



# MINERVA

USB 3.1 Gen 2 for 2.5" SATA, mSATA SSD & M.2 SSD with type-C

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## Performance & Burn In Test Rev. 1.0 for **M.2 SATA SSD**

### Table of Contents

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1. Overview
  
2. Performance Measurement Tools and Results
  - 2.1 Test Platform
  - 2.2 Test target and use M.2 256GB SATA SSD
  - 2.3 Install Hardware
  - 2.4 BIOS & Windows 10 OS environment setup
  - 2.5 CrystalDiskMark 5.1.2 x64 performance test
  - 2.6 AS SSD Benchmark 1.9 performance test
  - 2.7 ATTO Disk Benchamrk 2.47 performance test
  - 2.8 AnvilBenchmark\_V110\_B337 Benchmark performance test
  
3. Burn In Tests and Results
  - 3.1 BurnInTestv8.1 Pro burn in test
  
4. Summary

# USB 3.1 type-C for 2.5” SATA, mSATA SSD & M.2 SSD adapter

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## 1. Overview

U6335A adapter, built-in USB3.1 type-C connectors, provides one SATA connector, one M.2 B-key connector and one Mini PCI-e connector. First inserts M.2 SATA SSD, using USB A-type to type-C cable to connect to the host, M.2 SATA SSD can work.

## 2. Tools and Results of Performance Measurement

### 2.1 Test Platform

M/B : ASUS [X99-PRO/USB3.1](#)

CPU : Intel [i7-5820K](#), 3.3GHz/ 15M Cache/ LGA2013-v3

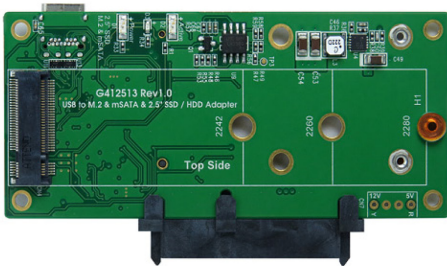
Memory : ADATA DDR4 PC4-1700MHz, [8GB](#)(4GB DIMM\*2)

ATX Power : COOLER MASTER G750M, [750W ATX](#), 12V V2.31 Power Supply

Graphic : ATI Radeon [HD Graphics 5450](#) Graphics Processor

OS : Microsoft [Windows 10 64bit OS](#)

### 2.2 Test target: U6335A adapter and M.2 SATA SSD([Samsung CM871a M.2 / 256GB](#))



U6335A Adapter



USB 3.1 A to C type Cable



Samsung CM871a M.2 256G SSD

### 2.3 Install Hardware

Inserts M.2 SATA SSD into U6335A adapter, Then this adapter through USB cable to connect to USB3.1 port of ASUS [X99-PRO/USB3.1](#)

### 2.4 BIOS & Windows 10 OS environment setup

2.4.1 Install Windows 10 64bit OS.

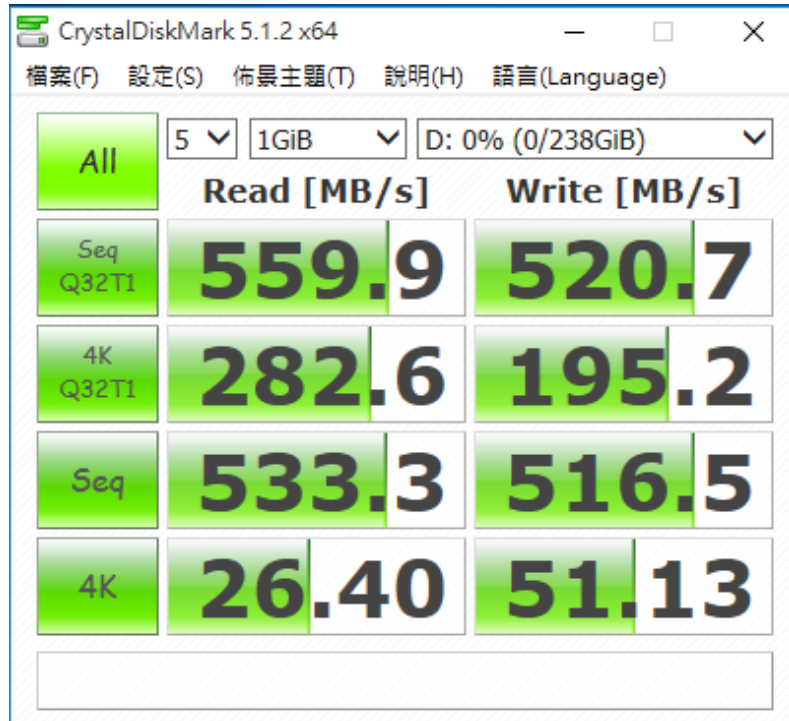
2.4.2 In Windows 10, U6335A enclosure is formatted to NTFS Mode. Don't install any program.

