MINERVA

GE0246A U.2 PCIe 5.0 for EDSFF (Gen-Z)1C SSD Adapter

Performance & Burn In Test Rev. 1. 0

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1. Overview

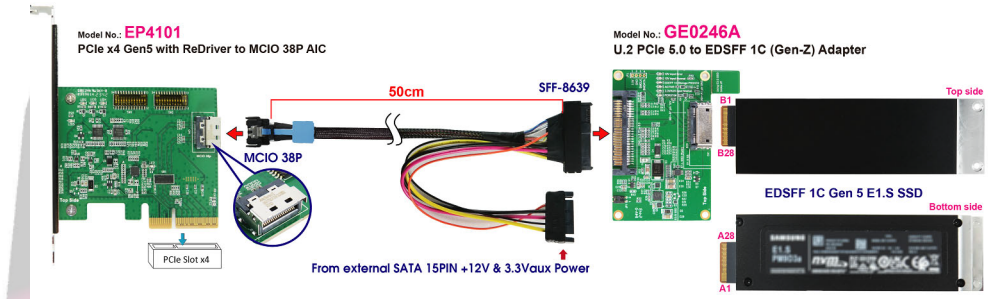
GE0246A Adapter, providing EDSFF 1C connector can be EDSFF 1C NVMe SSD converted into U.2 for PCIe 5.0, 32GT/s 4-Lane interface.

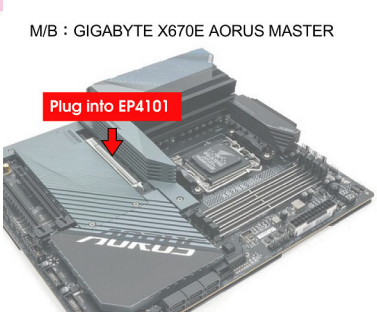
2. Tools and Results of Performance Measurement

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:	EP4101 PCIe x4 Gen 5 with Redriver to MCIO 38P ADD-in Card
Adapter:	GE0246A U.2(SFF-8639) PCIe 5.0 to EDSFF(Gen-Z) 1C Adapter
Cable:	MCIO 38P to U.2(SFF-8639) PCIe 5.0, **50cm** Cable
OS :	Microsoft **Windows 11 64bit OS**

2.2 Test target: GE0246A Adapter & SAMSUNG PCIe 5.0 E1.S/PM9D3a **15.36TB** SSD





2.3 Install Hardware

Inserts EDSFF 1C NVMe SSD into GE0246A adapter converter's EDSFF 1C connector, and then Connects GE0246A converter to EP4101 adapter(PCIe x4 Gen 5 with Redriver to MCIO 38P ADD-in Card), Using MCIO 38P to U.2(SFF-8639) cable and plugs EP4101 into GIGABYTE **X670E AORUS MASTER**

