



MINERVA

GD0804A SlimSAS 4i to PCIe x4 & U.2 to PCIe x4

Performance & Burn In Test Rev. 1. 0

※ Using SFF-8654 4i male to male, 50cm Cable

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4. Summary

1. Overview

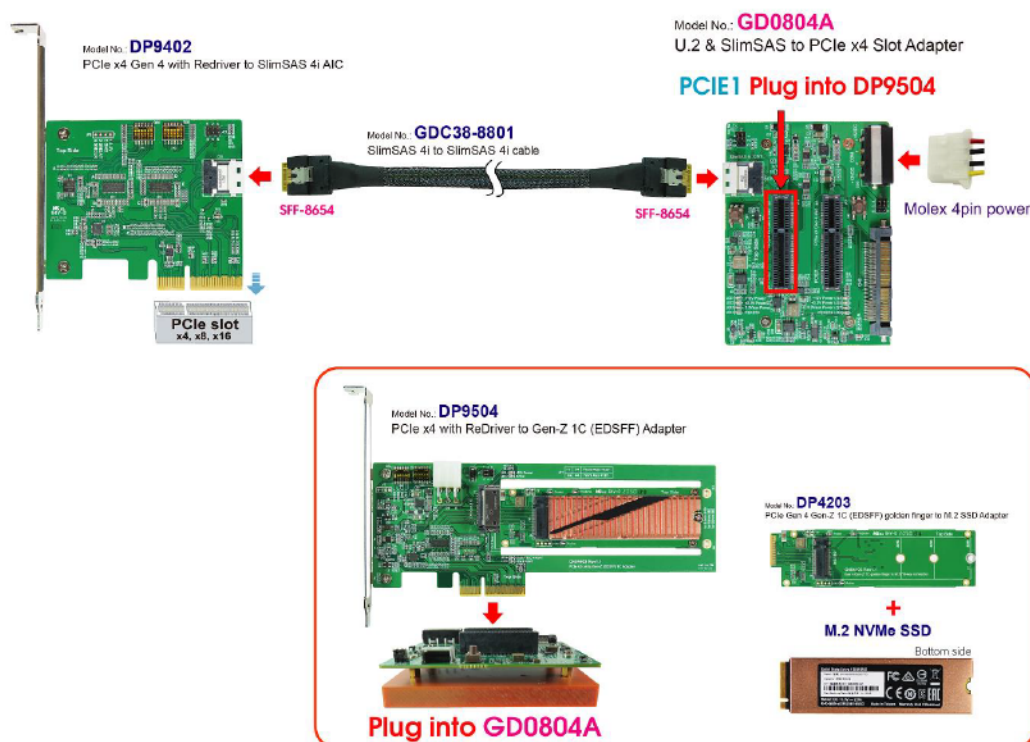
The Adapter may provide PCIe x4 Gen4, 16GT/s high-speed signals extension from U.2(SFF-8639) to PCIe x4 Slot.

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
AIC: DP9402 PCIe x4 Gen 4 with Redriver to SlimSAS 4i Add-in Card
Adapter: GD0804A U.2 to PCIe x4 Slot & Slim SAS 4i to PCIe x4 Slot
AIC: DP9504 PCIe x4 Gen 4 with Redriver to Gen-Z 1C Add-in Card
Adapter: DP4203 Gen-Z 1C to M.2 M-key adapter
Cable SlimSAS 4i male to male, 50cm cable
OS : Microsoft **Windows 10 64bit OS**

2.2 Test target: GD0804A, DP9504, DP4203 & **GIGABYTE M.2/1TB NVMe SSD**



2.3 Install Hardware

Inserts M.2 NVMe SSD into DP4203 adapter, and plugs DP4203 to DP9504 AIC. The DP9504 plugs into GD0804A Adapter

