



MINERVA

DP6705 M.2 PCIe 4.0 with ReDriver for Mini SAS HD(SFF 8673)

Performance & Burn In Test Rev. 1. 0

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DP6705 Adapter

1. Overview

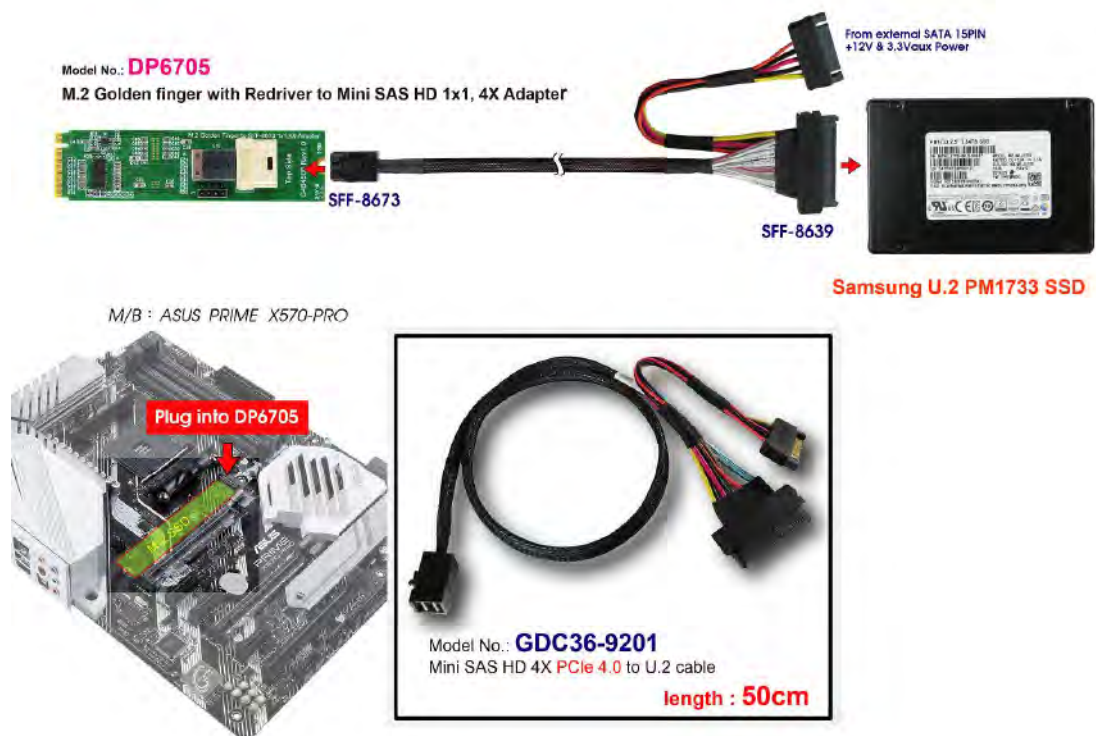
The M.2 adapter built-in ReDriver provides PCIe 4.0 4 Lanes link width, 16GT/s high-speed signals extension to Mini SAS HD 1x1, 4X(SFF-8673).

2. Tools and Results of Performance Measurement

2.1 Test Platform

M/B : **ASUS PRIME X570-PRO**
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: **DP6705 M.2 PCIe 4.0 with Redriver to SFF-8673 Adapter**
Cable: **SFF-8673 PCIe 4.0 to U.2(SFF-8639), 50cm** Cable
OS : **Microsoft Windows 10 64bit OS**

2.2 Test target: DP6705 AIC & Samsung U.2 NVMe 4TB SSD



DP6705 Adapter

2.3 Install Hardware

Inserts U.2 NVMe SSD into GDC36-9201 cable's U.2 connector, and then Connects to DP6705 M.2 PCIe 4.0 with Redriver to SFF-8673 Adapter. The DP6705 Adapter plugs into PCIe Slot of **ASUS PRIME X570-PRO**

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.

