MINERVA

R2026F SATA III to mSATA 2-port RAID Card

RAID 1 Mode Performance & Burn In Test   Rev. 1.0

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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**.

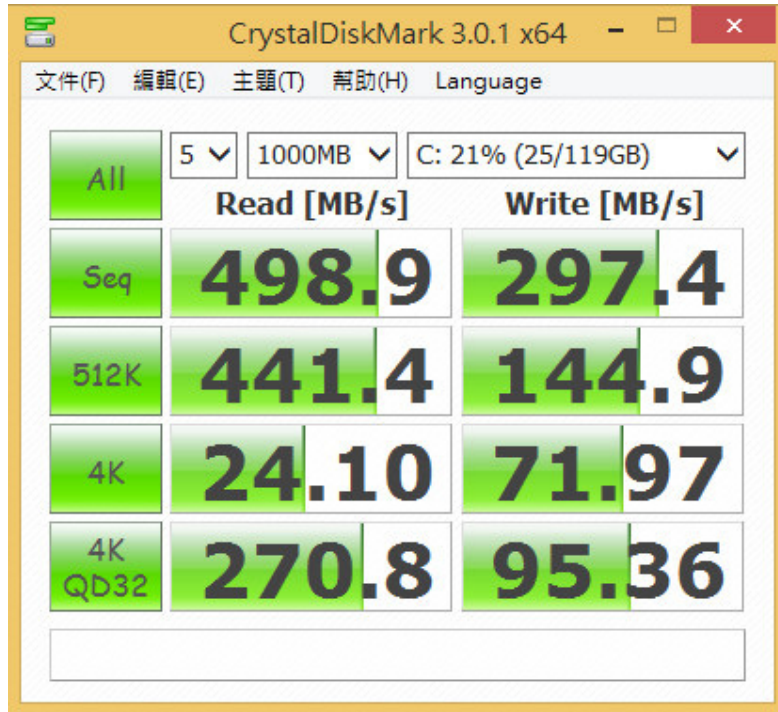2.4   BIOS & Windows 8 OS environment setup

2.4.1   Install Windows 8.1 x64 OS.

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2.5   CrystalDiskMark 3.0.1 x64 performance test
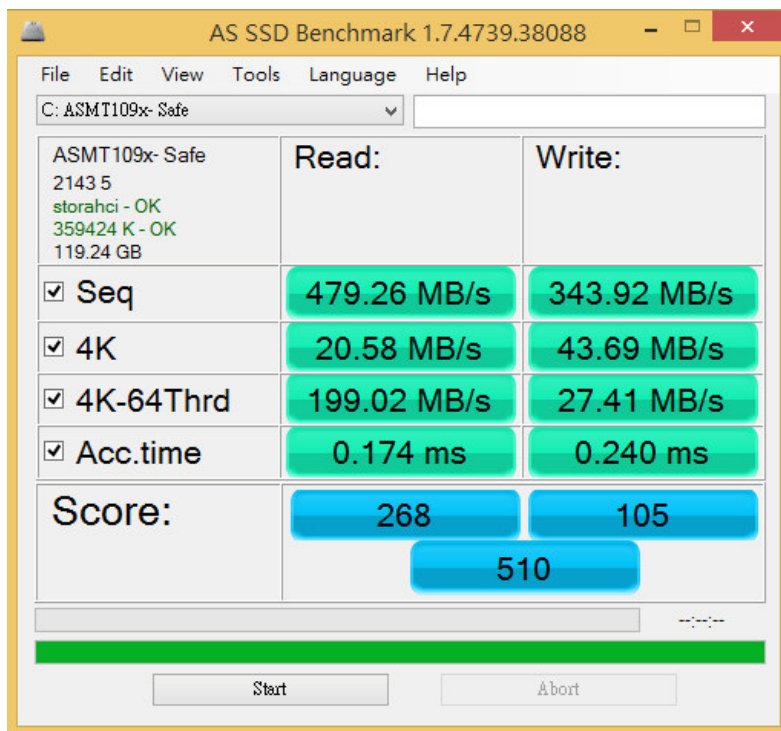
※Benchmark (Sequential Read & Write / default = 1MB)

