



MINERVA

US205A / Rev1.1 Converter Card

Performance & Burn In Test Rev. 1.0

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4. Summary

US205A/Rev1.1 Converter Card

1. Overview

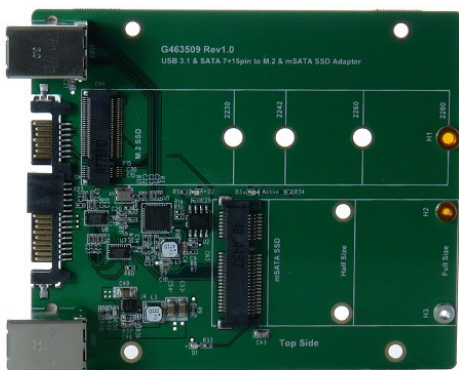
US205A adapter, built-in USB3.1 B-type connectors, SATA 7+15pin connector provides one M.2 B-key connector and one Mini PCI-e connectors. First M.2 SSD insert M.2 B-key connector, using USB3.1 A to B cable to connect to the host, M.2 SSD can work properly. or mSATA SSD insert Mini PCI-e connectors, use USB3.1 A to B cable to connect to the host, mSATA can work properly.

2. Tools and Results of Performance Measurement

2.1 Test Platform

M/B : ASRock **Z97 Extreme 6**
CPU : Intel **i5-4426**, 3.2GHz/ 6M Cache/ LGA1150
Memory : Kingston **KVR16N11S8/4**, DDR3-1600MHz, 8G(4GB DIMM*2)
ATX Power : FSP RAIDER 550, **550W ATX**, 12V V2.2 Power Supply
Graphic : Z97 Chipsets built-in **HD Graphics 4600**
USB : ASUS USB3.1 TYPE-A CARD / **PCI-e to USB 3.1 ASM 1142 Host Controller**
OS : Microsoft **Windows 8.1 64bit OS**

2.2 Test target: US205A adapter and M.2 SSD or mSATA SSD



US205A Adapter



LTG-128M6G



CT128M550SSD3

2.3 Install Hardware

Insert M.2 SSD or mSATA SSD to US205A adapter's M.2 or Mini PCI-e connector, and then use the coppers and screws to fix SSDs (please refer to the installation Notes). Then this adapter through USB3.1 A to B cable to connect to the ASUS PCI-e to USB 3.1 host card.

2.4 BIOS & Windows 8.1 OS environment setup

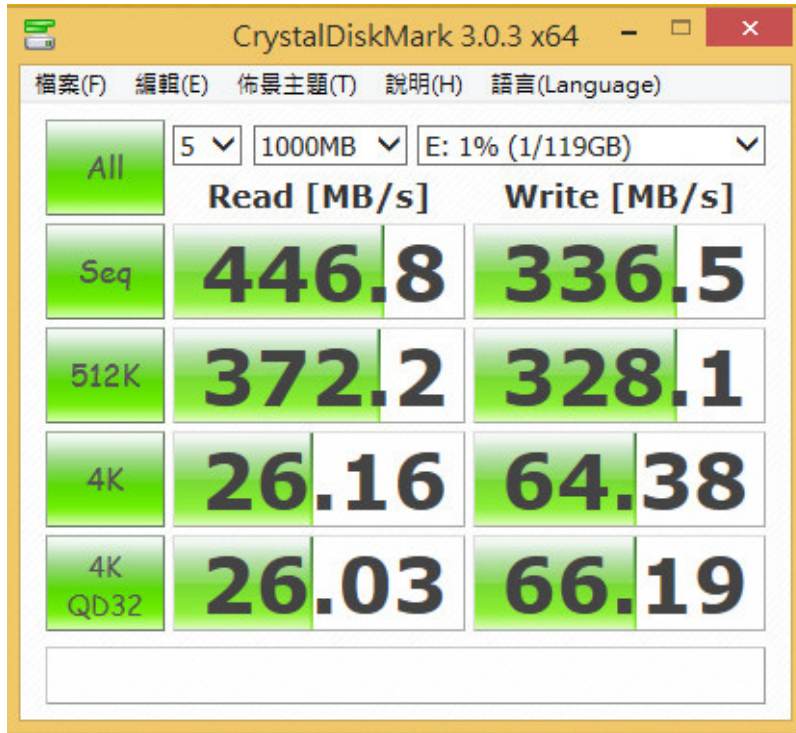
2.4.1 In Windows 8.1, formatted SSD to NTFS Mode. Don't install any program.

