



MINERVA

PE0407 Converter Card

Performance & Burn In Test Rev. 1. 0

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1. Overview

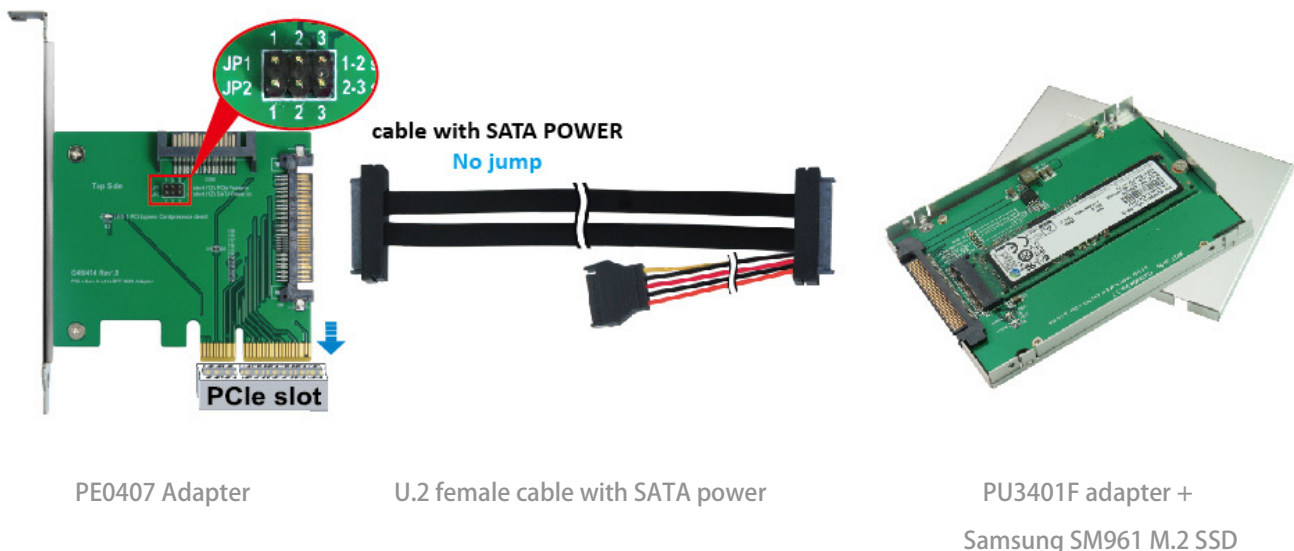
PE0407 adapter, providing SFF-8639 connector can be PU3401F adapter+M.2 NVMe SSD converted into PCI-e Gen 3 / 4 Lanes interface with SATA power connector.

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**, **16GB**(8GB DIMM*2)
ATX Power : COOLER MASTER G750M, **750W ATX**, 12V V2.2 Power Supply
Graphic : Z170 Chipsets built-in **HD Graphics 530**
CABLE: U.2(SFF-8639) Female with SATA power to U.2(SFF-8639) Female Cable
OS : Microsoft **Windows 10 64bit OS**

2.2 Test target: PE0407 adapter & Samsung SM961 512GB NVMe SSD



2.3 Install Hardware

Insert PE0407 adapter into **PCI-e slot of Z170X UD5 TH**, and then uses cable to connect Samsung SM961 **512GB** NVMe SSD.

