

MEA3K0E Series

M.2 2242 M key Gen3x4 NVMe SSD



SLC Cache



AES 256



TLC



Quick Erase



Features

- M.2 2242 form factor, M key
- PCI Express Base Specification Revision 3.1 standard with Gen3x4 4GB/s bandwidth
- NVMe 1.4 command protocol
- Power shielding firmware architecture
- End-to-End data protection
- Garbage collection and TRIM Data Set Management command
- Global wear-leveling algorithm balances program/erase cycles
- Early weak block retirement
- Support SMART Toolbox for Windows
- Built-in dynamic temperature sensor with Thermal Throttling
- Dynamic SLC architecture
- Supports DEVSLP for advanced power saving
- Support PCIe L1.2 low power mode
- AES 256 bit Hardware Self Encryption
- Supports in-field seamless FW update tool to keep the SSD's original data (Optional)
- Conformal Coating - Standard IPC A-610E (Optional)

Ordering Information

Capacity	Temp.	P/N
128GB	-20°C~75°C	SP128GIMEA3K5EVO
256GB	-20°C~75°C	SP256GIMEA3K5EVO
512GB	-20°C~75°C	SP512GIMEA3K5EVO
1TB	-20°C~75°C	SP010TIMEA3K5EVO

Specifications

Overview	Interface	PCIe Gen3x4, NVMe 1.4
	Flash Technology	3D TLC
	Capacity	128GB~1TB
	Form Factor	M.2 2242 (M key)
	Dimensions	42.0 x 22.0 x 3.5 mm
	External DRAM Buffer	No
Performance	Seq. Performance Read (max.)	3,100 MB/s
	Seq. Performance Write (max.)	2,030 MB/s
	Random 4K Read (IOPS max.)	284,000
	Random 4K Write (IOPS max.)	283,000
	MTBF @ 25°C	>3,000,000 hrs
	P/E Cycle	3,000
	TBW	1TB: 2,488 TB / 512GB: 1,233 TB / 256GB: 615 TB / 128GB: 307 TB
Operating Environment	Operating Temperature	-20°C~75°C
	Storage Temperature	-55°C~95°C
	Operating Humidity	10%~95% (30°C Max. Wet Bulb Temp)
	Vibration	20G, 10~2000Hz
	Drop	75cm
	Shock	1,500G@0.5ms
Power Consumption	Power Requirement	DC 3.3V
	Power Consumption (max.)	1890mA
	Power Idle / Standby	170 mA
Key Features	Advanced Power Shield	●
	End-to-End Data Protection	●
	AES-256	●
	Thermal Throttling	●
	ASPM, L1.2	●
	S.M.A.R.T	●
	Debug port	●
	FW Updater	●
Optional Feature	Write Protect	●
	Quick Erase	●
Warranty	Warranty	3 years within TBW