



MINERVA

PCIe Gen4 OCulink 4i to U.3(SFF-8639) cable, Length: 50cm

Performance & Burn In Test Rev. 1. 0

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4. Summary

PCIe 4.0 SFF-8611 4i to U.3 SFF-8639 50cm cable

1. Overview

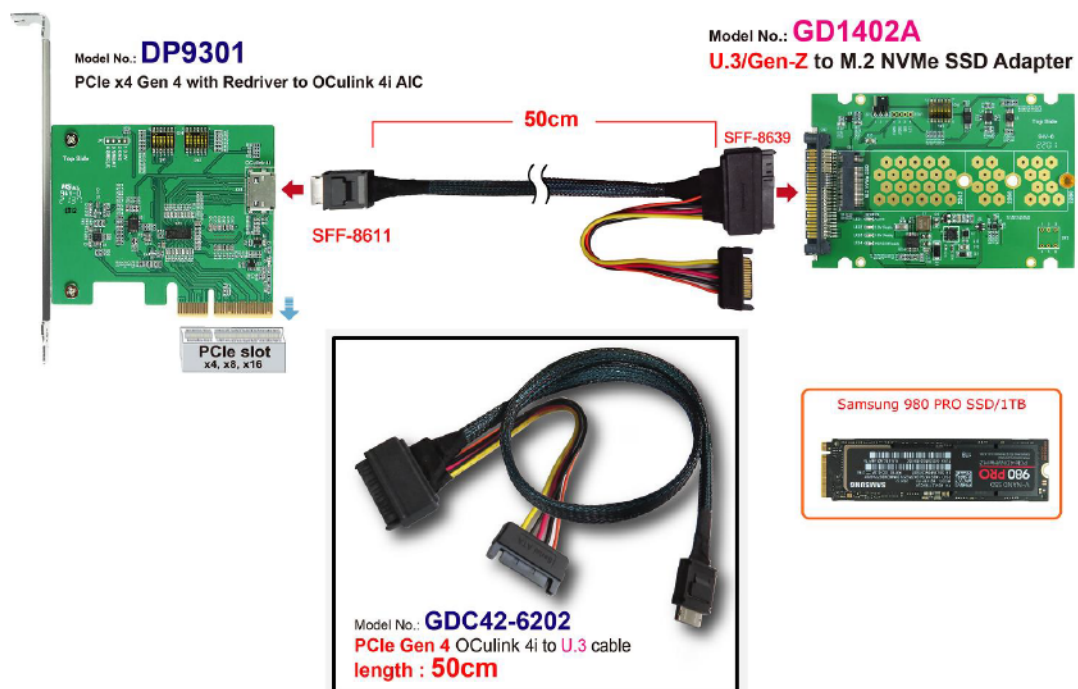
This cable supports PCIe Gen4, 16GT/s high-speed signals transmission. Its length is **50cm**.

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: DP9301 PCIe x4 Gen4 with Redriver to OCulink 4i ADD-in Card
Adapter: GD1402A U.3 PCIe Gen 4 to M.2 NVMe Adapter
Cable: SFF-8611 to U.3(SFF-8639) PCIe Gen4 Cable
OS : Microsoft **Windows 10 64bit OS**

2.2 Test target: **OCulink 4i to U.3 50cm** cable, **Samsung 980 PRO 1TB NVMe SSD**



PCIe 4.0 SFF-8611 4i to U.3 SFF-8639 50cm cable

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 DP9301 AIC(PCIe x4 Gen4 with Redriver to OCulink 4i Add-in Card), Using SFF-8611 4i to U.3(SFF-8639) **50cm** cable and plugs DP9301 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 M.2 NVMe SSD, formatted to NTFS Mode. Don't install any program.