2.4 BIOS & Windows 10 OS environment setup

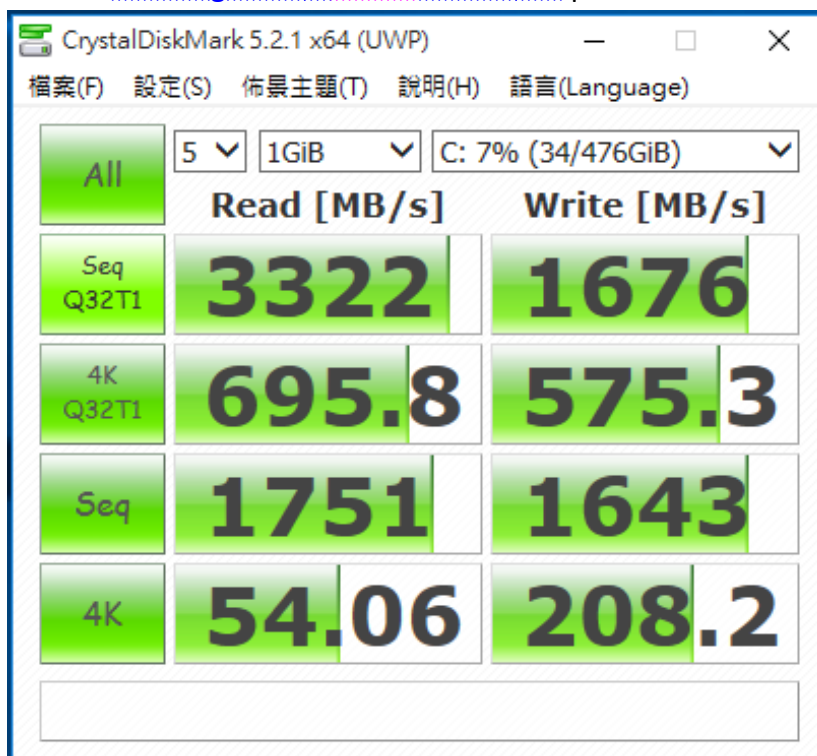
2.4.1 Install Windows 10 64bit OS into Samsung SM961 **512GB** NVMe SSD.

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2.5 CrystalDiskMark 5.2.1 x64 performance test

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

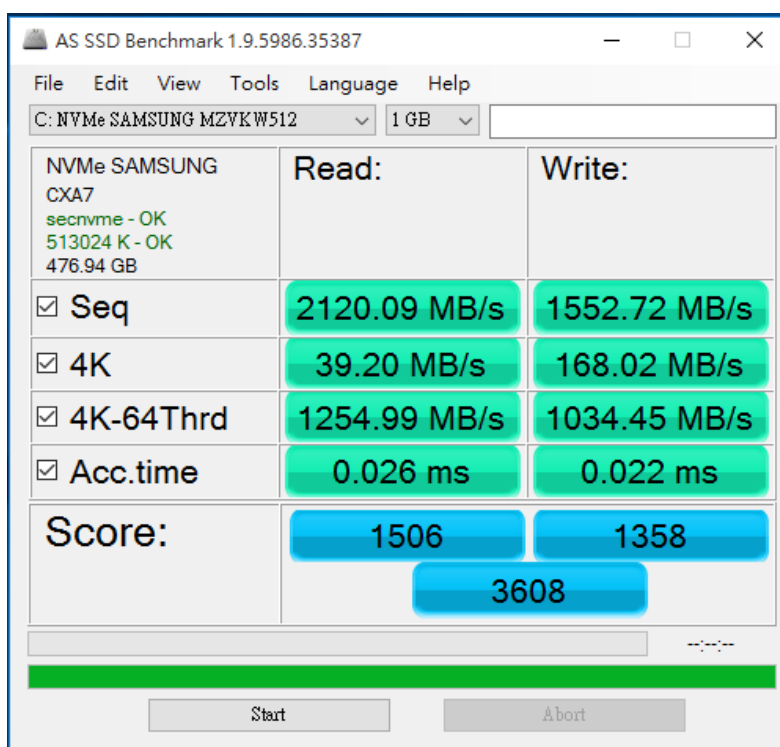
2.5.1 Show [Samsung SM961 512GB NVMe SSD](#) performance as below:



2.6 AS SSD Benchmark 1.9 performance test

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

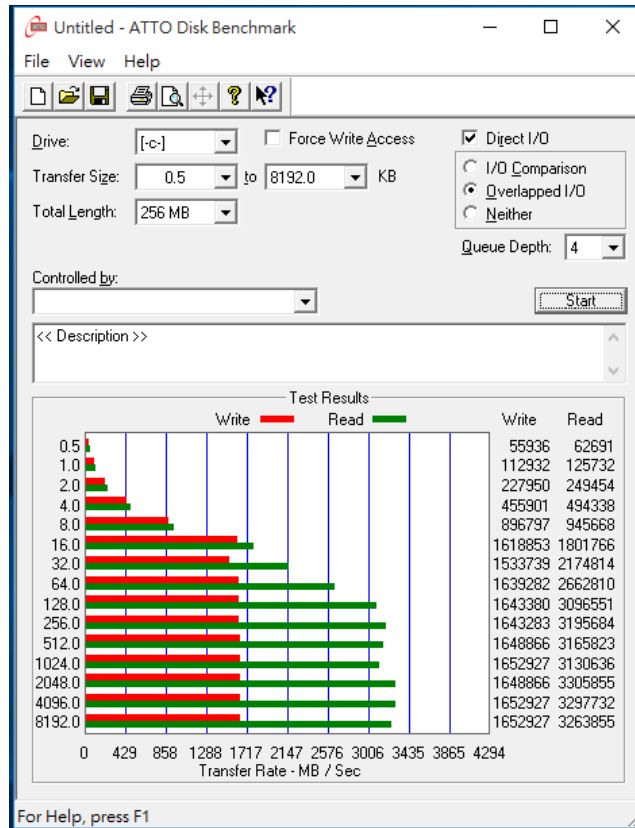
2.6.1 Show [Samsung SM961 512GB NVMe SSD](#) performance as below:



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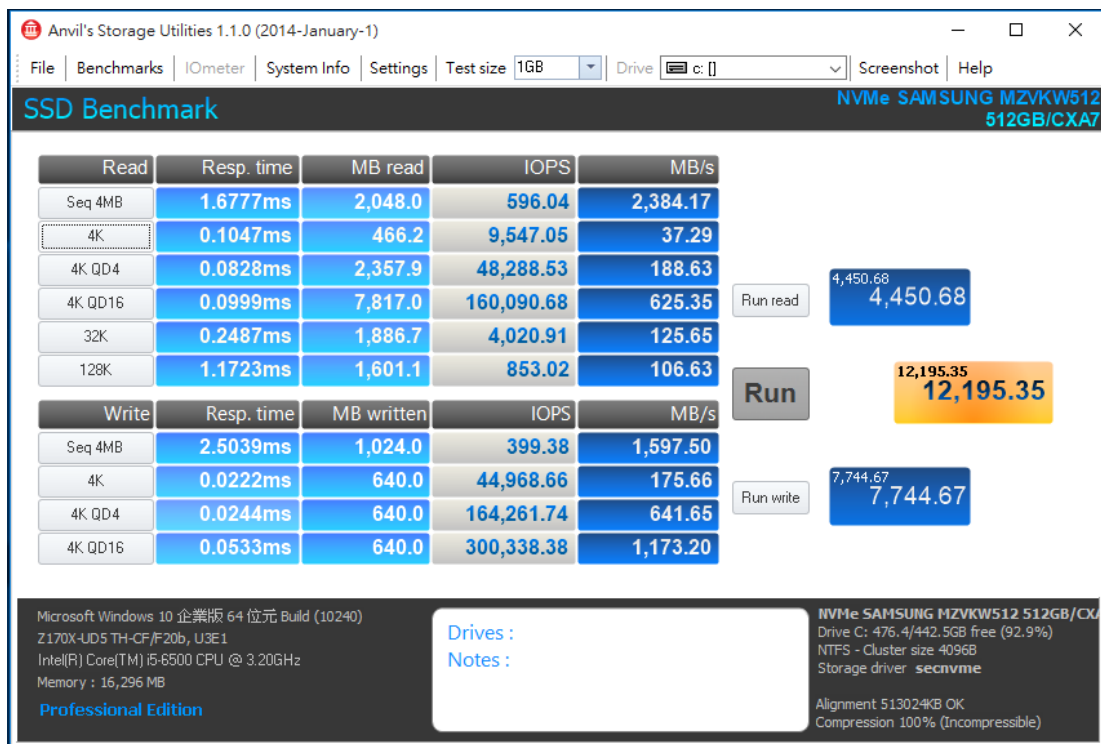
2.7 ATTO Disk Benchmark 2.47 performance test

