MINERVA
PE0408 PCIe to M.2 NVMe Add-in card

Performance & Burn In Test   Rev. 1. 0

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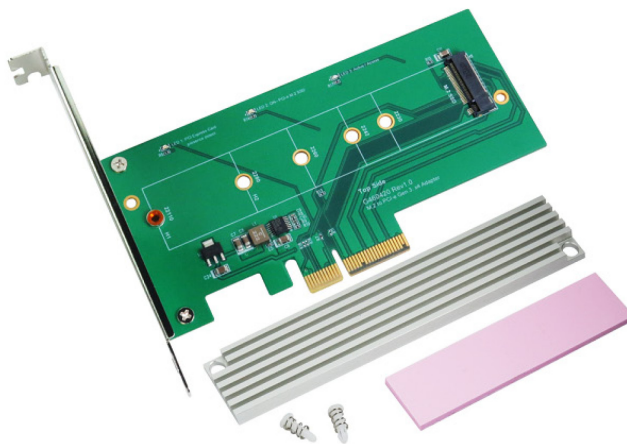# PE0408   Add-in card Card

1. Overview

PE0408 Add-in card, providing M.2 M-key connector can be M.2 (PCI-e I/F NVMe) SSD converted into it and uses heat sink strip to M2 SSD, then PE0408 can plug in PCIe slot of M/B.

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, 8G(8GB DIMM*2)
ATX Power :	FSP RAIDER 550, **550W ATX**, 12V V2.2 Power Supply
Graphic :	Z170 Chipsets built-in **HD Graphics 530**
OS :	Microsoft **Windows 10 64bit OS**

2.2   Test target: PE0408 adapter & **Micron 7100 M.2(NVMe) 22x110mm/800GB** SSD

PE0408 Adapter   Micron 7100 M.2 NVMe SSD (800GB)

2.3   2.3   Install Hardware

Inserts M.2 SSD into PE0408 Add-in card's M.2 M-key connector, and then with coppers, and screws to fix SSDs. (Please refer to the Installation Notes). Plugs PE0408 into **PCI-e slot of Z170X UD5 TH.**

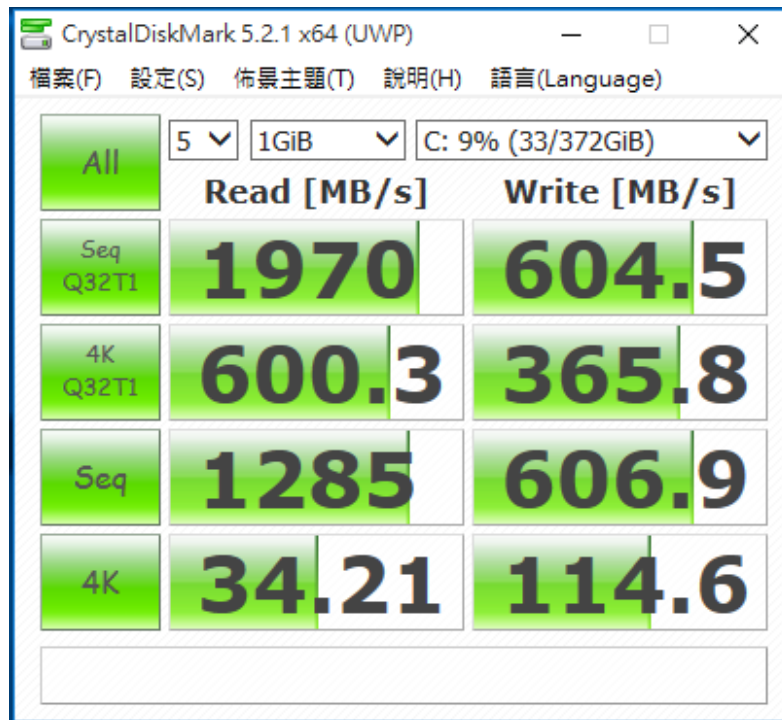### 2.4   BIOS & Windows 10 OS environment setup