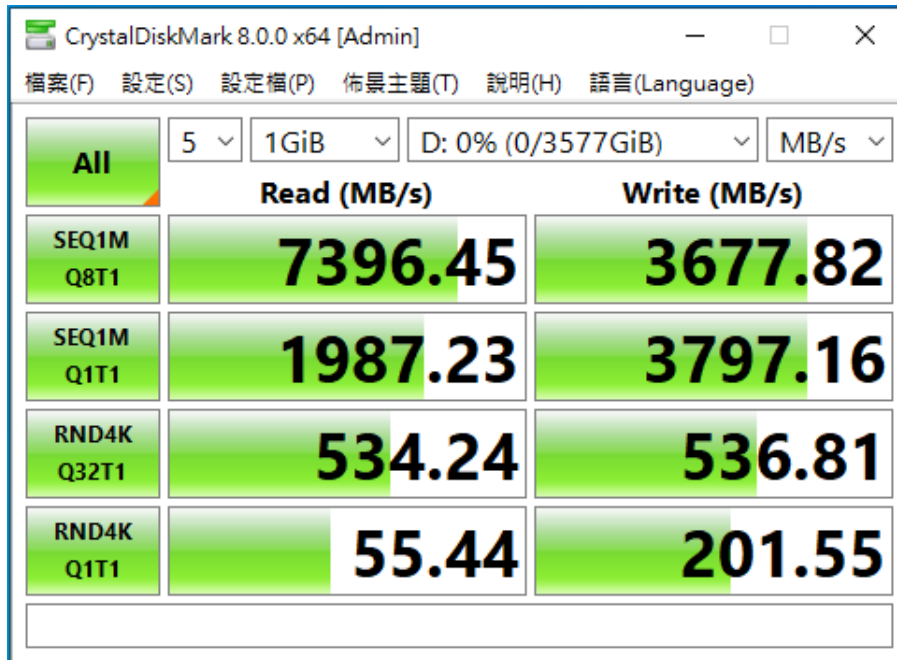


DP6705 Adapter

2.5 CrystalDiskMark 8.0 x64 performance test

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

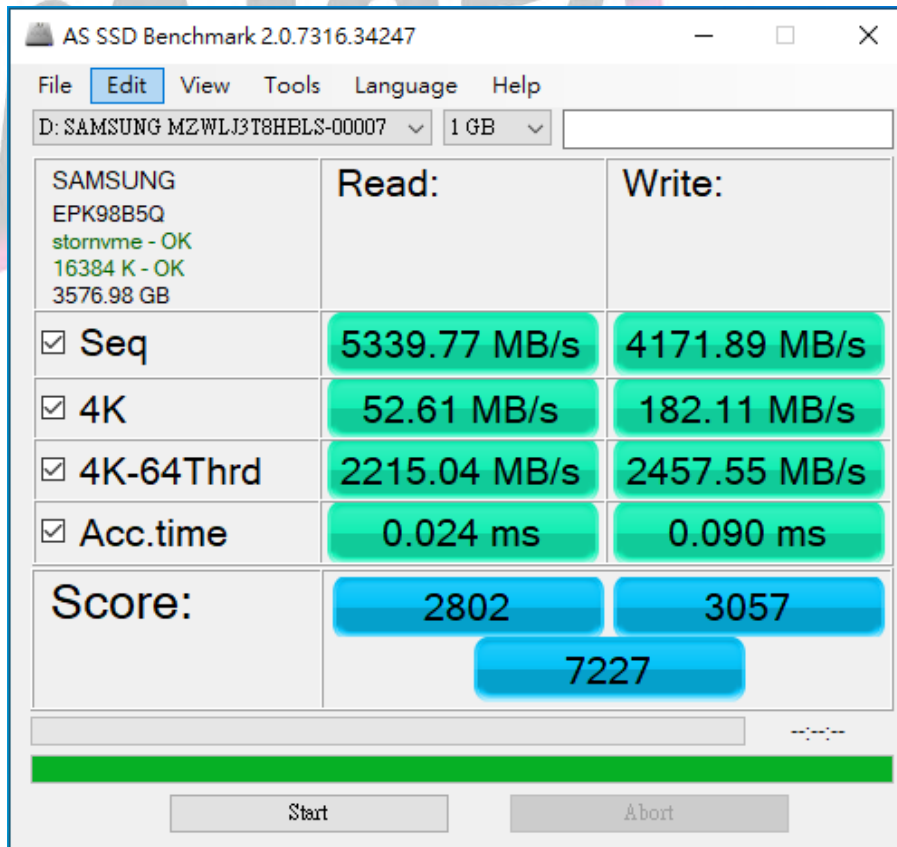
2.5.1 Samsung U.2 NVMe 4TB SSD performance as below:



2.6 AS SSD Benchmark 2.0.7 performance test

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

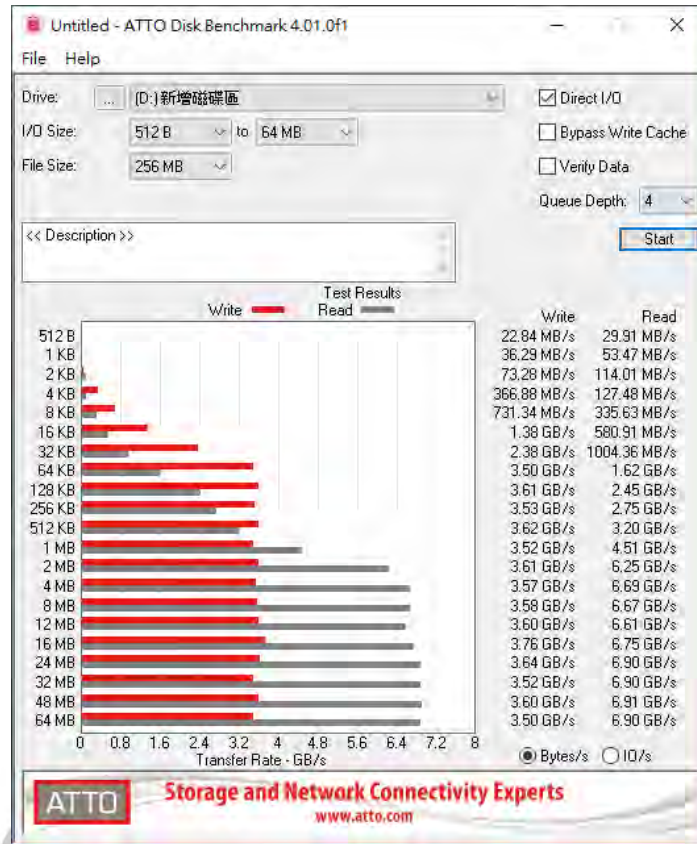
2.6.1 Samsung U.2 NVMe 4TB SSD performance as below:



DP6705 Adapter

2.7 ATTO Disk Benchmark 4.01 performance test

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



2.8 AnvilBenchmark_V110_B337

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

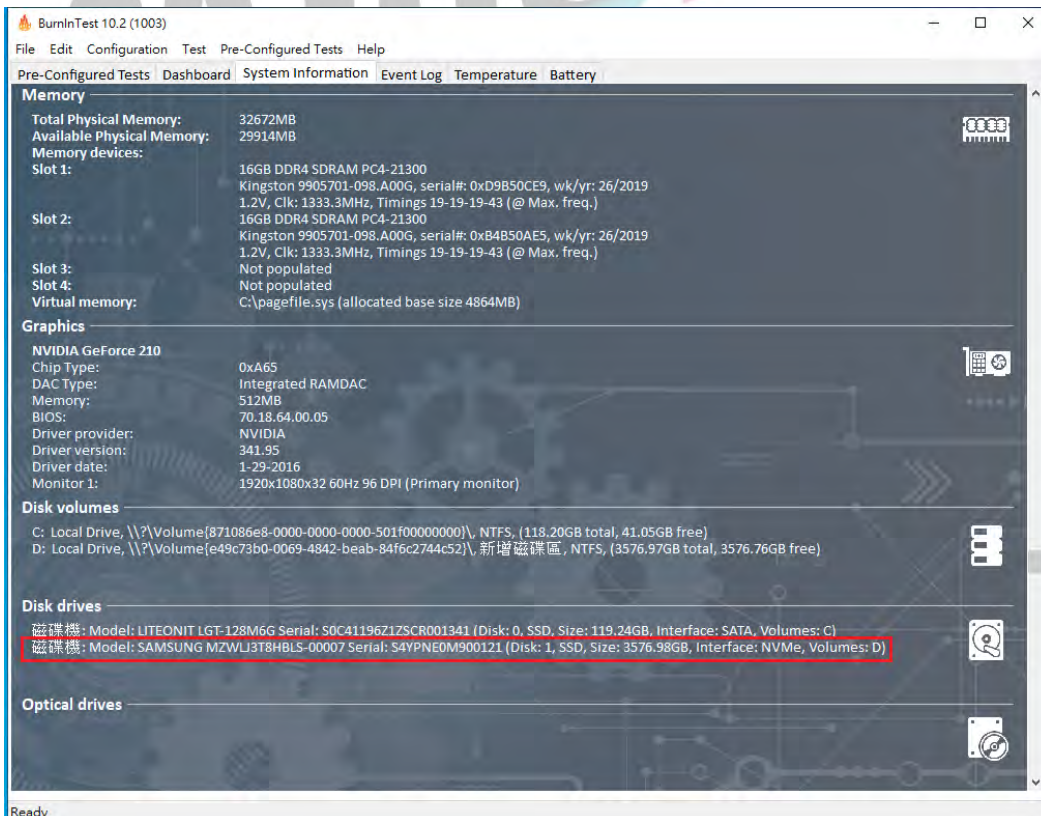
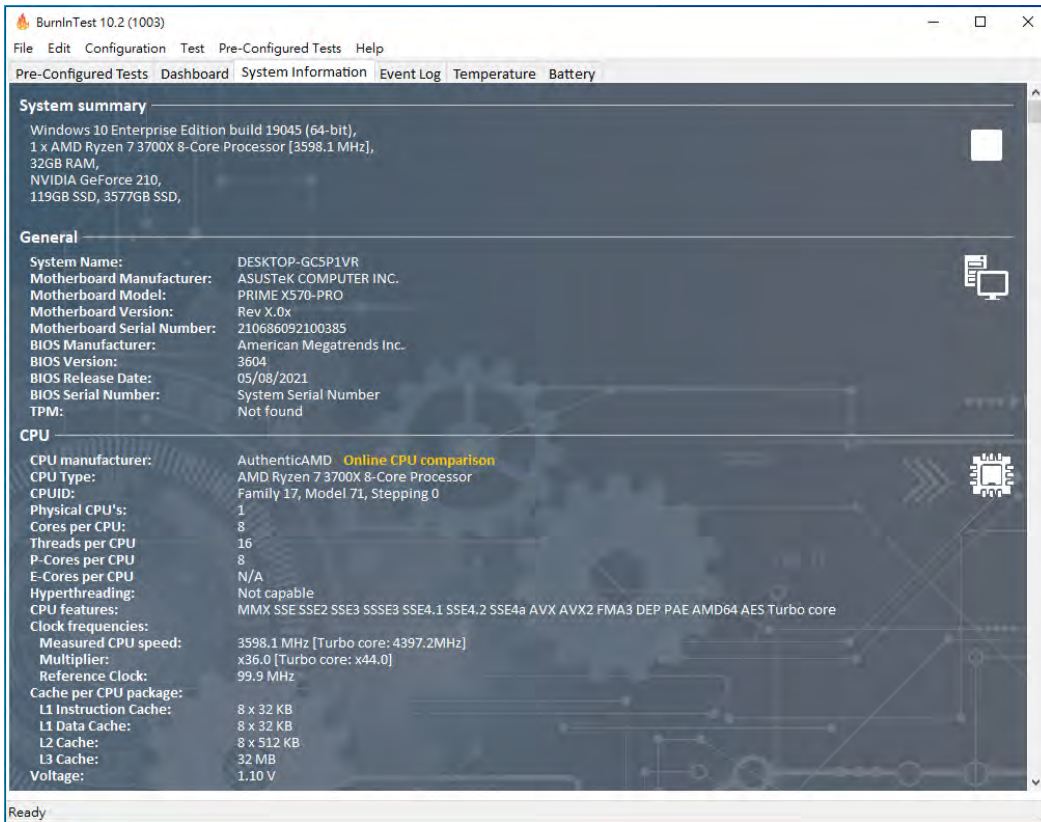


