



MINERVA

U4205A USB 3.1/10Gbps to mSATA SSD & M.2 SSD

10Gbps Performance & Burn In Test Rev. 1.0

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4. Summary

U4205A USB3.1/10Gbps Micro B receptacle for mSATA SSD & M.2 SSD

1. Overview

U4205A is mSATA & M.2 for USB3.1 Micro B adapter offers USB 3.1 to SATA interface, built-in Mini PCI-e & M.2 67-pin B-key connector, able to convert mSATA or M.2 SSD to USB 3.1 use.

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-C CARD / [PCI-e to USB 3.1 ASM 1142 Host Controller](#)
OS : Microsoft [Windows 8.1 64bit OS](#)

2.2 Test target: U4205A adapter and mSATA SSD(Crucial [CT-128M550SSD3/128GB](#))



U4205A Adapter



CT128M550SSD3



USB 3.1 C type to Micro B Cable

2.3 Install Hardware

2.3.1 Insert mSATA into U4205A adapter's mini PCI-e connector, and then with coppers, and screws to fix SSDs. Connect U4205A adapter to ASUS USB3.1 TYPE-C CARD / [PCI-e to USB 3.1 ASM 1142 Host Controller of ASRock Z97 Extreme6](#).

2.4 BIOS & Windows 8 OS environment setup

2.4.1 Install Windows 8.1 x64 OS.

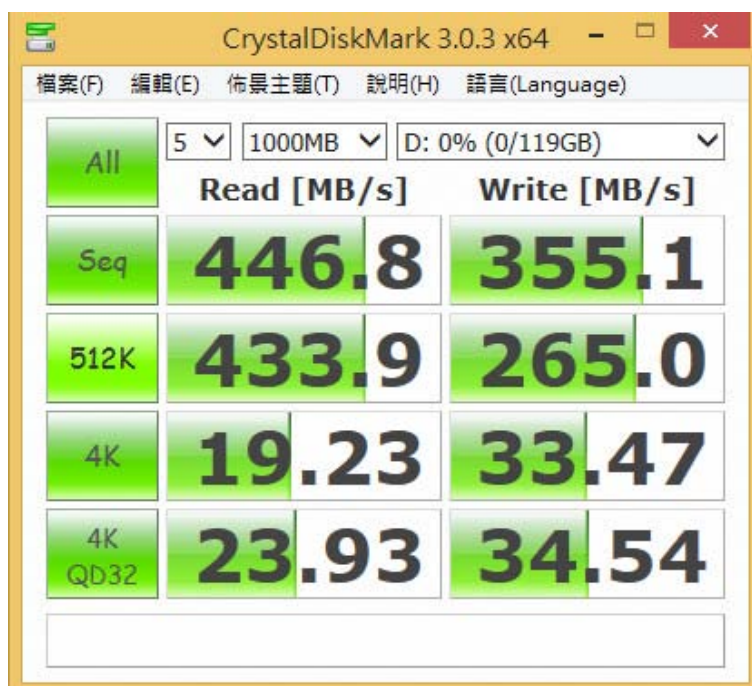
U4205A USB3.1/10Gbps Micro B receptacle for mSATA SSD & M.2 SSD

2.5 CrystalDiskMark 3.0.1 x64 performance test

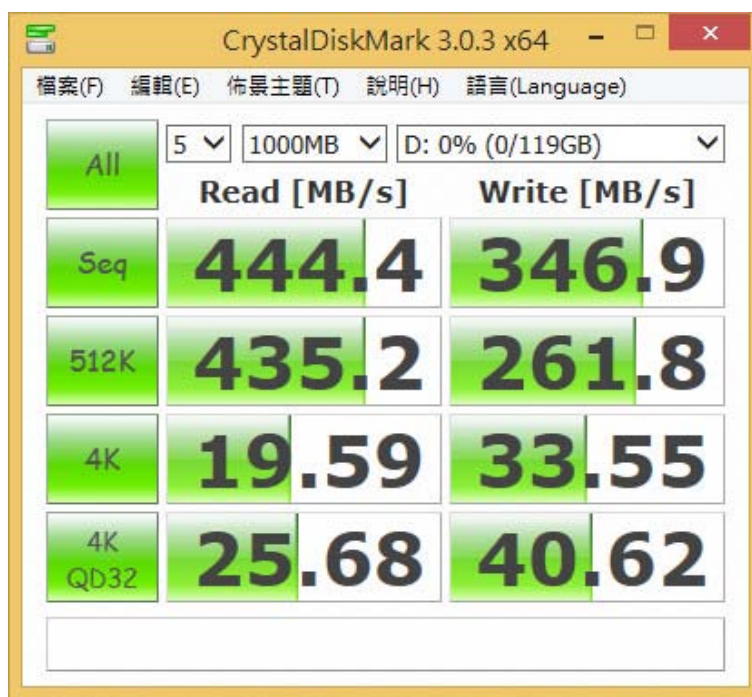
※Benchmark (Sequential **Read & Write** / default = 1MB)

