Toshiba rolls 24-nm NAND flash

Peter Clarke - August 31, 2010

LONDON - Toshiba Corp. has announced that it has started mass production of NAND flash memories using a 24-NM CMOS manufacturing process technology. The chip represents the smallest geometry and the highest density in NAND flash, the company said. The technology has been applied to a 2-bit per cell 64-Gbit memory. The company said it also plans to offer a 32-Gbit NAND flash memory and 3-bit per cell memory based on the process technology.

The 24nm process products are also equipped with Toggle DDR, which enhances data transfer speed, Toshiba said.

By accelerating process migration in NAND flash memory, Toshiba aims to reinforce and extend its leadership in the NAND flash memory market. The moves is also likely to make yet harder the introduction of alternative memory technologies, such MRAM and phase-change memory. South Korea's Samsung Electronics Co. Ltd. has announced its production of "20-nm-class" NAND chips for use in secure digital memory cards and embedded memory, but analysts have referred to that as a 27-nm device. Hynix Semiconductor Inc. has said that it has begun mass production of a 64-Gbit NAND flash chip at its 300-mm fab, dubbed M11. That is believed to be a 26-nm device. At the beginning of the 2010 Intel and Micron took process technology lead in NAND flash, by rolling out the first 25-nm NAND device as a multi-level-cell (MLC) 64-Gbit device.