



MINERVA

PE0405 Converter Card

Performance & Burn In Test Rev. 1. 0

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4. Summary

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1. Overview

PE0405 adapter, providing SFF-8654 Slimline SAS connector can be U.2(SFF-8639)SSD or SFF-8639 to M.2 NVMe SSD converted into PCI-e Gen 3 / 4 Lanes interface.

2. Tools and Results of Performance Measurement

2.1 Test Platform

M/B : GIGABYTE **Z170X UD5 TH**
CPU : Intel **i5-6500**, 3.2GHz/ 6M Cache/ LGA1150
Memory : Kingston **KVR21N15D8/8**, DDR4-2133MHz, 16G(8GB DIMM*2)
ATX Power : COOLER MASTER G750M, **750W ATX**, 12V V2.31 Power Supply
PCIe adapter: PCIe Gen 3/4 Lanes to SFF-8639 adapter
Cable: SFF-8654 to SFF-8639 cable
OS : Microsoft **Windows 8.1 64bit OS**

2.2 Test target: PE0405 adapter & [INTEL 750 U.2\(SFF-8639\) NVMe SSD/SSDPE2MW400G4](#)

2.3 Install Hardware

Use SFF-8654 to SFF-8639 cable to connect intel 750 SSD to PE0405 **PCI-e adapter of Z170 M/B.**



2.4 BIOS & Windows 8.1 OS environment setup

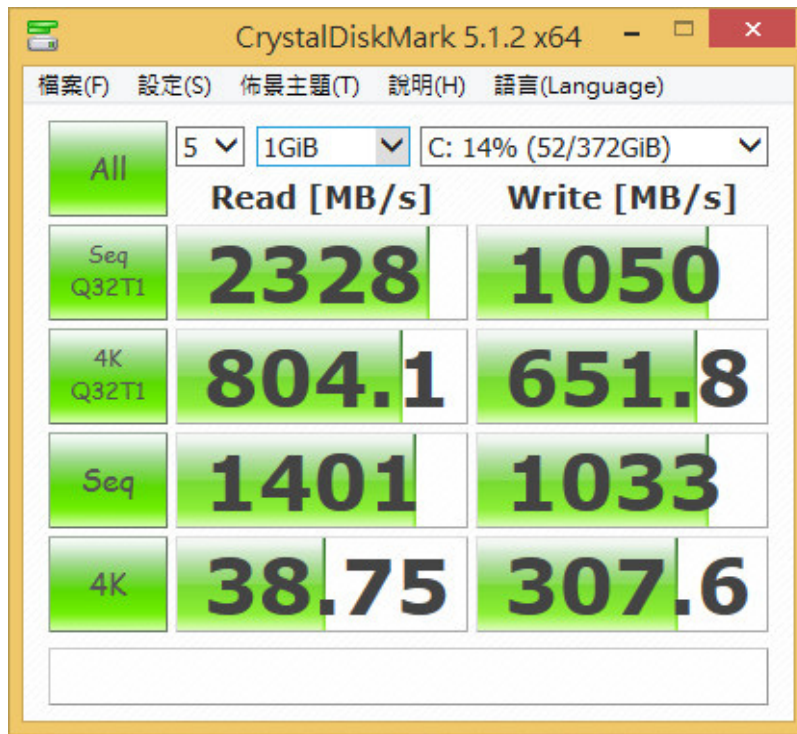
2.4.1 Install Windows 8.1 OS.

