

# A1000 SSD

[kingston.com/ssd](http://kingston.com/ssd)

## Exceptional responsiveness and ultra-low latency.

Kingston's A1000 solid-state drive is an entry-level PCIe NVMe™ solution with a single-sided M.2 22x80mm design. This form factor is ideal for thinner notebooks and systems with limited space. Using a PCIe NVMe™ Gen 3.0 x2 interface, 4-channel Phison E8 controller and 3D NAND Flash, this drive offers read and write speeds of up to 1,500MB/s and 1,000MB/s<sup>1</sup>. It is 2X faster than a SATA-based SSD and 20X faster than a traditional hard drive, offering exceptional responsiveness, ultra-low latency and throughput.

More reliable and durable than a hard drive, A1000 is built with NAND Flash semiconductor memory. There are no moving parts, making it far less likely to fail than a mechanical hard drive. It is also cooler and quieter, and its shock and vibration resistance makes it ideal for notebooks and other mobile computing devices.

A1000 is available in multiple capacities from 240GB–960GB<sup>2</sup> to give you all the space you need for applications, videos, photos and other important documents. You can also replace your hard drive or a smaller SSD with a drive with enough storage capacity for all your files.

- › 20X faster than a 7200RPM hard drive<sup>1</sup>
- › M.2 2280 form factor
- › Single-sided design
- › Multiple capacities up to 960GB<sup>2</sup>



Features/specs on reverse >>

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# A1000 SSD

## FEATURES/BENEFITS

- > **20X faster than a hard drive<sup>1</sup>** — With incredible read/write speeds, the A1000 not only increases performance but can also be used to breathe new life into older systems.
- > **M.2 2280 form factor** — Multi-purpose SFF connector replaces small mSATA and mini-PCIe slots.
- > **Single-sided design** — Integrates easily into designs with M.2 connectors; ideal for thin and light notebooks and in systems with limited space.
- > **Multiple capacities** — Available in a range of capacities up to 960GB<sup>2</sup> to meet your data storage requirements.

## SPECIFICATIONS

- > **Form Factor** M.2 2280
- > **Interface** PCIe NVMe™ Gen 3.0 x 2 lanes
- > **Capacities<sup>2</sup>** 240GB, 480GB, 960GB
- > **Controller** Phison E8
- > **NAND** 3D TLC
- > **Sequential read/write<sup>1</sup>**
  - 240GB — up to 1,500/800MB/s
  - 480GB — up to 1,500/900MB/s
  - 960GB — up to 1,500/1,000MB/s
- > **Random 4K read/write**
  - 240GB — up to 100,000/80,000 IOPS
  - 480GB — up to 100,000/90,000 IOPS
  - 960GB — up to 120,000/100,000 IOPS
- > **Power Consumption** 0.011748W idle / 0.075623W avg / 0.458W (MAX) read / 0.908W (MAX) write
- > **Dimensions** 80mm x 22mm x 3.5mm
- > **Operating Temperature** 0°C~70°C
- > **Storage Temperature** -40°C~85°C
- > **Weight**
  - 240GB — 6.4g
  - 480GB — 7g
  - 960GB — 7.6g
- > **Vibration Operating** 2.17G peak (7–800Hz)
- > **Vibration Non-operating** 20G peak (10–2000Hz)
- > **Life expectancy** 1 million hours MTBF
- > **Warranty/support<sup>3</sup>** limited 5-year warranty with free technical support
- > **Total bytes written (TBW)<sup>4</sup>**
  - 240GB — 150TB
  - 480GB — 300TB
  - 960GB — 600TB



## PART NUMBERS

SA1000M8/240G  
SA1000M8/480G  
SA1000M8/960G

## PACKAGE CONTENTS

M.2 SSD  
Hard Drive Cloning Software – Download Coupon<sup>5</sup>

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

<sup>1</sup> Based on "out-of-box performance" using a SATA Rev 3.0 / PCIe 3.0 motherboard. Speed may vary due to host hardware, software and usage. IOMETER random 4K read/write is based on an 8GB partition.

<sup>2</sup> 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 Guide at [kingston.com/flashguide](http://kingston.com/flashguide).

<sup>3</sup> Limited warranty based on 5 years or "SSD Life Remaining" which can be found using the Kingston SSD Manager ([Kingston.com/SSDManager](http://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](http://Kingston.com/wa) for details.

<sup>4</sup> Total Bytes Written (TBW) is derived from the JEDEC Client Workload (UESD219A).

<sup>5</sup> Operating system software support: Windows® 10, 8.1, 8.



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