



MINERVA

DP6303 M.2 PCIe 4.0 GF with ReDriver for OCulink 4i Adapter

Performance & Burn In Test Rev. 1. 0

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DP6303 Adapter

1. Overview

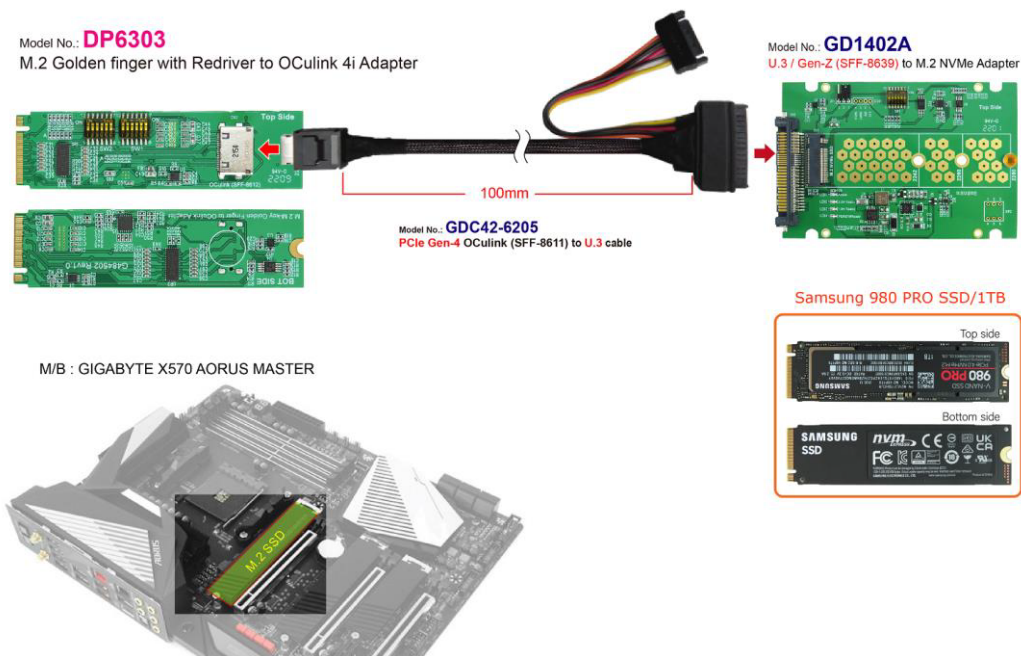
This DP6303 adapter may provide PCIe Gen4, 16GT/s high-speed signal extension to OCulink 4i.

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: DP6303 M.2 PCIe 4.0 with Redriver to OCulink 4i
Adapter: GD1402A U.3 PCIe 4.0 to M.2 NVMe SSD Adapter
Cable: SFF-8611 4i PCIe Gen4 to U.3(SFF-8639), **100cm** Cable
OS : Microsoft **Windows 10 64bit OS**

