



MINERVA

GD2807A MINI SAS HD 1x2,4X(SFF-8673) to U.2 dual port Adapter

Performance & Burn In Test Rev 1.0

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GD2807A Rev1.0 Converter Card

1. Overview

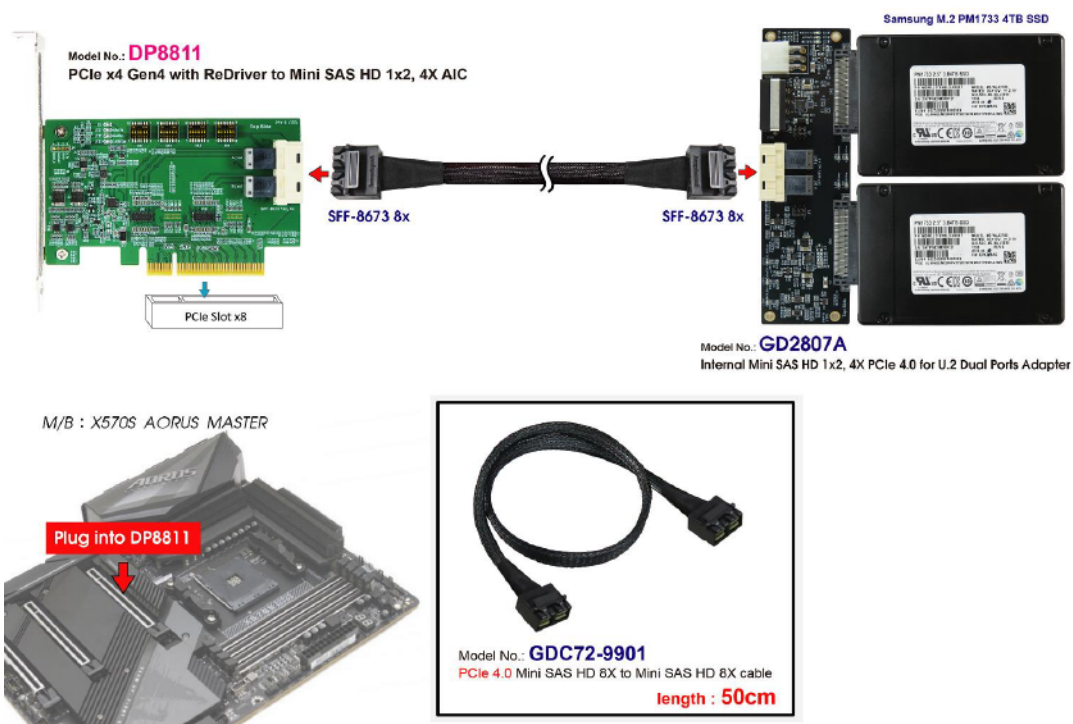
This adapter has built-in Mini SAS HD 1x2, 4X(SFF-8673) connector and U.2 connector dual port which can be inserted into two U.2 NVMe SSDs. It is designed for use by supporting PCIe Gen4 x8, x16 bifurcation AIC and SFF-9402 pinout PCIe Switch RAID Card.

2. Tools and Results of Performance Measurement

2.1 Test Platform

- M/B : GIGABYTE **X570S 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: DP8811 PCIe x8 with ReDriver to Mini SAS HD 1x2, 4X(SFF-8673) AIC
- Cable: PCIe Gen 4 Mini SAS HD(SFF-8673) 8X Male to Male, 50cm Cable
- Adapter: GD2807A Mini SAS HD 1x2, 4X(SFF-8673) to U.2 dual port adapter
- OS : Microsoft **Windows 10 64bit OS**

2.2 Test target: GD2807A & SAMSUNG PM1733 U.2 NVMe SSD/ **4TB**



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2.3 Install Hardware

First inserts the U.2 SSD into the GD2807A U.2 connector and connect to the DP8811 PCIe x8 with ReDriver to Mini SAS HD 1x2, 4X(SFF-8673) AIC using the **GDC72-9901, 50cm cable**, and Plugs DP8811 AIC into PCIe x16 Slot of GIGABYTE **X570S AORUS MASTER**.

