



New UFS controller family enables next-generation high-performance, high-capacity embedded memory solutions for mobile devices

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MILPITAS, Calif. and TAIPEI, Taiwan, March 6, 2017 /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 the launch of its new UFS (Universal Flash Storage) 2.1 controller family, a complete product line supporting UFS HS-Gear3x1L and HS-Gear3x2L, enabling high-performance, high capacity and low power embedded memory for mobile phones. Designed with Silicon Motion's proprietary MIPI M-PHY, low-power architecture and advanced LDPC (Low Density Parity Check) ECC for 3D NAND support, the UFS 2.1 controller family delivers ultra-high random read/write performance of up to 50,000/40,000 IOPS*, capacity up to 512GB** and ultra-low power consumption for flagship and mainstream smartphones.

UFS is the latest generation embedded memory standard for mobile applications defined by JEDEC***. The UFS standard features a serial link-based MIPI M-PHY interface and SCSI architecture model (SAM) which enables high-performance, energy-efficient and high-capacity embedded storage, which is critical for the multitasking and multimedia requirements of today's smartphones. Silicon Motion's newest UFS 2.1 controller family provides more than three times faster sequential and random read/write performance as compared to the eMMC 5.1 controllers.

"Our UFS 2.1 controller family extends our eMMC leadership in mobile devices to today's flagship and premium models," said Wallace Kou, President and CEO of Silicon Motion. "Our unique turnkey UFS solution will usher in a new generation of cost-effective and high-performance embedded memory solutions, just as more application processor platforms roll-out support and more handset OEMs adopt UFS in mainstream devices."

"UFS is expected to be the dominant flash specification within the next five years, supplanting eMMC. The performance advantages of UFS over eMMC are most notable at high NAND densities, i.e. 128GB & 256GB," said Walter Coon, Director for NAND flash technology research at IHS Markit. "High-performance multimedia capabilities are a cornerstone for mobile devices today and the addition of 4K and AR/VR capabilities will require more robust and higher capacity UFS embedded memory solutions for the majority of smartphones****"

Silicon Motion's leading-edge turnkey UFS controller and firmware technologies enable best-in-class embedded storage solutions for the increasing performance requirements of today's mobile devices. All products support multiple form factors, including discrete UFS and multi-chip uMCP embedded memory, as well as UFS memory card, and are compatible with all of the major mobile application processor platforms in the market. The proprietary low-power LDPC ECC engine and internally developed MIPI M-PHY enable high-performance UFS memory solutions with high endurance and energy efficiency. Consistent with company's widely-adopted eMMC controllers, the turnkey UFS controller family supports 3D MLC and TLC flash from a variety of NAND flash makers.

The Silicon Motion UFS 2.1 family is currently sampling to select NAND OEM partners, and production ramp is expected later this year.

Silicon Motion's UFS controller family controller specifications*:

	SM2750	SM2752
Host Interface	UFS 2.1	UFS 2.1
MIPI M-PHY Bandwidth	HS-G3 X 1 Lane 5.8Gbps	HS-G3 X 2 Lanes 11.6Gbps
UniPro	1.6	1.6
ECC	BCH	LDPC
Random Performance	Read: 30,000 IOPS Write: 30,000 IOPS	Read: 50,000 IOPS Write: 40,000 IOPS

* The performance result is based on various NAND types, tPROG, tR(read cycle), page size, test methodology, and other factors.

**Based on 512Gb 3D NAND

** JEDEC is an organization devoted to standards for the solid-state industry

****Results based on IHS Markit, Technology Group, Mobile and Embedded Market Tracker Q4 2016. Results are not an endorsement of Silicon Motion. Any reliance on these results is at the third party's own risk. Visit technology.ihs.com for more details

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 solutions and ship over 750 million NAND controllers annually, 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.

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