



# MINERVA

USB 3.1 Gen 2 Adapter for M.2 SSD with A-type connector

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## Performance & Burn In Test Rev. 1.0

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# USB 3.1 Gen 2 A-type for M.2 SSD Adapter

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## 1. Overview

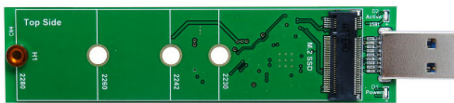
U9115A adapter, built-in USB3.1 A-type connector, provides one M.2 B-key connector. First inserts M.2 SSD into M.2 B-key connector, then plug U9115A into USB 3.1 female connector of the host.

## 2. Tools and Results of Performance Measurement

### 2.1 Test Platform:

M/B : ASRock **Z170 Extreme 7+**  
CPU : Intel **i5-6400**, 2.7GHz/ 6M Cache/ LGA1151  
Memory : Kingston **KVR21N15D8/8**, DDR4-2133MHz, 16G(8GB DIMM\*2)  
ATX Power : FSP RAIDER 550, **550W ATX**, 12V V2.2 Power Supply  
Graphic : Z170 Chipsets built-in **HD Graphics 530**  
OS : Microsoft **Windows 8.1 64bit OS**

### 2.2 Test target: U9115A enclosure and M.2SSD



U9115A Adapter



U9115A + M.2 (SATA I/F) SSD



LITE-ON LTG-128M6G SSD

### 2.3 Install Hardware

Inserts M.2 SSD into U9115A adapter's M.2 connector, and use the coppers and screws to fix SSDs (please refer to the installation Notes). Then U9115A plugs into USB3.1 port of ASRock **Z170 Extreme 7+**.

### 2.4 BIOS & Windows 8.1 OS environment setup

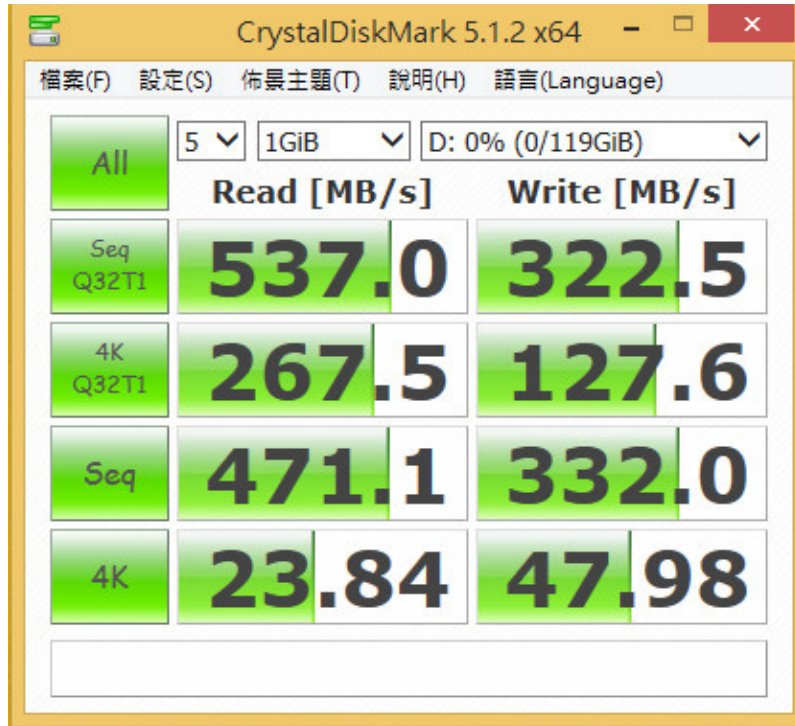
2.4.1 install Windows 8.1 64bit OS.

