# MINERVA

## DP8305 PCIe x8 Gen4 with ReDriver to OCulink 8i A.I.C

# Performance & Burn In Test Rev 1.0

## Table of Contents

# DP8305 Add-in Card

## 1. Overview

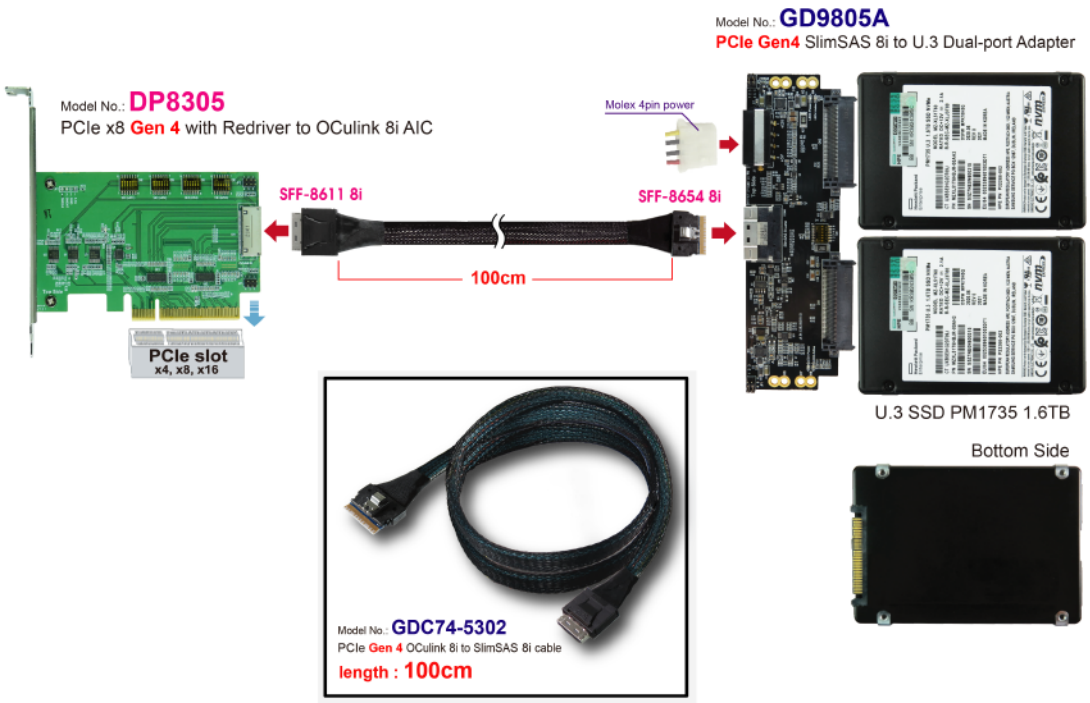
This riser card has built-in OCulink 8i(SFF-8612) 8i connector. It is designed for use by PCIe x8 to configure two x4 bifurcations or can extend PCIe x8 channel reach. The ReDriver may support CTLE to boost up to **13 dB at 8 GHz**.

## 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
Add in Card: DP8305 PCIe x8 to Oculink 8i(SFF-8612) AIC
Cable: PCIe Gen 4 Oculink 8i(SFF-8611) to SlimSAS(SFF-8654) 8i, 100cm Cable
Adapter: GD9805A SlimSAS(SFF-8654) 8i to U.3 dual port adapter
OS : Microsoft **Windows 10 64bit OS**

### 2.2 Test target: DP8305, GD9805A & SAMSUNG PM1735 U.3 NVMe SSD/ 1.6TB **x2**



## 2.3 Install Hardware

First inserts the U.3 SSD into the GD9805A SFF-8639 connector dual port and connects to the DP8305 AIC card (PCIe x8 Gen 4 to SFF-8612 8i) using the **GDC74-5302 Cable**, and then Plugs DP8305 AIC into GIGABYTE **X570 AORUS MASTER**.