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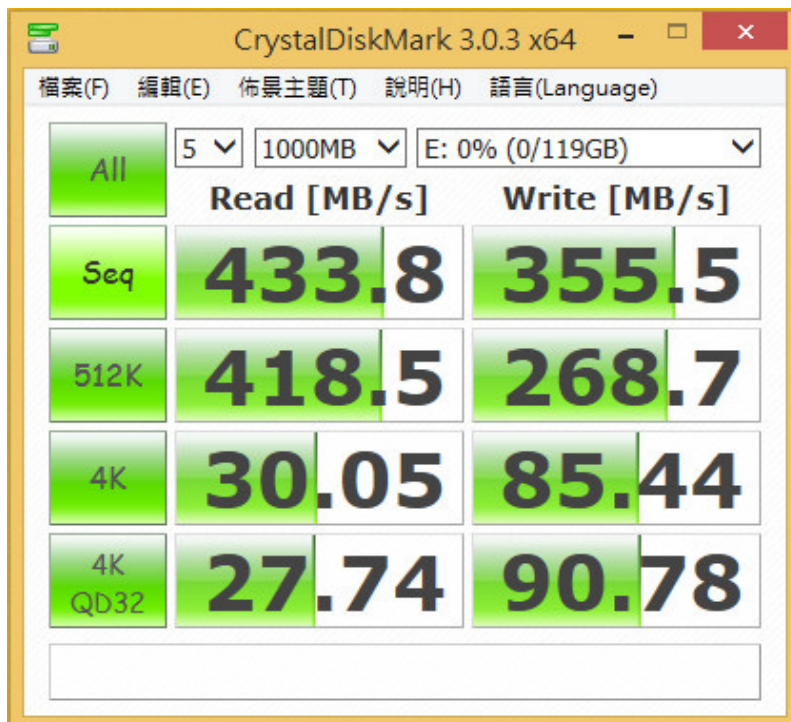
2.5 CrystalDiskMark 3.0.3 x64 performance test