2.4 BIOS & Windows 10 OS environment setup

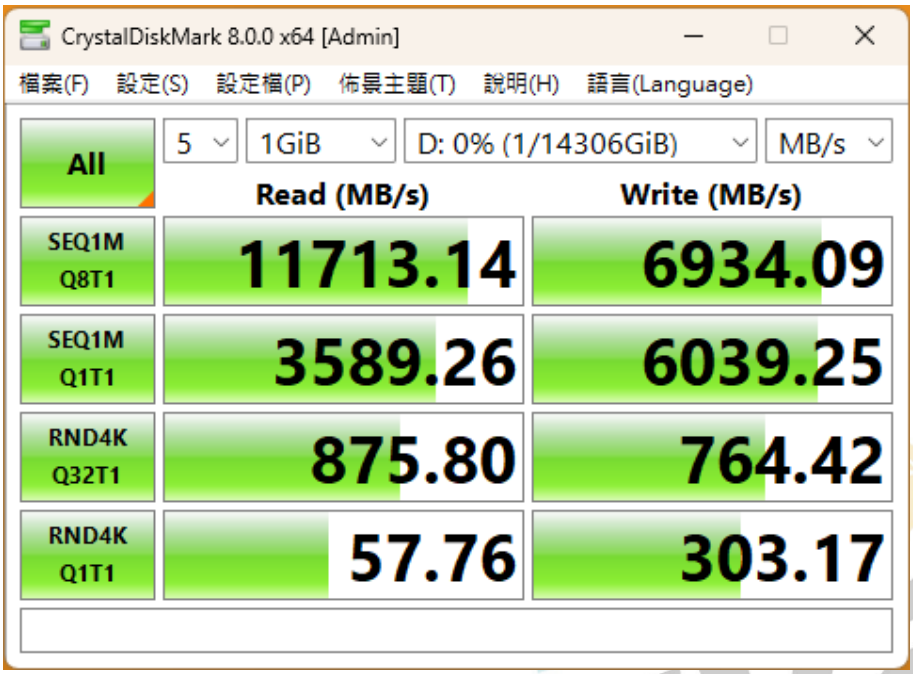
2.4.1 Primary SATA SSD installed Windows 10 OS.

2.4.2 EDSFF 1C 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)

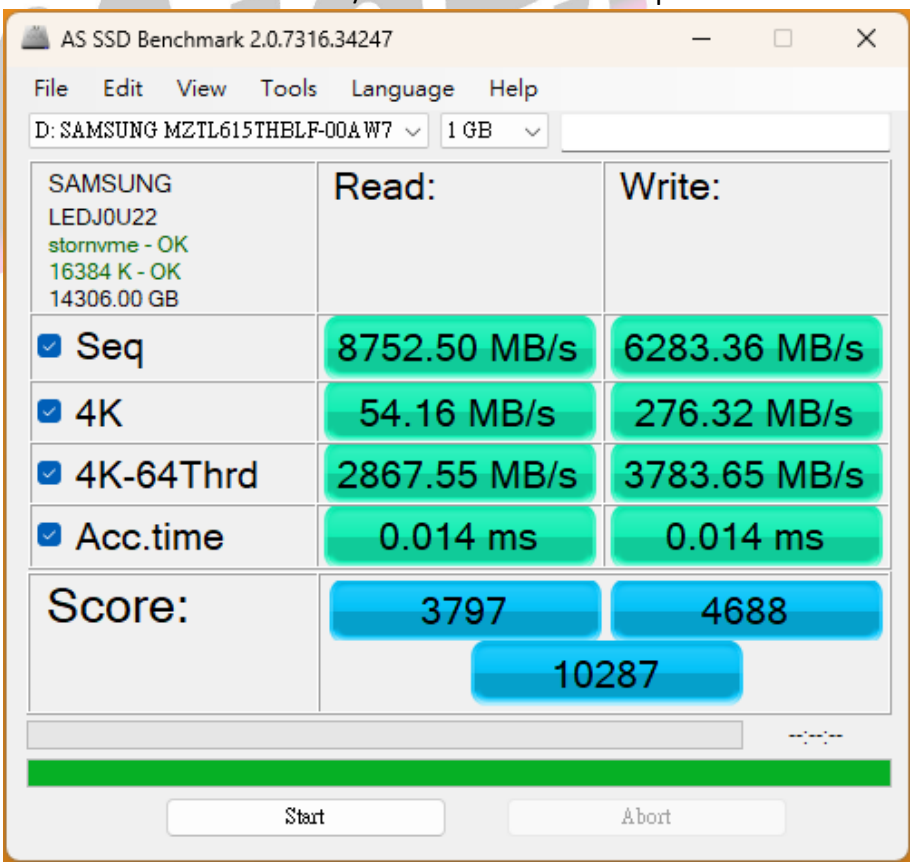
2.5.1 SAMSUNG PCIe 5.0 E1.S/PM9D3a **15.36TB** SSD performance as below:



2.6 AS SSD Benchmark 2.0.7 performance test

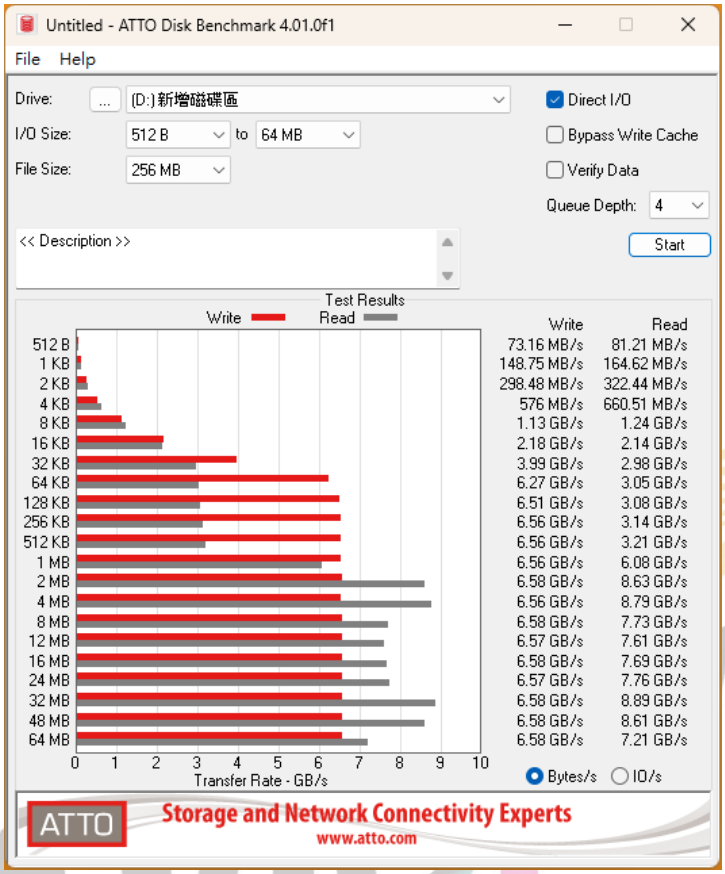
※Benchmark (Read & Write by MB/s, default block size = 16MB)

