



MINERVA

PE0805 PCIe 8 Lanes to OCulink 8i Converter Card

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 & M.3 NF1 NVMe SSD

2.3 Install Hardware

2.4 BIOS & Windows 10 OS environment setup

2.5 CrystalDiskMark 6.0.2 x64 performance test

2.6 AS SSD Benchmark 2.0.6 performance test

2.7 ATTO Disk Benchamrk 3.0.5 performance test

2.8 AnvilBenchmark_V110_B337 Benchmark performance test

3. Burn In Tests and Results

3.1 BurnInTestv8.1 Pro burn in test

4. Summary

PE0805 Rev1.0 Converter Card

1. Overview

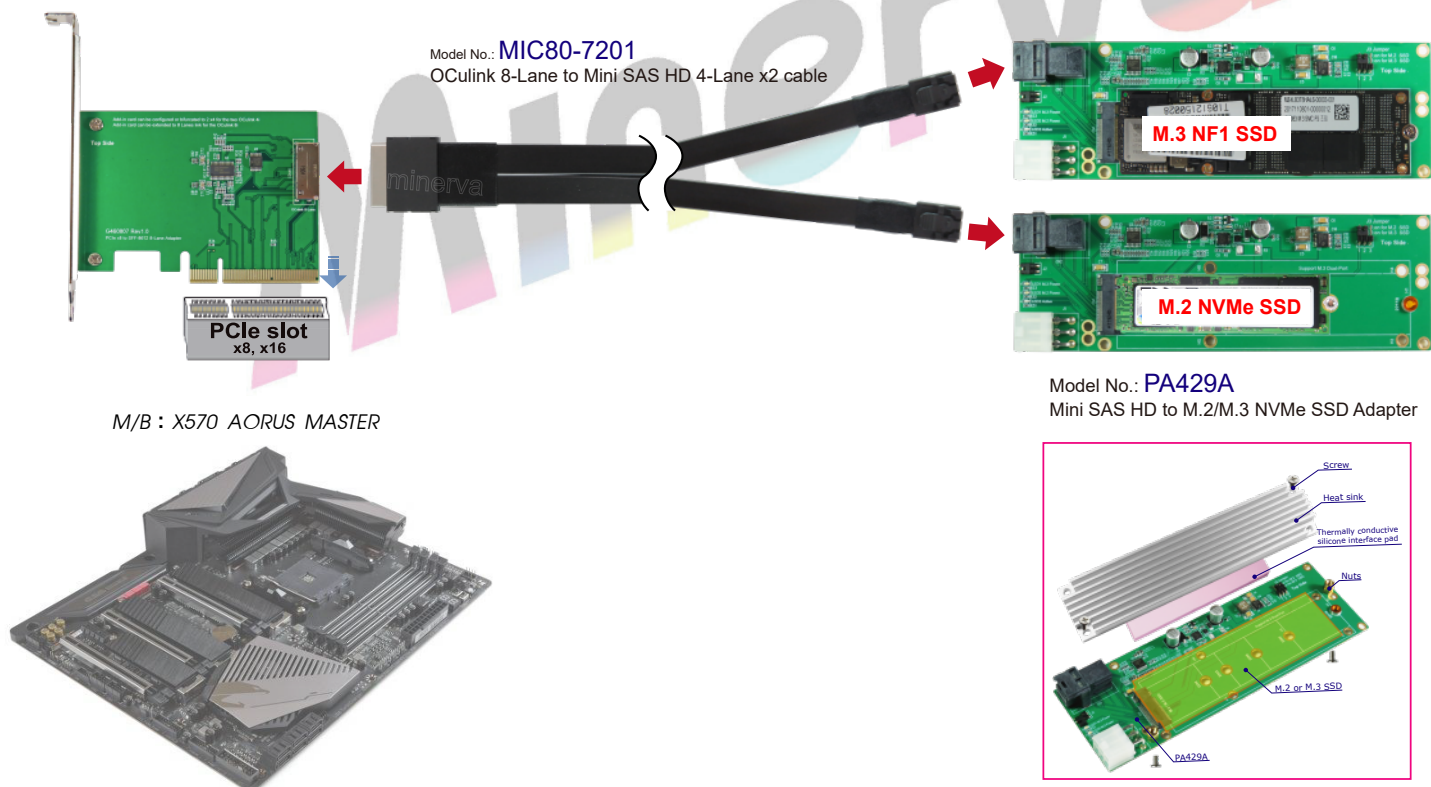
This riser card has built-in SFF-8612 8i connector. It is designed for use by PCIe x8 to configure two x4 bifurcations or can be extended PCIe x8 data width link.

