



MINERVA

DP8202 PCIe x8 with ReDriver for M.2 NVMe Dual-port AIC

Performance & Burn In Test Rev. 1.0

Table of Contents

1. Overview
2. Performance Measurement Tools and Results
 - 2.1 Test Platform
 - 2.2 Test target and M.2 NVMe SSD
 - 2.3 Install Hardware
 - 2.4 BIOS & Windows 10 OS environment setup
 - 2.5 CrystalDiskMark 8.0.0 x64 performance test
 - 2.6 AS SSD Benchmark 2.0.7 performance test
 - 2.7 ATTO Disk Benchamrk 4.0.1 performance test
 - 2.8 AnvilBenchmark_V110_B337 Benchmark performance test
3. Burn In Tests and Results
 - 3.1 BurnInTest v8.1 Pro burn in test
4. Summary

DP8202 Add-in card

1. Overview

DP8202 Add-in card, providing two M.2 M-key connector can be M.2 (PCI-e I/F NVMe) SSD plugged into it and uses heat sink strip to M2 SSD, then DP8202 can plug in PCIe slot of M/B.

2. Tools and Results of Performance Measurement

2.1 Test Platform

- M/B : GIGABYTE **X570 AORUS MASTER**
- CPU : AMD **Ryzen 7, 3700X 8-Core**
- Memory : Kingston **KVR26N19D8/16, DDR4-2666MHz, 32GB**(16GB DIMM*2)
- ATX Power : COOLER MASTER G750M, **750W ATX**, 12V V2.2 Power Supply
- Adapter: DP8202 PCIe x8 to Dual-port M.2 NVMe AIC
- OS : Microsoft **Windows 10 64bit OS**

2.2 Test target: DP8202 AIC with GIGABYTE **Gen4 512GB** SSD & Lite-On **Gen3 960GB** SSD



DP8202 Add-in card

2.3 Install Hardware

Inserts M.2 SSD into DP8202 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 DP8202 into **PCIe slot of X570 AORUS MASTER**.

