



WD Black™

Mobile Hard Drives

WD Black hard drives are designed for enthusiasts and creative professionals looking for leading-edge performance. These 2.5-inch mobile drives are perfect for high-performance applications like photo and video editing, gaming and power PCs.



INTERFACE	FORM FACTOR	HEIGHT	ROTATIONAL SPEED	CAPACITIES
SATA 6 Gb/s	2.5-inch	7 mm to 9.5 mm	7200 RPM	160 GB to 750 GB

MODEL NUMBERS

WD7500BPKX	WD3200BEKX
WD5000LPLX	WD2500LPLX
WD5000BPKX	WD2500BEKX
WD3200LPLX	WD1600BEKX

Product Features

Maximum performance

Sophisticated performance enhancing features deliver the speed you need for demanding applications like photo and video editing and Internet gaming.

No compromises

High performance, high capacity, high reliability, and cutting-edge technology make up WD Black, the ideal drive for those who demand only the best.

Performance just got thinner

Built on a solid, proven platform and designed for thin and light mobile applications, our latest generation of 7 mm 2.5-inch drives come with a SATA 6 Gb/s interface, feature impressive shock tolerance and are compatible with most standard 9.5 mm drive bays.

Industry-leading warranty

WD Black carries the highest available warranty protection on the market, a 5-year limited warranty.

Dynamic cache

WD's dynamic caching algorithm improves performance in real time by optimizing cache allocation between reads and writes. For example, if there's an overwhelming percentage of read traffic as opposed to write traffic, the drive automatically allocates more cache for read data, which reduces congestion and improves overall drive performance.

Efficient dual processing

When it comes to processing power, more is always better. WD Black features a dual-core processor that offers twice the processing capability as a single-core processor to maximize drive performance for faster read and write speeds.

Applications

- WD Black hard drives are performance-tested for use in PCs, Mac, notebook PCs, commercial notebooks, All-in-One PCs, small form factor PCs, and gaming consoles.*

* WD hard drives are designed and tested for use in specific applications and environments. This ensures that your hard drive is compatible with and functions properly in your application. Our hard drives are warranted against defects in materials and workmanship in the system for which they were designed. Use in systems other than for what the hard drive was designed could result in compatibility problems that affect proper function, unrelated to material and/or workmanship defects. For best results, be sure to select the appropriate product for your application by consulting our product spec sheets on our website at www.wdc.com or by calling our customer support line where we would be happy to help you through the selection process.

The WD Advantage

WD puts our products through extensive Functional Integrity Testing (F.I.T.) prior to any product launch. This testing ensures our products consistently meet the quality and reliability standards of the WD brand. WD also has a detailed Knowledge Base with more than 1,000 helpful articles as well as helpful software and utilities. Our toll-free customer support lines are here to help or you can access our WD Support site for additional details.



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Specifications	750 GB	500 GB	500 GB	320 GB	320 GB	250 GB	250 GB	160 GB
Model number ¹	WD7500BPKX	WD5000LPLX	WD5000BPKX	WD3200LPLX	WD3200BEKX	WD2500LPLX	WD2500BEKX	WD1600BEKX
Interface	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
Formatted capacity ²	750,156 MB	500,107 MB	500,107 MB	320,072 MB	320,072 MB	250,059 MB	250,059 MB	160,041 MB
User sectors per drive	1,465,149,168	976,773,168	976,773,168	625,142,448	625,142,448	488,397,168	488,397,168	312,581,808
Form factor	2.5-inch	2.5-inch	2.5-inch	2.5-inch	2.5-inch	2.5-inch	2.5-inch	2.5-inch
Advanced Format (AF)	Yes	Yes	Yes	Yes	No	Yes	No	No
RoHS compliant ³	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Performance								
Data transfer rate								
Interface speed	6 Gb/s	6 Gb/s	6 Gb/s	6 Gb/s	6 Gb/s	6 Gb/s	6 Gb/s	6 Gb/s
Cache (MB)	16	32	16	32	16	32	16	16
Rotational speed (RPM)	7200	7200	7200	7200	7200	7200	7200	7200
Average drive ready time (sec)	3.2	3.8	3.2	3.8	3	3.8	3	3
Reliability/Data Integrity								
Load/unload cycles ⁴	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000
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	<1 in 10 ¹⁴
Limited warranty (years) ⁵	5	5	5	5	5	5	5	5
Power Management								
5VDC ±10% (A, peak)	1.15	1.07	1.15	1.07	1.1	1.07	1.1	1.1
Average power requirements (W)								
Read/Write	1.75	2.0	1.75	2.0	1.75	2.0	1.75	1.75
Idle	0.8	0.85	0.8	0.85	0.8	0.85	0.8	0.8
Standby/Sleep	0.2	0.25	0.2	0.25	0.2	0.25	0.2	0.2
Environmental Specifications								
Temperature (°C)								
Operating	0 to 60	0 to 60	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	-40 to 65	-40 to 65
Shock (Gs)								
Operating (2 ms)	350	400	350	400	350	400	350	350
Non-operating (2 ms)	1000	1000	1000	1000	1000	1000	1000	1000
Acoustics (dBA)								
Idle	28	23	28	23	22	23	22	22
Seek (average)	28	25	28	25	25	25	25	25
Physical Dimensions								
Height (in./mm)	0.374/9.50	0.28/7.0	0.374/9.50	0.28/7.0	0.374/9.50	0.28/7.0	0.374/9.50	0.374/9.50
Length (in./mm)	3.94/100.20	3.94/100.20	3.94/100.20	3.94/100.20	3.94/100.20	3.94/100.20	3.94/100.20	3.94/100.20
Width (in./mm)	2.75/69.85	2.75/69.85	2.75/69.85	2.75/69.85	2.75/69.85	2.75/69.85	2.75/69.85	2.75/69.85
Weight (lb./kg, ± 10%)	0.25/0.115	0.20/0.92	0.25/0.115	0.20/0.92	0.23/0.106	0.20/0.92	0.23/0.106	0.23/0.106

¹ Not all products may be available in all regions of the world.

² 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 6 Gb/s transfer rate calculated according to the Serial ATA specification published by the Serial ATA-IO organization as of the date of this specification sheet. Visit www.sata-io.org for details.

³ 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.

⁴ Controlled unload at ambient condition.

⁵ WD Black limited warranty is region specific. Visit <http://support.wd.com/warranty> for details.

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

⁷ Sound power level.

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