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

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



2.5.2 Used Crucial 128GB(CT-128M550SSD3) performance as below:

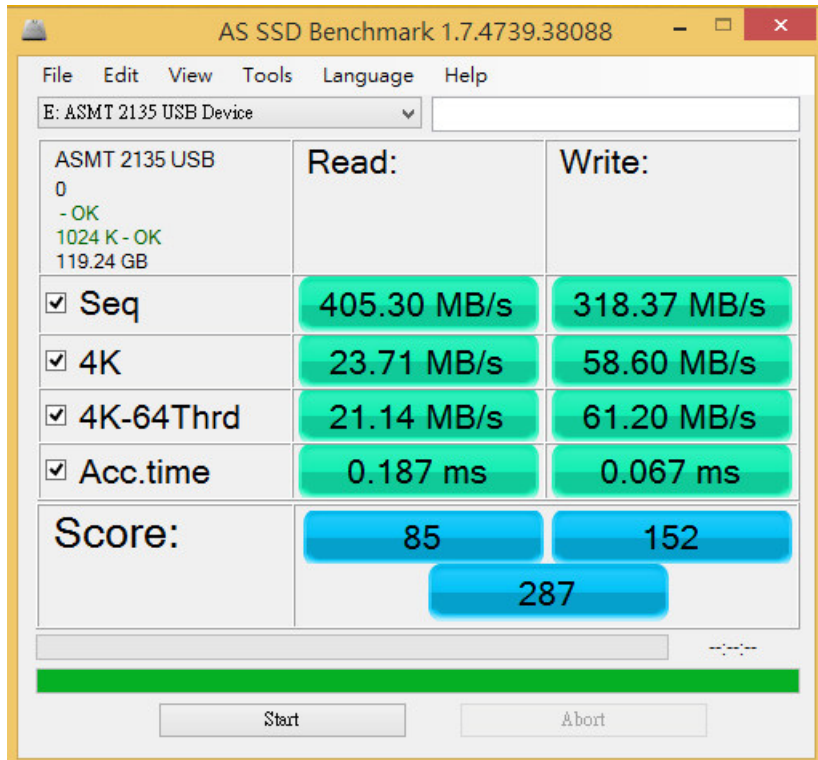


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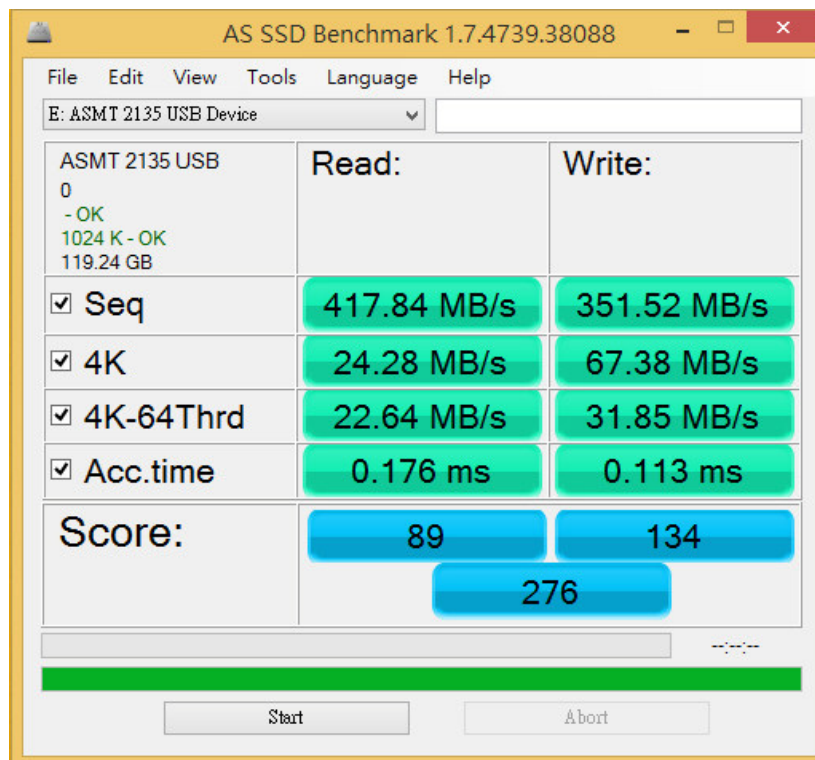
2.6 AS SSD Benchmark 1.7 performance test

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

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



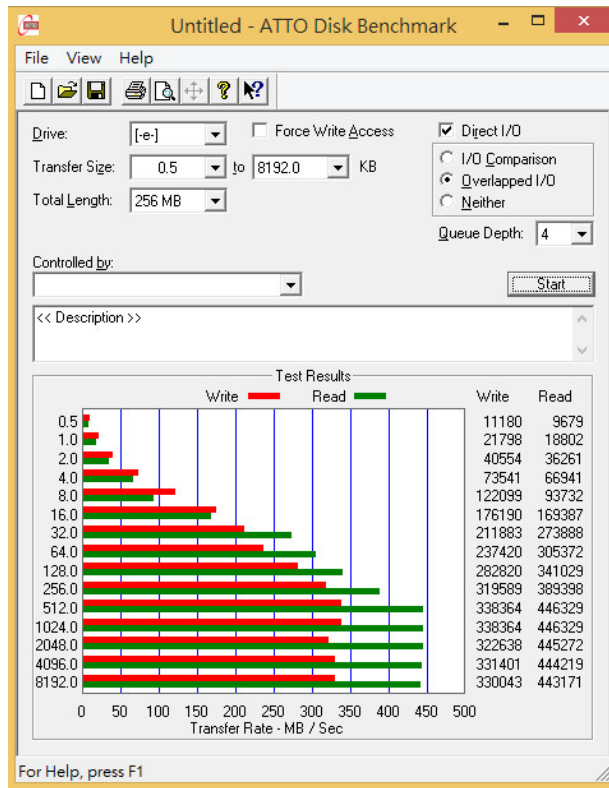
2.6.2 Used Crucial 128GB(CT-128M550SSD3) performance as below:



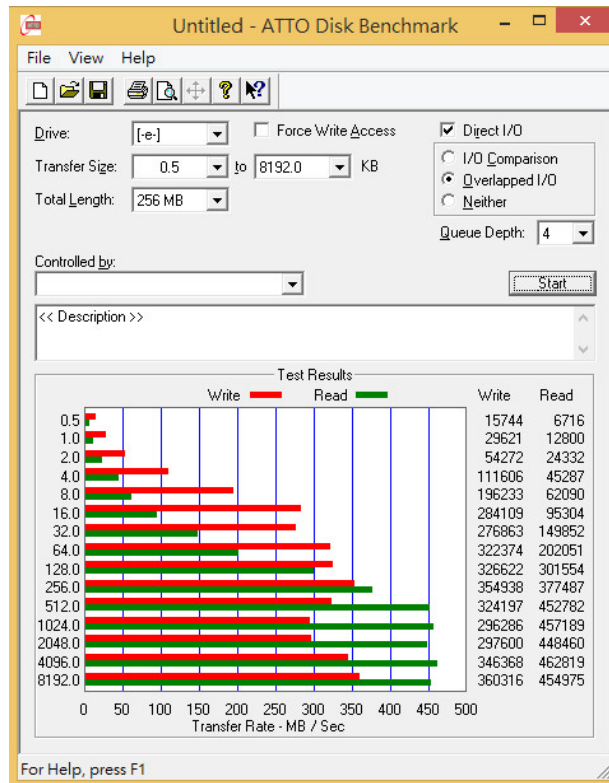
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ATTO Disk Benchmark 2.47 performance test

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



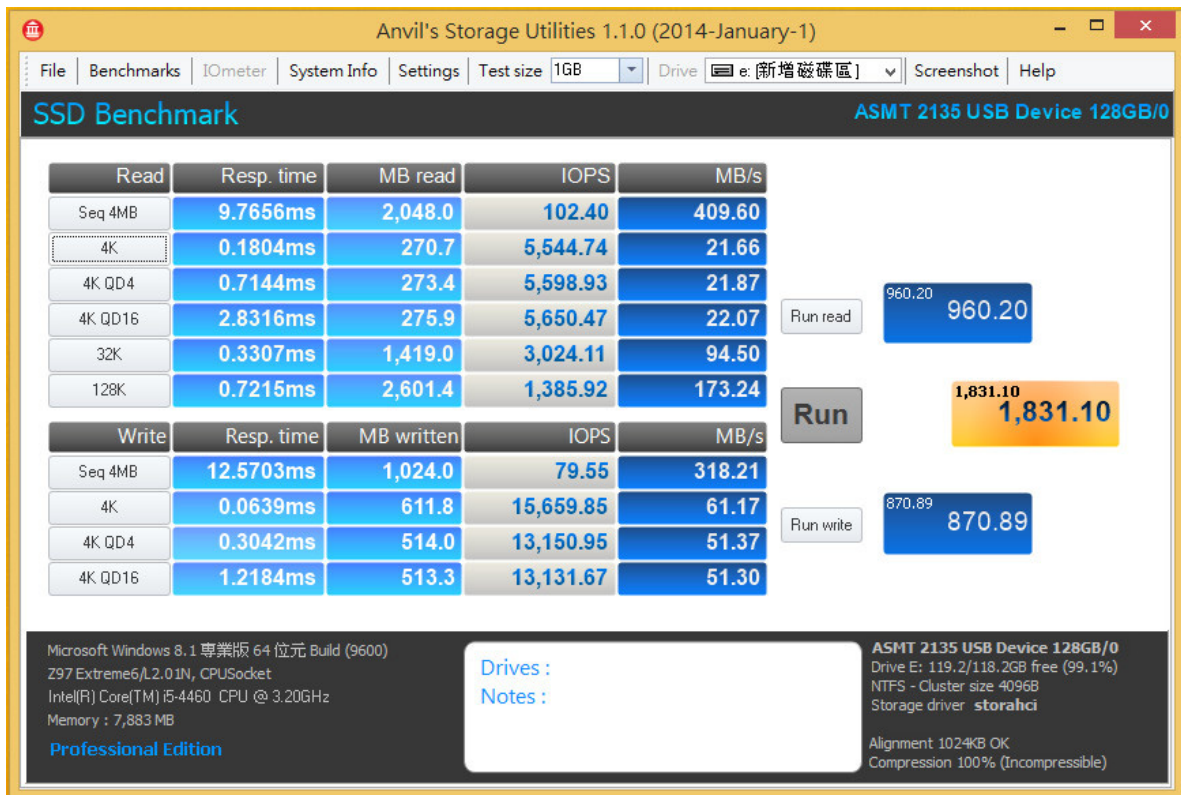
2.7.2 Used Crucial 128GB(CT-128M550SSD3) performance as below:



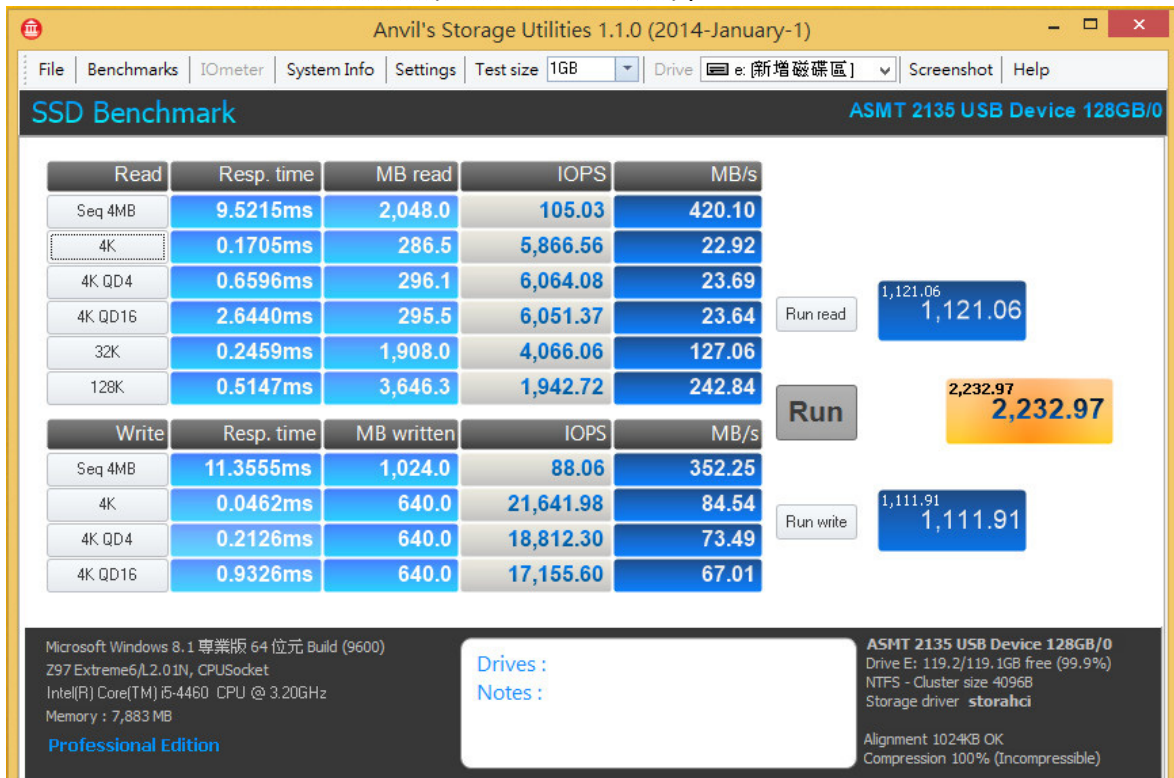
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2.7 AnvilBenchmark_V110_B337

