MINERVA
DP4203 Rev1.1 Convert Cad

Performance & Burn In Test   Rev. 1. 0

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# DP4203　PCIe Gen 4,16GT/s Gen-Z 1C to M.2 NVMe Adapter

1. Overview

This adapter supports PCIe Gen 4, 16GT/s high-speed transmission, and provides Gen-Z 1C NVMe SSD to M.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:　　　　　DP9402 PCIe x4 to SlimSAS 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-8654 4i to U.2 Cable
OS :　　　　Microsoft **Windows 10 64bit OS**

2.2 Test target: GD4405A adapter, DP4203 adapte and M.2 NVMe 1TB SSD
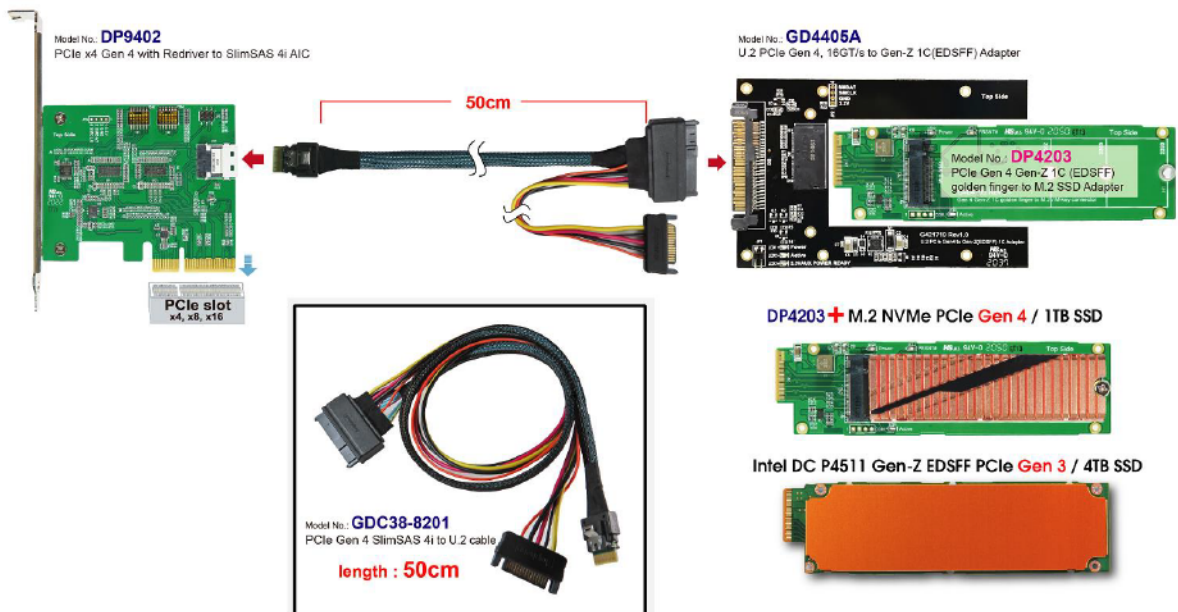
2.3   Install Hardware

Insert DP4203 adapter(with M.2 NVMe SSD) into GD4405A converter's Gen-Z 1C female connector. Connect GD4405A to DP9402 AIC(PCIe x4 Gen 4 to SlimSAS 4i) using SFF-8654 to U.2 cable, plugs DP9402 adapter into **PCIe slot of** GIGABYTE **X570 AORUS MASTER.**

