MINERVA
PE0403 Converter Card

Performance & Burn In Test   Rev. 1. 0

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PE0403   Converter Card

1. Overview

PE0403 adapter, providing SFF-8643 Mini SAS HD connector can be U.2(SFF-8639)SSD converted into PCI-e Gen 3 / 4 Lanes interface.

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, **8GB**(4GB DIMM*2)
ATX Power : FSP RAIDER 550**,** **550W ATX**, 12V V2.2 Power Supply
Graphic :   Z97 Chipsets built-in **HD Graphics 4600**
PCIe adapter: PCIe Gen 3/4 Lanes to M.2 & SFF-8643 adapter
Cable: SFF-8643 to SFF-8639 cable
OS :   Microsoft **Windows 8.1 64bit OS**

2.2   Test target: PE0403 adapter & INTEL 750 U.2(SFF-8639) NVMe 400GB SSD

PE0403 Aadpater

Intel 750 U.2 (SFF-8639) SSD

2.3   Install Hardware

Uses SFF-8643 to SFF-8639 cable to connect intel 750 SSD to PE0403 **PCI-e adapter of Z97 M/B.**

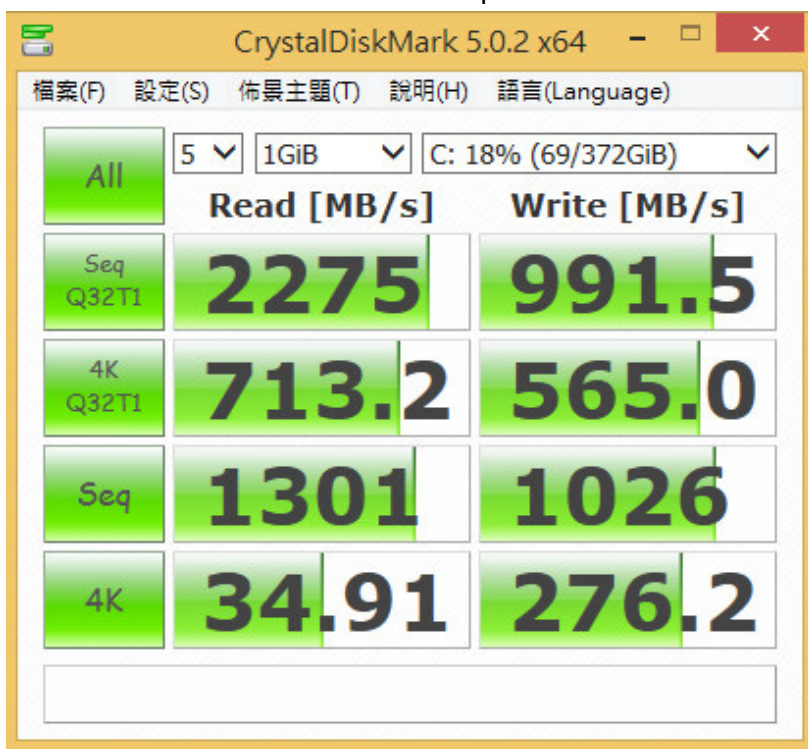### 2.4   BIOS & Windows 8.1 OS environment setup