2.2 Test target: DP6303 Adapter, GD1402A Adapter and **Samsung 980 PRO 1TB NVMe SSD**



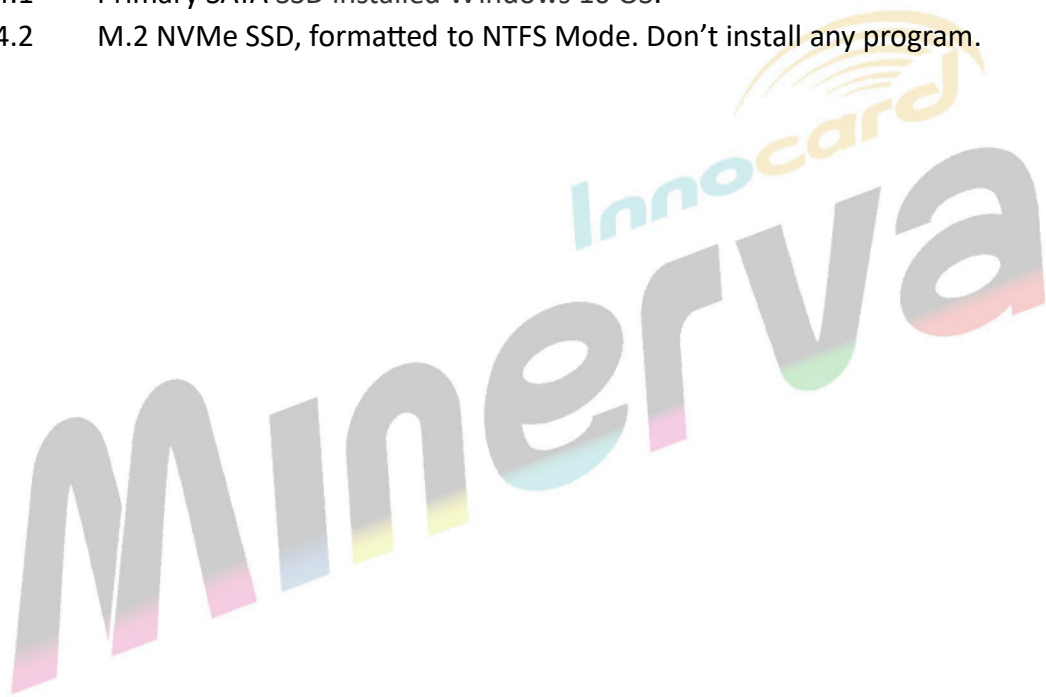
DP6303 Adapter

2.3 Install Hardware

Inserts M.2 NVMe SSD into GD1402A adapter converter's M.2 M-key connector, and then with coppers, and screws to fix SSDs. (Please refer to the Installation Notes). Connects GD1402A converter to DP6303 adapter(M.2 PCIe Gen4 with Redriver to OCulink 4i), Using **SFF-8611 4i to U.3(SFF-8639) cable** and plugs DP6303 into M.2 M-key of 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 M.2 NVMe SSD, formatted to NTFS Mode. Don't install any program.

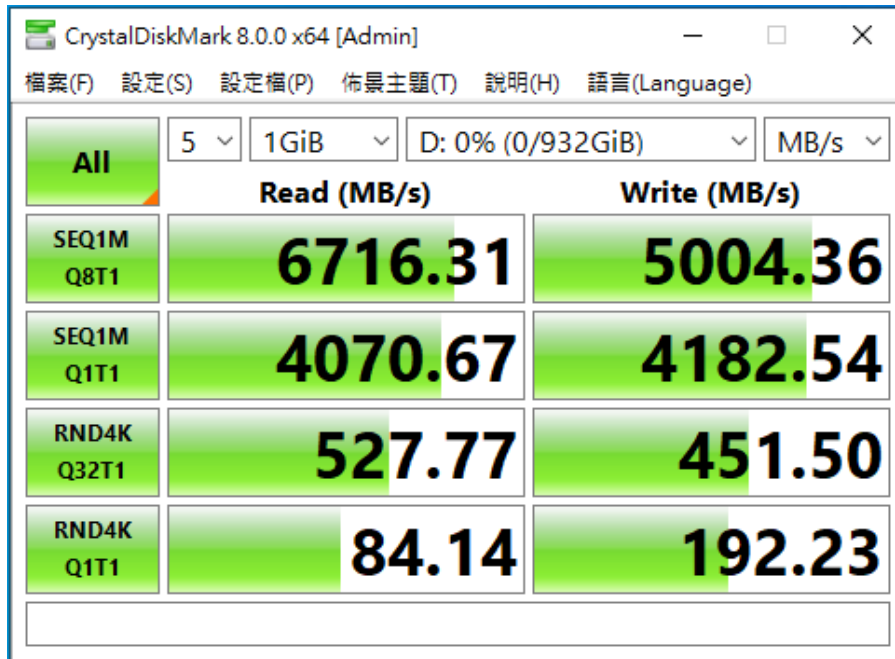


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2.5 CrystalDiskMark 8.0 x64 performance test

