



MINERVA

DP9106 PCIe x4 Gen4 for U.3 (SFF-8639) AIC

Performance & Burn In Test Rev. 1.0

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DP9106 Rev1.0 Host Bus Adapter

1. Overview

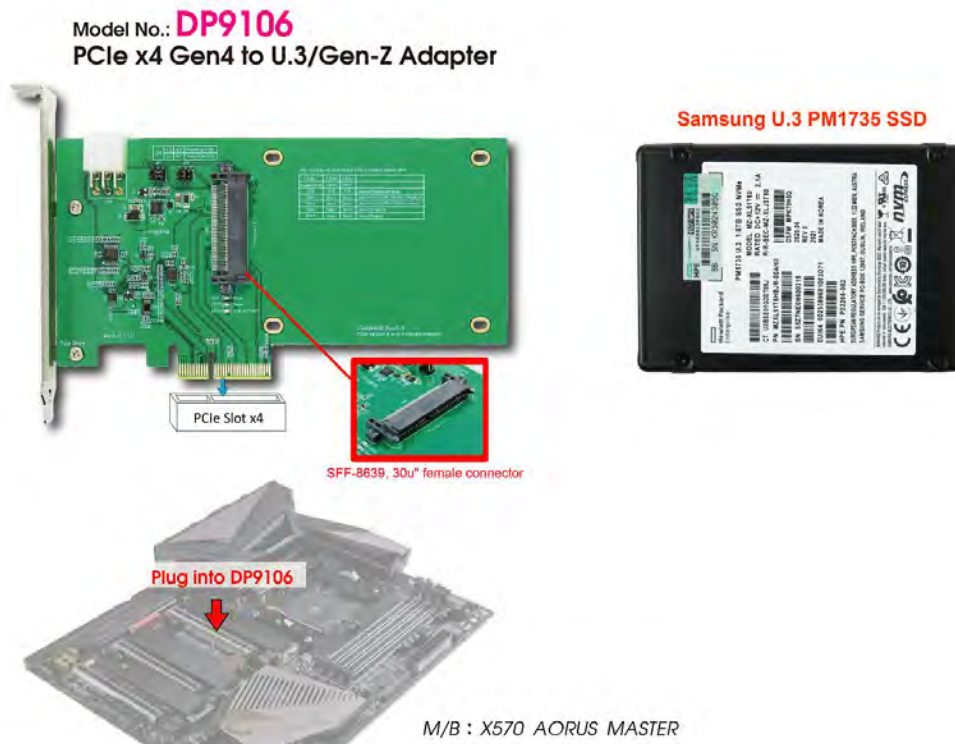
The Host Bus Adapter may provide PCIe x4 Gen4, 16GT/s high-speed signals extension to U.3 (SFF-8639).

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: DP9106 PCIe x4 Gen4 to U.3(SFF-8639) ADD-in Card
OS : Microsoft **Windows 10 64bit OS**

2.2 Test target: DP9106 AIC & **Samsung PM1735 U.3, 1.6tB NVMe SSD**



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2.3 Install Hardware

The U.3 NVMe SSD inserts into DP9106 AIC and then the DP9106 AIC plugs into 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.3 NVMe SSD, formatted to NTFS Mode. Don't install any program.

