



MINERVA

R2026F SATA III to mSATA 2-port RAID Card

RAID 0 Mode Performance & Burn In Test Rev. 1.0

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4. Summary

R2026F SATA III TO mSATA 2-port RAID Card

1. Overview

R2026F RAID card offers SATA 3 interface, built-in 2-port Mini PCI-e 52-pin connector can be combined mSATA SSD into a RAID 0, RAID 1, JBOD mode of operation.

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: R2026F RAID Card and mSATA SSD(Crucial [CT-128M550SSD3/128GBx2](#))



R2026F Adapter



R2026F + M.2 SSD



CT-128M550SSD3

2.3 Install Hardware

2.3.1 Insert mSATA SSDx2 into R2026F converter's Mini PCI-e connector, and then with coppers, and screws to fix SSDs. (Please refer to the Installation Notes). Connect R2026F converter to [SATA III Port of ASRock Z97 Extreme6](#).

2.4 BIOS & Windows 8 OS environment setup

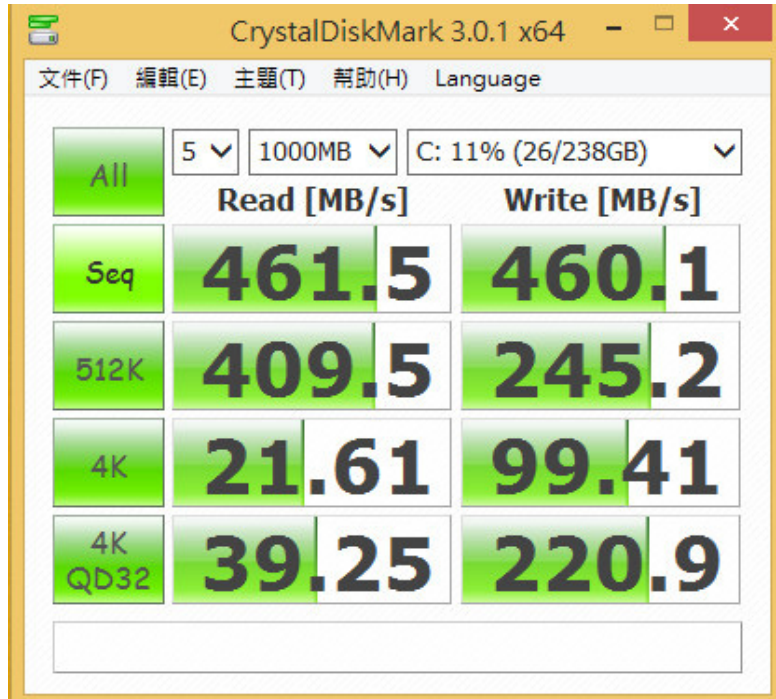
2.4.1 Install Windows 8.1 x64 OS.

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2.5 CrystalDiskMark 3.0.1 x64 performance test

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

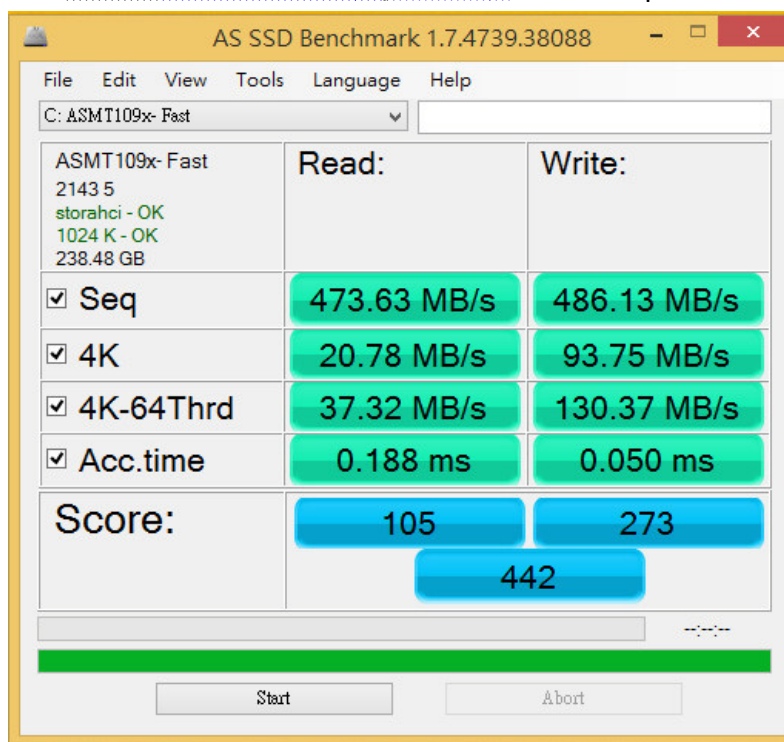
2.5.1 Used Crucial [CT-128M550SSD3/128GBx2](#) in **RAID 0** performance as below:



2.6 AS SSD Benchmark 1.7 performance test

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

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

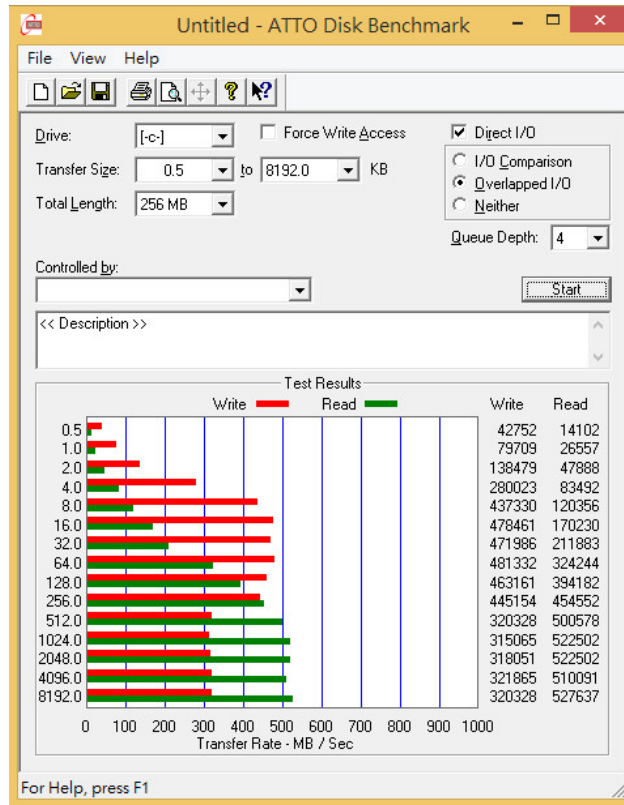


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2.7 ATTO Disk Benchmark performance test

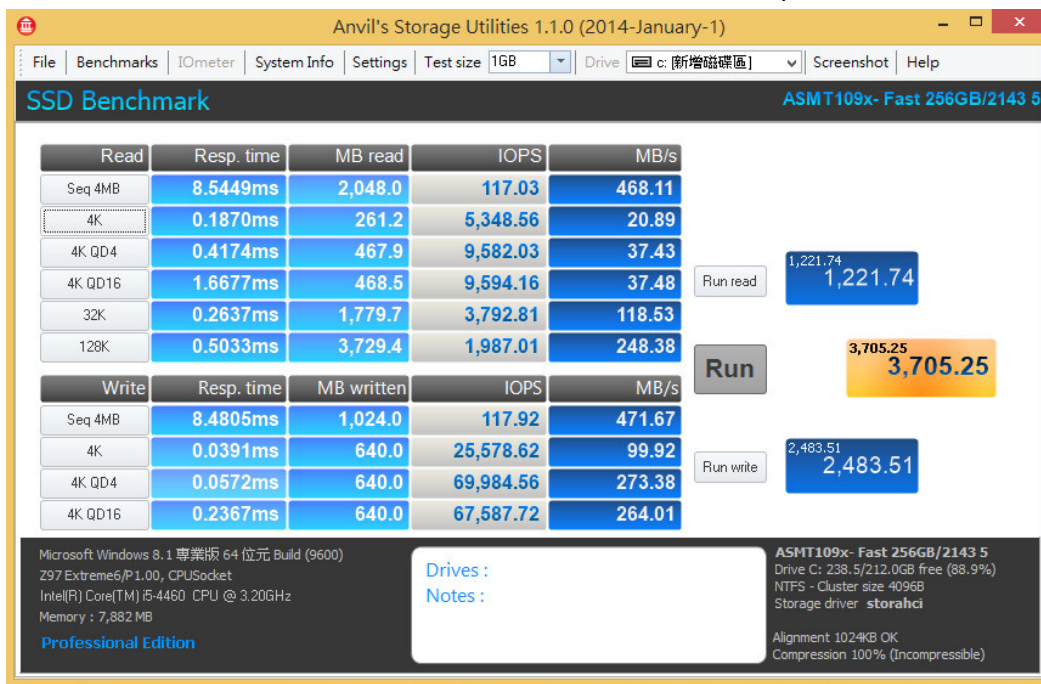
※Benchmark (Sequential Read / default block size = 8MB)

