



# MINERVA

PD803A SFF-8612 8 Lanes to M.2/M.3 NVMe converter Card

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## Performance & Burn In Test Rev 1.0

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# PD803A Rev1.0 Converter Card

## 1. Overview

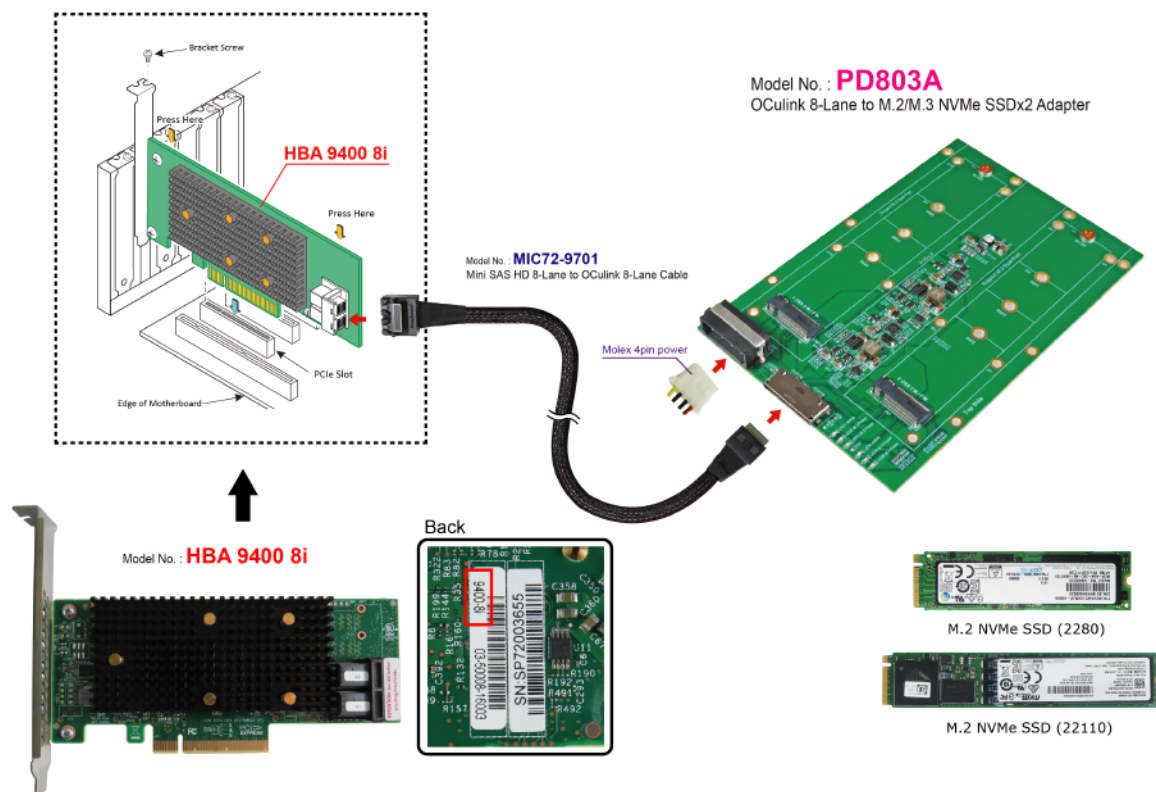
This riser card has built-in SFF-8612 8i connector and M.2 M-key connector, which can be inserted into M.2 or M.3 NVMe SSD. It is designed for use by Broadcom MegaRAID and HBA series, and can be set as needed for independent drive, or merge into RAID mode.

## 2. Tools and Results of Performance Measurement

### 2.1 Test Platform

M/B : GIGABYTE **Z270-Gaming 8**  
CPU : Intel **i7-7700**, 3.6GHz/ 8M Cache/ LGA1151  
Memory : Kingston **KVR21N15D8/8**, **DDR4-2133MHz**, **16G**(8GB DIMM\*2)  
ATX Power : COOLER MASTER G750M, **750W ATX**, 12V V2.2 Power Supply  
Graphic : Z270 Chipsets built-in **HD Graphics 630**  
Adapter: Broadcom HBA-9400-8i Tri-mode Storage Adapter  
Adapter: PD803A SFF-8612(OCulink) 8-Lane to M.2/M.3 Adapter  
Cable: SFF-8643(MINI SAS HD) 8-Lane to SFF-8612(OCulink) 8-Lane Cable  
OS : Microsoft **Windows 10 64bit OS**

### 2.2 Test target: PD803A adapter and M.2 NVMe SSD



### 2.3 Install Hardware

First insert the M.2 SSD into the PD803A riser card M.2 connector, then with copper nuts, and screws to fix SSDs. (Please refer to the Installation Notes). Connect the PD803A adapter to the Broadcom HBA 9400-8i AIC card, using the MIC72-9701 Cable. and Plug HBA 9400-8i AIC card into GIGABYTE **Z270-Gaming 8**.

