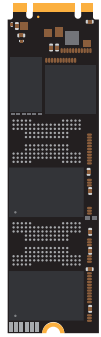
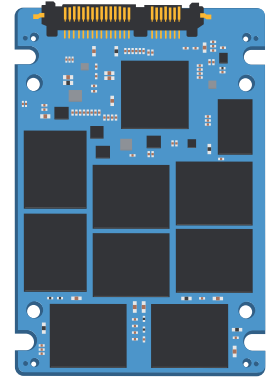
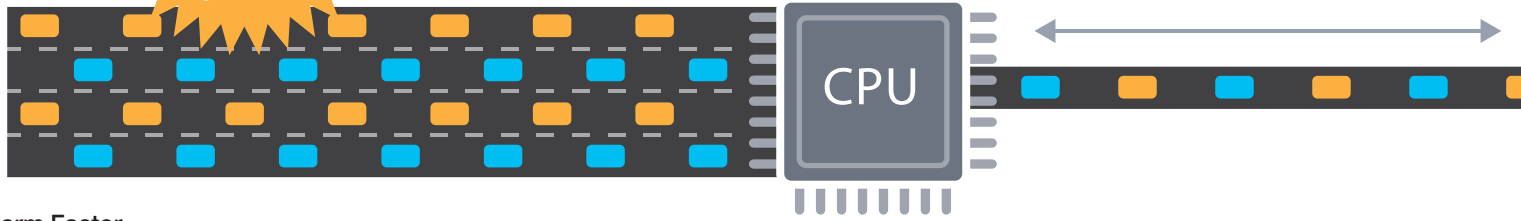


PCIe vs. SATA



M.2 SSD Form Factor

Up to 3X the performance compared to SATA!



2.5" SSD Form Factor

PCIe

NVMe - A communications protocol optimized specifically for PCIe SSDs to handle high bandwidth transfer speeds.

Supports up to 1GB/s per lane (PCIe Gen 3.0)

Copy a 12GB folder in 68 seconds!
63% faster than SATA!

	PCIe ¹	SATA ²
Sequential Read Sequential Data ● = 50 MB/second	2,050MB/s	540MB/s
Sequential Write Sequential Data ● = 50 MB/second	800MB/s	465MB/s
Random Read	170k	37k
Random Write	134k	68k
Maximum Queue Depth	64k queues, 64k commands	1 queue, 32 commands

SATA

AHCI - Communications protocol optimized for spinning magnetic disk.
Supports up to 600MB/s transfer rate.

What is PCIe?

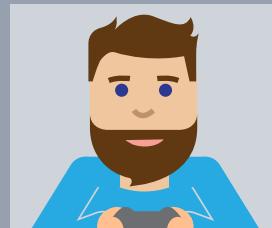
A serial connection for high bandwidth transfer speeds and low latency

Who needs PCIe SSDs?



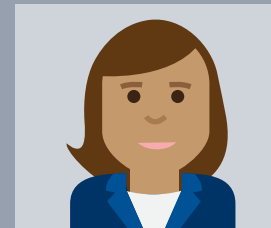
DESIGNER

- Large image rendering
- Intensive graphic editing



GAMER

- Landscape-rich games
- Fast level loading



BUSINESS

- High speed file transfer
- Fast boot up & launch



MUSICIAN

- High volume recording
- Music library loading

¹ WD Black PCIe SSD measured using CrystalDiskMark, 1000MB LBA range on ASUS Z170 desktop with Intel® i7-6700K 4.0GHz, 8GB 2133MHz DDR4. Windows 10 Pro 64-bit using Microsoft StorNVMe driver, secondary drive. Performance may vary based on host device. Megabyte (MB) = 1 million bytes. IOPS = input/output operations per second.

² WD Green SSD measured using CrystalDiskMark, 1000MB LBA range, on Desktop with Intel Z77 chipset, Windows 8 with Intel iRST version 11.7.0.1013, secondary drive.

³ Folder copy time based on WD Black PCIe SSD vs. vs WD Green SSD, 68 seconds vs. 108 seconds.