# USB 3.1 type-C for 2.5” SATA, mSATA SSD & M.2 SSD adapter

## 2.5 CrystalDiskMark 5.1.2 x64 performance test

※Benchmark (Sequential Read & Write / default = 1MB)

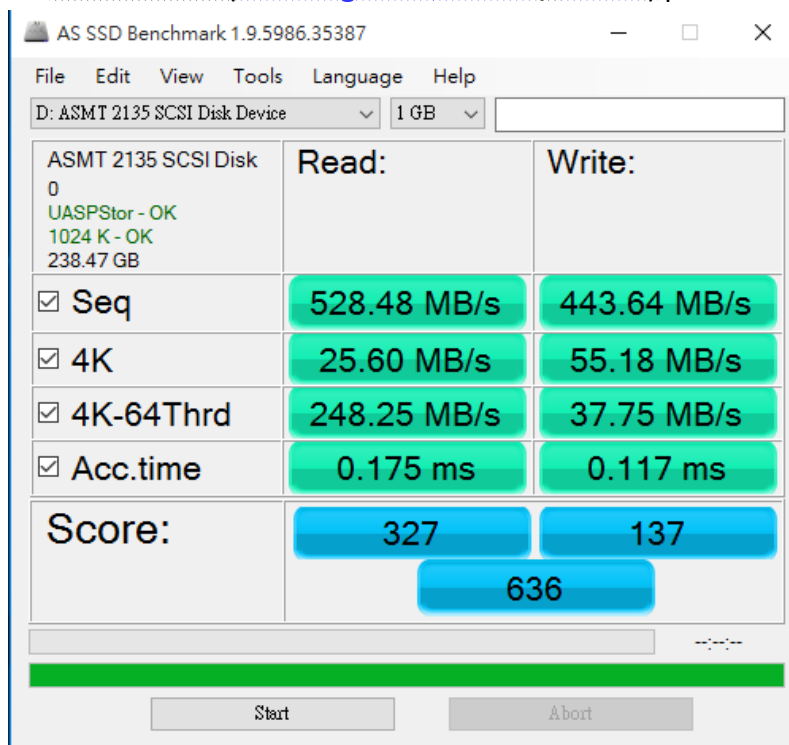
2.5.1 show M.2 SATA SSD(Samsung CM871a M.2 / 256GB) performance as below:



## 2.6 AS SSD Benchmark 1.9 performance test

※Benchmark (Read & Write by MB/s, default block size = 16MB)

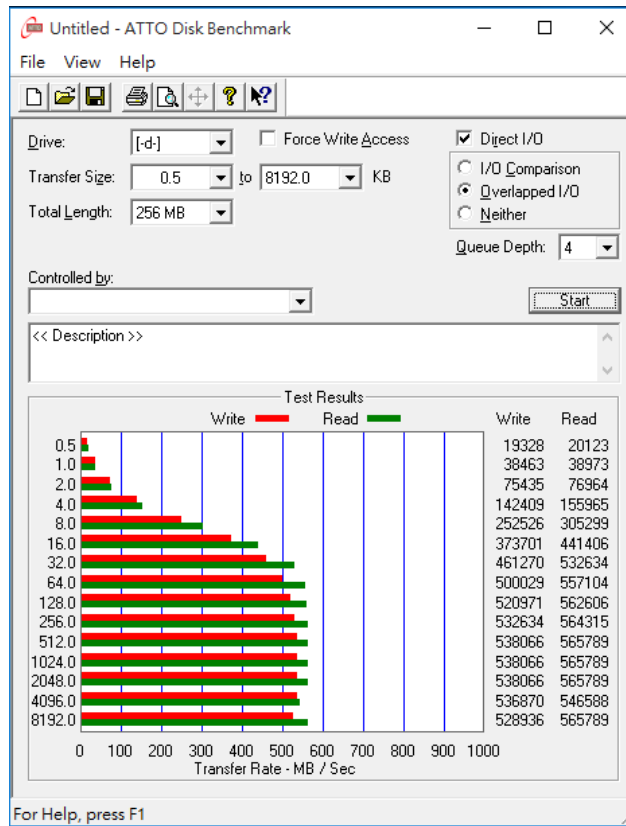
2.6.1 show M.2 SATA SSD(Samsung CM871a M.2 / 256GB) performance as below:



# USB 3.1 type-C for 2.5" SATA, mSATA SSD & M.2 SSD adapter

## 2.7 ATTO Disk Benchmark 2.47 performance test

2.7.1 show M.2 SATA SSD([Samsung CM871a M.2 / 256GB](#)) performance as below:



## 2.8 AnvilBenchmark\_V110\_B337

2.8.1 show M.2 SATA SSD([Samsung CM871a M.2 / 256GB](#)) performance as below:

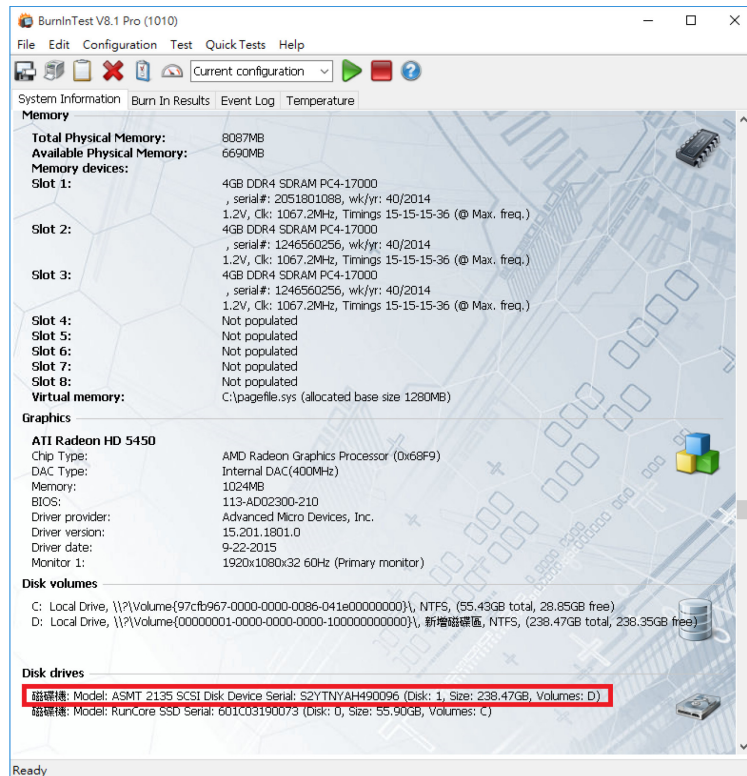
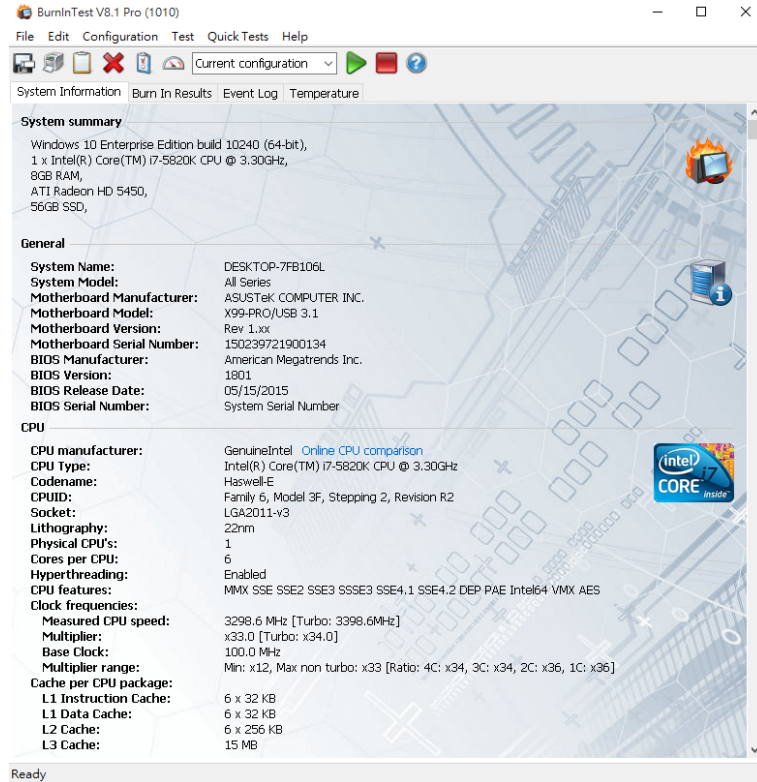


