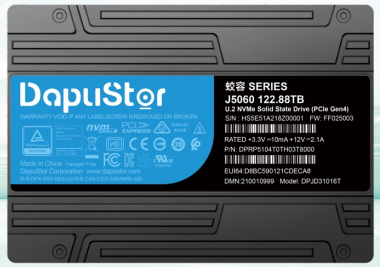
DapuStor

PCIe 4.0

J5060 Series

DapuStor® Enterprise QLC NVMe SSD



The DapuStor® J5060 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

Leading NAND Flash

The DapuStor J5060 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 J5060 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.

Read Scenario Optimization

The DapuStor J5060 Series combines the high capacity of HDDs with read performance akin to TLC SSDs, bridging the cost and performance gap between them. The 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 J5060 Series.

7300/3000 MB/s	1500K	110/35 µs
Sequential Read/Write (MB/s)	Random Read/Write (IOPS)	Read/Write Latency (µs)

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Product Specifications

PCN (Product Code Name)	J5060							
Capacity (TB)	15.36		30.72		61.44		122.88	
Form Factor	U.2 15mm							
Interface	PCIe 4.0 x 4, NVMe 1.4a, supports dual-port							
Read Bandwidth (128KB) MB/s	7300		7300		7300		7300	
Write Bandwidth (128KB) MB/s	3000		3000		3000		3000	
Random Read KIOPS	1500		1500		1500		1500	
Random Write KIOPS	30 (16KB)						15 (32KB)	
Random Latency R/W (µs)	110 (4KB)/35 (16KB)						105 (4KB)/66 (32KB)	
Sequential Latency R/W (µs)	8 (4KB)/12 (16KB)						7 (4KB)/13 (32KB)	
Sequential Power R/W (W)	13/23				13/24		14/25	
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
	DPJD310 16TQ4 15T3080	DPJD310 16TQ4 15T3090	DPJD310 32TQ4 30T7080	DPJD310 32TQ4 30T7090	DPJD310 64TQ3 61T4080	DPJD310 64TQ3 61T4090	DPJD310 128QB 122T080	DPJD310 128QB 122T090
Endurance	0.5 DWPD						0.4 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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