2.4 BIOS & Windows 10 OS environment setup

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

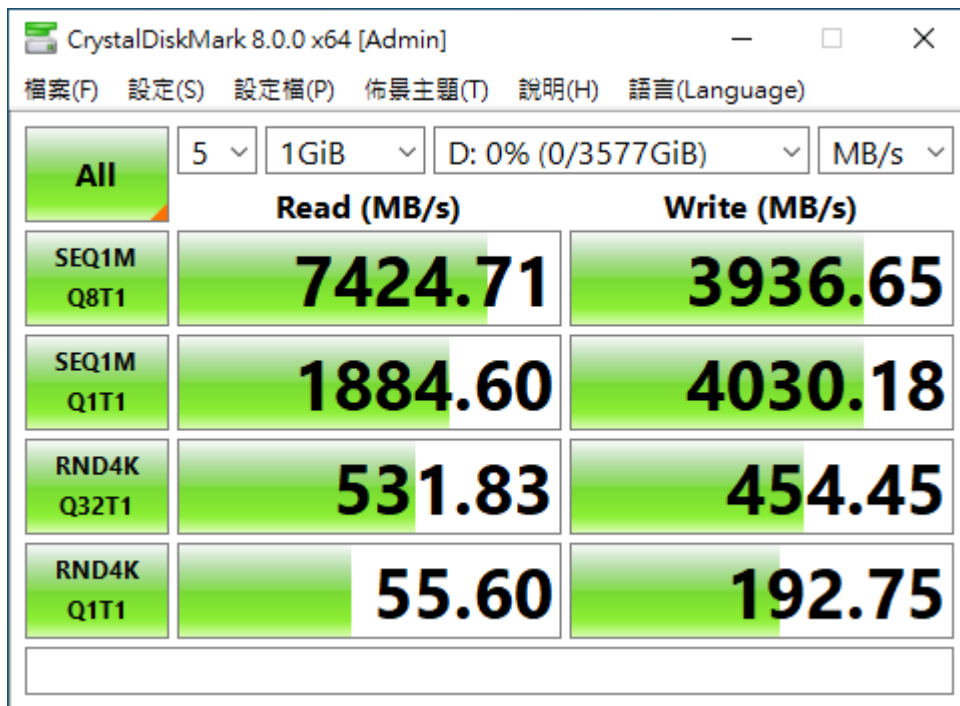


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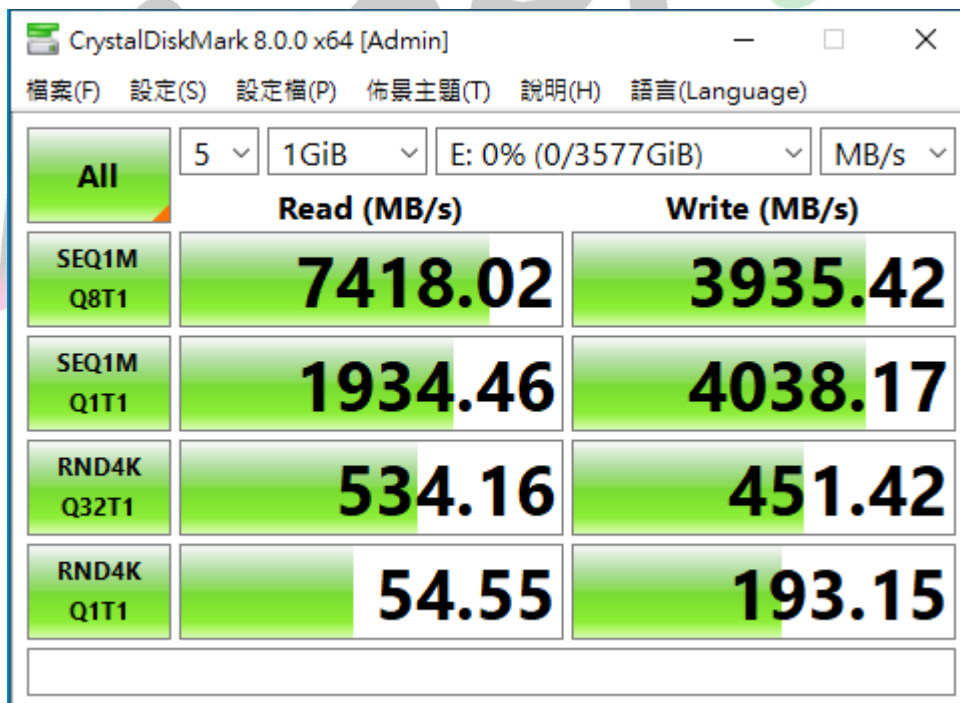
CrystalDiskMark 8.0.0 x64 performance test