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2.5 CrystalDiskMark 5.1.2 x64 performance test

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

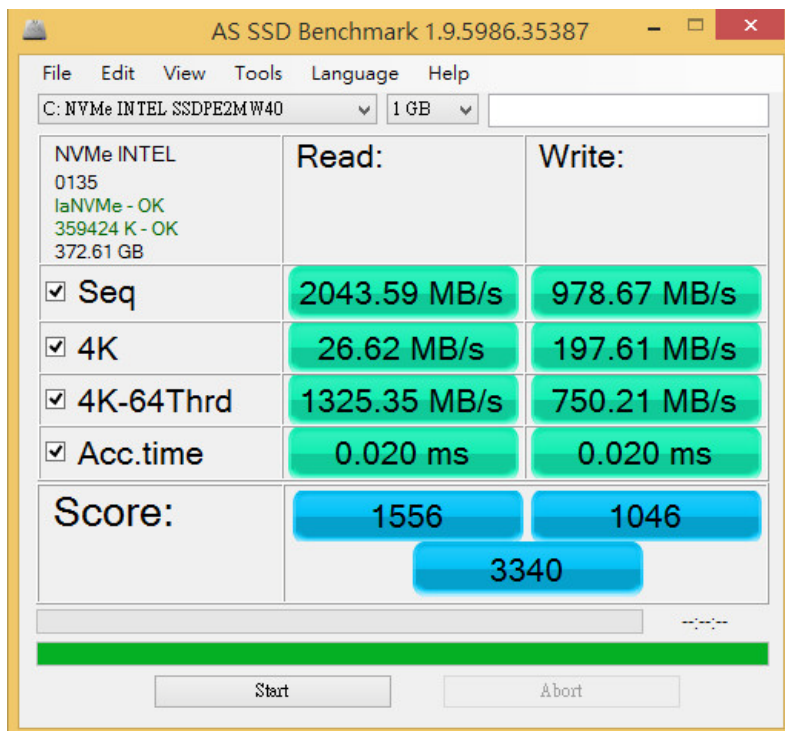
2.5.1 Used SSD(INTEL 750 / SSDPE2MW400G4)performance as below:



2.6 AS SSD Benchmark 1.9 performance test

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

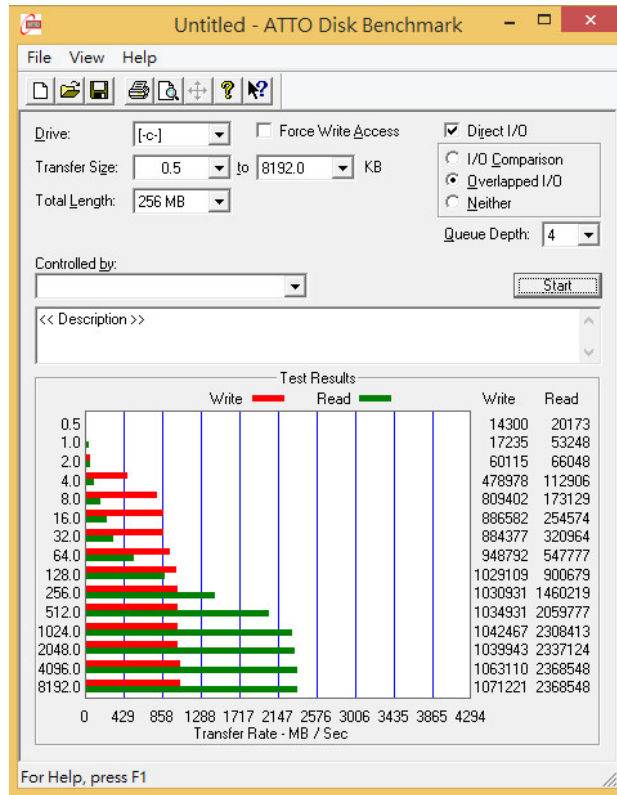
2.6.1 Used SSD(INTEL 750 / SSDPE2MW400G4)performance as below:



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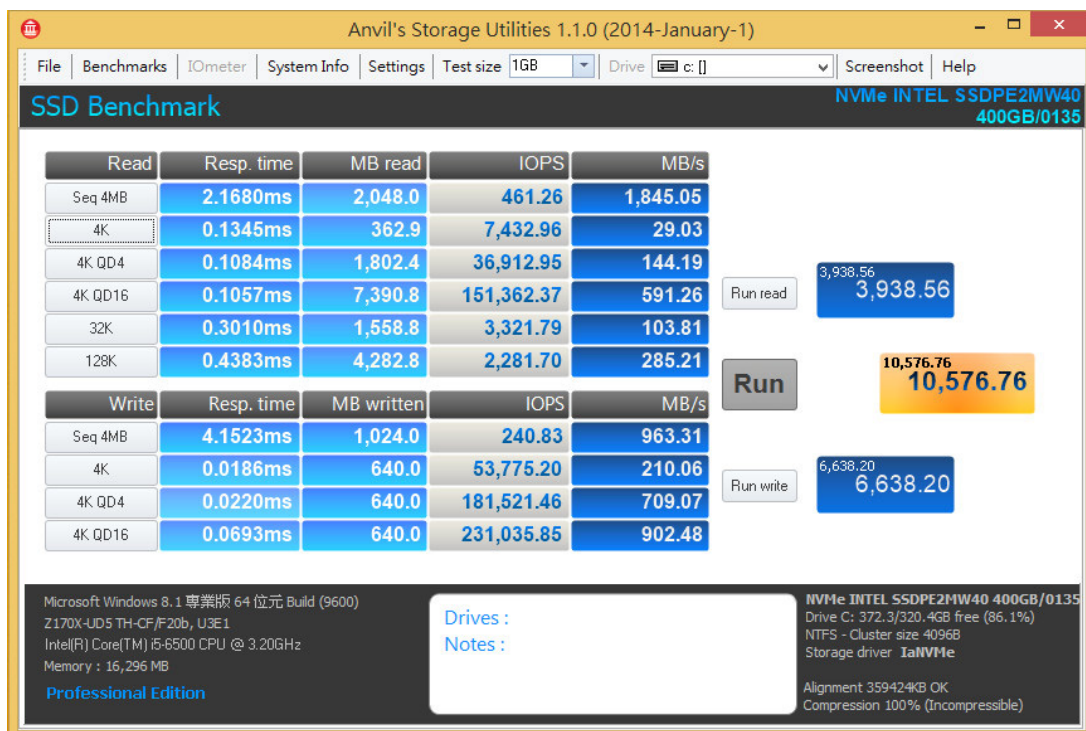
2.7 ATTO Disk Benchmark 2.47 performance test