## 2.4 BIOS & Windows 10 OS environment setup

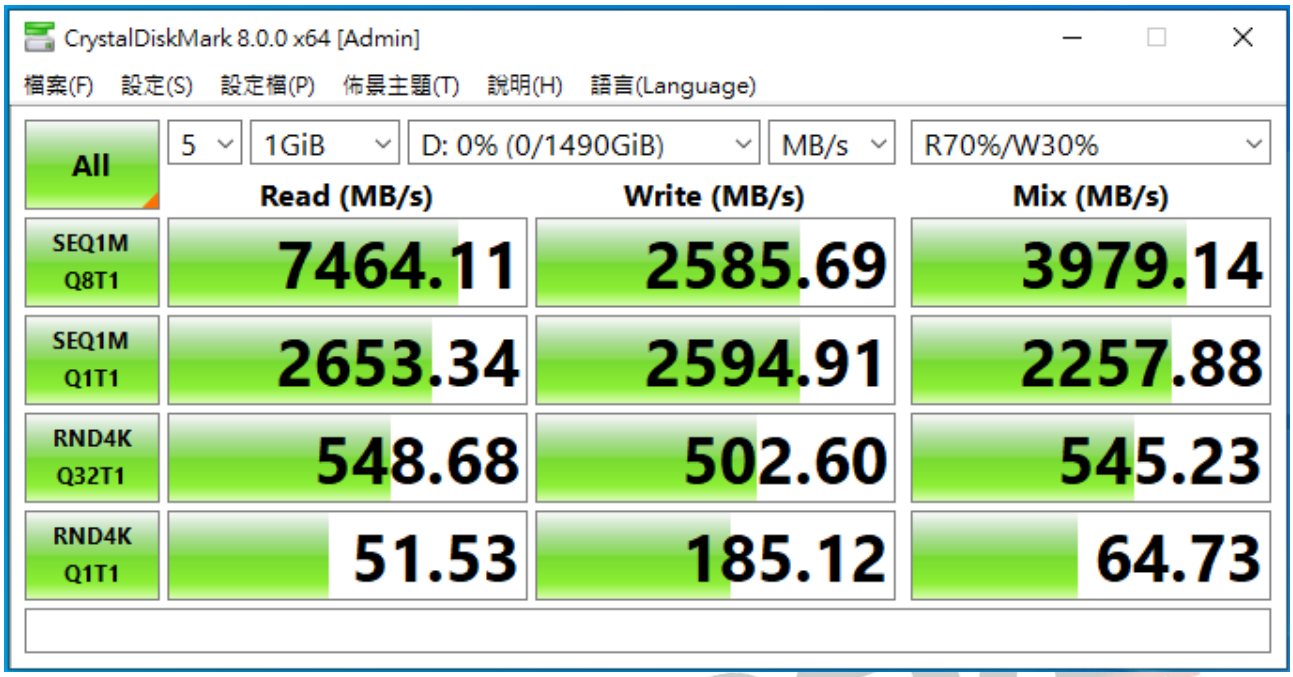
2.4.1 Primary SATA NVMe SSD install Windows 10 OS.

2.4.2 Two U.3 NVMe SSDs, formatted to NTFS Mode. Don't install any program.

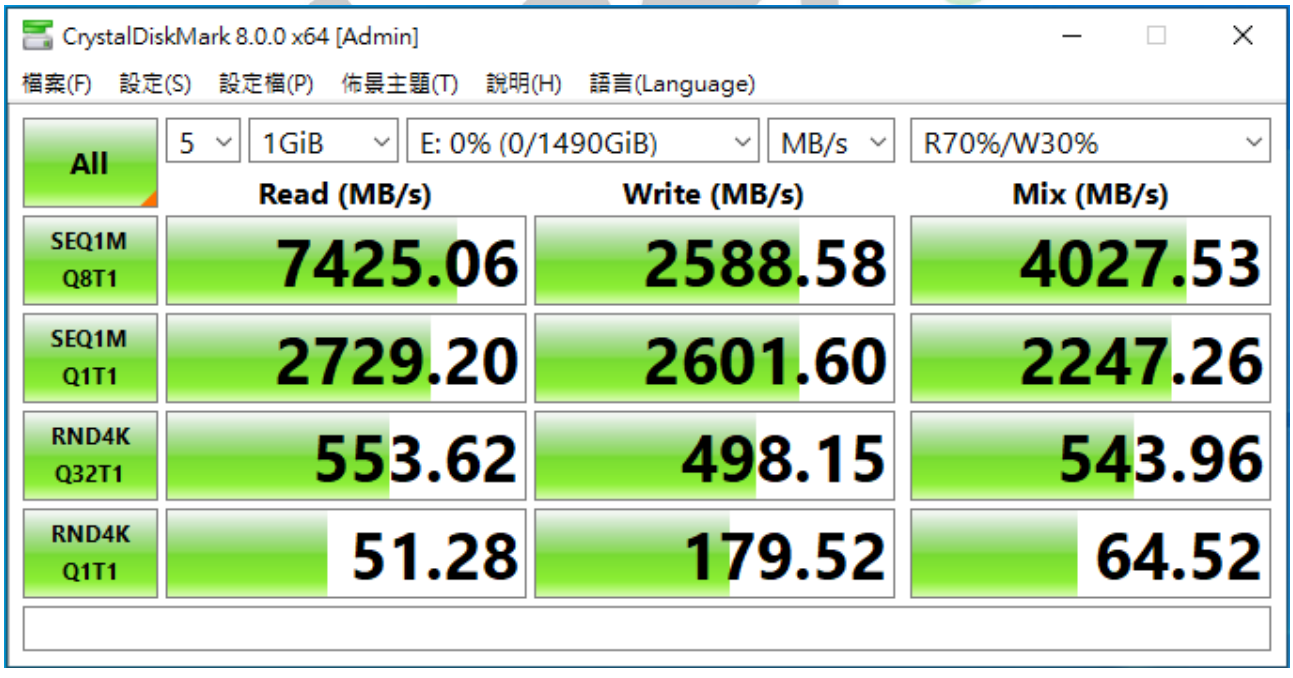
## 2.5 CrystalDiskMark 8.0.0 x64 performance test

