

PCIe 4.0

J5000 Series

DapuStor Enterprise QLC NVMe SSD



The DapuStor J5000 Series SSD, compliant with NVMe 1.4a and PCIe 4.0 x4 standards, integrates a cutting-edge controller with 3D QLC NAND Flash to deliver high-capacity and power-efficient storage solutions. Engineered for exceptional random read/write performance and Quality of Service (QoS), it features Flash RAID 2.0, dual port functionality, optimized data path, and advanced power loss protection.

Advanced Features

- Advanced power loss protection that protects user data against power failure in various scenarios
- The 4K/8K/16K mapping feature automatically adjusts to the application's needs
- Superior read power consumption
- Supports dual port functionality for core storage business scenarios
- Optimizes the write buffer algorithm with QLC direct write implementation
- Enhances QLC read/write Quality of Service (QoS).
- Optimizes Flash voltage management strategies, effectively reducing NAND retries

Read Scenario Optimization

The DapuStor J5000 Series combines the high capacity of HDDs with read performance akin to TLC SSDs, bridging the cost and performance gap between them. The new DP600 controller, through extensive optimizations in the IO path, has significantly reduced latency and improved Quality of Service (QoS) for mixed read-write scenarios in the J5000 Series.

Industry Mainstream NAND Flash

The DapuStor J5000 Series is equipped with 3D Enterprise QLC NAND Flash, realising an extremely high-power efficiency. It reduces NAND Retry at the system level through innovative machine learning technologies that predict the NAND workload in complex scenarios to prevent systemic failures.

Application

The J5000 Series, engineered for read-intensive applications, meets the growing storage demands across diverse sectors including AI, cloud storage, IT, internet services, finance, telecom operators, big data storage, and intelligent manufacturing. This cost-effective solution provides reliable and scalable storage options, making it an ideal choice for enterprises seeking efficient data management within budget constraints.

7300/3000 MB/s

Sequential Read/Write(MB/s)

1500K/130K

Random Read/Write (IOPS)

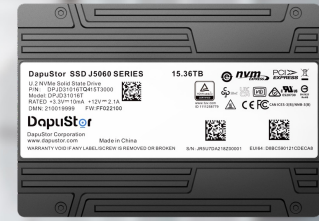
105/10 μs

Read/Write Latency(μs)



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Product Specifications

PCN (Product Code Name)	J5000						J5060					
	Capacity(TB)	7.68	15.36	30.72	15.36	30.72	61.44	7.68	15.36	30.72	15.36	30.72
Form Factor	U.2 15mm											
Interface	PCIe 4.0 x4, NVMe 1.4a, support dual port											
Read Bandwidth (128KB) MB/s	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300
Write Bandwidth (128KB) MB/s	1900	3000	3000	3000	3000	3000	1900	3000	3000	3000	3000	3000
Random Read IOPS	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Random Write IOPS	90 (4KB)	130 (4KB)	120 (4KB)	30 (16KB)	30 (16KB)	30 (16KB)	90 (4KB)	130 (4KB)	120 (4KB)	30 (16KB)	30 (16KB)	30 (16KB)
Random Latency R/W μ s	105/12(4KB)	105/10 (4KB)				110 (4KB) /35 (16KB)						
Sequential Latency R/W μ s	7/9 (4KB)						8 (4KB) /12 (16KB)					
Sequential Power R/W(W)	13/17	13/23	13/24	13/23				13/24				
Idle Power(W)	5											
Flash Type	3D Enterprise QLC NAND Flash											
Product PN	Single Port	Dual Port	Single Port	Dual Port	Single Port	Dual Port	Single Port	Dual Port	Single Port	Dual Port	Single Port	Dual Port
	DPJD310 8T0Q4 07T6000	DPJD310 8T0Q4 07T6010	DPJD310 16TQ4 15T3000	DPJD310 16TQ4 15T3010	DPJD310 32TQ4 30T7000	DPJD310 32TQ4 30T7010	DPJD310 16TQ4 15T3080	DPJD310 16TQ4 15T3090	DPJD310 32TQ4 30T7080	DPJD310 32TQ4 30T7090	DPJD310 64TQ3 61T4080	DPJD310 64TQ3 61T4090
Endurance	0.5 DWPD											
MTBF	2 million hours											
UBER	1 sector per 10 ¹⁷ bits read											
Warranty	5 yrs											

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

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