



WD Blue™ PC SSHD

The best of both worlds –
HDD capacity meets SSD-like speed.

WD Blue Solid State Hybrid Drives (SSHD) combine a generous amount of NAND flash SSD technology and massive HDD storage capacity into a single drive. WD engineers team up the best of SSD and HDD to produce a hybrid that can increase overall system performance – resulting in quicker system boots, faster application loads, and improved responsiveness when compared to traditional hard drives.



FORM FACTOR

2.5-inch
3.5-inch

MODEL NUMBERS

WD10J31X
WD40E31X

CAPACITIES

1 TB
4 TB

INTERFACE

SATA 6 Gb/s
SATA 6 Gb/s

Product Features

Inspiring performance and capacity

WD Blue SSHD introduces high-performance NAND flash SSD technology to the huge storage capabilities of traditional HDD storage - uniting both to enhance the computing experience. A single WD Blue SSHD drive provides an optimized, all-in-one solution which synergizes SSD-like performance, and massive HDD storage capacity in a single device.

Work faster, smarter, and more efficiently

Power users such as digital artists, photographers, and gamers will welcome WD Blue SSHD's ultra-fast read and write speeds when it comes to their large creative and multimedia files. The capacity limitations of a standalone SSD are no longer an issue; WD Blue SSHD has the capacity for an entire digital portfolio, with outstanding, SSD-like speed at a manageable price.

Self-learning technology

Utilizing an advanced set of algorithms, WD Blue SSHDs track data usage, prioritizing frequently used data for fast access in the solid state portion of the device, adapting, learning and optimizing as new applications and command requests change over time. These advanced algorithms reside in the SSHD firmware, enabling it to make intelligent determinations of which data to store in NAND flash memory, without any influence from the host or related storage device drivers. By pairing SSD-like performance with massive hard drive capacity, WD has created an intelligent hybrid drive that truly offers the best of both worlds.

Synergy delivers value

WD Blue SSHD is equipped with the optimal amount of NAND flash to deliver fast, SSD-like performance over high-capacity storage, significantly lowering the \$/GB compared to the higher cost and lower capacity of standalone SSDs.

Simple installation with no special software required

The WD Blue SSHD hybrid drive is self-contained in a traditional HDD form factor, and installs as easily as any traditional hard drive without special drivers or downloads required. WD Blue SSHDs are compatible with most typical computer configurations, including PC and Mac.

8 GB NAND flash delivers blazing performance

An optimal amount of built-in NAND flash SSD technology enables WD Blue SSHDs to perform at up to four to five times faster than traditional 5400 rpm HDDs, based on PCMark Vantage*.

* As measured by PCMark Vantage storage benchmarking software.

Gaming, owned

A gaming rig equipped with WD Blue SSHD can deliver faster game loads, auto saves, and can reduce lag between levels, when compared to traditional hard drives. Ultra-fast drive response results in a smoother gaming experience and the added capacity means gamers can store more of today's larger game files.

Applications

WD Blue SSHDs are performance-tested for use in PC and Mac OS, high-performance workstations and gaming systems.*

* 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.wd.com or by calling our customer support line where we would be happy to help you through the selection process.



WD Blue™ PC SSHD

Specifications	4 TB	1 TB
Hard Drive Type ¹	WD Blue SSHD	WD Blue SSHD
Model number ¹	WD40E31X	WD10J31X
Interface ¹	SATA 6 GB/s	SATA 6 GB/s
Formatted capacity ²	4 TB	1 TB
Form factor	3.5-inch	2.5-inch
Advanced Format (AF)	Yes	Yes
RoHS compliant ³	Yes	Yes
Performance		
Data transfer rate (max)		
Buffer to host	6 GB/s	6 GB/s
Host to/from drive (sustained)	150 MB/s	100 MB/s
NAND Type	MLC	MLC
NAND Size (GB)	8	8
Cache (MB)	64	64
Reliability/Data Integrity		
Load/unload cycles ⁴	300,000	600,000
Non-recoverable read errors per bits read	<1 in 10 ¹⁴	<1 in 10 ¹⁴
Limited warranty (years) ⁵	3	3
Power Management		
Spinup (Max) 12VDC ±10% (A, peak)	2.8	1.3
Spinup (Max) 5VDC ±10% (A, peak)	1	6.5
Spinup (Max) (W)	38.6	
Average power requirements (W)		
Read/Write	6	1.65
Idle	4.75	0.65
Standby and Sleep	0.57	0.225
Environmental Specifications⁶		
Temperature (°C, on the base casting)		
Operating	0 to 60	0 to 60
Non-operating	-40 to 70	-40 to 70
Shock (Gs)		
Operating (2 ms, read/write)	30	400
Non-operating (2 ms)	350	1000
Acoustics (dBA) ⁷		
Idle	25	24
Seek (average)	26	25
Physical Dimensions		
Height (in./mm, max)	1.028/25.4	0.374/9.50
Length (in./mm, max)	5.787/147	3.94/100.20
Width (in./mm, ± .01 in.)	4/101.6	2.75/69.85
Weight (lb./kg, ± 10%)	0.99/0.45	0.27/0.12

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 SATA-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 See <http://support.wd.com/warranty> for regional specific warranty details.

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

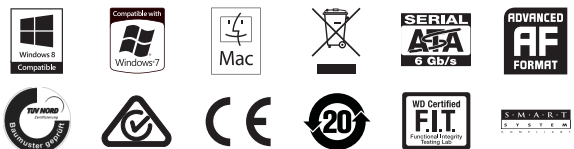
⁷ Sound power level.

Western Digital
3355 Michelson Drive, Suite 100
Irvine, California 92612
U.S.A.

For service and literature:

<http://support.wd.com>
www.wd.com

800.ASK.4WDC (800.275.4932)	North America
800.832.4778	Spain
+86.21.2603.7560	Asia Pacific
00800.27549338	Europe
	(toll free where available)
+31.880062100	Europe/Middle East/Africa



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