2.7.1 Used Crucial CT-128M550SSD3/128GBx2 in RAID 0 performance as below:



2.8 AnvilBenchmark_V110_B337

2.8.1 Used Crucial CT-128M550SSD3/128GBx2 in RAID 0 performance as below:

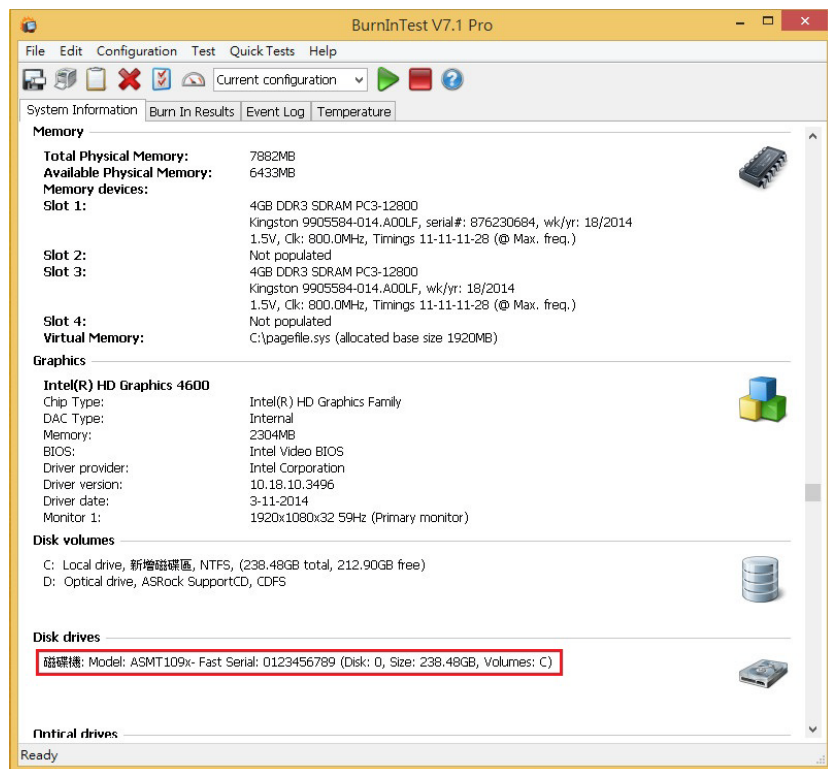
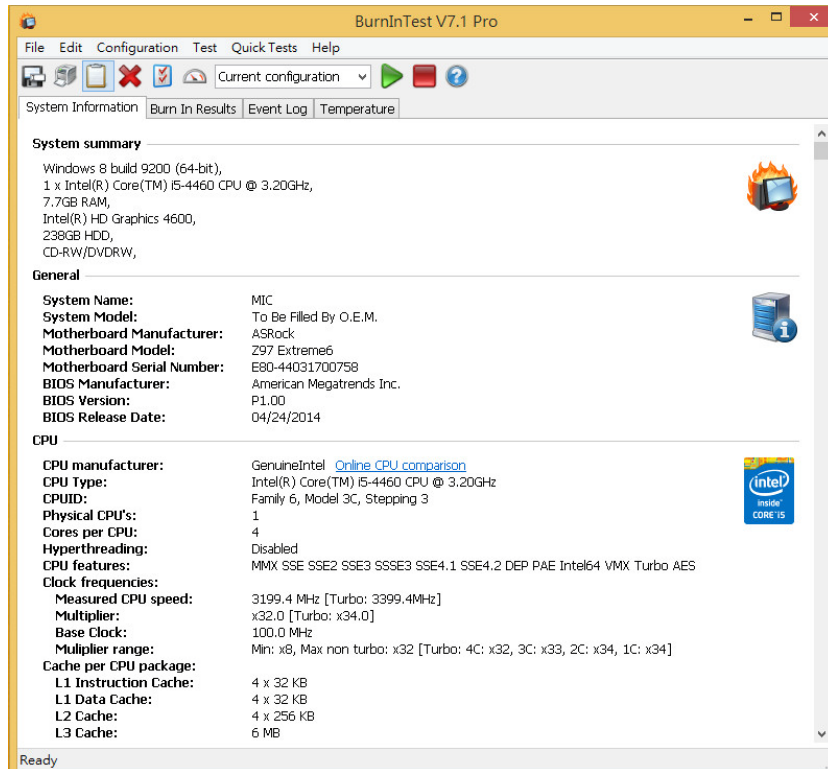


