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Introducing the Solidigm™ D7-P5810 – an ultra-fast SLC SSD for write-intensive workloads

Up to 50 Drive Writes Per Day (DWPD) for Random, 65 DWPD for Sequential

Rancho Cordova, Calif., Sept. 20, 2023 – Solidigm, a leading global provider of innovative NAND flash memory solutions, is proud to announce the company's first ultra-fast, single-level cell (SLC) solid-state storage drive (SSD) for the data center market – the **Solidigm™ D7-P5810**. The D7-P5810 is a PCIe Gen 4.0 drive built on Solidigm's proven 144-layer SLC 3D NAND.

A new addition to Solidigm's high-performing D7 Series, the D7-P5810 is designed for high-endurance and extreme write-intensive workloads. This ultra-fast Storage Class Memory (SCM) SSD offers up to 50 Drive Writes Per Day (DWPD) for random, 65 DWPD for sequential, and up to 2X better performance than the competition[1] for caching, high-performance computing (HPC), data logging, journaling, and more, at less than ~20% of the cost of non-NAND SCM technologies.

SLC as a Storage Accelerator
The D7-5810 is ideally suited as a storage accelerator in front of highly dense capacity tiers (like QLC-based SSDs), adding significant benefit in the following use cases:

- **Metadata/logging:** placing performance-sensitive data such as metadata or logs on SLC can accelerate system performance by using SLC as a dedicated Write-Ahead Log in Ceph clusters, for example.
- **Caching**: SLC SSDs can act as a write buffer or cache to help remove performance bottlenecks, dramatically improve application performance, and improve TCO.
- **Tiering**: data is written first to the SLC SSD so commits are fast, and subsequent reads are faster. As data becomes colder, it can be aggregated, compressed, and written in bulk to underlying higher-capacity QLC drives (like Solidigm's D5-P5336) for space-efficient storage on that media. Write-shaping software such as Cloud Storage Acceleration Layer (CSAL), further delivers a solution that extends the density, TCO and sustainability value of QLC to more workloads.

"By introducing the D7-P5810, Solidigm has now further expanded its industry-leading endurance swim lane coverage. We are pleased to offer a new ultra-fast data center SSD with compelling specifications to serve customers' very high write-intensive needs," said Greg Matson, VP of Strategic Planning and Marketing at Solidigm.

The D7-P5810 is available now in 800GB (U.2 15mm form factor). A 1.6TB version will be available in the first half of 2024.

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Learn more about the D7-P5810 at https://www.solidigm.com/products/data-center/d7/p5810.html. The D7-P5810 will be on display at the Solidigm/SK hynix booth (A8) at the Open Compute Summit (OCP) in San Jose, CA, October 17-19, 2023.

[1] Source

ABOUT SOLIDIGM

Solidigm is a leading global provider of innovative NAND flash memory solutions. Solidigm technology unlocks data's unlimited potential for customers, enabling them to fuel human advancement. Originating from the sale of Intel's NAND and SSD business, Solidigm became a standalone U.S. subsidiary of semiconductor leader SK hynix in December 2021. Headquartered in Rancho Cordova, California, Solidigm is powered by the inventiveness of more than 2,000 employees in 13 locations worldwide. For more information, please visit solidigm.com and follow us on Twitter and LinkedIn. "Solidigm" is a trademark of SK hynix NAND Product Solutions Corp. (d/b/a Solidigm).

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