



MINERVA

PCIe Gen4 OCulink 4i to OCulink 4i cable, Length: 150cm

Performance & Burn In Test Rev. 1. 0

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PCIe 4.0 SFF-8611 4i to SFF-8611 4i 150cm cable

1. Overview

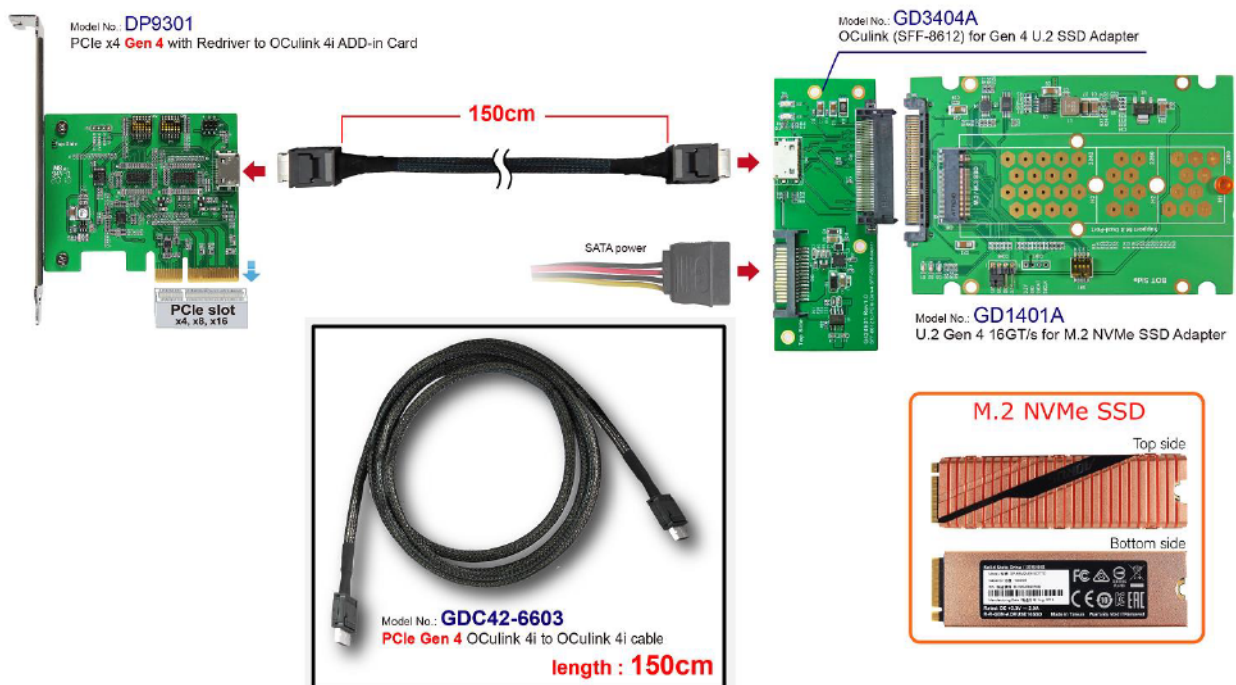
This cable supports PCIe Gen 4, 16GT/s high-speed signals transmission. Its length is 100cm.

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 to OCulink 4i Add-In Card
Adapter: GD3404A SFF-8612 4i to U.2 Storage Adapter
Adapter: GD1401A U.2 to M.2 Storage Adapter
Cable: SFF-8611 4i to SFF-8611 4i Cable, **150cm**
OS : Microsoft **Windows 10 64bit OS**

2.2 Test target: GD3404A adapter, GD1401A adapte and **M.2 NVMe 1TB** SSD



PCIe 4.0 SFF-8611 4i to SFF-8611 4i 150cm cable

2.3 Install Hardware

Insert GD1401A adapter(with M.2 NVMe SSD) into GD3404A converter's U.2 female connector. Connect GD3404A to DP9301 AIC(PCIe x4 Gen 4 to OCulink) using SFF-8611 to SFF-8611 cable, plugs DP9301 AIC into **PCIe slot 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.

