DapuStor R5 series products based on our own developed controller DPU600 and firmware, powered by KIOXIA's latest 3D Enterprise eTLC, provide customers with industry-leading SSDS with high performance, reliability, and low delay, and Provide higher power efficiency and TCO solutions for enterprise IT and cloud facilities. DapuStor R5 series products are widely used in core storage scenarios, such as enterprise IT, operators, Internet, finance, intelligent manufacturing, AI and big data analysis industries.

Advanced Features

- Flash Raid 2.0, tolerating multiple Flash failure without affecting service and performance

- Latest NVMe 1.4a key features

- Data encryption, supporting a variety of encryption algorithms, and TCG2.0 enterprise specifications.

- Advanced power lose protection, protects user data against power failure in various scenarios.

- 9 levels of energy consumption adjustable, more convenient operation and maintenance and TCO adjustment.

Self-developed controller DPU600

DPU600 is DapuStor's latest self-developed intelligent storage SoC. Based on the latest 12nm FinFet process, DPU600 has industry-leading power consumption ratio, its 4K encoding provides superior error correction capability, and integrates computable storage platform and machine learning architecture based on ASIC acceleration. It will bring significant innovation for future storage computing system architecture. Create more value for users.

High Performance

DapuStor R5 series PCIe Gen4 offers a 100% improvement in bandwidth and IOPS compared to the Haishen3 series. In terms of latency, due to the new DPU600 platform has carried out a number of optimizations on the IO path, the Roealsen5 series products have significantly improved latency and QoS under mixed read-write services.
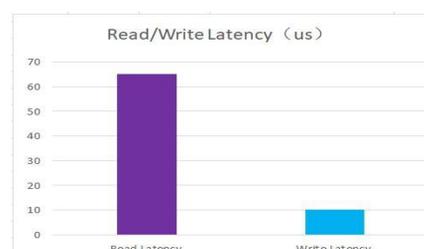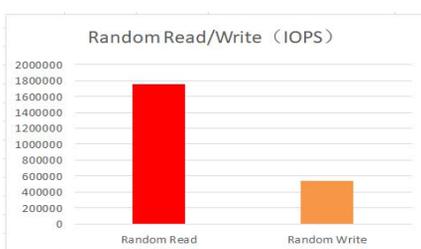
Leading NAND Technology

Roealsen5 is based on KIOXIA's latest 112L 3D NAND Flash with an extremely high power efficiency ratio. Reduce NAND Retry at the system level through innovative machine learning techniques, and anticipate scenarios in complex scenarios to prevent systemic failures.

Computing and Storage Integration Platform

The DPU600 has a built-in APPLICATION processor platform and DPU-Link heterogeneous computing interface. You can run Linux based on the DPU600, quickly and conveniently transplant applications and algorithms, and improve system efficiency for database, AI, and big data applications.

Feature List

Model	DapuStor R5101		DapuStor R5301	
Capacity	1.92TB	3.84 TB	1.6 TB	3.2 TB
Outline	U.2 15mm			
Interface Protocol	PCIe 4.0 x4, NVMe 1.4a			
Read Bandwidth(128KB)MB/s	6200	7400	6200	7400
Write Bandwidth(128KB)MB/s	2600	5350	2600	5350
Random Read(4KB)KIOPS	1000	1750	1000	1750
Random Write(4KB)KIOPS	120	240	240	540
4K Random Lantency(Typ.)R/W μs	65/10			
4K Seq. Lantency(Typ.)R/W μs	8/10			
Power Consumption	Active: ≤ 12 W, idle: ≤ 6.5 W			
Flash Type	KIOXIA 3D NAND, 112 layer, 4plane Enterprise TLC			
Lifespan	1 DWPD		3 DWPD	
MTBF	2.5 million hours			
UBER	1 sector per 10^17 bits read			
Lifetime	5yrs			

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

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