



MINERVA

GD4405A Convert Cad

Performance & Burn In Test Rev. 1. 0

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4. Summary

GD4405A U.2 PCIe Gen 4,16GT/s to Gen-Z 1C Adapter

1. Overview

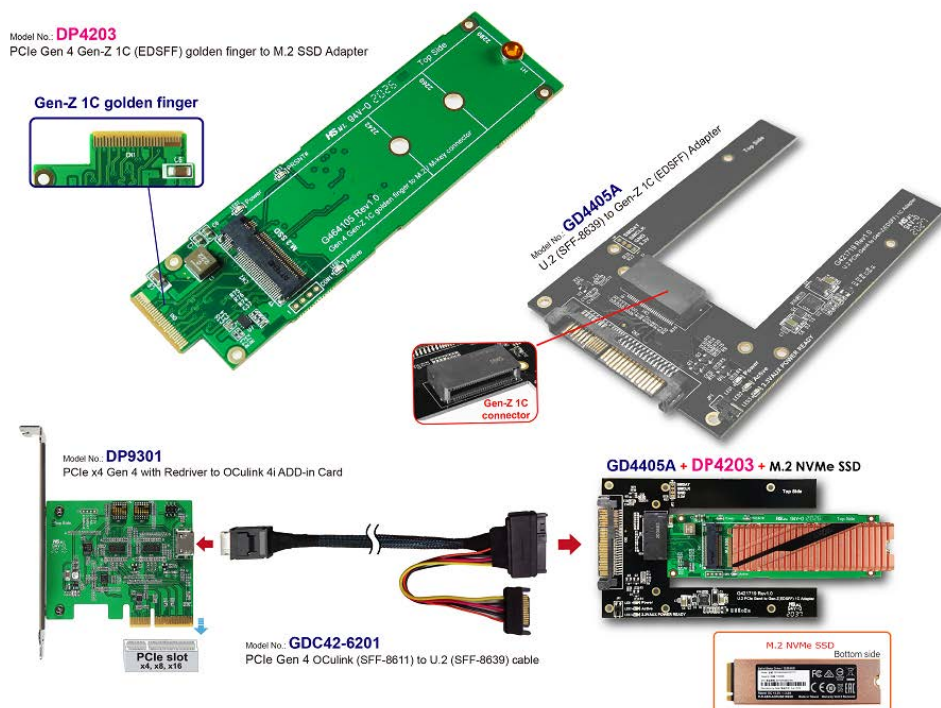
This adapter supports PCIe Gen 4, 16GT/s high-speed transmission, and provides Gen-Z 1C NVMe SSD to U.2 conversion.

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: DP9301 PCIe x4 to OCulink 4i Add-In Card
Adapter: GD4405A U.2 to Gen-Z 1C Storage Adapter
Adapter: DP4203 Gen-Z 1C to M.2 Storage Adapter
Cable: SFF-8611 4i to U.2 Cable
OS : Microsoft **Windows 10 64bit OS**

2.2 Test target: GD4405A adapter, DP4203 adapte and **M.2 NVMe 500GB SSD**



2.3 Install Hardware

Insert DP4203 adapter(with M.2 NVMe SSD) into GD4405A converter's Gen-Z 1C female connector. Connect GD4405A to DP9301 AIC(PCI-e x4 Gen 4 to OCulink) using SFF-8611 to U.2 cable, plugs DP9301 adapter into **PCI-e slot of GIGABYTE X570 AORUS MASTER.**

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.