2.4   BIOS & Windows 10 OS environment setup

2.4.1   Primary SATA SSD installed Windows 10 OS.

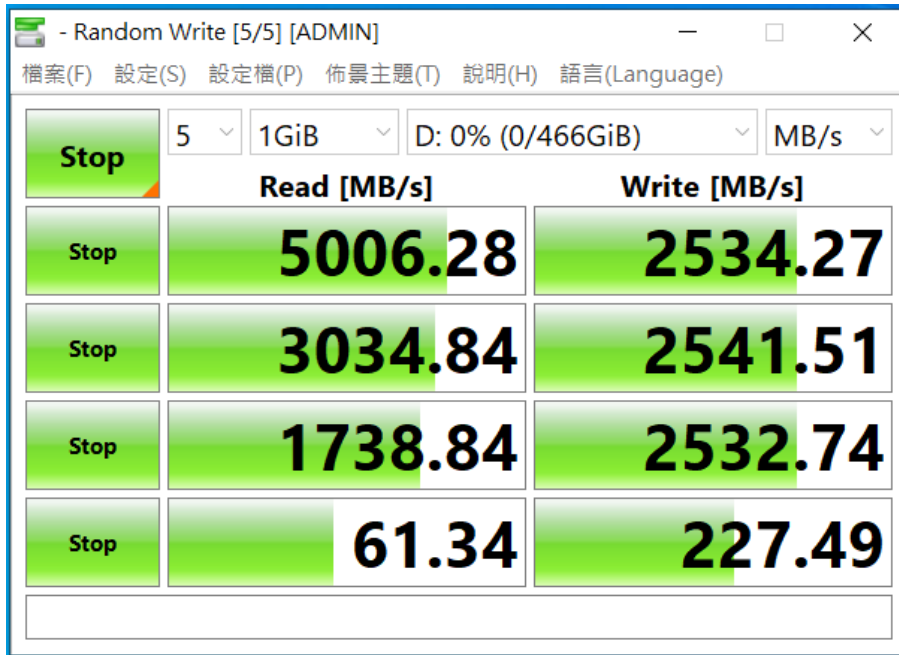2.4.2   M.2 NVMe SSD, formatted to NTFS Mode. Don't install any program.

2.5 CrystalDiskMark 8.0.0 x64 performance test
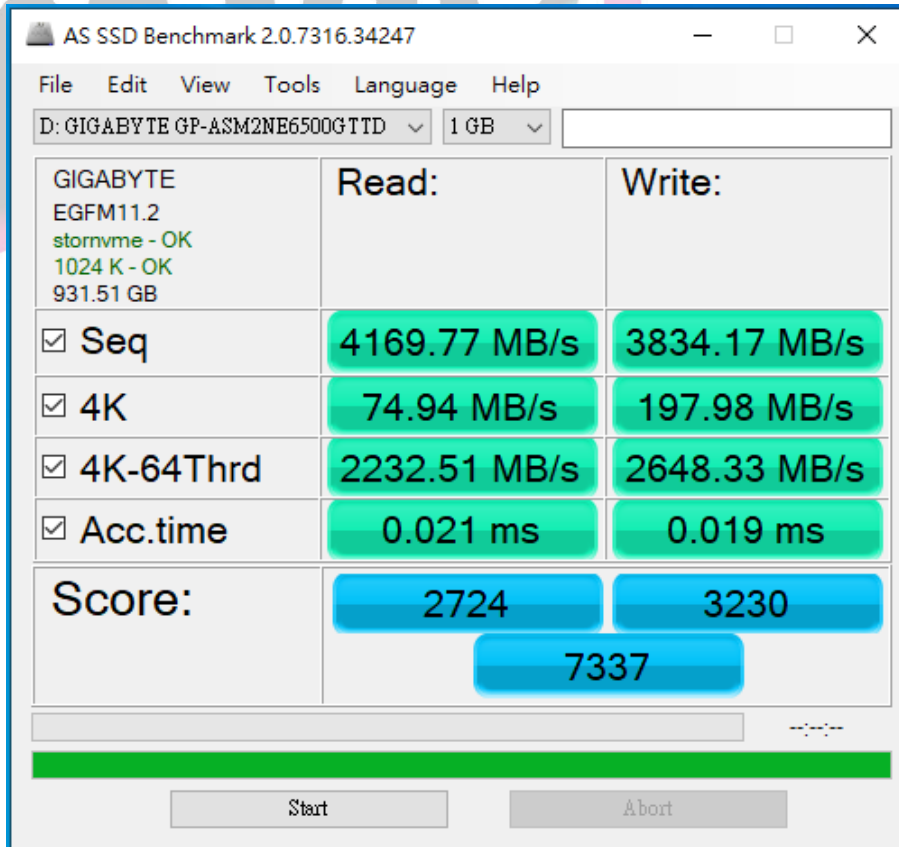
※Benchmark (Sequential Read & Write / default = 1MB)