DP6705 Adapter

3. Burn In Tests and Results

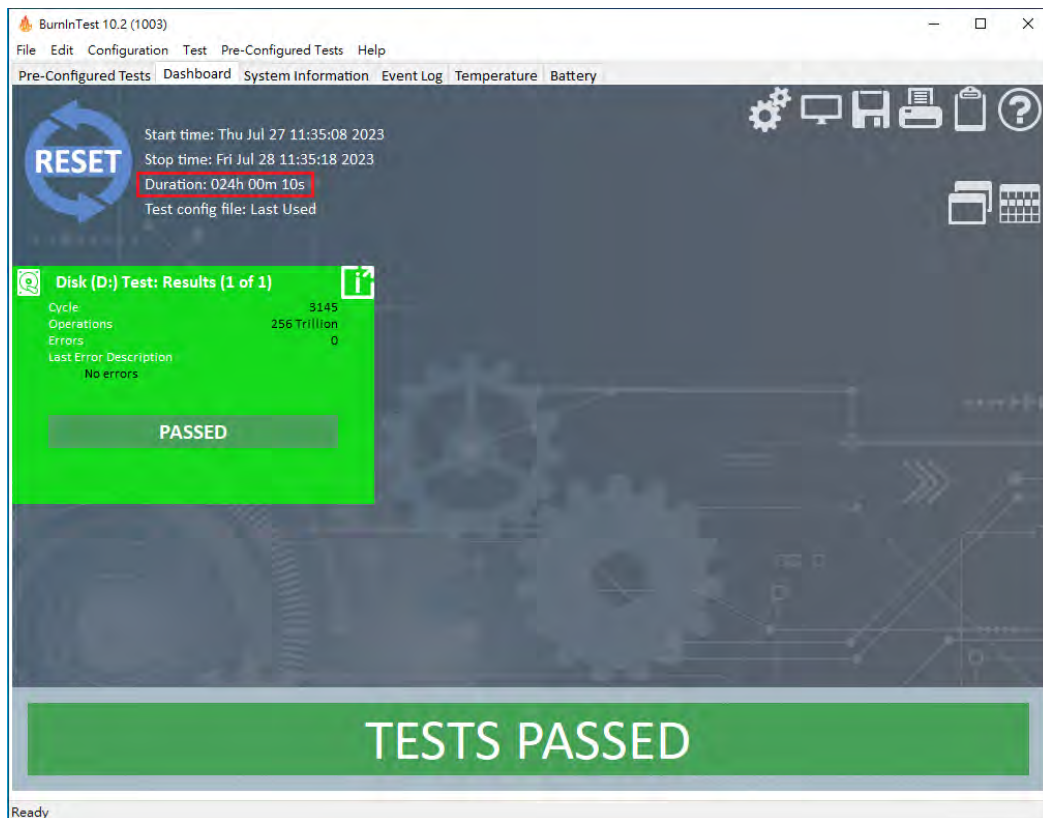
3.1 BurnInTest v10.2 Pro for Samsung U.2 NVMe 4TB SSD

3.1.1 System Information as below:



DP6705 Adapter

3.1.2 24-hour Burn-in test PASSED



4. Summary

- 4.1 U.2 NVMe SSD is PCIe Gen4, 16GT/s, 4 Lanes Interface, I/O speed, max. to 64Gbps.
- 4.2 DP6705 Adapter I/O performance is based on U.2 NVMe SSD