2.4 BIOS & Windows 10 OS environment setup

2.4.1 Primary M.2 NVMe SSD, formatted to NTFS Mode. Don't install any program.

2.4.2 Secondary M.2 NVMe SSD, formatted to NTFS Mode. Don't install any program.

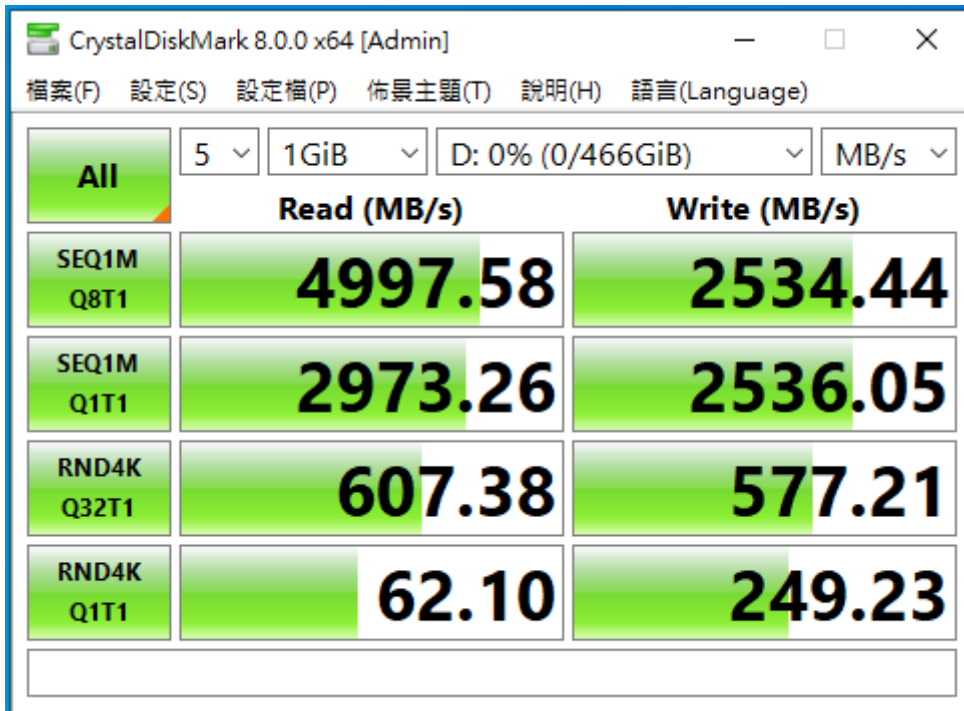


DP8202 Add-in card

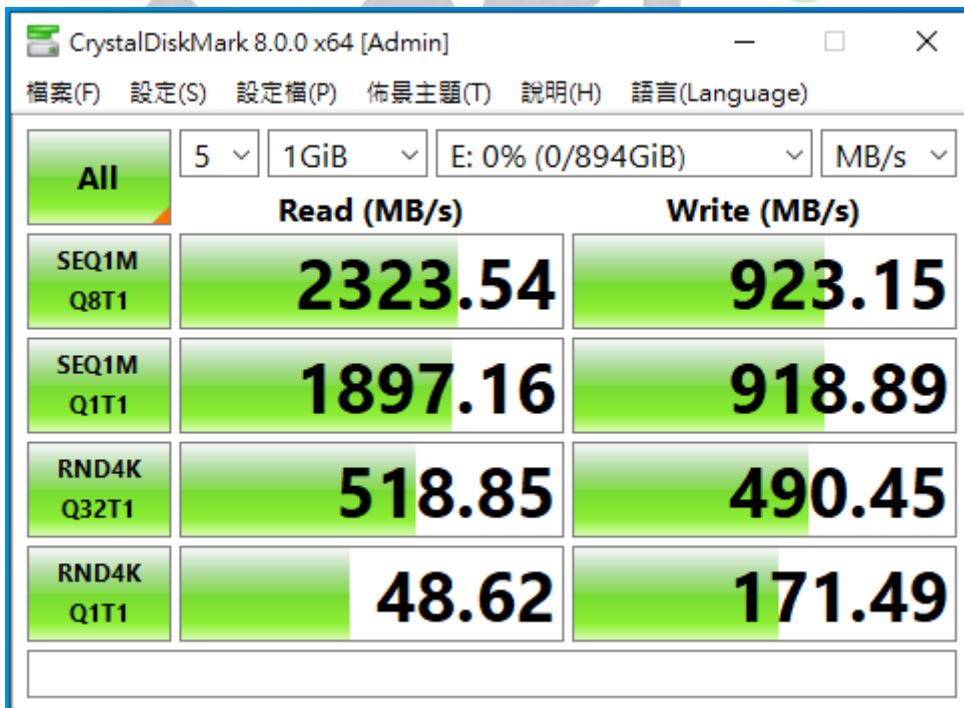
2.5 CrystalDiskMark 8.0.0 x64 performance test