2.4 BIOS & Windows 10 OS environment setup

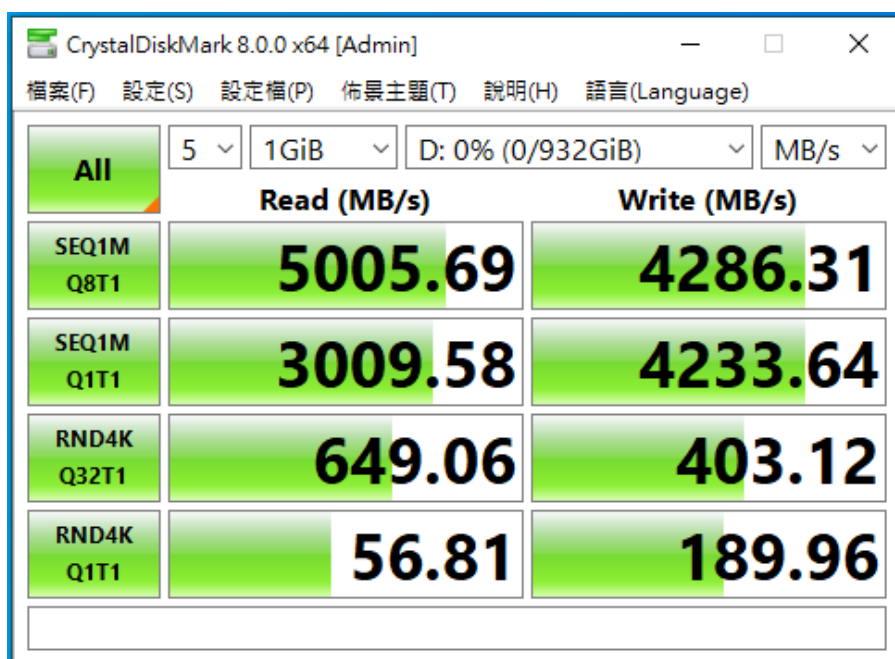
- 2.4.1 Primary SATA SSD installed Windows 10 OS.
- 2.4.2 M.2 NVMe SSD, formatted to NTFS Mode. Don't install any program.



2.5 CrystalDiskMark 8.0 x64 performance test

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

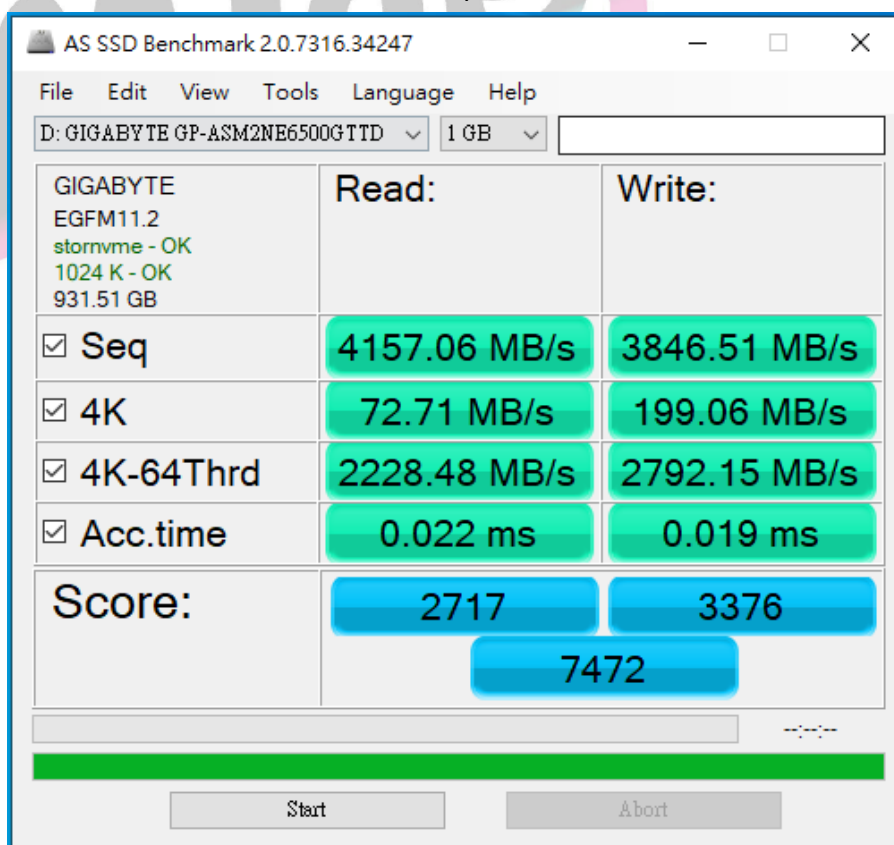
2.5.1 **GIGABYTE M.2 NVMe SSD/ 1TB** performance as below:



2.6 AS SSD Benchmark 2.0.7 performance test

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

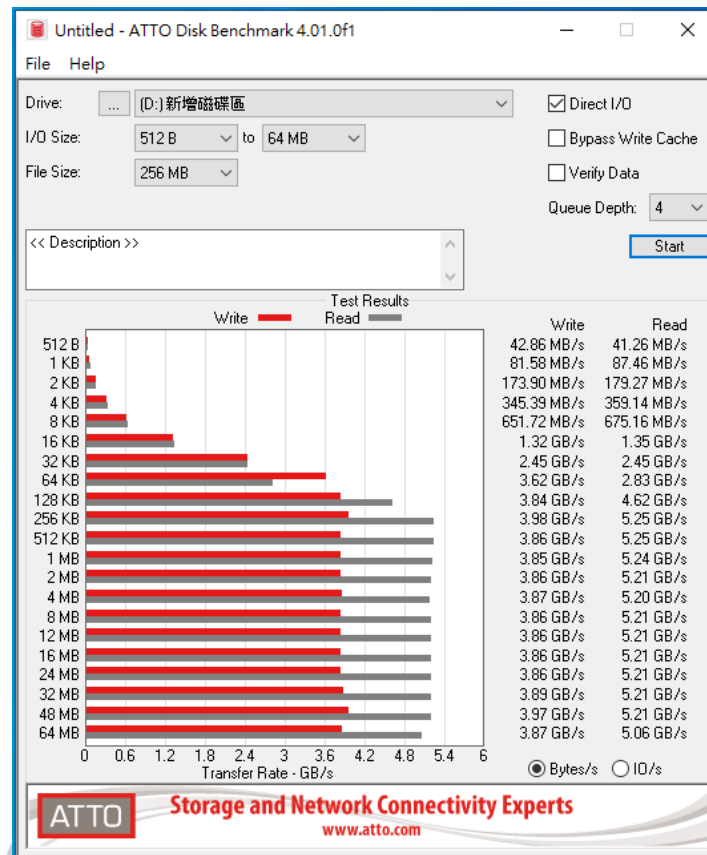
2.6.1 **GIGABYTE M.2 NVMe SSD/ 1TB** performance as below:



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2.7 ATTO Disk Benchmark 4.01 performance test

