



Silicon Motion Unveils 6nm UFS 4.0 Controller for AI Smartphones, Edge Computing and Automotive Applications

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Company also launches its second generation UFS3.1 controller supporting the latest high speed 3D TLC and QLC NAND

TAIPEI and MILPITAS, Calif., March 12, 2024 /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 its UFS (Universal Flash Storage) 4.0 controller, the SM2756, as the flagship of the industry's broadest merchant portfolio of UFS controller solutions for the growing requirements of AI-powered smartphones as well as other high-performance applications including automotive and edge computing. The company also added a new, second generation SM2753 UFS3.1 controller to broaden its portfolio of controllers now supporting UFS4.0 to UFS2.2 standards. Silicon Motion's UFS portfolio delivers high-performance and low power embedded storage for flagship to mainstream and value mobile and computing devices, supporting the broadest range of NAND flash, including next-generation high speed 3D TLC and QLC NAND.



The new SM2756 UFS 4.0 controller solution is the world's most advanced controller, built on leading 6nm EUV technology and using MIPI M-PHY low-power architecture, providing the right balance of high performance and power efficiency to enable the all day computing needs of today's premium and AI mobile devices. The SM2756 achieves sequential read performance exceeding 4,300 MB/s and sequential write speeds of over 4,000 MB/s and supports the broadest range of 3D TLC and QLC NAND flash with densities of up to 2TB.

The new second generation SM2753 UFS 3.1 controller solution boasts a high-speed serial-link-based MIPI M-PHY HS-Gear4 x 2-lane, and SCSI architecture model (SAM) enabling unparalleled performance. Following the company's successful SM2754 UFS3 controller, the SM2753 features single channel design offering a sequential read performance of 2150MB/s and sequential write performance of 1900MB/s using next-generation 3D TLC and QLC NAND to address the increasing UFS3 market for mainstream and value mobile phones, IOT and automotive applications.

Silicon Motion's latest UFS controller solutions are equipped with advanced LDPC ECC technology and SRAM data error detection and correction. These features enhance data reliability, improve performance, and reduce power consumption. The latest UFS controller solutions support the widest range of NAND, including the latest 3D TLC and QLC NAND flash from all leading flash makers.

"Our 6nm EUV SM2756 addresses the needs of the latest premium smartphones requiring high performance, high capacity, and low power NAND storage to meet the needs of next generation AI functionality and applications," said Nelson Duann, Senior VP of Client & Automotive Storage Business. "Our new single channel SM2753 enables us to extend our leadership in the large and growing UFS3 market with a more cost effective, high performance and low power controller."

UFS 4.0 SM2756:

- JEDEC UFS 4.0 Compliant and supports HS-Gear-5 x 2-lane, MPHY version 5.0 and UniPro standard version 2.0
- 2 Channel NAND Flash Controller and supports 1.8V/1.2V I/O operation and Toggle DDR 5.1 /ONFI 5.1 NAND
- LDPC ECC Engine with supporting low-power decoding mode and high-correction capability decoding with soft information.
- Sequential read / write performance: 4300MB/s / 4000MB/s
- Entering mass production in Mid'2024

UFS 3.1 SM2753

- JEDEC UFS 3.1 compliant and supports HS-Gear-4 x 2-lane, MPHY version 4.1 and UniPro standard version 1.8
- 1 Channel NAND Flash Controller and supports 1.8V/1.2V I/O operation and Toggle DDR 5.1 /ONFI 5.1 NAND
- LDPC ECC Engine with supporting low-power decoding mode and high-correction capability decoding with soft information.

- Sequential read / write performance: 2150MB/s / 1900MB/s
- Entering mass production now

About Silicon Motion:

We are the global leader in supplying NAND flash controllers for solid state storage devices. We supply more SSD controllers than any other company in the world for servers, PCs and other client devices and are the leading merchant supplier of eMMC and UFS embedded storage controllers used in smartphones, IoT devices and other applications. We also supply customized high-performance hyperscale data center and specialized industrial and automotive 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 Department
Tel: +886 2 2219 6688 x3010
E-mail: minnie.lin@siliconmotion.com

Investor Contact:

Jason Tsai
E-mail: jason.tsai@siliconmotion.com

Sales Contact:

E-mail: service@siliconmotion.com



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