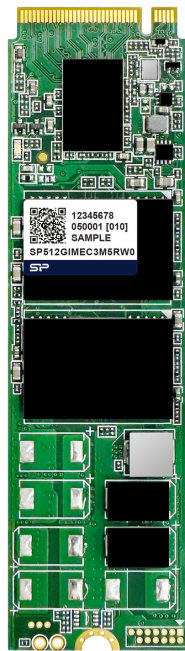


512GB MEC3M0R - Industrial SSD - 3D TLC - M.2 2280 (M Key) - PCIe Gen4x4, NVMe 2.0 - SP512GIMEC3M5RW0



Preis auf Anfrage

<https://www.phs-memory.es>
Version: 21.08.2025 13:03

Your benefits

- ✓ verified quality
- ✓ many years of IT competence
- ✓ high availability
- ✓ free support on our hotline
- ✓ fast delivery

100% quality

- many years of IT competence
- Free support for optimal configuration and product selection
- High availability through professional warehouse management
- Fast delivery in throughout Europe
- Short response times and professional order processing due to full digitalization throughout the entire process with complete traceability
- Incoming goods inspections include checks of the components in order to exclude possible errors already in the incoming goods department (Controlled BOM).
- Products with unique serial number for service and warranty
- Pre-sales and after-sales support by technically trained personnel

Product information

General

Interface	PCIe Gen4x4, NVMe 2.0
Flash Technology	3D TLC
Capacity	512GB
Form Factor	Supports data security with AES-256 Encryption (optional)
Dimensions	80.0 x 22.0 x 3.5 mm
External DRAM Buffer	No
Manufacturer Part No.	SP512GIMEC3M5RW0

Performance

Seq. Performance Read (max.)	4,600 MB/s
Seq. Performance Write (max.)	4,300 MB/s
Random 4K Read (IOPS max.)	845,000
Random 4K Write (IOPS max.)	644,000
MTBF @ 25 °C	>3,000,000 hrs
P/E Cycle	3,000
TBW	2TB: 5,137 TB 1TB: 2,569 TB 512GB: 1,284 TB 256GB: 642 TB 128GB: 321TB

Operating Environment

Operating Temperature	-40°C~85°C
Storage Temperature	-55°C~95°C
Operating Humidity	10%~95% (30°C Max. Wet Bulb Temp)
Vibration	20G p-p, 10~2000Hz
Drop	75cm
Shock	1,500G@0.5ms

Power Consumption

Power Requirement	DC 3.3V
Power Operation (max.)	1650mA
Power Idle / Standby	220mA

Key Features

Power Failure Protection (PFP)	Yes
Advanced Power Shield	Yes
End-to-End Data Protection	Yes
TCG Opal 2.0	Yes
Thermal Throttling	Yes
DEVSLP	Yes
S.M.A.R.T	Yes
Write Protect	Optional
Quick Erase	Optional
DAP	Yes
FWxpress	Yes

Product Datasheet | SP595256

512GB MEC3M0R - Industrial SSD - 3D TLC - M.2 2280 (M Key) - PCIe Gen4x4, NVMe 2.0 -
SP512GIMEC3M5RW0



manufacturer

Silicon Power

Other possible options

Product	SKU	Brand	Reference no.
2TB MEC3M0R - Industrial SSD - 3D TLC - M.2 2280 (M Key) - PCIe Gen4x4, NVMe 2.0 - SP020TIMEC3M5RW0	SP595258	Silicon Power	SP020TIMEC3M5RW0
1TB MEC3M0R - Industrial SSD - 3D TLC - M.2 2280 (M Key) - PCIe Gen4x4, NVMe 2.0 - SP010TIMEC3M5RW0	SP595257	Silicon Power	SP010TIMEC3M5RW0
512GB MEC3M0R - Industrial SSD - 3D TLC - M.2 2280 (M Key) - PCIe Gen4x4, NVMe 2.0 - SP512GIMEC3M5RW0	SP595256	Silicon Power	SP512GIMEC3M5RW0
256GB MEC3M0R - Industrial SSD - 3D TLC - M.2 2280 (M Key) - PCIe Gen4x4, NVMe 2.0 - SP256GIMEC3M5RW0	SP595255	Silicon Power	SP256GIMEC3M5RW0
128GB MEC3M0R - Industrial SSD - 3D TLC - M.2 2280 (M Key) - PCIe Gen4x4, NVMe 2.0 - SP128GIMEC3M5RW0	SP595254	Silicon Power	SP128GIMEC3M5RW0

Contact Information

PHS-electronic gmbh
- www.phs-memory.es -
Karl-Götz-Str. 5
97424 Schweinfurt
Alemania

Phone: +49 9721 784678
E-Mail: info@phs-memory.es
Web: www.phs-memory.es

All information without guarantee. Technical changes and errors excepted. You can find current price information in our online shop at <https://www.phs-memory.es>