



MINERVA

US205A / Rev1.1 Converter Card

Performance & Burn In Test Rev. 1.0

Table of Contents

1. Overview

2. Performance Measurement Tools and Results

2.1 Test Platform

2.2 Test target and Used M.2 NGFF SSD

2.3 Install Hardware

2.4 BIOS & Windows 8.1 OS environment setup

2.5 CrystalDiskMark 3.0.3 x64 performance test

2.6 AS SSD Benchmark 1.7 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 BurnInTestv8.0 Pro burn in test

4. Summary

US205A/Rev1.1 Converter Card

1. Overview

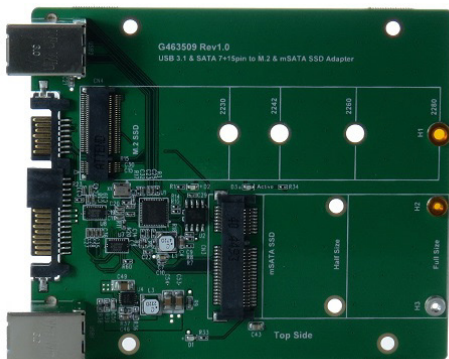
US205A adapter, built-in USB3.1 B-type connectors, SATA 7+15pin connector provides one M.2 B-key connector and one Mini PCI-e connectors. First M.2 SSD insert M.2 B-key connector, using SATA 7-pin cable to connect to the host, M.2 SSD can work properly. or mSATA SSD insert Mini PCI-e connectors, use SATA 7-pin 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**
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 SATA 7-pin cable to connect to SATA III port of ASRock **Z97 Extreme 6**.

2.4 BIOS & Windows 8.1 OS environment setup

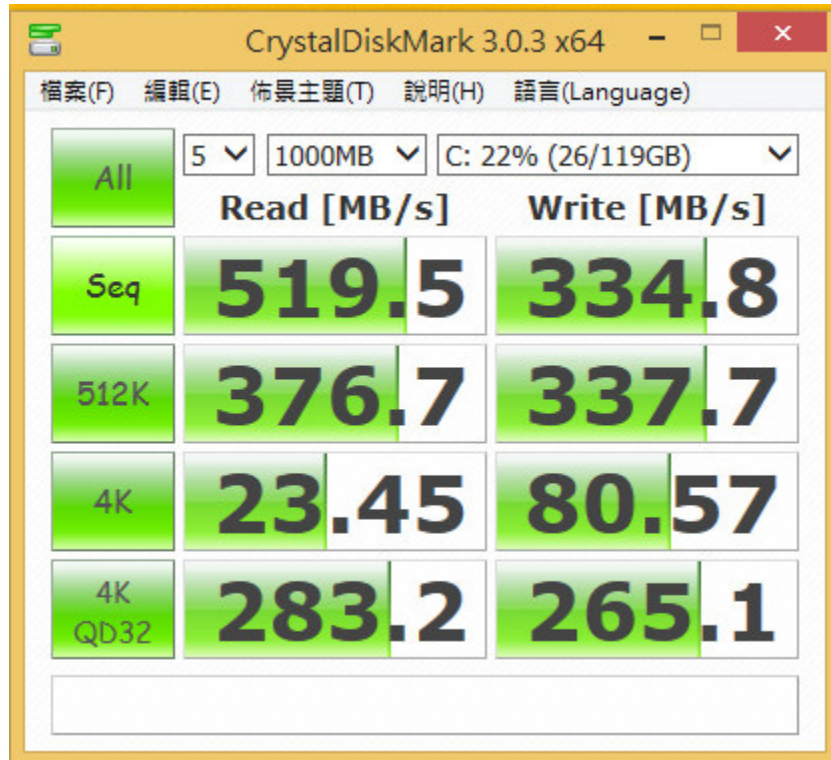
2.4.1 formatted SSD to NTFS Mode, install Windows 8.1 OS.

