Written by Marco Attard 15 May 2019

SK Hynix starts sending samples of 1Tb (terabit) QLC (Quadruple Level Cell) flash memory-- a chip allowing SSD makers to build even higher capacity drives by taking advantage of the higher bit density.



According to the company, the chips feature the application of QLC technology to a 96-layer CTF (Charge Trap Flash) based on 4D NAND flash. QLC stores 4 bits of data in one NAND cell, allowing higher density compared to TLC (Triple Level Cell) with 3 bits per cell. Furthermore, SK Hynix says the product has reduced the area to less than 90% of of existing 3D-based QLC products.

Meanwhile small-sized planes, another advantage of 4D NAND technology, allows use of a 4-plane architecture-- increasing the number of planes in a single chip from 2 to 4, doubling data bandwidth from 32KB to 64KB. Such high performance makes for an even more competitive product, at least according to the company.

SK Hynix is also working on an own QLC software algorithm and controller, and plans to launch products "in time to meet client demand." Such products include high-density SSDs with capacities reaching 16TB, if not more.

Go SK Hynix Ships Samples of High-Performance 96-Layer 1Tb QLC 4D NAND