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

2.5.1 SAMSUNG PM1733 U.2 NVMe SSD/ 4TB in Drive D: performance as below:



2.5.2 SAMSUNG PM1733 U.2 NVMe SSD/ 4TB in Drive E: performance as below:

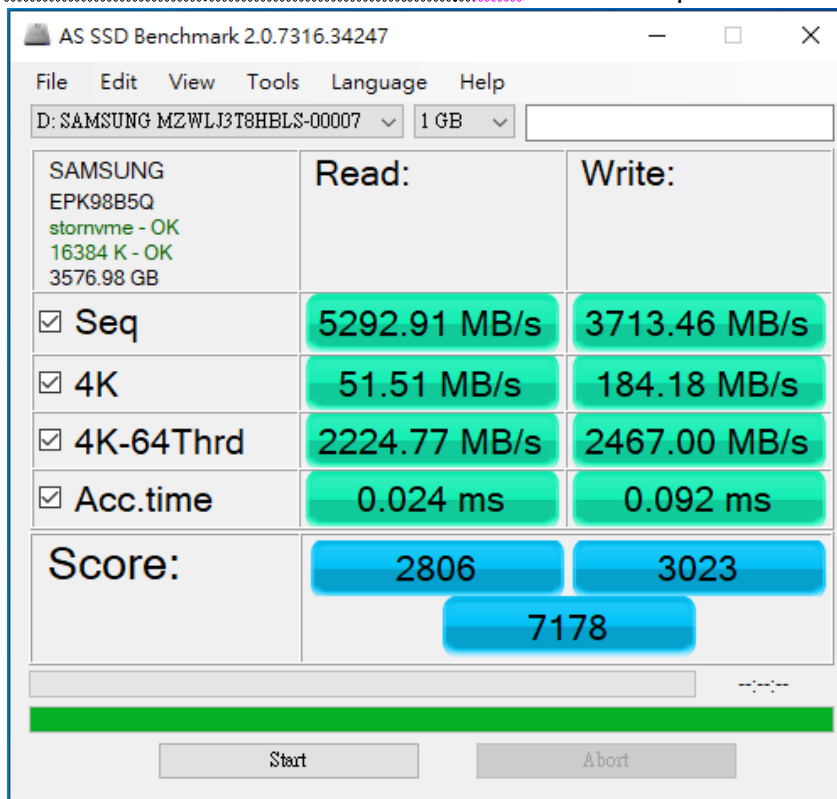


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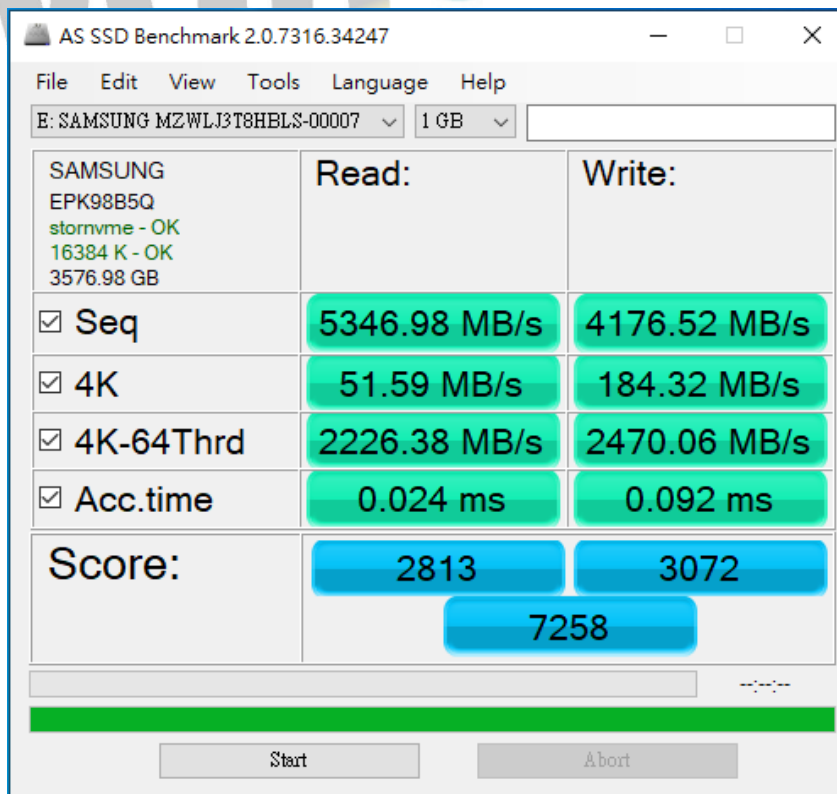
