



MINERVA

U2407A USB 3.1 to mSATA 2-port & M.2 NGFF 2-port

10Gbps/RAID 0 Mode Performance & Burn In Test Rev. 1.0

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4. Summary

U2407A USB3.1/10Gbps B-type receptacle for mSATA 2-port & M.2 NGFF 2-port

1. Overview

U2407A is mSATA & M.2 for USB 3.1 adapter, providing USB 3.1 to SATA interface, built-in 2-port Mini PCI-e & 2-port M.2 67-pin B-key connector that can be combined into RAID 0 uses to achieve 10Gbps speed or when using a replicator, 2 ports SSD copied or deleted.

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: U2407A adapter and mSATA SSD(Crucial [CT-128M550SSD3/128GBx2](#))



U2407A Adapter



mSATA (CT-128M550SSD3)

2.3 Install Hardware

2.3.1 Insert M.2 SSDx2 into U2407A adapter's B key connector, and then with coppers, and screws to fix SSDs. (Please refer to the Installation Notes).
Connect U2407A adapter to [ASM1142 PCI-e host of ASRock Z97 Extreme6](#).

2.4 BIOS & Windows 8 OS environment setup

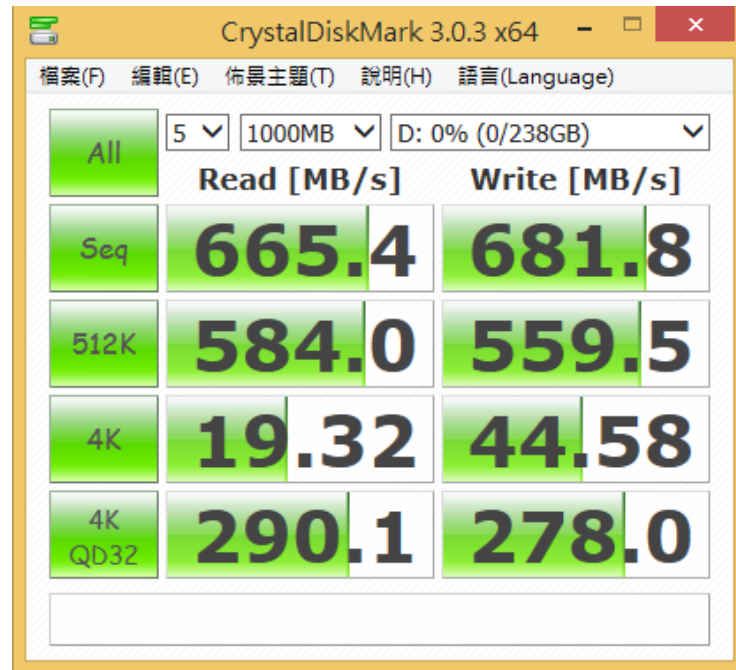
2.4.1 Install Windows 8.1 x64 OS.

U2407A USB3.1/10Gbps B-type receptacle for mSATA 2-port & M.2 NGFF 2-port

2.5 CrystalDiskMark 3.0.1 x64 performance test

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

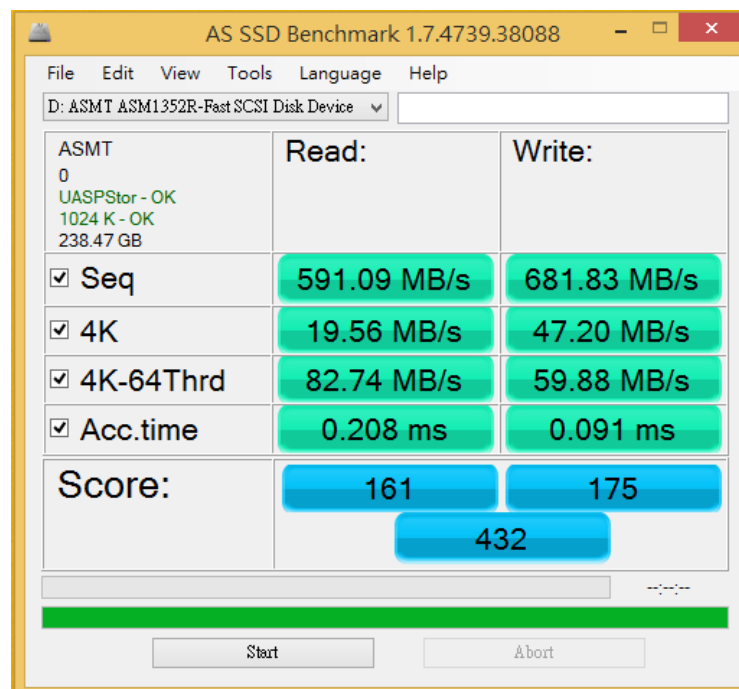
2.5.1 Used [CT-128M550SSD3/128GBx2](#) in **U2407A RAID 0** performance as below:



