



# MINERVA

DP6705 M.2 PCIe 4.0 with ReDriver for Mini SAS HD(SFF 8673)

---

## Performance & Burn In Test Rev. 1. 0

### Table of Contents

#### 1. Overview

#### 2. Performance Measurement Tools and Results

2.1 Test Platform

2.2 Test target and U.2 NVMe SSD

2.3 Install Hardware

2.4 BIOS & Windows 10 OS environment setup

2.5 CrystalDiskMark 8.0 x64 performance test

2.6 AS SSD Benchmark 2.0.7 performance test

2.7 ATTO Disk Benchamrk 4.01 performance test

2.8 AnvilBenchmark\_V110\_B337 Benchmark performance test

#### 3. Burn In Tests and Results

3.1 BurnInTest v10.2 Pro burn in test

#### 4. Summary

# DP6705 Adapter

## 1. Overview

The M.2 adapter built-in ReDriver provides PCIe 4.0 4 Lanes link width, 16GT/s high-speed signals extension to Mini SAS HD 1x1, 4X(SFF-8673).

## 2. Tools and Results of Performance Measurement

### 2.1 Test Platform

M/B : **ASUS PRIME X570-PRO**  
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: **DP6705 M.2 PCIe 4.0 with Redriver to SFF-8673 Adapter**  
Cable: **SFF-8673 PCIe 4.0 to U.2(SFF-8639), 100cm Cable**  
OS : **Microsoft Windows 10 64bit OS**

### 2.2 Test target: DP6705 AIC & Samsung U.2 NVMe 4TB SSD



# DP6705 Adapter

## 2.3 Install Hardware

Inserts U.2 NVMe SSD into GDC36-9202 cable's U.2 connector, and then Connects to DP6705 M.2 PCIe 4.0 with Redriver to SFF-8673 Adapter. The DP6705 Adapter plugs into PCIe Slot of **ASUS PRIME X570-PRO**

## 2.4 BIOS & Windows 10 OS environment setup

- 2.4.1 Primary SATA SSD installed Windows 10 OS.
- 2.4.2 U.2 NVMe SSD, formatted to NTFS Mode. Don't install any program.