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

2.5.1 GIGABYTE Gen4 512GB SSD performance as below:



2.5.2 Lite-On Gen3 960GB SSD performance as below:

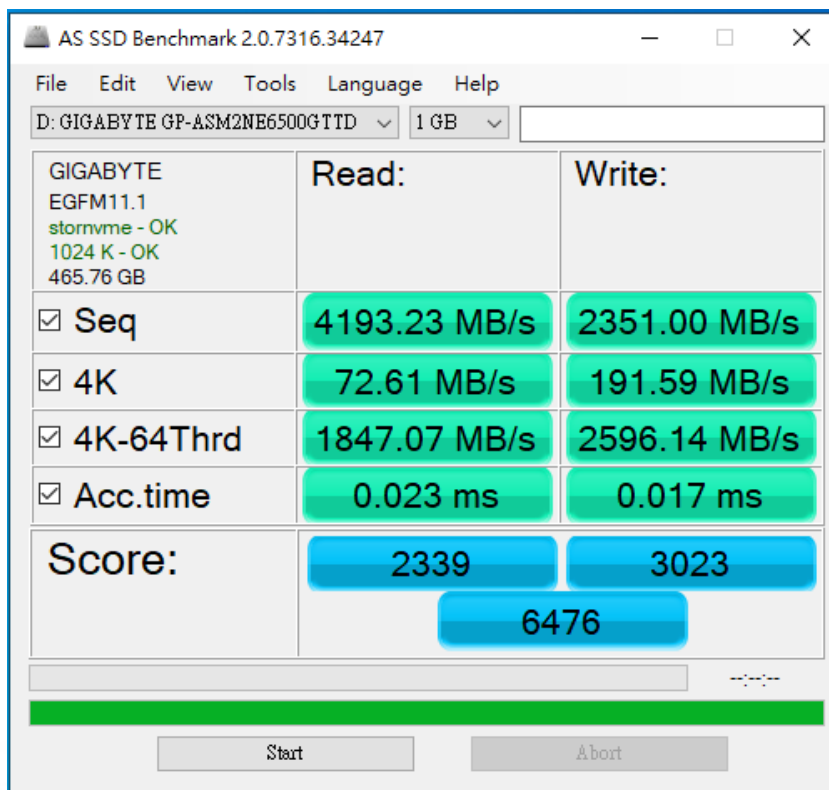


DP8202 Add-in card

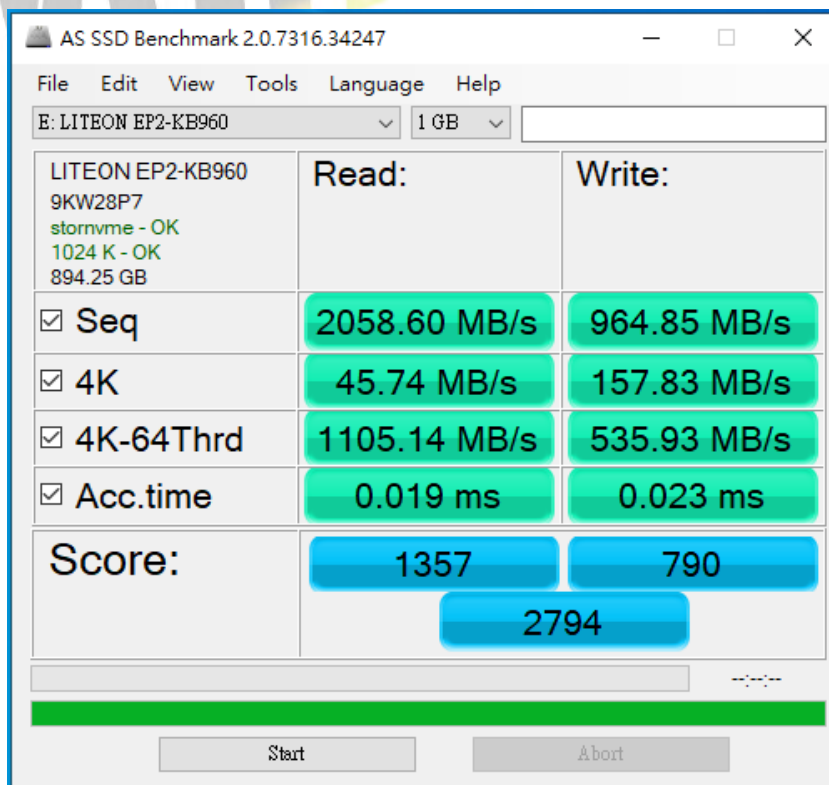
2.6 AS SSD Benchmark 2.0.7 performance test

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

2.6.1 GIGABYTE Gen4 512GB SSD performance as below:



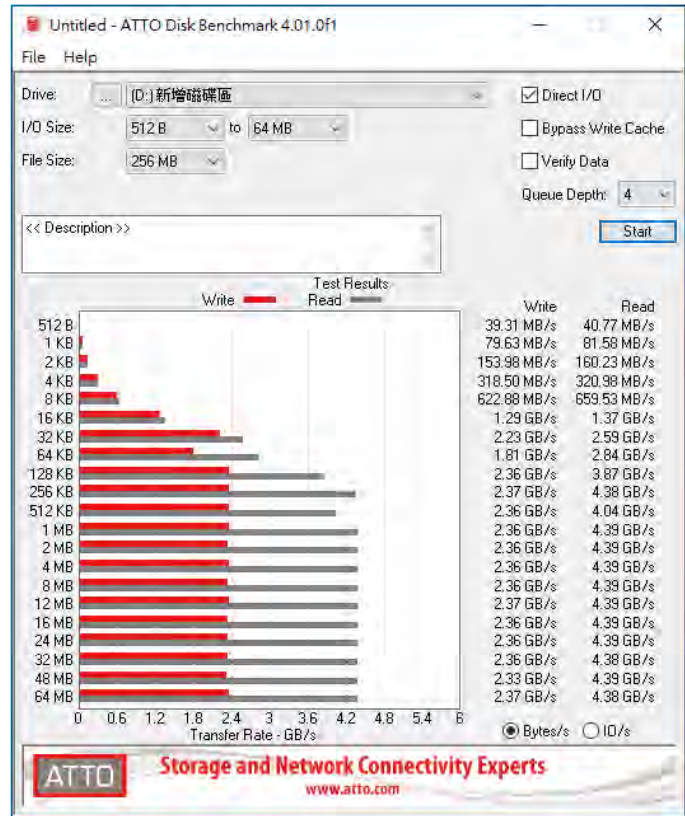
2.6.2 Lite-On Gen3 960GB SSD performance as below:



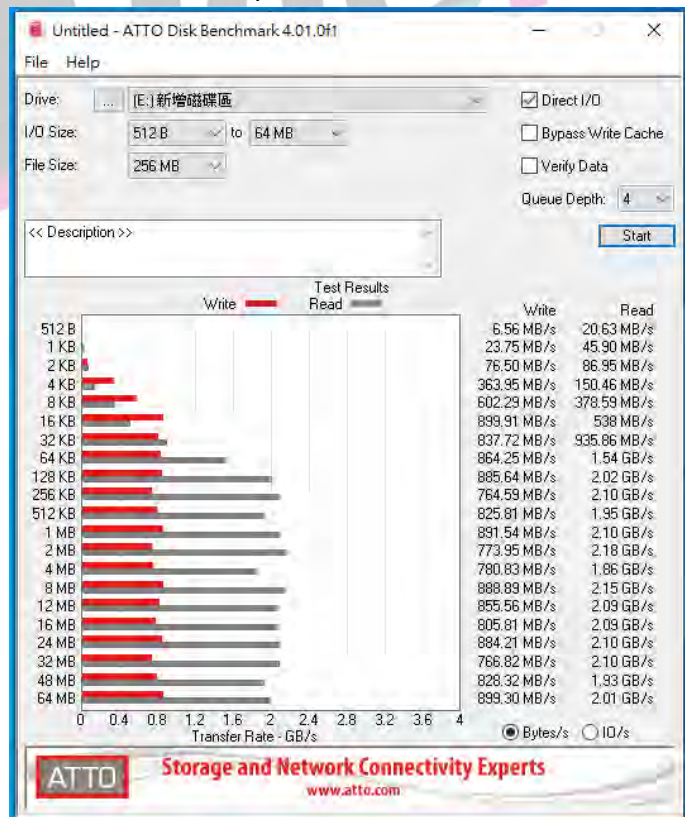
DP8202 Add-in card

2.7 ATTO Disk Benchmark 2.47 performance test

2.7.1 GIGABYTE Gen4 512GB SSD performance as below:



2.7.2 Lite-On Gen3 960GB SSD performance as below:



DP8202 Add-in card