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: PE0805 PCIe x8 to OCulink 8i Adapter
Cable: SFF-8611(OCulink 8i) 8-Lane to SFF-8643 x2 Y-Cable
OS : Microsoft **Windows 10 64bit OS**

2.2 Test target: PE0805 adapter and M.3 NF1 & M.2 NVMe SSD



PE0805 Rev1.0 Converter Card

2.3 Install Hardware

First inserts PE0805 riser card into GABYTE **X570 AORUS MASTER** PCIe x16 Slot and, using the MIC80-7201 Cable to connect PA429 adapter with M.3 NF1 & M.2 NVMe SSD.

2.4 BIOS & Windows 10 OS environment setup

2.4.1 Primary M.2 NVMe SSD install Windows 10 OS.

2.4.2 M.3 NF1&M.2 NVMe SSD, formatted to NTFS Mode. Don't install any program.

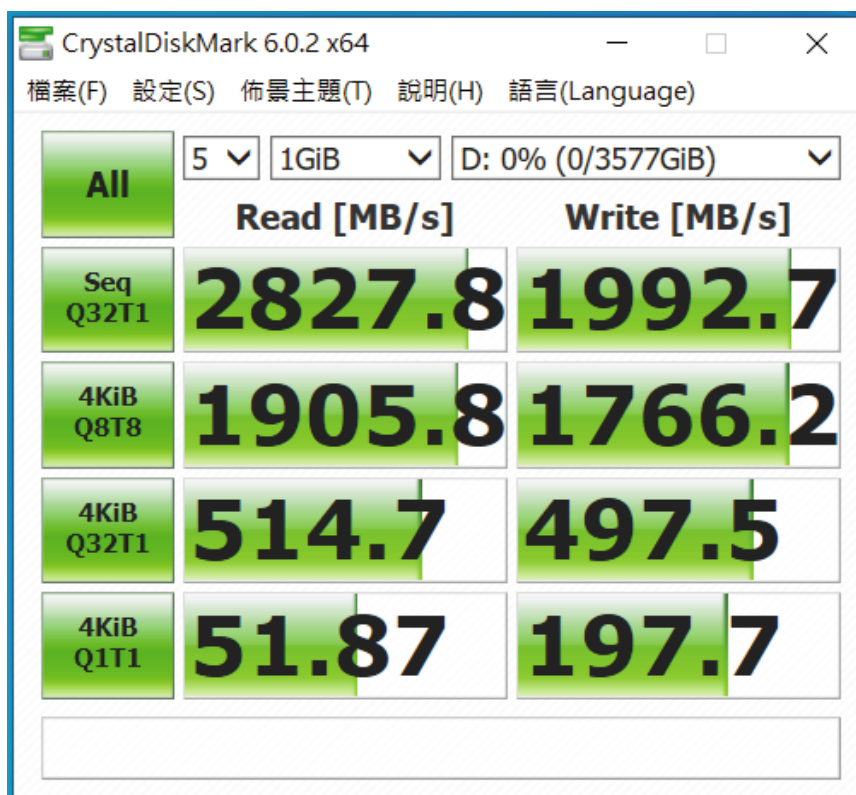


PE0805 Rev1.0 Converter Card

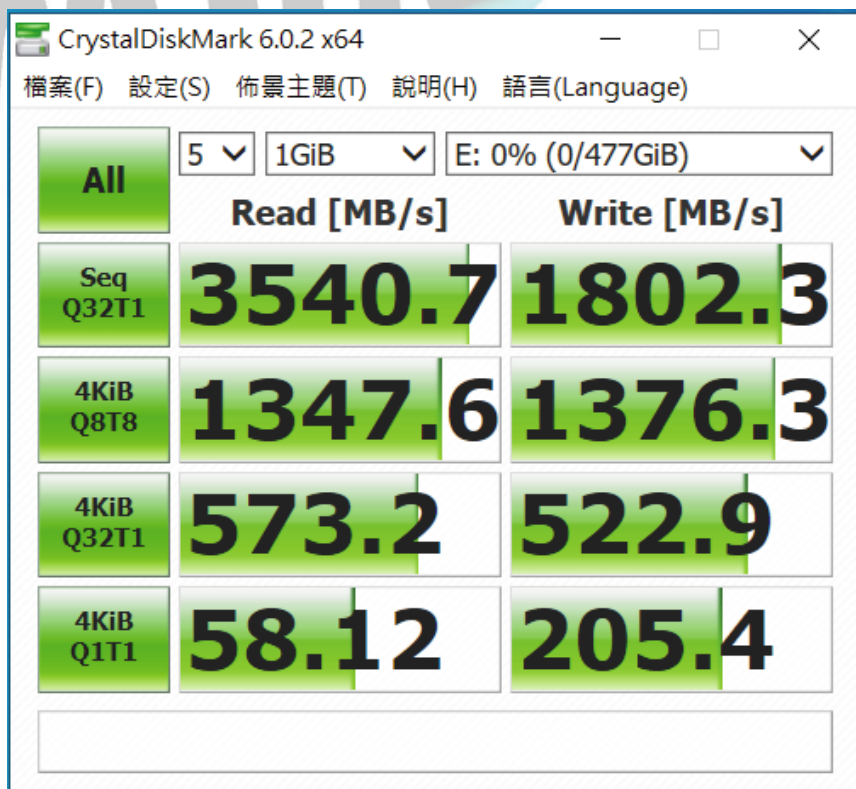
2.5 CrystalDiskMark 6.0.2 x64 performance test