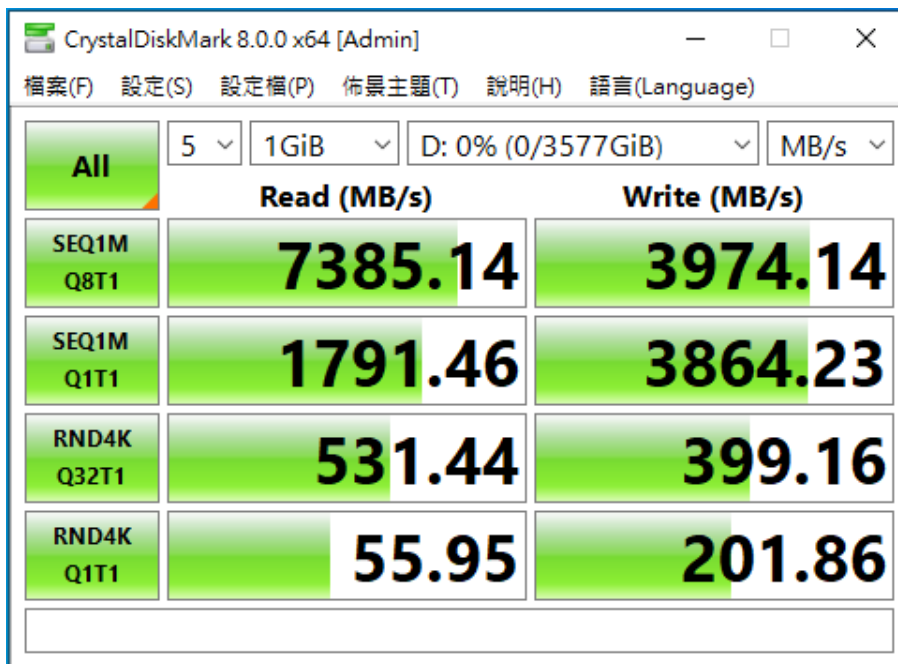


# DP6705 Adapter

## 2.5 CrystalDiskMark 8.0 x64 performance test

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

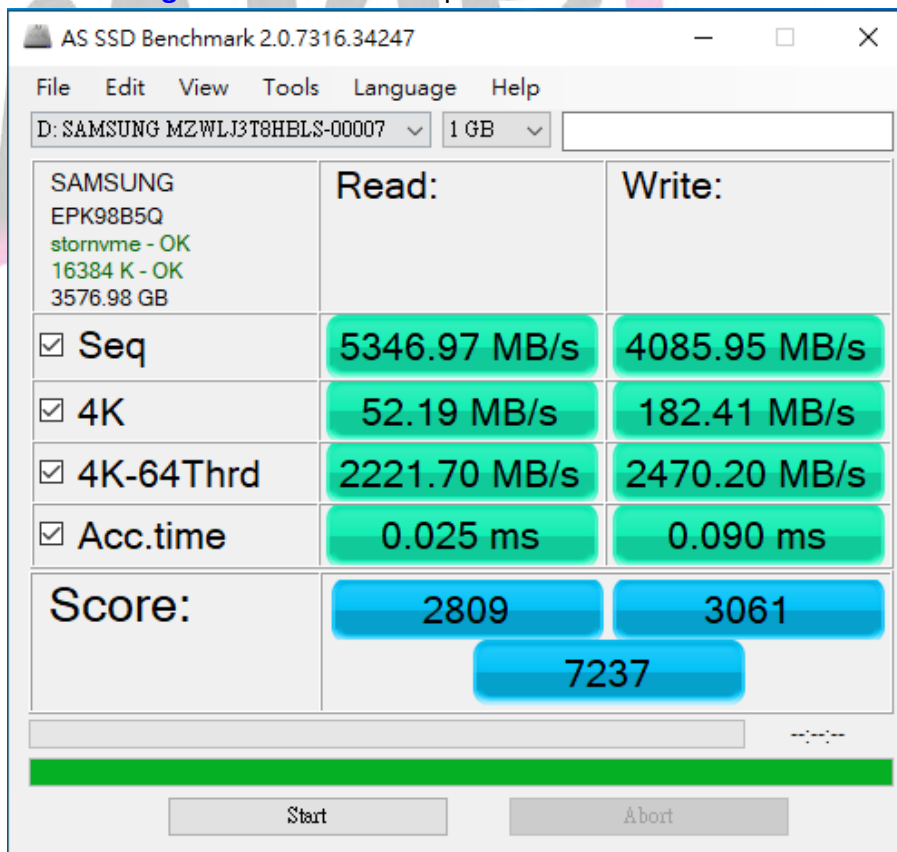
2.5.1 Samsung U.2 NVMe 4TB SSD performance as below:



## 2.6 AS SSD Benchmark 2.0.7 performance test

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

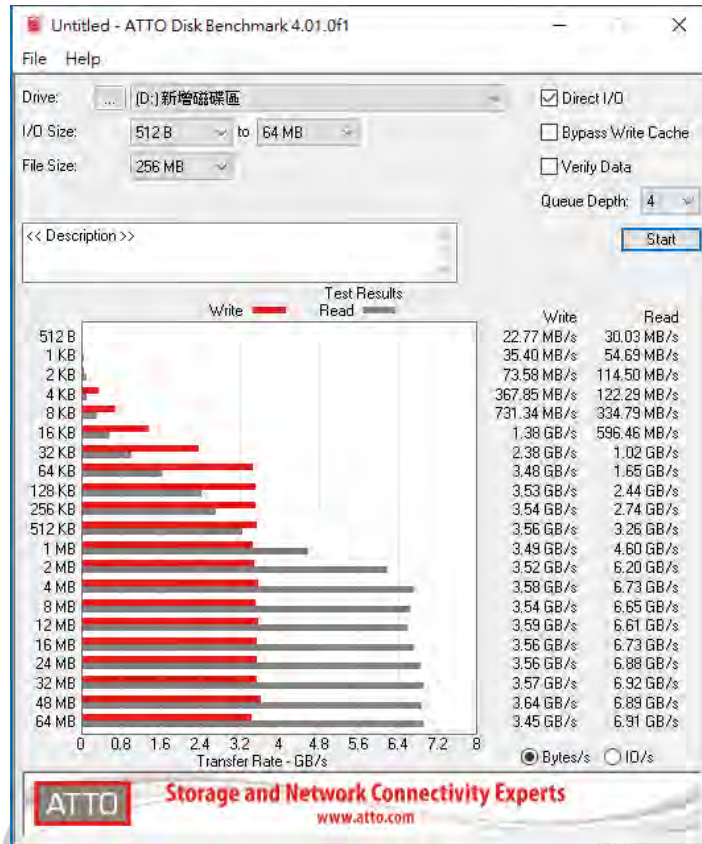
2.6.1 Samsung U.2 NVMe 4TB SSD performance as below:



# DP6705 Adapter

## 2.7 ATTO Disk Benchmark 4.0.1 performance test

### 2.7.1 Samsung U.2 NVMe 4TB SSD performance as below:



## 2.8 AnvilBenchmark\_V110\_B337

### 2.8.1 Samsung U.2 NVMe 4TB SSD performance as below:

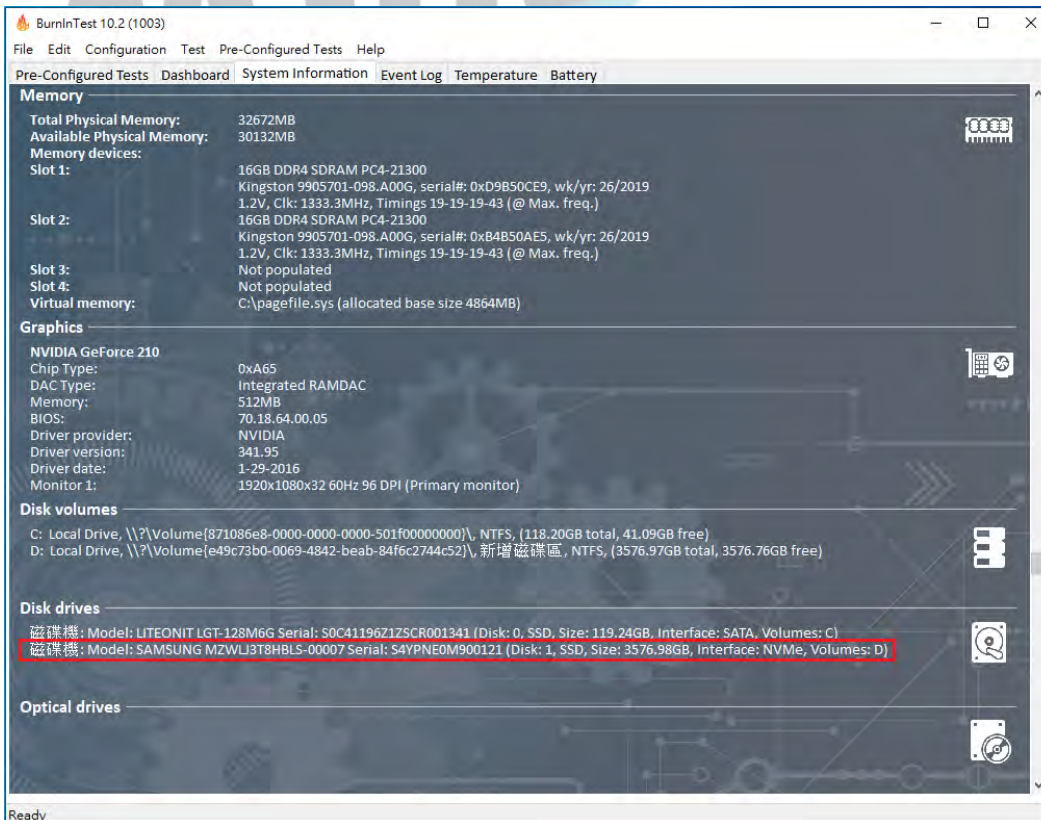
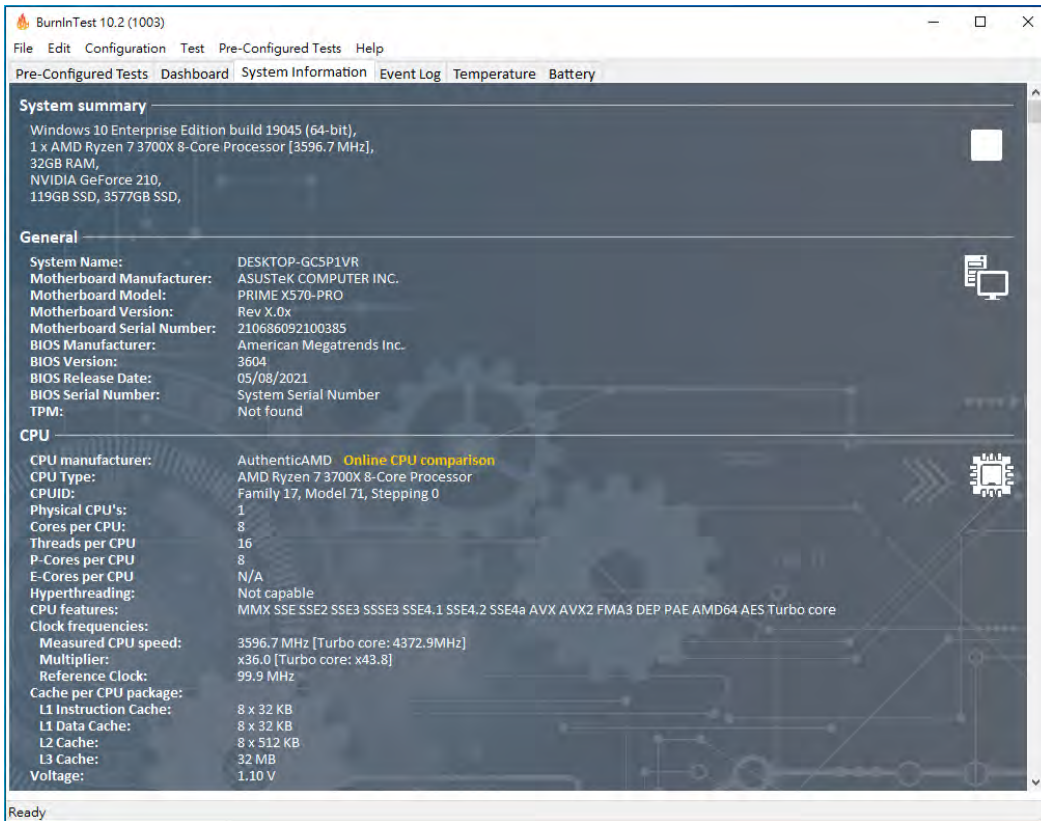