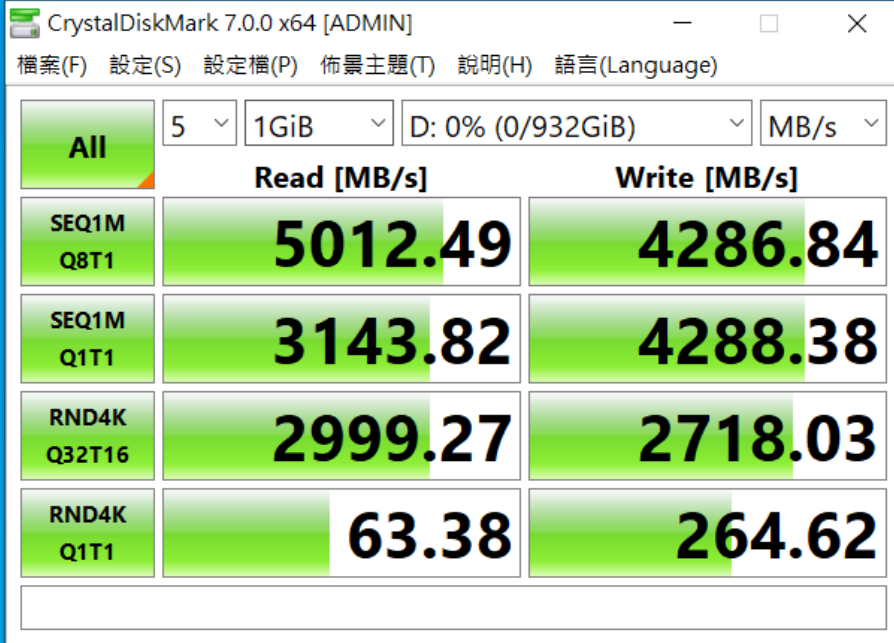


PCIe 4.0 SFF-8611 4i to SFF-8611 4i 150cm cable

2.5 CrystalDiskMark 7.0.0 x64 performance test

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

2.5.1 GIGABYTE M.2 Gen4(GP-ASM2NE6100TTD)/ 1TB performance as below:



CrystalDiskMark 7.0.0 x64 [ADMIN]

檔案(F) 設定(S) 設定檔(P) 佈景主題(T) 說明(H) 語言(Language)

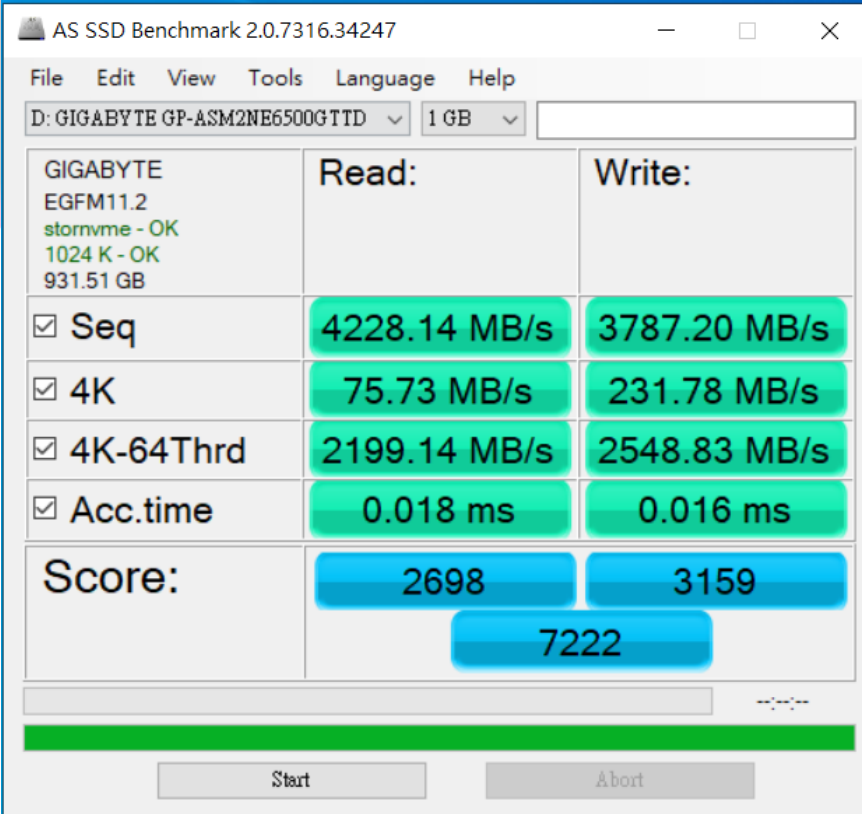
All 5 1GiB D: 0% (0/932GiB) MB/s

| | Read [MB/s] | Write [MB/s] |
|--------------|-------------|--------------|
| SEQ1M Q8T1 | 5012.49 | 4286.84 |
| SEQ1M Q1T1 | 3143.82 | 4288.38 |
| RND4K Q32T16 | 2999.27 | 2718.03 |
| RND4K Q1T1 | 63.38 | 264.62 |

