MINERVA

DP9609 PCIe x4 Gen4 with ReDriver for MCIO 38P AIC

Performance & Burn In Test Rev. 1. 0

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DP9609 Add-in Card

1. Overview

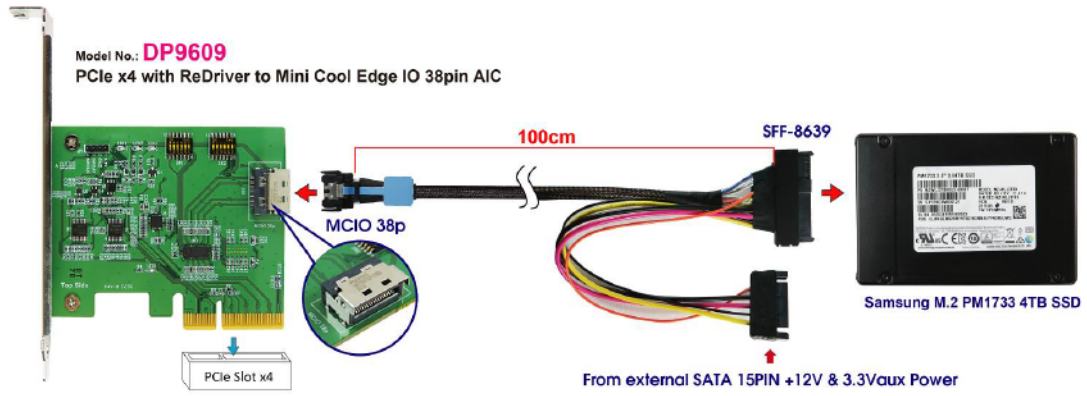
The Host Bus Adapter may provide PCIe x4 Gen4, 16GT/s high-speed signals extension with ReDriver controller to MCIO 38P.

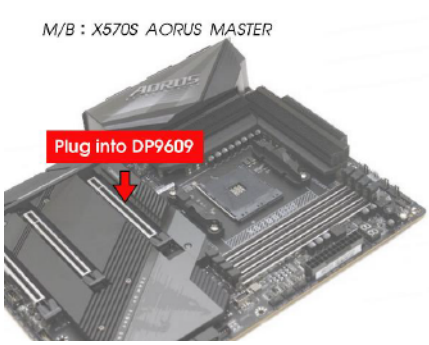
2. Tools and Results of Performance Measurement

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:	DP9609 PCIe x4 Gen 4 with Redriver to MCIO 38P ADD-in Card
Cable:	MCIO 38P to U.2(SFF-8639) PCIe Gen 4, 100cm Cable
OS :	Microsoft **Windows 10 64bit OS**

2.2 Test target: DP9609 & Samsung **U.2 PM1733** / **4TB NVMe SSD**





2.3 Install Hardware

Inserts U.2 NVMe SSD into MCIO 38P cable, and connects cable to DP9609 AIC. The DP9609 plugs into PCIe x16 Slot of GIGABYTE **X570S AORUS MASTER**

2.4 BIOS & Windows 10 OS environment setup

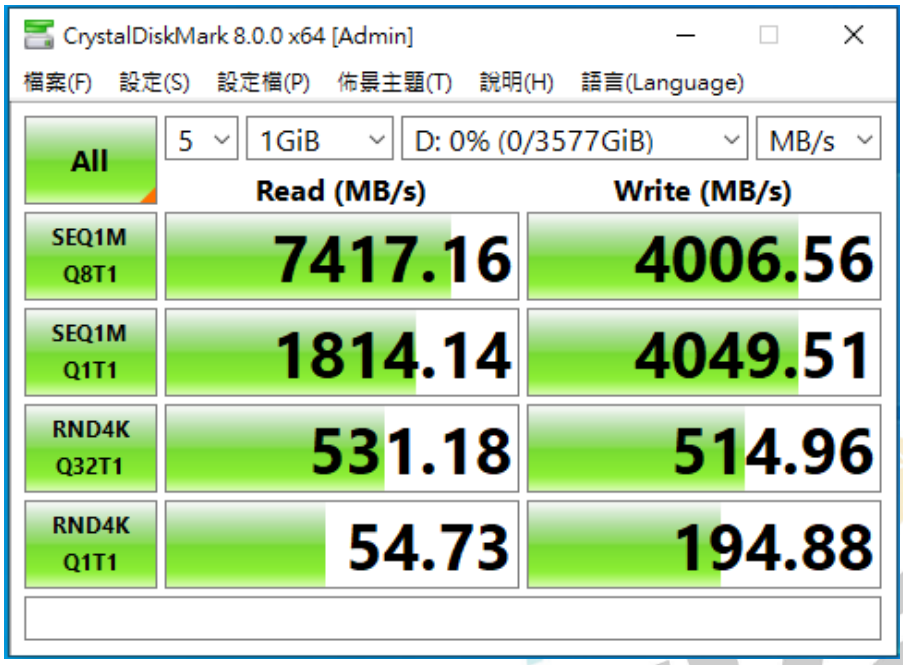
2.4.1 Primary SATA SSD installed Windows 10 OS.