2.5.1 Used [CT-128M550SSD3](#) / 128GB in U4205A.

Type-C Plug Orientation Detection performance as below:



Type-C Plug Cable Twist Detection performance as below:

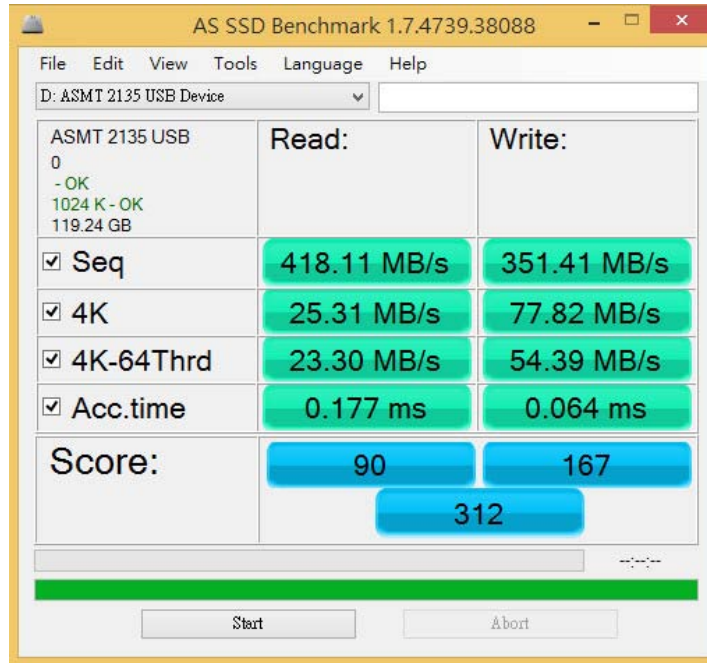


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2.6 AS SSD Benchmark 1.7 performance test

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

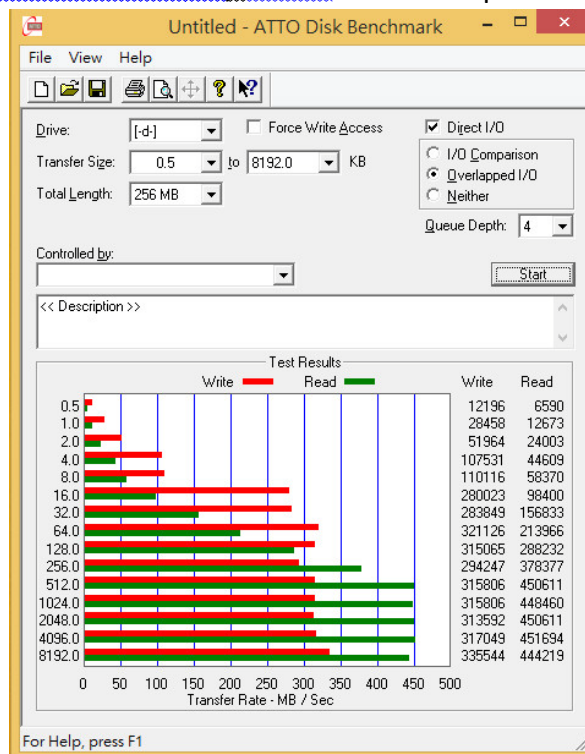
2.6.1 Used [CT-128M550SSD3 / 128GB](#) in **U4205A** performance as below:



2.7 ATTO Disk Benchmark performance test

※Benchmark (Sequential Read / default block size = 8MB)

2.7.1 Used [CT-128M550SSD3 / 128GB](#) in **U4205A** performance as below:



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2.8 AnvilBenchmark_V110_B337

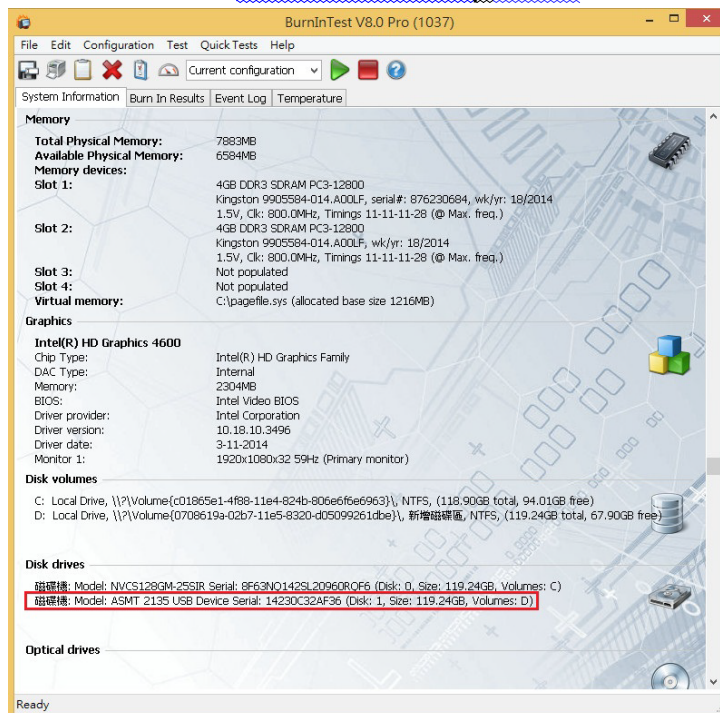
2.8.1 Used [CT-128M550SSD3 / 128GB](#) in U4205A performance as below:



3. Burn In Tests and Results

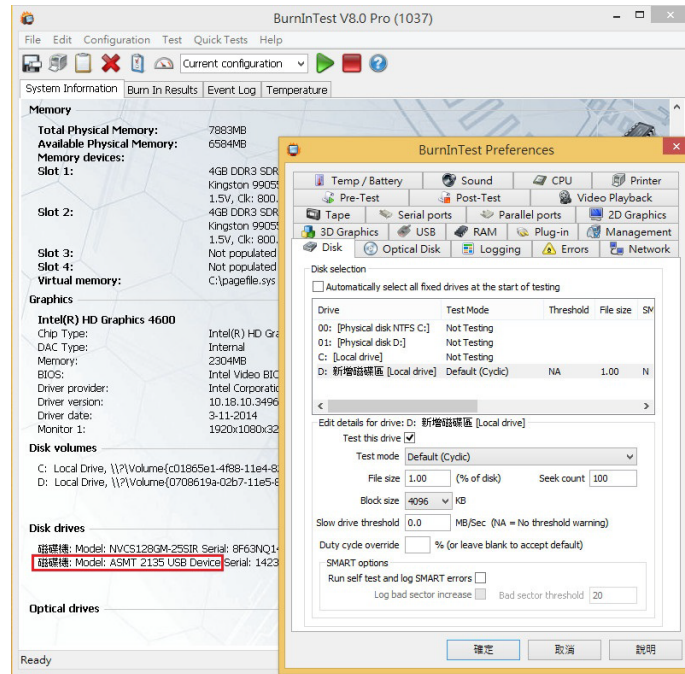
3.1 BurnInTest v8.0 Pro

3.1.1 [system information](#) for [CT-128M550SSD3 / 128GB](#) in U4205A as below:

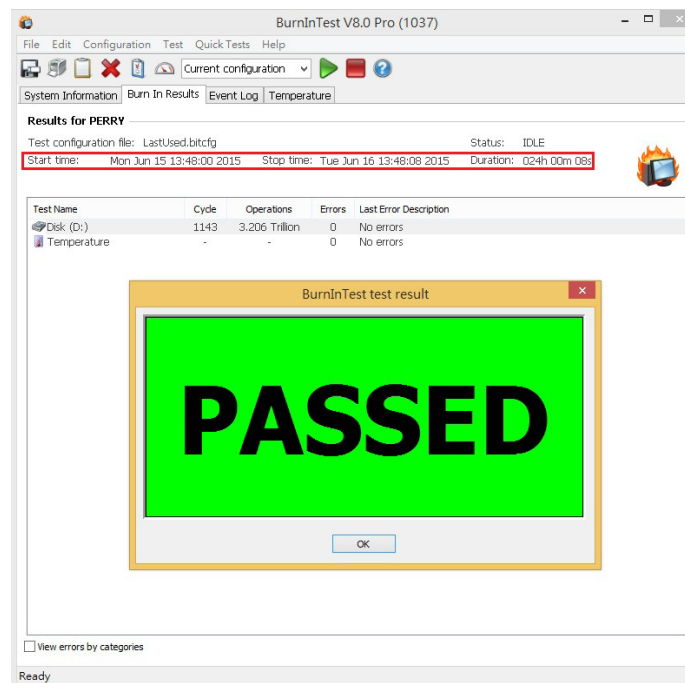


U4205A USB3.1/10Gbps Micro B receptacle for mSATA SSD & M.2 SSD

3.1.2 show [CT-128M550SSD3 / 128GB](#) in U4205A test mode(10 ways cycle)



3.1.3 show [CT-128M550SSD3 / 128GB](#) in U4205A 24-hour Burn-in test PASSED



4. Summary

- 4.1 U4205A is USB 3.1 10Gbps Interface, I/O speed, max. to 800MB/s.
- 4.2 U4205A adapter I/O performance is based on mSATA SSD.