2.8 AnvilBenchmark_V110_B337

2.8.1 GIGABYTE Gen4 512GB SSD performance as below:



2.8.2 Lite-On Gen3 960GB SSD performance as below:

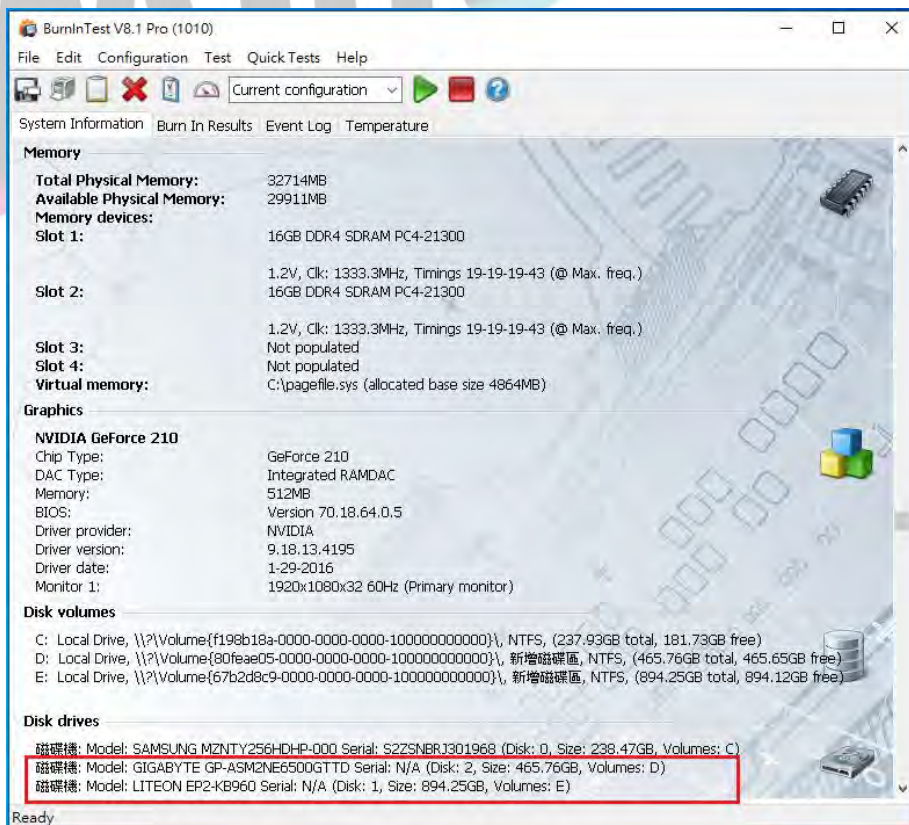
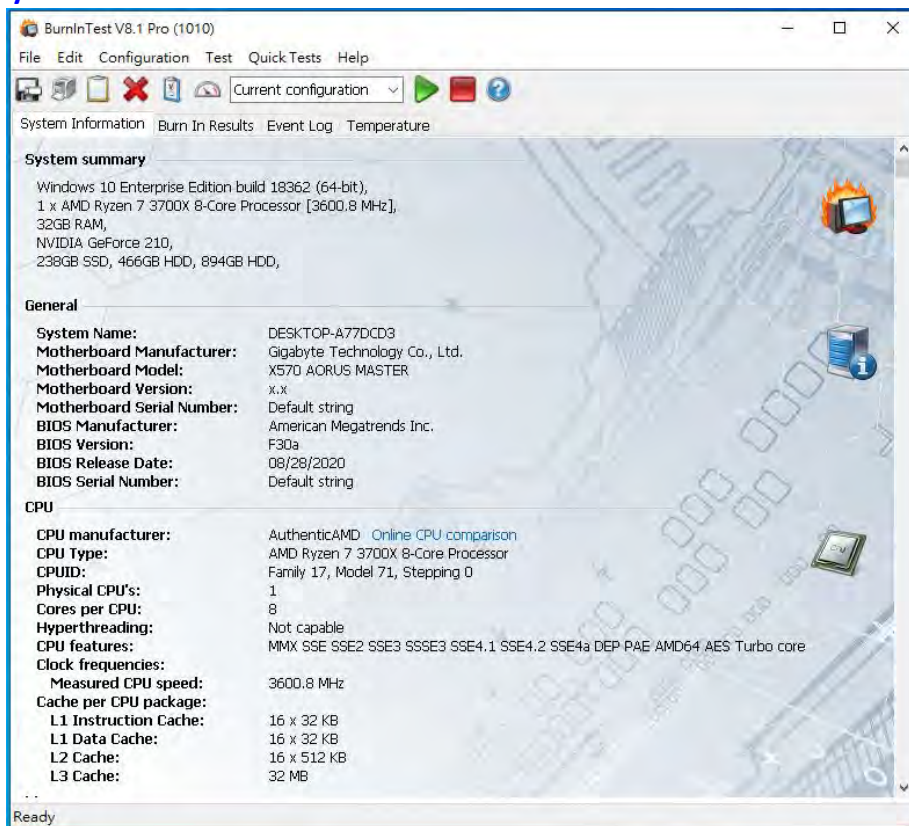


