



## Highlights

- 3D NAND SATA SSD for capacities up to 2TB<sup>3</sup> with enhanced reliability.
- Sequential read speeds up to 560MB/s and sequential write speeds up to 530MB/s.<sup>2</sup>
- Up to 1.75M hours mean time to failure (MTTF)<sup>3</sup> and up to 600 terabytes written (TBW)<sup>4</sup> 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<sup>5</sup> so upgrading your storage is worry-free.<sup>5</sup>

### INTERFACE

SATA 6 Gb/s

### CAPACITIES

250GB to 2TB<sup>3</sup>

### FORM FACTOR :

M.2 2280 (up to 2TB)

### MODEL NUMBERS

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.

The Western Digital® WD Blue™ 3D NAND SATA SSD utilizes Western Digital 3D NAND technology for capacities up to 2TB<sup>3</sup> in the M.2 2280 form factor with enhanced reliability. With sequential read speeds up to 560MB/s and sequential write speeds up to 530MB/s 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.

## 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<sup>2</sup>. 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<sup>5</sup>, so you can be confident of your storage when you upgrade or replace any of your drives.

# WD Blue™ 3D NAND SATA SSD

DATA SHEET

INTERNAL DRIVE FOR RETAIL

## Specifications

|                                 | 2TB                                   | 1TB                                   | 500GB                                 | 250GB                                 |
|---------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| <b>Model Number<sup>1</sup></b> | WDBNCE0020PNC-WRSN                    | WDBNCE0010PNC-WRSN                    | WDBNCE5000PNC-WRSN                    | WDBNCE2500PNC-WRSN                    |
| <b>Interface<sup>2,3</sup></b>  | SATA III 6 Gb/s                       | SATA III 6 Gb/s                       | SATA III 6 Gb/s                       | SATA III 6 Gb/s                       |
| <b>Performance<sup>4</sup></b>  |                                       |                                       |                                       |                                       |
| 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) <sup>5</sup>    | 500                                   | 400                                   | 200                                   | 100                                   |
| <b>Power<sup>6</sup></b>        |                                       |                                       |                                       |                                       |
| Avg. Active Power (mW)          | 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                                   |
| <b>Reliability</b>              |                                       |                                       |                                       |                                       |
| MTTF <sup>7</sup>               | Up to 1.75M hours                     | Up to 1.75M hours                     | Up to 1.75M hours                     | Up to 1.75M hours                     |
| <b>Environmental</b>            |                                       |                                       |                                       |                                       |
| 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                  | 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                    |
| 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          |
| 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 |
| Limited Warranty <sup>8</sup>   | 5 years                               | 5 years                               | 5 years                               | 5 years                               |
| <b>Physical Dimensions</b>      |                                       |                                       |                                       |                                       |
| 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: M.2 2280                | 7±1g                                  | 7±1g                                  | 7±1g                                  | 7±1g                                  |

Specifications are subject to change without notice

<sup>1</sup> Not all products may be available in all regions of the world.

<sup>2</sup> Backward compatible to SATA II and I.

<sup>3</sup> As 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. Performance will vary depending on your hardware and software components and configurations.

<sup>4</sup> 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® Core™ i7-4700HQ 2.4GHz, 8GB DDR3 1600MHz RAM.

<sup>5</sup> TBW (terabytes written) values calculated using JEDEC client workload (JESD219) and vary by product capacity.

<sup>6</sup> Power measurements at 25°C. Based on firmware version with DIPM enabled. Measured using MobileMark® 2014 on Lenovo T560, Intel® Core™ i5-6200U 2.30GHz Processor, DDR3L 4GB 1600MHz RAM, Windows 10 with Intel Driver

iRST 14.8.0.1042.

<sup>7</sup> MTTF = Mean Time To Failure based on internal testing using Telcordia stress part testing.

<sup>8</sup> See <http://support.wdc.com/warranty> for regional specific warranty details.

<sup>9</sup> Available for download at [www.westerndigital.com](http://www.westerndigital.com).

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CAN ICES-3 (B) / NMB-3 (B)

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