Written by Marco Attard 11 August 2016

Micron sets to provide mobile devices with more storage as it reveals a 3D NAND chip aimed at mid- and high-end smartphones based on the fast (and still to be found in mobile devices) UFS 2.1 storage protocol.



According to the company 3D NAND is a solution for the cramming of more storage capacity within a smaller space. The concept behind the technology is actually reminiscent of a skyscraper, since it involves stacking memory cells on top of each other-- and the higher the memory cells go, the more storage is available.

3D NAND dies have multiple layers, with vertical "pillars" intersecting each layer to create memory cells. Each pillar supports up to 32 memory cells, and each die contains over 4 billion pillars.

The new 3D NAND die measures just 60.217mm2 (30% smaller than the typical flat NAND die) and has 32GB of storage. And it can expand even further-- Micron says it managed to fit over 3.5TB of storage in a gumstick-size SSD. The technology is also ideal for low-power LPDDR4X memory modules able to provide up to 20% more energy efficiency than regular LPDDR4 RAM.

"As mobile devices bypass personal computers as consumers' primary computing device, user behaviours heavily impact the device's mobile memory and storage requirements," the company says. "Micron's mobile 3D NAND addresses these concerns, enabling an unparalleled user experience that includes seamless high-definition video streaming, higher bandwidth gameplay, faster boot-up times, camera performance and file loading."

Micron Crams 3D NAND in Mobile Devices

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Micron is currently sampling mobile 3D NAND chips before general availability to OEMs by end 2016.

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