MINERVA

PD426A Converter Card

Performance & Burn In Test Rev. 1. 0

Table of Contents

PD426A Converter Card

1. Overview

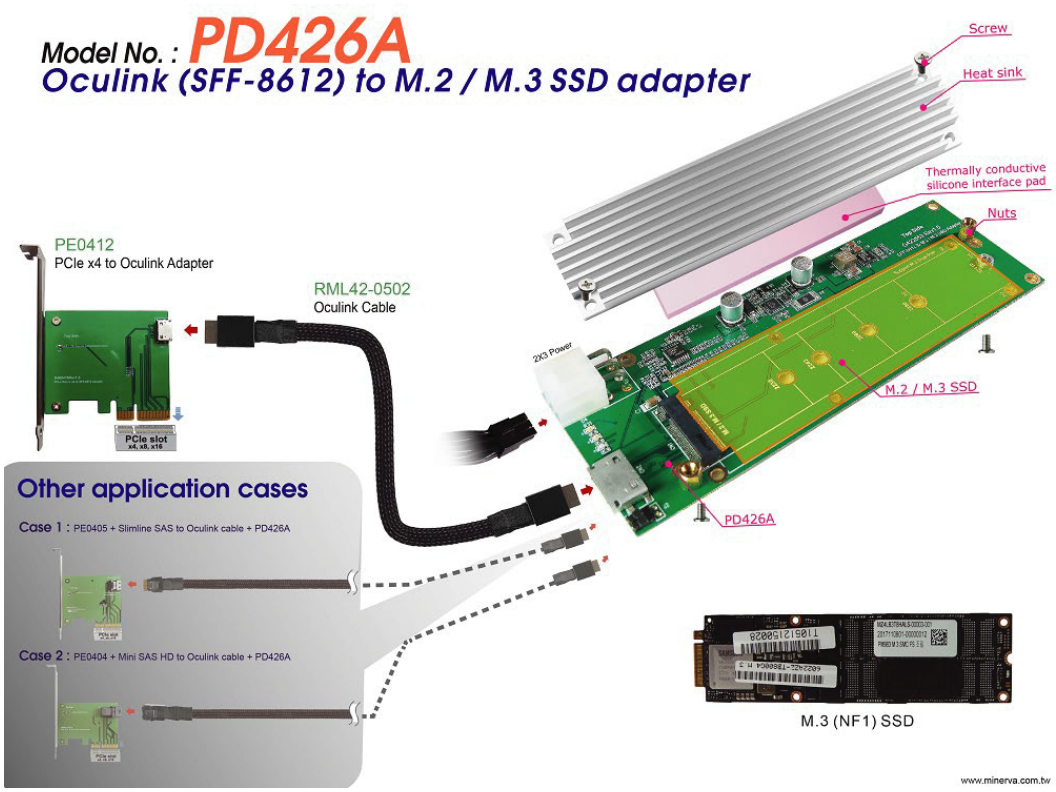
The PD426A adapter, providing M.2 M-key connector can be M.2, M.3 NF1 SSD converted into OCulink(SFF-8612), PCI-e Gen 3 / 4 Lanes interface and uses heat sink strip to M.2 or M.3 SSD.

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
Adapter:	PCIe Gen3 x4 to SFF-8612 OCulink adapter
Cable:	OCulink(SFF-8612) to OCulink(SFF-8612) Cable
OS :	Microsoft **Windows 10 64bit OS**

2.2 Test target: **PD426A** adapter & **M.3 NF1 Samsung MZ4LB3T8HALS-000 4TB NVMe SSD**



2.3 Install Hardware

Insert M.3 NF1 SSD into PD426A converter's M.2 M-key connector, and then with coppers, and screws to fix SSDs. Connects PD426A converter to PE0412 adapter through OCulink High Speed cable, and than Plug PE0412 into GIGABYTE **X570 AORUS MASTER.**