2.7.1 Used [LITE-ON 128GB\(LGT-128M6G\)](#) performance as below:



2.7.2 Used [Crucial 128GB\(CT-128M550SSD3\)](#) performance as below:



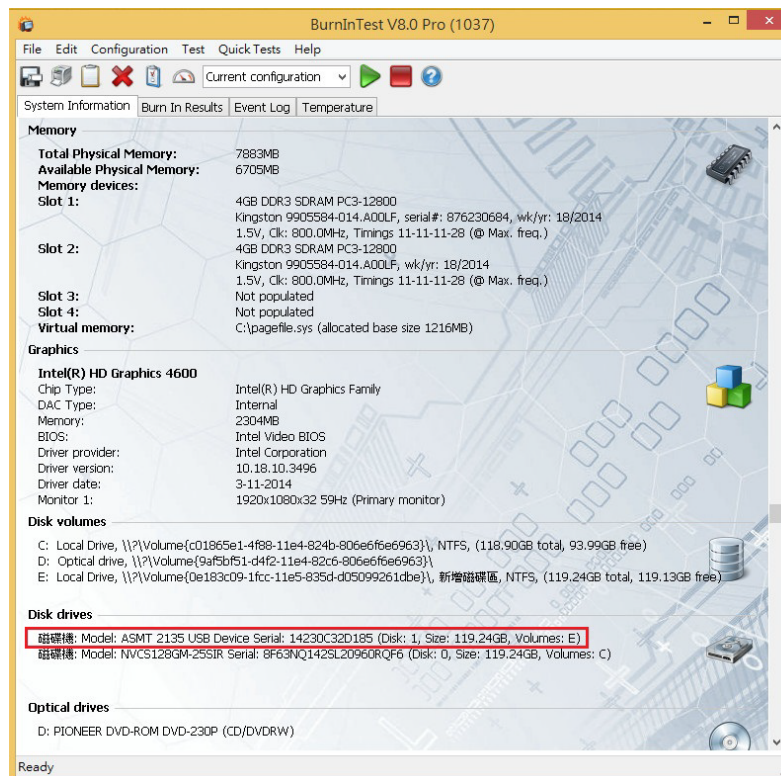
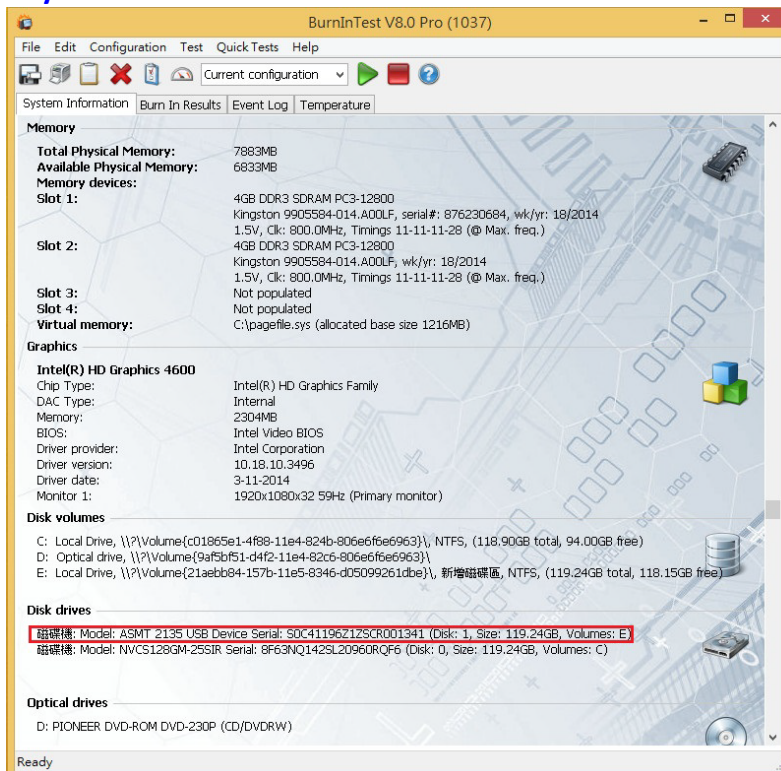
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3. Burn In Tests and Results

