running the Mode 5 Ultra ATA transfer mode.

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

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

<sup>6</sup> No non-recoverable errors during operating tests or after non-operating tests.

<sup>7</sup> Sound power level.



# WD Caviar Blue

Specifications <sup>1</sup>	250 GB	250 GB	160 GB	160 GB	80 GB	80 GB
Model number	WD2500AAKS WD2500AAJS	WD2500AAJB	WD1600AAJS	WD1600AAJB	WD800AAJS	WD800AAJB
Interface	SATA 3 Gb/s	PATA 100 MB/s	SATA 3 Gb/s	PATA 100 MB/s	SATA 3 Gb/s	PATA 100 MB/s
Formatted capacity	250,059 MB	250,059 MB	160,041 MB	160,041 MB	80,026 MB	80,026 MB
User sectors per drive	488,397,168	488,397,168	312,581,808	312,581,808	156,301,488	156,301,488
LBA support	Yes	Yes	Yes	Yes	Yes	Yes
SATA latching connector	Yes	No	Yes	No	Yes	No
Actuator latch/auto park	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 <sup>2</sup>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Performance</b>						
Data transfer rate (max)						
Buffer to host	3 Gb/s	100 MB/s <sup>3</sup>	3 Gb/s	100 MB/s <sup>3</sup>	3 Gb/s	100 MB/s <sup>3</sup>
Host to/from drive (sustained)	126 MB/s	126 MB/s	126 MB/s	126 MB/s	126 MB/s	126 MB/s
Cache (MB)	16 (WD2500AAKS) 8 (WD2500AAJS)	8	8	8	8	8
Rotational speed (RPM)	7200	7200	7200	7200	7200	7200
<b>Reliability/Data Integrity</b>						
Load/unload cycles <sup>4</sup>	300,000	300,000	300,000	300,000	300,000	300,000
Non-recoverable read errors per bits read	<1 in 10 <sup>15</sup>	<1 in 10 <sup>15</sup>	<1 in 10 <sup>15</sup>	<1 in 10 <sup>15</sup>	<1 in 10 <sup>15</sup>	<1 in 10 <sup>15</sup>
Limited warranty (years) <sup>5</sup>	3	3	3	3	3	3
<b>Power Management</b>						
12VDC (A, peak)	1.77	1.77	1.77	1.77	1.77	1.77
Average power requirements (W)						
Read/Write	5.36	5.36	5.36	5.36	5.36	5.36
Idle	4.92	4.92	4.92	4.92	4.92	4.92
Standby	0.73	0.73	0.73	0.73	0.73	0.73
Sleep	0.73	0.73	0.73	0.73	0.73	0.73
<b>Environmental Specifications<sup>6</sup></b>						
Temperature (°C)						
Operating	0 to 60	0 to 60	0 to 60	0 to 60	0 to 60	0 to 60
Non-operating	-40 to 65	-40 to 65	-40 to 65	-40 to 65	-40 to 65	-40 to 65
Shock (Gs)						
Operating (2 ms, read)	30	30	30	30	30	30
Operating (2 ms, read/write)	65	65	65	65	65	65
Non-operating (1 ms)	350	350	350	350	350	350
Average acoustics (dBA) <sup>7</sup>						
Idle mode	29	29	29	29	29	29
Performance seek mode	30	30	30	30	30	30
<b>Physical Dimensions</b>						
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%)	0.95/0.43	0.95/0.43	0.95/0.43	0.95/0.43	0.95/0.43	0.95/0.43

<sup>1</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.

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<sup>3</sup> Maximum burst rate running the Mode 5 Ultra ATA transfer mode.

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

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

<sup>6</sup> No non-recoverable errors during operating tests or after non-operating tests.

<sup>7</sup> Sound power level.



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