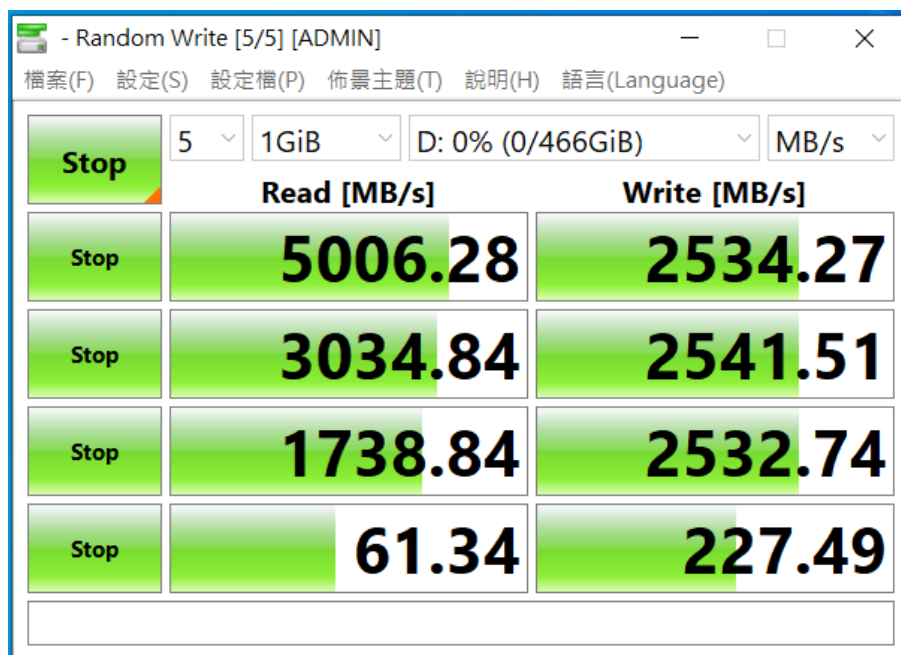


GD4405A U.2 PCIe Gen 4,16GT/s to Gen-Z 1C Adapter

2.5 CrystalDiskMark 7.0.0 x64 performance test

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

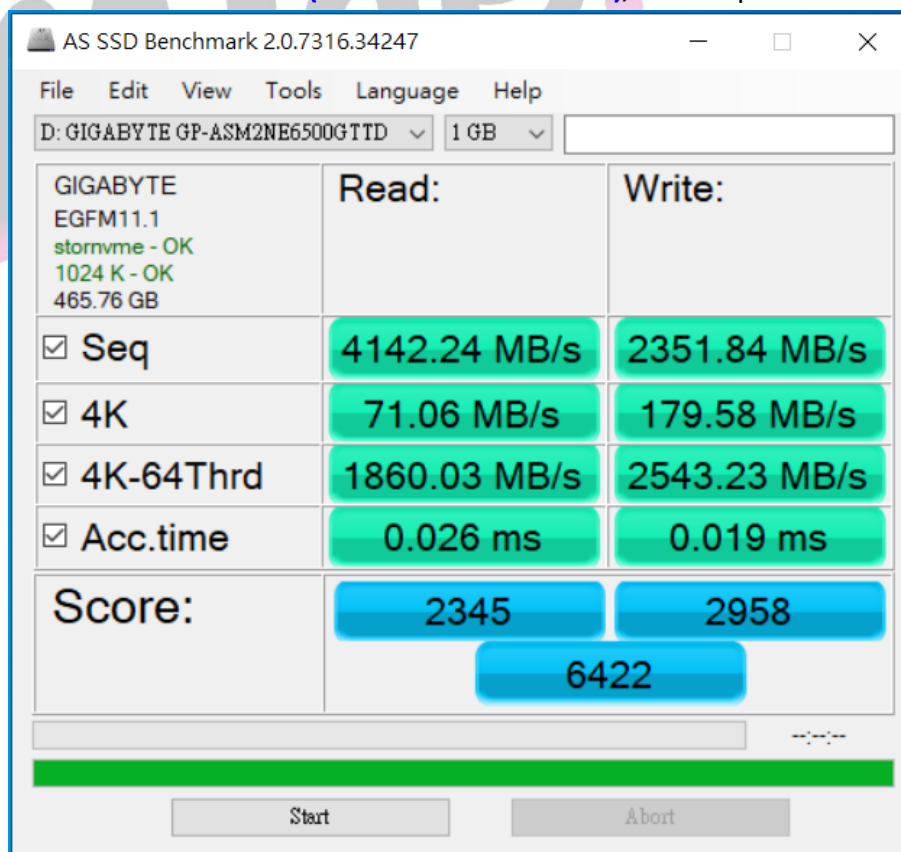
2.5.1 GIGABYTE **M.2 Gen4(GP-ASM2NE6100TTD)/ 500GB** performance as below:



2.6 AS SSD Benchmark 2.0.7 performance test

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

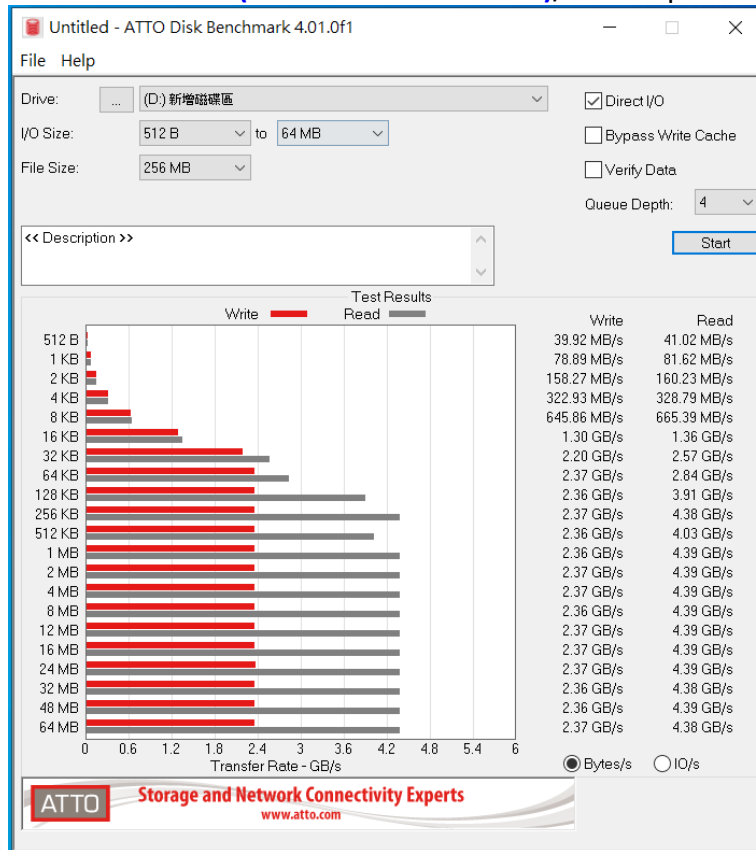
2.6.1 GIGABYTE **M.2 Gen4(GP-ASM2NE6100TTD)/ 500GB** performance as below:



GD4405A U.2 PCIe Gen 4,16GT/s to Gen-Z 1C Adapter

2.7 ATTO Disk Benchmark 4.0.1 performance test

2.7.1 GIGABYTE M.2 Gen4(GP-ASM2NE6100TTD)/ 500GB performance as below:



2.8 AnvilBenchmark_V110_B337

2.8.1 GIGABYTE M.2 Gen4(GP-ASM2NE6100TTD)/ 500GB performance as below:

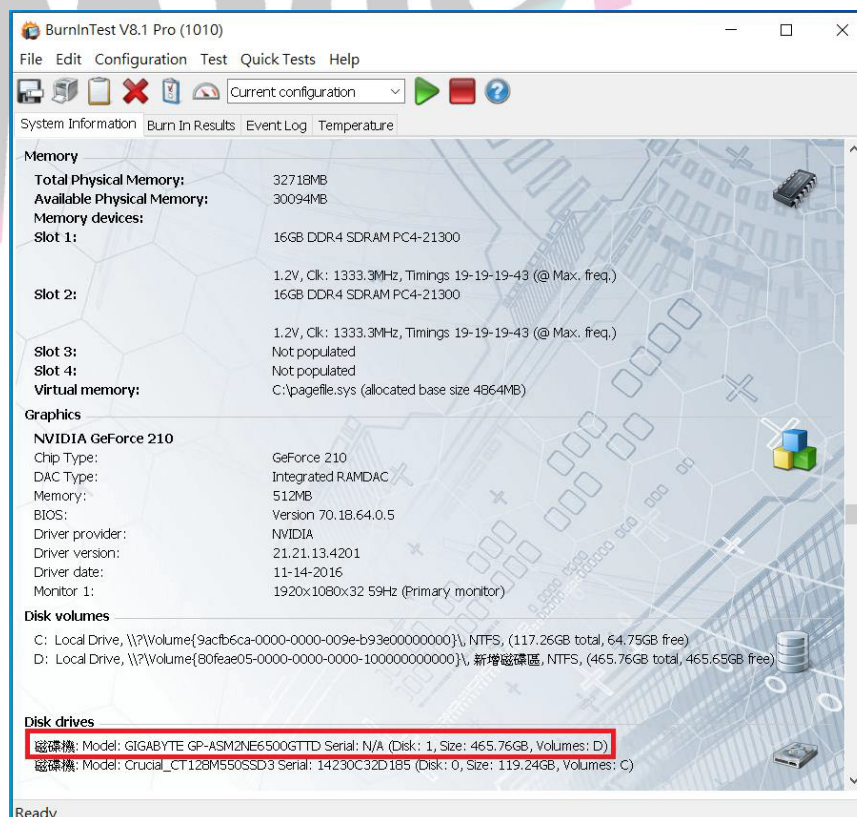
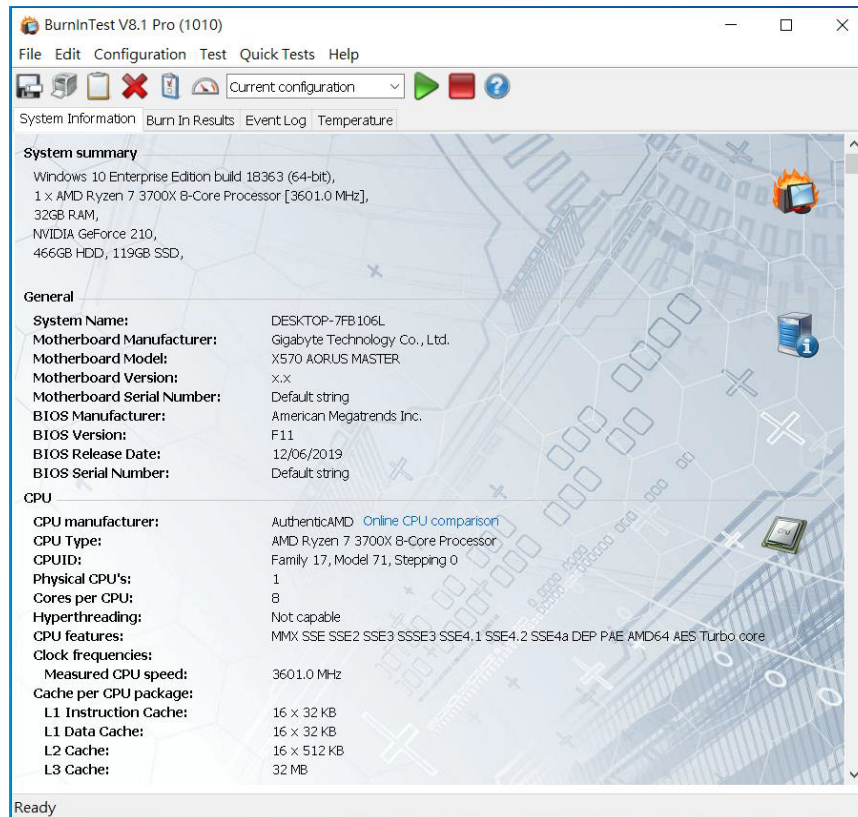


