



MINERVA

GD4480A/G Gen-Z 1C PCIe Gen 4 to U.2 (SFF-8639) Adapter

Notice: Use built-in Power Cord cable connection

Performance & Burn In Test Rev. 1.0

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GD4480A/G Gen-Z 1C PCIe Gen 4 to U.2 (SFF-8639) Adapter

1. Overview

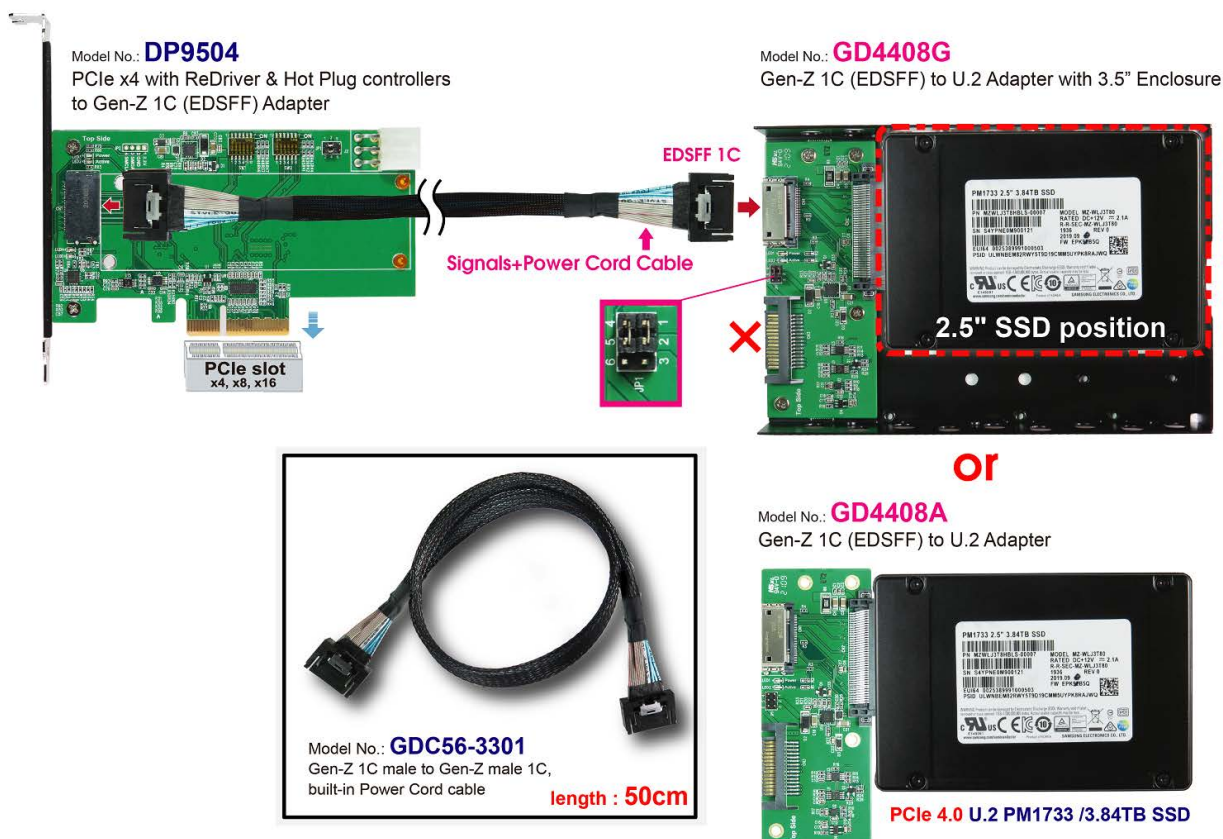
This adapter supports PCIe Gen 4, 16GT / s high-speed transmission, and provides U.2 NVMe SSD to Gen-Z 1C conversion. It can put 2.5" SSD into 3.5" standard H.D.D. caddy.

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: DP9504 PCIe x4 Gen 4 with Redriver to Gen-Z 1C ADD-in Card
- Adapter: Gen-Z 1C PCIe Gen 4 to U.2(SFF-8639) Adapter
- Cable: Gen-Z 1C Male to Gen-Z 1C Male **built-in Power cord**, 50cm Cable
- OS : Microsoft **Windows 10 64bit OS**

2.2 Test target: DP9504 AIC, GD4408A/G Adapter & Samsung U.2 PM1733 / 4TB NVMe SSD



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2.3 Install Hardware

Inserts U.2 NVMe SSD into GD4408G adapter, and connects cable to DP9504 AIC. The DP9504 plugs 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 U.2 NVMe SSD, formatted to NTFS Mode. Don't install any program.