2.6 AS SSD Benchmark 2.0.7 performance test

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

2.6.1 GIGABYTE M.2 Gen4(GP-ASM2NE6100TTD)/ 1TB performance as below:



AS SSD Benchmark 2.0.7316.34247

File Edit View Tools Language Help

D: GIGABYTE GP-ASM2NE6500GTTD 1 GB

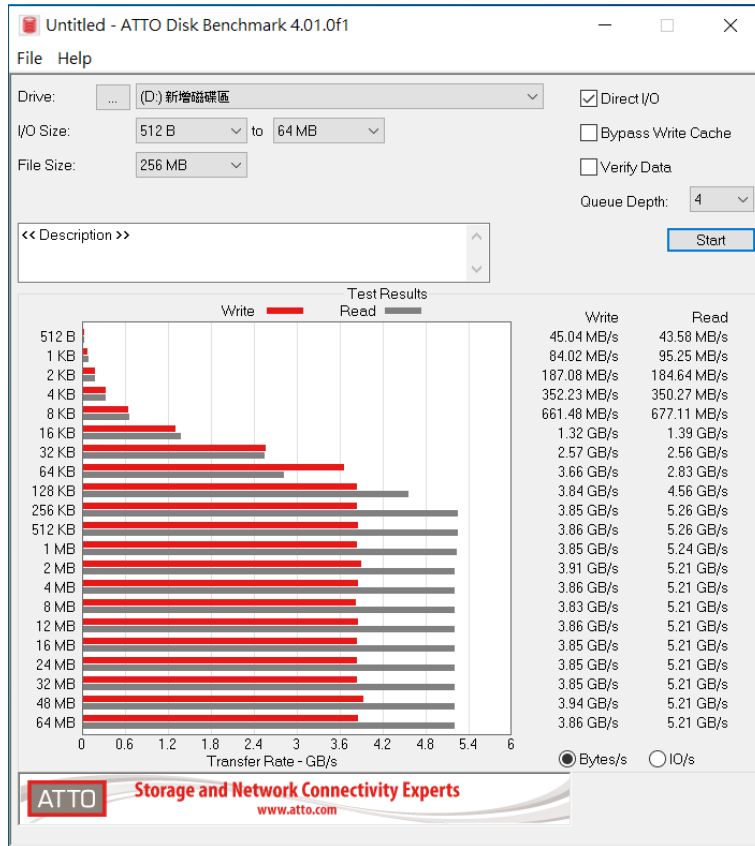
| | Read: | Write: |
|---|--------------|--------------|
| GIGABYTE EGM11.2 stornvme - OK 1024 K - OK 931.51 GB | | |
| <input checked="" type="checkbox"/> Seq | 4228.14 MB/s | 3787.20 MB/s |
| <input checked="" type="checkbox"/> 4K | 75.73 MB/s | 231.78 MB/s |
| <input checked="" type="checkbox"/> 4K-64Thrd | 2199.14 MB/s | 2548.83 MB/s |
| <input checked="" type="checkbox"/> Acc.time | 0.018 ms | 0.016 ms |
| Score: | 2698 | 3159 |
| | 7222 | |