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

### 2.5.1 SAMSUNG PM1735 U.3 NVMe SSD/ 1.6TB in **Drive D:** performance as below:



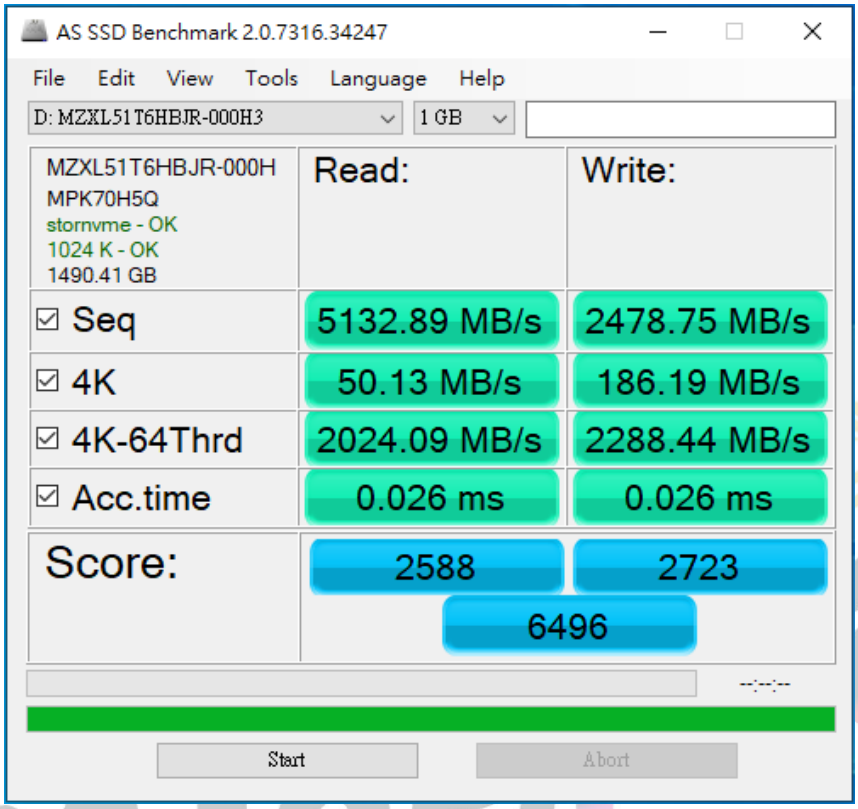

### 2.5.2 SAMSUNG PM1735 U.3 NVMe SSD/ 1.6TB in **Drive E:** performance as below:



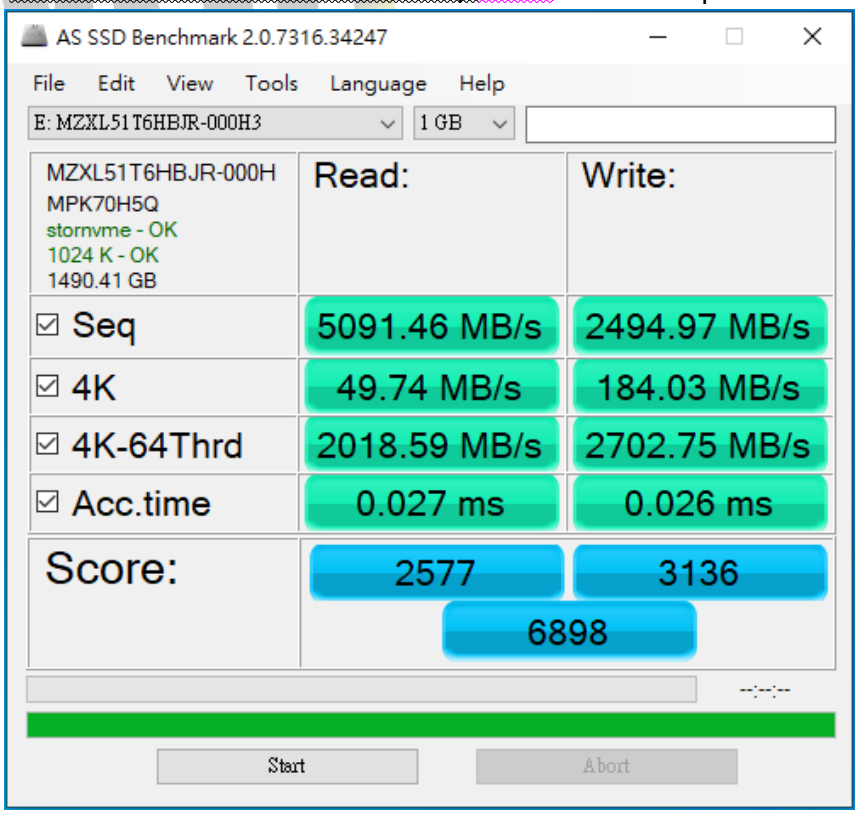
## 2.6 AS SSD Benchmark 2.0 performance test