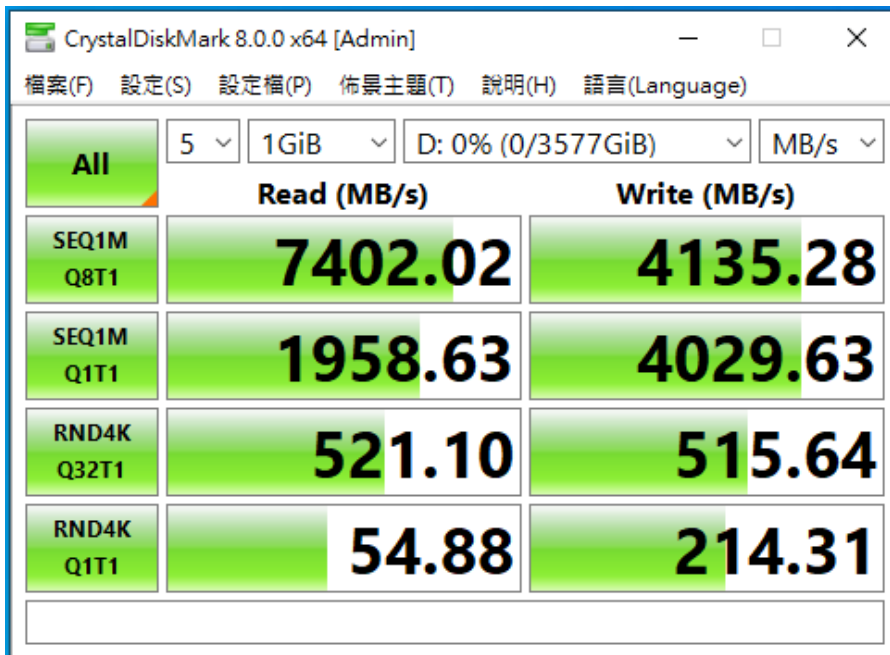


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2.5 CrystalDiskMark 8.0 x64 performance test

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

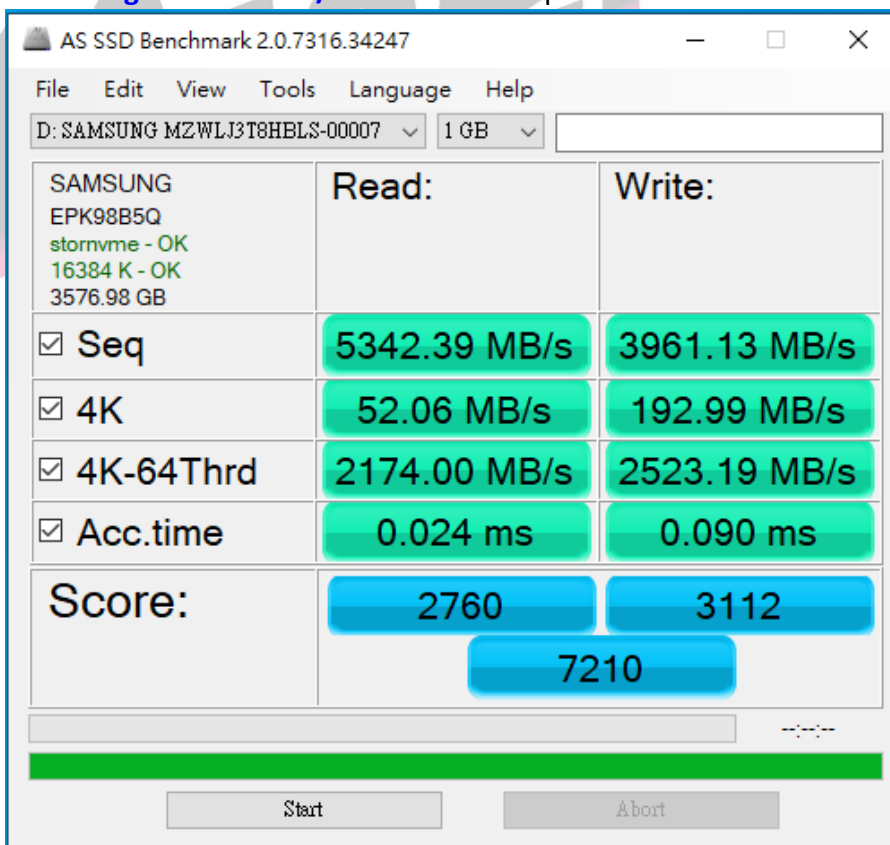
2.5.1 Samsung U.2 PM1733 / 4TB NVMe SSD performance as below:



2.6 AS SSD Benchmark 2.0.7 performance test

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

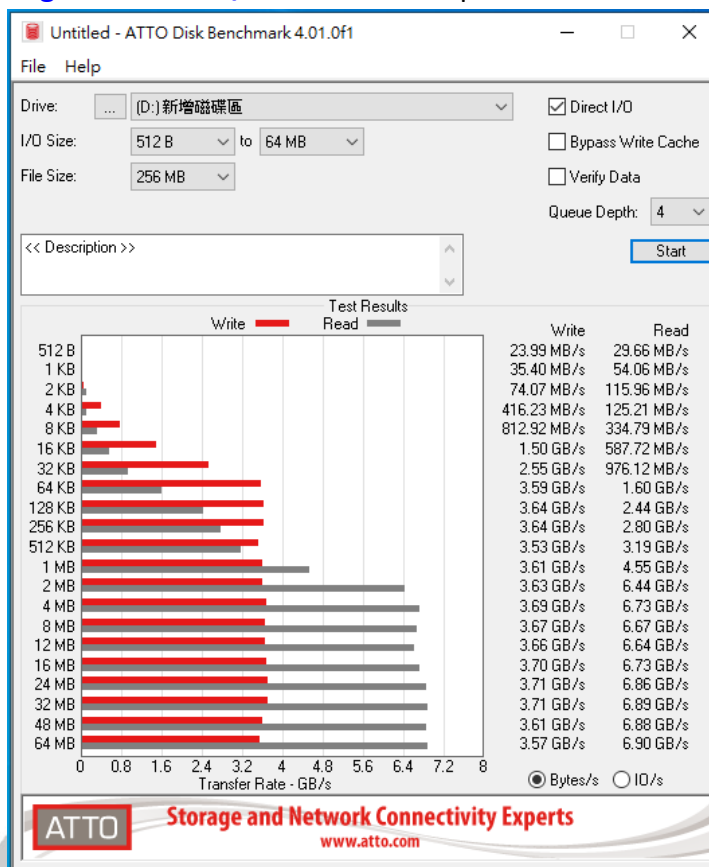
2.6.1 Samsung U.2 PM1733 / 4TB NVMe SSD performance as below:



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2.7 ATTO Disk Benchmark 4.01 performance test