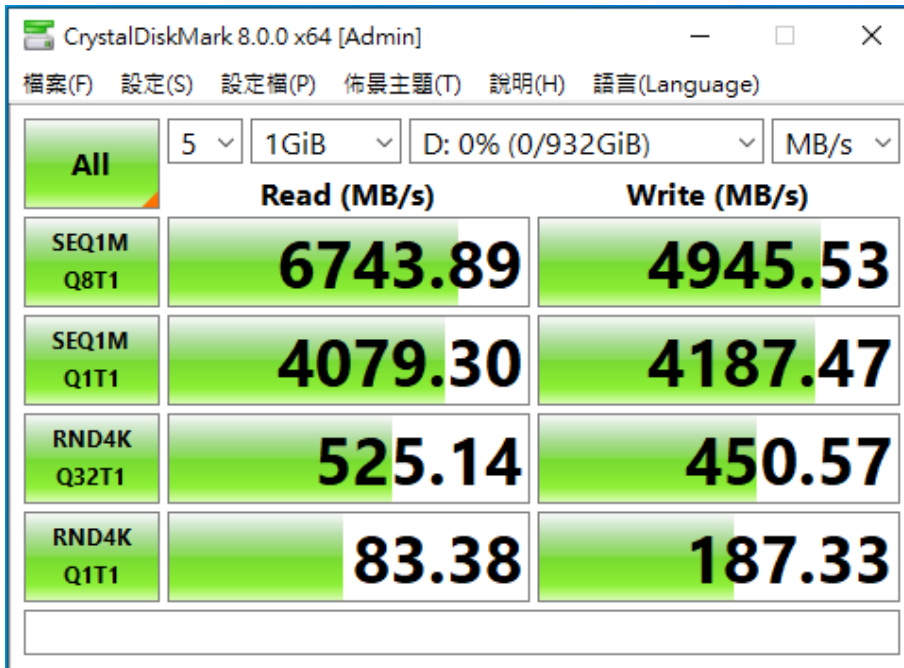


PCIe 4.0 SFF-8611 4i to U.3 SFF-8639 50cm cable

2.5 CrystalDiskMark 8.0 x64 performance test

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

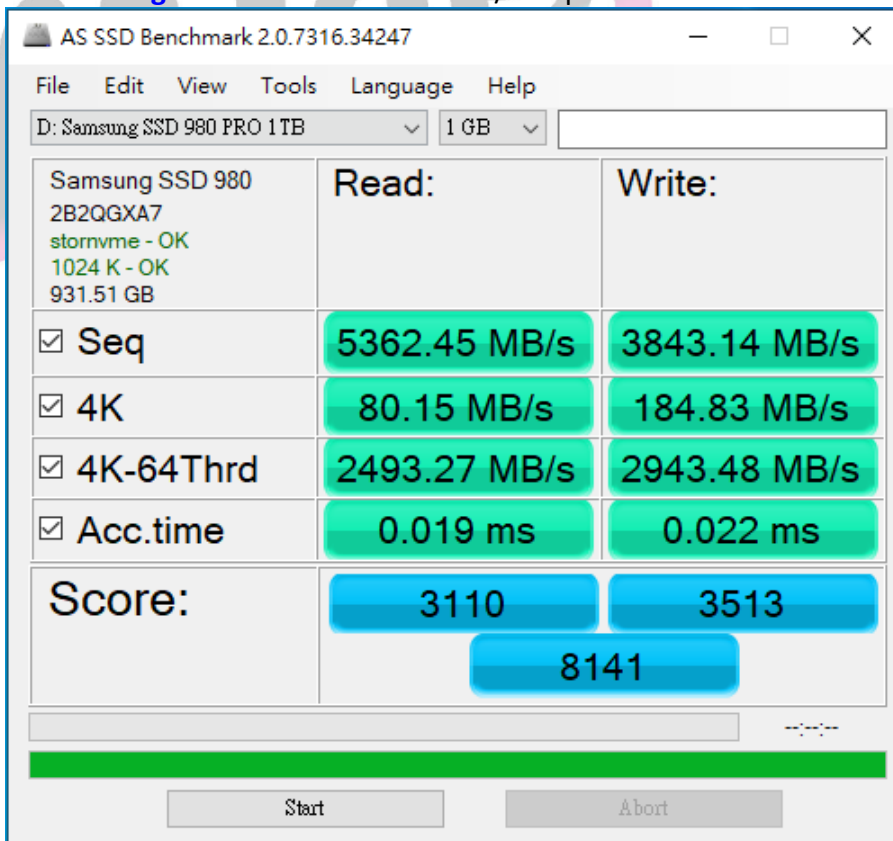
2.5.1 Samsung M.2 980 PRO NVMe SSD/1TB performance as below:



2.6 AS SSD Benchmark 2.0.7 performance test

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

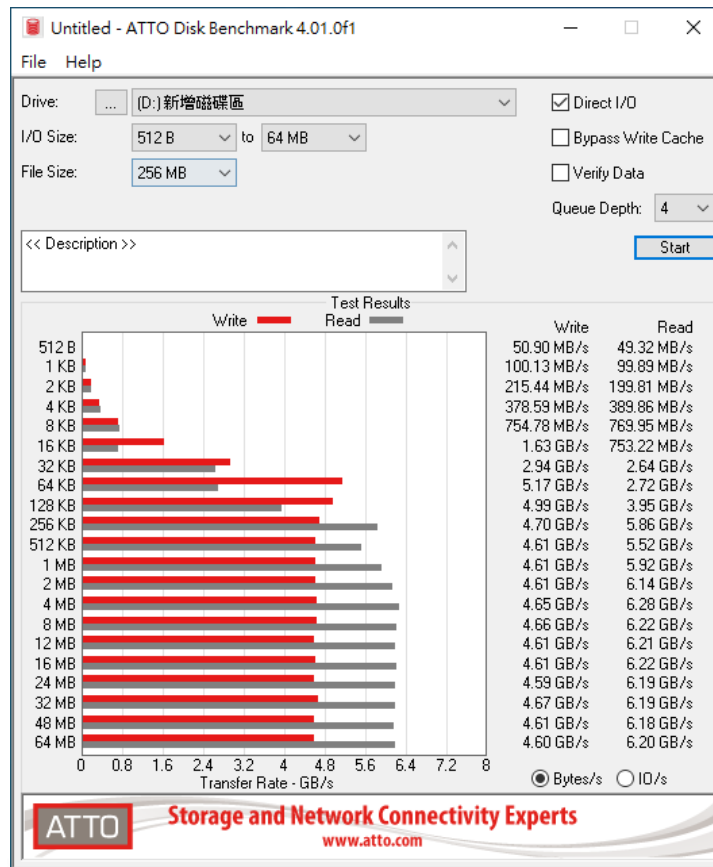
2.6.1 Samsung M.2 980 PRO NVMe SSD/1TB performance as below:



PCIe 4.0 SFF-8611 4i to U.3 SFF-8639 50cm cable

2.7 ATTO Disk Benchmark 4.01 performance test

2.7.1 Samsung M.2 980 PRO NVMe SSD/1TB performance as below:



2.8 AnvilBenchmark V110_B337

2.8.1 Samsung M.2 980 PRO NVMe SSD/1TB performance as below:

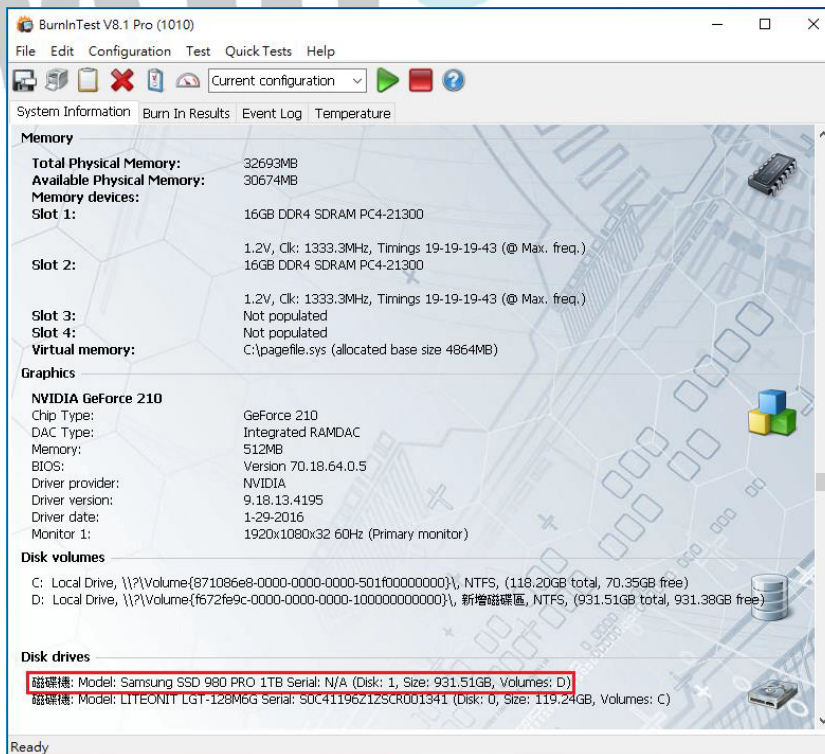
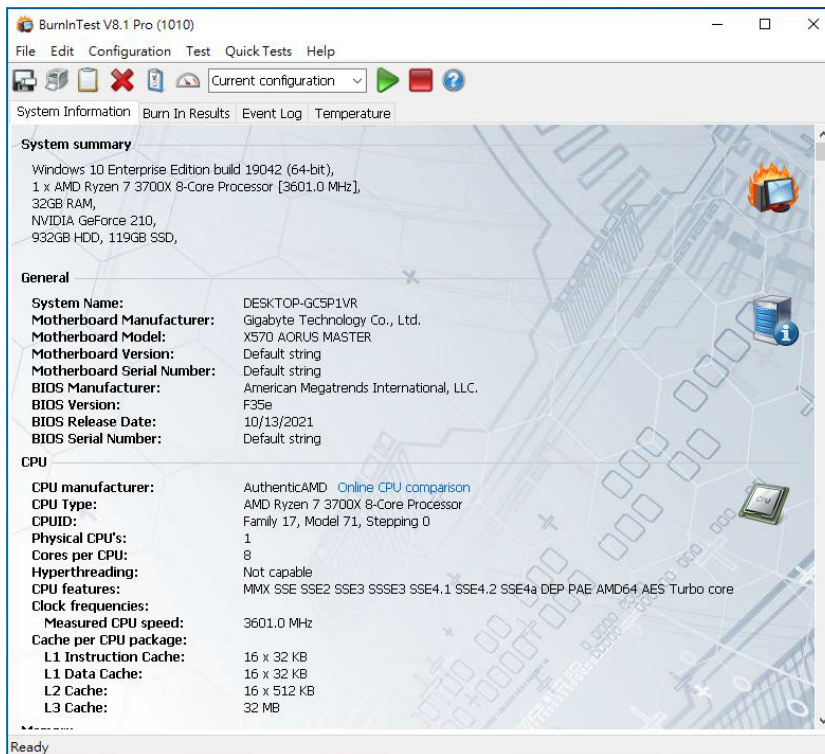


