Intel, Micron sample 20nm NAND flash

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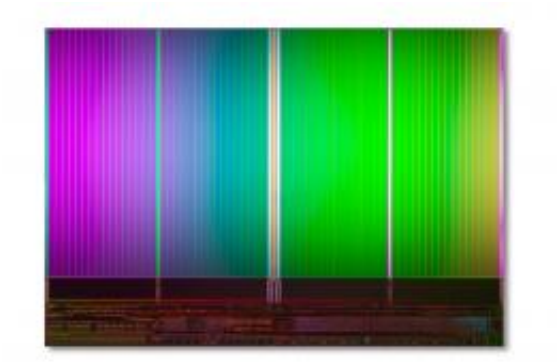


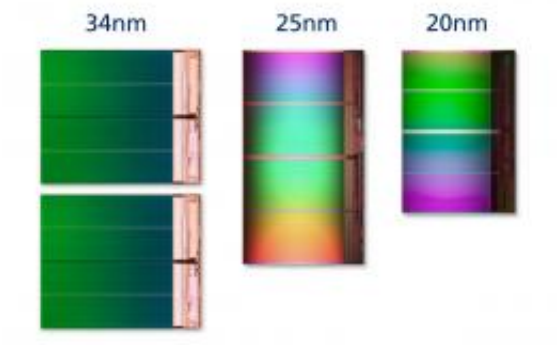
New 64 Gigabit (Gb) NAND flash die from Intel Micron Flash Technologies - Intel and Micron deliver the industry's smallest, most advanced NAND flash process technology at 20nm. Shown is a 64Gb, or 8 Gigabyte (GB), die measuring just 118mm2. The 64Gb Multi-Level Cell (MLC) NAND device provides high capacity for smartphones, tablets, SSDs and more.

Intel and Micron Technology today introduced a new, finer 20-nanometer (nm) process technology for manufacturing NAND flash memory. The new 20nm process produces an 8-gigabyte (GB) multi-level cell (MLC) NAND flash device, providing a high-capacity, small form factor storage option for saving music, video, books and other data on smartphones, tablets and computing solutions such as solid-state drives (SSDs).

The growth in data storage combined with feature enhancements for tablets and smartphones is creating new demands for NAND flash technology, especially greater capacity in smaller designs. The new 20nm

8GB device measures just 118mm2 and enables a 30 to 40 percent reduction in board space (depending on package type) compared to the companies' existing 25nm 8GB NAND device. A reduction in the flash storage layout provides greater system level efficiency as it enables tablet and smartphone manufacturers to use the extra space for end-product improvements such as a bigger battery, larger screen or adding another chip to handle new features.

Manufactured by IM Flash Technologies (IMFT), Intel and Micron's NAND flash joint venture, the new 20nm 8GB device is a breakthrough in NAND process and technology design, further extending the companies' lithography leadership. Shrinking NAND lithography to this technology node is the most cost-effective method for increasing fab output, as it provides approximately 50 percent more gigabyte capacity from these factories when compared to current technology. The new 20nm process maintains similar performance and endurance as the previous generation 25nm NAND technology.



Comparison of two 32Gb 34nm die versus one 64Gb on 25nm and 20nm process from IMFT - This photo shows a comparison of two 32 Gigabit (Gb) Intel Micron Flash Technologies (IMFT) 34nm die versus one 64Gb, or 8 Gigabyte (GB), die on 25nm and new 20nm processes. Shrinking NAND lithography is the most cost-effective method for increasing fab output and reducing die cost. Shrinking from 25nm to 20nm process will provide an approximately 50 percent

more gigabyte capacity from IMFT factories when compared to current technology. The new 20nm process maintains similar performance and endurance as the previous generation 25nm NAND technology.

"Close customer collaboration is one of Micron's core values and through these efforts we are constantly uncovering compelling end-product design opportunities for NAND flash storage," said Glen Hawk, vice president of Micron's NAND Solutions Group. "Our innovation and growth opportunities continue with the 20nm NAND process, enabling Micron to deliver cost-effective, value-added solid-state storage solutions for our customers."

"Our goal is to enable instant, affordable access to the world's information," said Tom Rampone, vice president and general manager, Intel Non-Volatile Memory Solutions Group. "Industry-leading NAND gives Intel the ability to provide the highest quality and most cost-effective solutions to our customers, generation after generation. The Intel-Micron joint venture is a model for the manufacturing industry as we continue to lead the industry in process technology and make quick transitions of our entire fab network to smaller and smaller lithographies."

The 20nm, 8GB device is sampling now and expected to enter mass production in the second half of 2011. At that time, Intel and Micron also expect to unveil samples of a 16GB device, creating up to 128GBs of capacity in a single solid-state storage solution that is smaller than a U.S. postage stamp.

Source: Intel