2.7.1 Samsung U.2 PM1733 / 4TB NVMe SSD performance as below:



2.8 AnvilBenchmark_V110_B337

2.8.1 Samsung U.2 PM1733 / 4TB NVMe SSD performance as below:

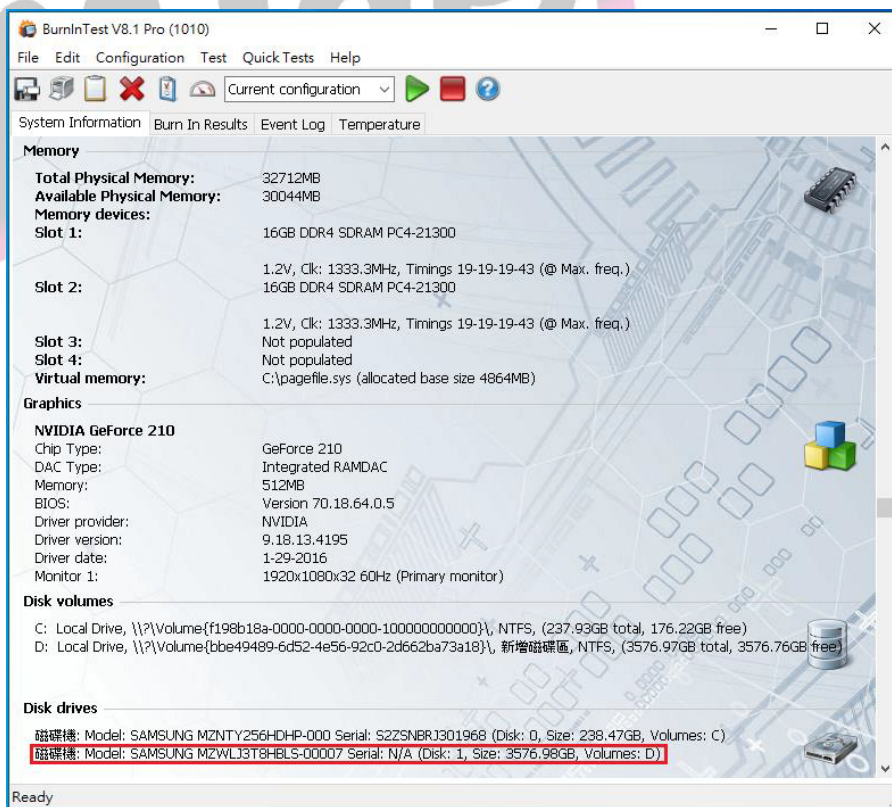
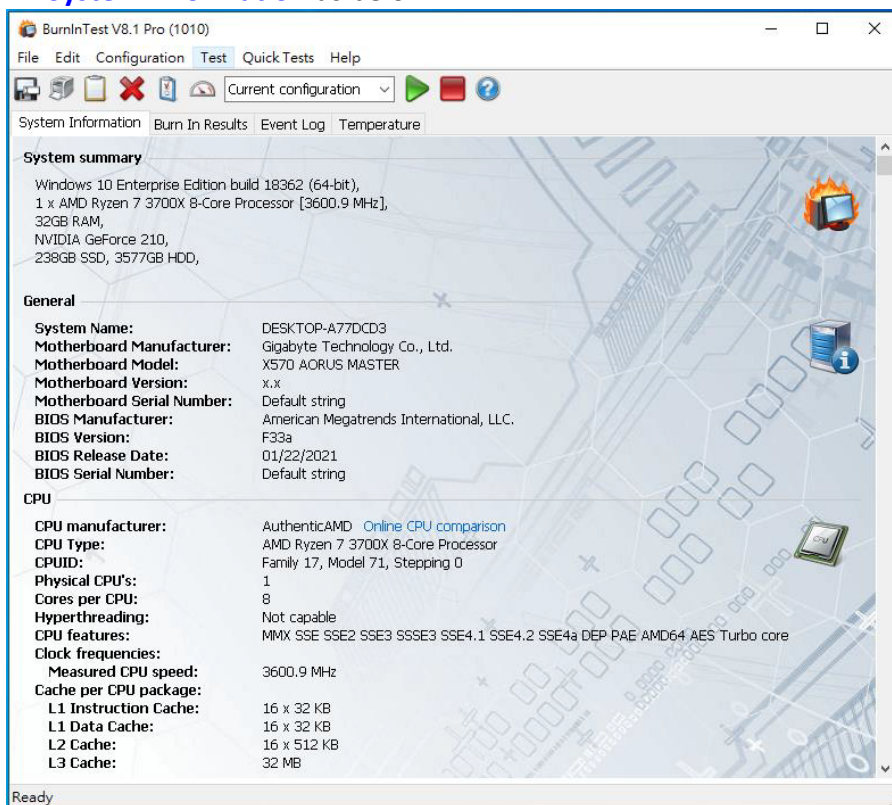


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3. Burn In Tests and Results

