WD Blue[™] 3D NAND SATA SSD

SATA SSD

DATA SHEET



Highlights

- 3D NAND SATA SSD for capacities up to 2TB¹ with enhanced reliability.
- An active power draw up to 25% lower² than previous generations of WD Blue SSD.
- Sequential read speeds up to 560MB/s and sequential write speeds up to 530MB/s.³
- An industry-leading 1.75M hours mean time to failure (MTTF)⁴ and up to 500 terabytes written (TBW)⁵ for enhanced reliability.
- WD F.I.T. Lab™ certification for compatibility with a wide range of computers.
- Free downloadable software to monitor the status of your drive and clone a drive, or backup your data.
- Includes a 5-year limited warranty so upgrading your storage is worry-free.⁶

INTERFACE	CAPACITIES
SATA 6 Gb/s	250GB to 2TB
FORM FACTOR :	
2.5″/7mm cased	
M.2 2280	
MODEL NUMBERS	
2.5"/7mm cased	
WDS200T2B0A, WDS	100T2B0A, WDS500G2B0A
WDS250G2B0A	
M.2 2280	
WDS200T2B0B, WDS	100T2B0B, WDS500G2B0B
WDS250G2B0B	

THE WESTERN DIGITAL ADVANTAGE

Western Digital puts our products through extensive Functional Integrity Testing (F.I.T.) prior to any product launch. This testing ensures our products consistently meet the highest quality and reliability standards of the Western Digital brand.

Western Digital also has a detailed Knowledge Base with more than 1,000 helpful articles as well as helpful software and utilities. Our customer support lines have longer operational hours to ensure you get the help you need when you need it. Our tollfree customer support lines are here to help or you can access our Western Digital Support site for additional details

The Western Digital WD Blue™ 3D NAND SATA SSD utilizes Western Digital 3D NAND technology for capacities up to 2TB with enhanced reliability. Featuring an active power draw up to 25% lower than previous generations of WD Blue SSDs, you're able to work longer before recharging your laptop, while sequential read speeds up to 560MB/s and sequential write speeds up to 530MB/s give the speed you want for your most demanding computing applications. Combined with the free, downloadable WD SSD Dashboard software and a 5-year limited warranty, you can confidently upgrade your system to the WD Blue 3D NAND SATA SSD.

High capacity with enhanced reliability

Safely positions the recording head off the disk surface to protect your data.

Enhanced power efficiency

Offering improved endurance, a WD Blue 3D NAND SATA SSD features an active power draw up to 25% lower than previous generations of WD Blue SSDs. And with less power used, you're able to work longer before recharging your laptop.

Superior performance for high-end computing

For a variety of computing applications like gaming, HD media playback, or creative software, look to WD Blue 3D NAND SATA SSDs. Western Digital 3D NAND technology helps enable sequential read speeds up to 560MB/s and sequential write speeds up to 530MB/s for fast system boot-ups, quick application responses, and rapid transfer speeds.

Leading-edge reliability

An SSD is designed with no moving parts to help protect against data loss if it is accidentally bumped or dropped. And with 1.75M hours MTTF (mean time to failure), up to 500 TBW (terabytes written), and several error correction technologies, WD Blue 3D NAND SATA SSDs can help guard data for years to come.

Broad compatibility

With a certification from the Western Digital Functional Integrity Testing Lab (F.I.T. LabTM), every WD Blue 3D NAND SATA SSD is verified for compatibility with a wide range of desktop and laptop computers. Every WD Blue 3D NAND SATA SSD goes through extensive compatibility and reliability testing to ensure it meets the high standards of the WD brand

Downloadable Western Digital SSD Dashboard and Acronis software

Monitor your drive's available capacity, operating temperatures, SMART attributes and more with the Western Digital SSD Dashboard. Acronis® True Image™ WD Edition software, available as a free download, can clone drives and backup your operating system, applications, settings and all of your data.

5-year limited warranty

Every WD Blue 3D NAND SATA SSD comes with a 5-year limited warranty, so you can be confident of your storage when you upgrade or replace any of your drives.

¹ As used for storage capacity, one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on ² Active power draws are up to 25% lower during sequential reads than previous generations of WD Blue™ SSD at the 500CB capacity point. ³ Active power draws are up to 25% lower during sequential reads than previous generations of WD Blue™ SSD at the 500CB capacity point.