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

2.5.1 Samsung M.3 NF1 NVMe / 4TGB performance as below:



2.5.2 Samsung M.2 NVMe / 512GB performance as below:

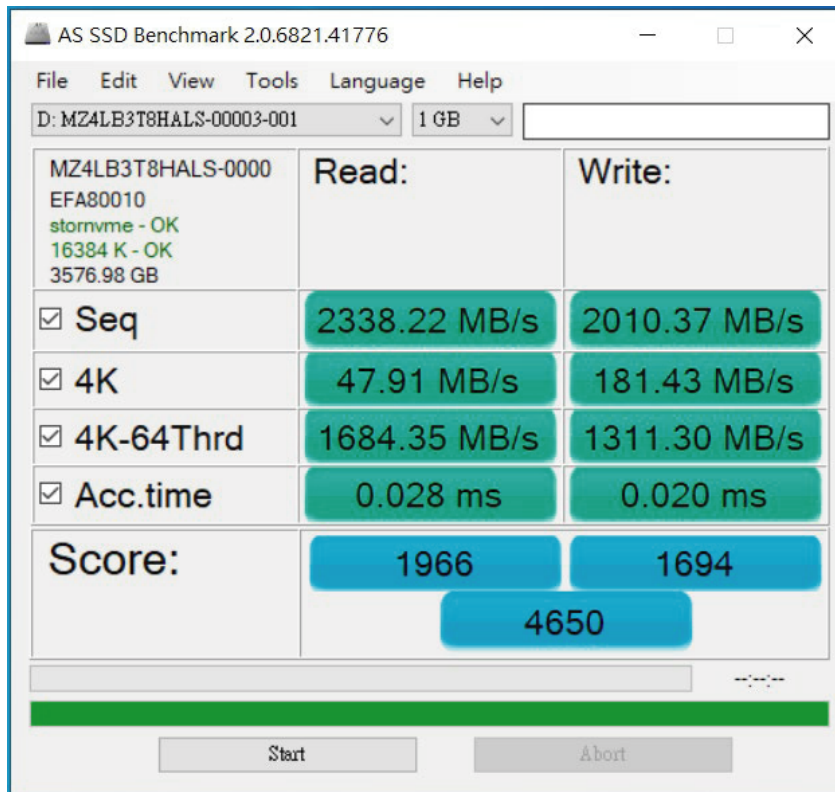


PE0805 Rev1.0 Converter Card

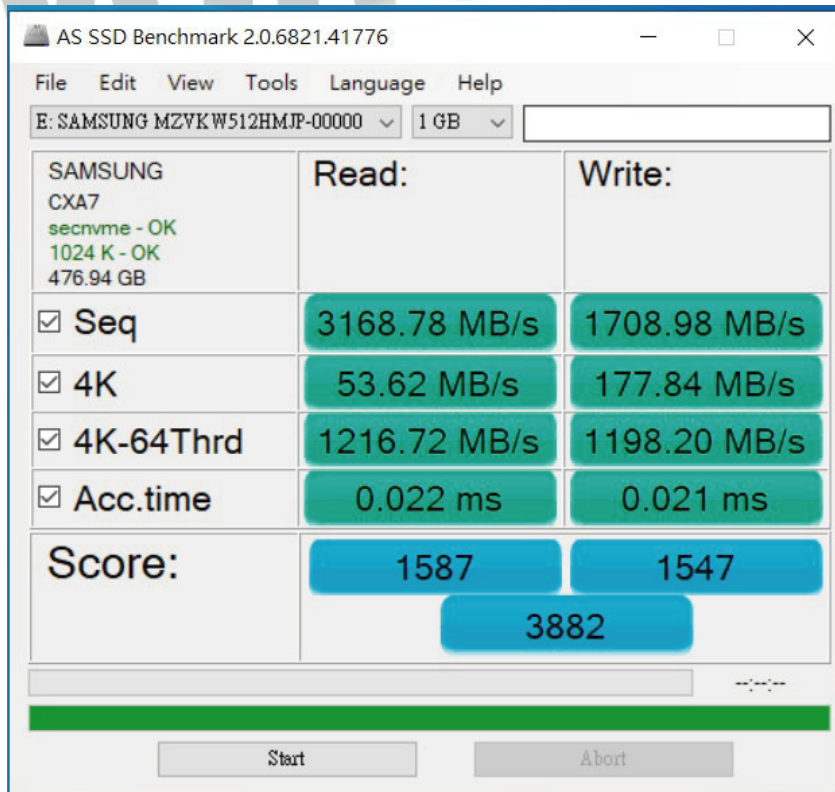
