DapuStor | MARVELL

Haishen5 Series

DapuStor Enterprise NVMe SSD

The DapuStor Haishen5 Series adopts the latest Marvell™ PCIe Gen5 enterprise controller named Bravera™ and 3D eTLC NAND Flash with DapuStor in-house firmware. It offers double throughput compared with the PCIe Gen4 enterprise SSD. The DapuStor PCIe Gen5 eSSD is designed for data centers, catering to the increasingly storage demands of different industries, like IT, Internet, Finance, Operators, Smart manufacturing, AI, as well as Oil, Electricity and Energy industries.

Enhanced Reliability By Multiple Security Protection

The Haishen5 Series supports multiple enterprise-level security features such as end-to-end data protection, DST, Sanitize, Secure Boot and TCG OPAL 2.0 to ensure system and data security.

Stronger Performance

The Haishen5 Series offers more excellent performance for overall storage system with sequential read/write speeds up to 14000/10000 MB/s, SS random read/write IOPS up to 2800K/800K, and 4K random read/write latency less than 54/8 µs.

14000/10000 MB/s	2800K/800K	54/8 µs
Sequential Read/Write (MB/s)	Random Read/Write (IOPS)	Read/Write Latency (µs)

Customization for Advanced Features

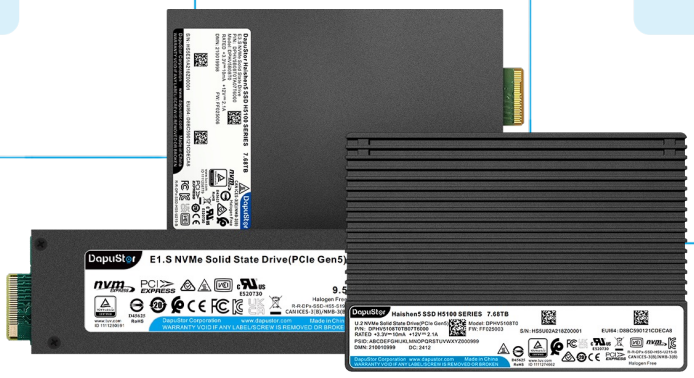
The Haishen5 series SSDs support various VSS sector formats, NVMe 2.0 and NVMe MI 1.1 protocols, and Multi Stream. They are also compatible with Flexible Data Placement(FDP). In specific scenarios, Write Amplification Factor (WAF) can be reduced to 1. Features can be customized based on customer requirements.

The Latest Form Factor

- Support the latest EDSFF **E1.S, E3.S and U.2**
- Support **OCP 2.5**

Rich Capacity

- Capacities range from **3.2 TB to 30.72 TB**



PCIe 5.0

Built on **Marvell™** PCIe 5.0 enterprise controller

Low Latency

4K Read/Write Latency: **54/8 µs**

Marvell® Bravera™ SC5 SSD Controllers

PCIe 5.0 SSD Controller supporting up to 16 NAND Channels for enabling next generation cloud storage solutions. Featuring ultra low latency (< 6µs) can enable SSD storage solutions that offer levers to control and meter performance at the drive level being able to offload hypervisors and free up host system resources.

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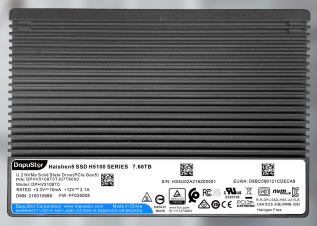

| Product Specifications

PCN (Product Code Name)	H5100				H5300			
Capacity(TB)	3.84	7.68	15.36	30.72	3.2	6.4	12.8	25.6
Form Factor	U.2 15mm							
Interface	PCIe 5.0×4, NVMe 2.0							
Read Bandwidth (128KB) MB/s	14000	14000	14000	14000	14000	14000	14000	14000
Write Bandwidth (128KB) MB/s	6800	9000	9500	10000	6800	9000	9500	10000
Random Read (4KB)K IOPS	2800	2800	2800	2800	2800	2800	2800	2800
Random Write (4KB) K IOPS	330	400	420	430	660	750	800	800
4K Random Latency (Typ.) R/W µs	56/8	54/8	54/8	54/8	56/8	54/8	54/8	54/8
4K Sequential Latency (Typ.) R/W µs	7/8							
Typical Power(W)	17	17	19	19	17	17	19	19
Idle Power(W)	5.5	5.5	5.5	6	5.5	5.5	5.5	6
Flash Type	3D eTLC NAND Flash							
Endurance	1 DWPD				3 DWPD			
MTBF	2.5 million hours							
UBER	1 sector per 10^17 bits read							
Warranty	5 yrs							
Key Features	NVMe 2.0, NVMe MI 1.1, OCP 2.5, TCG OPAL 2.0 security standards, NVMe Sanitize, Secure Boot, hot-swapping, online updates, out-of-band updates, multi-namespace support, end-to-end data protection, power loss protection, full-path data protection, T10 DIF/DIX, WRR, Flash RAID 2.0, Latency Monitor, DSM, SMART, telemetry, device power management, atomic write, over-temperature protection, universal clock (RefClk), multiple sector formats (VSS), multi-stream, FDP, SGL, CMB, MDTS, and more.							

*Differences in hardware, software, or configuration will affect actual test results.

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