

Roalsen5 Series[®]

DapuStor Enterprise NVMe SSD

PCIe 4.0



The DapuStor R5 Series is designed and built on DapuStor DP600 controller firmware with 3D eTLC NAND Flash. Such a unique combination creates industry-leading SSDs with high speed, superior reliability, low latency, and excellent power efficiency, bringing optimised TCO to enterprise IT and cloud facilities. The DapuStor R5 Series is an ideal solution for core data storage scenarios in different fields, such as enterprise IT, logistics, Internet, finance, intelligent manufacturing, and AI.

Advanced Features

- Flash Raid 2.0 tolerating multiple flash die failures without affecting service and performance.
- Latest NVMe 1.4a key features .
- Advanced power loss protection that protects user data against power failure in various scenarios.
- Nine levels of adjustable power consumption: more convenient operation, maintenance, and better TCO.

Superior Performance

The DapuStor R5 Series PCIe Gen4 SSD offers a 100% improvement in bandwidth and IOPS performance compared with the Haishen3 Series. In terms of latency, thanks to the new DP600 controller having carried out many optimisations on the IO path, the Roalsen5 Series has significantly improved latency and QoS under mixed read-write scenarios.

12700/5900 MB/s

Sequential Read/Write(MB/s)

1850K/570K

Random Read/Write(IOPS)

65/9 μs

Read/Write Latency(μs)

Industry Mainstream NAND Flash

The DapuStor R5 Series is equipped with 3D eTLC 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.

KIOXIA's BiCS FLASH is a three-dimensional(3D) vertical flash memory cell structure. This structure enables it to surpass the capacity of mainstream 2D (planar) flash memory. KIOXIA's TLC 3-bit-per-cell 512Gb(64GB) BiCS FLASH, an industry first, enhances the reliability of write/erase endurance while boosting write speeds.



 High storage density per die		 Low cost per bit	 Less intercell interface
 High reliability		 Improved power efficiency	 High performance

Roealsen5 Series[®]

DapuStor Enterprise NVMe SSD



| Computing And Storage Converged Platform

The DapuStor DP600 controller for PCIe 4.0 SSD has a built-in APPLICATION processor and the DPU-Link heterogeneous computing interface. It delivers faster speed when running Linux, conveniently transplants applications and algorithms, and improves system efficiency for database, AI, and big data applications.

| Product Specifications

PCN (Product Code Name)	R5110		R5310	
Capacity(TB)	3.84	7.68	3.2	6.4
Form Factor	AIC			
Interface	PCIe 4.0, NVMe 1.4a			
Read Bandwidth (128KB) MB/s	9800	12700	9800	12700
Write Bandwidth (128KB) MB/s	5400	5900	5400	5900
Random Read (4KB)K IOPS	1720	1850	1720	1850
Random Write (4KB) K IOPS	270	300	530	570
4K Random Latency (Typ.) R/W μ s	69/7	65/9	69/7	65/9
4K Sequential Latency (Typ.) R/W μ s	8/9			
Power	Typical: \leq 18 W, Idle: \leq 6.5 W	Typical: \leq 19 W, Idle: \leq 7 W	Typical: \leq 18 W, Idle: \leq 6.5 W	Typical: \leq 19 W, Idle: \leq 7 W
Flash Type	3D eTLC NAND Flash			
Endurance	1 DWPD		3 DWPD	
MTBF	2 million hours			
UBER	1 sector per 10^{17} bits read			
Warranty	5yrs			

*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