2.5.1   GIGABYTE M.2 Gen4(GP-ASM2NE6500GTTD)/1TB performance as below:

2.6 AS SSD Benchmark 2.0.7 performance test

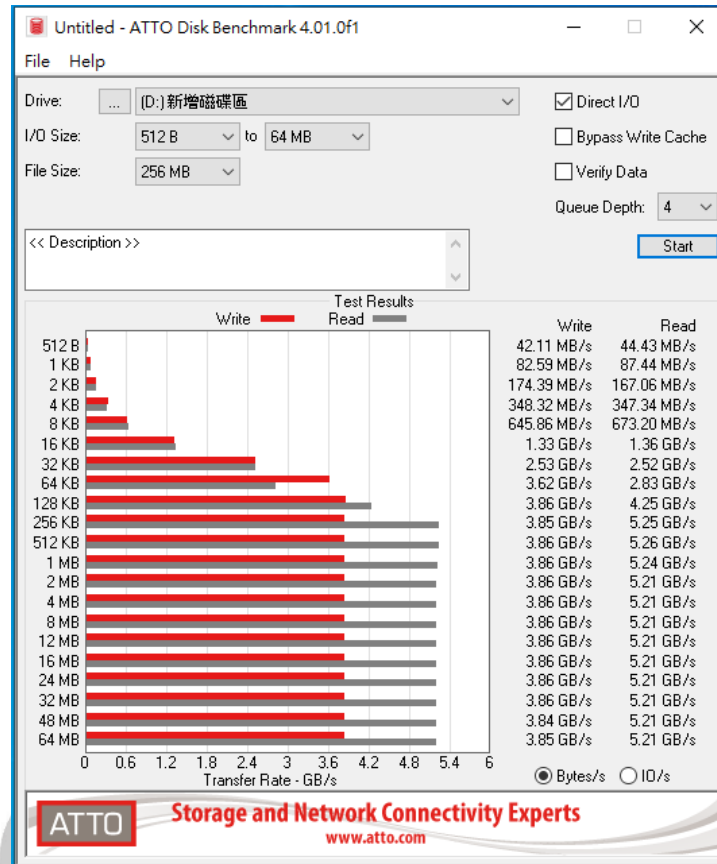※Benchmark (Read & Write by MB/s, default block size = 16MB)

