



# MINERVA

## PR9401 PCIe Gen 2 2-Lane RAID Card

### for mSATA 2-port & M.2 2-port

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## RAID 0 Mode Performance & Burn In Test Rev. 1.0

### Table of Contents

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#### 1. Overview

#### 2. Performance Measurement Tools and Results

##### 2.1 Test Platform

##### 2.2 Test target and Used SATA III / mSATA SSD x2

##### 2.3 Install Hardware

##### 2.4 BIOS & Windows 8.1 x64 OS environment setup

##### 2.5 CrystalDiskMark 5.0.2 x64 performance test

##### 2.6 AS SSD Benchmark 1.8 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

# PR9401 PCIe Gen2 x2 RAID Card

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## 1. Overview

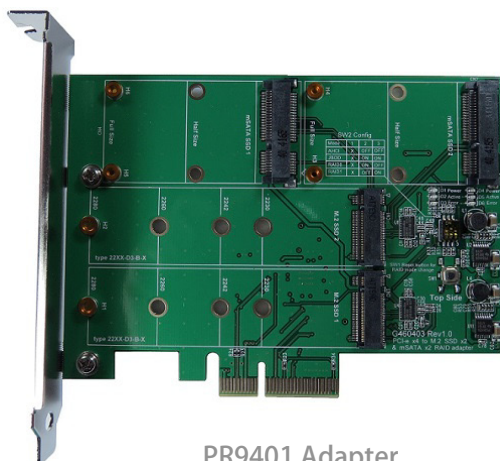
PR9401 RAID card offers PCIe Gen 2 x2 interface, built-in 2-port Mini PCI-e & 2-port M.2 B key connector can be combined mSATA SSDx2 or M.2 SSDx2 into a RAID 0, RAID 1, JBOD mode of operation.

## 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: PR9401 RAID Card and mSATA SSD(Crucial [CT-128M550SSD3/128GBx2](#))



PR9401 Adapter



Crucial CT-128M550SSD3 x2

### 2.3 Install Hardware

2.3.1 Insert mSATA SSDx2 into PR9401 RAID card 's Mini PCI-e connector, and then with coppers, and screws to fix SSDs. (Please refer to the Installation Notes). Plug PR9401 RAID card in **PCIe slot of ASRock Z97 Extreme6**.

### 2.4 BIOS & Windows 8 OS environment setup

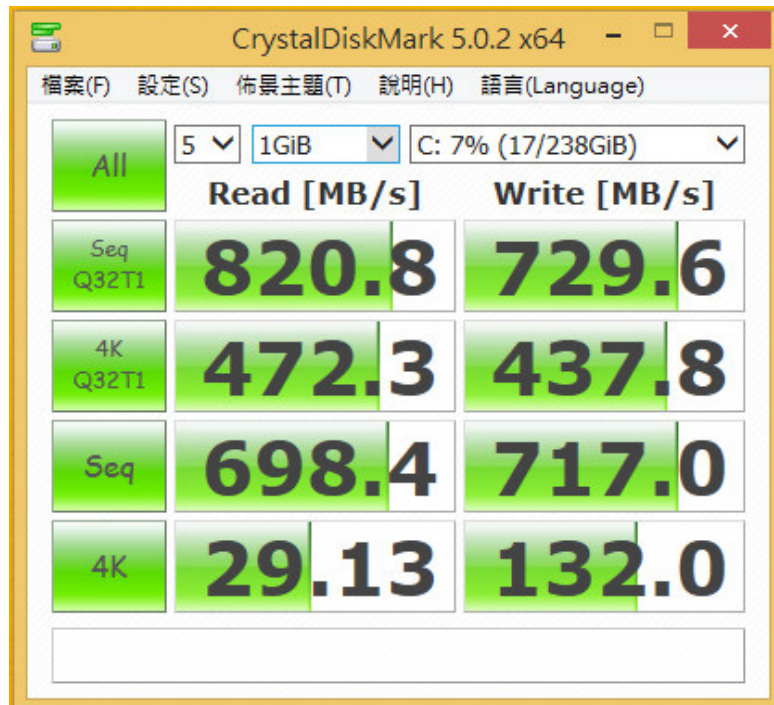
2.4.1 Install Windows 8.1 x64 OS.