PCIe 4.0 SFF-8611 4i to U.3 SFF-8639 50cm cable

3. Burn In Tests and Results

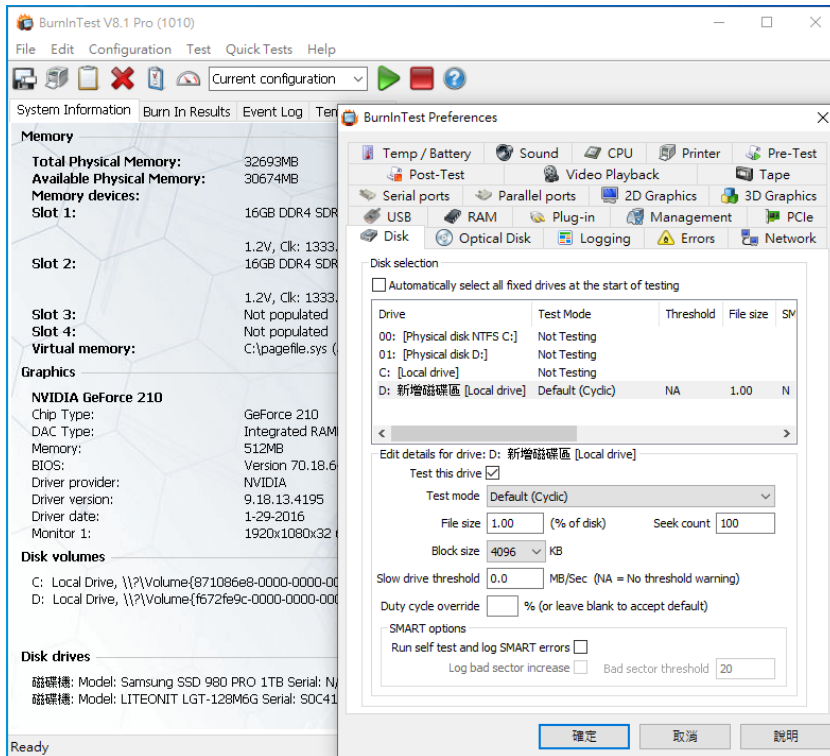
3.1 BurnInTest v8.1 Pro for Samsung M.2 980 PRO NVMe SSD/1TB

3.1.1 System Information as below:

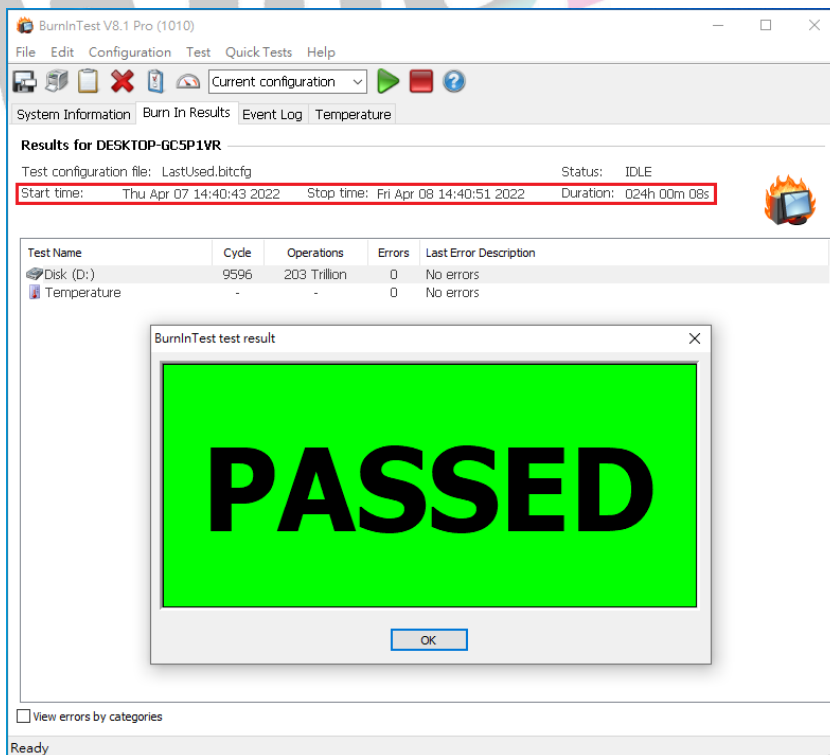


PCIe 4.0 SFF-8611 4i to U.3 SFF-8639 50cm cable

3.1.2 Disk test mode(10 ways cycle test)



3.1.3 24-hour Burn-in test PASSED



PCIe 4.0 SFF-8611 4i to U.3 SFF-8639 50cm cable

4. Summary

- 4.1 M.2 NVMe SSD is PCIe Gen 4, 16GT/s , 4 Lanes Interface, I/O speed, max. to 64Gbps.
- 4.2 GD1402A adapter I/O performance is based on M.2 NVMe SSD.
- 4.3 GDC42-6202 50cm Cable performance is based on M.2 NVMe SSD.