2.6 AS SSD Benchmark 2.0.6 performance test

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

2.6.1 Samsung M.3 NF1 NVMe / 4TGB performance as below:



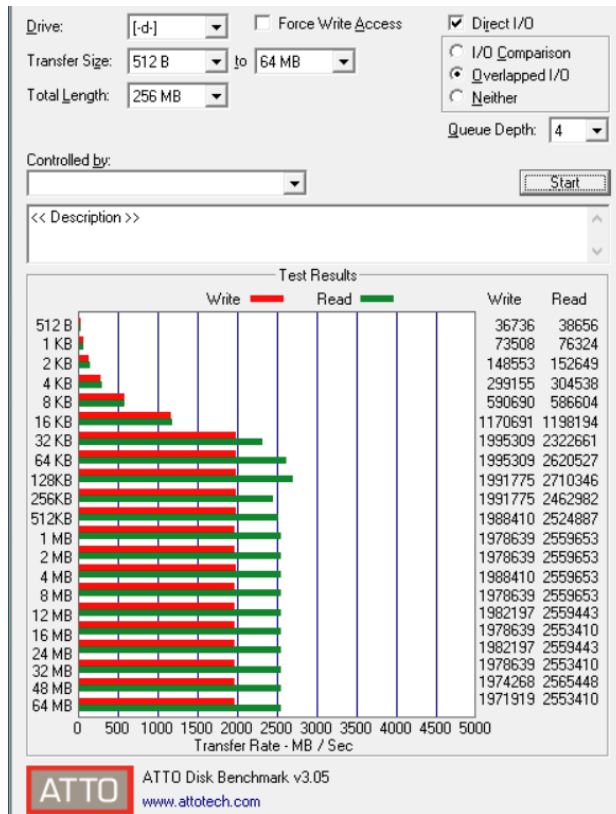
2.6.2 Samsung M.2 NVMe / 512GB performance as below:



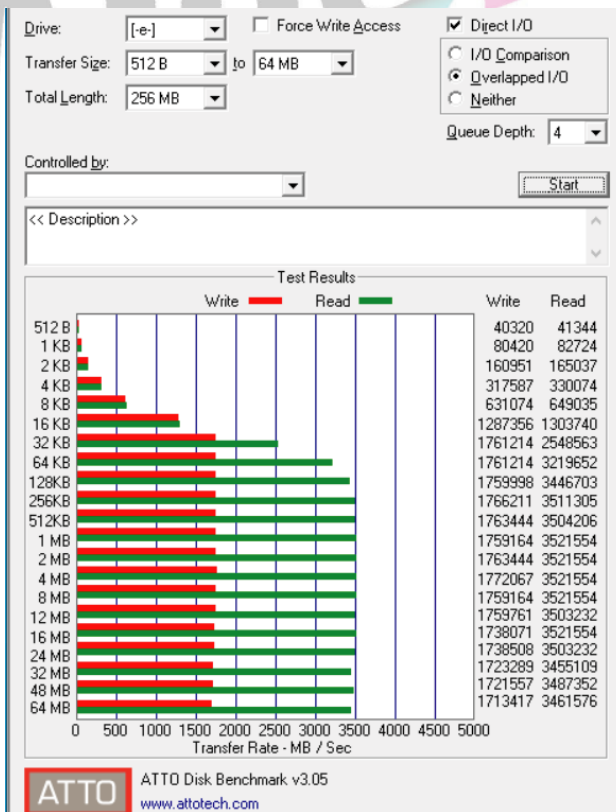
PE0805 Rev1.0 Converter Card

2.7 ATTO Disk Benchmark 3.0.5 performance test

2.7.1 Samsung M.3 NF1 NVMe / 4TGB performance as below:



2.7.2 Samsung M.2 NVMe / 512GB performance as below:



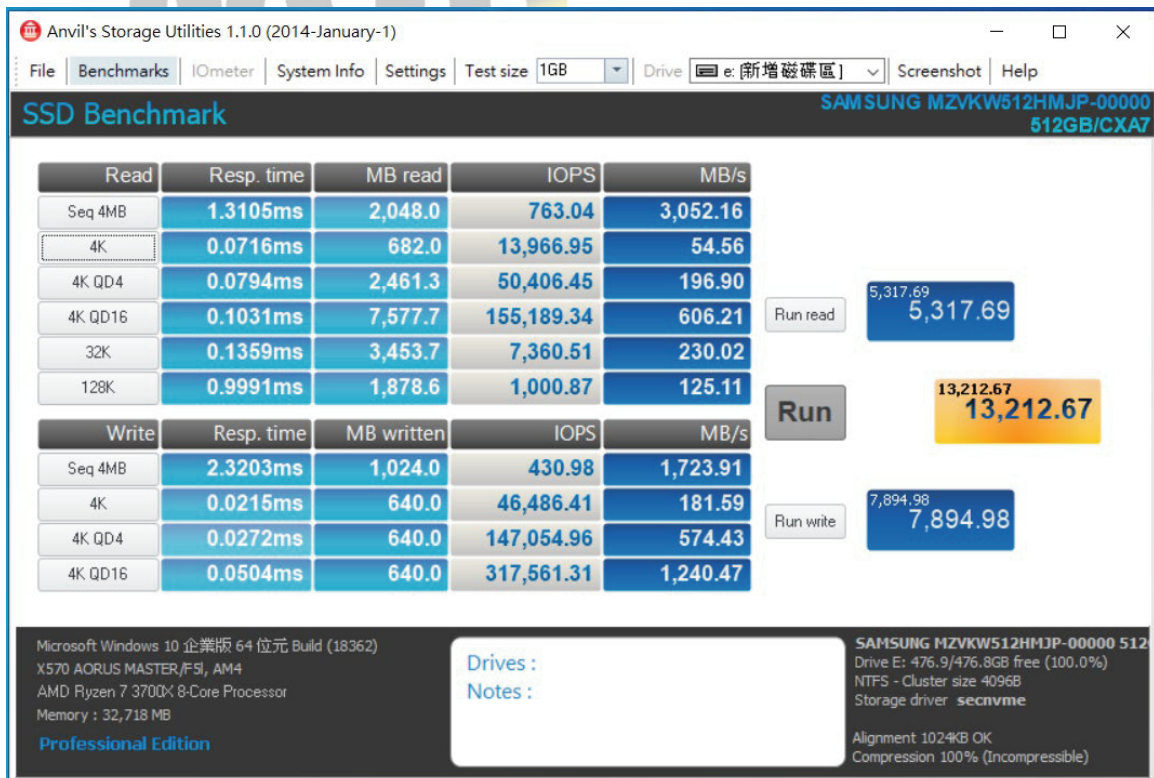
PE0805 Rev1.0 Converter Card

2.8 AnvilBenchmark_V110_B337