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

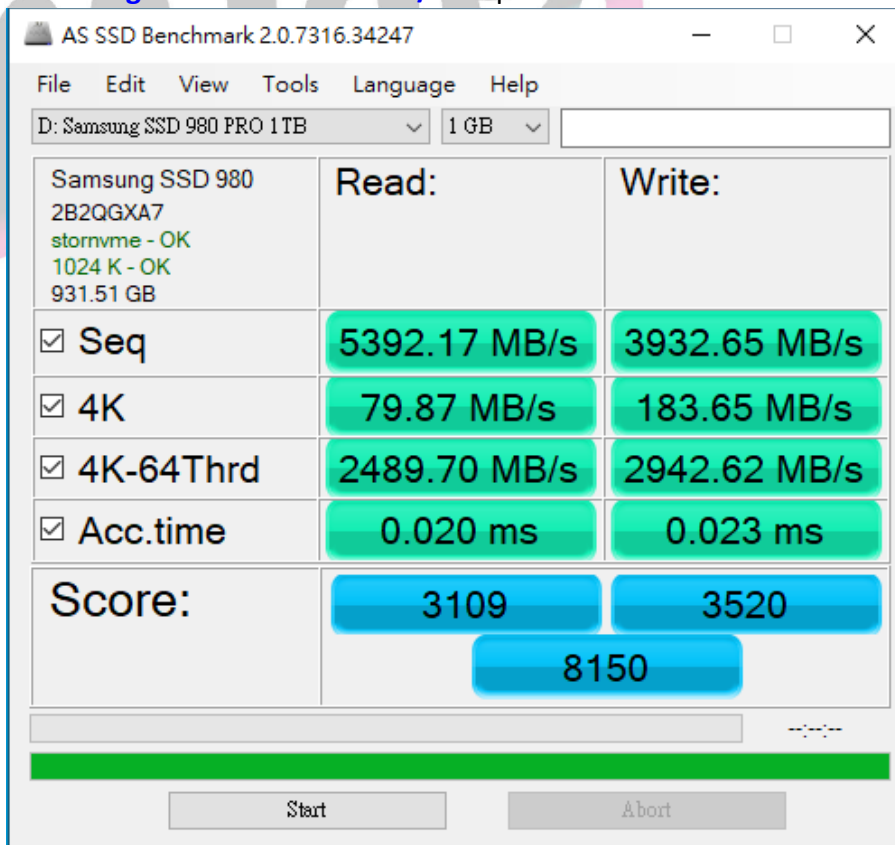
2.5.1 Samsung 980 PRO NVMe SSD / 1TB performance as below:



2.6 AS SSD Benchmark 2.0.7 performance test

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

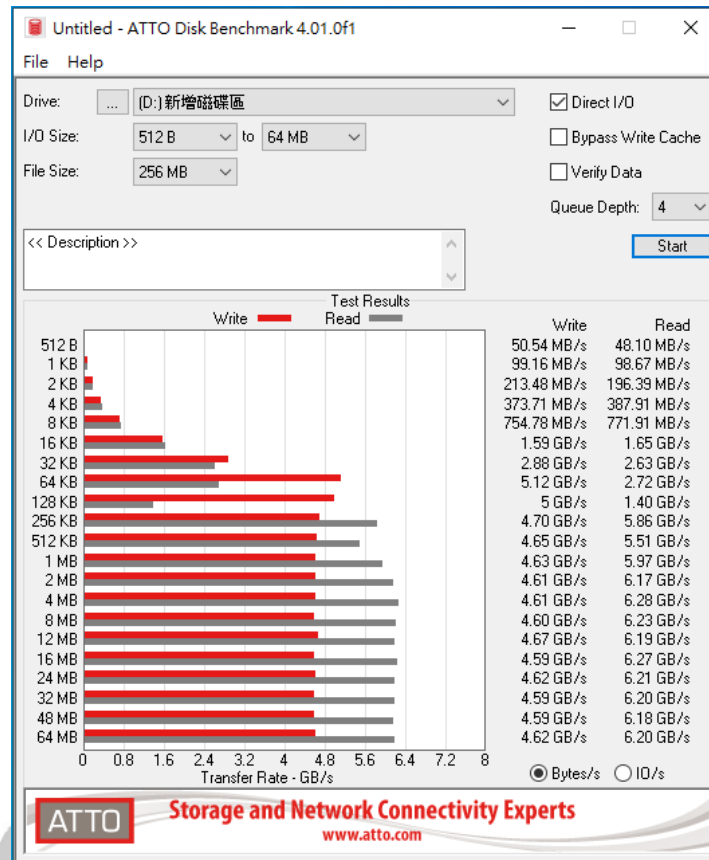
2.6.1 Samsung 980 PRO NVMe SSD / 1TB performance as below:



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2.7 ATTO Disk Benchmark 4.01 performance test

