

PERFORMANCE ENERGY-EFFICIENT STORE PERFORMANCE
FLASH DURABLE PC ULTRA THIN M.2 SATA SSD
UPGRADE FLASH SOLID-STATE DRIVE SMALL FORM FACTOR
STORE
UPGRADE
M.2 SATA SSD

Performance, low power consumption, mini size. Big possibilities.

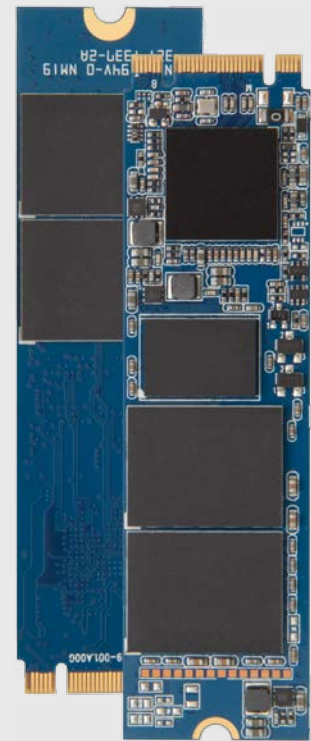
Kingston's M.2 SATA solid-state drive features a thin, compact form factor that saves space in small design embedded systems, appliances and ultra-thin computing devices. It meets the M.2 industry standard and integrates into designs with next-generation connectors. It's caseless to allow for easier design-in and lighter weight than a cased SSD and match today's thin-and-light systems.

Its 2280 module optimizes performance with advanced garbage collection, wear-leveling and TRIM support to keep performance consistent over the life of the drive. DevSleep, a new addition to the SATA specification, is an efficient power management option that minimizes power consumption and extends battery life. This M.2 SATA version also features firmware-based power loss protection to maintain data integrity. In the case of unexpected power loss, the drive ensures that data in cache is constantly flushed and hardened to NAND. This enables the drive to recover if there's ever an unsafe shutdown.

For added peace of mind, the M.2 SATA SSD is backed by a three-year warranty, free technical support and legendary Kingston® reliability.

- > Space-saving caseless design fits into ultra-thin computing applications
- > M.2 Industry Standard integrates into designs using next-generation connectors
- > DevSleep conserves and extends battery life
- > Power loss protection enables drive to recover from unsafe power shutdown

M.2 SATA SSD



Ideal for Embedded products that:

- Meet users "Instant-on" expectations
- Fit smaller design footprints
- Provide SSD performance

Features/specs on reverse >>

SOLID STATE DRIVE
PC
FLASH STORE
DURABLE
MEMORY
FLASH STORE
UPGRADE
FLASH STORE
SOLID STATE DRIVE
PERFORMANCE

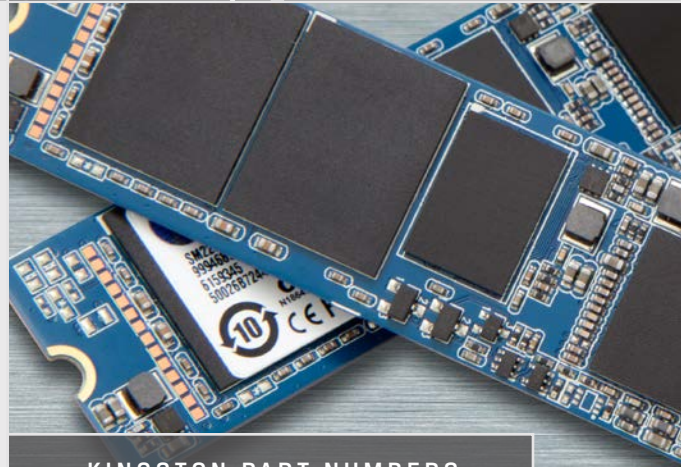
M.2 SATA SSD

FEATURES/BENEFITS

- > **Popular M.2 Size** — 22mm width, 80mm length
- > **NAND Flash memory-based** — shock-resistant with lower power consumption
- > **Supports Intel's SRT** — combines capacity advantage of HDD with performance improvements of SSD in dual-storage configuration
- > **Supports S.M.A.R.T** — monitors the status of your drive
- > **Supports TRIM** — maintains maximum performance of compatible operating systems
- > **Guaranteed** — 3-year warranty and free technical support

SPECIFICATIONS

- > **Form factor** M.2 2280
- > **Interface** SATA Rev. 3.0 (6Gb/s) – with backwards compatibility to SATA Rev. 2.0
- > **Capacities**¹ 120GB, 240GB
- > **Baseline Performance**²:
 - Compressible Data Transfer (ATTO)**
550MB/s Read and 520MB/s Write
 - Incompressible Data Transfer (AS-SSD and CrystalDiskMark)**
500MB/s Read and 330MB/s Write
 - IOMETER Maximum Random 4k Read/Write**
120GB — up to 66,000/ up to 65,000 IOPS
240GB — up to 65,000/ up to 65,000 IOPS
 - Random 4k Read/Write**
120GB — up to 46,000/ up to 13,500 IOPS
240GB — up to 46,000/ up to 26,000 IOPS
 - PCMARK® Vantage HDD Suite Score** 56,000
 - PCMARK® 8 Storage Score**
120GB – 4,900
240GB – 4,800
- > **Power consumption**
0.06 W Idle / 0.1 W Avg / 1.01 W (MAX) Read / 3.08 W (MAX) Write
- > **Storage temperature** -40°C ~ 85°C
- > **Operating temperature** 0°C ~ 70°C
- > **Dimensions** 80mm x 22mm x 3.5mm
- > **Weight** 7.36g
- > **Vibration operating** 2.17G Peak (7–800Hz)
- > **Vibration non-operating** 20G Peak (10–2000Hz)
- > **Life expectancy** 1 million hours MTBF
- > **Warranty/support** 3-year warranty with free technical support
- > **Total Bytes Written (TBW)**³ 120GB: 230TB 1.8 DWPD⁴
240GB: 420TB 1.75 DWPD⁴



KINGSTON PART NUMBERS

SM2280S3/120G

SM2280S3/240G

This SSD is designed for use in desktop and notebook computer workloads, and is not intended for Server environments.

1 Some of the listed capacity on a Flash storage device is used for formatting and other functions and thus is not available for data storage. As such, the actual available capacity for data storage is less than what is listed on the products. For more information, go to Kingston's Flash memory Guide at kingston.com/flashguide.

2 Based on "out-of-box performance" using a SATA Rev. 3.0 motherboard. Speed may vary due to host hardware, software, and usage. IOMETER Random 4k Random Read/Write is based on 8GB partition.

3 Total Bytes Written (TBW) is derived from the JEDEC Client Workload (JESD219A).

4 Drives Writes Per Day (DWPD).

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