Start Abort

PCIe 4.0 SFF-8611 4i to SFF-8611 4i 150cm cable

2.7 ATTO Disk Benchmark 4.0.1 performance test

2.7.1 GIGABYTE M.2 Gen4(GP-ASM2NE6100TTTD)/ 1TB performance as below:



2.8 AnvilBenchmark_V110_B337

2.8.1 GIGABYTE M.2 Gen4(GP-ASM2NE6100TTTD)/ 1TB performance as below:

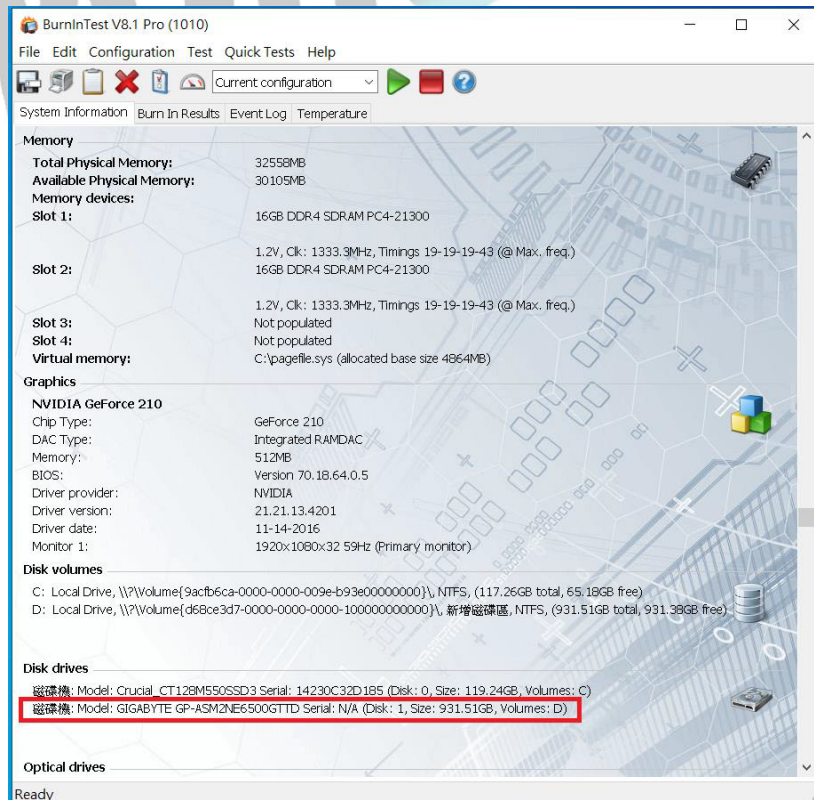
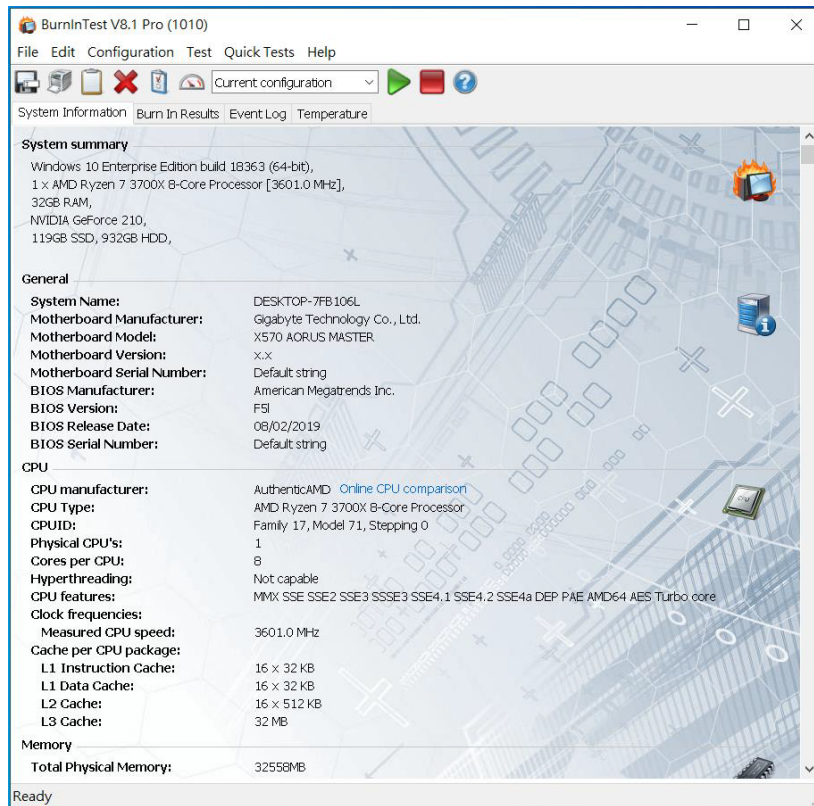


