MINERVA

EP6102 PCIe x16 Gen5 for M.2 quad port AIC

Performance & Burn In Test Rev. 1. 0

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EP6102 Converter Card

1. Overview

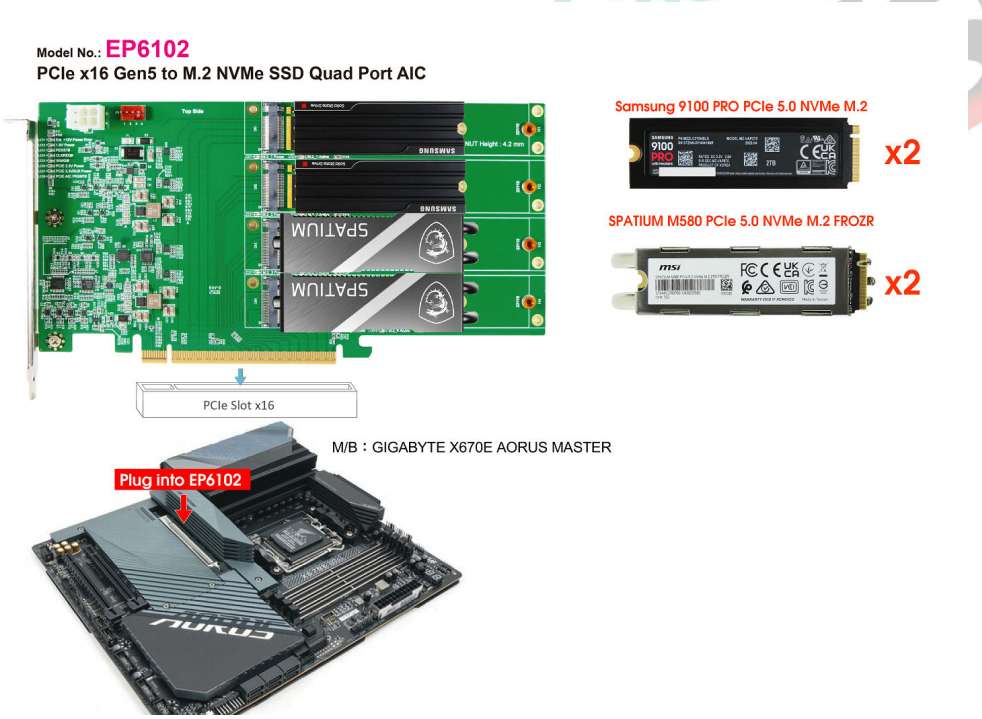
The EP6102 Add-in Card, providing M.2 M-key connector quad port can be M.2 NVMe SSD converted into PCIe x16 Gen 5, 32Gbps interface.

2. Tools and Results of Performance Measurement

2.1 Test Platform:

M/B : GIGABYTE **X670E AORUS MASTER**
CPU : AMD **Ryzen 5, 7600X 6-Core**
Memory : Kingston **KF556C36BBEK2**, DDR5-5600MT/s, **64GB**(32GB DIMM*2)
ATX Power : Apexgaming AN-550, **550W ATX**, 12V V2.2 Power Supply
AIC: EP6102 PCIe x16 Gen 5 to M.2 quad port Add-in Card
OS : Microsoft **Windows 11 64bit OS**

2.2 Test target: EP6102 AIC, MSI M.2 M580 **2TB** SSD & Samsung M.2 9100pro **2TB** SSD



2.3 Install Hardware

Inserts M.2 NVMe SSD into EP6102 AIC's M.2 M-key connector, and then with coppers, and screws to fix SSDs. (Please refer to the Installation Notes). and then plugs EP6102 into PCIe x16 slot of GIGABYTE **X670E AORUS MASTER**