2.7.1 Used SSD(INTEL 750 / SSDPE2MW400G4)performance as below:



2.8 AnvilBenchmark_V110_B337

2.8.1 Used SSD(INTEL 750 / SSDPE2MW400G4)performance as below:

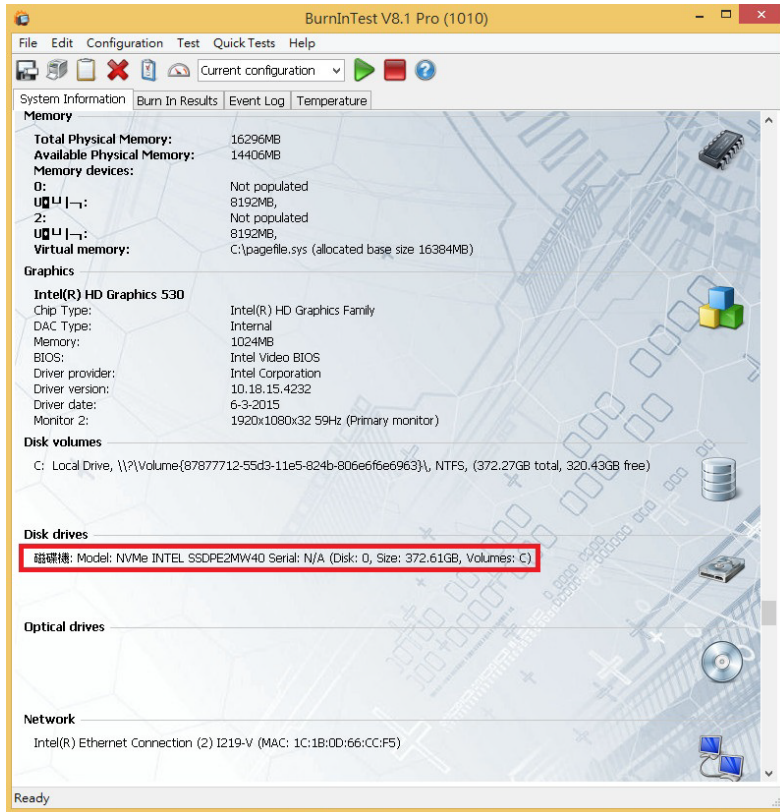
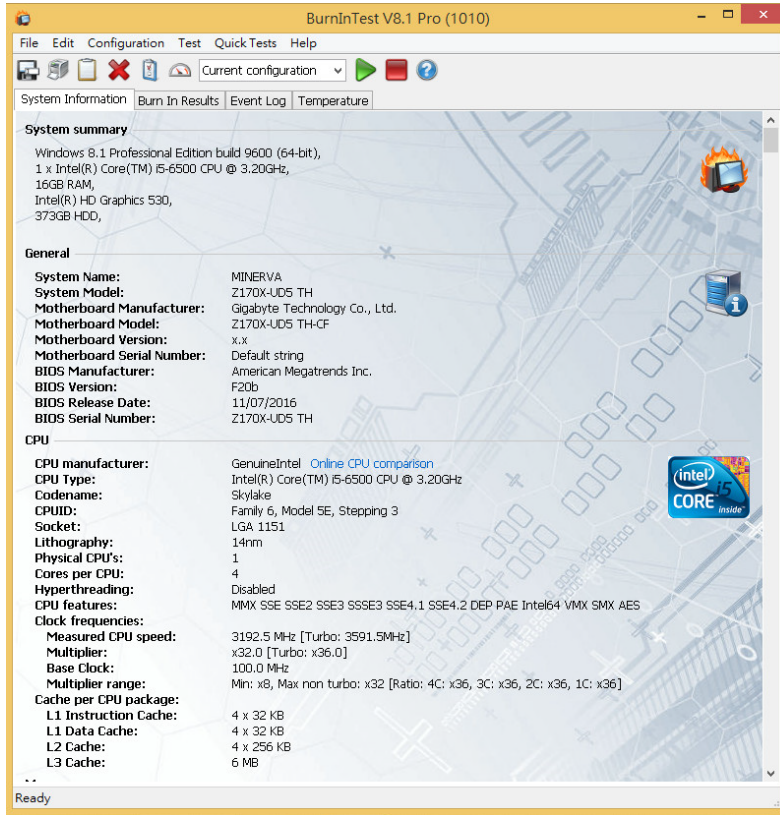


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3. Burn In Tests and Results