### 2.4 BIOS & Windows 10 OS environment setup

2.4.1 Primary M.2 NVMe SSD install Windows 10 OS.

2.4.2 Secondary M.2 NVMe SSD, formatted to NTFS Mode. Don't install any program.

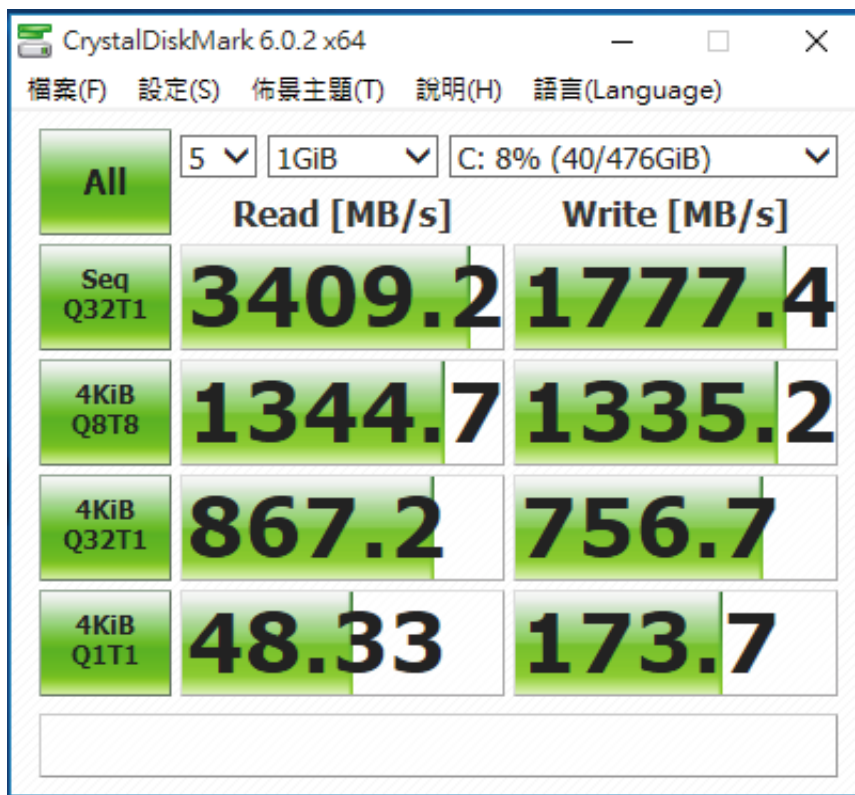


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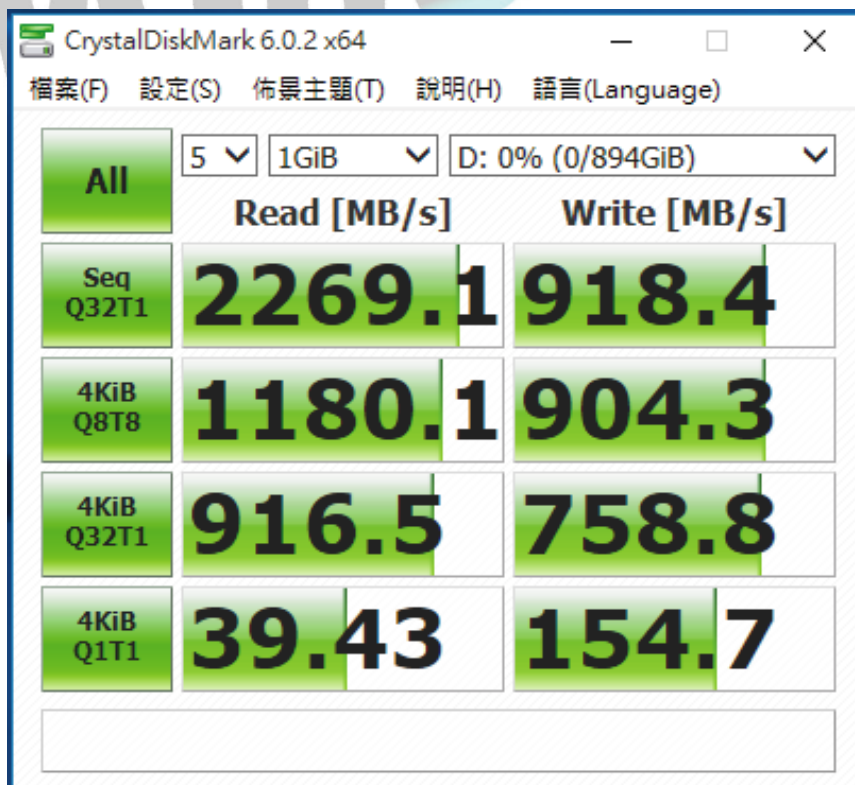
## 2.5 CrystalDiskMark 6.0.2 x64 performance test