US205A/Rev1.1 Converter Card

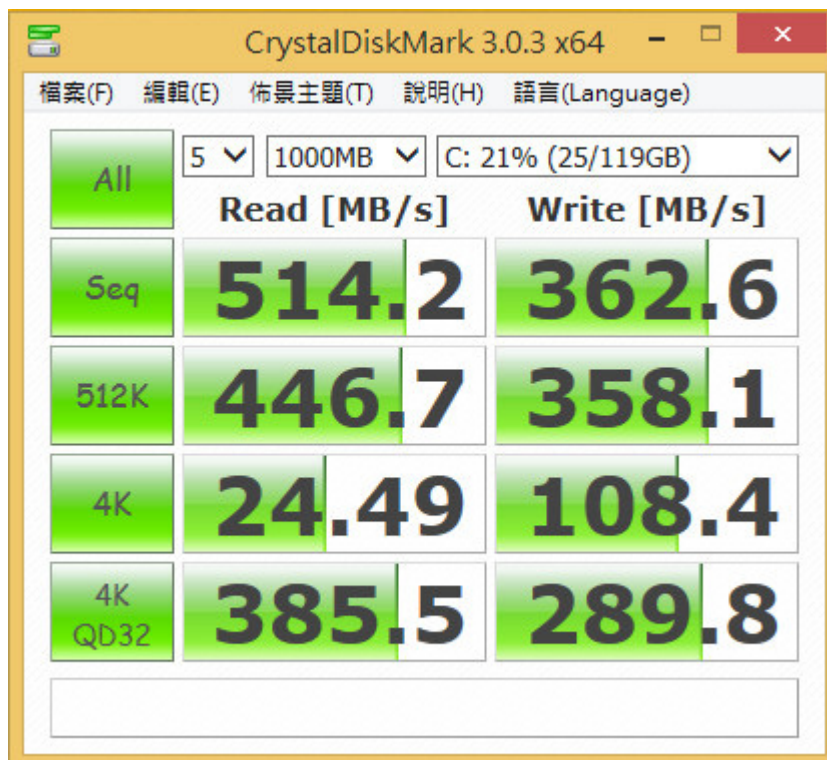
2.5 CrystalDiskMark 3.0.3 x64 performance test

※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:

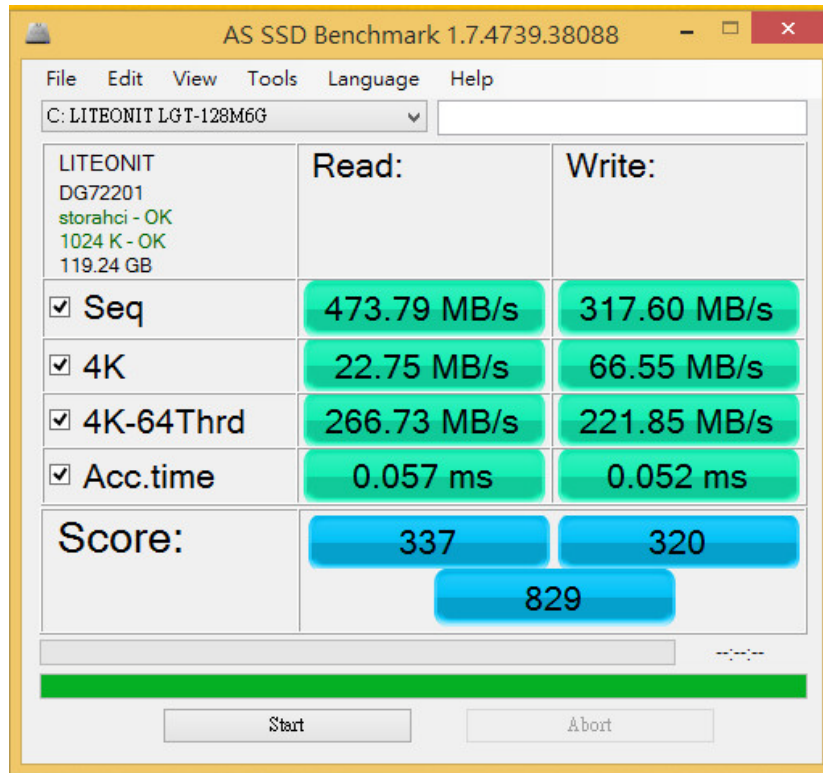


US205A/Rev1.1 Converter Card

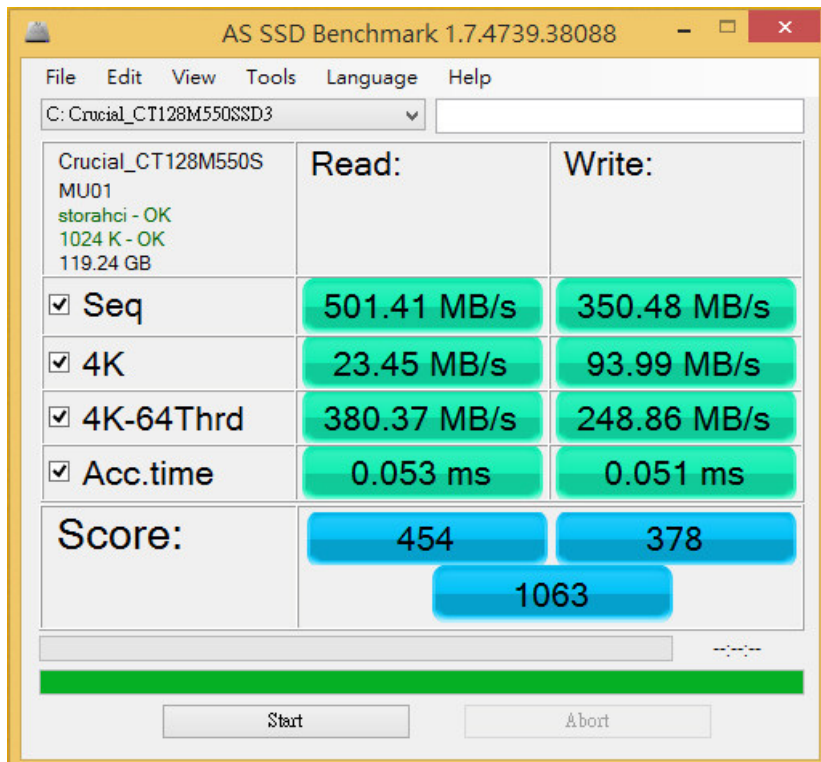
2.6 AS SSD Benchmark 1.7 performance test

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

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



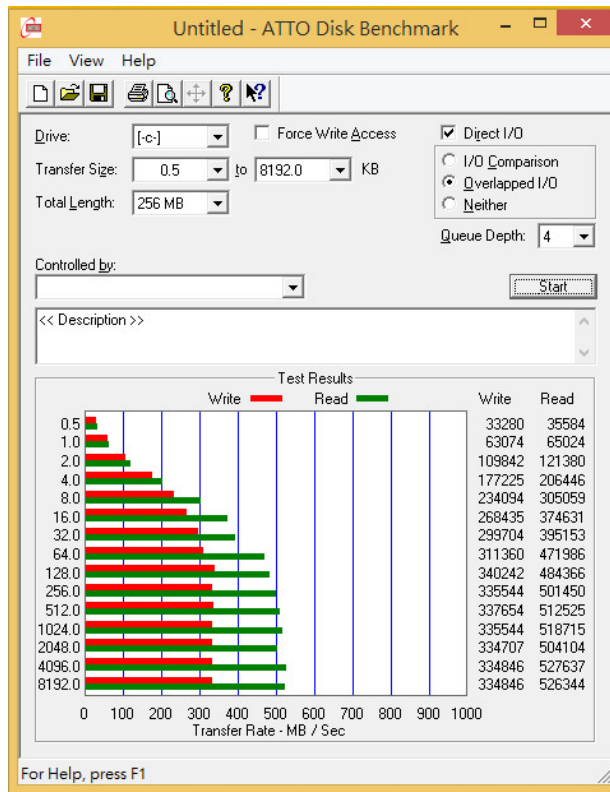
2.6.2 Used Crucial 128GB(CT-128M550SSD3) performance as below:



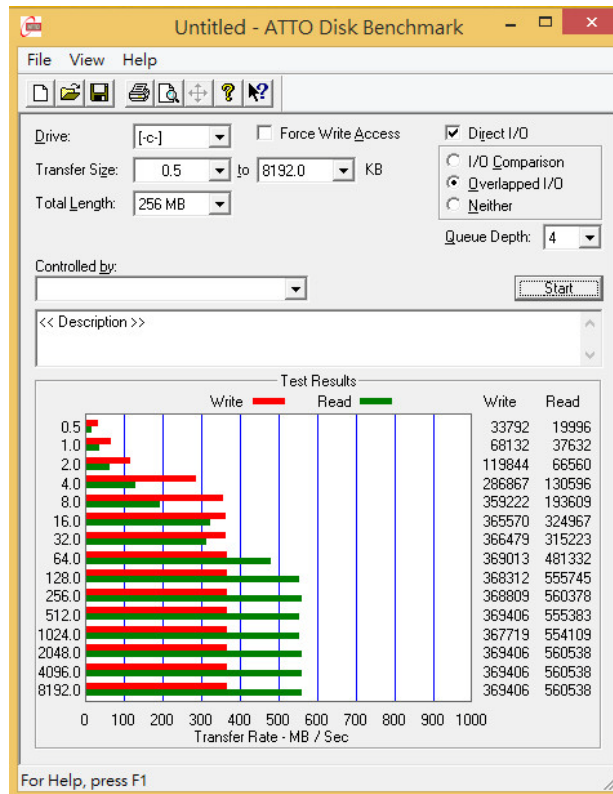
US205A/Rev1.1 Converter Card

ATTO Disk Benchmark 2.47 performance test

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



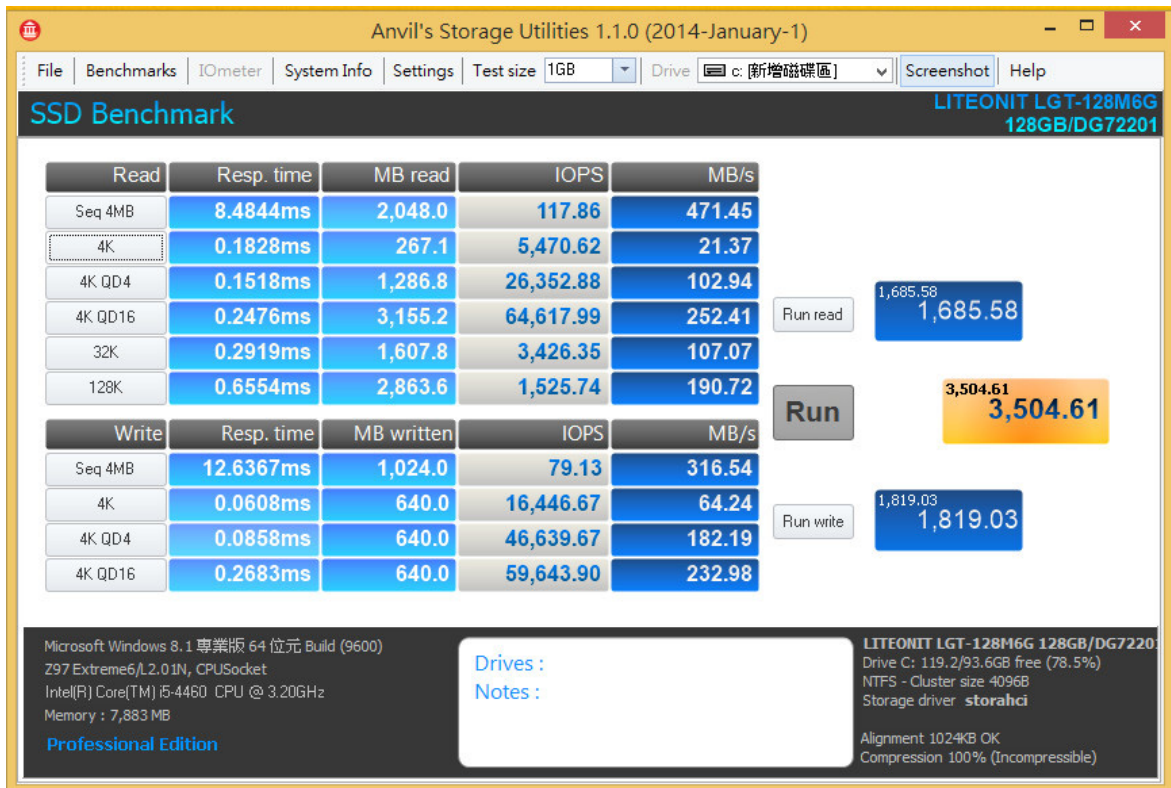
2.7.2 Used Crucial 128GB(CT-128M550SSD3) performance as below:



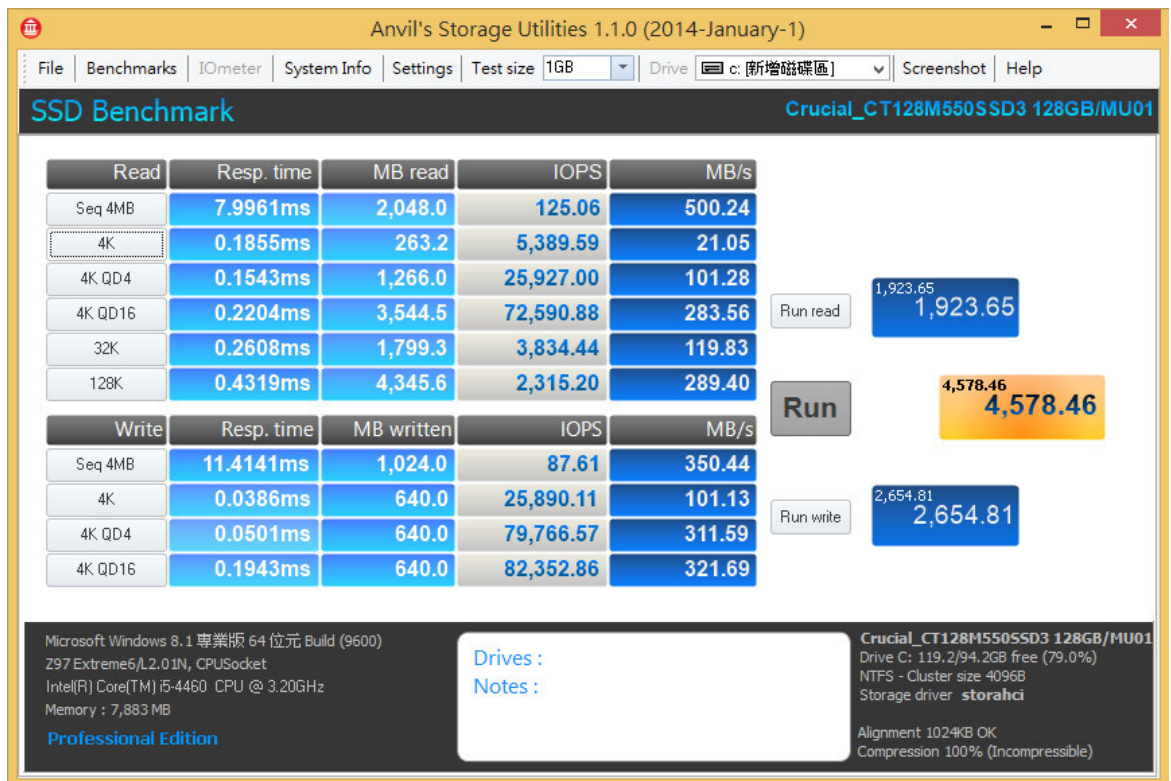
US205A/Rev1.1 Converter Card

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:



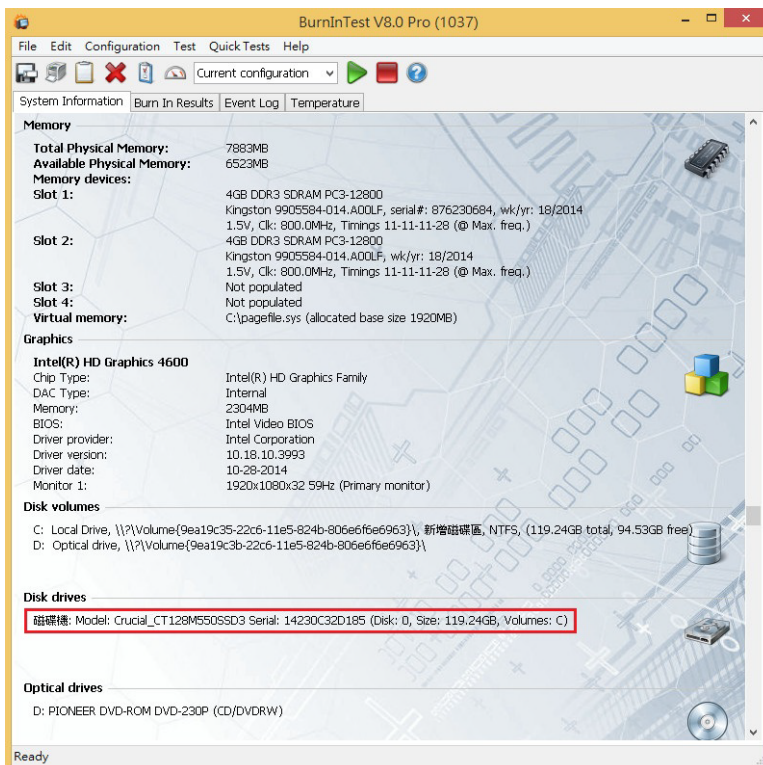
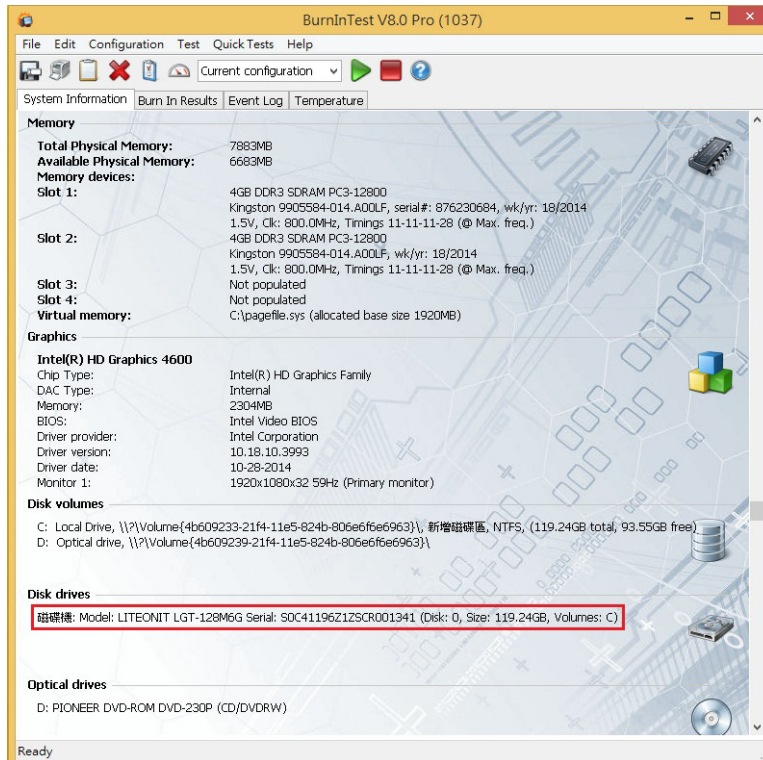
US205A/Rev1.1 Converter Card