3.1 BurnInTest v8.0 Pro

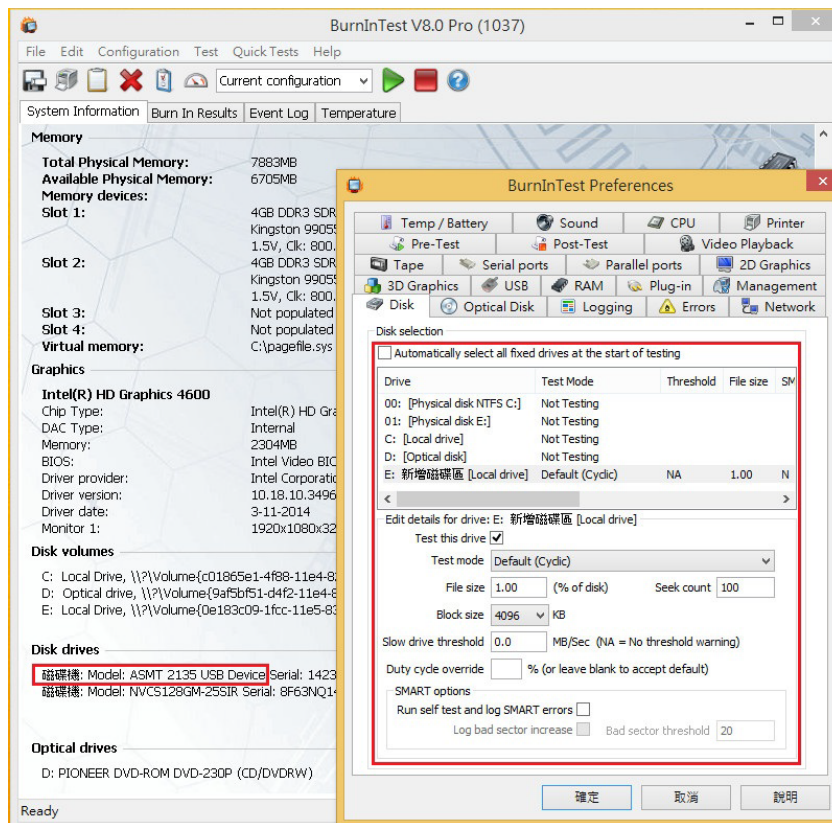
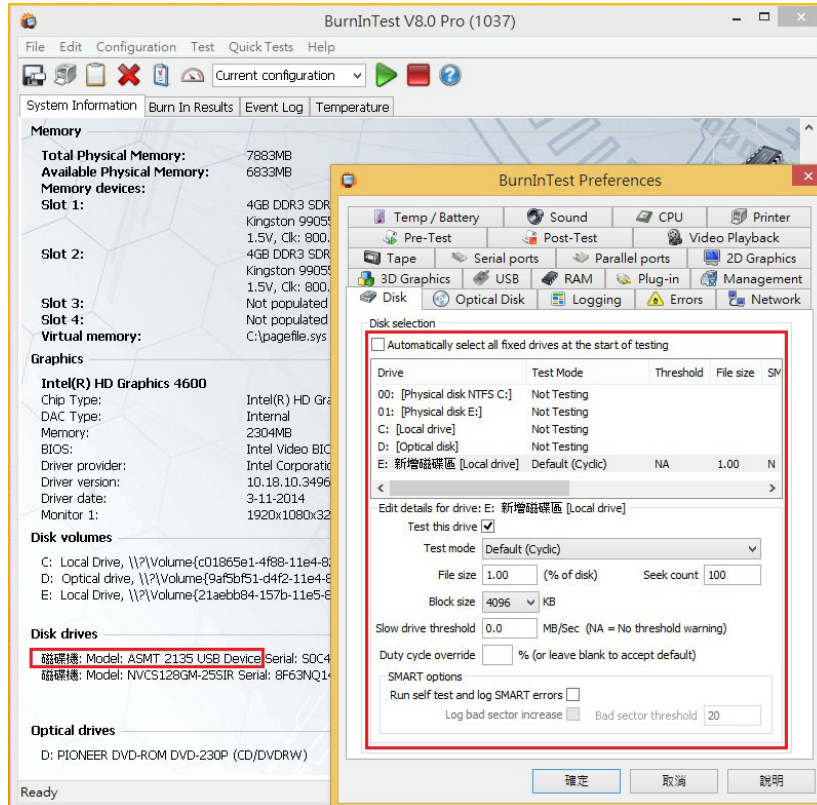
Used in LITE-ON 128GB(LGT-128M6G) & Crucial 128GB(CT-128M550SSD3)

3.1.1 system information as below:



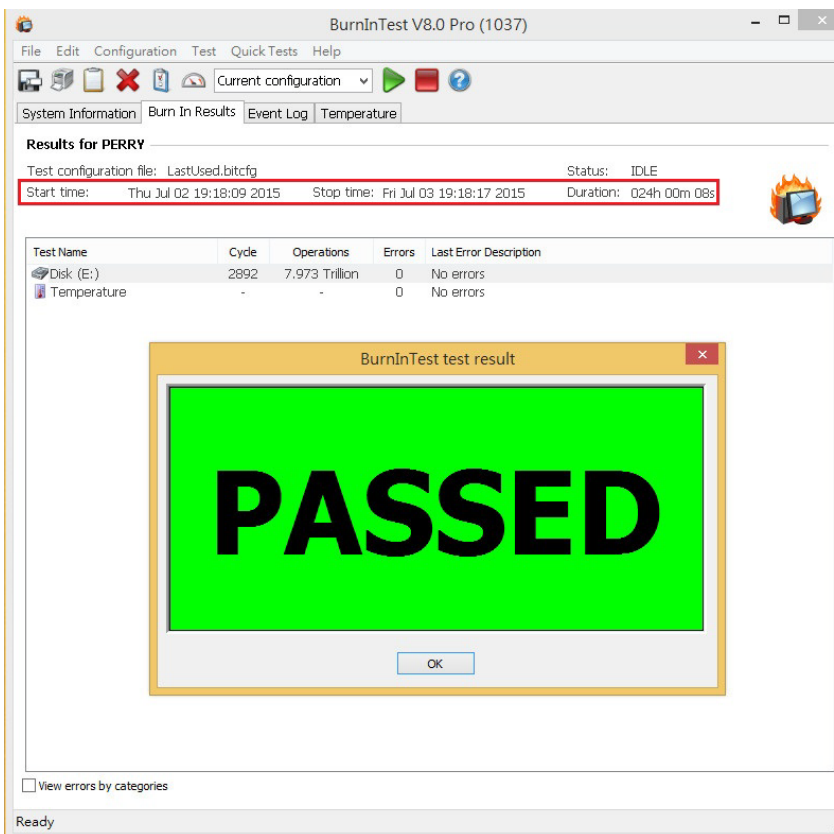
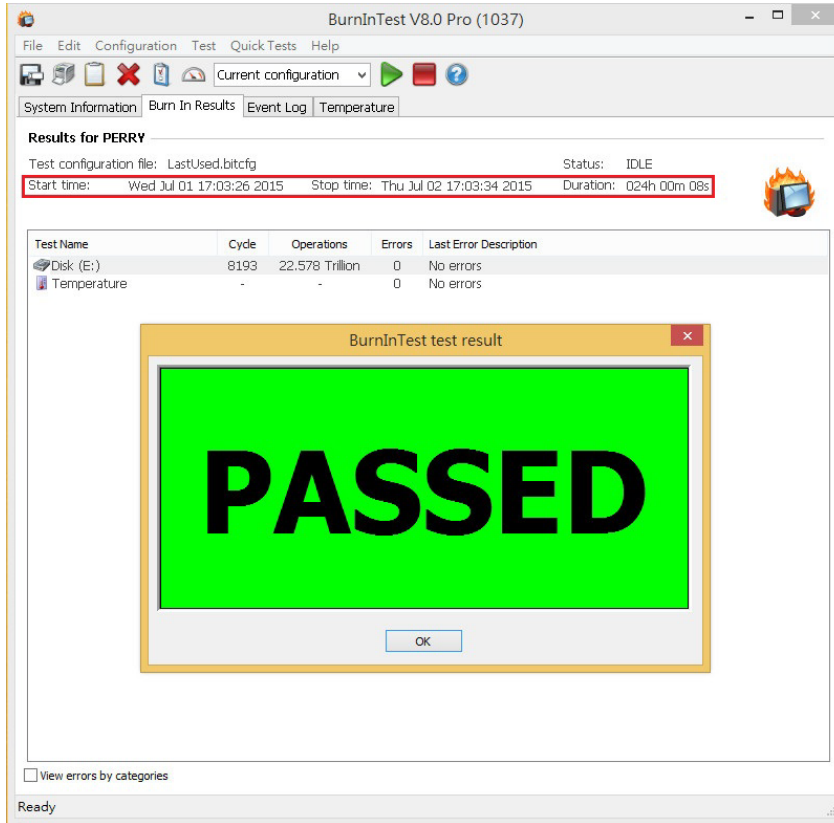
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3.1.2 show Disk test mode(10 ways cycle test)



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



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4. Summary

- 4.1 UDB 3.1 is 10Gbps Interface, I/O speed, max. to 800MB/s.
- 4.2 M.2 SSD is SATA III Interface, I/O speed, max. to 600MB/s.
- 4.3 mSATA SSD is SATA III Interface, I/O speed, max. to 600MB/s.
- 4.4 US205A adapter I/O performance is based on M.2 SSD or mSATA SSD.