# PR9401 PCIe Gen2 x2 RAID Card

## 2.5 CrystalDiskMark 3.0.1 x64 performance test

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

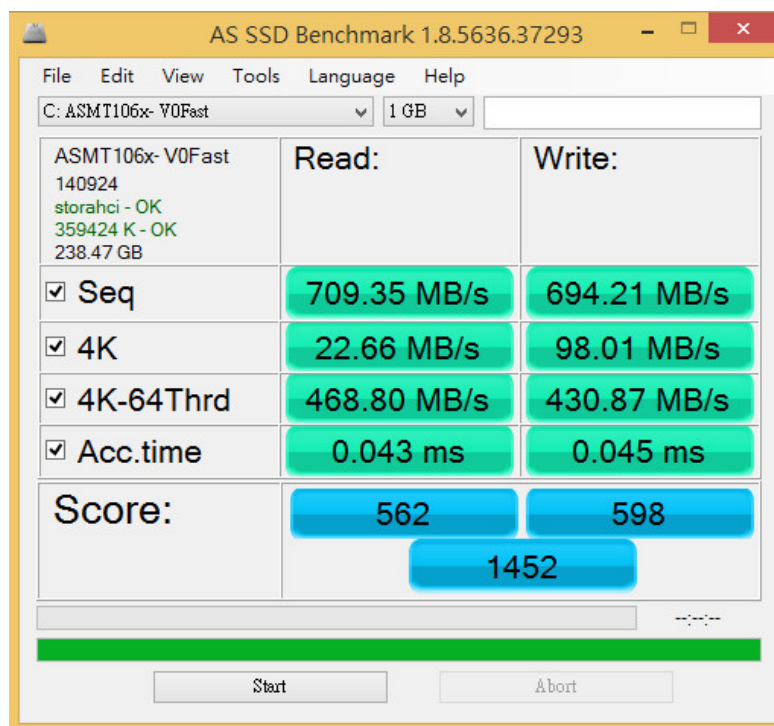
2.5.1 Used Crucial [CT-128M550SSD3/128GBx2](#) in **RAID 0** performance as below:



## 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:

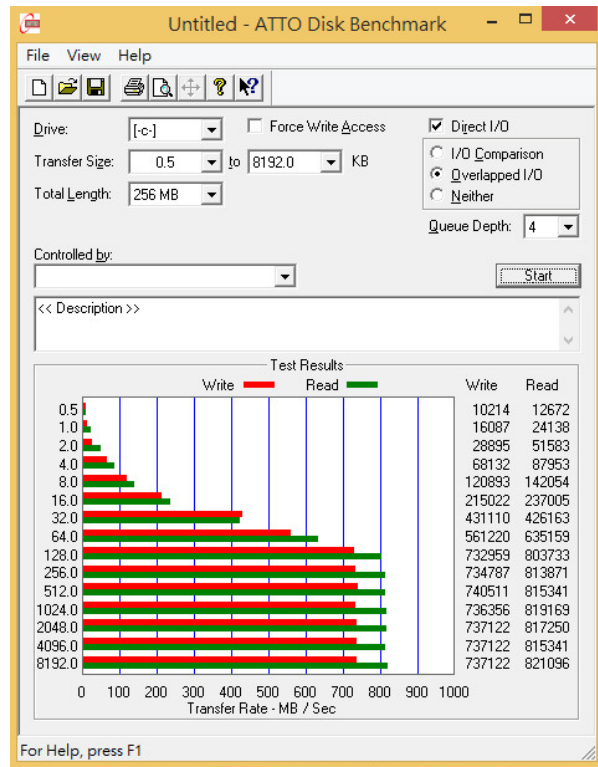


# PR9401 PCIe Gen2 x2 RAID Card

## 2.7 ATTO Disk Benchmark performance test

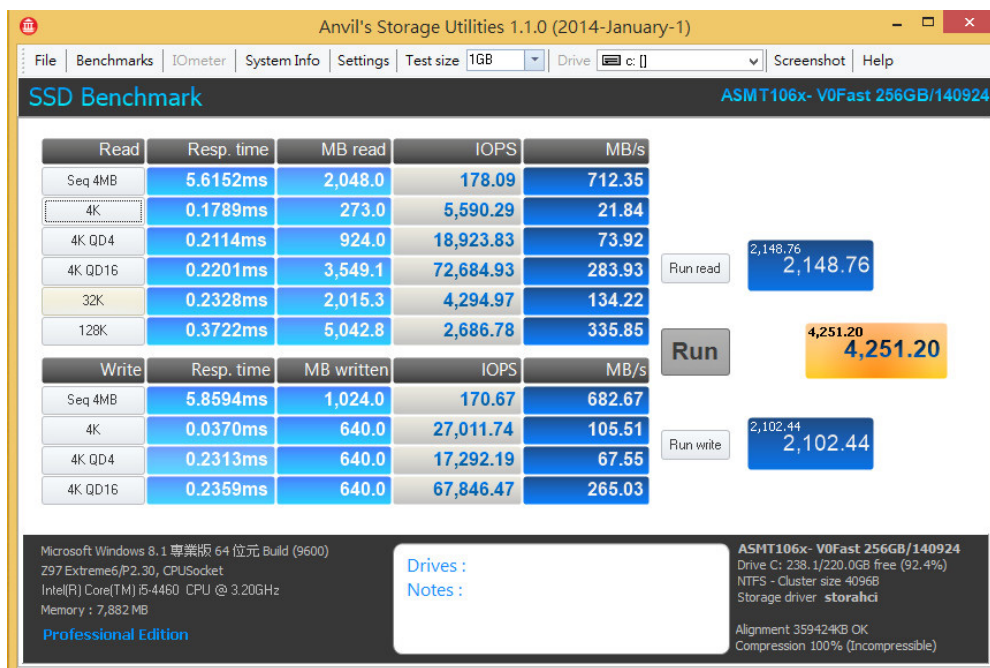
※Benchmark (Sequential Read / default block size = 8MB)

