SSD*Now* M.2 SATA G2 Drive

Next-generation SSD technology.

Kingston's M.2 SATA G2 SSD is a thin and compact, caseless internal solid-state drive that combines high capacity with low power consumption to serve as a reliable caching device or primary storage for the O/S and applications. Suitable for desktop motherboards that use the Intel 9x chipset and popular small-form-factor (SFF) PCs including ultrabooks, notebooks and tablets, the M.2 2280 SATA G2 SSD easily integrates into designs with M.2 connectors and is ideal for system builders and DIY end users.

Lighter weight than a cased SSD, the M.2 SATA G2 SSD optimises performance with advanced garbage collection, wear-levelling and TRIM support to keep performance consistent over the life of the drive.[1] DevSleep, a recent addition to the SATA specification, is an efficient power management option that minimises power consumption and extends battery life. Firmware-based power loss protection maintains data integrity and ensures that data in the cache is constantly flushed and hardened to NAND to enable the drive to recover in the event of an unsafe shutdown.

The complimentary Kingston SSD Manager (KSM) monitors warranty status and SSD health via the Kingston website. The M.2 SATA G2 SSD is backed by a limited five-year warranty[2], free technical support and legendary Kingston® reliability.

> ⟩ Space-saving caseless design fits ultra-thin computing applications

> ⟩ Multi-purpose SFF connector replaces small mSATA and mini-PCIe slots

> ⟩ Capacities of up to 480GB[3]

> ⟩ M.2 Gen 2 SSDs are backed by a limited five-year warranty[2]
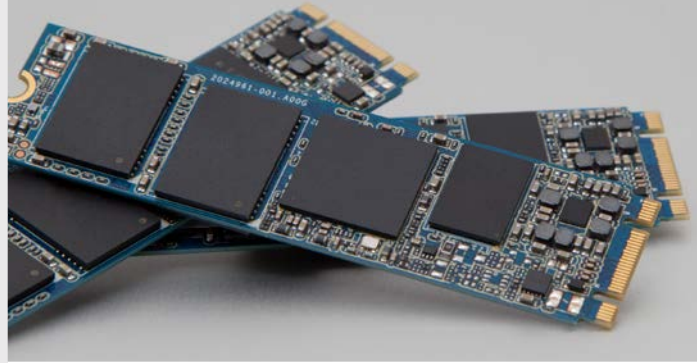
Kingston® TECHNOLOGY

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FEATURES/BENEFITS

> **M.2 Form Factor** — Multi-purpose SFF connector replaces small mSATA and mini-PCIe slots.

> **Single-sided design (120GB/240GB)** — Integrates easily into designs with M.2 connectors; ideal for thin-and-light systems.

> **High capacity** — Available in capacities of up to 480GB.

> **Guaranteed** — 5 year limited warranty and free technical support.

SPECIFICATIONS

> **Form factor** M.2 2280

> **Interface** SATA Rev. 3.0 (6Gb/s) – with backward compatibility to SATA Rev. 2.0

> **Capacities[3]** 120GB, 240GB, 480GB

> **Baseline performance[1]**
  Sequential Read/Write SATA Rev. 3.0 120GB - up to 550/200MB/s
  240GB - up to 550/330MB/s
  480GB - up to 550/520MB/s

  Max 4k Read/Write 120GB - up to 90,000/48,000 IOPS
  240GB - up to 100,000/80,000 IOPS
  480GB - up to 90,000/85,000 IOPS

  Random 4k Read/Write 120GB - up to 80,000/48,000 IOPS
  240GB - up to 79,000/79,000 IOPS
  480GB - up to 80,000/80,000 IOPS

  Endurance[4] 120GB: 150TB and 0.56 DWPD
  240GB: 300TB and 0.70 DWPD
  480GB: 800TB and 0.93 DWPD

  Power consumption max Read: 1.56W
  max Write: 3.01W
  idle: 0.06W

> **Storage temperature** -40°C~85°C

> **Operating temperature** 0°C~70°C

> **Dimensions** 80mm x 22mm x 3.5mm

> **Weight:** 120GB - 5.99 (g)
  240GB - 5.99 (g)
  480GB - 7.98 (g)

> **Vibration operating** 2.17G Peak (7–800Hz)

> **Vibration non-operating** 20G Peak (10–2000Hz)

> **Life expectancy** 1 million hours MTBF

KINGSTON PART NUMBERS

SM2280S3G2/120G	120GB
SM2280S3G2/240G	240GB
SM2280S3G2/480G	480GB

1 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.
2 Limited warranty based on five years or SSD "Life Remaining" which can be found using the Kingston SSD Manager (kingston.com/SSDManager). A new, unused product will show a wear indicator value of one hundred (100), whereas a product that has reached its endurance limit of program erase cycles will show a wear indicator value of one (1). See kingston.com/wa for details.
3 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.
4 Drives Writes Per Day (DWPD).

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