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

2.5 CrystalDiskMark 8.0 x64 performance test

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

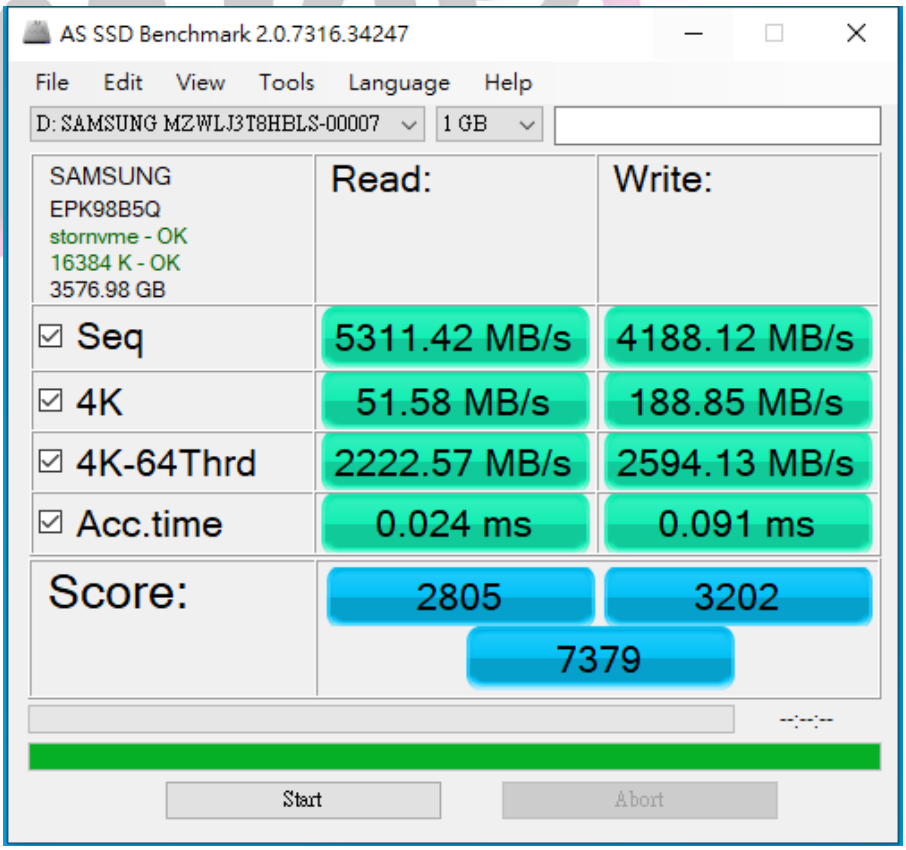
2.5.1 **Samsung U.2 PM1733 / 4TB NVMe SSD** performance as below:



2.6 AS SSD Benchmark 2.0.7 performance test

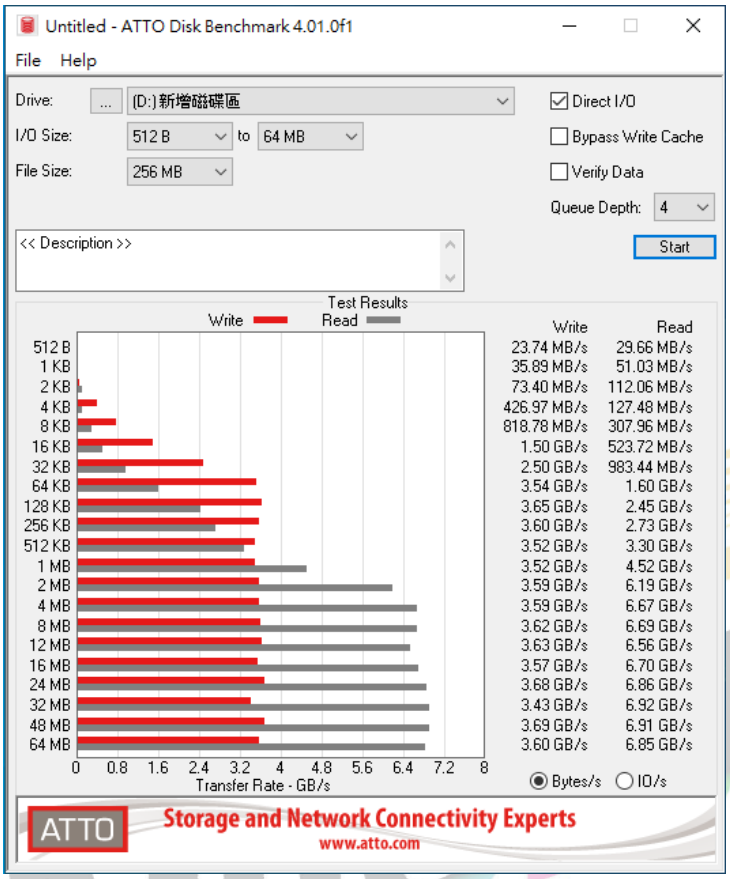
※Benchmark (Read & Write by MB/s, default block size = 16MB)