2.6.1 SAMSUNG PCIe 5.0 E1.S/PM9D3a **15.36TB** SSD performance as below:



2.7 ATTO Disk Benchamrk 4.01 performance test

2.7.1 SAMSUNG PCIe 5.0 E1.S/PM9D3a **15.36TB** SSD performance as below:



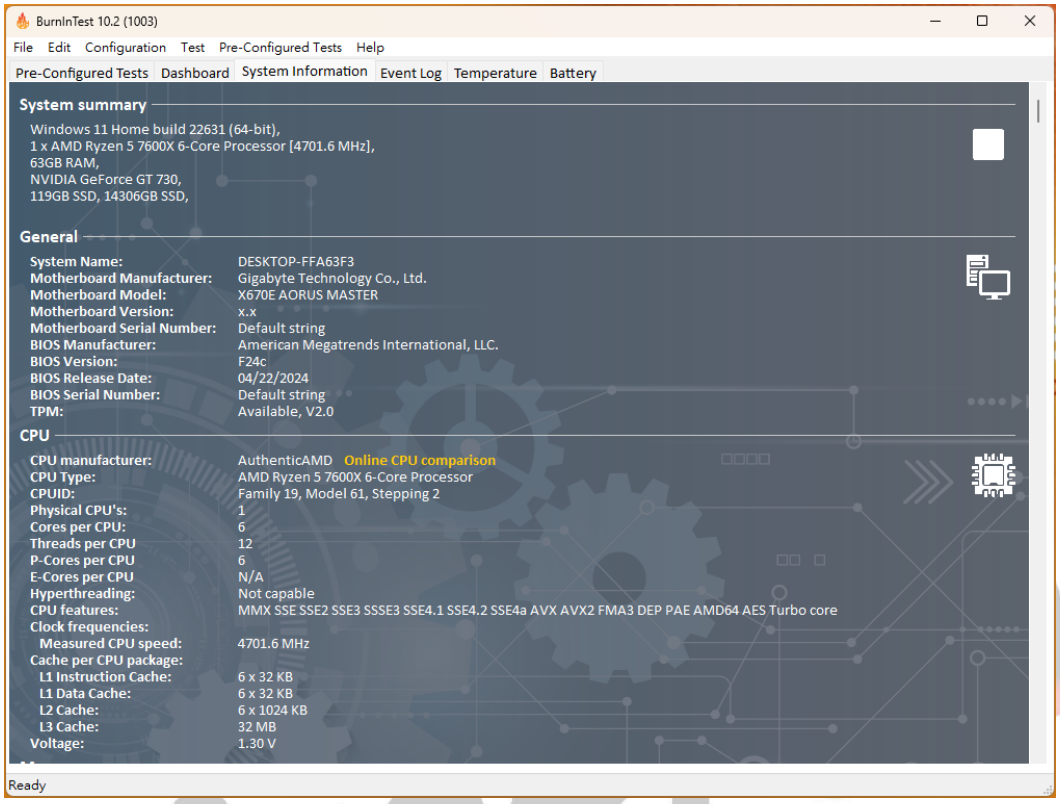
2.8 AnvilBenchmark_V110_B337

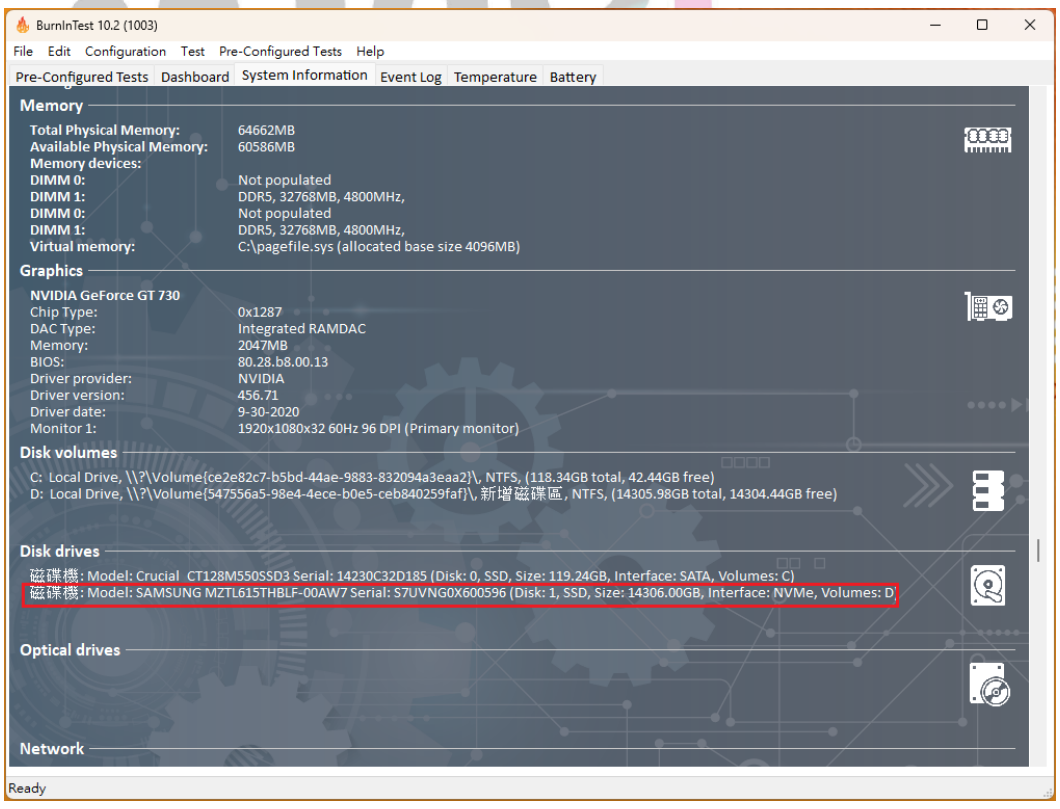
2.8.1 SAMSUNG PCIe 5.0 E1.S/PM9D3a **15.36TB** SSD performance as below:

3. Burn In Tests and Results

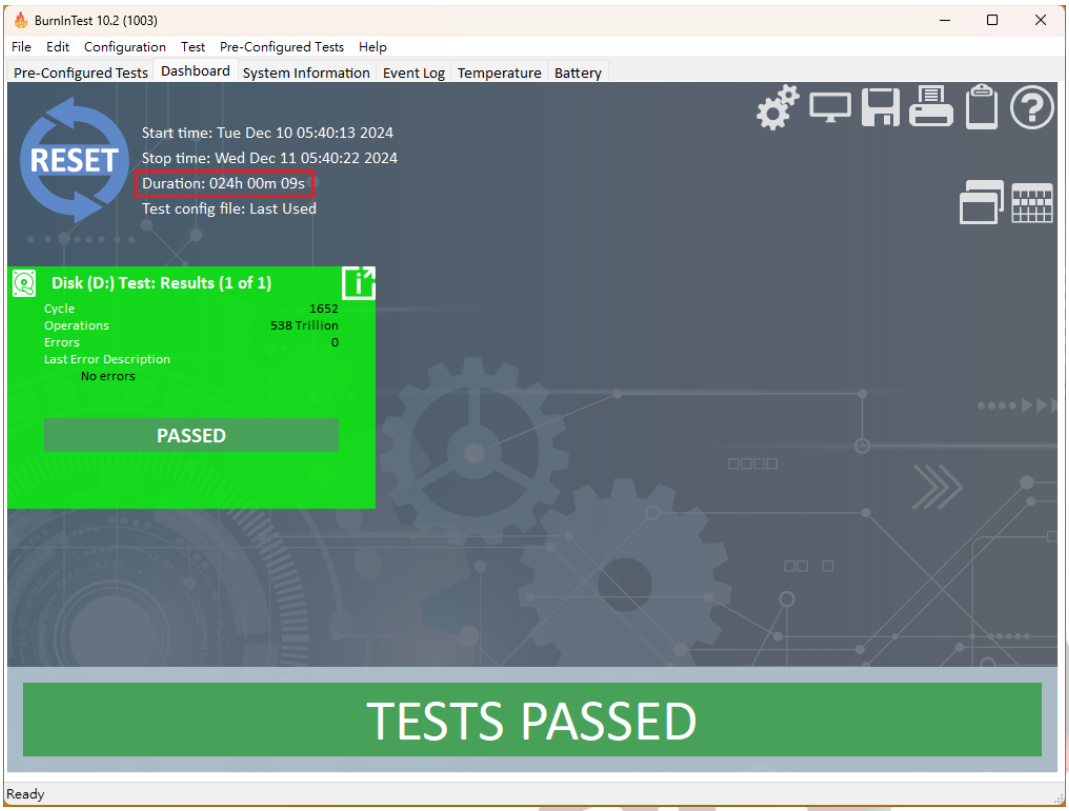
3.1 BurnInTest v10 Pro for SAMSUNG PCIe 5.0 E1.S/PM9D3a **15.36TB** SSD

3.1.1 **System Information** as below:





3.1.2 24-hour Burn-in test PASSED



4. Summary

4.1 EDSFF 1C NVMe SSD is PCIe Gen 5, 32GT/s, 4 Lanes Interface, I/O speed, max. to 128Gbps.

4.2 GE0246A adapter I/O performance is based on EDSFF 1C NVMe SSD.