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## 2.5 CrystalDiskMark 5.1.2 x64 performance test

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

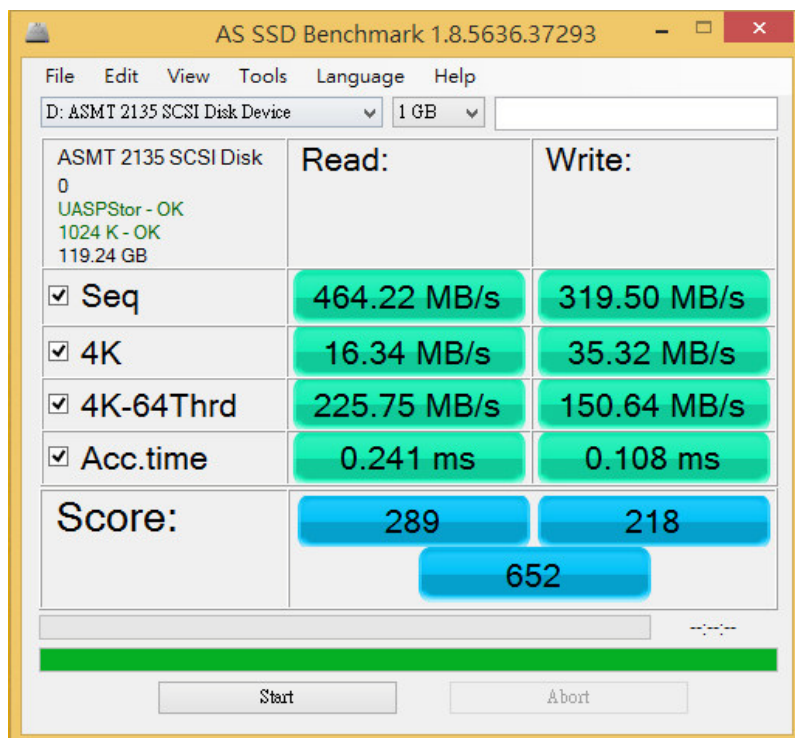
2.5.1 show LITE-ON 128GB(LGT-128M6G) performance as below:



## 2.6 AS SSD Benchmark 1.8 performance test

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

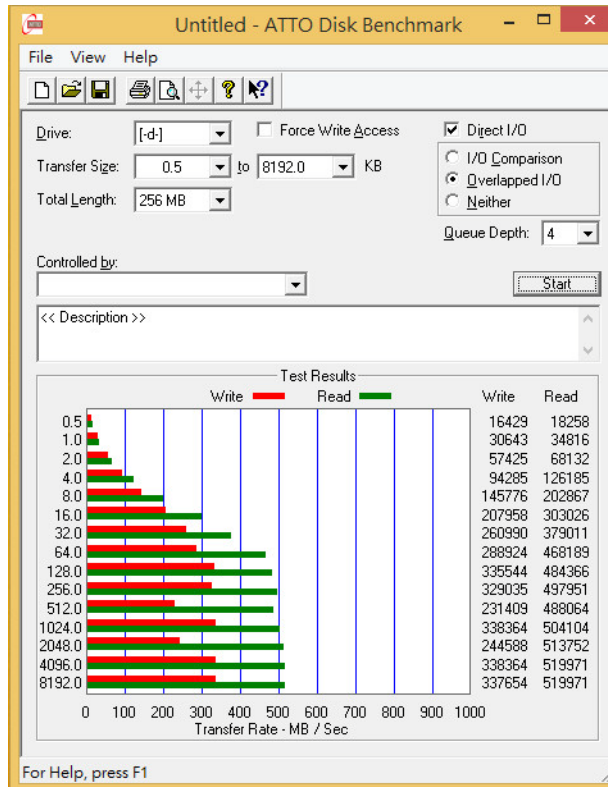
2.6.1 show LITE-ON 128GB(LGT-128M6G) performance as below:



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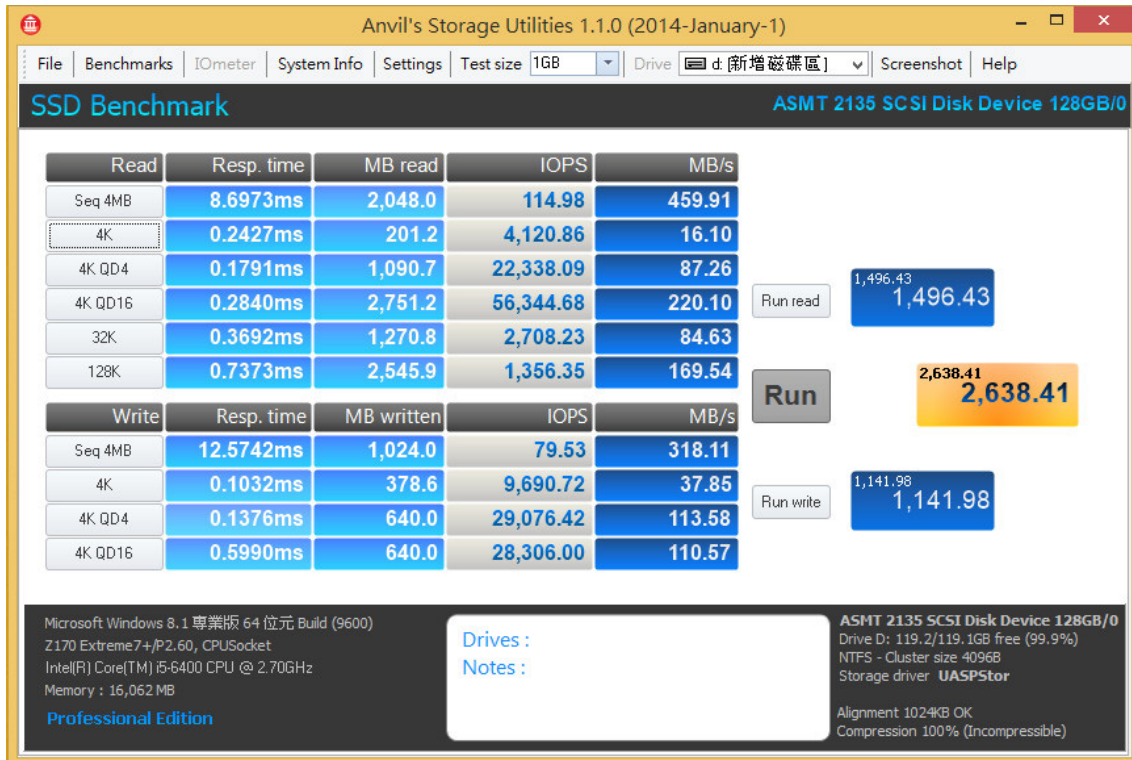
## 2.7 ATTO Disk Benchmark 2.47 performance test

2.7.1 show LITE-ON 128GB(LGT-128M6G) performance as below:



## 2.8 AnvilBenchmark\_V110\_B337

2.8.1 show LITE-ON 128GB(LGT-128M6G) performance as below:



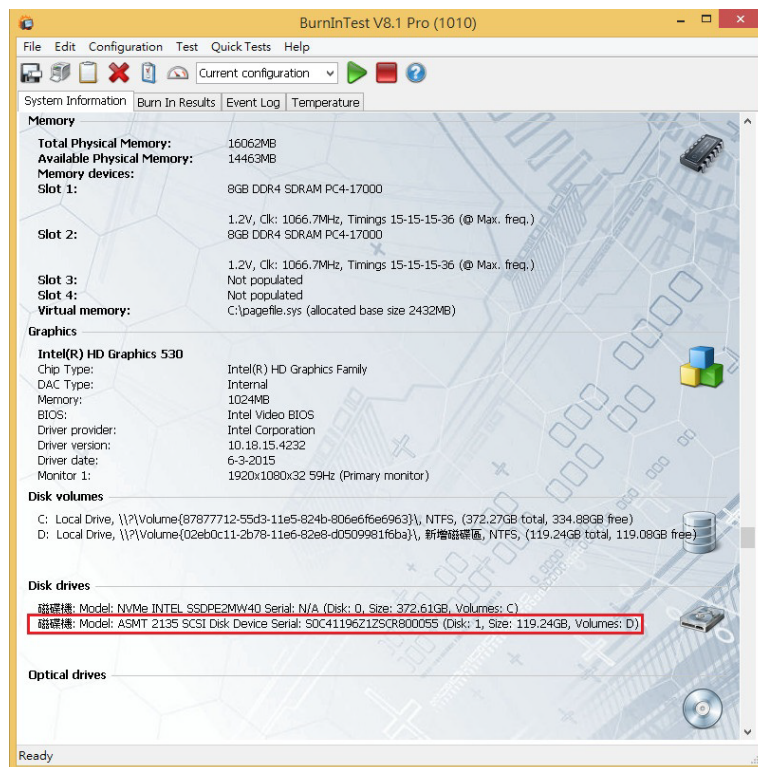
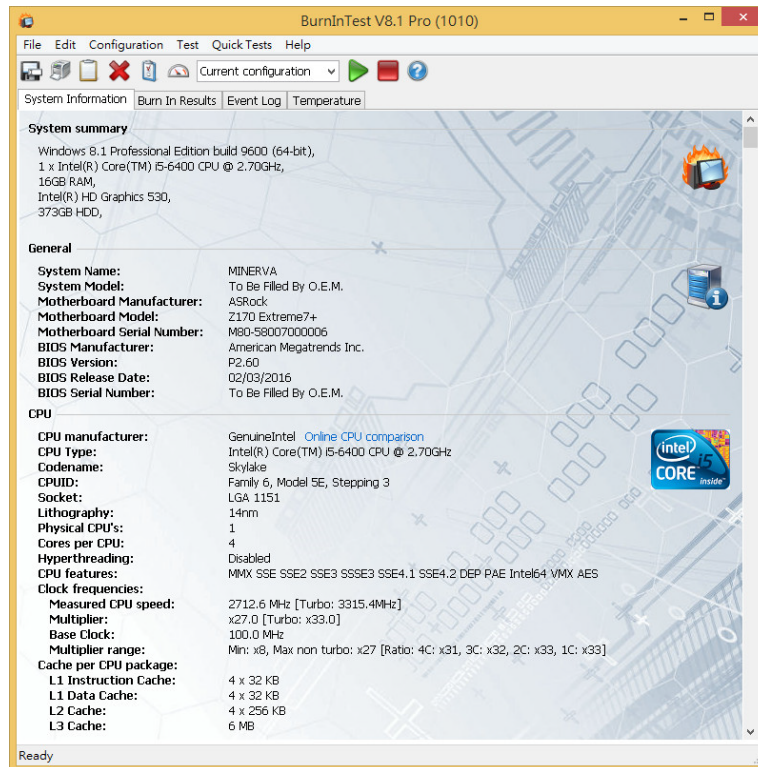
# USB 3.1 Gen 2 A-type for M.2 SSD Adapter

