



# WD Scorpio® Black™

## Mobile Hard Drives

Designed with top-of-the-line notebook computers in mind, this high performance drive delivers the capacity and speed needed to supercharge a notebook PC without compromising battery life or quiet acoustics. Features like these also make this drive an outstanding option for compact desktops, external hard drives, gaming systems, and blade servers.



### INTERFACE

SATA 3 Gb/s

### WIDTH/HEIGHT

2.75 in./0.37 in.  
69.85 mm/9.5 mm

### ROTATIONAL SPEED

7200 RPM

### CAPACITIES

160 to 500 GB

### MODEL NUMBERS

WD5000BEKT    WD2500BEKT  
WD3200BEKT    WD2500BJKT  
WD3200BJKT    WD1600BEKT

WD1600BJKT

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

## Product Features

### Desktop-class performance for notebook computers

With 7200 RPM spin speed, 16 MB cache, and capacities up to 500 GB, these drives enable you to have the best of both worlds: the capacity and performance of a desktop PC with the convenience and portability of a notebook.

### Reliable and rugged

WD's ShockGuard™ technology protects the drive mechanics and platter surfaces from shocks during shipping and handling and in daily operation. WD's SecurePark parks the recording heads off the disk surface during spin up, spin down, and when the drive is off. This ensures the recording head never touches the disk surface, resulting in improved long-term reliability due to less head wear and improved non-operational shock tolerance.

### Massive capacity

WD's 500 GB 2.5-inch drives offer huge capacity for space-hungry operating systems with plenty of room left over for photos, music, and video.

### Low power consumption

With technologies like IntelliSeek™, which calculates optimum seek speeds to lower power consumption and SecurePark™, which reduces power by parking the heads during low power idle mode, this drive delivers 5400 RPM-equivalent power consumption in a 7200 RPM drive.

### Tested for compatibility

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

### Free-fall sensor

As an added layer of protection, if the drive (or the system it's in) is dropped while in use, WD's free-fall sensor detects that the drive is falling and, in less than 200 milliseconds, parks the head to help prevent damage and data loss.

*Available on WDxxxxBJKT models only.*

### Quiet

In a notebook drive, silence is golden. WD's exclusive WhisperDrive™ combines state-of-the-art seeking algorithms to yield one of the quietest 2.5-inch hard drives on the market.

PUT YOUR LIFE ON IT®



# WD Scorpio Black

Specifications	500 GB	320 GB	250 GB	160 GB
Model number	WD5000BEKT	WD3200BEKT WD3200BJKT	WD2500BEKT WD2500BJKT	WD1600BEKT WD1600BJKT
Interface	SATA 3 Gb/s	SATA 3 Gb/s	SATA 3 Gb/s	SATA 3 Gb/s
Formatted capacity <sup>1</sup>	500,107 MB	320,072 MB	250,059 MB	160,041 MB
User sectors per drive	976,773,168	625,142,448	488,397,168	312,581,808
Form factor	2.5-inch	2.5-inch	2.5-inch	2.5-inch
RoHS compliant <sup>2</sup>	Yes	Yes	Yes	Yes
<b>Performance</b>				
Data transfer rate (max) Buffer to host Host to/from drive (sustained)	3 Gb/s 108 MB/s	3 Gb/s 108 MB/s	3 Gb/s 108 MB/s	3 Gb/s 108 MB/s
Cache (MB)	16	16	16	16
Average latency (ms)	4.2	4.2	4.2	4.2
Rotational speed (RPM)	7200	7200	7200	7200
Average drive ready time (sec)	4	4	4	4
<b>Reliability/Data Integrity</b>				
Load/unload cycles <sup>3</sup>	600,000	600,000	600,000	600,000
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>
Limited warranty (years) <sup>4</sup>	5	5	5	5
<b>Power Management</b>				
5VDC ±10% (A, peak)	1.15	1.1	1.1	1.1
Average power requirements (W) Read/Write Idle Standby Sleep	1.8 0.83 0.2 0.2	2.1 0.85 0.25 0.2	2.1 0.85 0.25 0.2	2.1 0.85 0.25 0.2
<b>Environmental Specifications<sup>5</sup></b>				
Temperature (°C) Operating Non-operating	0 to 60 -40 to 70	0 to 60 -40 to 70	0 to 60 -40 to 70	0 to 60 -40 to 70
Shock (Gs) Operating (2 ms) Non-operating (2 ms)	350 1000	275 1000	275 1000	275 1000
Acoustics (dBA) <sup>6</sup> Idle Seek (average)	28 28	28 28	25 28	25 28
<b>Physical Dimensions</b>				
Height (in./mm, max)	0.374/9.50	0.374/9.50	0.374/9.50	0.374/9.50
Length (in./mm, max)	3.94/100.20	3.94/100.20	3.94/100.20	3.94/100.20
Width (in./mm, ± .01 in.)	2.75/69.85	2.75/69.85	2.75/69.85	2.75/69.85
Weight (lb./kg, ± 10%)	0.24/0.111	0.24/0.111	0.24/0.111	0.23/0.111

<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>Controlled unload at ambient condition.

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

<sup>5</sup>No non-recoverable errors during operating tests or after non-operating tests.

<sup>6</sup>Sound power level.



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2879-701275-A03 Jun 2010



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