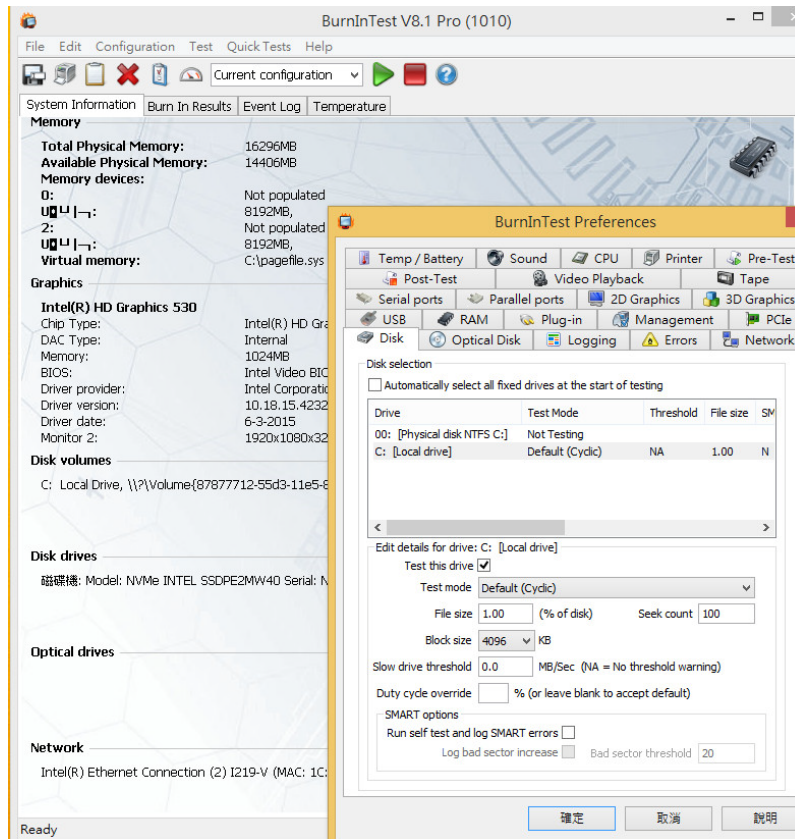
3.1 BurnInTest v8.0 Pro for SSD(INTEL 750 / SSDPE2MW40G4)

3.1.1 system information as below:

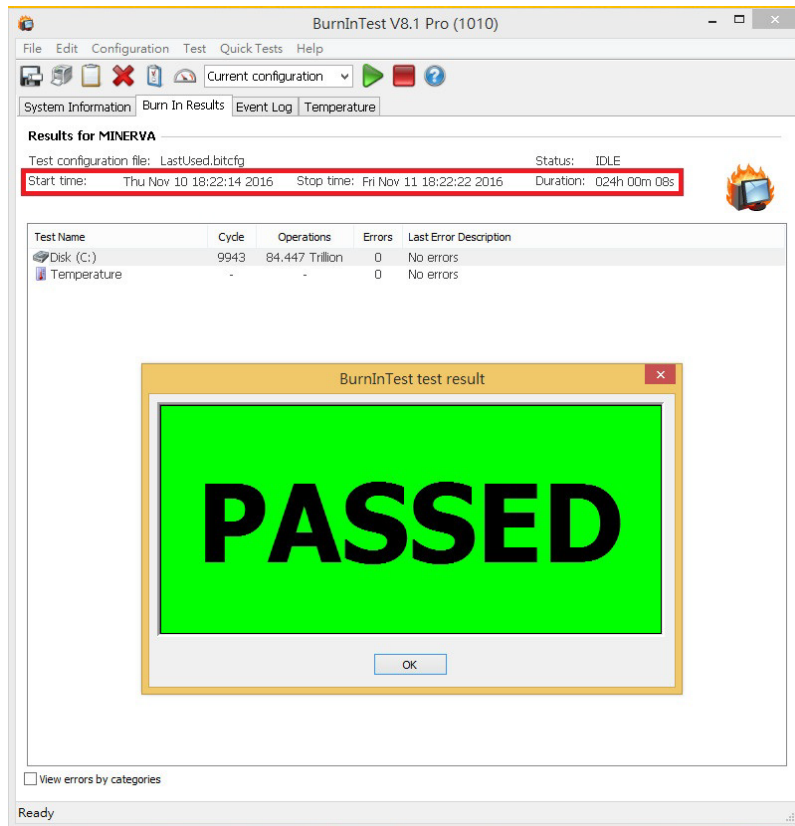


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3.1.2 show Disk test mode (10 ways cycle test)



3.1.3 show 24-hour Burn-in test PASSED



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4. Summary

- 4.1 Intel 750 U.2(SFF-8639) SSD is PCI-e Gen 3 / 4 Lanes Interface, I/O speed, max. to 32Gbps.
- 4.2 PE0405 adapter I/O performance is based on Intel 750 U.2(SFF-8639) SSD.