2.5.1   Used Crucial CT-128M550SSD3/128GBx2 in **RAID 1** performance as below:

2.6   AS SSD Benchmark 1.7 performance test

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

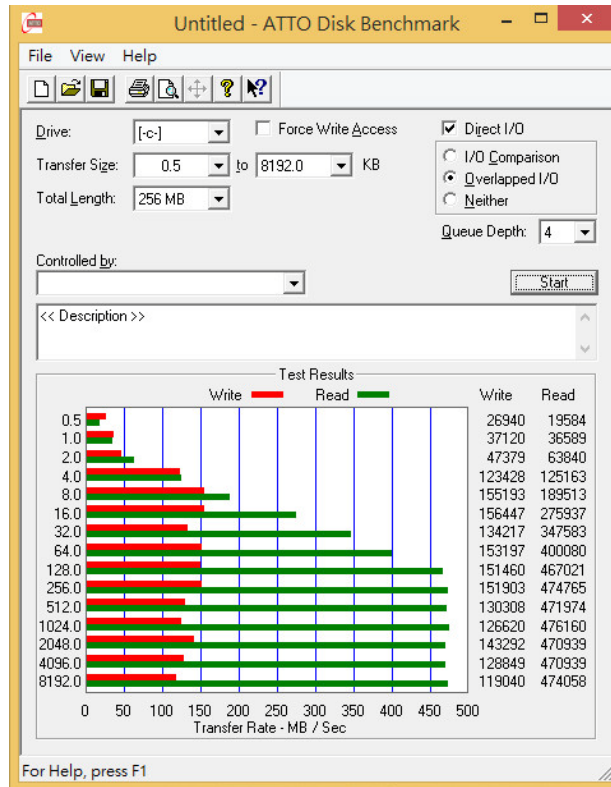2.6.1   Used Crucial CT-128M550SSD3/128GBx2 in **RAID 1** performance as below:

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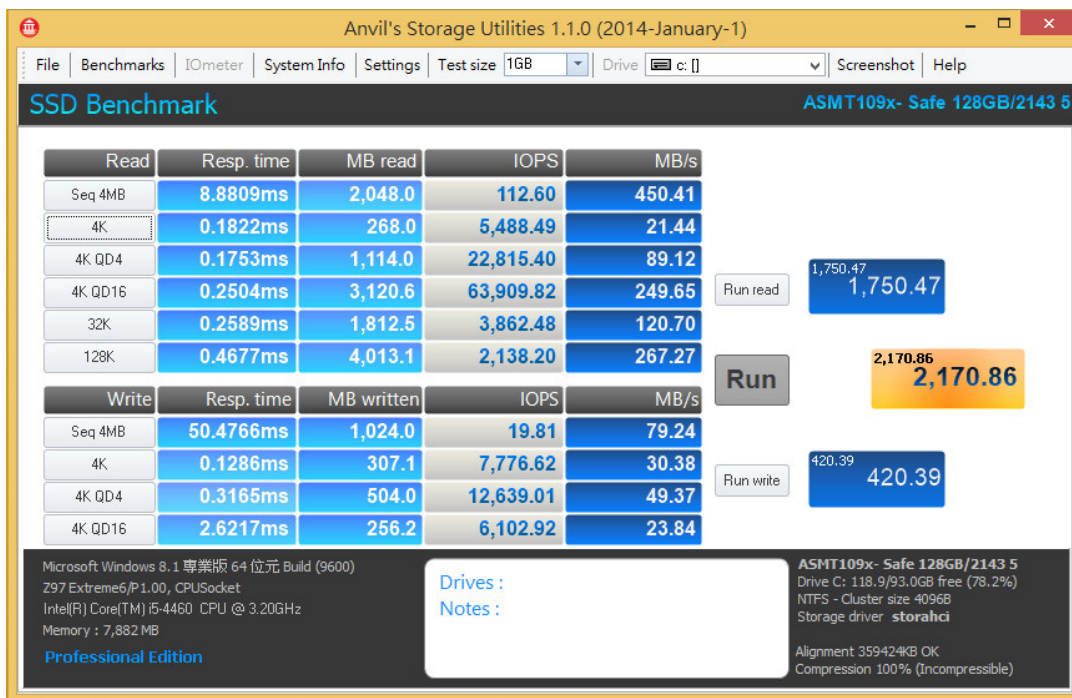
2.7   ATTO Disk Benchmark performance test

