Phison Announces PS5007-E7 PCIe NVMe Controller and More – Flash Memory Summit 2015 Update

August 11, 2015 - The Phison PS5007-E7 PCIe NVMe controller is not something new to us. We have seen it before, first FMS last year and then again at Computex where we saw it on demo delivering 2.7Gb/s read. Finally, at FMS this year they officially announce its availability with it being demoed continuously writing at 1.3GB/s.

The PS5007-E7 is a PCIe 3.0 x4, 8-channel controller that is NVMe 1.2 compliant. It supports 1znm SLC/MLC/TLC as well as the latest 3D NAND. Working with 1z MLC, PS5007-E7 delivers speeds over 2600 MB/s sequential read and over 1300 MB/s sequential write, with random 4K up to 350,000 IOPS read and 250,000 IOPS write performance. The controller supports up to 2 Terabytes today and will expand to 4 Terabytes in the coming future. PS5007-E7 also supports NVMe L1 sub-state with less than 5mW in L1.2 low power mode, a key requirement for next generation notebook.
Sampling for this controller is expected in October with mass production possibly being early 2016.

With many companies trying to achieve lower and lower BOM costs DRAM-less architectures are perfect for SSD manufacturers. In order to keep up with other controller companies, Phison has developed their own, the PS3111-S11 controller. Not only is it DRAM-less, it is also only a dual channel design with support for LDPC ECC algorithms. It is also only 9x9mm in size. The quick spec list states that it is a SATA 3 controller that supports 1z/3D TLC with a maximum capacity of up to 1TB. Performance comes in at 550MB/s for reads and 500MB/s for writes with up to 100K/90K IOPS. So, even with less channels we should expect some great speeds out if it. This controller is expected to go in production during the second half of next year.

More information at: http://www.thessdreview.com/daily-news/latest-buzz/phison-announces-ps5007-e7-pcie-nvme-controller-and-more-flash-memory-summit-2015-update/