



# 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 **mSATA SSD**

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# 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 mSATA SSD, using USB A-type to type-C cable to connect to the host, mSATA 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

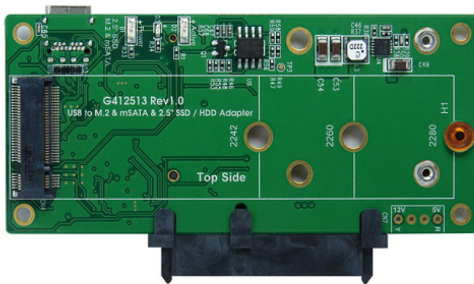
Memory : ADATA DDR4 PC4-1700MHz, **8GB**(4GB DIMM\*2)

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 mSATA SSD(LITE-ON S930/256GB)



U6335A Adapter



USB 3.1 A to C type Cable



LITE-ON S930 mSATA 256GB SSD

### 2.3 Install Hardware

Inserts mSATA 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.

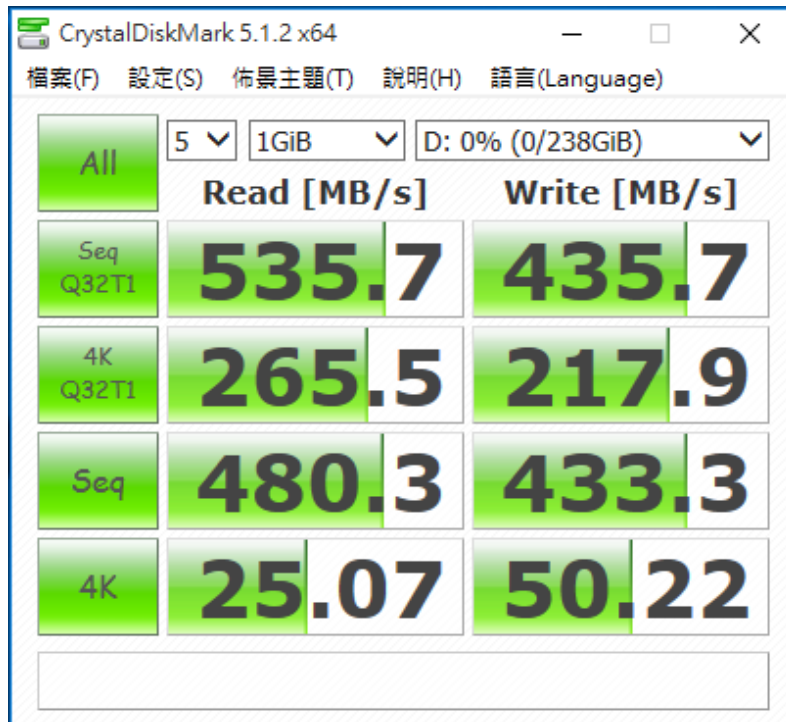
2.4.2 In Windows 10, U6335A enclosure is formatted to NTFS Mode. Don't install any program.