2.4.1 Install Windows 10 64bit OS into PE0408 Add-in card

PE0408　Add-in card Card

2.5　CrystalDiskMark 5.2.1 x64 performance test
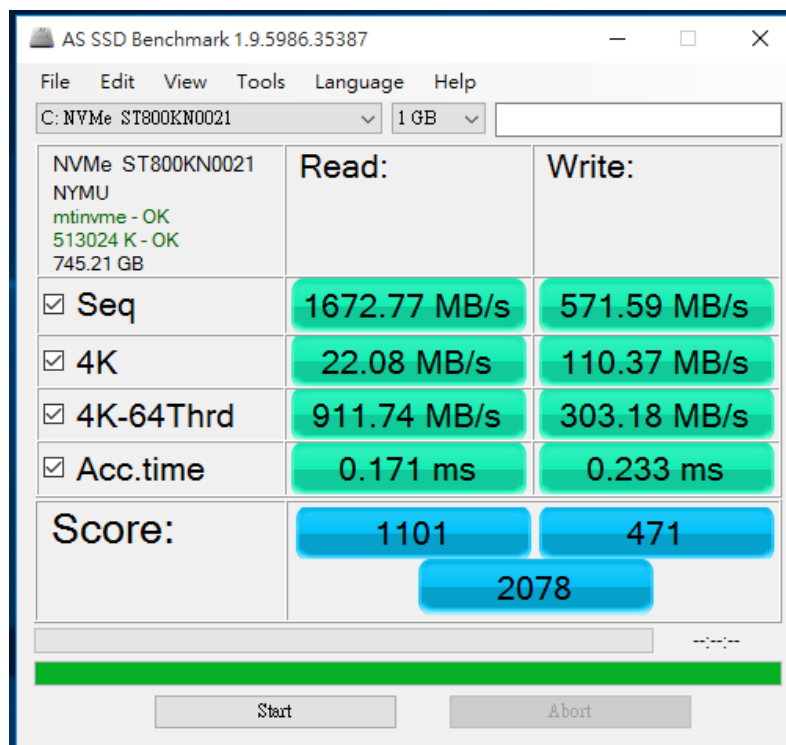※Benchmark (Sequential Read & Write / default = 1MB)