2.4 BIOS & Windows 10 OS environment setup

2.4.1 Primary SATA SSD installed Windows 10 OS.

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

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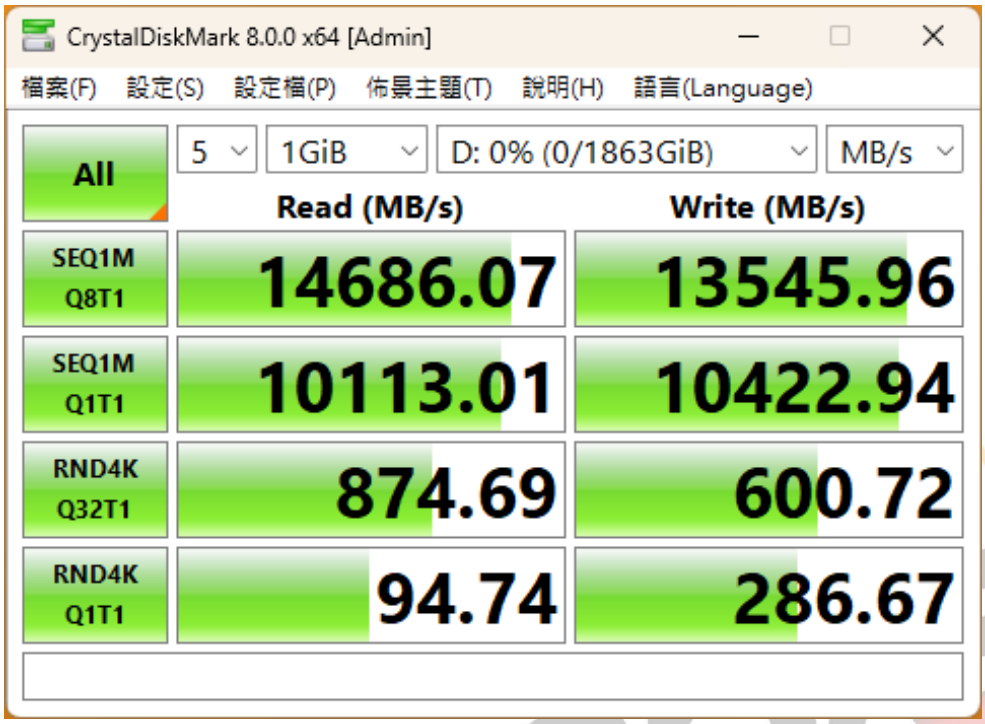
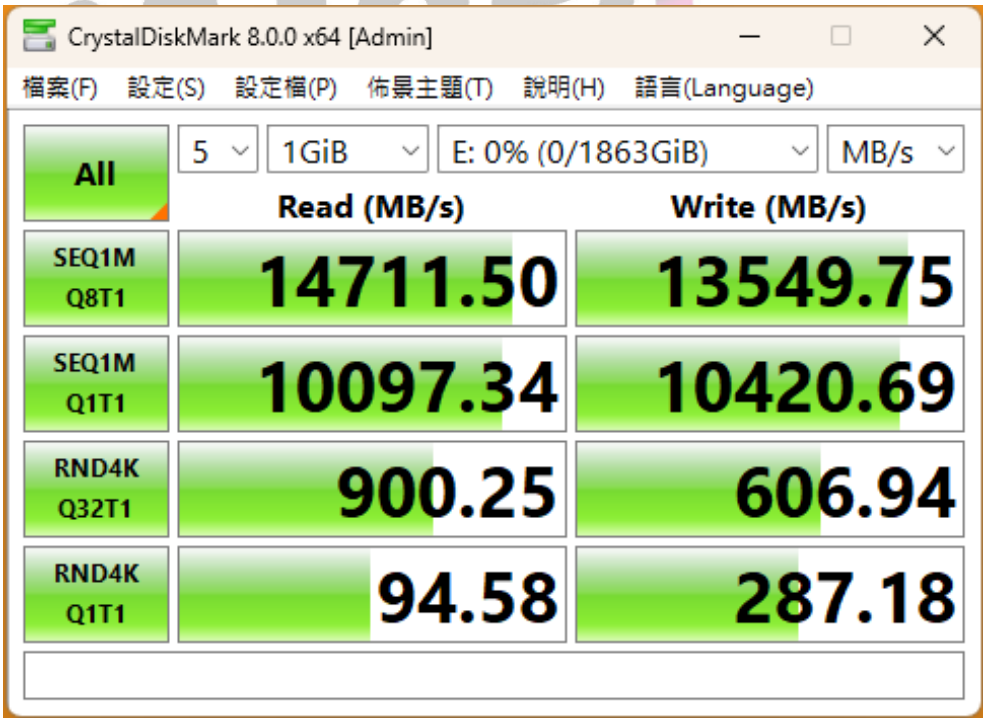
2.5 CrystalDiskMark 8.0 x64 performance test

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

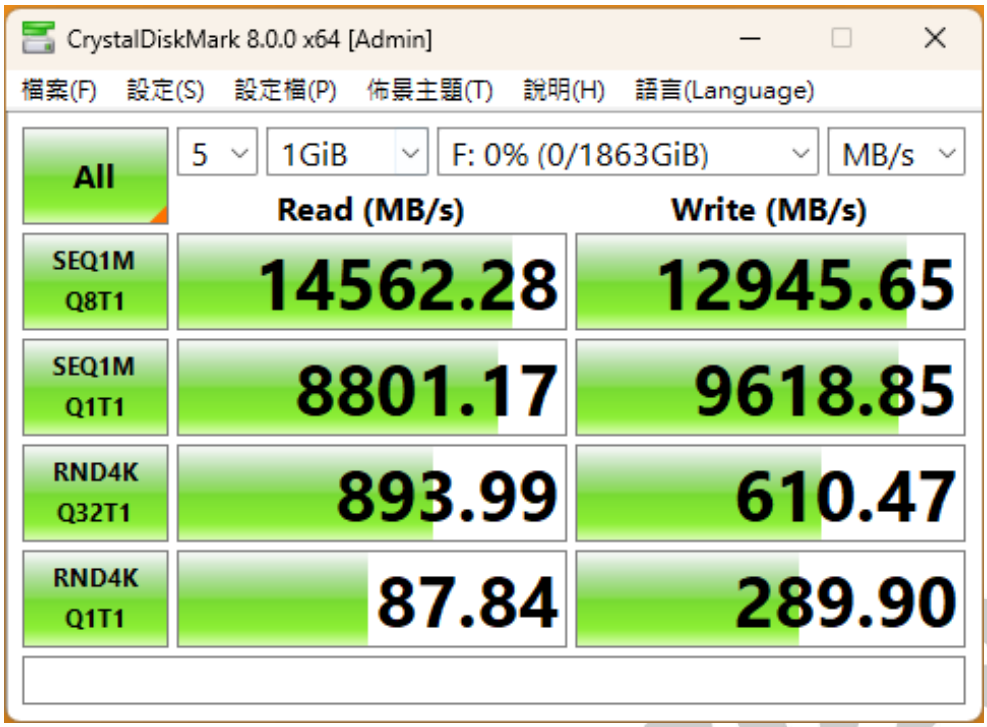
2.5.1 Samsung M.2 NVMe SSD/ 2TB performance in Drive D: as below:



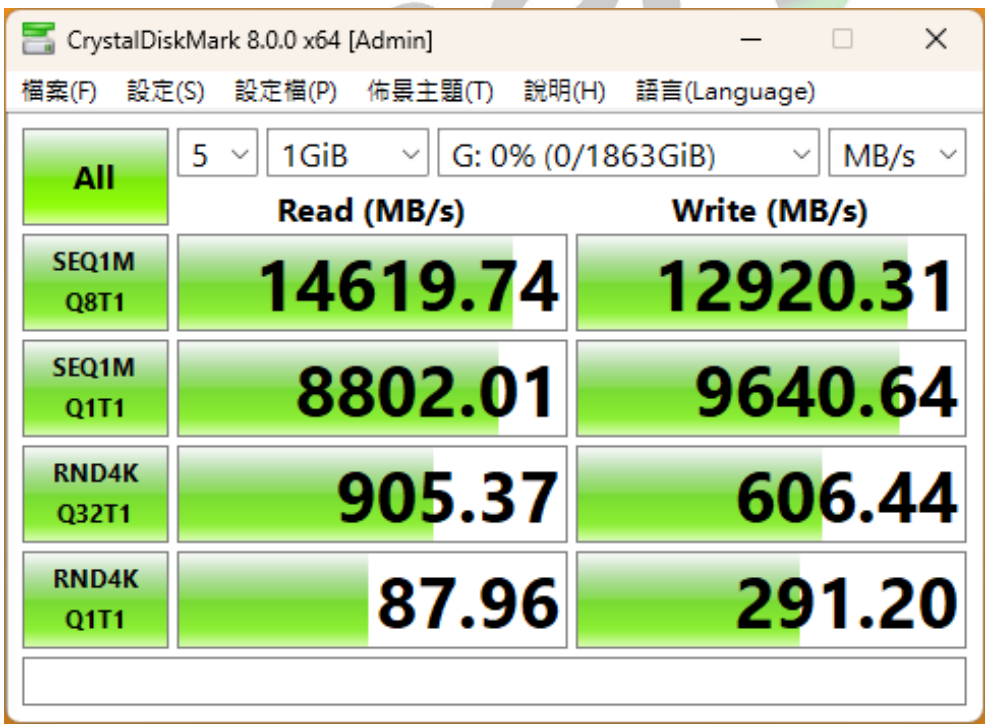
2.5.2 Samsung M.2 NVMe SSD/ 2TB performance in Drive E: as below:



2.5.3 **MSI M.2 NVMe SSD/ 2TB** performance in **Drive F:** as below:



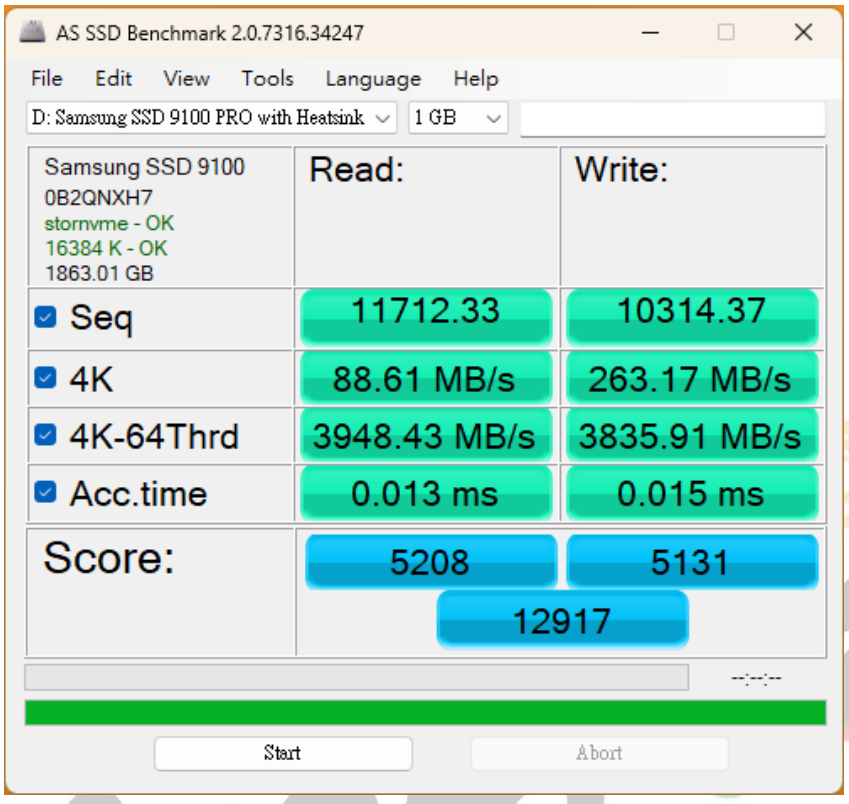
2.5.4 **MSI M.2 NVMe SSD/ 2TB** performance in **Drive G:** as below:



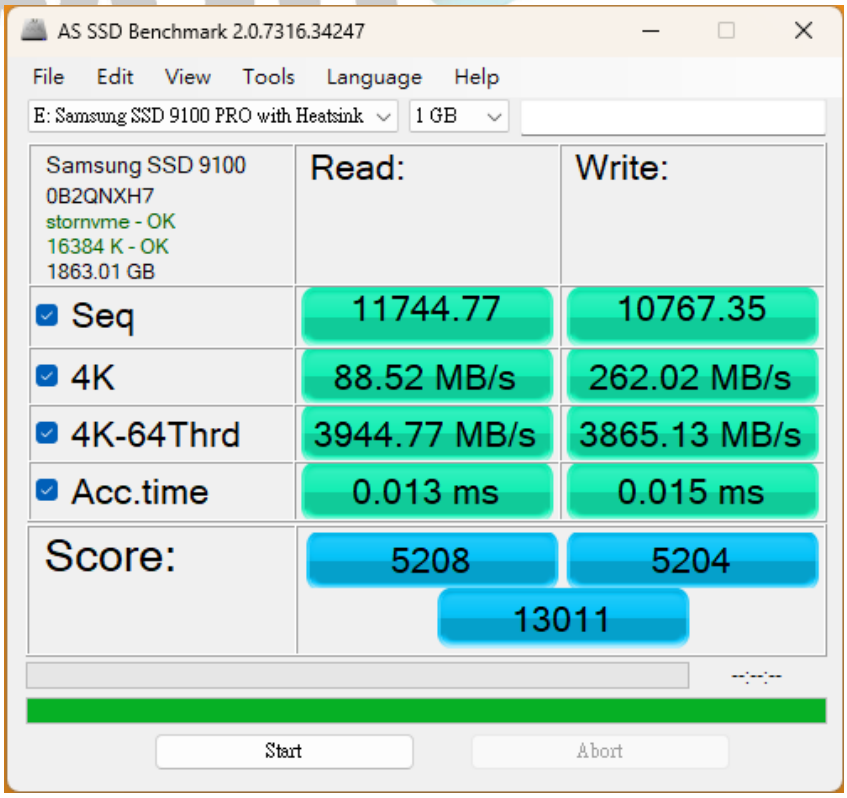
2.6 AS SSD Benchmark 2.0.7 performance test

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

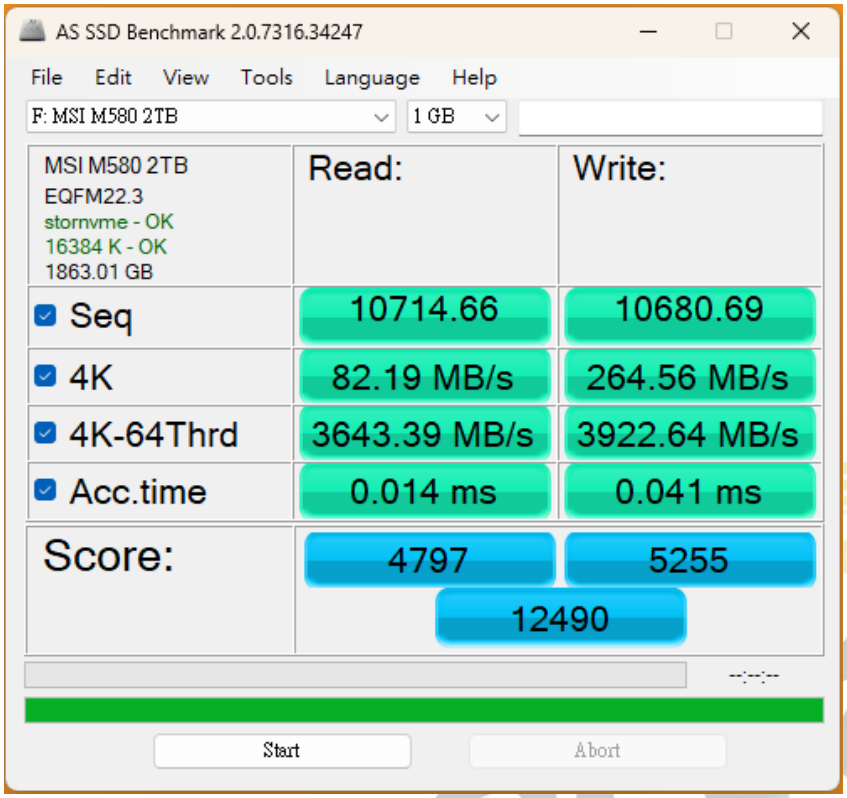
2.6.1 Samsung M.2 NVMe SSD/ 2TB performance in Drive D: as below:



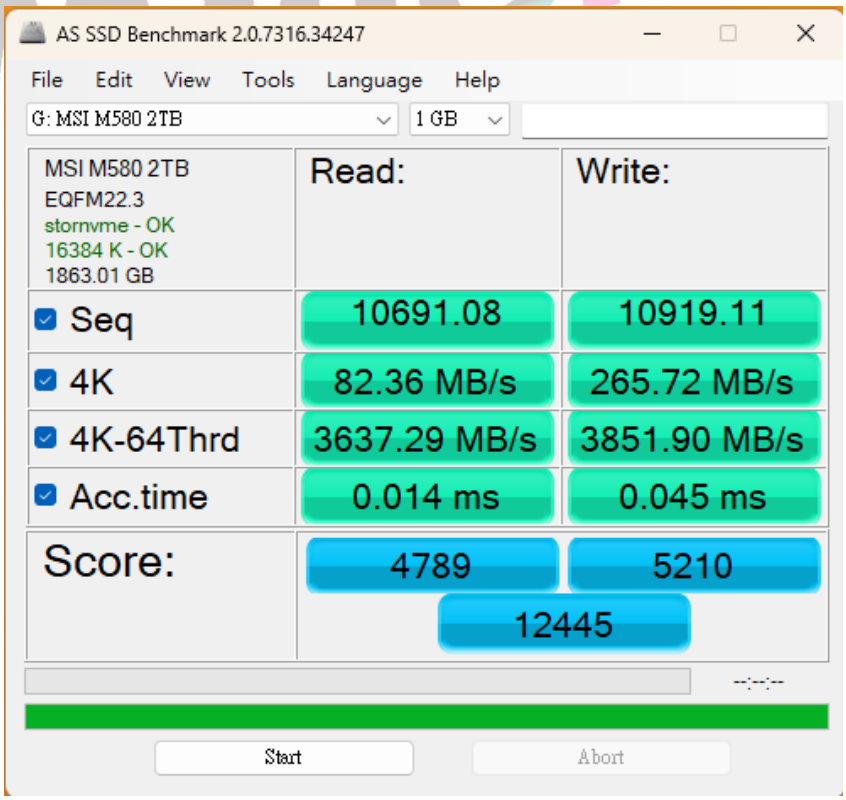
2.6.2 Samsung M.2 NVMe SSD/ 2TB performance in Drive E: as below:



2.6.3 **MSI M.2 NVMe SSD/ 2TB** performance in **Drive F:** as below:

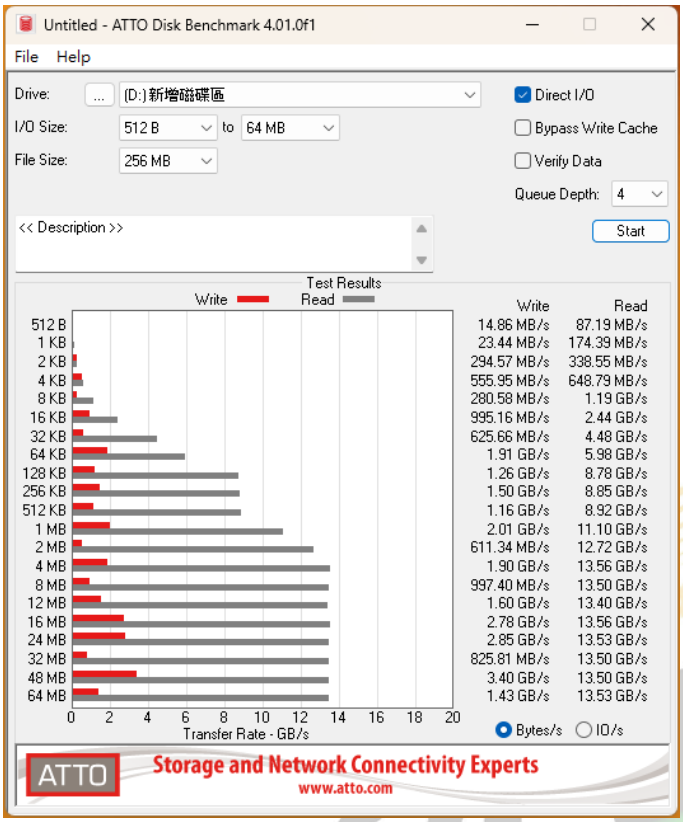


2.6.4 **MSI M.2 NVMe SSD/ 2TB** performance in **Drive G:** as below:

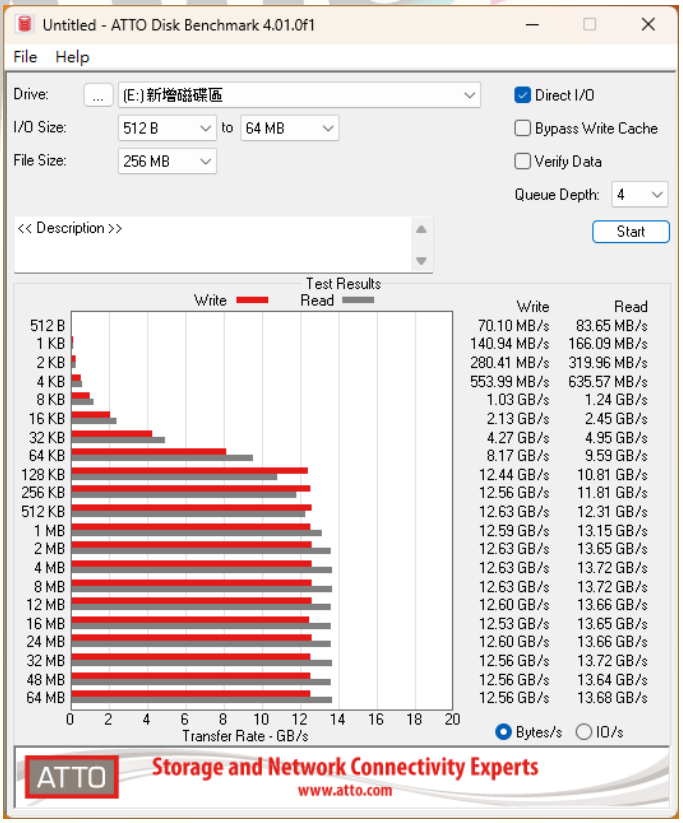


2.7 ATTO Disk Benchamrk 4.01 performance test

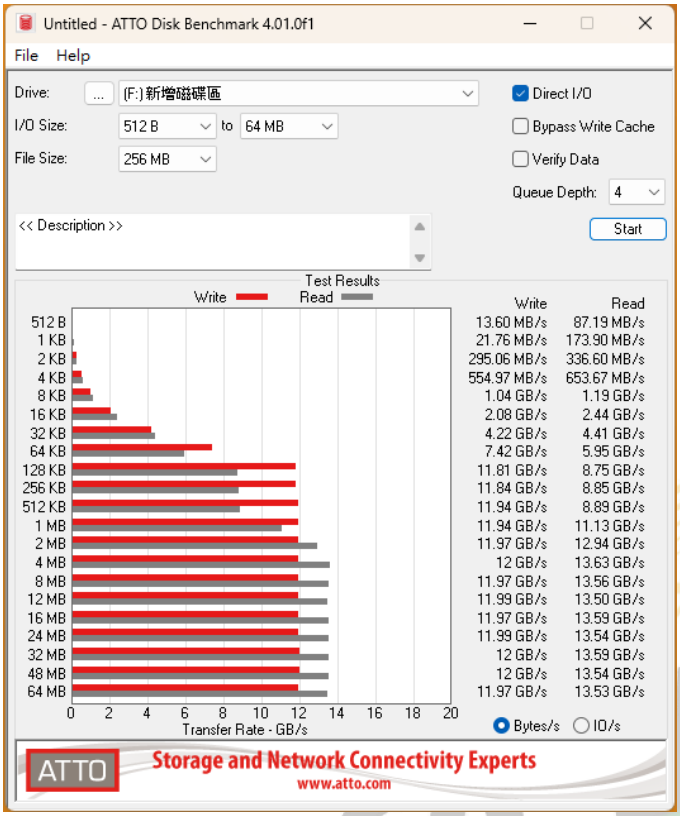
2.7.1 **Samsung M.2 NVMe SSD/ 2TB** performance in **Drive D:** as below:



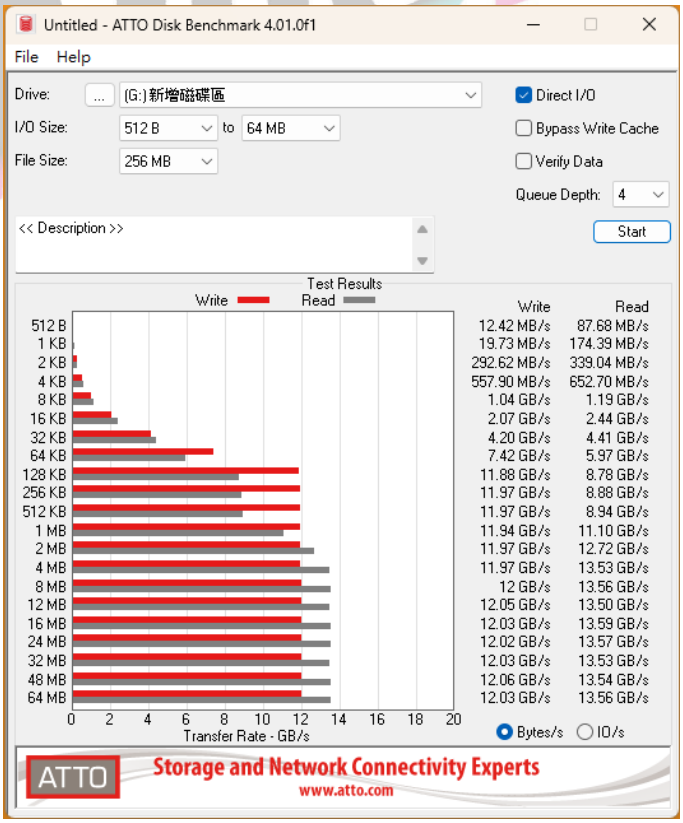
2.7.2 **Samsung M.2 NVMe SSD/ 2TB** performance in **Drive E:** as below:



2.7.3 **MSI M.2 NVMe SSD/ 2TB** performance in **Drive F:** as below:



2.7.4 **MSI M.2 NVMe SSD/ 2TB** performance in **Drive G:** as below:



2.8 AnvilBenchmark_V110_B337

2.8.1 Samsung M.2 NVMe SSD/ 2TB performance in Drive D: as below:

2.8.2 Samsung M.2 NVMe SSD/ 2TB performance in Drive E: as below:

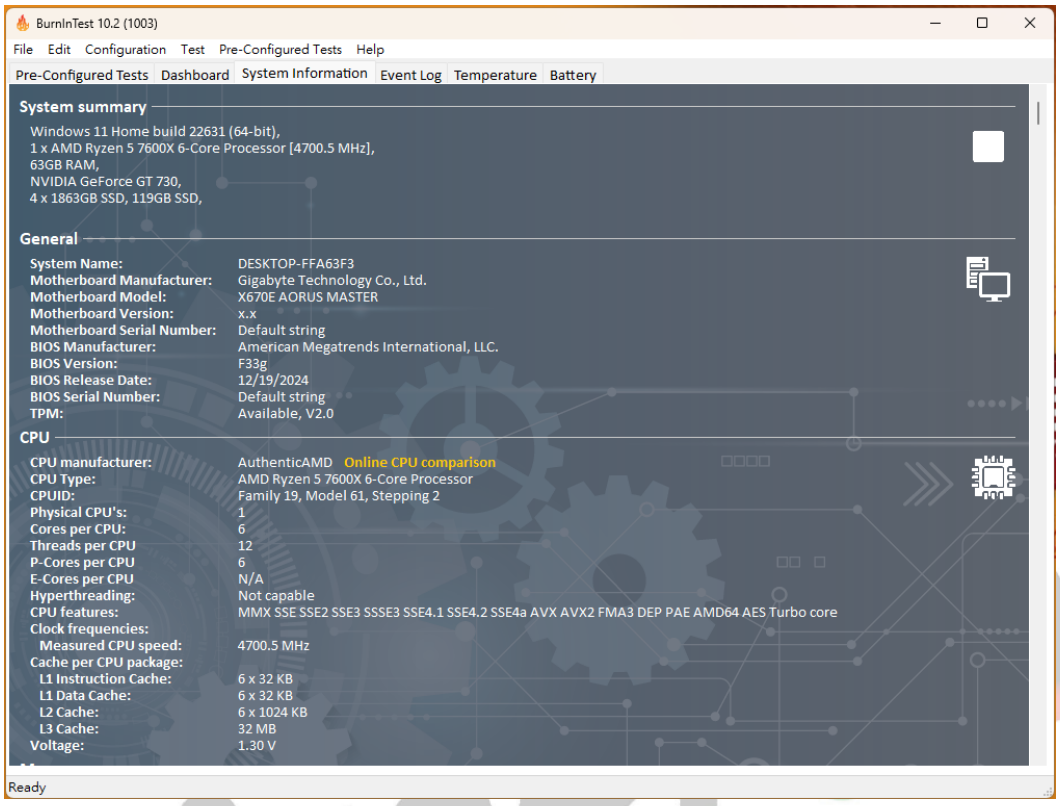
2.8.3 **MSI M.2 NVMe SSD/ 2TB** performance in **Drive F:** as below:

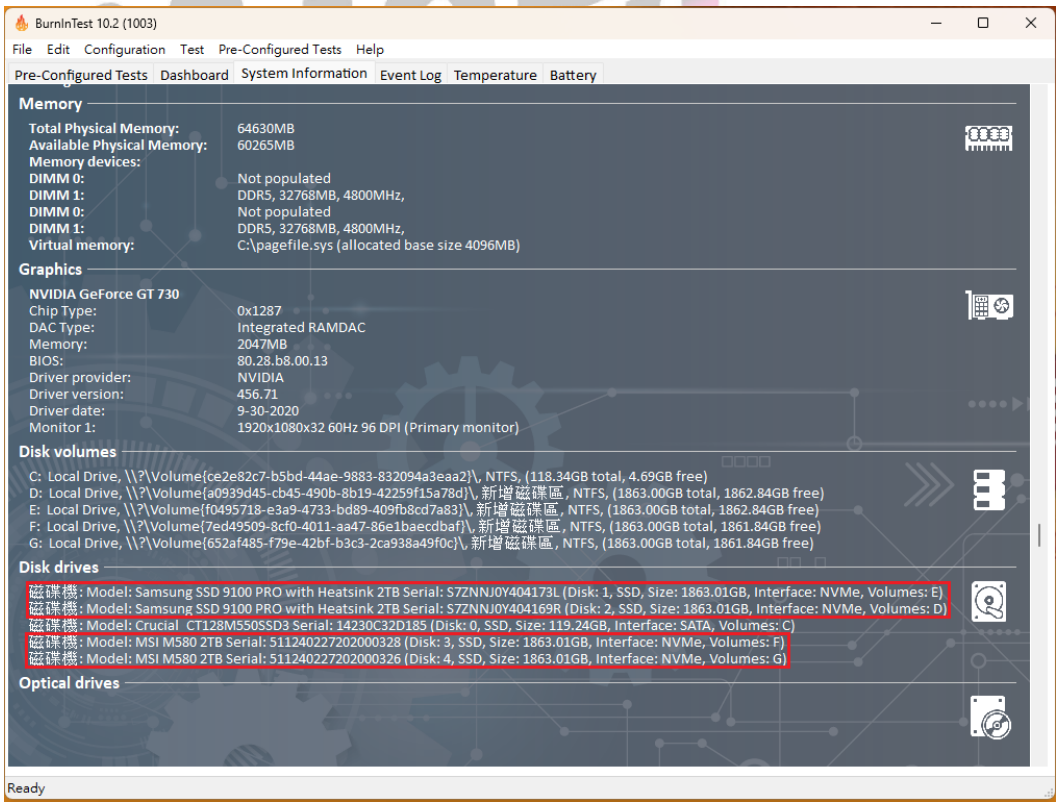
2.8.4 **MSI M.2 NVMe SSD/ 2TB** performance in **Drive G:** as below:

3. Burn In Tests and Results

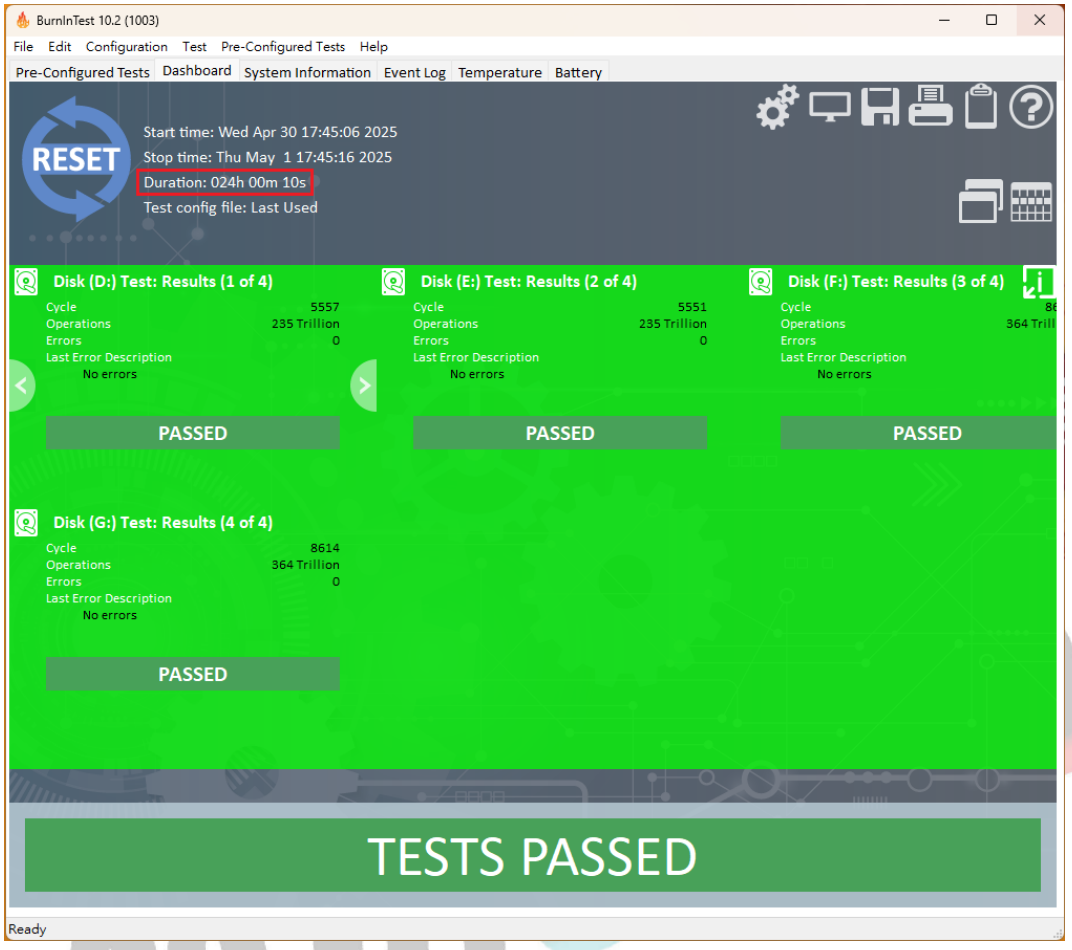
3.1 BurnInTest v10 Pro for MSI M.2 NVMe SSD/ 2TB & Samsung M.2 NVMe SSD/ 2TB

3.1.1 System Information as below:





3.1.2 24-hour Burn-in test PASSED



4. Summary

4.1 M.2 NVMe SSD is PCIe Gen 5, 32GT/s, 4 Lanes Interface, I/O speed, max. to 128Gbps.

4.2 EP6102 AIC I/O performance is based on M.2 NVMe SSD.