2.6 AS SSD Benchmark 2.0 performance test

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

2.6.1 SAMSUNG PM1733 U.2 NVMe SSD/ 4TB in Drive D: performance as below:



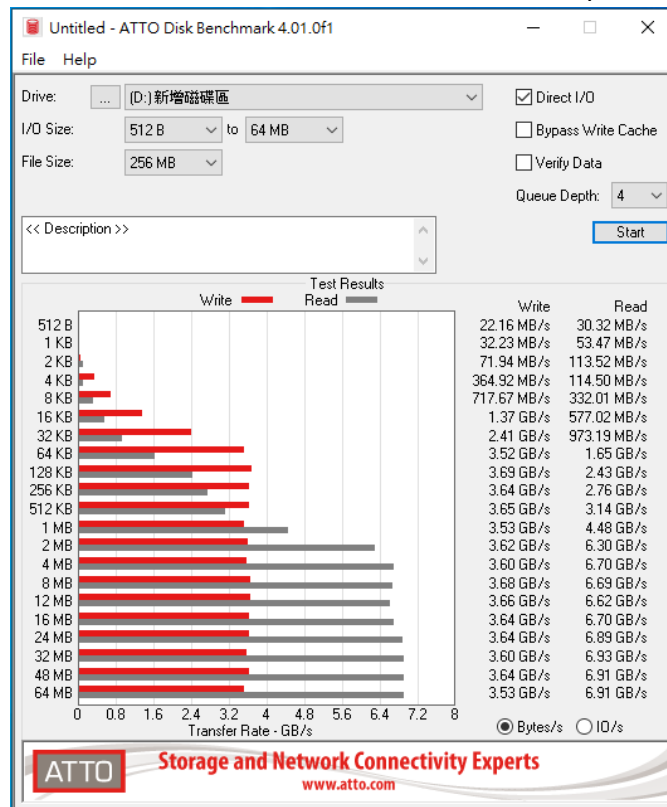
2.6.2 SAMSUNG PM1733 U.2 NVMe SSD/ 4TB in Drive E: performance as below:



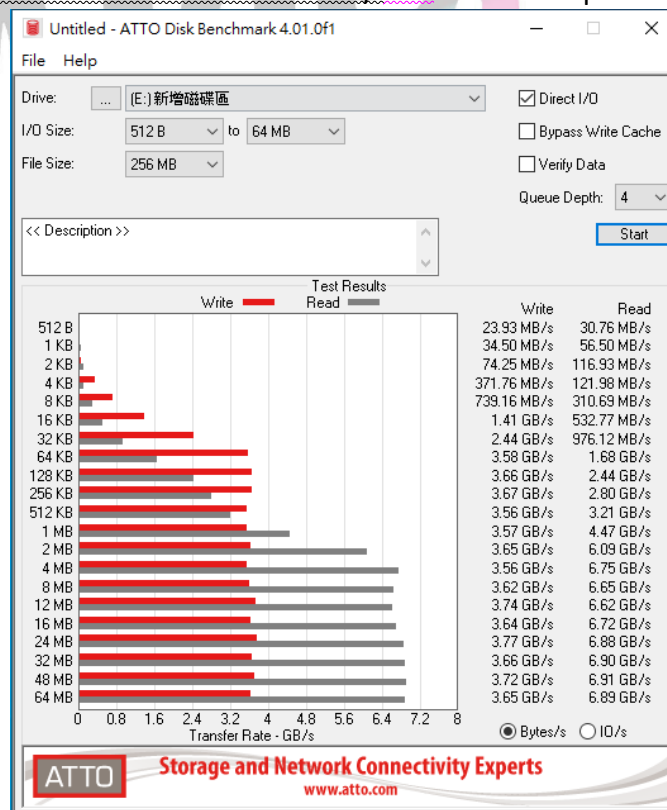
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2.7 ATTO Disk Benchmark 4.01 performance test

2.7.1 SAMSUNG PM1733 U.2 NVMe SSD/ 4TB in Drive D: performance as below:



2.7.2 SAMSUNG PM1733 U.2 NVMe SSD/ 4TB in Drive E: performance as below:



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2.8 AnvilBenchmark_V110_B337