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



2.7 ATTO Disk Benchamrk 4.01 performance test

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



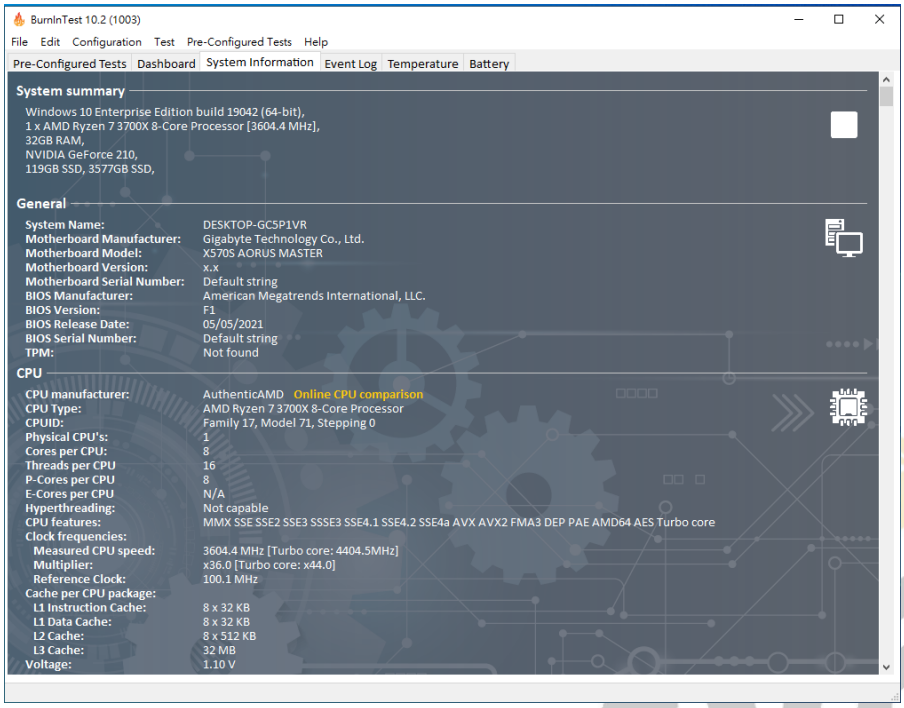
2.8 AnvilBenchmark_V110_B337

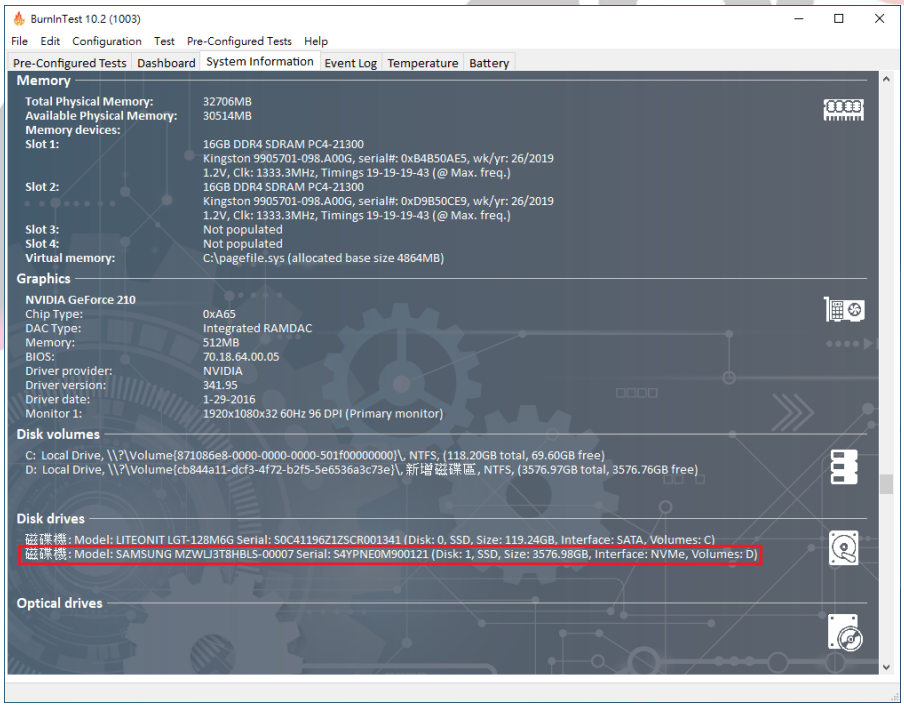
2.8.1 **Samsung U.2 PM1733 / 4TB NVMe SSD** performance as below:

3. Burn In Tests and Results

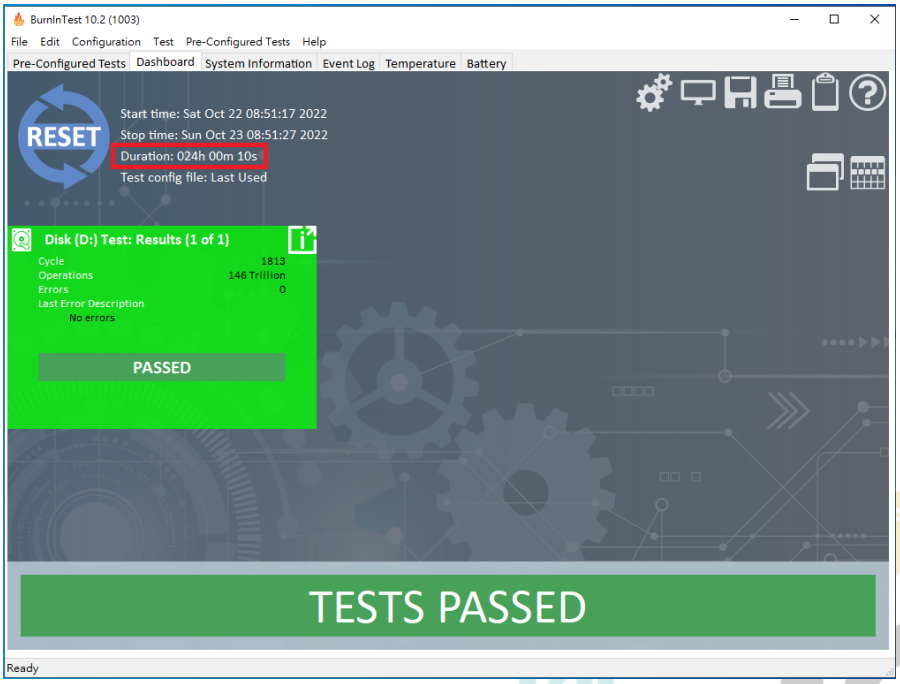
3.1 BurnInTest v10.2 Pro for Samsung U.2 PM1733 / 4TB NVMe SSD

3.1.1 System Information as below:





3.1.2 24-hour Burn-in test PASSED



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 DP9609 Host Bus Adapter I/O performance is based on U.2 NVMe SSD.