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

### 2.6.1 SAMSUNG PM1735 U.3 NVMe SSD/ 1.6TB in **Drive D:** performance as below:

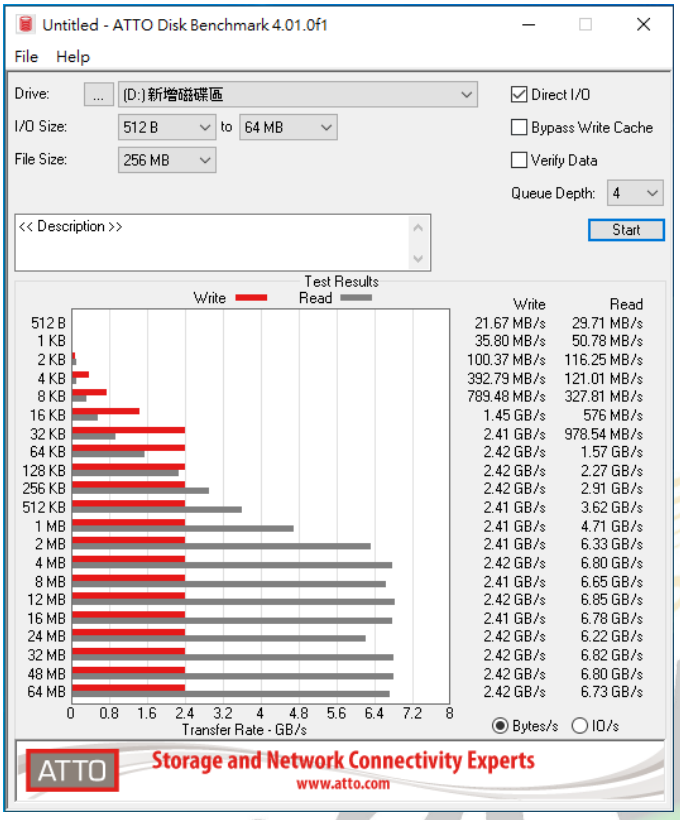



### 2.6.2 SAMSUNG PM1735 U.3 NVMe SSD/ 1.6TB in **Drive E:** performance as below:

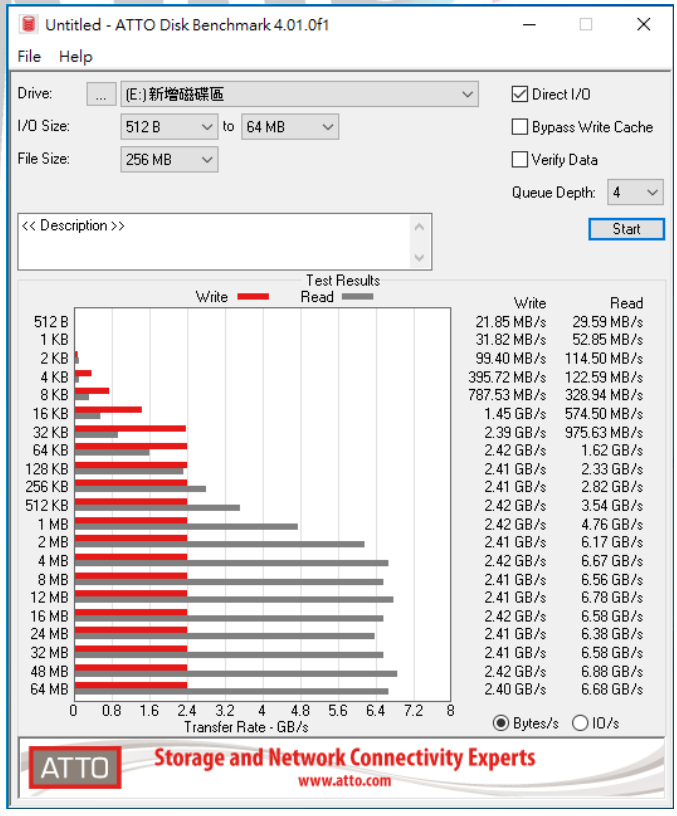


