

SERIAL NAND

HIGH SPEED SPI. UP TO 133MHz.
SMALL PACKAGE 6mm x 8mm.
LOW PIN COUNT.



Toshiba Memory Europe Launches New Serial Interface NAND

Second generation NAND products support high-speed data transfers, and increase performance and capacity for embedded applications

Düsseldorf, Germany, 26th September 2019 – Toshiba Memory Europe GmbH (TME) today announced the launch of their second-generation line-up of NAND flash memory products for embedded applications featuring increased performance and capacity^[1]. With support for high-speed data transfers, the new Serial Interface NAND products are compatible with the widely used Serial Peripheral Interface (SPI) and are suited for a wide range of consumer, industrial and communication

applications. Sample shipments start today with mass production scheduled to begin from October onwards.

With the devices getting smaller in IoT and communication applications, demand for large capacity flash memory in small packages that can handle high-speed data transfers with low pin count is increasing. Due to its compatibility with the widely used SPI, the Serial Interface NAND products can be utilized as SLC NAND flash memory products with a low pin count, small package and large capacity.

In order to support high-speed data transfers, the new second-generation Serial Interface NAND products offer improved performance compared to existing first-generation products^[1], including 133 megahertz (MHz) operating frequency and program x4 mode. Furthermore, an 8 gigabit^[2] (1 gigabyte^[2]) device has been added to the line-up to respond to demands for larger memory capacity. The entire line-up is offered in an 8-pin WSON^[3] package of 6 x 8 mm dimension.

Key Features

- **1 – 8 gigabit (Gb)** capacities
- **2kB (1/2 Gb) and 4kB (4/8 Gb) page size** for more efficient operating system reads and writes
- **x4 Program and Read modes** for high-speed programming and access
- **ECC and Data Protection** detect bit flips and provide protection of defined blocks
- **Parameter Page Function** for detailed information on device

“With the growing complexity and size of embedded applications, this new line-up of high-speed Serial NAND Flash provides designers with the performance and flexibility they are looking for,” said Axel Stoermann, Vice President, Toshiba Memory Europe GmbH. “By trusting Toshiba, the inventor of NAND flash and a leader in 3D flash memory technology, they will benefit from the innovations integrated into these devices along with their compact package while passing on the reliability of our technology to their customers.”

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Notes:

[1] Compared to Toshiba Memory Corporation's existing first-generation Serial Interface NAND products. Toshiba Memory survey.

[2] Product capacity is identified based on the capacity of memory chip(s) within the product, not the amount of memory capacity available for data storage by the end user. Consumer-usable capacity will be less due to overhead data areas, formatting, bad blocks, and other constraints, and may also vary based on the host device and application. For details, please refer to applicable product specifications.

[3] WSON: Very-Very thin Small Outline No Lead Package

All company names, product names and service names may be trademarks of their respective companies.

In every mention of a Toshiba Memory product: Product density is identified based on the density of memory chip(s) within the Product, not the amount of memory capacity available for data storage by the end user. Consumer-usable capacity will be less due to overhead data areas, formatting, bad blocks, and other constraints, and may also vary based on the host device and application. For details, please refer to applicable product specifications. The definition of 1Gb = 2^{30} bits = 1,073,741,824 bits. The definition of 1GB = 2^{30} bytes = 1,073,741,824 bytes. The definition of 1KB = 2^{10} bytes = 1,024 bytes.

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About Toshiba Memory Europe GmbH

Toshiba Memory Europe GmbH, are the European business of Toshiba Memory Corporation. Our company offers a broad product line of flash memory products, including SD Cards, USB flash drives, and embedded memory components, in addition to solid state drives (SSD). Our company maintains offices in Germany, France, Spain, Sweden and the United Kingdom. President is Masaru Takeuchi.

For more information on the full range of our memory and SSD products please visit: business.toshiba-memory.com

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