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

2.5.1 **M.2 NVMe Samsung SM961/512GB** performance as below:



2.5.2 **M.2 NVMe LITEON/1TB** performance as below:

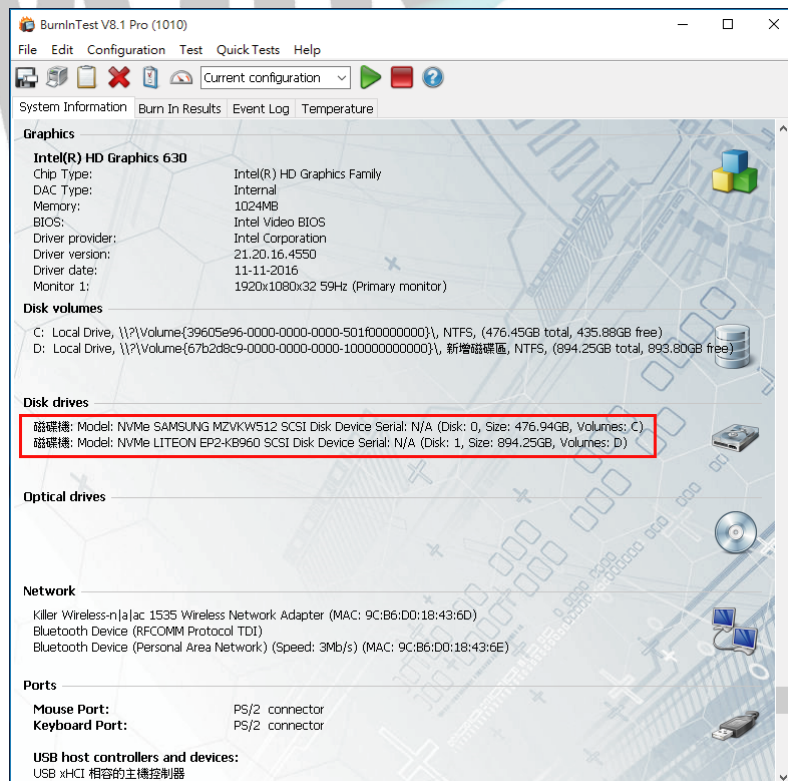
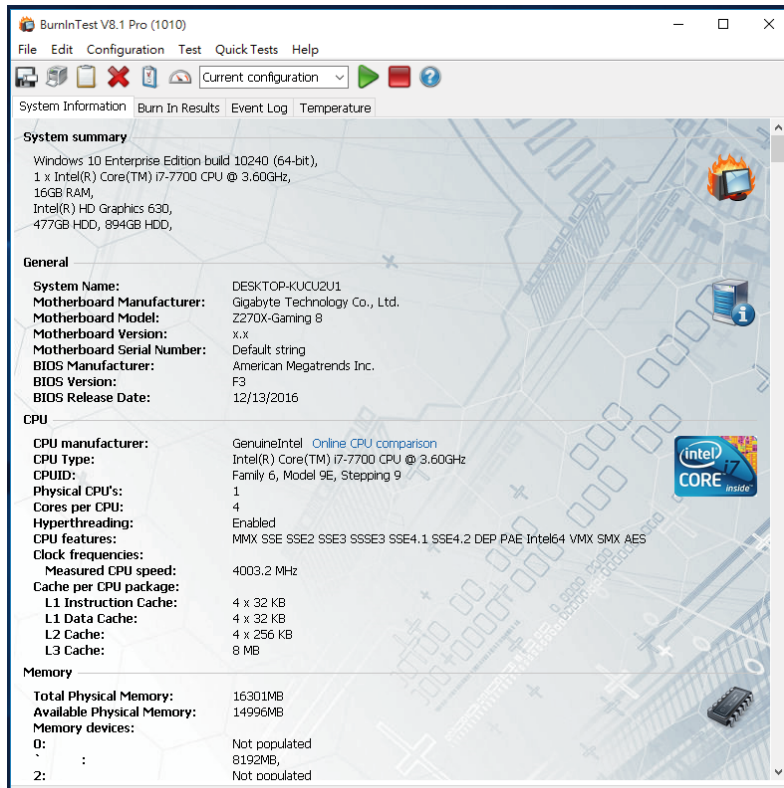


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## 3. Burn In Tests and Results