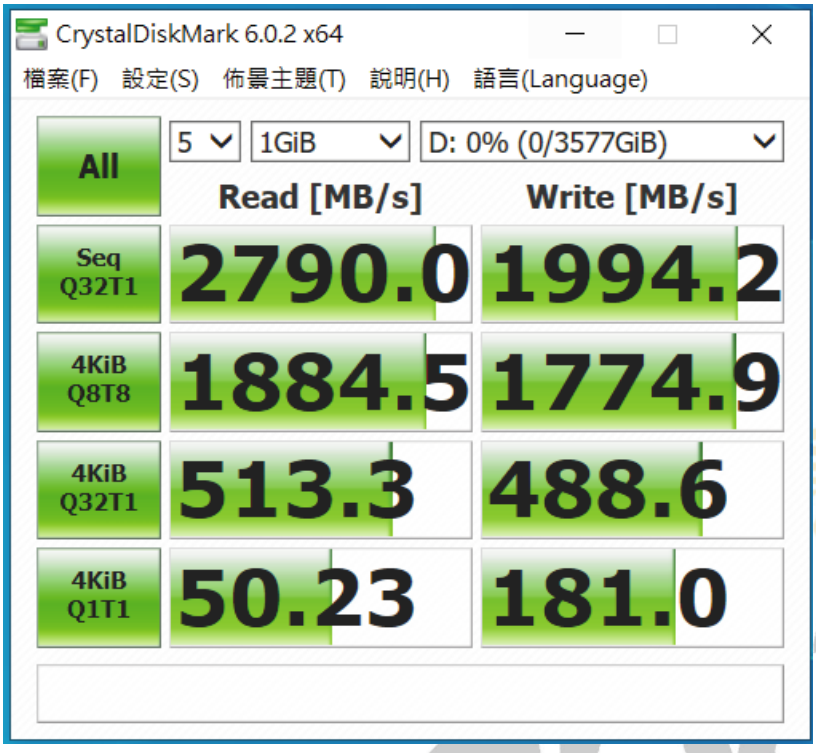
2.4 BIOS & Windows 10 OS environment setup

2.4.1 M.3 NF1 NVMe SSD, formatted to NTFS Mode. Don't install any program.

2.5 CrystalDiskMark 6.02x64 performance test

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

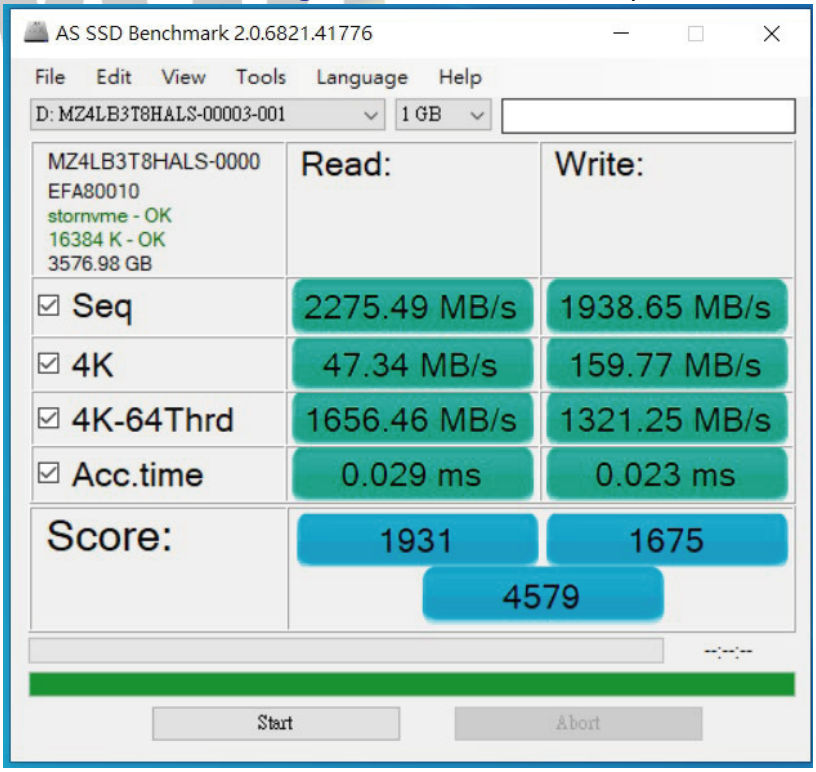
2.5.1 **M.3 NF1 NVMe Samsung PM983/4TB in Drive D:** performance as below:



2.6 AS SSD Benchmark 2.06 performance test

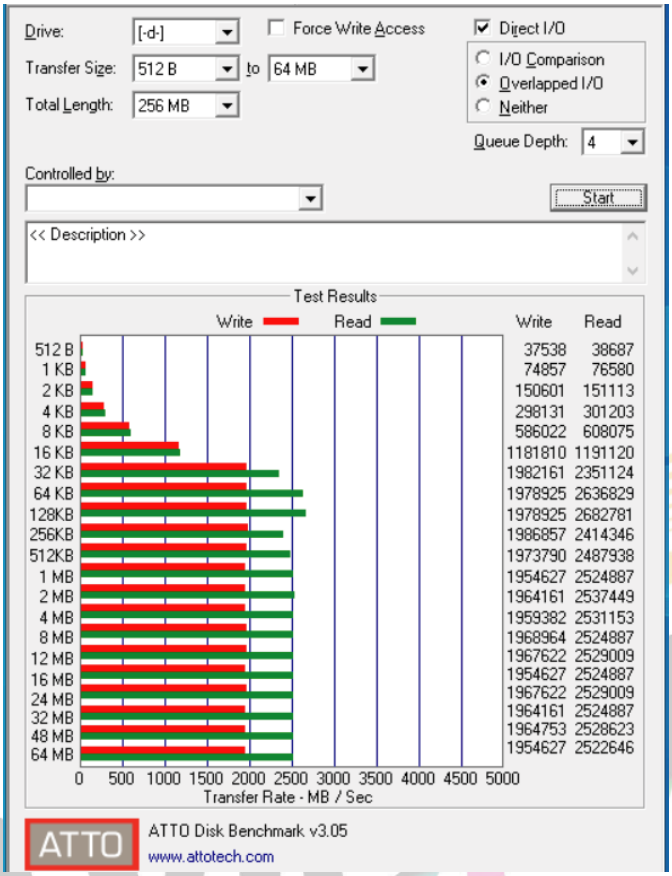
※Benchmark (Read & Write by MB/s, default block size = 16MB)

2.6.1 **M.3 NF1 NVMe Samsung PM983/4TB in Drive D:** performance as below:



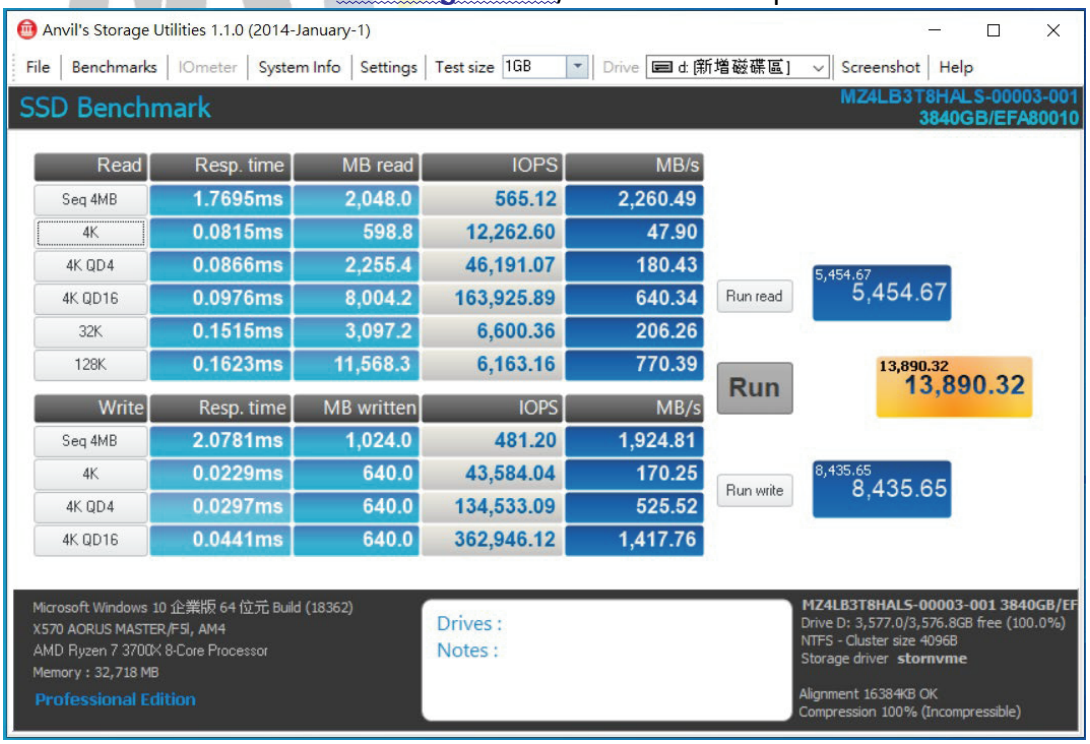
2.7 ATTO Disk Benchamrk 3.05 performance test