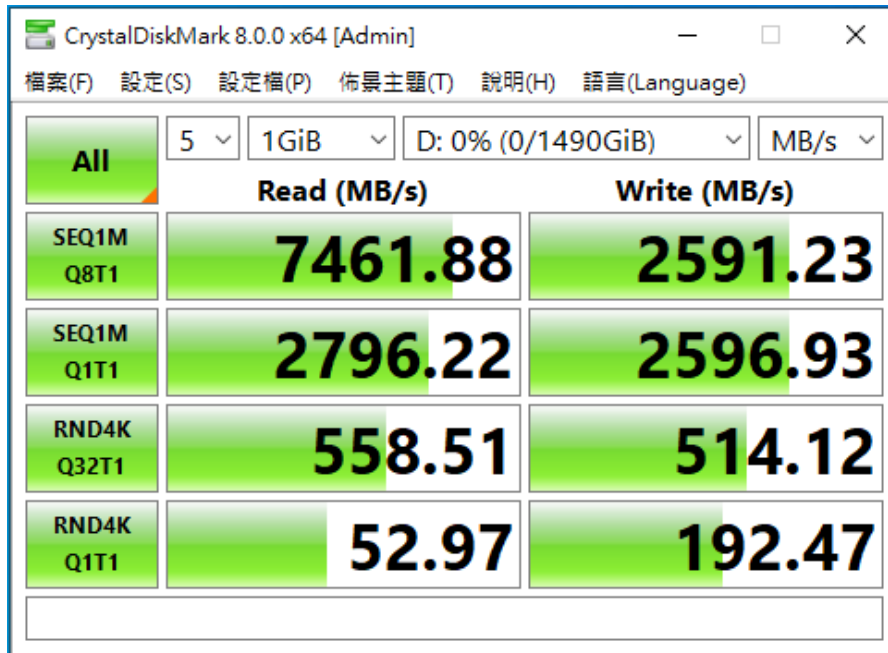


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2.5 CrystalDiskMark 8.0 x64 performance test

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

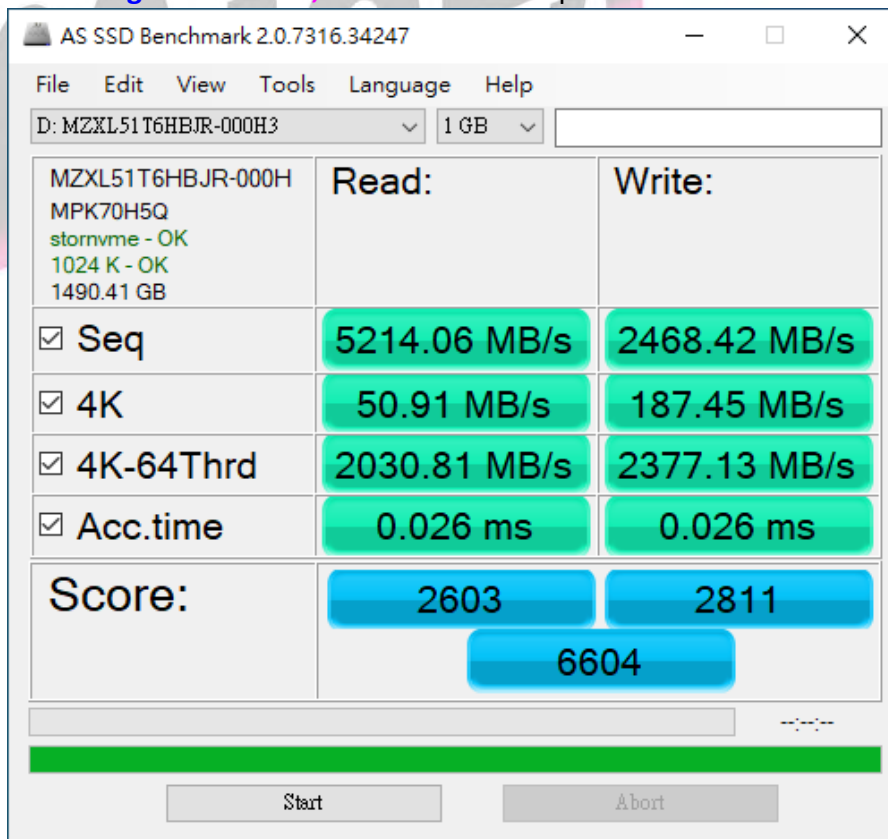
2.5.1 Samsung PM1735 U.3, 1.6TB NVMe SSD performance as below:



2.6 AS SSD Benchmark 2.0.73 performance test

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

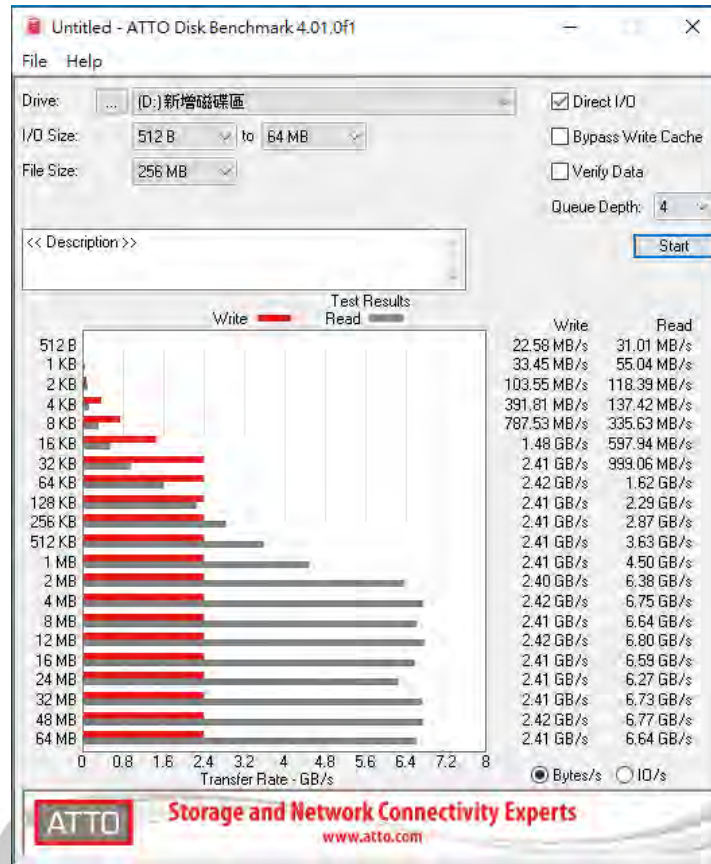
2.6.1 Samsung PM1735 U.3, 1.6TB NVMe SSD performance as below:



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2.7 ATTO Disk Benchmark 4.01 performance test

2.7.1 **Samsung PM1735 U.3, 1.6TB B NVMe SSD** performance as below:



2.8 AnvilBenchmark_V110_B337

2.8.1 **Samsung PM1735 U.3, 1.6TB NVMe SSD** performance as below:

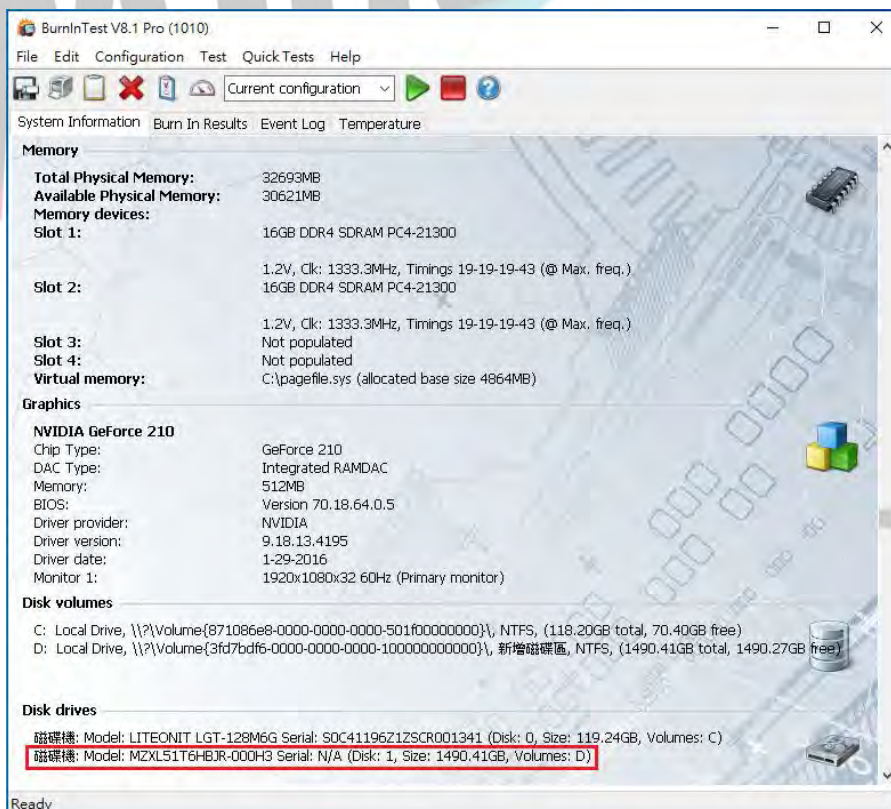
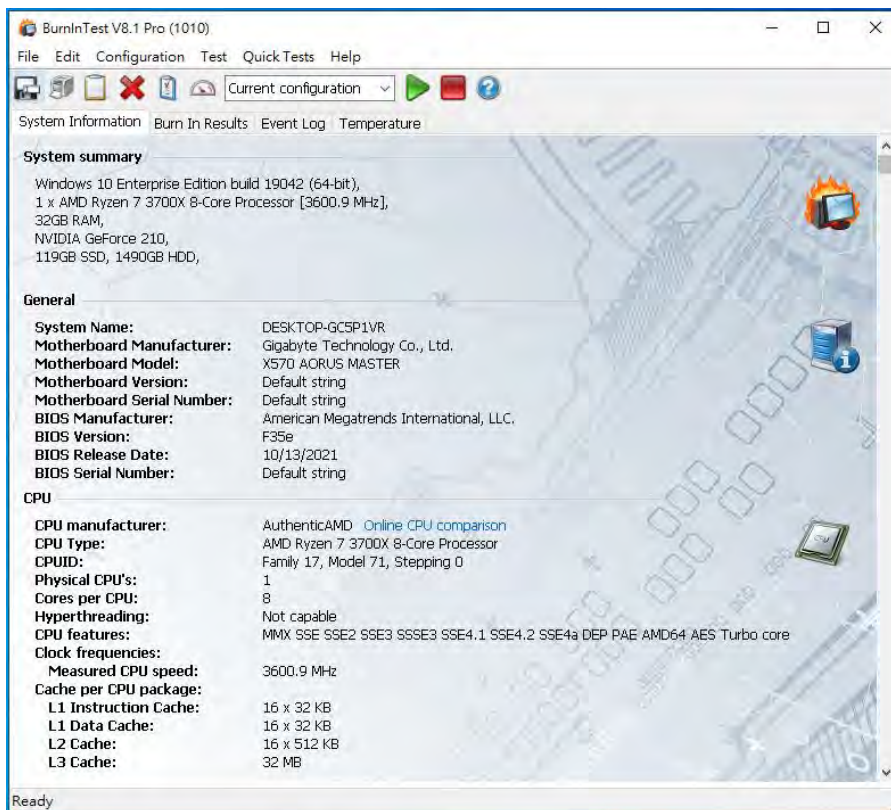


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3. Burn In Tests and Results