2.5.1　　Show **Micron 7100 M.2(NVMe) 22x110mm /800GB** performance as below:

2.6　AS SSD Benchmark 1.9 performance test
※Benchmark (Read & Write by MB/s, default block size = 16MB)

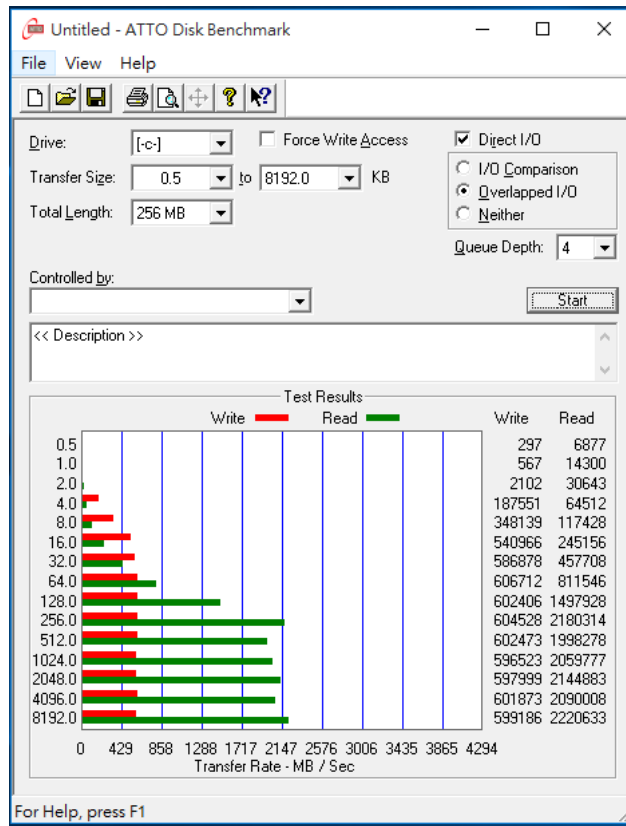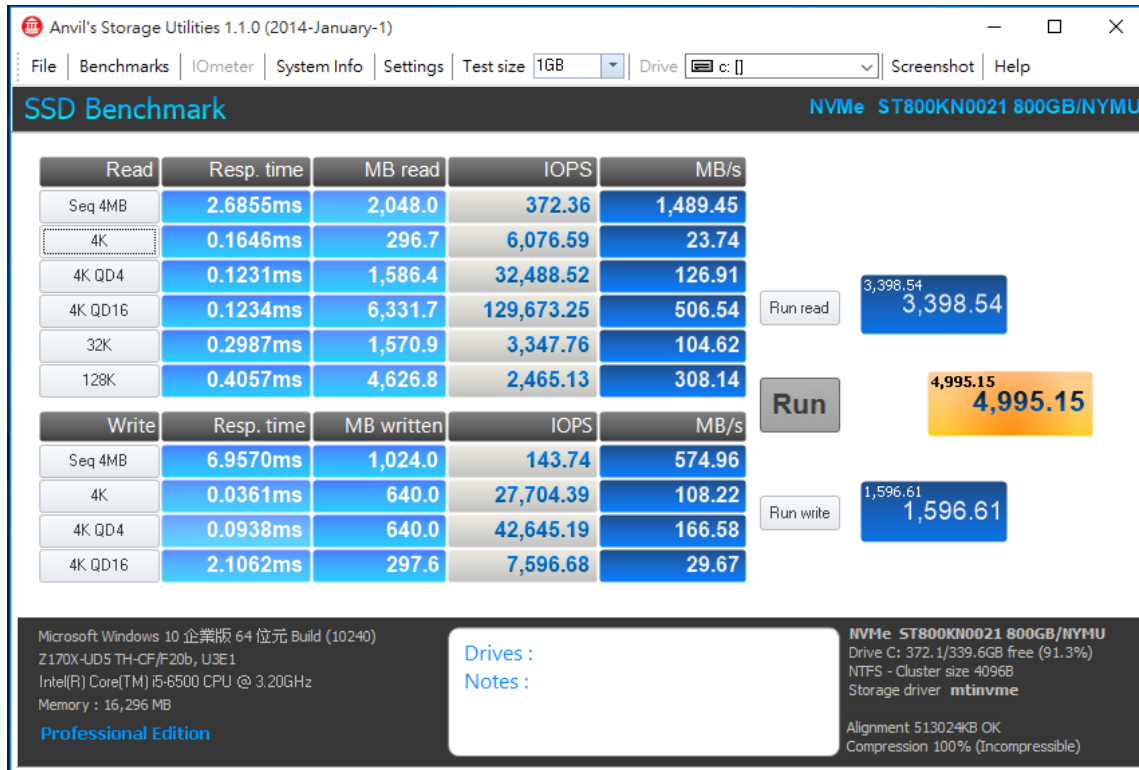2.6.1　Show **Micron 7100 M.2(NVMe) 22x110mm /800GB** performance as below:

2.7　ATTO Disk Benchamrk 2.47 performance test

2.7.1　Show Micron 7100 M.2(NVMe) 22x110mm /800GB performance as below:

2.8　AnvilBenchmark_V110_B337

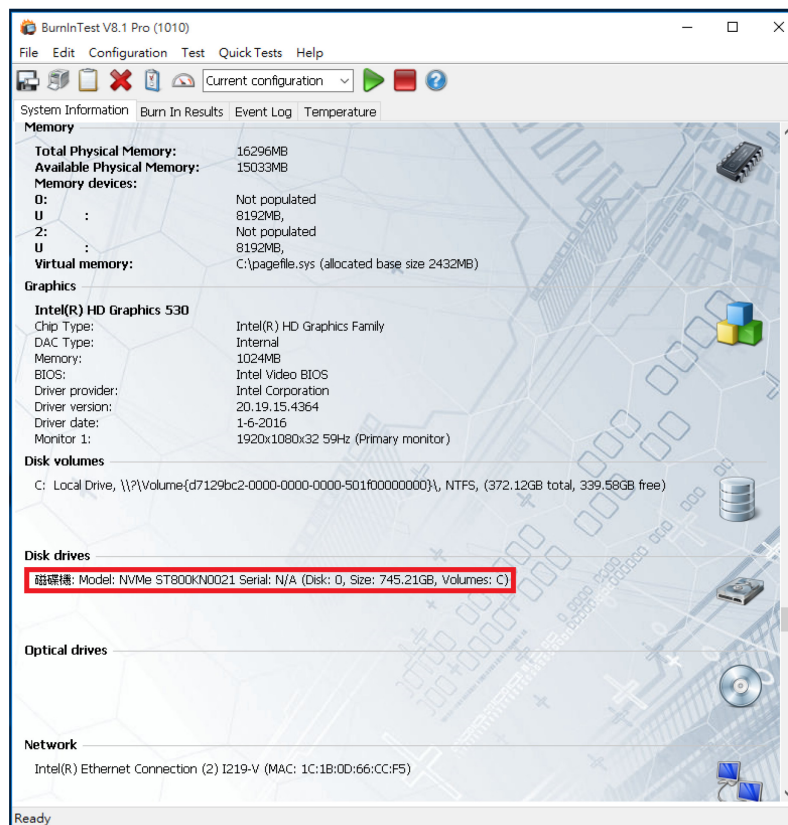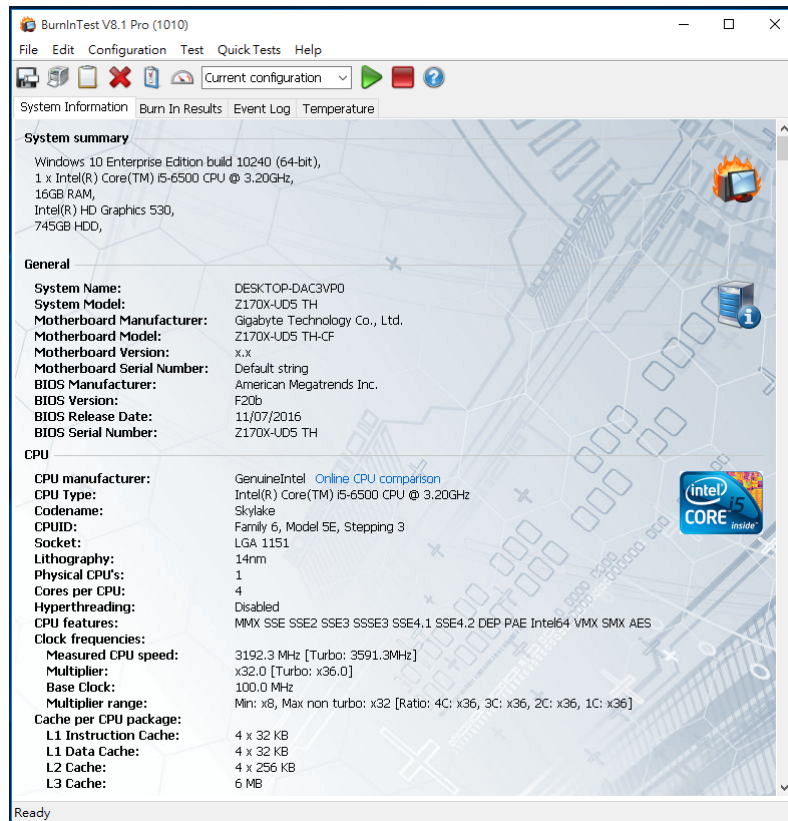### 2.8.1　Show Micron 7100 M.2(NVMe) 22x110mm /800GB performance as below:

3. Burn In Tests and Results

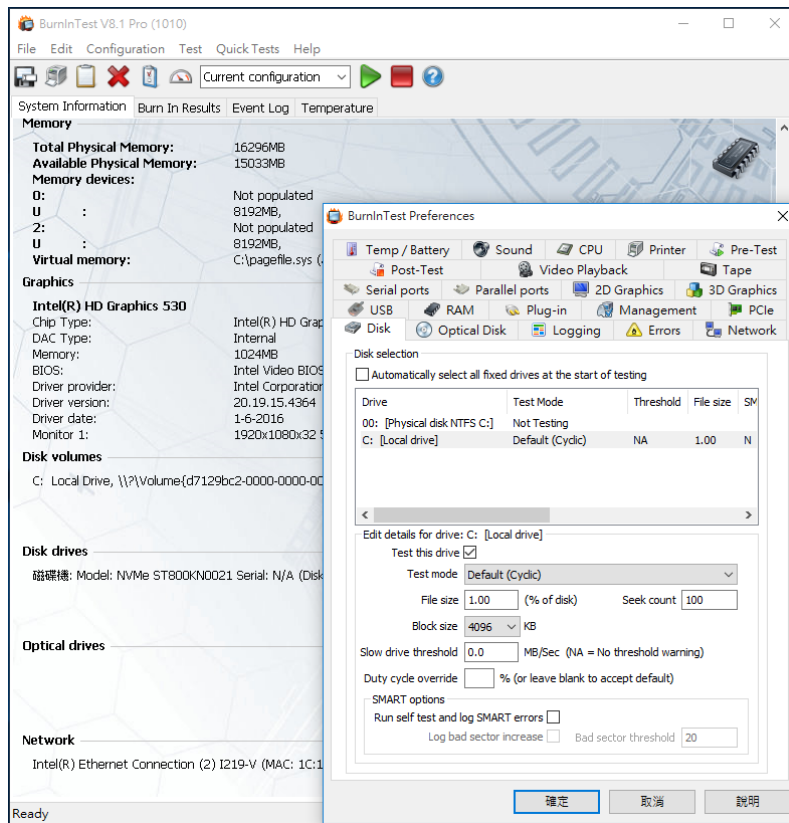3.1   BurnInTest v8.1 Pro for **Micron 7100 M.2(NVMe) 22x110mm** /**800GB**

      3.1.1   **system information** as below:
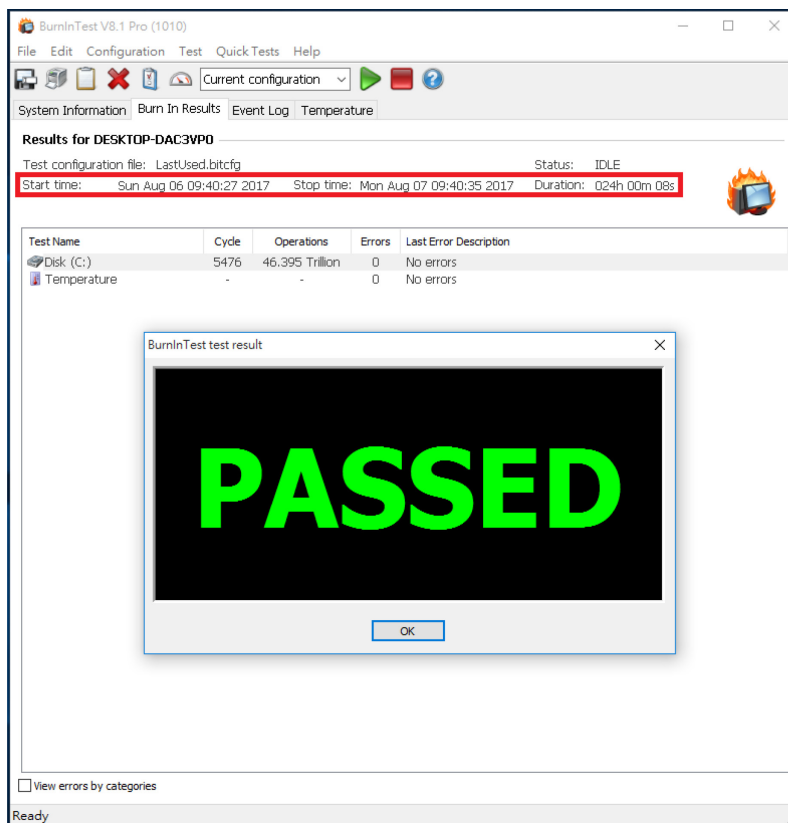
3.1.2   show Disk test mode(10 ways cycle test)

3.1.3   show 24-hour Burn-in test PASSED

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4. Summary

    4.1   M.2 NVMe SSD is PCI-e Gen 3 / 4 Lanes Interface, I/O speed, max. to 4GB.

    4.2   PE0408 adapter I/O performance is based on M.2 NVMe PCI-e Gen 3 / 4 Lanes SSD.