PCIe 4.0 SFF-8611 4i to SFF-8611 4i 150cm cable

3. Burn In Tests and Results

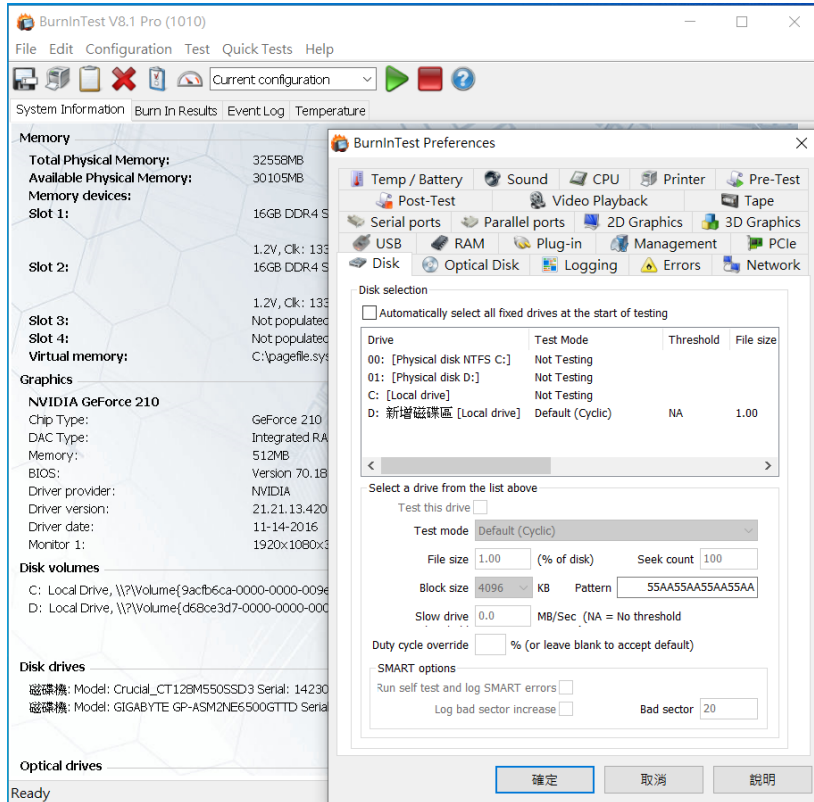
3.1 BurnInTest v8.1 Pro for GIGABYTE M.2 Gen4(GP-ASM2NE6100TTD)/ 1TB SSD

3.1.1 system information as below:

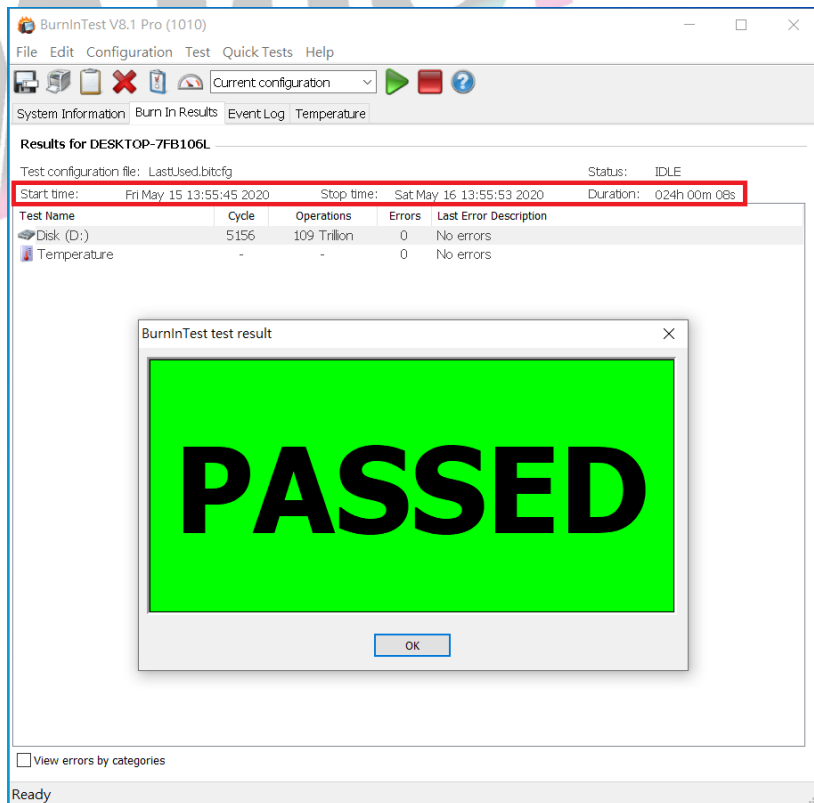


PCIe 4.0 SFF-8611 4i to SFF-8611 4i 150cm cable

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 SFF-8611 4i 150cm cable

4. Summary

- 4.1 M.2 SSD is PCIe Gen4 / 4 Lanes Interface, I/O speed, max. to 64Gbps.
- 4.2 GD3404A, GD1401A adapter I/O performance is based on M.2 NVMe SSD.