# DP6705 Adapter

## 3. Burn In Tests and Results

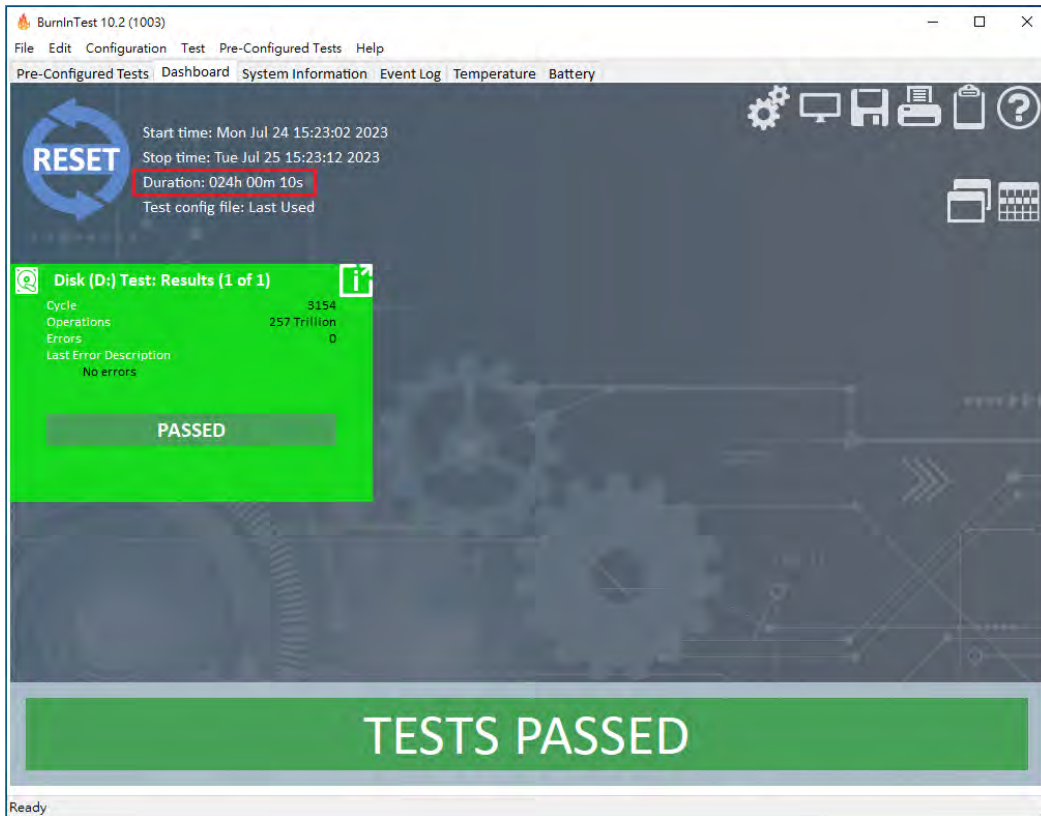
### 3.1 BurnInTest v10.2 Pro for Samsung U.2 NVMe 4TB SSD

#### 3.1.1 System Information as below:



# DP6705 Adapter

## 3.1.2 24-hour Burn-in test **PASSED**



## 4. Summary

- 4.1 U.2 NVMe SSD is PCIe Gen4, 16GT/s, 4 Lanes Interface, I/O speed, max. to 64Gbps.
- 4.2 DP6705 Adapter I/O performance is based on U.2 NVMe SSD.