

# WD Blue® SN5100 NVMe™ SSD for Creators – high capacity SSD

## Introduction

Content creators are consistently running out of storage for their media such as 4K/8K videos and images. In addition, video editing applications with new AI features demand higher storage performance to load and store media assets as well as quickly load specialized AI models to perform processing such as upscaling, slow motion, and frame interpolation. High capacity storage with high performance typically came with a more expensive SSD. With the SANDISK® 8<sup>th</sup> generation QLC NAND, WD Blue® SN5100 NVMe SSDs have the perfect blend of both high capacity and high performance for laptops and secondary storage in desktops.

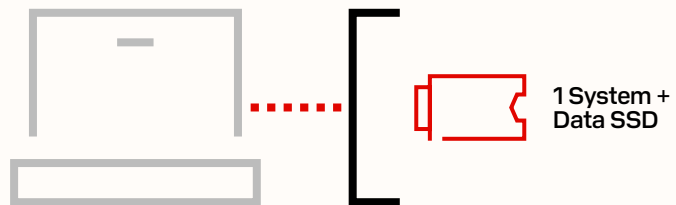


## Creator PCs

Content creators typically use a Creator PC for their workflows. Creator PCs are either a pre-built PC or DIY PC which is optimized for content creation such as video editing of high resolution, high frame-rate, and very large 4K and 8K video assets. Typically, creator PCs will maximize the GPU budget to accelerate demanding creative workflows. And with CPU and DRAM being necessary, this leaves a smaller budget for storage often leaving creators with a smaller SSD for projects. There are several creator PC configurations which benefit from a high capacity SSD.

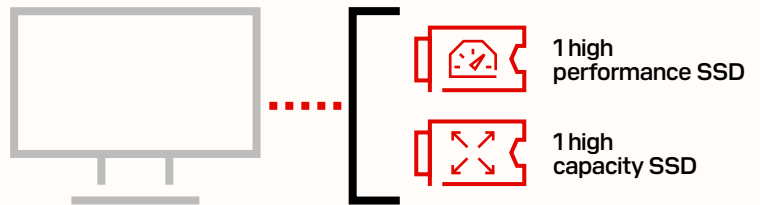
### Laptop Creator PC

Laptop Creator PCs often have only a single SSD. This system and data SSD contains the OS, applications, projects, and the media library. This places a demand on the SSD to handle OS tasks, multitasking applications, and loading and storing large media files. A high performance and high capacity drive is the ideal choice.



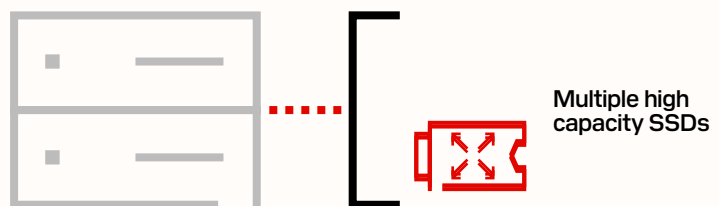
### Desktop Creator PC

Desktop Creator PCs often have 2 SSDs. Typically, the primary SSD will be a high performance SSD capable of fast application launches and seamless multitasking of projects. The second SSD is typically a high capacity SSD for large media libraries.



### Creator NAS

Prosumers may use a Creator NAS for their large media libraries since these systems can scale in storage capacity by adding high capacity SSDs. Many now integrate Thunderbolt or USB4 connectivity requiring high performance SSDs.





## WD Blue® SN5100 NVMe™ SSD

The WD Blue® SN5100 NVMe SSD with PCIe® Gen 4.0 is the ideal choice for creator PCs and NAS systems providing a cost-effective high performance and high capacity storage for content creators. The WD Blue® SN5100 NVMe SSD includes SANDISK® 8th generation BiCS QLC 3D CBA NAND providing blistering performance, high capacity, and reliable storage for creator PCs.