## 2.7 ATTO Disk Benchamrk 4.01 performance test

### 2.7.1 SAMSUNG PM1735 U.3 NVMe SSD/ 1.6TB in **Drive D:** performance as below:




### 2.7.2 SAMSUNG PM1735 U.3 NVMe SSD/ 1.6TB **in Drive E:** performance as below:



## 2.8 AnvilBenchmark_V110_B337

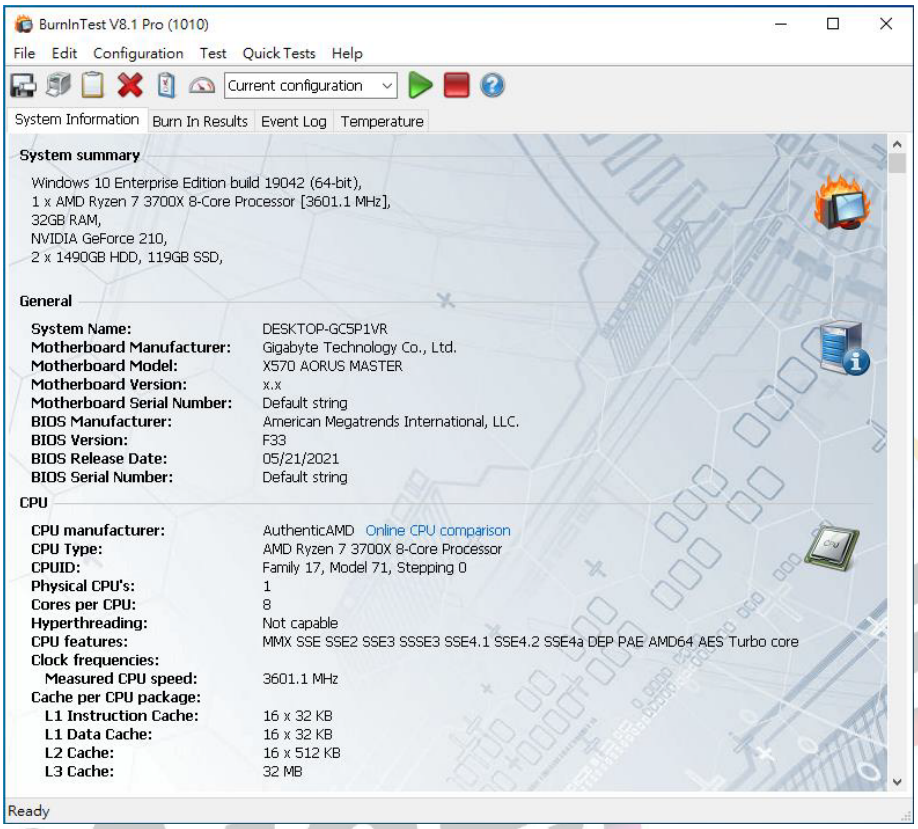
### 2.8.1 SAMSUNG PM1735 U.3 NVMe SSD/ 1.6TB in **Drive D:** performance as below:

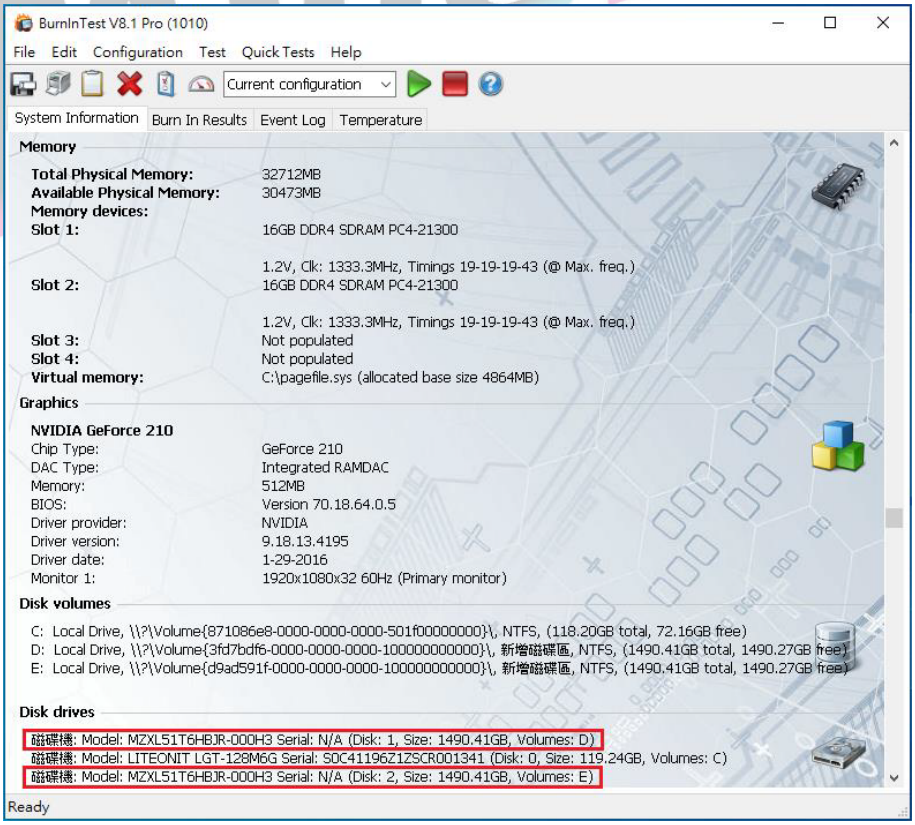

### 2.8.2 SAMSUNG PM1735 U.3 NVMe SSD/ 1.6TB **in Drive E:** performance as below:

# 3. Burn In Tests and Results

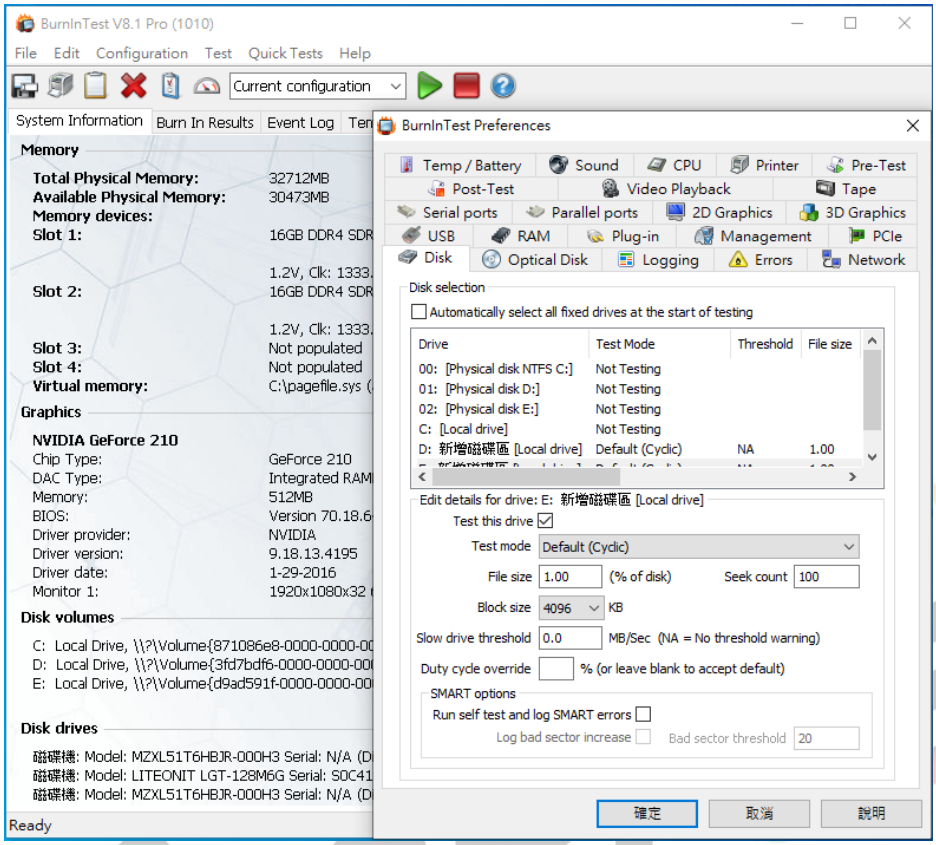
## 3.1 BurnInTest v8.1 Pro

### 3.1.1 system information as below:

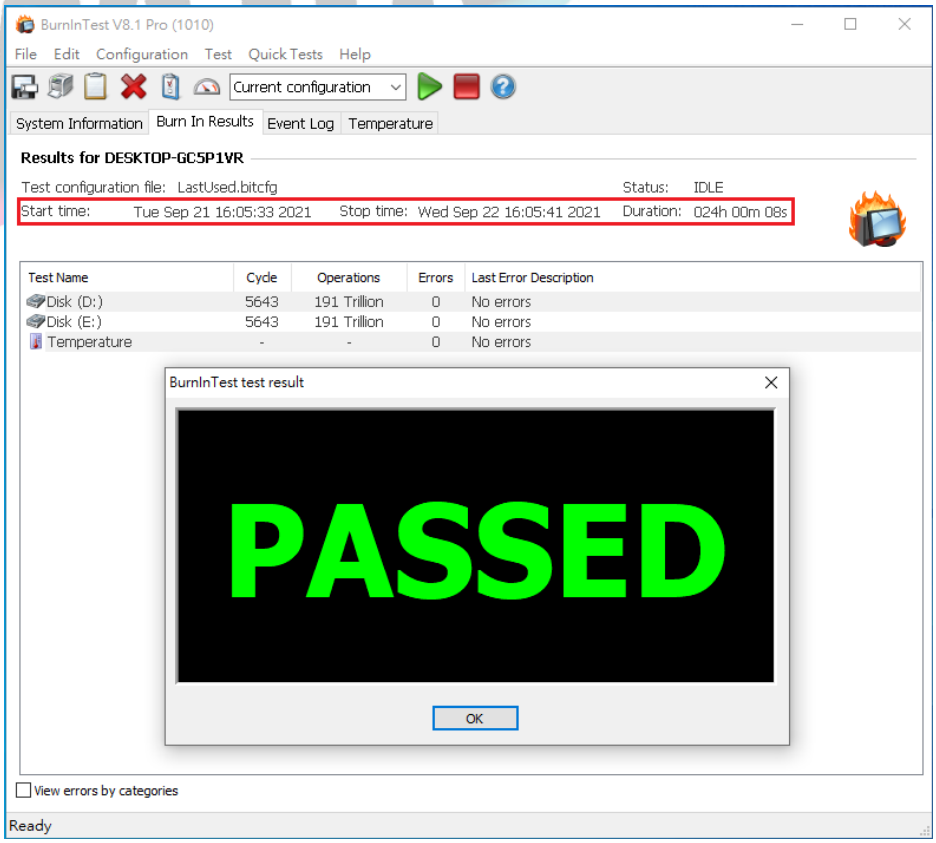


### 3.1.2 Disk test mode( 10 ways cycle test)




### 3.1.3 24-hour Burn-in test PASSED



## 4. Summary

4.1 DP8305 AIC is PCIe x8 Gen 4 with Oculunk 8i

4.2 U.3 NVMe SSD is PCIe Gen 4 / 4 Lane Interface, I/O speed, max. to 64Gbps.

4.3 DP8305 AIC I/O performance is based on U.3 NVMe SSD.