2.7.1 Show [Samsung SM961 512GB NVMe SSD](#) performance as below:



2.8 AnvilBenchmark_V110_B337

2.8.1 Show [Samsung SM961 512GB NVMe SSD](#) performance as below:

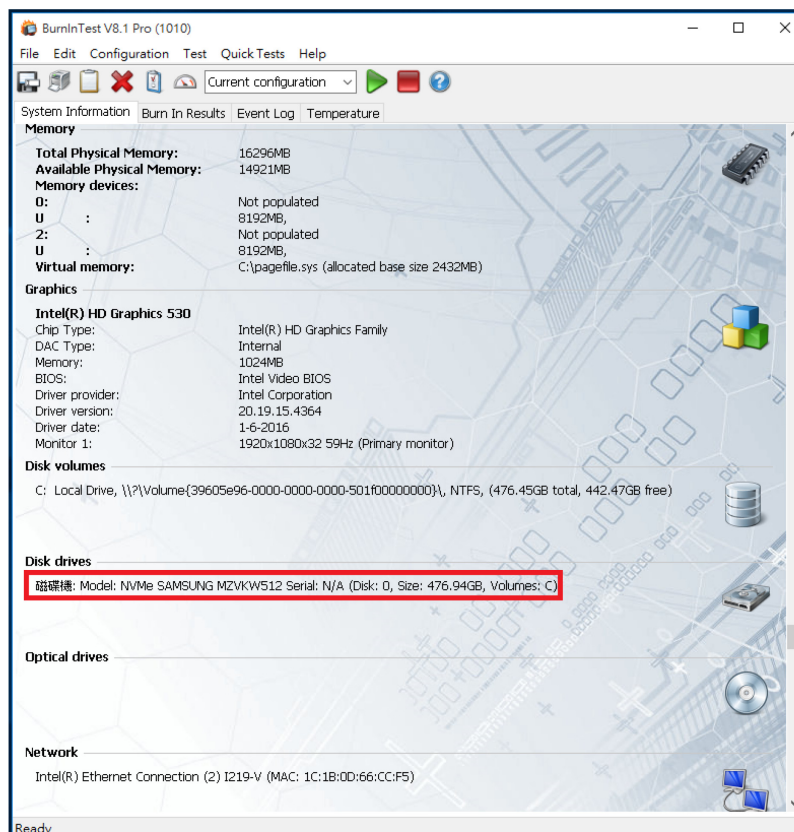
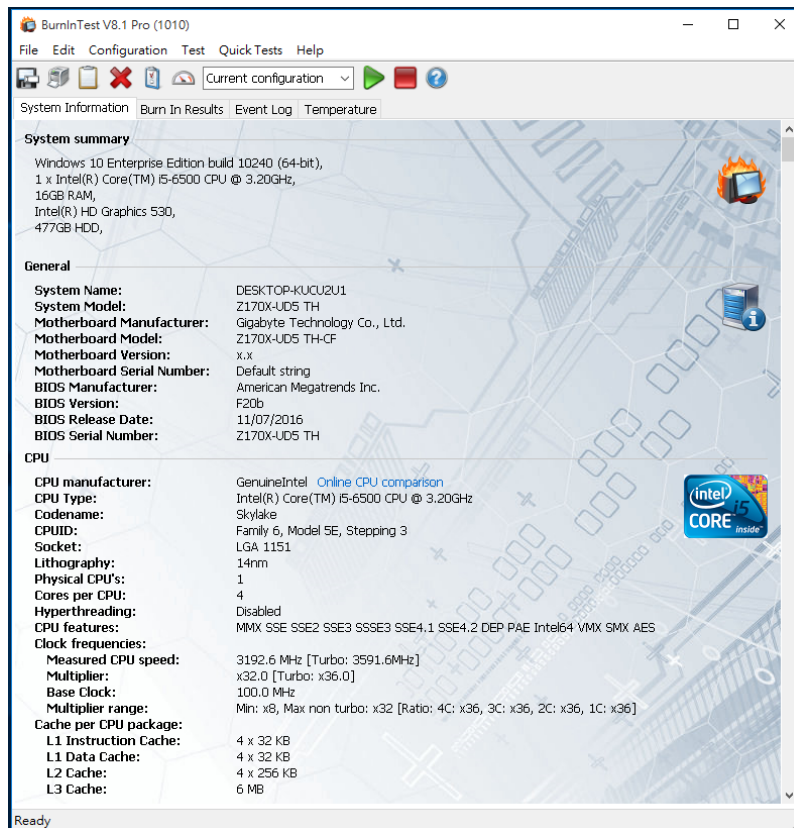


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3. Burn In Tests and Results