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:

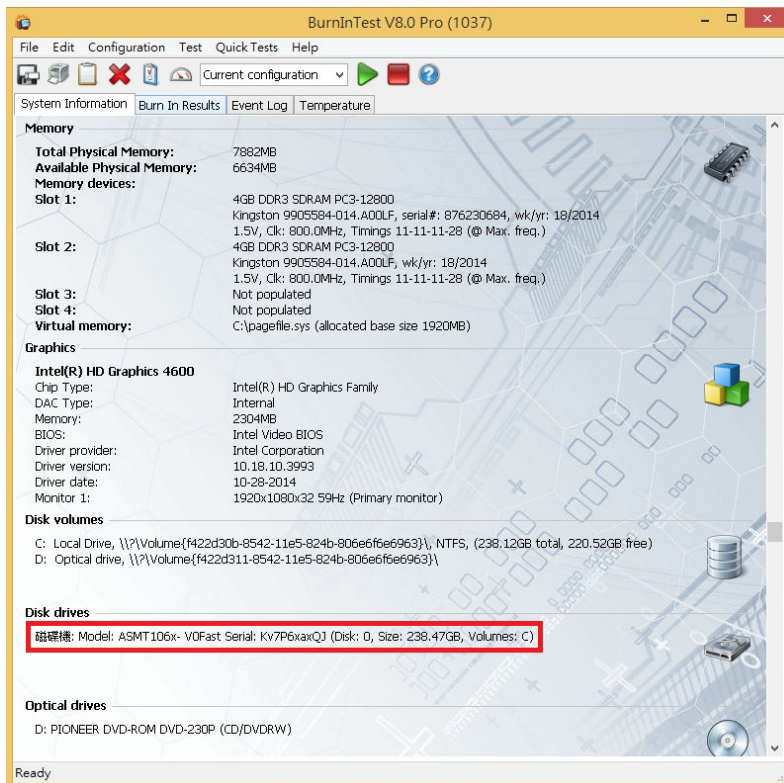
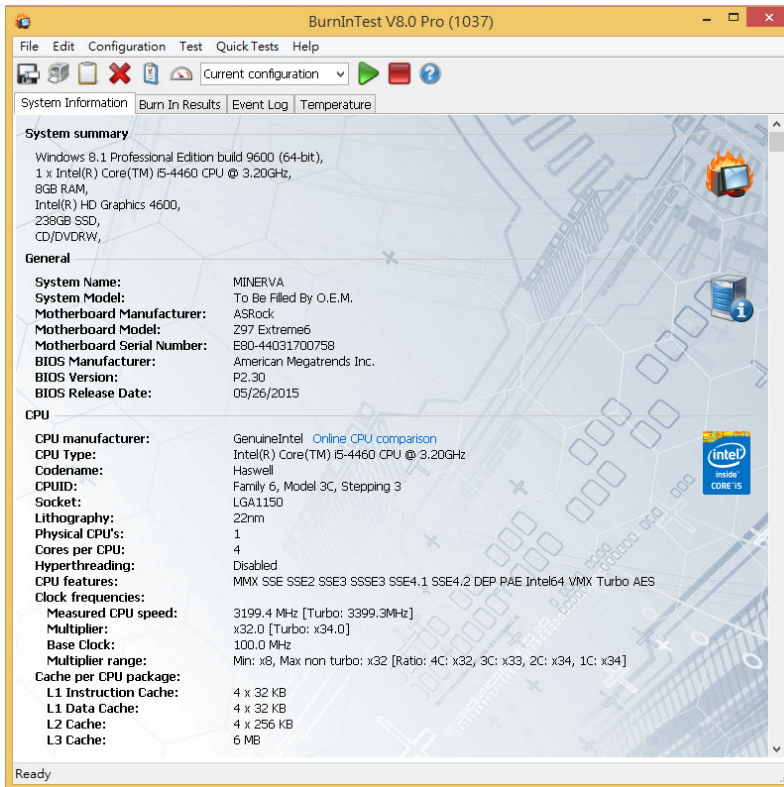