2.4.1   Install Windows 8.1 OS.

PE0403　Converter Card

2.5　CrystalDiskMark 5.0.2 x64 performance test

※Benchmark (Sequential Read & Write / default = 1MB)
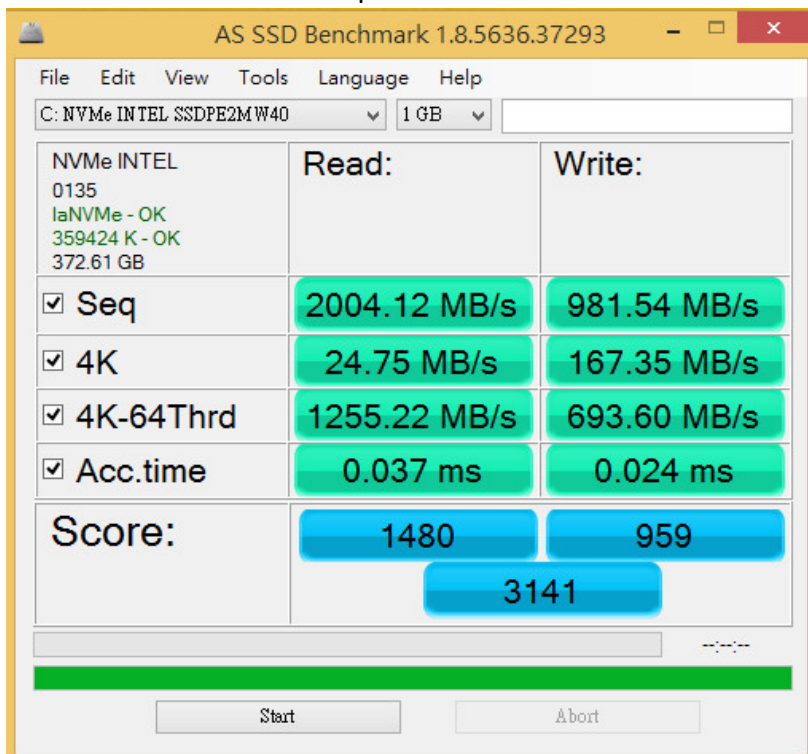
2.5.1　Shows INTEL 750 M.2 NVMe 400GB performance as below:

2.6　AS SSD Benchmark 1.7 performance test

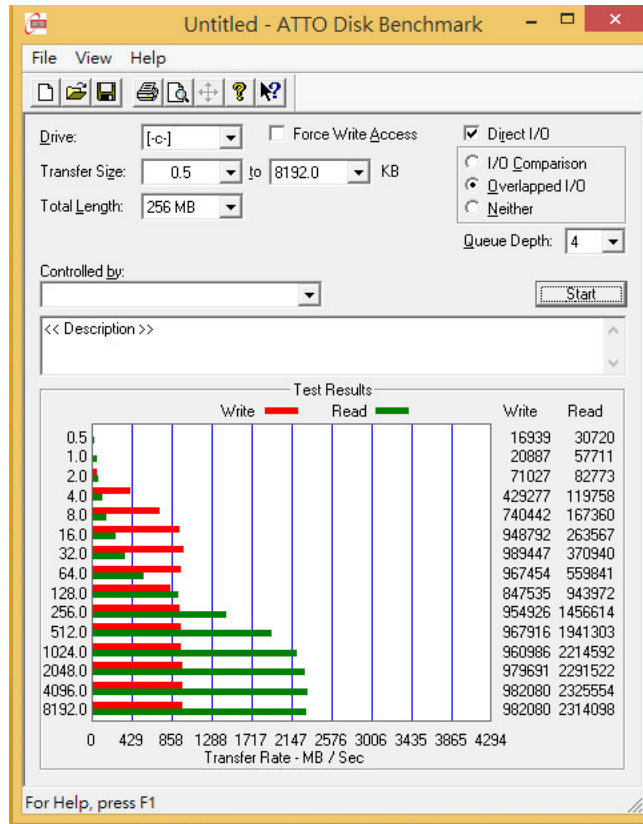※Benchmark (Read & Write by MB/s, default block size = 16MB)