2.6 AS SSD Benchmark 1.7 performance test

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

2.6.1 Used [CT-128M550SSD3/128GBx2](#) in **U2407A RAID 0** performance as below:

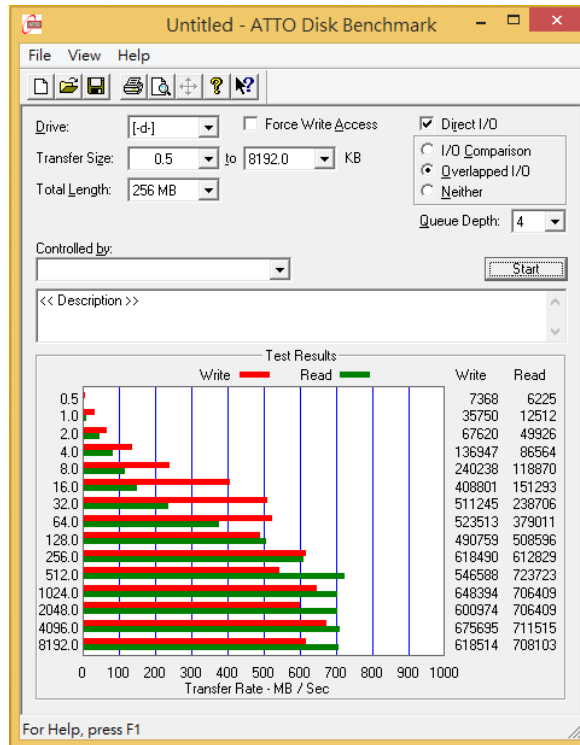


U2407A USB3.1/10Gbps B-type receptacle for mSATA 2-port & M.2 NGFF 2-port

2.7 ATTO Disk Benchmark performance test

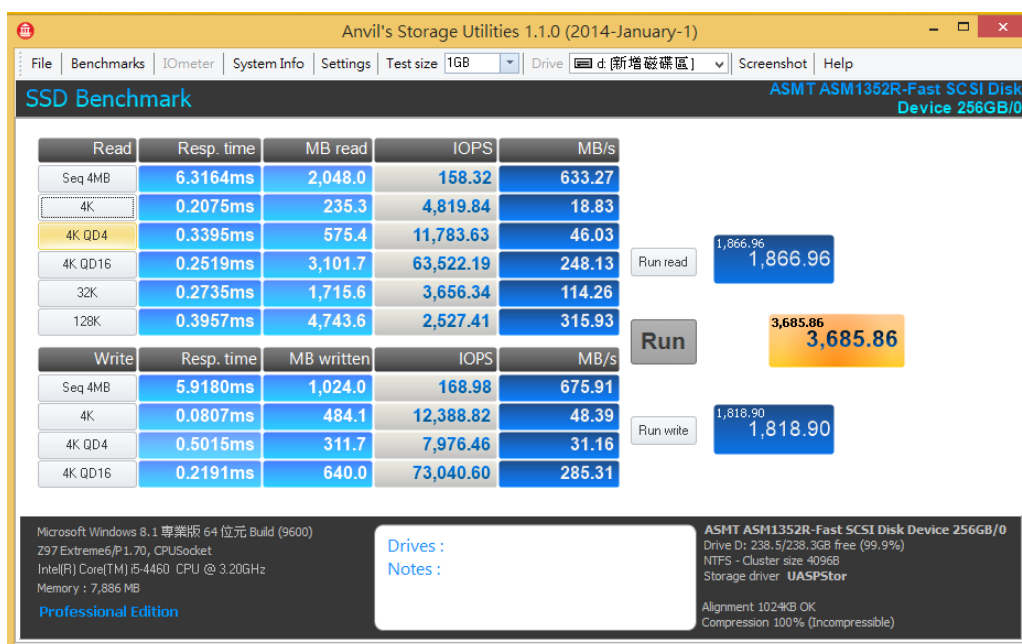
※Benchmark (Sequential **Read** / default block size = **8MB**)