# PR9401 PCIe Gen2 x2 RAID Card

## 3. Burn In Tests and Results

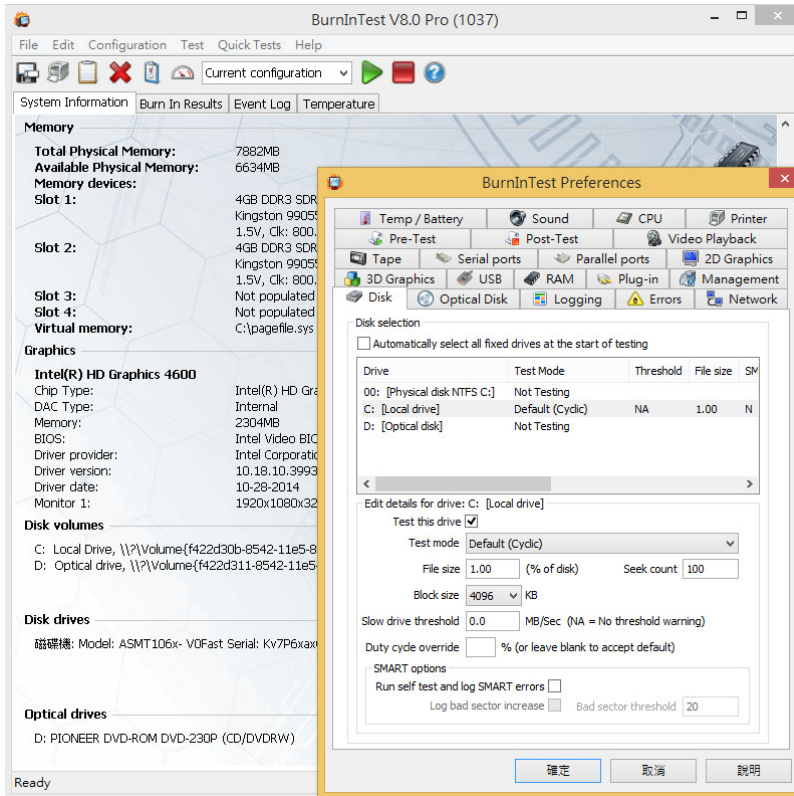
### 3.1 BurnInTest v8.0 Pro

3.1.1 system information for [CT-128M550SSD3/128GBx2](#) in **RAID 0** as below:

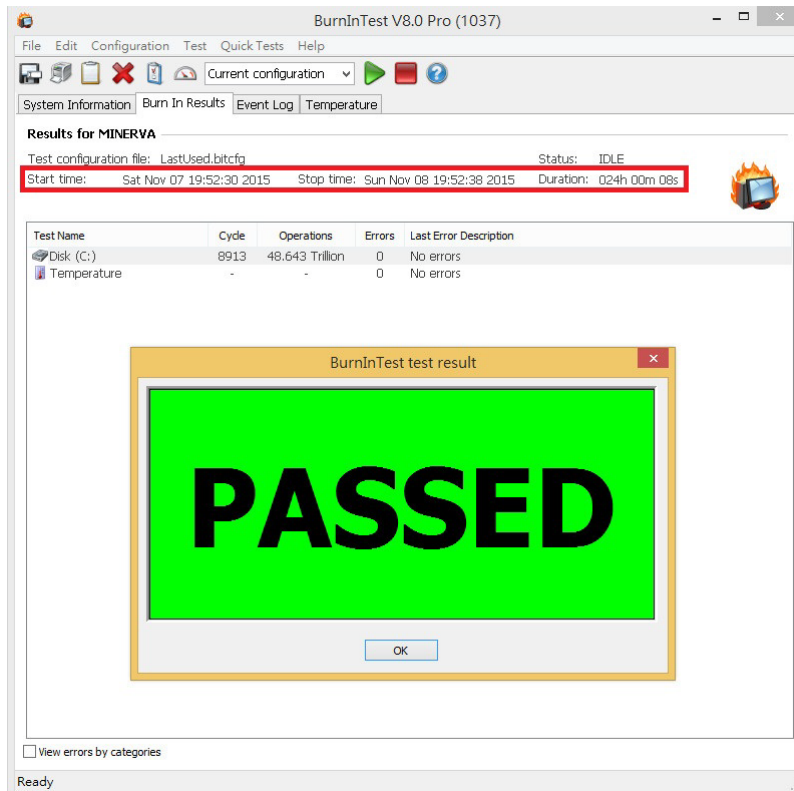


# PR9401 PCIe Gen2 x2 RAID Card

## 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



# PR9401 PCIe Gen2 x2 RAID Card

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## 4. Summary

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- 4.1 PR9401 is PCIe Gen2 2-Lane Interface, I/O speed, max. to 800MB/s.
- 4.2 PR9401 RAID card I/O performance is based on mSATA SSD.