WD Blue™ 3D NAND SATA SSD

The Western Digital® WD Blue™ 3D NAND SATA SSD utilizes Western Digital 3D NAND technology for capacities up to 4TB[3] in the 2.5" 7mm form factor, or 2TB in the M.2 2280 form factor, with enhanced reliability. With sequential read speeds up to 560MB/s[3] and sequential write speeds up to 530MB/s[3] you get 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.

Highlights

- 3D NAND SATA SSD for capacities up to 4TB[3] with enhanced reliability.
- Sequential read speeds up to 560MB/s and sequential write speeds up to 530MB/s.[3]
- Up to 1.75M hours mean time to failure (MTTF)[7] and up to 600 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[8].

INTERFACE	CAPACITIES
SATA 6 Gb/s	250GB to 4TB[3]

FORM FACTOR :
2.5"/7mm cased (up to 4TB)

MODEL NUMBERS
WDBNCE0040PNC-WRSN
WDBNCE0020PNC-WRSN
WDBNCE0010PNC-WRSN
WDBNCE5000PNC-WRSN
WDBNCE2500PNC-WRSN

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 toll-free customer support lines are here to help or you can access our Western Digital Support site for additional details.

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 up to 1.75M hours MTTF (mean time to failure), up to 600 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. Lab™), 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[9]. 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[8], so you can be confident of your storage when you upgrade or replace any of your drives.

WD Blue™ 3D NAND SATA SSD

Specifications

	4TB	2TB	1TB	500GB	250GB
Model Number[1]	WDBNCE0040PNC-WRSN	WDBNCE0020PNC-WRSN	WDBNCE0010PNC-WRSN	WDBNCE5000PNC-WRSN	WDBNCE2500PNC-WRSN
Interface[2,3]					
WD Blue SSD 2.5"/7mm cased	SATA III 6 Gb/s	SATA III 6 Gb/s	SATA III 6 Gb/s	SATA III 6 Gb/s	SATA III 6 Gb/s
Performance[4]					
Sequential Read up to (MB/s)	560	560	560	560	550
Sequential Write up to (MB/s)	530	530	530	530	525
Random Read up to (IOPS)	95K	95K	95K	95K	95K
Random Write up to (IOPS)	82K	84K	84K	84K	81K
Endurance (TBW)[5]	600	500	400	200	100
Power[6]					
Avg. Active Power (mW)	60	60	60	52	52
Max Read Operating (mW)	3,000	3,000	2,550	2,050	2,200
Max Write Operating (mW)	3,800	3,800	3,750	3,350	2,250
Slumber (mW)	56	56	56	56	56
DEVSLP (mW)	5–12	5–12	5–12	5–7	5–7
Reliability					
MTTF[7]	Up to 1.75M hours	Up to 1.75M hours	Up to 1.75M hours	Up to 1.75M hours	Up to 1.75M hours
Environmental					
Operating Temperatures	0℃ to 70℃	0℃ to 70℃	0℃ to 70℃	0℃ to 70℃	0℃ to 70℃
Non-operating Temperatures	-55℃ to 85℃	-55℃ to 85℃	-55℃ to 85℃	-55℃ to 85℃	-55℃ to 85℃
Operating Vibration	5.0 gRMS, 10–2000 Hz	5.0 gRMS, 10–2000 Hz	5.0 gRMS, 10–2000 Hz	5.0 gRMS, 10–2000 Hz	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	4.9 gRMS, 7–800 Hz
Shock	1,500 G @ 0.5 msec half sine	1,500 G @ 0.5 msec half sine	1,500 G @ 0.5 msec half sine	1,500 G @ 0.5 msec half sine	1,500 G @ 0.5 msec half sine
Certifications	FCC, UL, TUV, KC, BSMI, VCCI, Morocco	FCC, UL, TUV, KC, BSMI, VCCI, Morocco	FCC, UL, TUV, KC, BSMI, VCCI, Morocco	FCC, UL, TUV, KC, BSMI, VCCI, Morocco	FCC, UL, TUV, KC, BSMI, VCCI, Morocco
Limited Warranty[8]	5 years	5 years	5 years	5 years	5 years
Physical Dimensions					
Size: 2.5"/7mm cased	100.2mm x 69.85mm x 7.00mm	100.2mm x 69.85mm x 7.00mm	100.2mm x 69.85mm x 7.00mm	100.2mm x 69.85mm x 7.00mm	100.2mm x 69.85mm x 7.00mm
Size: M.2 2280		80.0mm x 22.00mm x 2.38mm	80.0mm x 22.00mm x 2.38mm	80.0mm x 22.00mm x 2.38mm	80.0mm x 22.00mm x 2.38mm
Weight: 2.5"/7mm cased	57.9g	57.9g	37.4g	37.4g	37.4g
Weight: M.2 2280	7±1g	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.

[3] 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. Performance will vary depending on your hardware and softwre components and configurations.

[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℃. Based on firmware version with DIPM enabled. Measured using MobileMark® 2014 on Lenovo T560, Intel® CoreTM i5-6200U 2.30GHz Processor, DDR3L 4GB 1600MHz RAM, Windows 10 with Intel Driver iRST 14.8.0.1042.

[7] MTTF = Mean Time To Failure based on internal testing using Telcordia stress part testing.

[8] See www.support.wdc.com/warranty for regional specific warranty details.

[9] Available for download at www.westerndigital.com.

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