2.6.1　INTEL 750 M.2 NVMe 400GB performance as below:
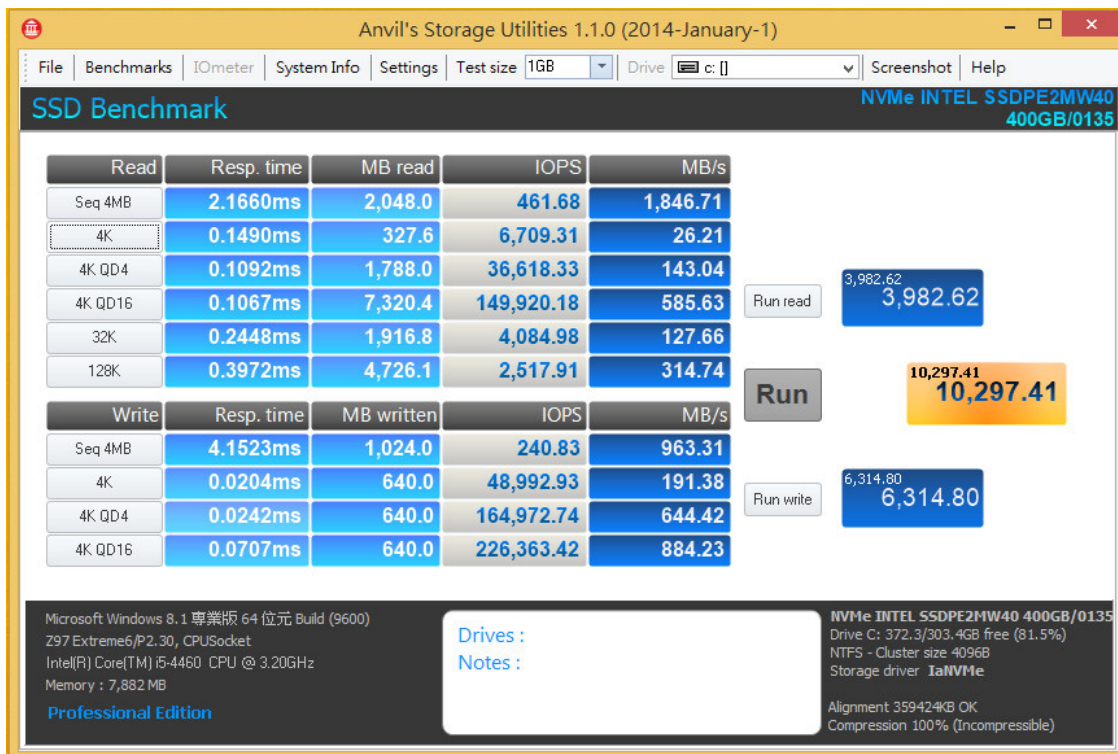
2.7　ATTO Disk Benchamrk 2.47 performance test