2.7.1 Used [CT-128M550SSD3/128GBx2](#) in **U2407A RAID 0** performance as below:



2.8 AnvilBenchmark_V110_B337

2.8.1 Used [CT-128M550SSD3/128GBx2](#) in **U2407A RAID 0** performance as below:

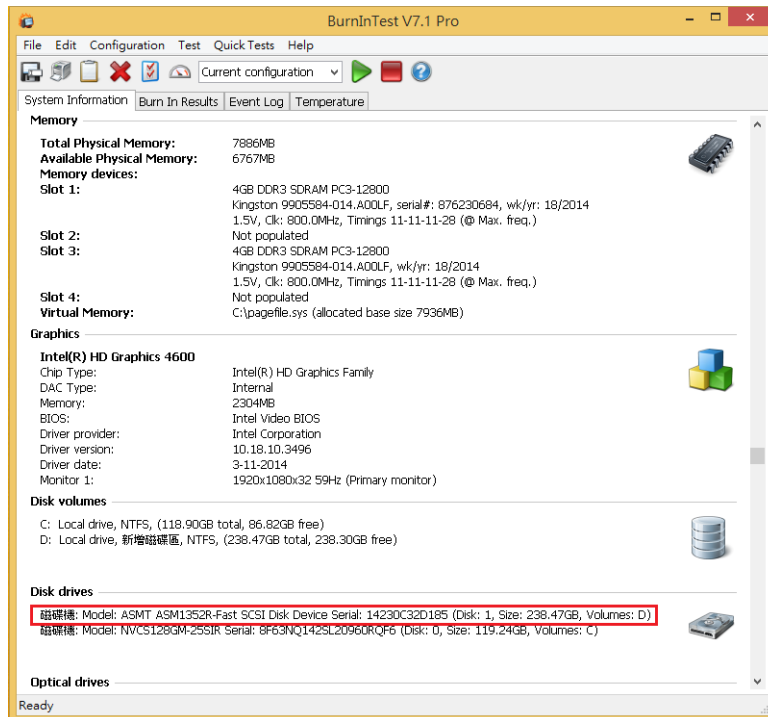


U2407A USB3.1/10Gbps B-type receptacle for mSATA 2-port & M.2 NGFF 2-port

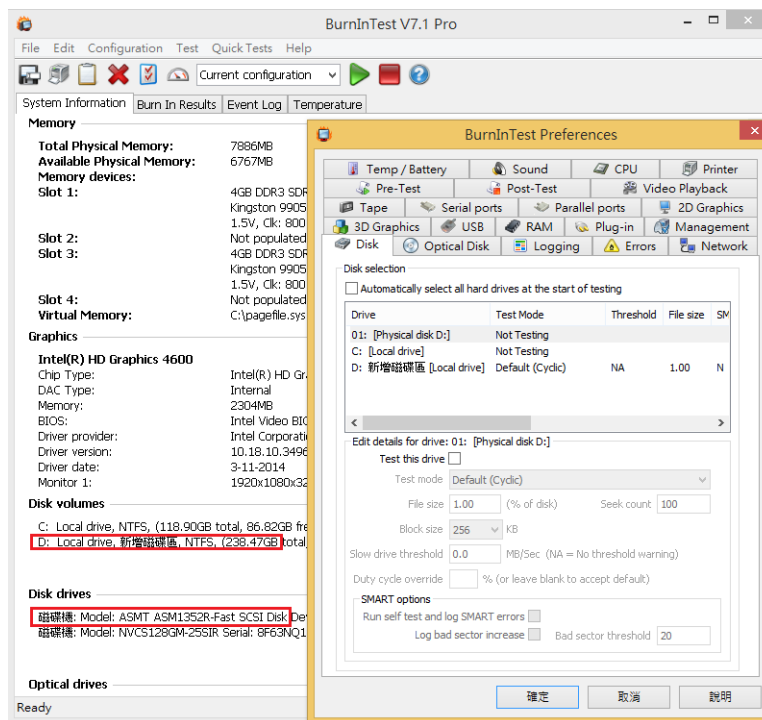
3. Burn In Tests and Results

3.1 BurnInTest v7.1 Pro

3.1.1 system information for CT-128M550SSD3/128GBx2 in U2407A RAID 0 as below:

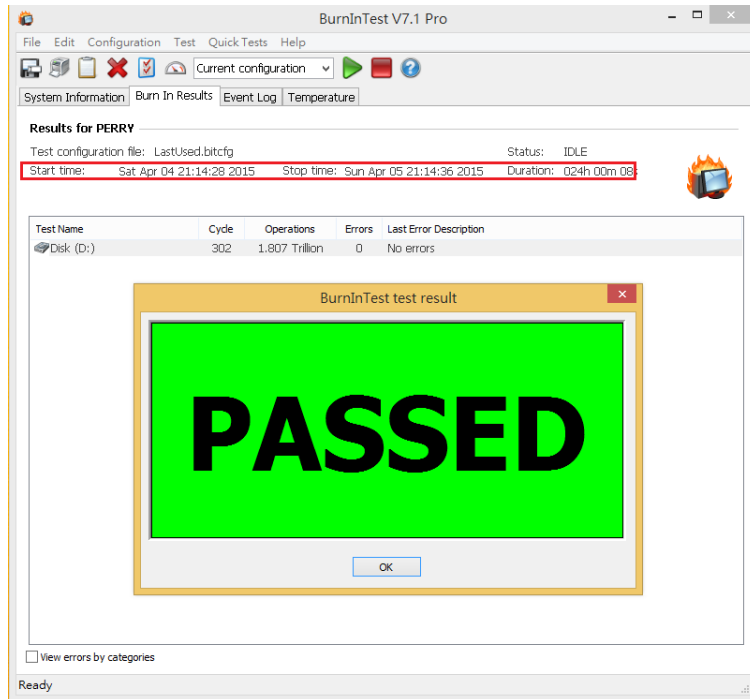


3.1.2 show CT-128M550SSD3/128GBx2 in U2407A RAID 0 test mode(10 ways cycle)



U2407A USB3.1/10Gbps B-type receptacle for mSATA 2-port & M.2 NGFF 2-port

3.1.3 show [CT-128M550SSD3/128GBx2](#) in **U2407A RAID 0** 24-hour Burn-in test **PASSED**



4. Summary

- 4.1 U2407A is USB 3.1 10Gbps Interface, I/O speed, max. to 800MB/s.
- 4.2 U2407A adapter I/O performance is based on mSATA SSD.