



## Silicon Motion Announces World's First PCIe NVMe Single-Chip SSDs with Enterprise-Grade Data Protection Features

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### New FerriSSD offers higher performance and data protection for mission critical applications

NUREMBERG, Germany, Feb. 27, 2018 /PRNewswire/ -- Silicon Motion Technology Corporation (NasdaqGS: SIMO) ("Silicon Motion"), a global leader in designing and marketing NAND flash controllers and solid-state storage devices, today introduced its new FerriSSD® single-chip SSDs that features PCIe Gen 3 NVMe 1.3 interface for high-performance mission critical applications. The SM689 supports PCIe Gen 3x4 interface while SM681 supports PCI Gen 3x2 interface - exhibiting sequential read speed of up to 1.45GB/s and sequential write speed of up to 650MB/s. Both products can support multiple capacity configurations ranging from 16GB to 256GB and include enterprise-grade advanced data integrity and reliability capabilities using Silicon Motion's proprietary end-to-end data protection, ECC and data caching technologies.

The SM689\* and SM681\* are the newest members of the FerriSSD family which includes the PATA (SM601) and SATA (SM619) solutions targeted at embedded computing applications in industrial, commercial, enterprise and automotive end-markets. FerriSSD single-chip SSDs are customizable via firmware and offer enhanced reliability and robust data integrity features that are essential for the extreme operating environments of these applications.

"The FerriSSD storage solutions are popular with automotive and industrial designers, allowing them to replace a hard disk drive with reliable solid-state alternatives," said Nelson Duann, Senior Vice President of Marketing and OEM Business at Silicon Motion. "The addition of PCIe NVMe interface will enable significantly better performance for applications such as AI and autonomous driving."

Silicon Motion's SM689 and SM681 FerriSSDs supports enhanced reliability and data integrity features for use in demanding automotive, commercial, enterprise and industrial applications. Its set of features includes:

- End-to-end data path protection, which applies error correction code (ECC) to the SSD's SRAM and DRAM buffers as well as to the primary NAND Flash memory array
- DRAM data cache to ensure data programming and enable data redundancy, without delaying host processor operations
- Hybrid Zone which enables a single disk to be partitioned into single-level cell (SLC) and multi-level cell/three-level cell (MLC/TLC) zones, enabling faster access speeds and data retention
- Intelligent Scan/DataRefresh protects against the higher data loss from operating at high temperatures
- NANDXtend™ technology incorporating Silicon Motion's proprietary 4th generation high-performance LDPC ECC engine with RAID, ensuring better data integrity even in extreme physical environments
- 16mm x 20mm (SM689) and 11.5mm x 13mm (SM681) single-chip package
- Supports industrial temperatures from -40 to 85 degrees Celsius
- Densities ranging from 16GB to 256GB at launch

The latest PCIe NVMe FerriSSD family is currently in production and products will be on display at the Silicon Motion booth 1.119 at the Embedded World exhibition (Nuremberg, Germany, 27 February - 1 March 2018).

\* SM689 is embedded DRAM, SM681 is DRAMless

About Silicon Motion:

We are the global supply leader of NAND flash controllers for solid state storage devices and the merchant supply leader of SSD controllers. We have the broadest portfolio of controller technologies and solutions and have shipped over five billion NAND controllers, more than any other company in the world. Our controllers are widely used in embedded storage products such as SSDs and eMMCs which are found in smartphones, PCs and industrial and commercial applications. We also supply specialized high-performance enterprise 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](http://www.siliconmotion.com).

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