GD4405A U.2 PCIe Gen 4,16GT/s to Gen-Z 1C Adapter

3. Burn In Tests and Results

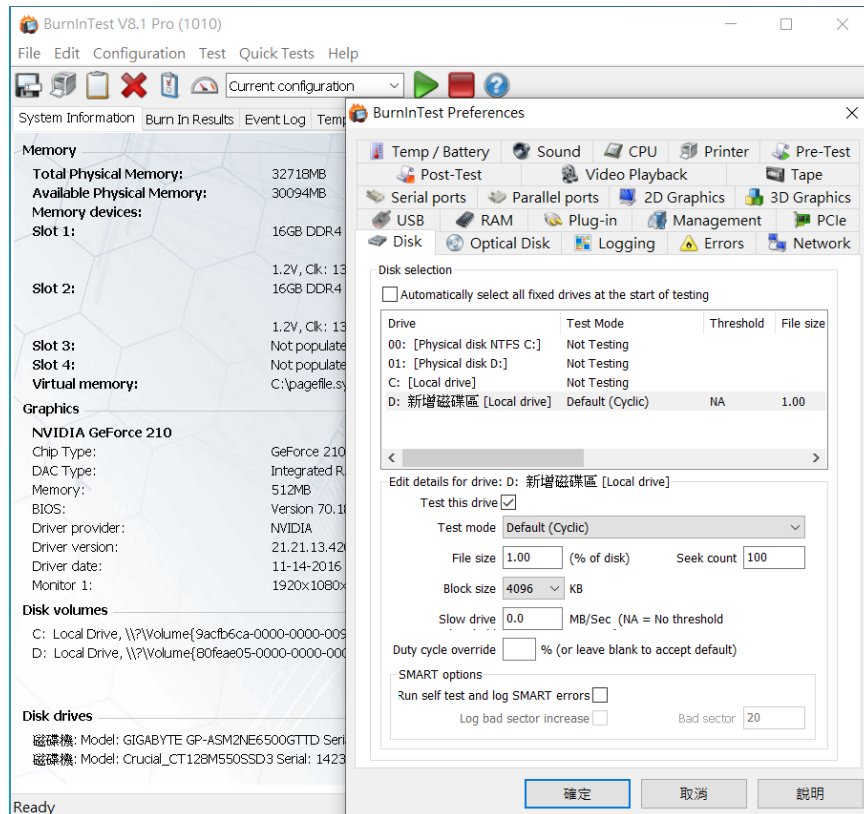
3.1 BurnInTest v8.1 Pro for GIGABYTE M.2 Gen4(GP-ASM2NE6100TTDD)/ 500GB SSD

3.1.1 system information as below:

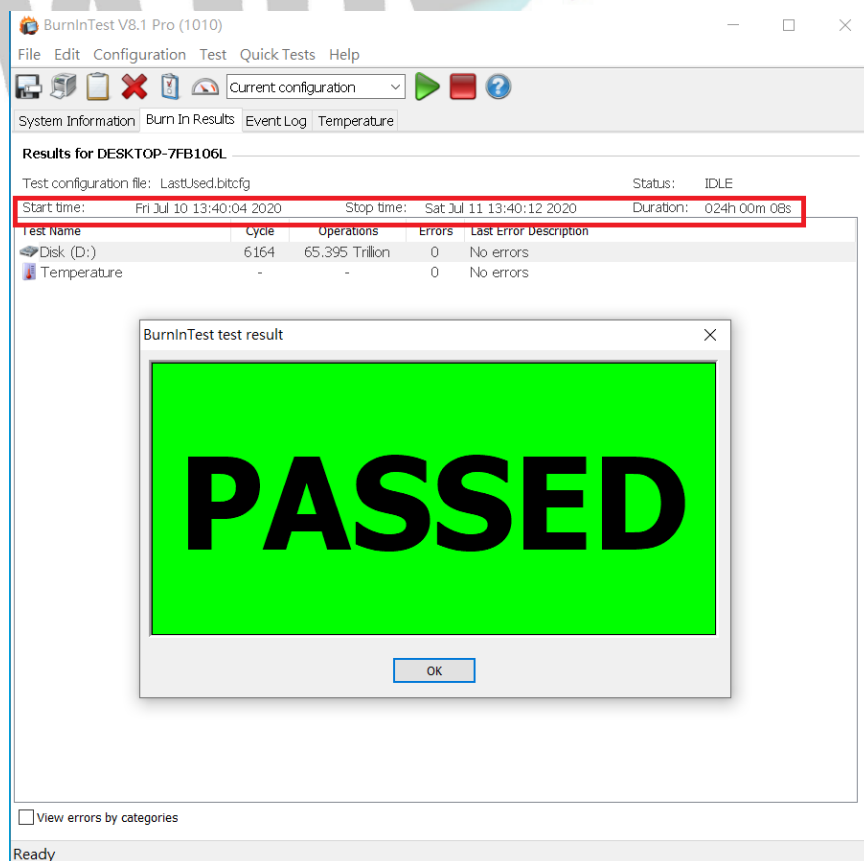


GD4405A U.2 PCIe Gen 4,16GT/s to Gen-Z 1C Adapter

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 SSD is PCIe Gen 4 / 4 Lanes Interface, I/O speed, max. to 64Gbps.
- 4.2 GD4405A adapter I/O performance is based on M.2 NVMe PCIe Gen 4 / 4 Lanes SSD.