 ^A Solved for trainer rate of interface, megabyte per second (Mb/s) - other inition bytes per second (Bb/s) = one billion bits per second.
 ^A MTTF = Mean Time To Failure based on internal testing using Telcordia stress part testing.
 ⁵ TBW (terabytes written) values calculated using JEDEC client workload (JESD219) and vary by product capacity.
 ⁶ See http://support.wdc.com for regional specific warranty details.

WD Blue 3D[™] NAND SATA SSD

DATA SHEET

Specifications				
-	2TB	1TB	500GB	250GB
Model Number ¹				
WD Blue SSD 2.5"/7mm cased	WDS200T2B0A	WDS100T2B0A	WDS500G2B0A	WDS250G2B0A
WD Blue SSD M.2 2280	WDS200T2B0B	WDS100T2B0B	WDS500G2B0B	WDS250G2B0B
Interface ^{2,3}				
WD Blue SSD 2.5"/7mm cased	SATA III 6 Gb/s			
WD Blue SSD M.2 2280	SATA III 6 Gb/s			
Performance ⁴ [4KB QD32]				
Sequential Read up to (MB/s)	560	560	560	550
Sequential Write up to (MB/s)	530	530	530	525
Random Read up to (IOPS)	95K	95K	95K	95K
Random Write up to (IOPS)	84K	84K	84K	81K
Endurance (TBW)⁵	500	400	200	100
Power⁰				
Avg. Active Power (mW) ⁷⁷	60	60	52	52
Max Read Operating (mW)	3,000	2,550	2,050	2,200
Max Write Operating (mW)	3,800	3,750	3,350	2,250
Slumber (mW)	56	56	56	56
DEVSLP (mW)	5–12	5–12	5–7	5–7
Reliability				
MTTF ⁸	Up to 1.75M hours			
Environmental				
Operating Temperatures	0°C to 70°C	0°C to 70°C	0°C to 70°C	0°C to 70°C
Non-operating Temperatures	-55°C to 85°C	-55°C to 85°C	-55°C to 85°C	-55°C to 85°C
Operating Vibration	5.0 gRMS, 10-2000 Hz			
Non-operating Vibration	4.9 gRMS, 7–800 Hz	4.9 gRMS, 7-800 Hz	4.9 gRMS, 7–800 Hz	4.9 gRMS, 7-800 Hz
Shock	1,500 G @ 0.5 msec half sine			
Certifications	FCC, UL, TUV, KC, BSMI, VCCI, Morocco			
Limited Warranty ⁹	5 years	5 years	5 years	5 years
Physical Dimensions				
Size: 2.5"/7mm cased	100.2mm x 69.85mm x 7.00mm			
Size: M.2 2280	80.0mm x 22.00mm x 2.38mm			
Weight: 2.5"/7mm cased)	57.9g	37.4g	37.4g	37.4g
Weight: M.2 2280%)	7±1g	7±1g	7±1g	7±1g

Specifications are subject to change without notice

¹ Not all products may be available in all regions of the world. ² Backward compatible to SATA II and I.

³As used for storage capacity, one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. 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.

⁴ Measured using CrystalDiskMark, 1000MB LBA range, on

Laptop Asus N550J HM86 Express chipset, Windows 8.1 Pro with Intel iRST version 14.8.16.1063, secondary drive with Intel® CoreTM i7-4700HQ.2.4GHz, 8GB DDR3 1600MHz RAM

⁵ TBW (terabytes written) values calculated using JEDEC client workload (JESD219) and vary by product capacity.
⁶ Power measurements at 25°C. Based on firmware version with DIPM enabled. Measured using MobileMark® 2014 on Lenovo T540, Intel® CoreTM i5–6200U 2.30GHz Processor, DDR3L 4GB 1600MHz RAM, Windows 10 with Intel Driver iRST 14.8.0.1042.

⁷ Active power draws are up to 25% lower during sequential reads than previous generations of WD Blue™ SSD at the 500GB capacity point.

⁸ MTTF = Mean Time To Failure based on internal testing

using Telcordia stress part testing. ° See http://support.wdc.com for regional specific warranty details.

Western Digital.

5601 Great Oaks Parkway San Jose, CA 95119, USA US (Toll-Free): 800.801.4618 International: 408.717.6000

www.westerndigital.com

© 2018 Western Digital Corporation or its affiliates. All rights reserved. Produced 6/18. Western Digital, the Western Digital logo, F.I.T. Lab, NoTouch and WD Blue are registered trademarks or trademarks of Western Digital Corporation or its affiliates in the US and/or other countries. All other marks are the property of their respective owners. Product specifications subject to change without notice. Picture shown may vary from actual product. Not all products are available in all regions of the world.



SATA SSD