



Silicon Motion Introduces World's First Turnkey Merchant 6Gb/s SSD Controller Solution Supporting 3D TLC NAND

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SM2258 accelerates the adoption of high-performance client SSDs using 3D TLC NAND

TAIPEI, Taiwan, May 31, 2016 /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 introduced SM2258, the world's first turnkey merchant ASIC/firmware SATA 6Gb/s SSD controller solution supporting the latest 3D TLC NAND from all the major NAND suppliers. The SM2258 turnkey controller solution is designed specifically to meet the unique demands of managing 3D TLC NAND for client SSDs, offering high capacity with best-in-class performance, ultra-low power consumption and extended durability and data retention. The new SM2258 solution will accelerate the adoption of a new class of cost-competitive, high-capacity and high-performance 3D TLC-based SSDs in the market.



Silicon Motion's customizable turnkey controller solution is enabling SSD OEMs to use the latest generation, most cost-effective 3D TLC NAND flash to quickly bring to market differentiated SSD solutions that will accelerate SSD adoption. The SM2258 controller employs the company's proprietary NANDXtend™ technology consisting of LDPC hard and soft decoding as well as RAID protection that together triple the P/E cycles of 3D TLC NAND - extending the SSD lifespan and ensuring data integrity. SM2258 also features advanced *Direct-to-TLC* and *SLC Caching* algorithms for optimal sustained performance with TLC NAND.

"NAND vendors are readying for the transition to 3D TLC NAND that will improve affordability and accelerate adoption of SSDs," said Wallace Kou, President and CEO of Silicon Motion. "As the NAND controller market leader, our new SM2258 customizable turnkey controller solution will enable our partners to rapidly bring to market a new generation of low-cost 3D TLC-based SSDs with uncompromising performance and capacity to drive even faster displacement of HDDs in a wide variety of end-markets and applications."

"As 3D NAND approaches half of client SSD petabytes going into next year, advanced SSD controllers enabling low cost, high performance 3D TLC NAND-based solutions are critical for this transition," said Gregory Wong, Founder and Principal Analyst of Forward Insights.

Silicon Motion's SM2258 provides a complete customizable hardware and firmware turnkey SSD controller solution with industry leading capabilities and technologies, including:

- Supports 2D/3D MLC and TLC NAND Flash from all the major NAND Flash vendors
- Ultra-high sequential read performance of up to 560MB/s and sequential write of up to 520MB/s*
- Up to 90,000 random read IOPS* and up to 80,000 random write IOPS*
- Proprietary NANDXtend error-correcting and data protection technology to triple the P/E cycles for 2D/3D TLC SSD devices
- *Direct-to-TLC*, *Dynamic SLC Cache* as well as *Static SLC Cache* algorithms for optimal sustained read and write performance
- Support for ONFI 3.0, Toggle 2.0 and asynchronous NAND

- The latest security protocols, including AES 256, Trusted Computing Group (TCG) and Opal full-drive encryption compliant
- Ideal suitability for client SSDs targeting ultrabooks, laptops, tablets and HDD replacement
- Support for both commercial (0°C to 70°C) and industrial grade (-40°C to 85°C) requirements

*with IMFT 3D TLC NAND

The SM2258 SSD controller solution with 3D TLC NAND support is available today.

The SM2258 solution with IMFT 3D TLC NAND will be demonstrated at 2016 Computex Taipei in room 1028 of the Grand Hyatt Taipei hotel.

For more information on Silicon Motion, please go to <http://www.siliconmotion.com>.

About Silicon Motion:

We are a fabless semiconductor company that designs, develops and markets high performance, low-power semiconductor solutions to OEMs and other customers in the mobile storage and mobile communications markets. For the mobile storage market, our key products are microcontrollers used in solid state storage devices such as SSDs, eMMCs and other embedded flash applications, as well as removable storage products. For the mobile communications market, our key products are handset transceivers and mobile TV IC solutions. Our products are widely used in smartphones, tablets, and industrial and commercial applications. For further information on Silicon Motion, visit www.siliconmotion.com.

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