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Solidigm introduces the world's highest capacity PCIe SSD for massive data storage from core to edge

Offered in capacities from 7.68TB up to 61.44TB

Rancho Cordova, Calif., July 20, 2023 – Solidigm, a leading global provider of innovative NAND flash memory solutions, is proud to announce another industry-first quad-level cell (QLC) solid-state storage drive (SSD) for the data center – the **Solidigm™ D5-P5336**. Offered in capacities from 7.68TB to 61.44TB, the Solidigm D5-P5336 makes it possible to store up to 6X more data in the same space compared to an all hard disk drive (HDD) array.[1]

"Modern workloads like AI and capabilities like 5G are rapidly reshaping the storage landscape," said Greg Matson, VP of Strategic Planning and Marketing at Solidigm. "Businesses need storage in more places that is inexpensive, able to store massive data sets efficiently and access the data at speed. The D5-P5336 delivers on all three -- value, density and performance. With QLC, the economics are compelling -- imagine storing 6X more data than HDDs and 2X more data than TLC SSDs, all in the same space at TLC speed."

Built to handle massive amounts of data from the core to the edge, the read performance of the Solidigm D5-P5336 exceeds some of the latest cost-optimized triple-level cell (TLC) SSDs on the market today.[2] Artificial intelligence (AI), machine learning (ML), content delivery networks, scale-out network attached storage (NAS), and object storage are all read-intensive workloads that continue to drive enormous volumes of data, regardless of where they reside.

Massive scalability and improved TCO across a range of configurations

With its high capacity enabling smaller storage footprints, Solidigm's D5-P5336 enables a lower total cost of ownership and more sustainable infrastructure than all-TLC arrays, SAS HDD arrays, or hybrid arrays. Consider the following, based on a 100PB object storage solution deployment:

Solidigm D5-P5336	Compare with:	All-TLC arrays	All-SAS HDD arrays	Hybrid arrays
	TCO reduced by:	**17%**	**47%**	**61%**
	Power and cooling reduced by:	**Up to 1.25x**	**Up to 4.9x**	**Up to 6x**
	physical rack footprint reduced by:	**1.9x**	**11.8x**	**14x**

"For years there has been debate about endurance and reliability of SSDs, QLC in particular, but Solidigm might have ended that debate with the D5-P5336," noted Avery Pham, VP Operations, VAST Data. "Any number of applications will see notable benefits from these drives from AI and machine learning to object storage."

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"Today, it is clear that the primary constraint for edge workloads is the limitation of bandwidth rather than latency," said Doug Emby, VP of Sales and Business Development at Cheetah RAID Storage. "Solidigm's D5-P5336 QLC SSDs offer an impressive combination of capacity, performance, and reliability as a solution to overcome this challenge. The seamless integration of these Solidigm QLC SSDs with Cheetah's high-performance servers makes them highly suitable for the efficient deployment of edge solutions."

The D5-P5336 is shipping now in E1.L form factor with up to 30.72TB, with subsequent availability extending to 61.44TB in both U.2 and E1.L later this year. In the first half of 2024, Solidigm will be shipping E3.S form factor with up to 30.72TB.

To learn more about the D5-P5336 visit: https://www.solidigm.com/products/data-center/d5/p5336.html. Additionally, the D5-P5336 will be on display at the Solidigm booth (#107) at Flash Memory Summit in Santa Clara, Calif. August 8-10.

[1] All-HDD capacity based on 12x 3.5" front load bays x 20TB = 240TB. HDD capacity does not factor in any over-provisioning required to meet storage performance needs. All-QLC capacity based on 24x U.2 front load bays x 61.44TB D5-P5336 = 1474TB. Max 2U U.2 based on HPE Proliant DL385 Gen 11 configuration. Max 2U 3.5" HDD bays based on Supermicro 2U SuperServer design.

[2] Up to 34% higher throughput than entry TLC SSDs and 20% higher than mainstream TLC SSDs for CDN workload. Comparing 15.36TB Solidigm™ D5-P5336 with read BW of 7.5GB/sec to15.36TB Kioxia CD8-R with 5.6 GB/sec as entry TLC SSD and to 15.36TB Micron 7450 with 6.2GB/sec as mainstream TLC SSD. Workload based on representative customer profile. Test Configuration: Supermicro SYS-120U-TNR, Intel(R) Xeon(R) Gold 6354. Number of CPUs: 2, Cores per CPU: 18 (total 36), DRAM: DDR4 – 64GB, OS: Ubuntu 20.04.5 LTS Linux 5.15.0-67-generic. FIO 3.16.

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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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