# USB 3.1 type-C for 2.5" SATA, mSATA SSD & M.2 SSD adapter

## 3. Burn In Tests and Results

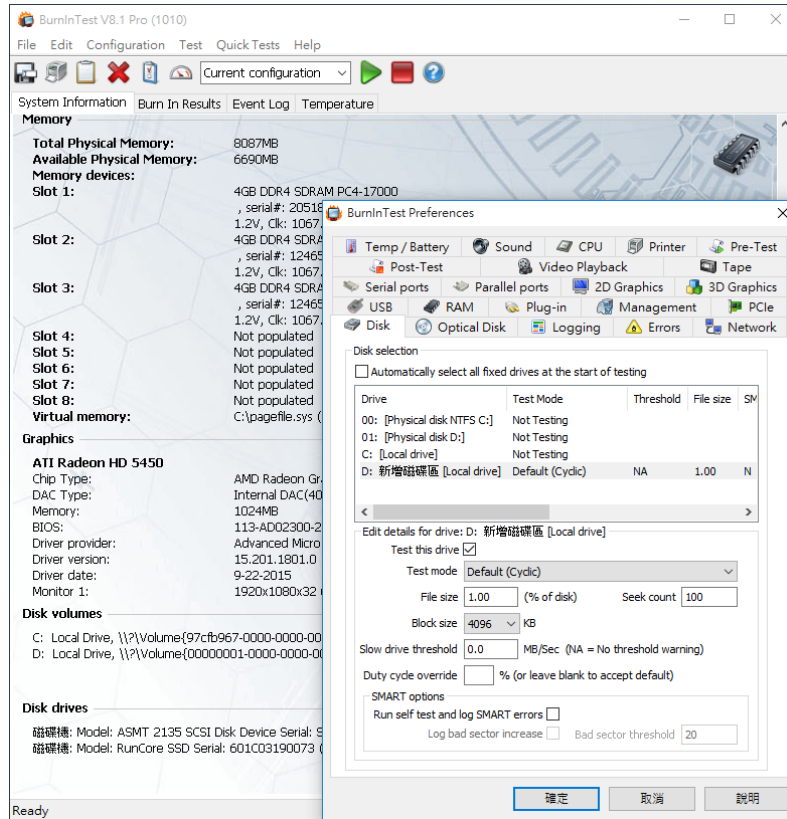
### 3.1 BurnInTest v8.1 Pro

3.1.1 **system information** for M.2 SSD(Samsung CM871a M.2 / 256GB) as below:

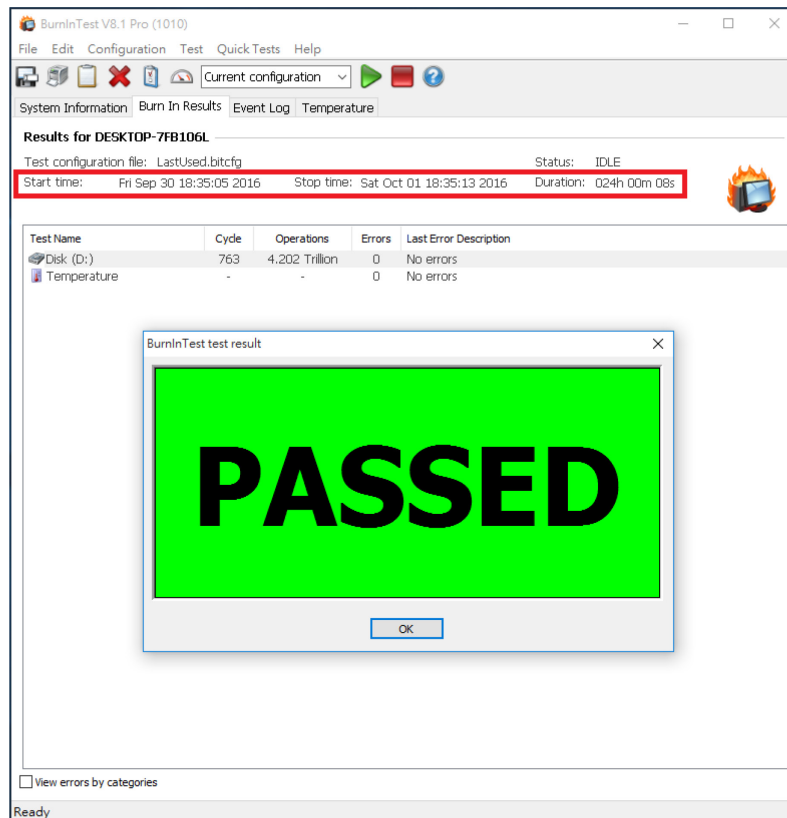


# USB 3.1 type-C for 2.5" SATA, mSATA SSD & M.2 SSD adapter

## 3.1.2 show Disk test mode( 10 ways cycle test)



## 3.1.3 show 24-hour Burn-in test PASSED



# USB 3.1 type-C for 2.5" SATA, mSATA SSD & M.2 SSD adapter

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## 4. Summary

- 4.1 USB 3.1 is 10Gbps Interface.
- 4.2 M.2 SATA III is 6Gbps Interface.
- 4.3 U6335A enclosure I/O performance is based on M.2 SSD.