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

2.7.1   Used Crucial CT-128M550SSD3/128GBx2 in **RAID 1** performance as below:

2.8   AnvilBenchmark_V110_B337

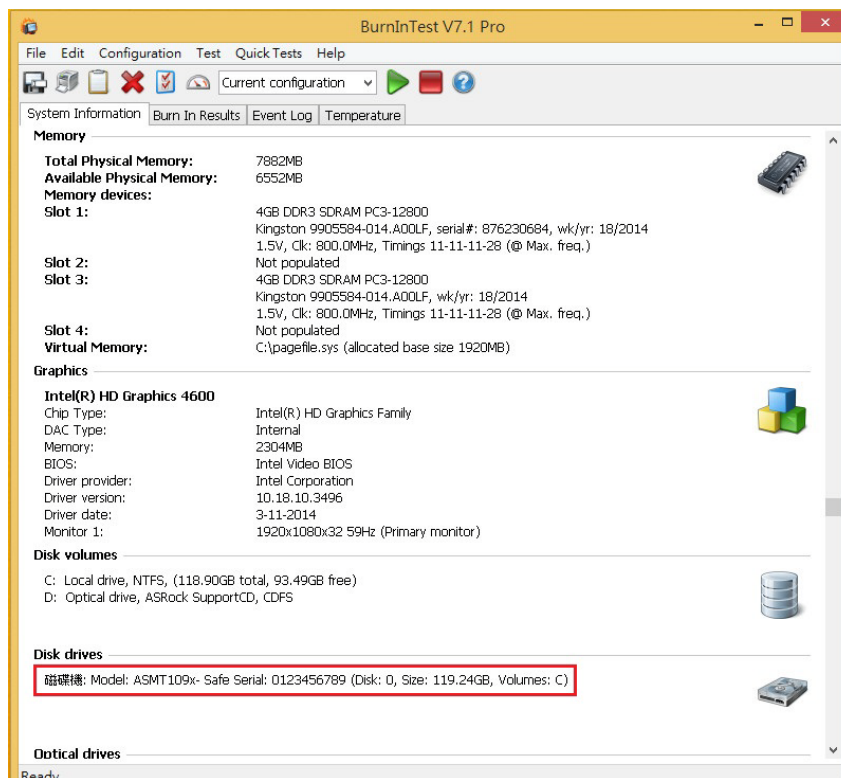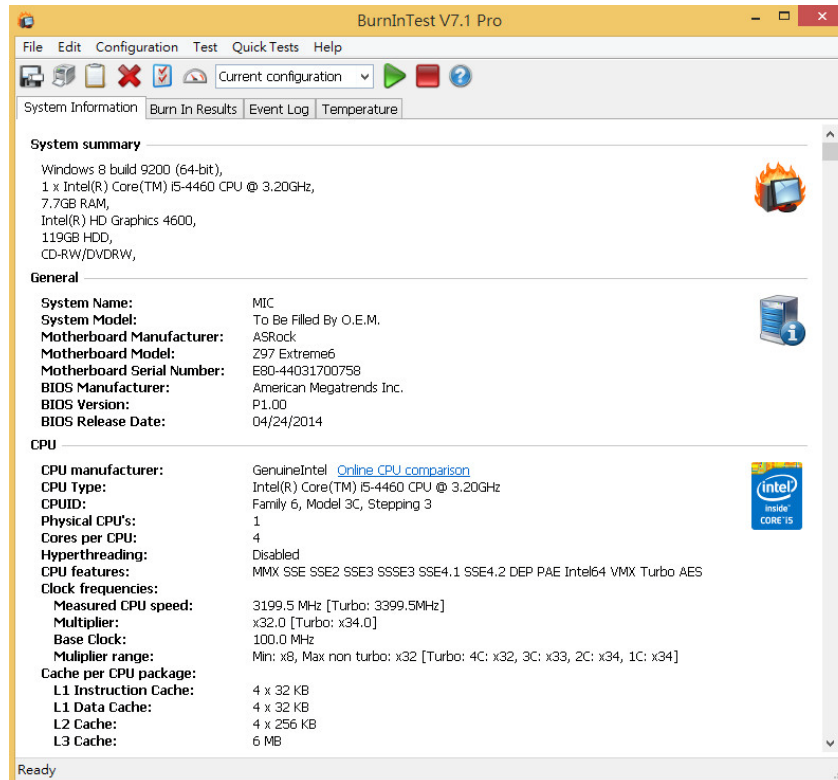2.8.1   Used Crucial CT-128M550SSD3/128GBx2 in **RAID 1** performance as below:

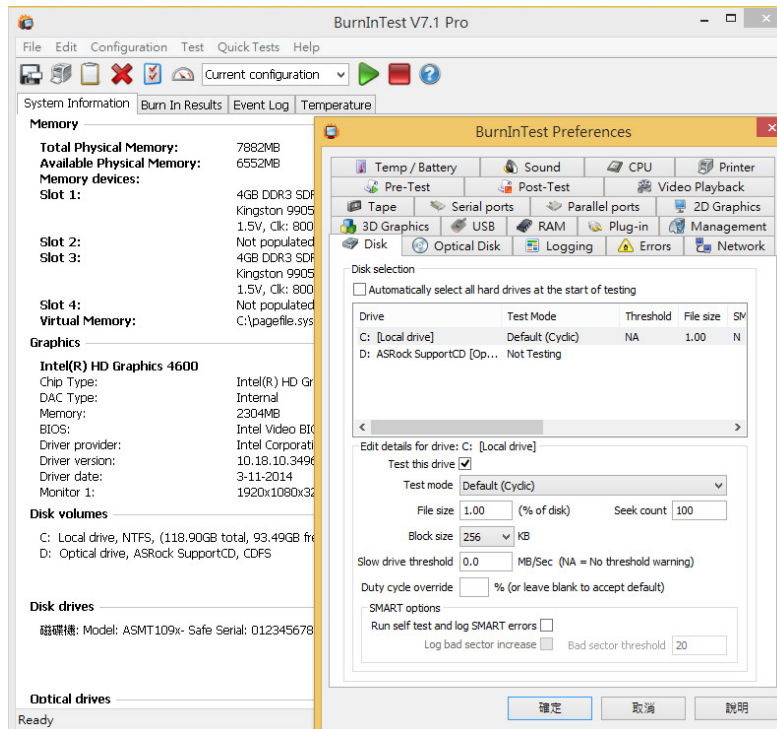# R2026F   SATA III TO mSATA 2-port RAID Card

3. Burn In Tests and Results

3.1 BurnInTest v7.1 Pro

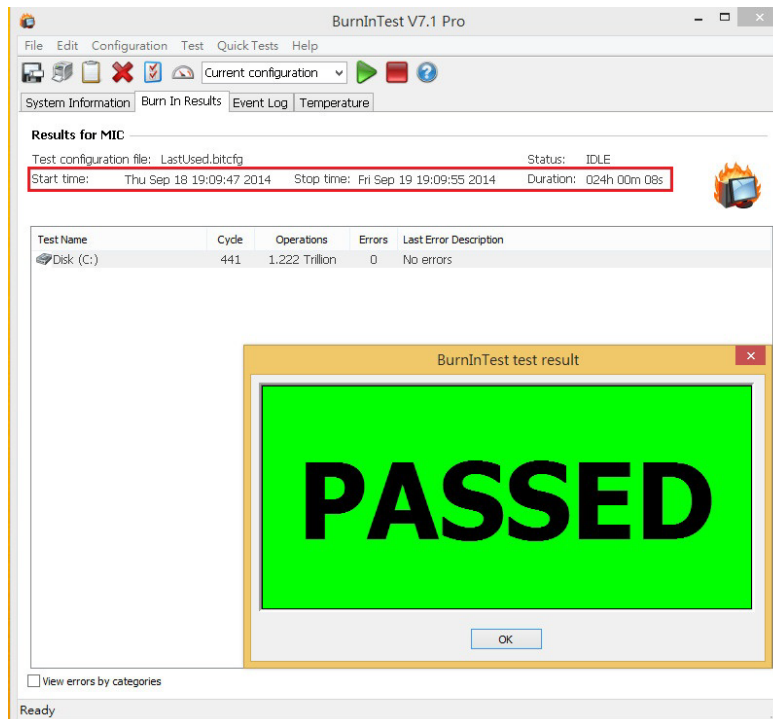#### 3.1.1 **system information** for CT-128M550SSD3/128GBx2 in **RAID 1** as below:

3.1.2　show **RAID 1** SSD test mode(default cyclic -- 10 ways cycle test)

3.1.3　show CT-128M550SSD3/128GBx2 in **RAID 1** 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.