

## MDA3K0E Series

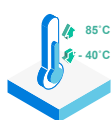
# M.2 2242 B+M key SATA III SSD



SLC Cache



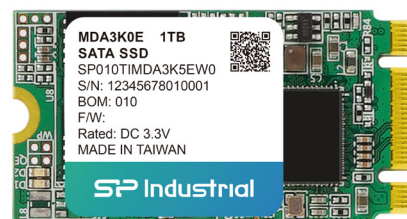
AES 256



Wide Temperature



TLC



## Features

- M.2 2242 standard form factor with Serial ATA standard interface connector
- Serial ATA revision 3.1 standard with 6.0 Gb/s transfer rate
- ATA/ATAPI-8 standard and ACS-3 command protocol
- Native Command Queuing up to 32 commands
- Supports 28/48 bit LBA mode command
- Garbage collection and TRIM Data Set Management command
- Global wear-leveling algorithm balances program/erase cycles
- Early weak block retirement
- Supports SMART feature command set
- Supports DEVSLP for advanced power saving
- Built-in dynamic temperature sensor with Thermal Throttling
- AES 256-bit Hardware Self Encryption (Optional)
- 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
64GB	-20°C~75°C	SP064GIMDA3K5EVO
64GB	-40°C~85°C	SP064GIMDA3K5EW0
128GB	-20°C~75°C	SP128GIMDA3K5EVO
128GB	-40°C~85°C	SP128GIMDA3K5EW0
256GB	-20°C~75°C	SP256GIMDA3K5EVO
256GB	-40°C~85°C	SP256GIMDA3K5EW0
512GB	-20°C~75°C	SP512GIMDA3K5EVO
512GB	-40°C~85°C	SP512GIMDA3K5EW0
1TB	-20°C~75°C	SP010TIMDA3K5EVO
1TB	-40°C~85°C	SP010TIMDA3K5EW0

## Specifications

<b>Overview</b>	Interface	SATA III/6.0Gbps
	Flash Technology	3D TLC
	Capacity	64GB~1TB
	Form Factor	M.2 2242 (B+M key)
	Dimensions	42.0 x 22.0 x 3.5 mm
	External DRAM Buffer	No
<b>Performance</b>	Seq. Performance Read (max.)	540 MB/s
	Seq. Performance Write (max.)	520 MB/s
	Random 4K Read (IOPS max.)	29,000
	Random 4K Write (IOPS max.)	84,000
	MTBF (est.) @ 25°C	>3,000,000 hrs
	P/E Cycle	3,000
	TBW (max.)	1TB: 2,209TB / 512GB: 1,105TB / 256GB: 551TB 128GB: 276TB / 64GB: 139TB
<b>Operating Environment</b>	Operating Temperature	-40°C~85°C / -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
<b>Power Consumption</b>	Power Requirement	DC 3.3V
	Power Consumption (max.)	460 mA
	Power Consumption (idle)	<115 mA
<b>Key Features</b>	Advanced Power Shield	●
	AES-256	●
	Thermal Throttling	●
	S.M.A.R.T.	●
	DataGuard-Quick Erase	●
	FWxpress	●
<b>Optional Features</b>	DEVSLP	●
	DataGuard-Write Protect	●
<b>Warranty</b>	Warranty	3 years within TBW
<b>Others</b>	PCB placement	Double-sided