

DigiStor Enterprise PCIe Gen4 NVMe M.2 2280 SSD

NVME 1.4

AES-XTS 256-BIT

PCIe GEN4 X4

VERSION 1.0

PRE-RELEASE

The DigiStor Enterprise PCIe Gen4x4 NVMe M.2 2280 Solid State Drive delivering outstanding sequential read performance up to 5200 MB/s with low latency and enterprise-class Quality of Service. Available in 3.84TB capacity using 3D TLC NAND flash.

Top Features

- PCIe Gen4 x4
- Sequential Read up to 5200 MB/s
- Sequential Write up to 900 MB/s
- Random Read up to 400K IOPS
- Random Write up to 30K IOPS
- Hardware AES-XTS 256-bit Encryption
- TCG Opal 2.0 Security
- Hardware-Based Power Loss Data Protection
- End-to-End Data Path Protection (SECDED)
- 64 Namespaces supported
- MTBF: 2.0 million hours
- 5-Year Warranty

Available Models

Part Number	Capacity	Form Factor	Interface	Encryption	DWPD
TBD	3.84TB	M.2 2280	PCIe Gen4 x4	AES-XTS 256-bit	1

Performance Summary

Capacity	Seq. Read	Seq. Write	Rand. Read	Rand. Write	Flash
3.84TB	5200 MB/s	900 MB/s	400K IOPS	30K IOPS	3D TLC

Note: Performance measured with FIO on Linux: 128KB sequential read/write QD32 1 job; 4KB random read/write QD256 (QD32, 8 jobs) on unformatted full drive. Platform: Ubuntu 20.04.2 LTS, AMD EPYC 7543P, Gigabyte MZ32-AR0. Performance may differ according to flash configuration and platform.

This document describes a product that is currently under development. Specifications, features, and performance characteristics are subject to change without notice as the product design is finalized. The information provided herein is for reference and evaluation purposes only and should not be relied upon for final design decisions. Photos in this document are for illustrative purposes only and might not be representative of the exact product described.

Reliability & Environmental

Parameter	Rating
MTBF	2.0 million hours
UBER	< 1 sector per 1017 bits read
Op. Temp.	0°C to 70°C (device sensor)
Storage Temp.	-40°C to 85°C
Op. Humidity	0% to 90% RH
Shock (op / non-op)	1000G 0.5ms / 1500G 0.5ms
Vibration (op)	3.08 Grms (7–800 Hz)
Vibration (non-op)	20G (20–2000 Hz)
ESD	±4 KV (EN 61000-4-2 / IEC 61000-4-2)
Typical Power (3.84TB)	Active Read: TBD Active Write: TBD
Idle Power	TBD
Inrush Current	TBD
Op. Voltage	3.3V ± 5%
Dimensions	80.00 × 22.00 × 4.00 mm (M.2 2280-D-M)
Weight	12g

Compliance

- TBD

 **Contact:** sales@digistor.com | support@digistor.com |
©2026 DigiStor. All Rights Reserved. Specifications
subject to change without notice.

Security Capabilities

- Hardware AES-XTS 256-bit Encryption
- TCG Opal 2.0
- Sanitize
- Hardware-Based Power Loss Data Protection
- End-to-End Data Path Protection
- SECEDED Error Correction
- Namespace Reservation support
- 64 Namespaces supported
- SMBus / I2C Management Interface
- Thermal Throttling with 4-stage TMT protection

Flash Management Technology

3D TLC NAND

Enterprise-grade 3D TLC flash across all capacities for optimal performance and endurance balance.

Power Loss Protection

Hardware-based capacitor circuit ensures data integrity on unexpected power loss events.

Thermal Management

4-stage thermal throttling (TMT1/TMT2/Protect/Fatal) safeguards drive integrity under heavy workloads.

E2E Data Protection

SECEDED end-to-end data path protection detects and corrects single-bit errors across the entire data path.

Typical Applications

- Enterprise servers and hyperscale data centers
- High-performance computing (HPC) and AI/ML workloads
- Cloud storage and virtualization platforms
- Read-intensive database and analytics applications