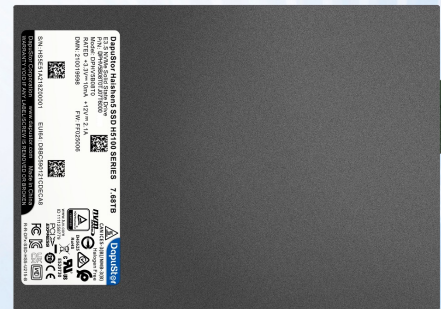# DapuStor | MARVELL™

PCIe 5.0

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 14000/9500 MB/s, SS random read/write IOPS up to 2800K/750K, and 4K random read/write latency less than 54/8 µs.

14000/9500 MB/s	2800K/750K	54/8 µs
Sequential Read/Write	Random Read/Write(IOPS)	Read/Write Latency

| Customisation of 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
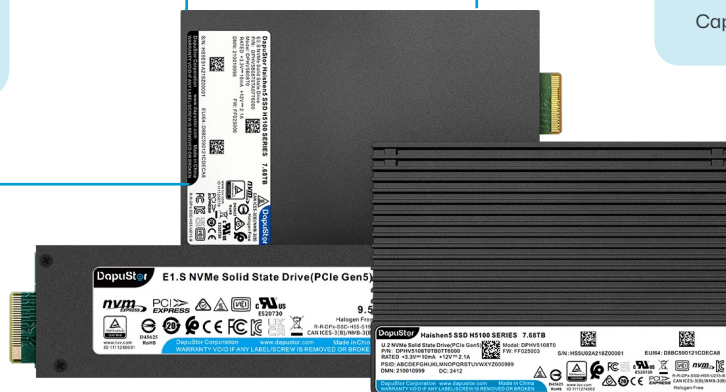- Support OCP 2.5

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.

Haishen5 Series ●

DapuStor Enterprise NVMe SSD

| Product Specifications

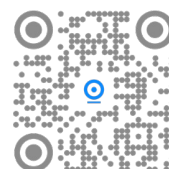| PCN (Product Code Name)	H5100			H5300		
Capacity (TB)	3.84	7.68	15.36	3.2	6.4	12.8
Form Factor	E3.S 7.5mm					
Interface	PCIe 5.0×4, NVMe 2.0					
Read Bandwidth (128KB) MB/s	14000	14000	14000	14000	14000	14000
Write Bandwidth (128KB) MB/s	6800	9000	9500	6800	9000	9500
Random Read (4KB)K IOPS	2800	2800	2800	2800	2800	2800
Random Write (4KB) K IOPS	330	390	400	660	750	750
4K Random Latency (Typ.) R/W μs	56/8	54/8	56/8	56/8	54/8	56/8
4K Sequential Latency (Typ.) R/W μs	7/8					
Power (W)	Typical: ≤ 17 W, Idle: ≤ 5.5 W					
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 Plug, Online Upgrade, Out-of-Band Upgrade, 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.

✉ mkt@dapustor.com

📞 +86 400-9938-968

🌐 http://en.dapustor.com/

📍 Chuangtou Building, Longgang District, Shenzhen, China

DapuStor