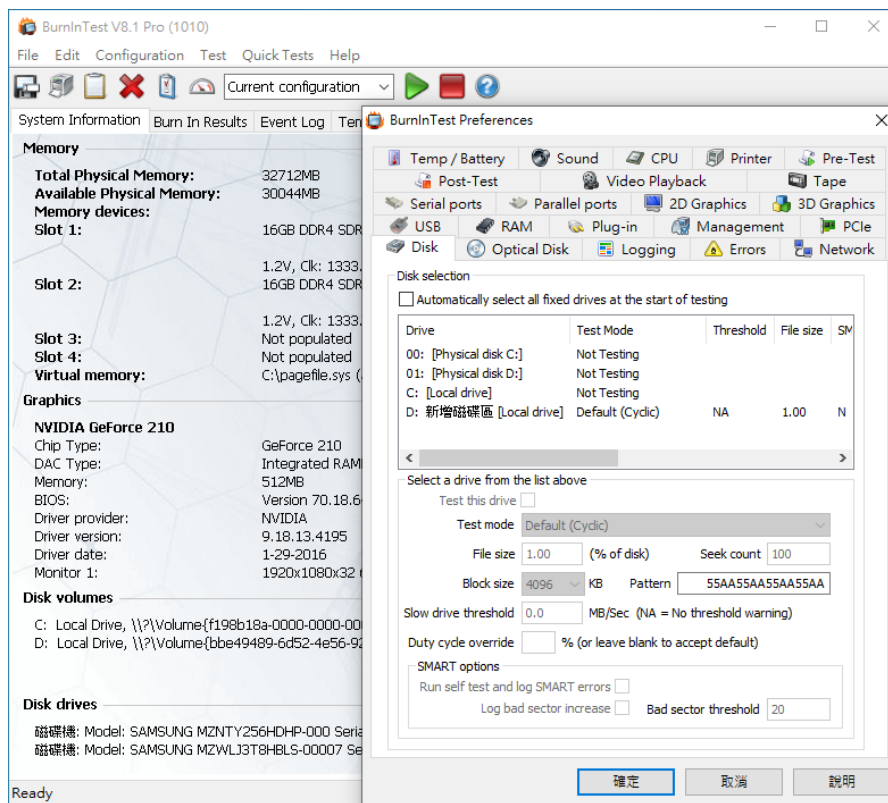
3.1 BurnInTest v8.1 Pro for Samsung U.2 PM1733 / 4TB NVMe SSD

3.1.1 System Information as below:

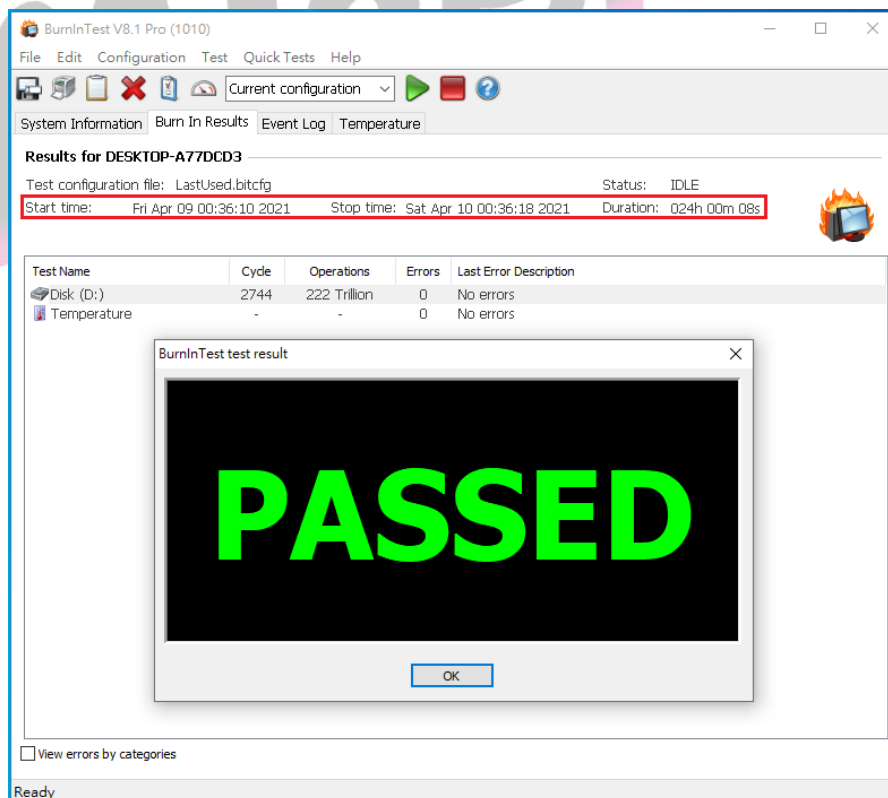


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3.1.2 Disk test mode (10 ways cycle test)



3.1.3 24-hour Burn-in test PASSED



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4. Summary

- 4.1 U.2 NVMe SSD is PCIe Gen 4, 16GT/s , 4 Lanes Interface, I/O speed, max. to 64Gbps.
- 4.2 GD4408A/G Adapter I/O performance is based on U.2 NVMe SSD.