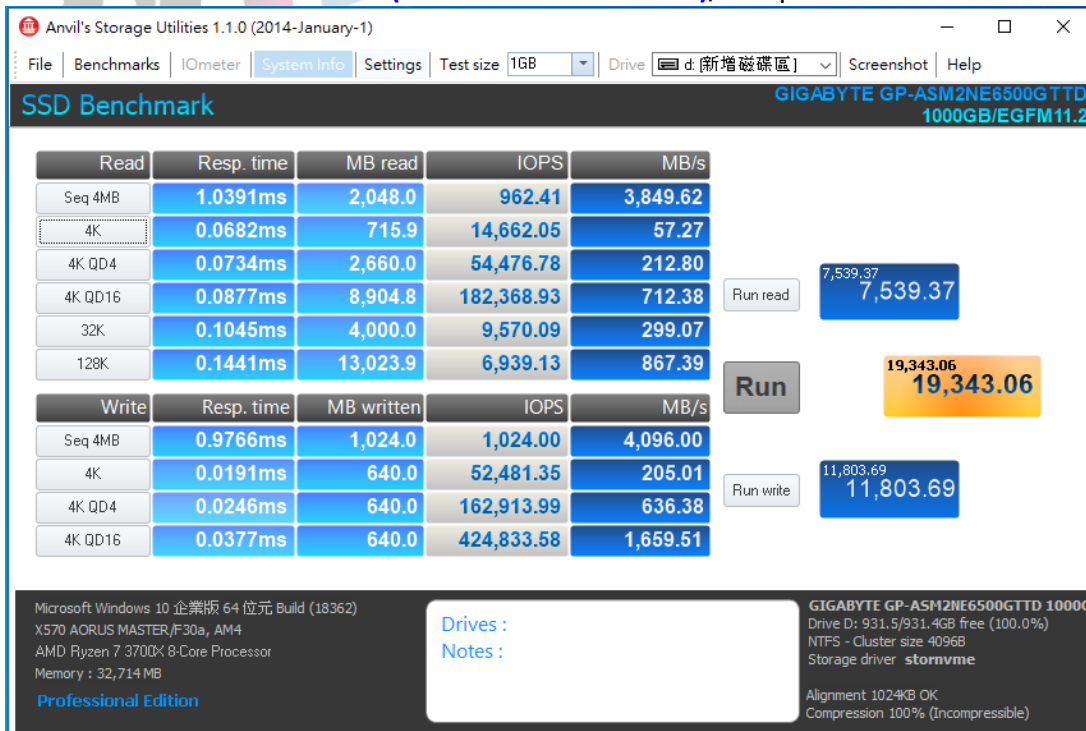2.6.1   GIGABYTE M.2 Gen4(GP-ASM2NE6500GTTD)/1TB performance as below:

2.7 ATTO Disk Benchamrk 4.0.1 performance test

2.7.1　GIGABYTE M.2 Gen4(GP-ASM2NE6500GTTD)/1TB performance as below:

2.8 AnvilBenchmark_V110_B337

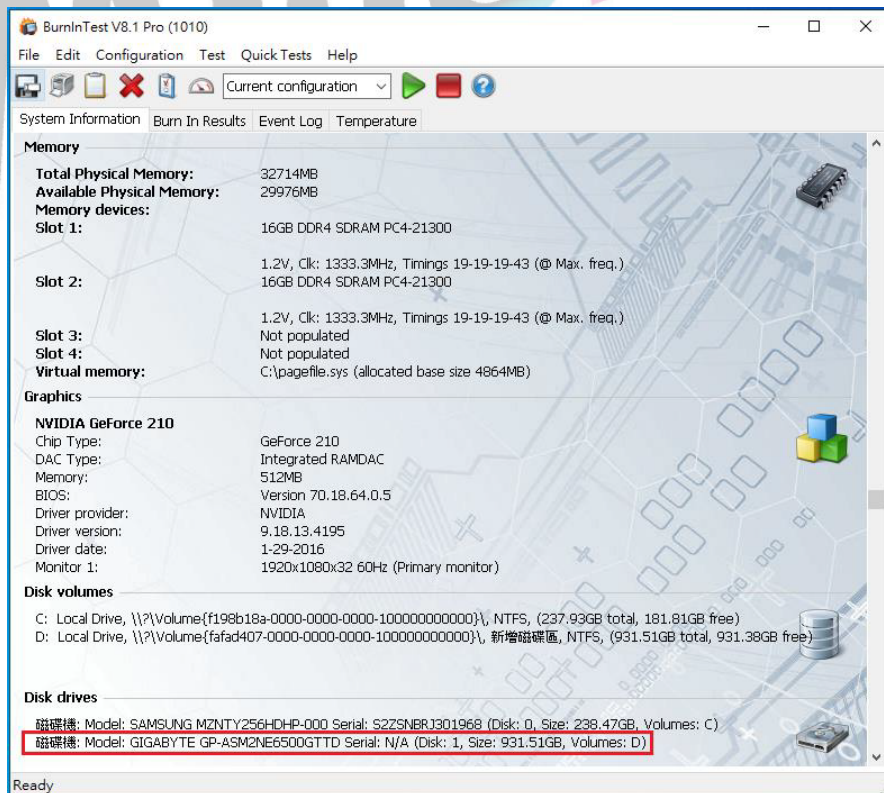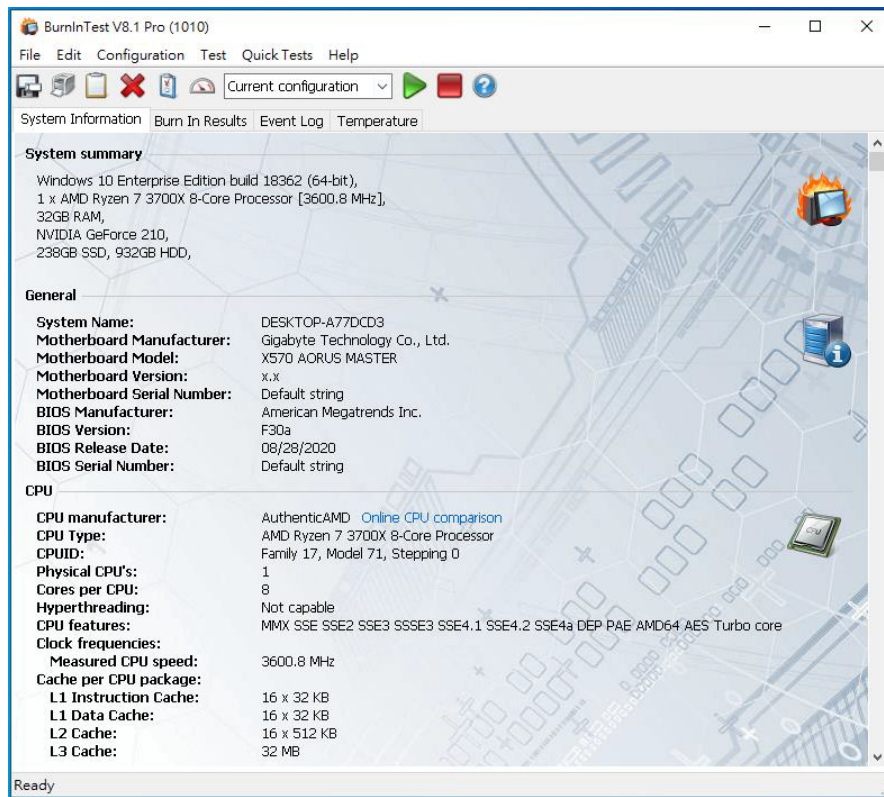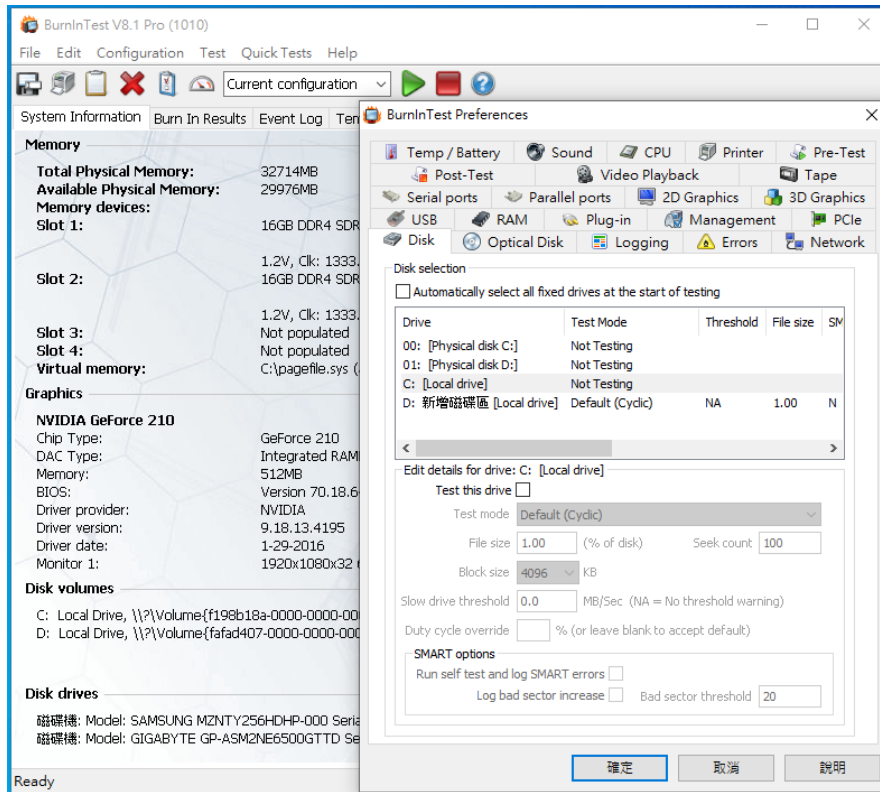2.8.1　GIGABYTE M.2 Gen4(GP-ASM2NE6500GTTD)/1TB performance as below:

3. Burn In Tests and Results

3.1   BurnInTest v8.1 Pro for GIGABYTE M.2 Gen4(GP-ASM2NE6500GTTD)/1TB SSD
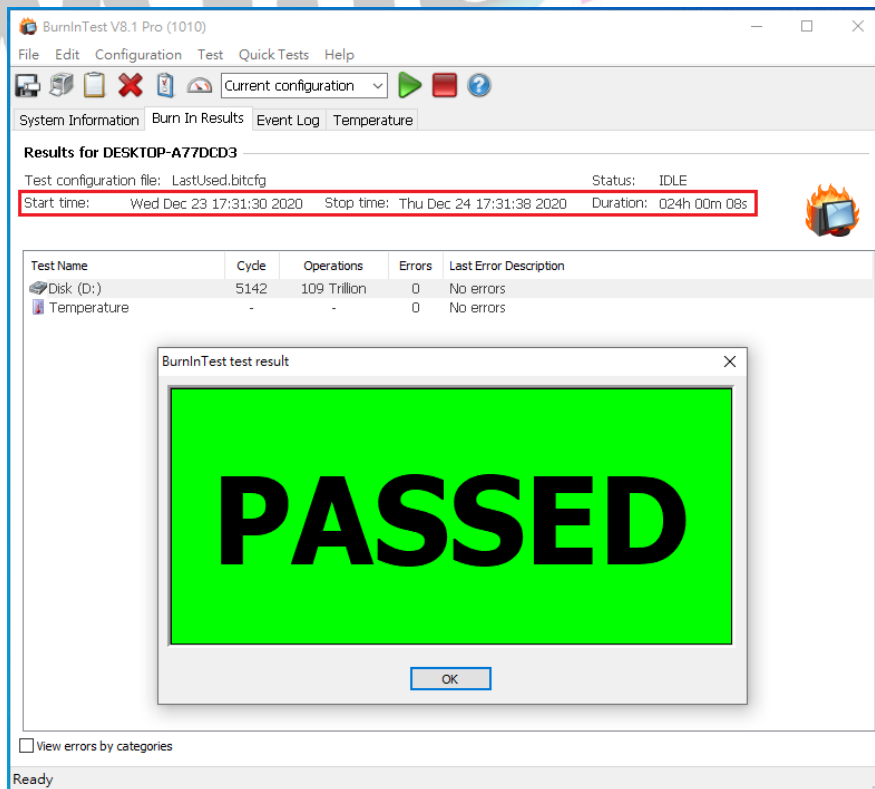
   3.1.1   system information as below:

3.1.2   Disk test mode(10 ways cycle test)

3.1.2   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   DP4203 adapter I/O performance is based on M.2 NVMe PCIe Gen 4 / 4 Lanes SSD.