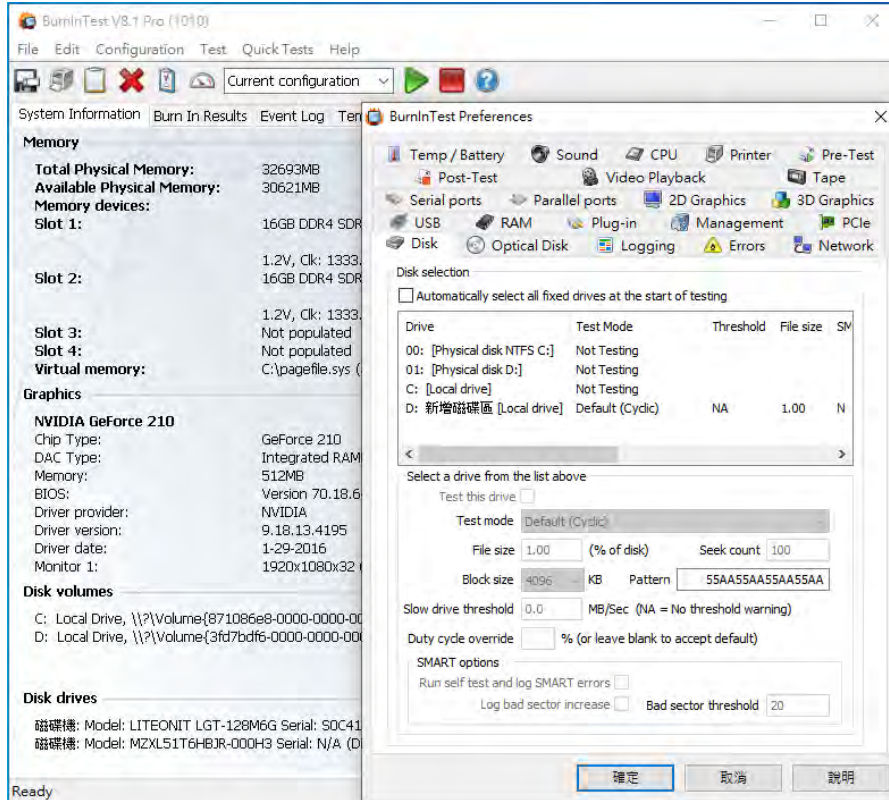
3.1 BurnInTest v8.1 Pro for Samsung PM1735 U.3, 1.6TB NVMe SSD

3.1.1 System Information as below:

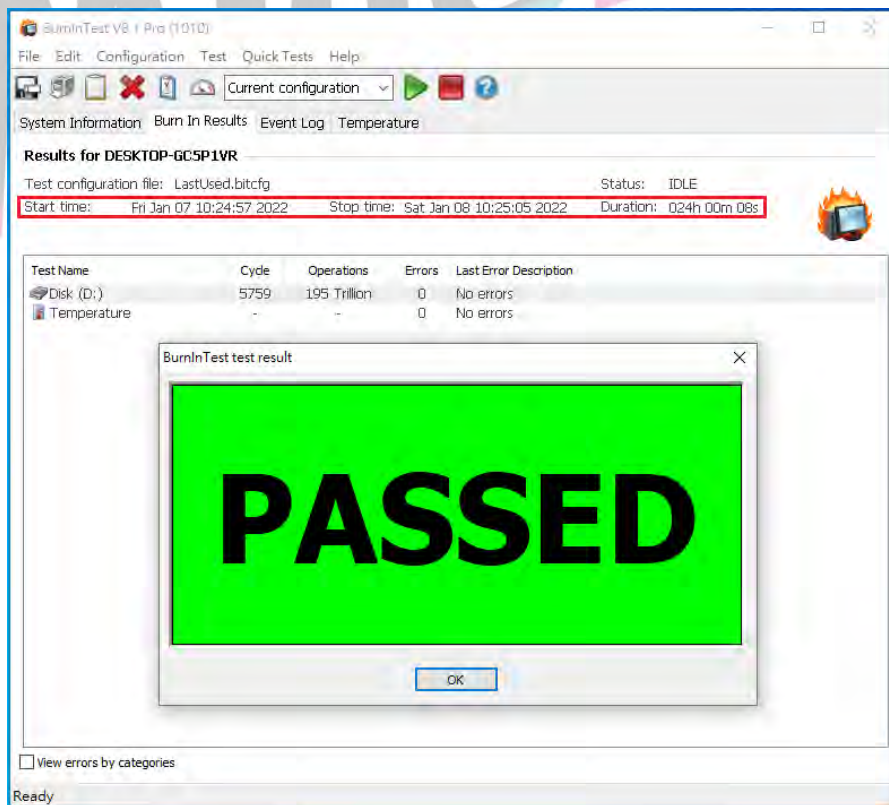


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3.1.2 Disk test mode(10 ways cycle test)



3.1.3 24-hour Burn-in test PASSED



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4. Summary

- 4.1 U.3 NVMe SSD is PCIe Gen 4, 16GT/s , 4 Lanes Interface, I/O speed, max. to 64Gbps.
- 4.2 DP9106 Host Bus Adapter I/O performance is based on U.3 NVMe SSD.