# 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)

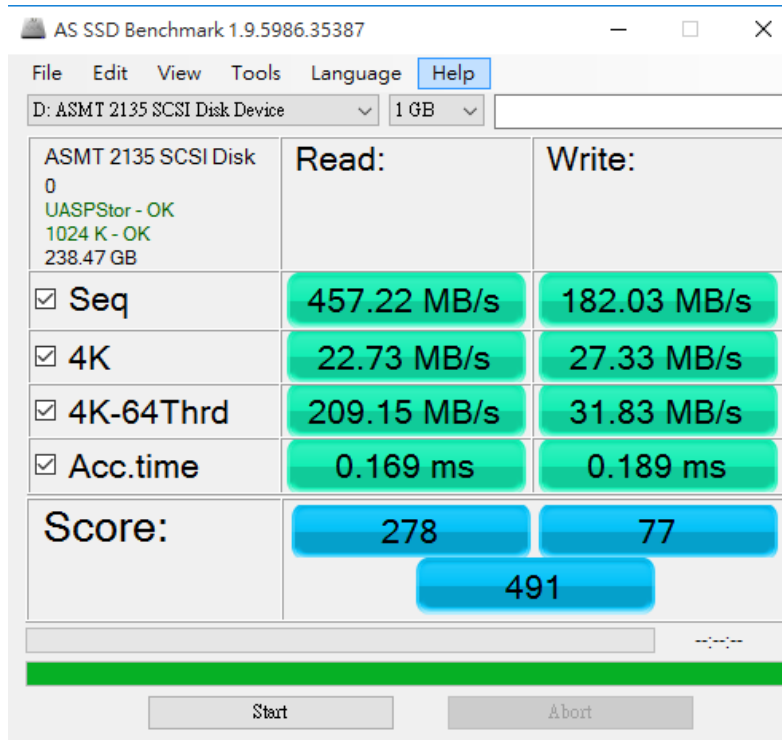
2.5.1 show mSATA SSD(LITE-ON S930/256GB) performance as below:



## 2.6 AS SSD Benchmark 1.9 performance test

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

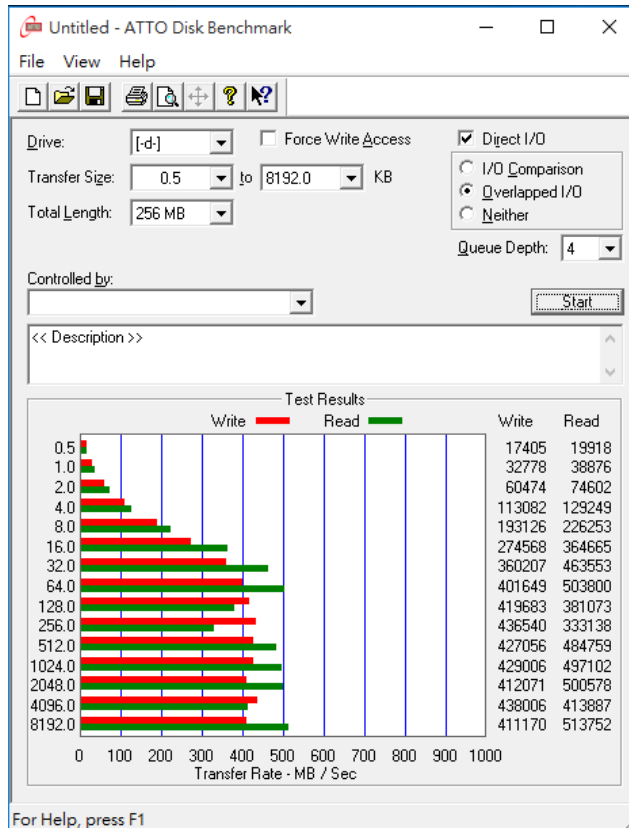
2.6.1 show mSATA SSD(LITE-ON S930/256GB) performance as below:



# 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 mSATA SSD(LITE-ON S930/256GB) performance as below:



## 2.8 AnvilBenchmark\_V110\_B337

2.8.1 show mSATA SSD(LITE-ON S930/256GB) performance as below:

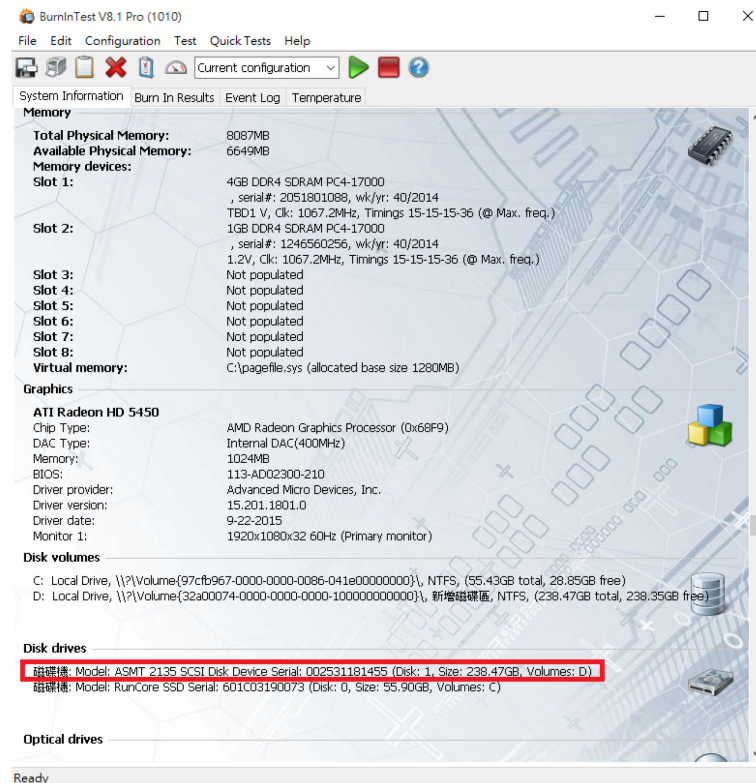
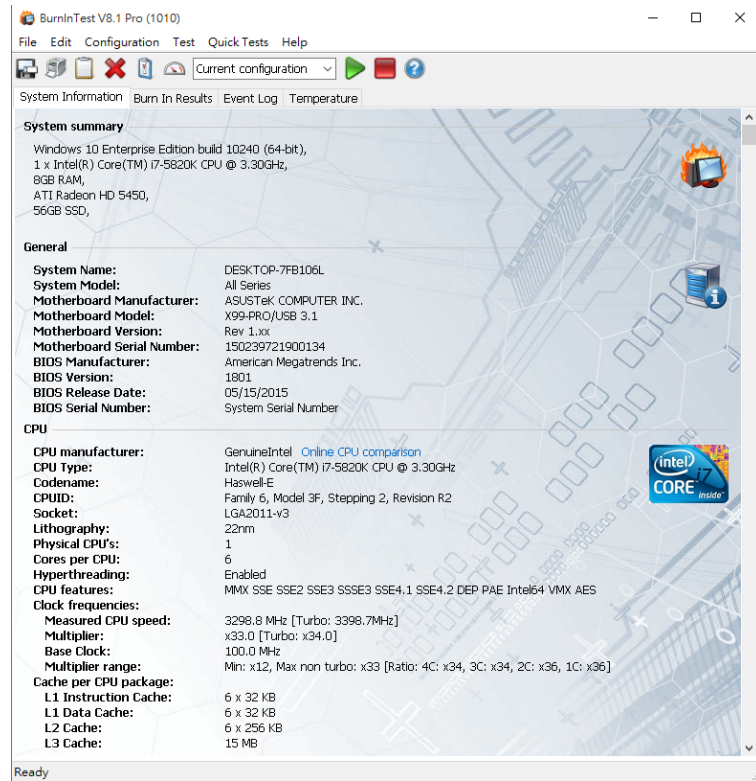


