# Silicon Motion Launches PCIe 4.0 NVMe 1.4 Controller Solutions for Client SSDs

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New controller solutions offer best-in-class Power and Performance up to 7,400/6,800 MB/s Sequential Read/Write Speeds

TAIPEI and MILPITAS, Calif., Oct. 20, 2020 /PRNewswire/ -- Silicon Motion Technology Corporation (NasdaqGS: SIMO) ("Silicon Motion"), a global leader in designing and marketing NAND flash controllers for solid-state storage devices, today announced a new portfolio of PCIe 4.0 NVMe 1.4 controller solutions to address performance, mainstream and value SSD applications. The portfolio consists of SM2264 for performance, SM2267 for mainstream and SM2267XT for value DRAM-less client SSDs.
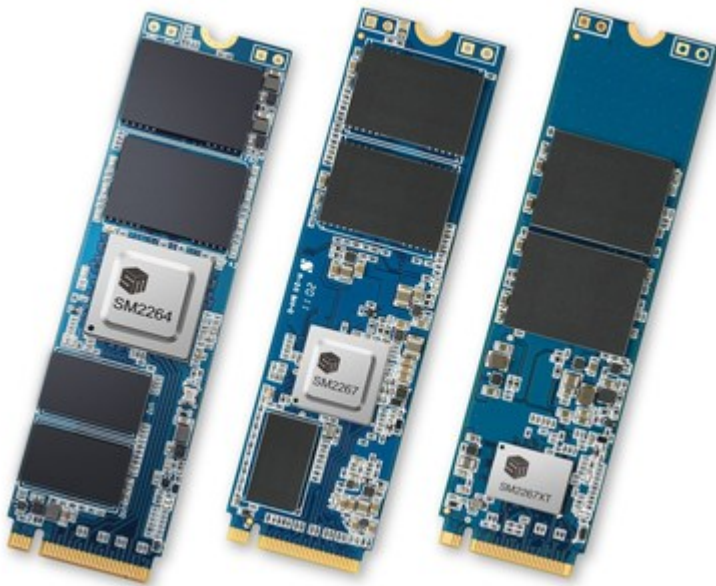
Silicon Motion's latest controller family has been designed from the ground up with PCIe Gen4 technology and innovative hardware features especially optimized for true Gen4 performance at low power consumption, advanced error correction as well as data path and EMI protections. To date, ten of the leading global NAND makers and SSD OEMs have selected Silicon Motion's Gen 4 controllers with 3D TLC and QLC NAND technologies.

Don Jeanette, Vice President of TrendFocus, commented, "Silicon Motion has long been known as a leader in SSD controller technology. The company's new product introductions are well timed as Gen 4 continues to gain traction and will become the standard over the next few years for PCs, game consoles and other client devices."

"PCIe Gen4 brings the next level of performance for SSDs to the market," said Wallace Kou, President and CEO of Silicon Motion. "With today's announcement, Silicon Motion's complete line-up of PCIe 4.0 SSD controller solutions meets the requirements of the world's top PC OEM and SSD manufacturers into the future. Already, our new PCIe Gen4 controllers have been designed into SSDs from leading OEM customers and SM2267 has started volume production."

For Performance and Automotive PCIe Gen 4 Solutions: SM2264 Gen4 x 4 Lanes, 8 NAND Channel SSD Controllers

Targeted at performance and automotive SSDs, SM2264 features a quad-core ARM R8 CPU with four lanes of 16Gb/s PCIe data flow and supports eight NAND channels with up to 1,600 MT/s per channel. Its advanced architecture, based on 12nm process technology, enables high throughput, lower power consumption, and rigorous data protection while delivering ultra-high speed of sequential read/write performance of up to 7,400/6,800 MBs and random read/write speeds of up to 1,000K IOPs. The quad core ARM R8 CPU offers high multithreaded performance to handle mixed workload operations required by emerging storage applications. SM2264 is designed with Silicon Motion's state-of-the-art 7th generation NANDXtend™ ECC technology with a performance-optimized 4KB LDPC engine and RAID to maximized error correction capability for the latest and next generation 3D TLC and QLC NAND. SM2264 is also ideal for automotive storage, offering built-in SR-IOV capability that provides direct, high-speed PCIe interface for supporting to up to eight Virtual Machines. SM2264 is currently sampling to leading customers.

For Mainstream and Value PCIe Gen 4 SSD Solutions: SM2267 Gen 4x4 Lanes, 4 NAND Channel and SM2267XT Gen4x4 Lanes, 4 NAND Channels, DRAM-less

Silicon Motion's SM2267 and SM2267XT meet the requirements of mainstream and value client SSDs and feature four 16Gb/s lanes of PCIe and four NAND channels with up to 1,200 MT/s per channel, delivering an impressive 3,900/3,500 MB/s sequential read/write performance. SM2267 includes a DRAM interface while the SM2267XT DRAM-less controller enables small form factor SSDs without compromising performance. Both also include NANDXtend™ ECC technology and support the latestTLC and QLC NAND. SM2267 and SM2267XT have entered volume production.

More information about Silicon Motion SSD controllers can be found at www.siliconmotion.com.

	SM2267XT	SM2267	SM2264
Host Interface	PCIe Gen4 x4	PCIe Gen4 x4	PCIe Gen4 x4
PCIe Protocol	NVMe 1.4	NVMe 1.4	NVMe 1.4
NAND Flash Channel	4	4	8
CE/Channel	4	8	8
DRAM	No DRAM	Yes	Yes
Max. Performance			
Seq. Read	3,900 MB/s	3,900 MB/s	7,400 MB/s
Seq. Write	3,500 MB/s	3,500 MB/s	6,800 MB/s
Random Read	500K IOPS (HMB) 200K IOPS (no HMB)	500K IOPS	1,000K IOPS
Random Write	500K IOPS	500K IOPS	1,000K IOPS

About Silicon Motion:

We are the global leader in supplying NAND flash controllers for solid state storage devices and the merchant leader in supplying SSD controllers. We have the broadest portfolio of controller technologies and our controllers are widely used in storage products such as SSDs and eMMC+UFS devices, which are found in data centers, PCs, smartphones, and commercial and industrial applications. We have shipped over six billion NAND controllers in the last ten years, more than any other company in the world. We also supply customized high-performance hyperscale data center and industrial SSD solutions. Our customers include most of the NAND flash vendors, storage device module makers and leading OEMs. For further information on Silicon Motion, visit us at www.siliconmotion.com.

Corporate Media Contact:
Minnie Lin
Director of Marketing Communication
Tel: +886 2 2219 6688 x3010
E-mail: minnie.lin@siliconmotion.com

Sales & Marketing Communications Contact:
Robert Fan
President of SMI USA
Tel: +1 408 519 7219
E-mail: rfan@siliconmotion.com

Investor Contact:
Christopher Chaney
Director, Investor Relations & Strategy
Tel: +1 561 866-9173
E-mail: CChaney@siliconmotion.com

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