2.7.1 **M.3 NF1 NVMe Samsung PM983/4TB in Drive D:** performance as below:



2.8 AnvilBenchmark_V110_B337

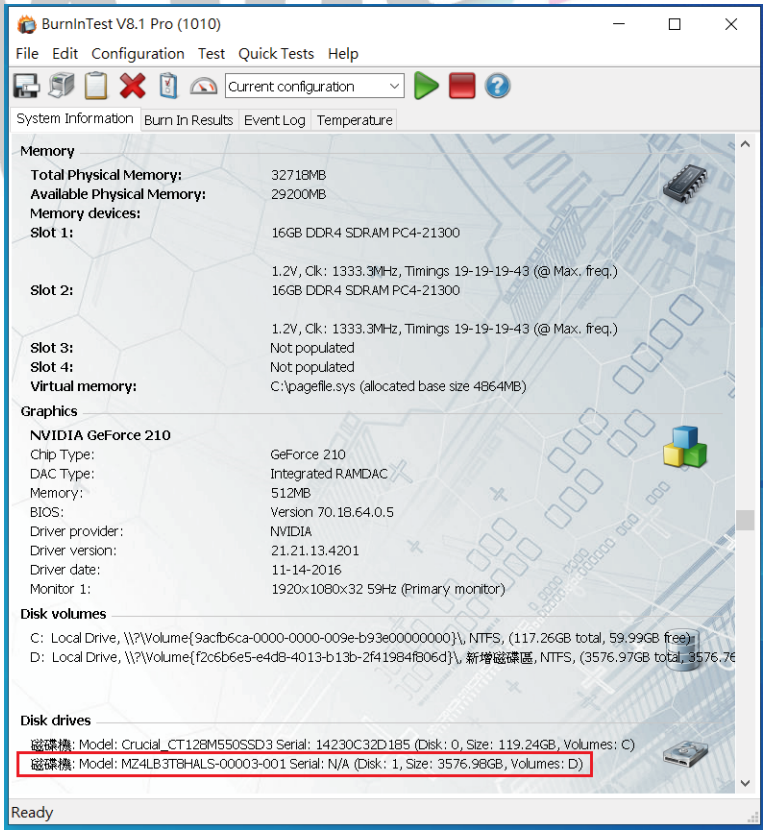
2.8.1 **M.3 NF1 NVMe Samsung PM983/4TB in Drive D:** performance as below:



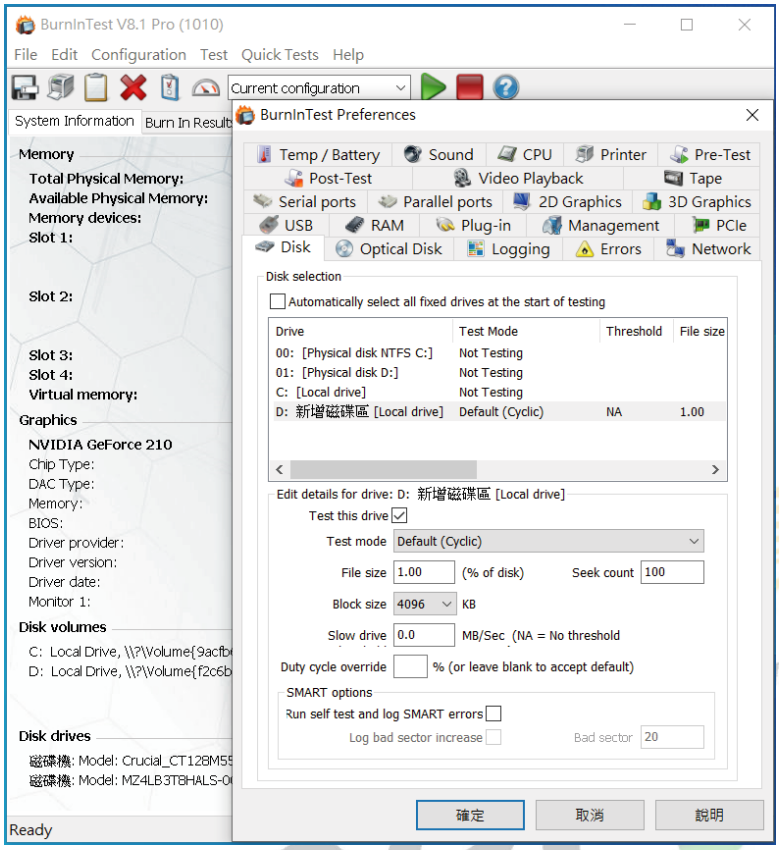
3. Burn In Tests and Results

3.1 BurnInTest v8.1 Pro for M.3 NF1 NVMe Samsung PM983/4TB

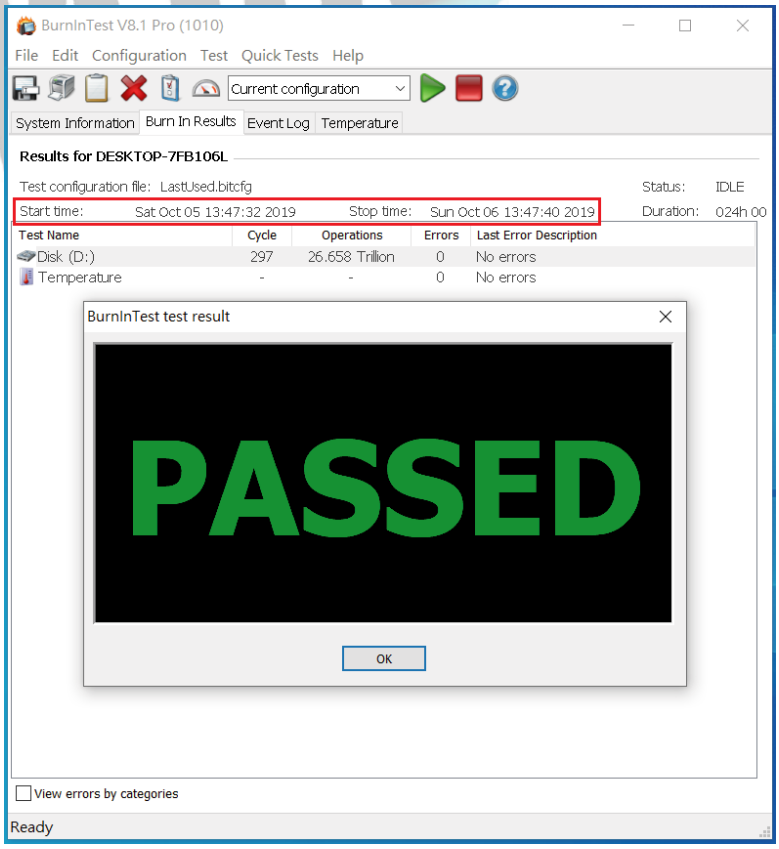
3.1.1 system information as below:



3.1.2 Disk test mode(10 ways cycle test)



3.1.3 24-hour Burn-in test PASSED



4. Summary

4.1 M.3 NF1 SSD is PCI-e Gen 3 / 4 Lanes Interface, I/O speed, max. to 32Gbps.

4.2 PD426A adapter I/O performance is based on M.3 NVMe PCI-e Gen 3 / 4 Lanes SSD.