2.7.1 Samsung 980 PRO NVMe SSD / 1TB performance as below:



2.8 AnvilBenchmark_V110_B337

2.8.1 Samsung 980 PRO NVMe SSD / 1TB performance as below:

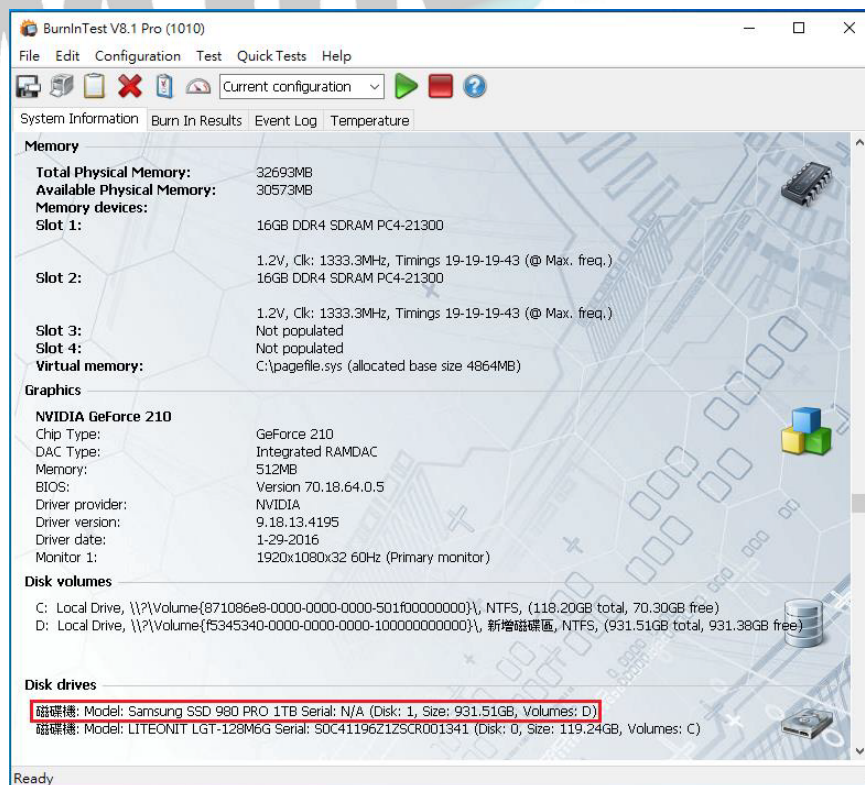
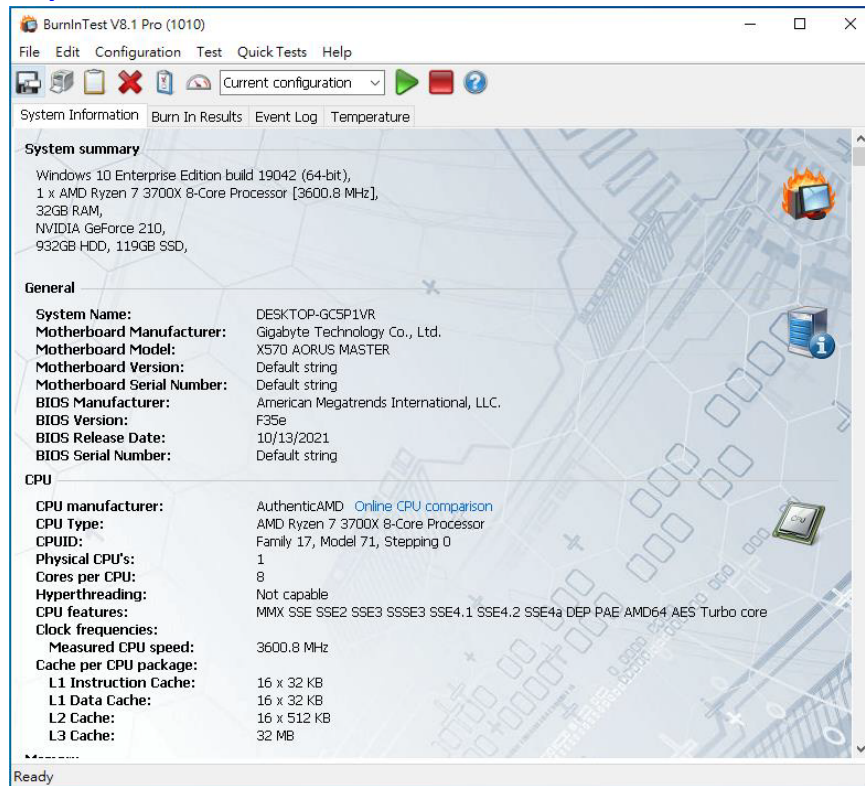


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3. Burn In Tests and Results