# USB 3.1 type-C for 2.5" SATA, mSATA SSD & M.2 SSD adapter

## 3. Burn In Tests and Results

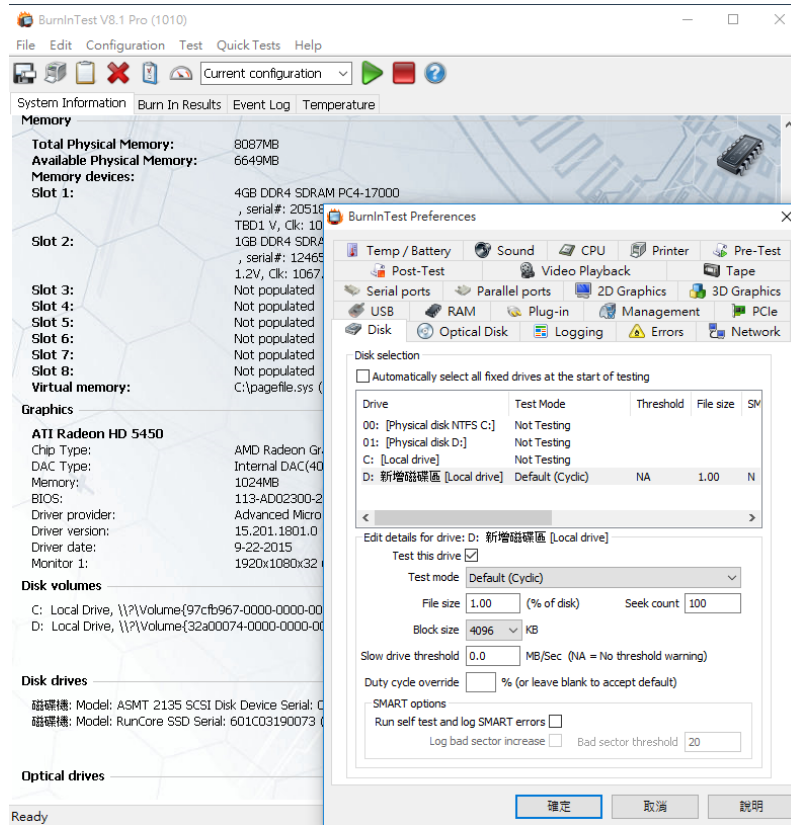
### 3.1 BurnInTest v8.1 Pro

#### 3.1.1 system information for mSATA SSD(LITE-ON S930/256GB) as below:

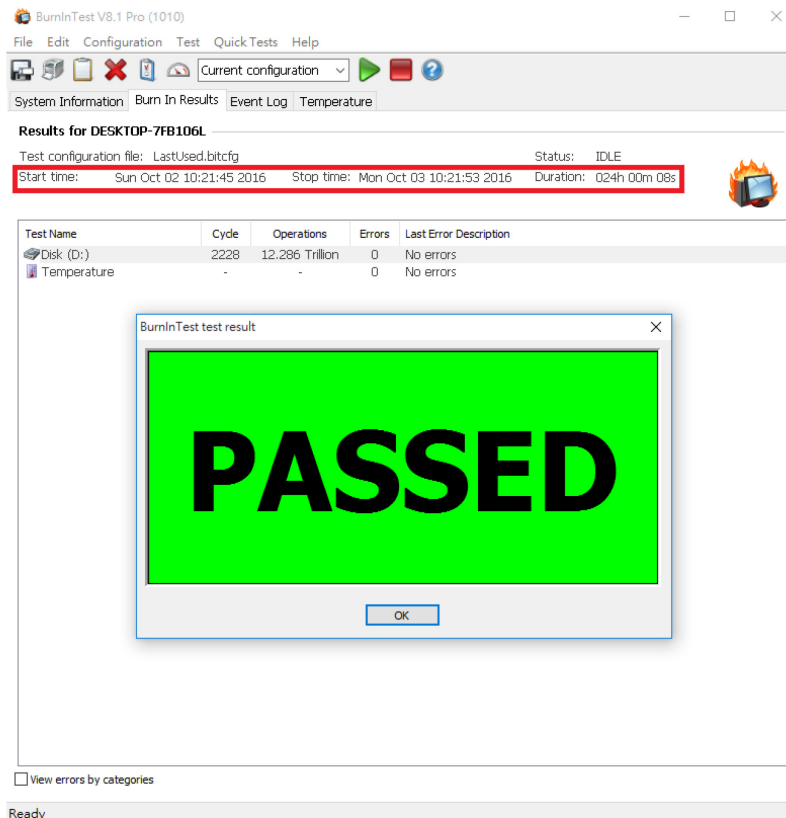


# USB 3.1 type-C for 2.5" SATA, mSATA SSD & M.2 SSD adapter

## 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 mSATA III is 6Gbps Interface.
- 4.3 U6335A enclosure I/O performance is based on mSATA SSD.