The WD Blue® SN5100 NVMe SSD provides video editing applications with sequential read and write speeds up to 7,100 MB/s and 6,700 MB/s<sup>2</sup> (1-2TB) and is equipped with the latest SANDISK® nCache™ 4.0 Technology providing high burst write performance for large file or folder copies as well as improving the responsiveness for multitasking applications. For laptop creator PCs, the WD Blue® SN5100 NVMe SSD is the ideal single drive storage solution providing both high performance and up to 4TB<sup>1</sup> capacity. For desktop creator PCs, the WD Blue® NVMe SSD is the cost-effective solution for secondary storage for media libraries. For NAS, multiple WD Blue® SN5100 NVMe SSDs can be combined to contain massive media libraries.

### Can QLC SSDs Keep Up?

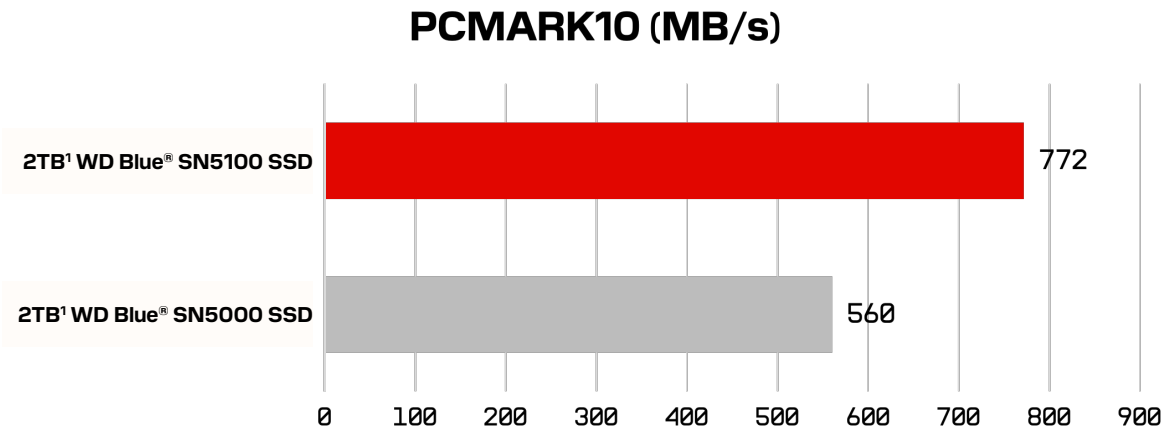
With the WD Blue® SN5100 NVMe SSD, creators can feel confident when upgrading their creator PC storage for increasing storage performance or capacity. The WD Blue® SN5100 NVMe SSDs with 8<sup>th</sup> generation BiCS QLC 3D NAND succeed the prior generation WD Blue® SN5000 NVMe SSDs which included SANDISK® 5<sup>th</sup> generation BiCS TLC 3D NAND (500GB – 2TB models). The WD Blue® SN5100 SSD delivers remarkable read speeds up to 7,100 MB/s<sup>2</sup> (1TB and 2TB), greater than 30% faster<sup>4</sup> than the WD Blue® SN5000 NVMe SSD as seen in Chart 1.

Chart 1: Sequential Performance Comparisons



PCMark10 is a popular benchmark developed to measure the storage performance of the PC running scripts based upon content creation and productivity applications. As seen in Chart 2, the 2TB<sup>1</sup> WD Blue® SN5100 NVMe SSD achieves a 37% higher score as compared to the WD Blue® SN5000 NVMe SSD.