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3. Burn In Tests and Results

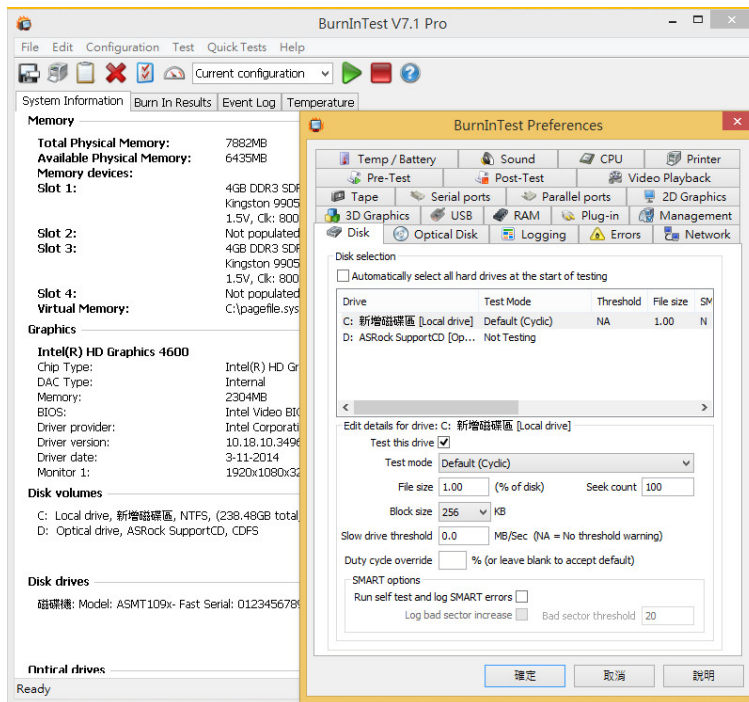
3.1 BurnInTest v7.1 Pro

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

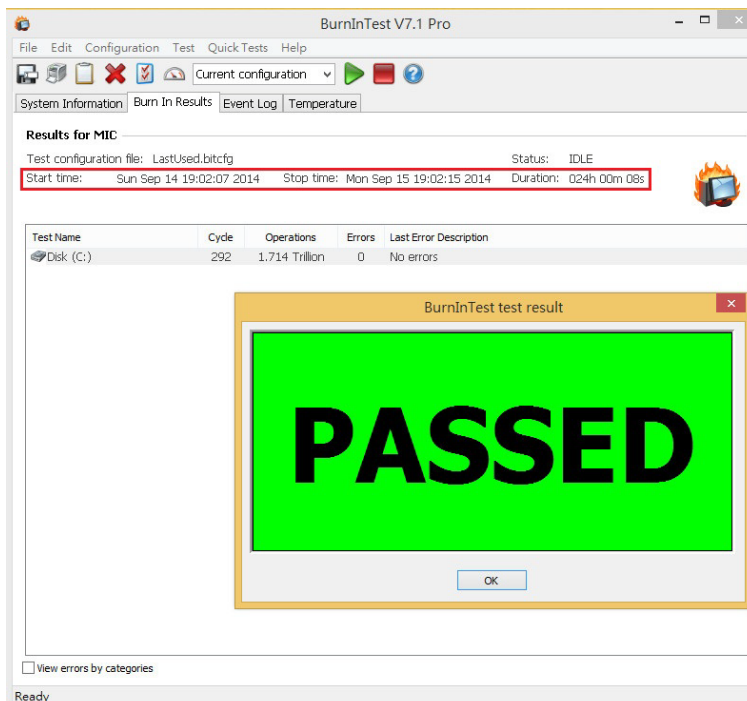


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3.1.2 show RAID 0 SSD test mode(default cyclic -- 10 ways cycle test)



3.1.3 show CT-128M550SSD3/128GBx2 in RAID 0 24-hour Burn-in test PASSED



4. Summary

- 4.1 R2026F is SATA III Interface, I/O speed, max. to 600MB/s.
- 4.2 R2026F adapter I/O performance is based on mSATA SSD.