DP8202 Add-in card

3. Burn In

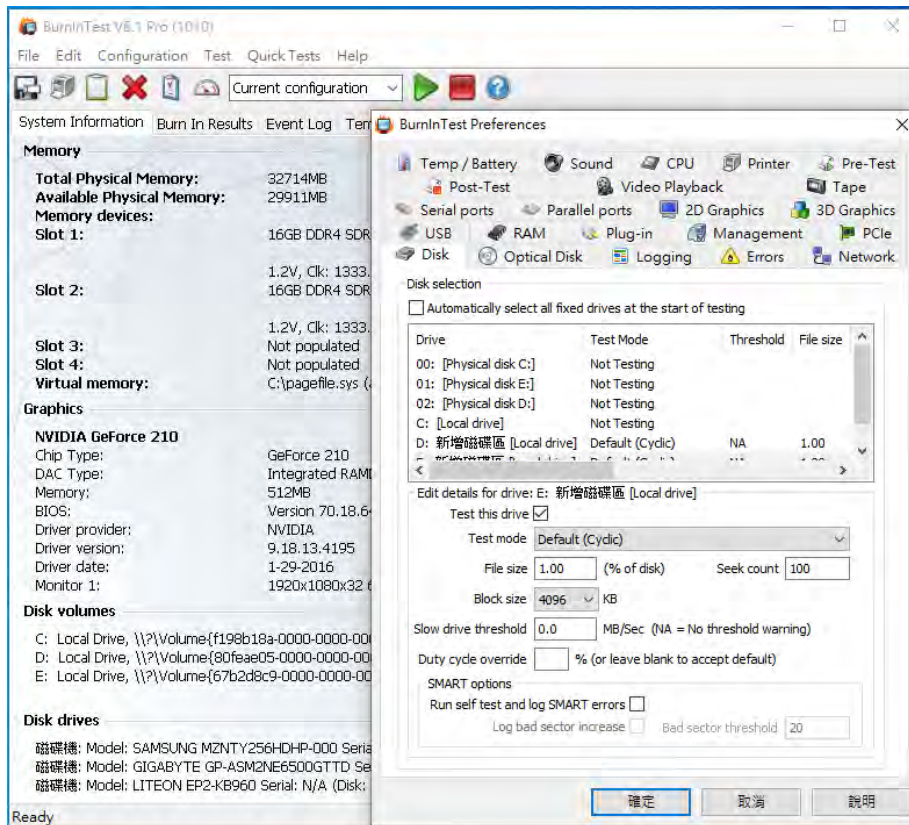
3.1 BurnInTest v8.1 Pro for [Lite-On/960GB](#) & [GIGABYTE/512GB](#)

3.1.1 system information as below:

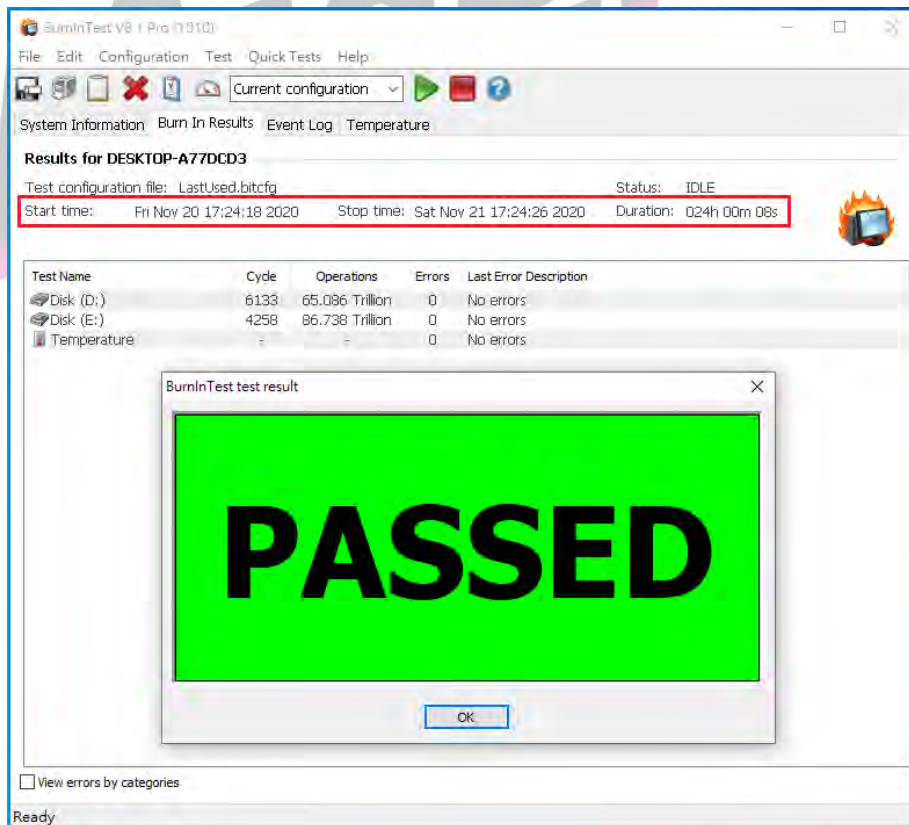


DP8202 Add-in card

3.1.2 Disk test mode (10 ways cycle test)



3.1.3 24-hour Burn-in test PASSED



DP8202 Add-in card

4. Summary

- 4.1 M.2 SSD is PCIe Gen4 / 4 Lanes Interface, I/O speed, max. to 64Bb/s.
- 4.2 M.2 SSD is PCIe Gen3 / 4 Lanes Interface, I/O speed, max. to 32Bb/s.
- 4.2 DP0802 adapter I/O performance is based on M.2 NVMe PCIe SSD.