2.8.1 Samsung M.3 NF1 NVMe / 4TGB performance as below:



2.8.2 Samsung M.2 NVMe / 512GB performance as below:

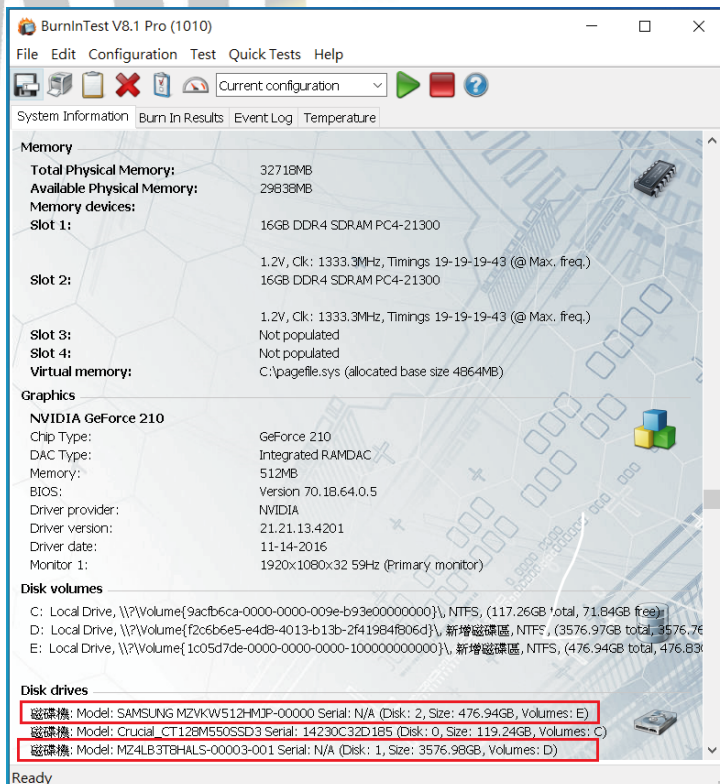


PE0805 Rev1.0 Converter Card

3. Burn In Tests and Results

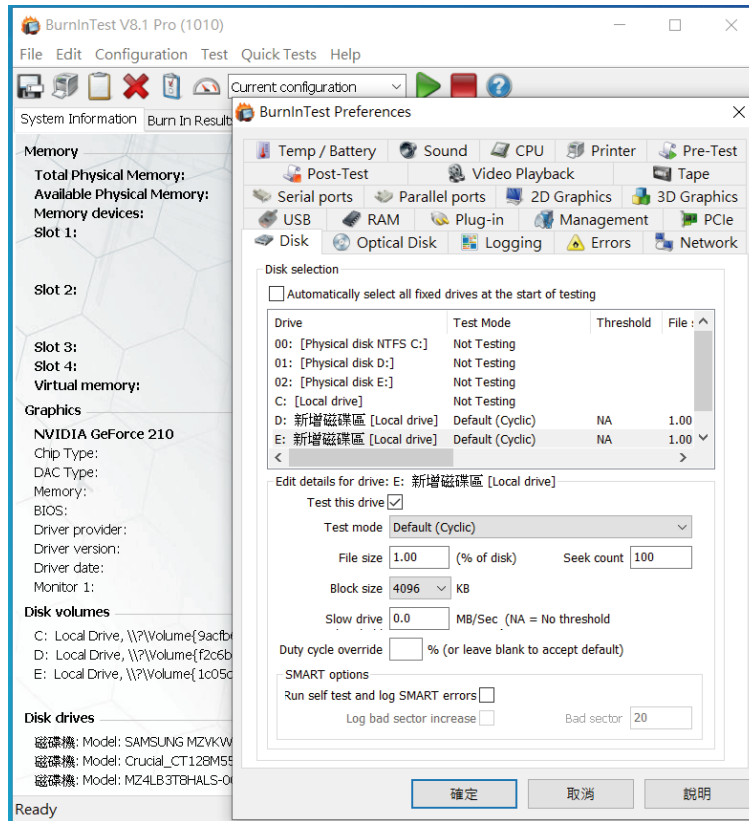
3.1 BurnInTest v8.1 Pro

3.1.1 system information as below:

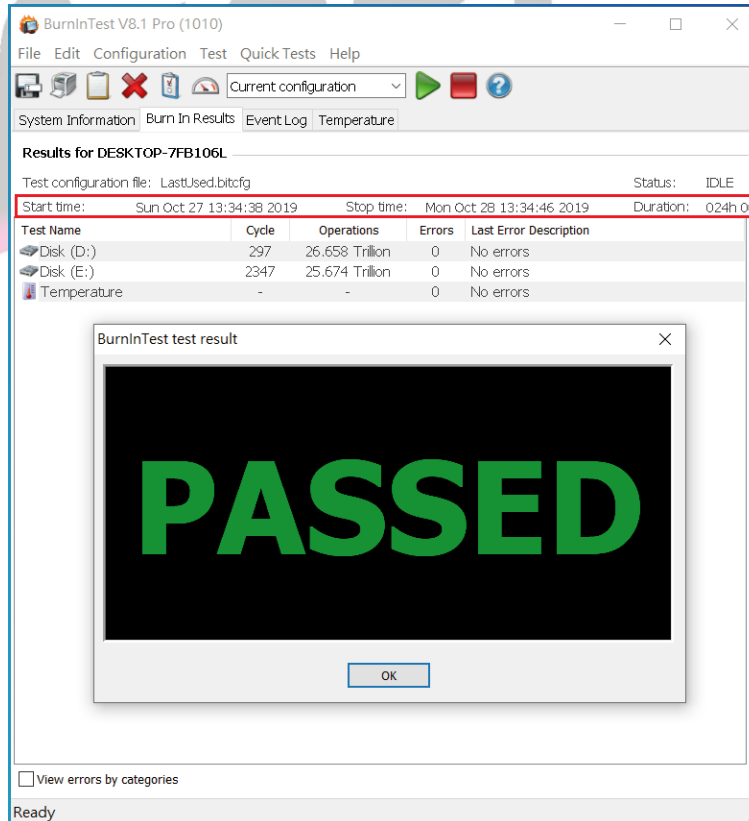


PE0805 Rev1.0 Converter Card

3.1.2 Disk test mode(10 ways cycle test)



3.1.3 24-hour Burn-in test PASSED



4. Summary

- 4.1 M.3 NF1 & M.2 NVMe SSD is PCI-e Gen 3 / 4 Lane Interface, I/O speed, max. to 32Gbps.
- 4.2 PE0805 adapter I/O performance is based on M.3 or M.2 NVMe SSD.