## 3. Burn In Tests and Results

### 3.1 BurnInTest v8.1 Pro

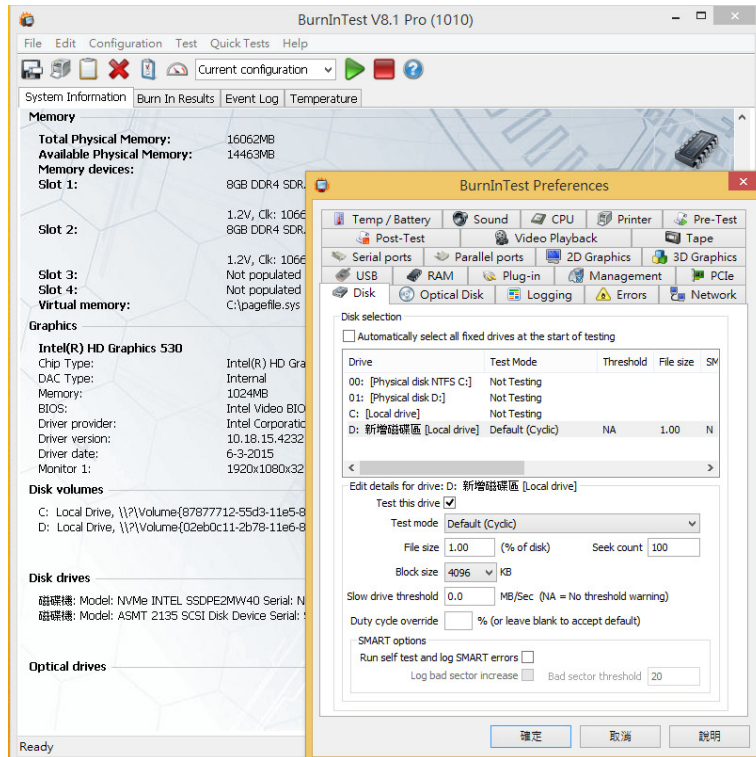
show LITE-ON 128GB(LGT-128M6G)

#### 3.1.1 system information as below:

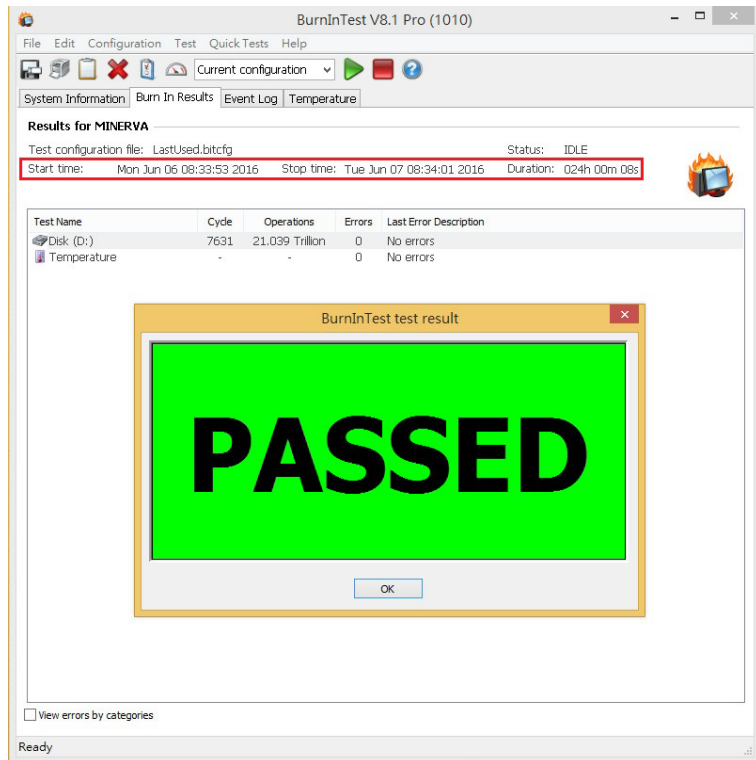


# USB 3.1 Gen 2 A-type for M.2 SSD Adapter

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



## 3.1.3 show 24-hour Burn-in test for LITE-ON 128GB(LGT-128M6G) PASSED



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## 4. Summary

- 4.1 USB 3.1 is 10Gbps Interface.
- 4.2 SATA III is 6Gbps Interface.
- 4.3 M.2 SSD is SATA III Interface, I/O speed, max. to 600MB/s.
- 4.4 U9115a adapter I/O performance is based on M.2 SSD SSD.