M.2 SATA SSD

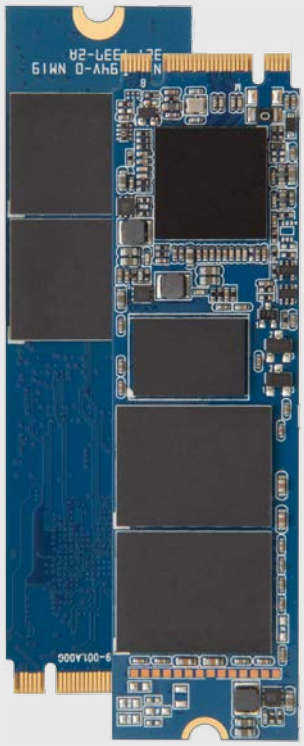
Performance, low power consumption, mini size. Big possibilities.

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 to match today's thin-and-light systems.

Its 2280 module optimises performance with advanced garbage collection, wear-levelling 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 minimises power consumption and extends battery life. This M.2 SATA version also features firmware-based power loss protection to maintain data integrity. If an unexpected power loss occurs, 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



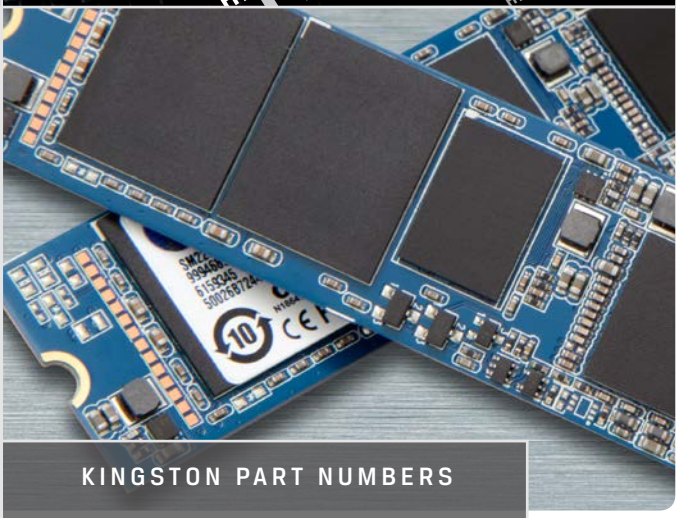
Ideal for embedded products that:

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

Features/specs on reverse ››

Kingston TECHNOLOGY

M.2 SATA SSD



FEATURES/BENEFITS

> **Popular M.2 Size** — 22mm width, 80mm length
> **Based on NAND Flash memory** — 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 SMART** — 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 DWPD[4]
240GB: 420TB 1.75 DWPD[4]

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 is thus 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 Workload (JESD219A)

4 Drives Writes Per Day (DWPD).

MKD-292.1EN