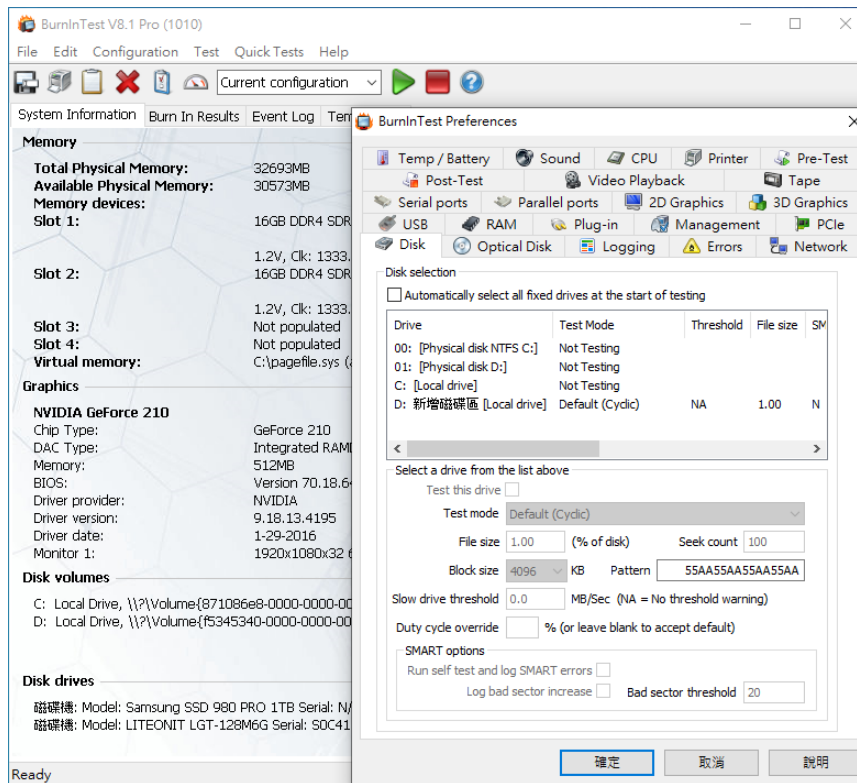
3.1 BurnInTest v8.1 Pro for Samsung 980 PRO NVMe SSD / 1TB

3.1.1 System Information as below:

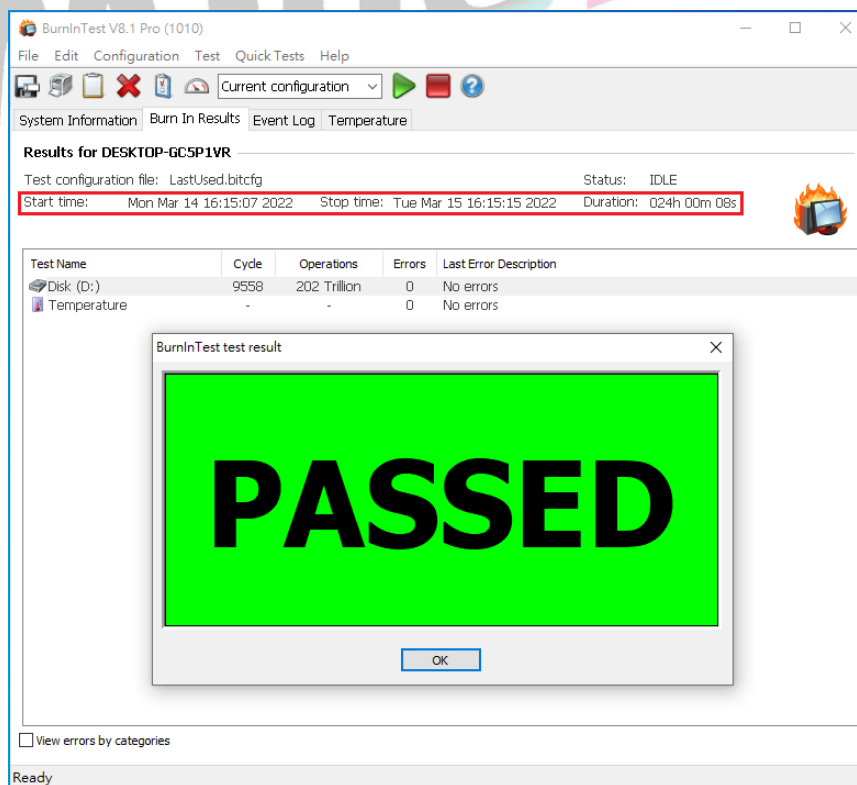


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3.1.2 Disk test mode (10 ways cycle test)



3.1.3 24-hour Burn-in test PASSED



4. Summary

- 4.1 M.2 NVMe SSD is PCIe Gen4 16GT/s, 4 Lanes Interface, I/O speed, max. to 64Gbps.
- 4.2 DP6303 adapter I/O performance is based on M.2 NVMe SSD.
- 4.3 GD1402A adapter I/O performance is based on M.2 NVMe SSD.