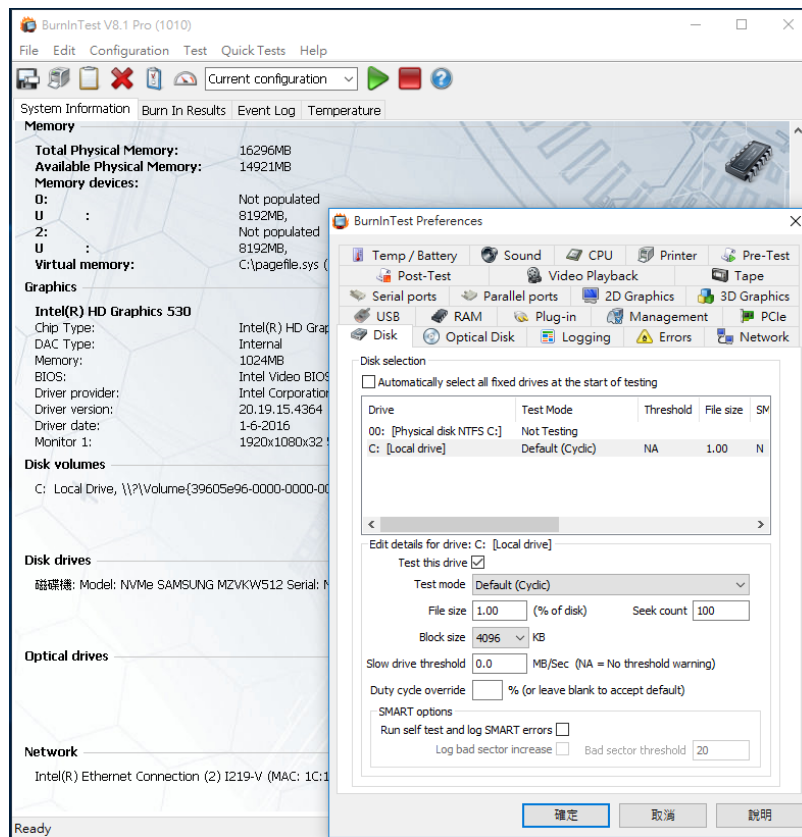
3.1 BurnInTest v8.1 Pro for [Samsung SM961 512GB NVMe SSD](#) SSD

3.1.1 [system information](#) as below:

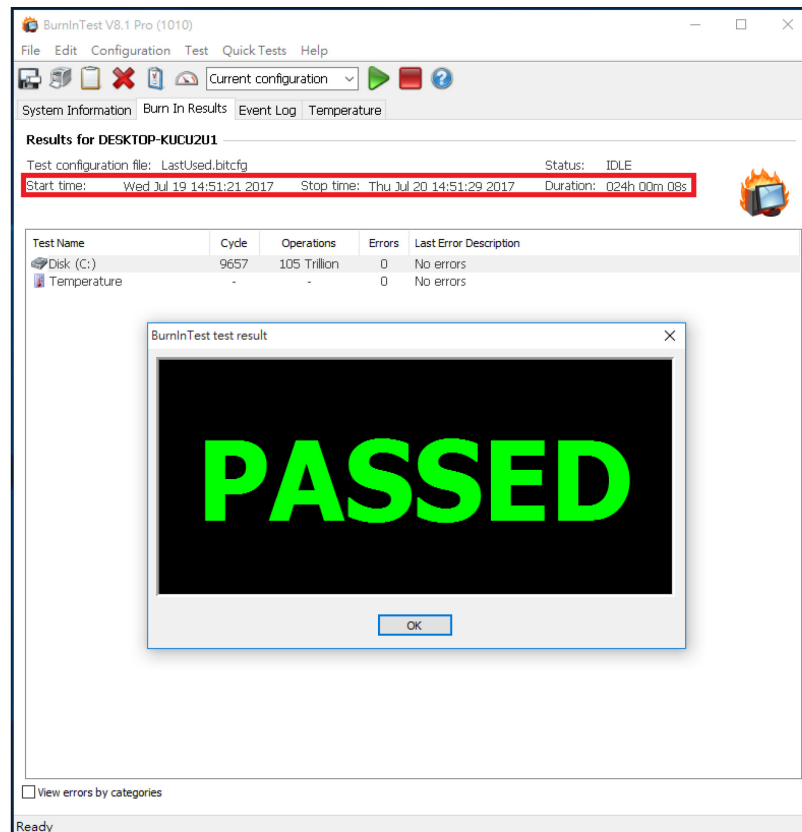


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3.1.2 show Disk test mode (10 ways cycle test)



3.1.3 show 24-hour Burn-in test PASSED



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4. Summary

- 4.1 M.2 SSD is PCI-e Gen 3 / 4 Lanes Interface, I/O speed, max. to 4GB.
- 4.2 PE0407 adapter I/O performance is based on M.2 NVMe PCI-e Gen 3 / 4 Lanes SSD.