



## Silicon Motion to Showcase Its New, Ultra High-Performance and Low-Power SATA 6Gb/s SSD Controllers at Flash Memory Summit

August 12, 2013

### SM2246EN Enables Client SSDs With Industry-Leading Performance/Power Ratio While Supporting Multiple MLC, TLC and SLC NAND Technologies

TAIPEI, Taiwan, Aug. 12, 2013 (GLOBE NEWSWIRE) -- Silicon Motion Technology Corporation (Nasdaq:SIMO) ("Silicon Motion"), a global leader in designing and marketing NAND flash controllers for solid state storage devices, today announced that it has begun sampling its SM2246EN ultra high-performance and low power consumption SATA Revision 3.1 (6Gb/s) SSD controller for client and NAND-cache SSD solutions. The SM2246EN's performance and power consumption specifications place it squarely among the top SATA SSD controllers on the market. It also supports MLC, TLC and SLC NAND flash from all the major NAND suppliers. Silicon Motion will be showcasing and demonstrating this product at the upcoming Flash Memory Summit in Santa Clara, CA from August 13 to 15.

A photo accompanying this release is available at <http://www.globenewswire.com/newsroom/prs/?pkgid=20392>

 [Silicon Motion's SM2246EN SATA 6Gb/s SSD](#)

In addition, Silicon Motion will be discussing the long-term controller evolution necessary to manage sub-20nm NAND flash and incorporating innovative controller technologies such as LDPC ECC at two separate discussion forums on August 14, 2013 at the Flash Memory Summit.

"We are excited to introduce SM2246EN, an innovative 4-channel SSD controller with tight cooperation between its hardware architecture and firmware management, delivering even higher performance than most 8-channel SSD controllers in the market," said Wallace Kou, President and CEO of Silicon Motion. "Our customers are impressed by SM2246EN's superior read/write rates as well as ultra-low power consumption, making it the ideal solution for high-performance, power efficient devices including PCs, Ultrabooks, tablets and industrial SSDs. Combined with our industry-leading, proprietary configurable ECC technology and comprehensive global customer support, the SM2246EN is a complete hardware and firmware controller solution that enables better endurance, higher reliability and more consistent performance throughout the lifecycle of the SSD."

Silicon Motion's SM2246EN provides a complete hardware and firmware SSD controller solution with industry leading capabilities and technologies including:

SM2246EN Enables Client SSDs with Industry-Leading Performance/Power Ratio while Supporting Multiple MLC, TLC and SLC NAND Technologies

- Ultra high sequential read performance of up to 540 MB/s and sequential write of up to 410 MB/s
- Delivers up to 80,000 random read IOPS and up to 75,000 random write IOPS
- Average power consumption of 60mW, 25% lower than the device power target of Intel's 2014 Ultrabook Guidelines with MobileMark 2012
- Advanced ECC management and wear leveling firmware to increase performance and extend reliability
- Ideally suited for both client SSDs and NAND-cache drives
- Proprietary, configurable ECC engine allows for consistent data throughput and performance throughout the entire SSD lifecycle
- Supports high toggle, ONFI and asynchronous NAND
- Supports the latest 1xnm / 1ynm MLC and TLC flash\*, enabling better affordability and higher capacity SSDs
- Incorporates the latest security protocols and is AES 128/256, Trusted Computing Group (TCG) and Opal full-drive encryption compliant\*
- Able to support both commercial and industrial grade requirements

Silicon Motion is currently sampling its SM2246EN SSD controller and expects to enter mass production in the third quarter of 2013.

"The SSD market is expected to grow at 35% CAGR to over 100 million units per year by 2017," said Michael Yang, Senior Principal Analyst for Memory & Storage at IHS. "Based on our testing, SMI's SM2246EN SSD controller exhibits very competitive performance against leading SSDs in the market. The availability of new merchant controllers such as SM2246EN as a viable alternative will help expand the overall SSD market."

Our presentations at Flash Memory Summit:

**Forum E-21: Controllers and Flash Technology, Part 1: Extending Performance Below 20 nm (Wednesday, August 14, 8:30am-10:50am):** Stanley Huang, Product Marketing Manager of Silicon Motion, will be presenting "SSD Controller Technologies for TLC NAND", as part of the Forum

E-21. In his presentation, Stanley will discuss the trend of MLC and TLC NAND, and their performance gap shown in endurance and retention tests. Stanley will also introduce the technologies to enhance TLC performance and endurance. The final goal is to provide an SSD controller for TLC; the total cost can be lower and the reliability can be the same as today's MLC and maybe better.

**Forum E-22: Controllers and Flash Technology, Part 2: Decoding the Future (Wednesday, August 14, 3:10pm-5:30pm):** Jeff Yang, Principal Engineer of Silicon Motion's Algorithm & Technology team, will be speaking about "The Efficient LDPC DSP System for SSD", as part of the Forum E-22. In his presentation, Jeff will demonstrate an optimized LDPC application for NAND flash. The innovative LDPC DSP system utilizes a superior data retention method, an adaptive decoding power scheme, and efficient hard-soft joint decoding algorithm. The endurance and the retention capability can be improved almost without performance loss.

SM2246EN and our other new NAND flash controller products will be demonstrated at booth #615. For more information on Silicon Motion, please go to <http://www.siliconmotion.com>.

\* TLC NAND support and Enhanced Security firmware support will be available in the fourth quarter of 2013.

#### **About Silicon Motion:**

Silicon Motion is a fabless semiconductor company that designs, develops and markets high performance, low-power semiconductor solutions for the multimedia consumer electronics market. We have two major product lines, mobile storage and mobile communications. Our mobile storage business is composed of microcontrollers used in NAND flash memory storage products such as flash memory cards, USB flash drives, SSDs, and embedded flash applications. Our mobile communications business is composed primarily of handset transceivers and mobile TV IC solutions. For more information, please visit [www.siliconmotion.com](http://www.siliconmotion.com).

#### CONTACT: Media Contact:

Michael Schoolnik  
Story Public Relations  
Tel: +1 415 674 3816  
E-mail: [michael@storypr.com](mailto:michael@storypr.com)

#### Investor Contact:

Jason Tsai  
Director of IR and Strategy  
Tel: +1 408 519 7259  
Fax: +1 408 519 7101  
E-mail: [jtsai@siliconmotion.com](mailto:jtsai@siliconmotion.com)

#### Sales Contact:

Robert Fan  
VP/GM SMI U.S.  
Tel: 408-519-7219  
E-mail: [rfan@siliconmotion.com](mailto:rfan@siliconmotion.com)

Silicon Motion Technology Corporation