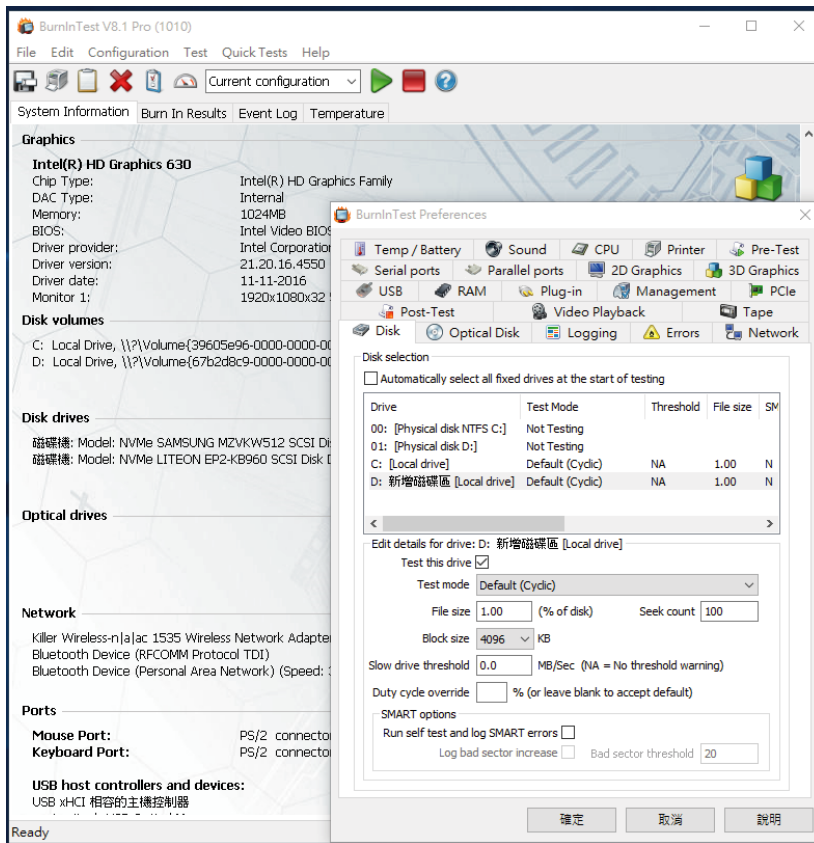
### 3.1 BurnInTest v8.1 Pro

#### 3.1.1 system information as below:

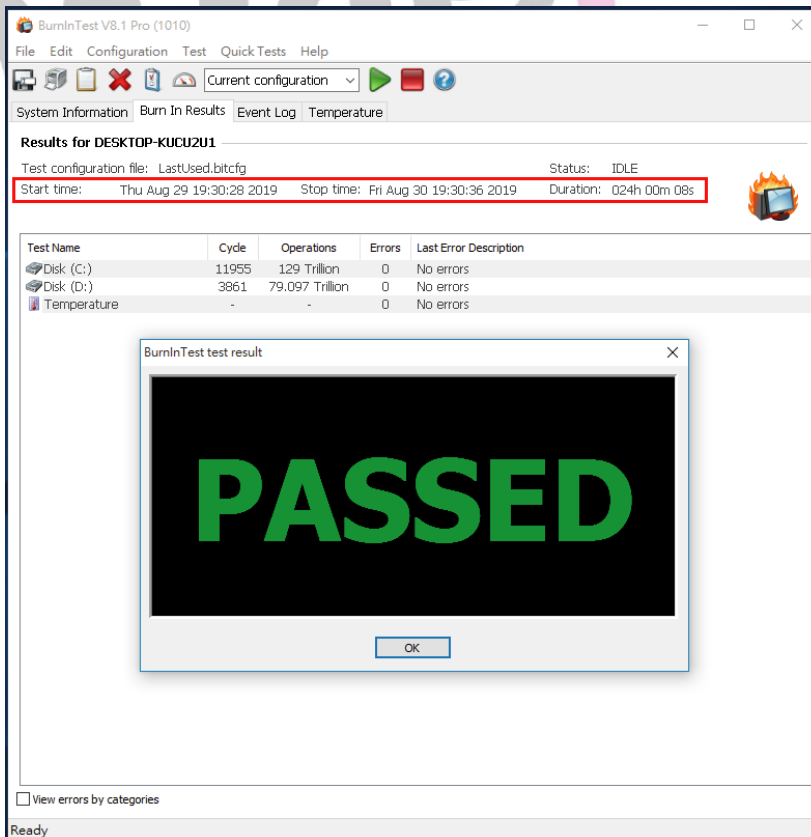


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## 3.1.2 Disk test mode (10 ways cycle test)



## 3.1.3 24-hour Burn-in test PASSED





### 4. Summary

- 4.1 M.2 NVMe SSD is PCI-e Gen 3 / 4 Lane Interface, I/O speed, max. to 32Gbps.
- 4.3 PD803A adapter I/O performance is based on M.2 NVMe SSD.