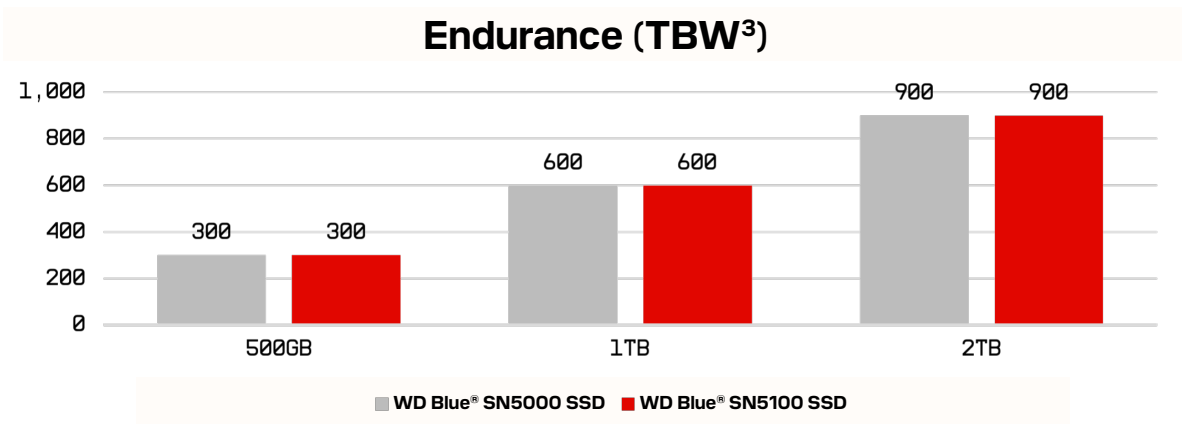
Chart 2: Storage Performance Comparisons



## Don't Compromise

Often creators may be concerned with write endurance of the SSD. Endurance is a measurement of how much data can be written to the SSD over the duration of its warranty period before it needs to be replaced. It is often quoted as TBW (terabytes written) and is a factor of the SSD capacity and NAND type. Today's TLC-based SSDs can reach upwards to 900TBW, for example for 2TB, as measured by the JEDEC219 client workload. The benefit of QLC NAND is that it is cost-effective technology to increase SSD capacities, however, it typically came with reduced endurance specifications. The WD Blue® SN5100 NVMe SSD does not compromise endurance and achieves up to 900 TBW<sup>3</sup> (2TB model) which is the same per capacity as the WD Blue® SN5000 NVMe SSDs as seen in Chart 3. At 900 TBW rating, consumers could write 100GB/day for over 24 years.

Chart 3: Endurance<sup>3</sup> Comparisons



## Summary

The WD Blue® SN5100 NVMe SSD with PCIe Gen 4, SANDISK® nCache™ 4.0 Technology, and the latest SANDISK® 8<sup>th</sup> generation BiCS QLC 3D CBA NAND is the ideal choice for content creators seeking cost-effective high performance and high capacity storage for their creator PC whether as a primary system/data drive such as in a laptop, a secondary storage for their vast media library, or within a NAS for massive storage. With no compromises, the WD Blue® SN5100 NVMe SSD is available in 500GB,<sup>1</sup> 1TB,<sup>1</sup> 2TB,<sup>1</sup> and 4TB<sup>1</sup> on M.2 2280, with up to 7,100 MB/s<sup>2</sup> (1TB and 2TB model) sequential read speeds, and up to 1,200 TBW<sup>3</sup> endurance (4TB model) for building or upgrading a creator PC or NAS.

- <sup>1</sup> 1GB = 1 billion bytes and 1TB = one trillion bytes. Actual user capacity may be less depending on operating environment.
- <sup>2</sup> Based on read speed, unless otherwise stated. 1 MB/s = 1 million bytes per second. Based on internal testing; performance may vary depending upon host device, usage conditions, drive capacity, and other factors. IOPS = input/output operations per second.
- <sup>3</sup> TBW (terabytes written) values calculated using JEDEC client workload (JESD219) and vary by product capacity.
- <sup>4</sup> As compared to the WD Blue® SN5000 SSD (500GB, 1TB, and 2TB models)

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951 SANDISK DRIVE  
MILPITAS, CA 95035, USA  
WWW.SANDISK.COM