3. Burn In Tests and Results

3.1 BurnInTest v8.0 Pro

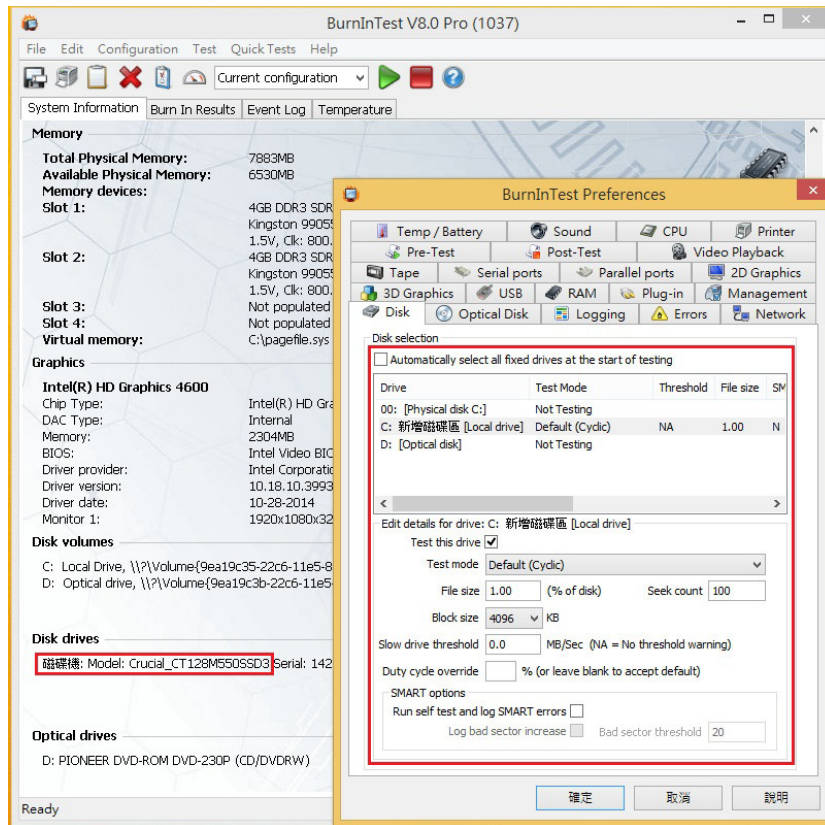
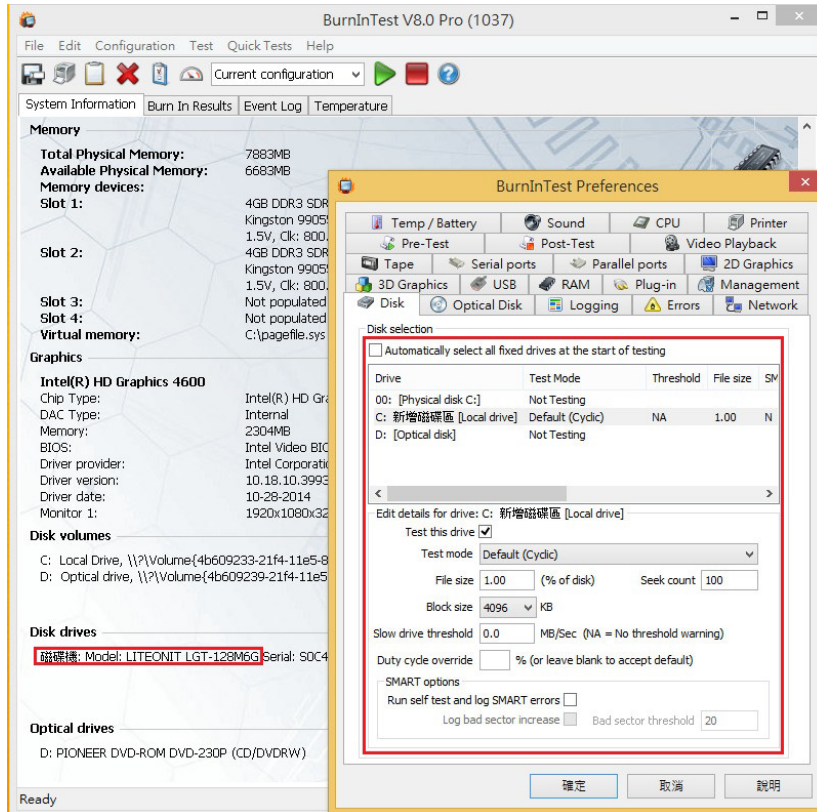
Used in LITE-ON 128GB(LGT-128M6G) & Crucial 128GB(CT-128M550SSD3)

3.1.1 system information as below:



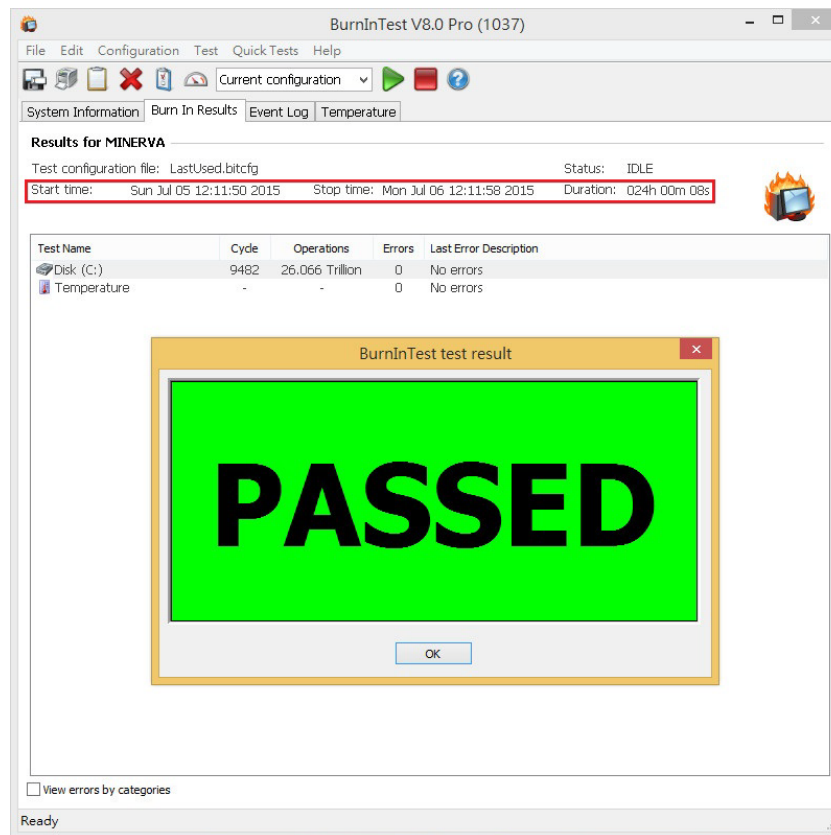
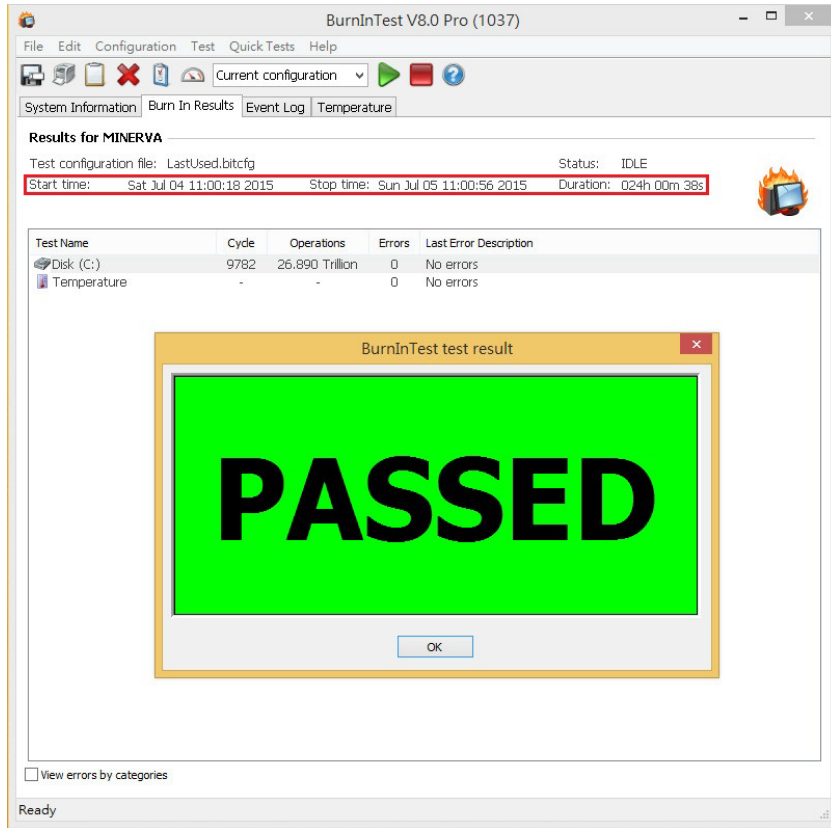
US205A/Rev1.1 Converter Card

3.1.2 show Disk test mode(10 ways cycle test)



US205A/Rev1.1 Converter Card

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



US205A/Rev1.1 Converter Card

4. Summary

- 4.1 SATA III is 6Gbps Interface.
- 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.