2.7.1　Shows INTEL 750 M.2 NVMe 400GB performance as below:

2.8　AnvilBenchmark_V110_B337
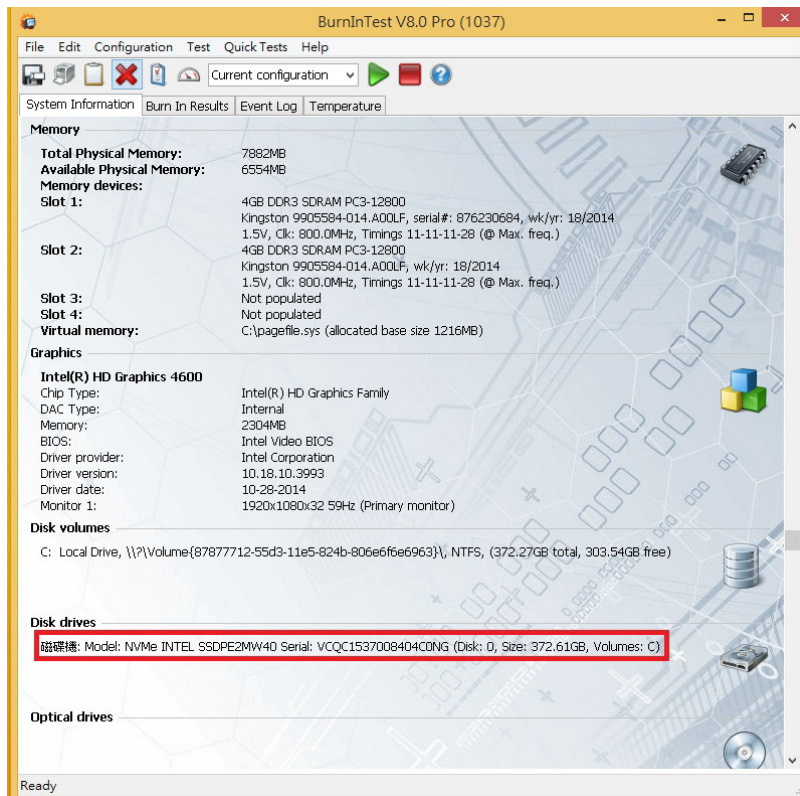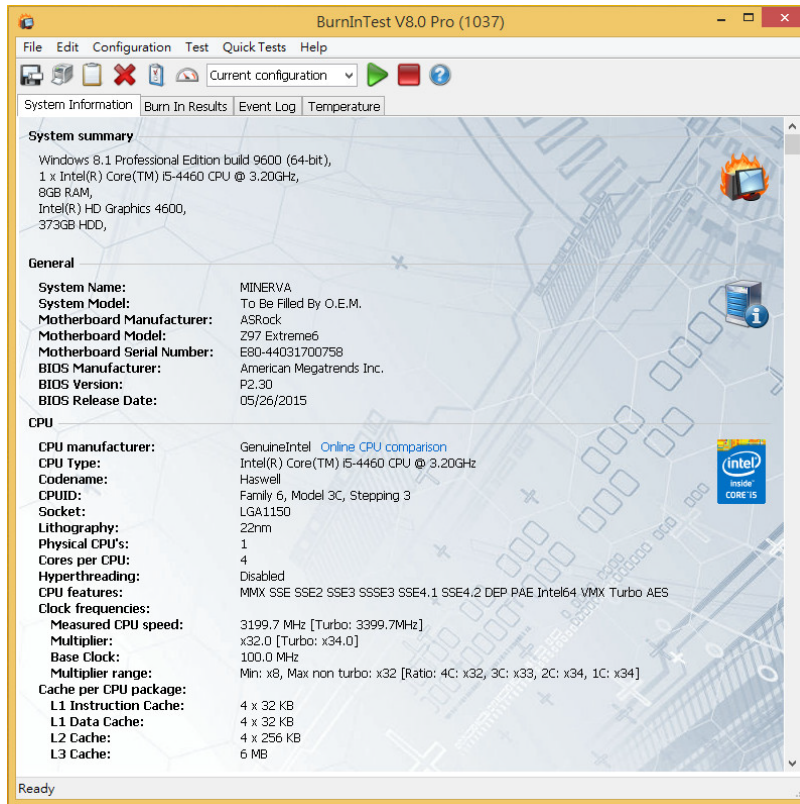
2.8.1　INTEL 750 M.2 NVMe 400GB performance as below:

3. Burn In Tests and Results

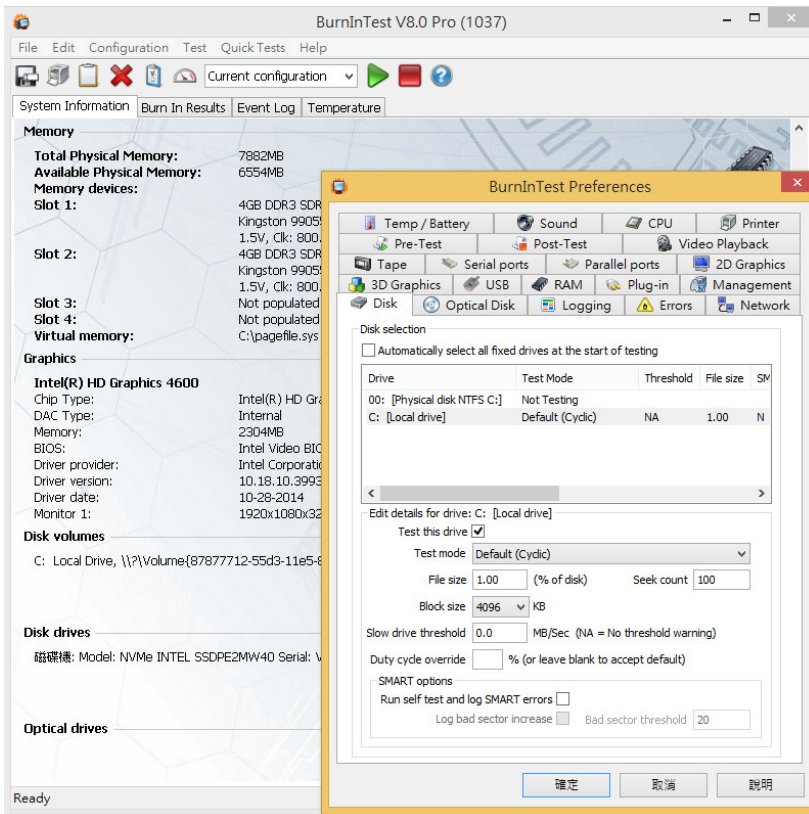3.1　BurnInTest v8.0 Pro for SSD(INTEL 750 / SSDPE2MW400G4)

3.1.1　**system information** as below:

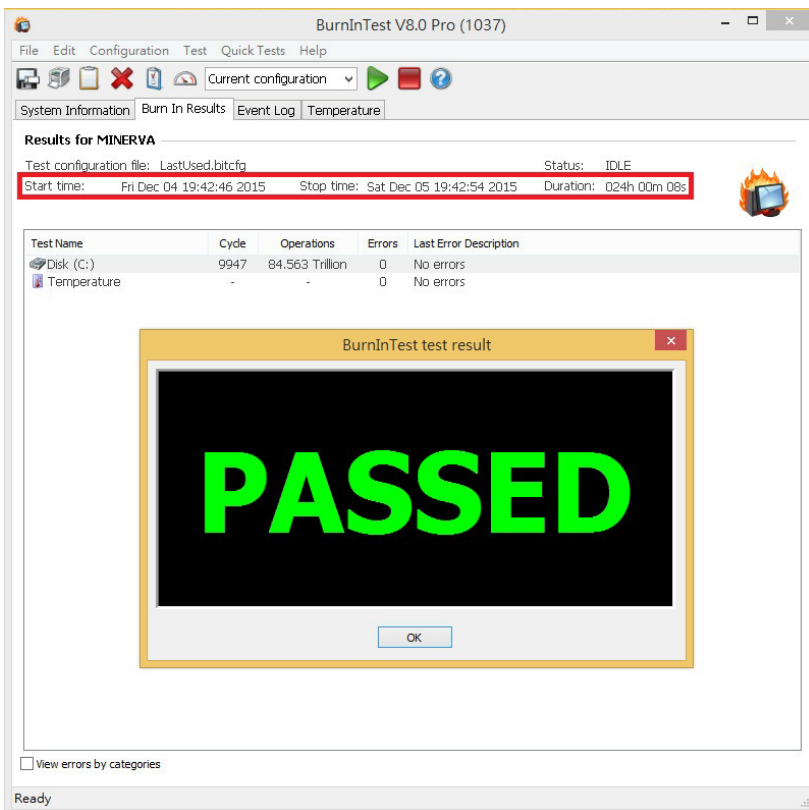### 3.1.2　　show Disk test mode(10 ways cycle test)

3.1.3　　show 24-hour Burn-in test PASSED

4. Summary

4.1   Intel 750 U.2 NVMe SSD is PCI-e Gen 3 / 4 Lanes Interface, I/O speed, max. to 32Gbps.

4.2   PE0403 adapter I/O performance is based on Intel 750 U.2 NVMe SSD.