

PCIe 5.0

Roealsen6[®] R6 Series ●

DapuStor Enterprise NVMe SSD



The DapuStor[®] Roealsen[®] R6 series features the latest PCIe 5.0 interface and 3D eTLC NAND Flash. Supporting the NVMe 2.0 protocol, it offers twice the performance of PCIe 4.0 SSDs. This series offers multiple enterprise-grade advanced features, providing industry-leading performance and cost-effective solutions for critical business operations, cloud infrastructure, and artificial intelligence.

| Superior Performance

DapuStor[®] R6 series PCIe Gen5 SSD offers a 100% improvement in bandwidth and IOPS performance compared with Roealsen5 Series. The DP800 controller optimizes the I/O path, significantly reducing latency and enhancing QoS in mixed read/write operations.

14.5/11 GB/s	3400/1000 K	48/7 μs
SR/SW	RR/RW (IOPS)	RR/RW Latency

| Leading NAND Technology

DapuStor R6 series utilizes the latest 3D eTLC NAND Flash for high efficiency. Innovative machine learning technology minimizes NAND retries at the system level and timely predicts NAND workloads in complex scenarios to prevent systemic failures.

| Premier Gen5 Transparent Compression

DapuStor is in the first wave to launch a PCIe Gen5 transparent compression SSD, leveraging the built-in application processor platform and compression module in the DP800. It supports user capacity expansion within the same physical capacity and enhances overall data storage density based on compressibility, or improves endurance and steady-state random write performance with data compressed and user capacity unchanged.

| Advanced Features

NVMe 2.0

Supports online upgrades, up to 128 namespaces, multiple streams, atomic writes, and advanced data management functions, including sanitizing, copying, verifying, and comparing.

OCPI 2.5 Compliance

Follows the OCP 2.5 specification, facilitating advanced features such as Telemetry, Latency Monitor, and Thermal Throttle.

Supports SR-IOV

Supports up to 64 VFs.

Supports FDP

Enhances steady-state random write performance and significantly reduces write amplification, achieving WAF=1 in specific conditions.

Supports NVMe-MI 1.2

Features include MCTP Over I2C/SMBUS, Over PCIe VDM, out-of-band upgrades, NVMe-MI Send and NVMe MI Receive.

End-to-End Data Protection

Includes DIF/DIX, five sector format types, protection information (Type 1, 2, 3) and detailed logging capabilities, ensuring comprehensive user data safety.

Enterprise Security Feature

Supports Secure Boot, Firmware Security Verification, Format, Sanitize and other enterprise security features

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Specifications

PCN (Product Code Name)	R6101					R6301				
Capacity (TB)	1.92	3.84	7.68	15.36	30.72	1.6	3.2	6.4	12.8	25.6
Form Factor	U.2 15 mm									
Interface	PCIe Gen5 x4, NVMe 2.0									
Read BW 128K (MB/s)	14000	14000	14500	14500	14000	14000	14000	14500	14500	14000
Write BW 128K (MB/s)	3200	6500	11000	11000	10000	3200	6500	11000	11000	10000
Rand. Read 4K KIOPS	2000	2500	3500	3400	3400	2000	2500	3500	3400	3400
Rand. Write 4K KIOPS	210	330	450	500	420	350	610	950	1000	900
Rand. 4K Latency (μs)	48/7									
Seq. 4K Latency (μs)	7/7									
Typical Power (W)	11	15	18.5	22	22	11	15	18.5	22	22
Idle Power (W)	5									
Flash Type	3D eTLC NAND Flash									
PN (Model Number)	DPRE5102T OTK01T9000	DPRE5104T OTL03T8000	DPRP5108T OTL07T6000	DPRP51016T TL15T3000	DPRP51032T TM30T7000	DPRE5102T OTK01T6000	DPRE5104T OTL03T2000	DPRP5108T OTL06T4000	DPRP51016T TL12T8000	DPRP51032T TM25T6000
Endurance	1 DWPD					3 DWPD				
MTBF	2.5 million hours									
UBER	1 sector per 10^18 bits read									
Warranty	5 years									

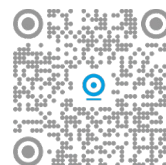
*Differences in hardware, software, or configuration will affect actual test results.

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