2.7.1 GIGABYTE M.2 NVMe SSD/ 1TB performance as below:



2.8 AnvilBenchmark_V110_B337

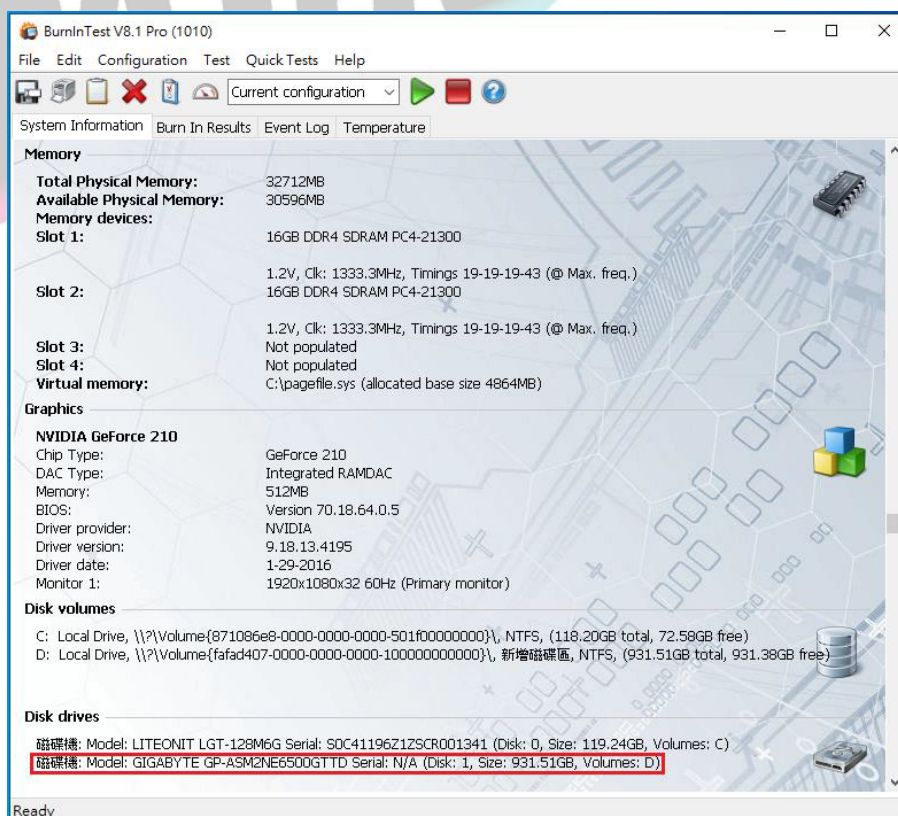
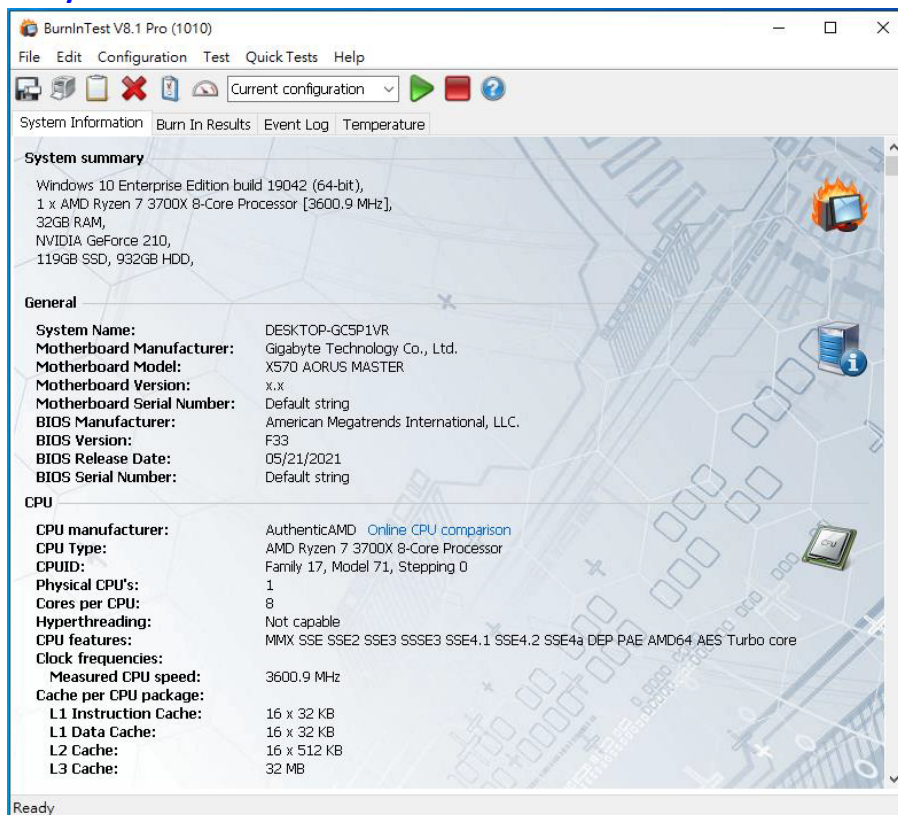
2.8.1 GIGABYTE M.2 NVMe SSD/ 1TB performance as below:



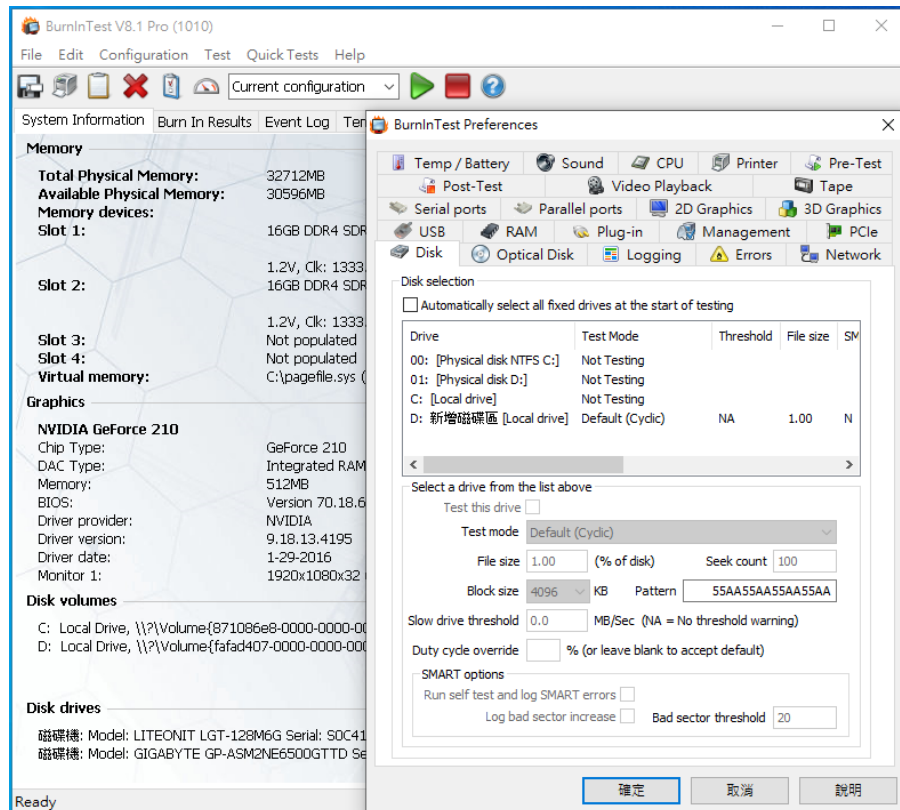
3. Burn In Tests and Results

3.1 BurnInTest v8.1 Pro for GIGABYTE M.2 NVMe SSD/ 1TB

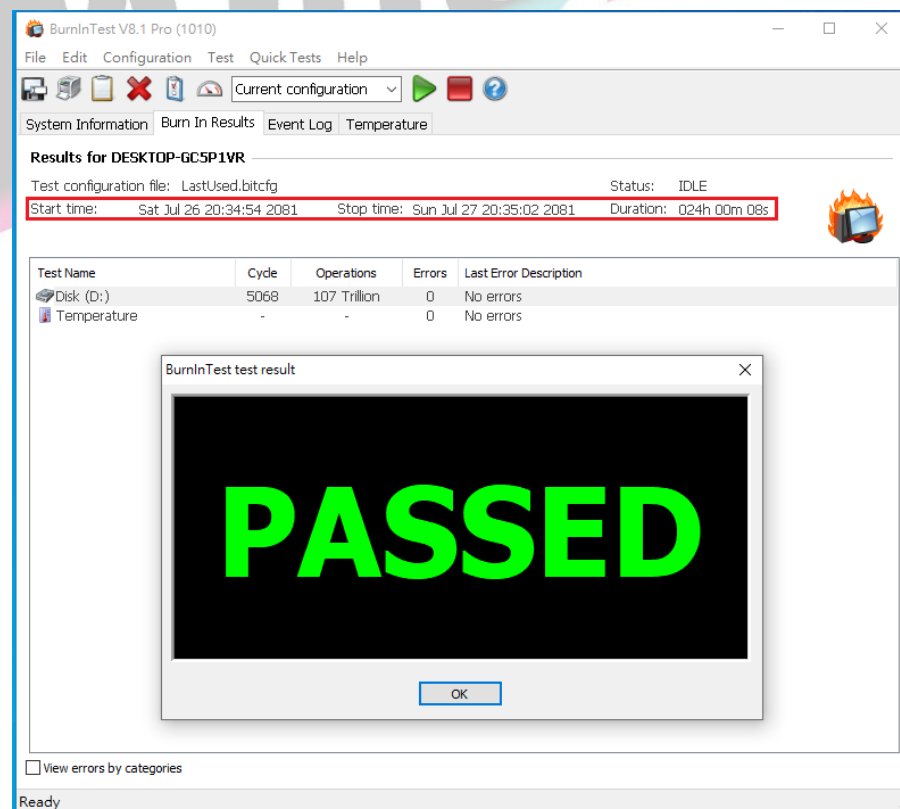
3.1.1 System Information as below:



3.1.2 Disk test mode(10 ways cycle test)



3.1.3 24-hour Burn-in test PASSED



4. Summary

- 4.1 M.2 NVMe SSD is PCIe Gen 4, 16GT/s, 4 Lanes Interface, I/O speed, max. to 64Gbps.
- 4.2 GD0804A Adapter I/O performance is based on M.2 NVMe SSD.
- 4.3 DP9504 Host Bus Adapter I/O performance is based on M.2 NVMe SSD.
- 4.4 DP4203 Host Bus Adapter I/O performance is based on M.2 NVMe SSD.