2.8.1 SAMSUNG PM1733 U.2 NVMe SSD/ 4TB in Drive D: performance as below:



2.8.2 SAMSUNG PM1733 U.2 NVMe SSD/ 4TB in Drive E: performance as below:

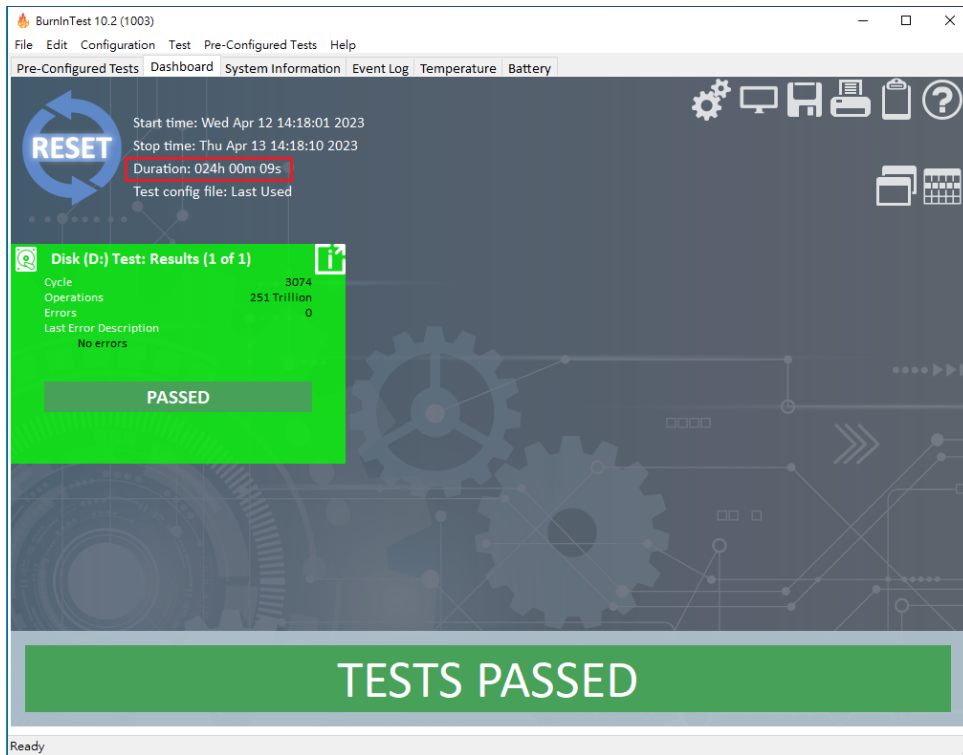


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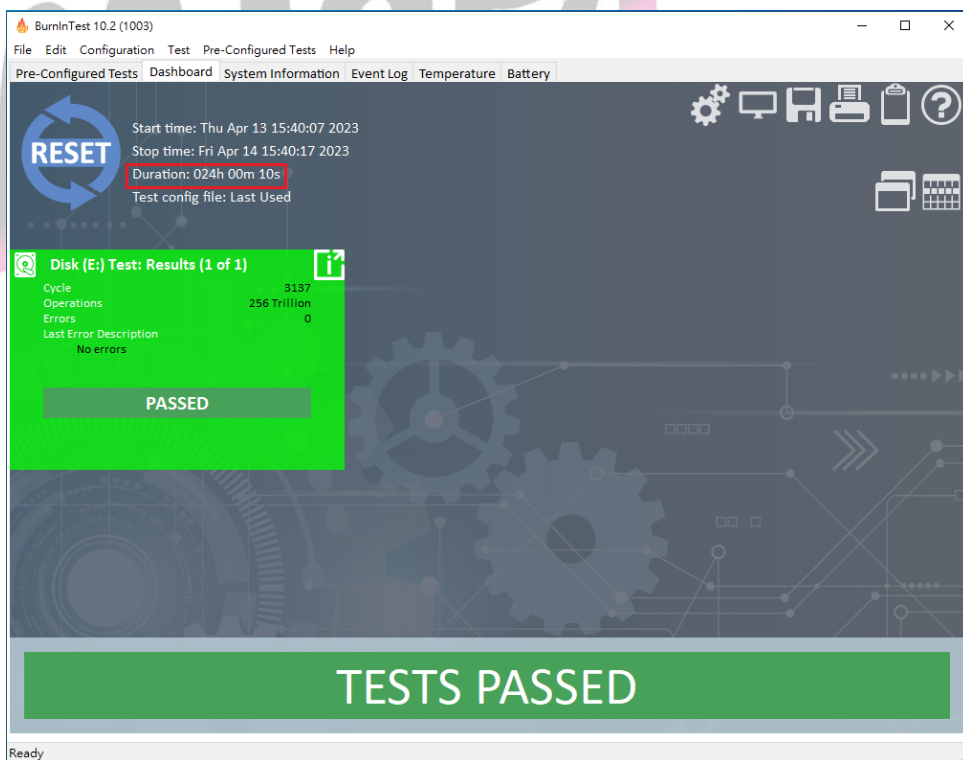
3. Burn In Tests and Results

3.1 BurnInTest v8.1 Pro

3.1.1 24-hour Burn-in test **PASSED** in Drive D: performance as below:



3.1.2 24-hour Burn-in test **PASSED** in Drive E: performance as below:



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4. Summary

- 4.1 U.2 NVMe SSD is PCIe 4.0 / 4 Lanes Interface, I/O speed, max. to 64Gbps.
- 4.2 GD2807A adapter I/O performance is based on U.2 NVMe SSD.

