

DP9504 PCIe x4 Gen 4 with ReDriver for Gen-Z 1C AIC

Performance & Burn In Test Rev. 1. 0

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4. Summary

1. Overview

The Host Bus Adapter may provide PCIe x4 Gen4, 16GT/s high-speed signals extension with ReDriver controller to Gen-Z 1C (EDSFF).

2. Tools and Results of Performance Measurement

2.1 Test Platform:

M/B: GIGABYTE X570 AORUS MASTER
CPU: AMD Ryzen 7, 3700X 8-Core

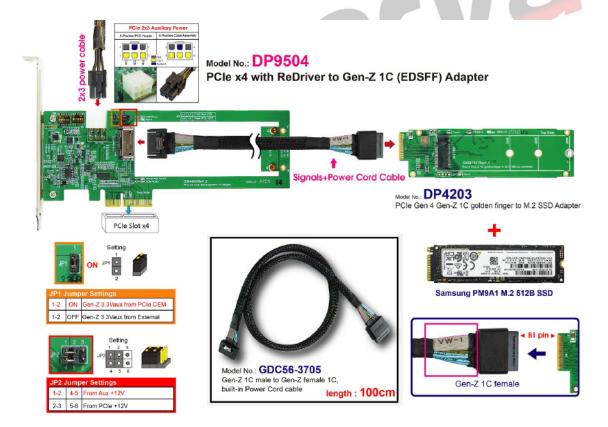
Memory: Kingston KVR26N19D8/16, DDR4-2666MHz, 32GB(16GB DIMM*2) ATX Power: COOLER MASTER G750M, 750W ATX, 12V V2.2 Power Supply

AIC: DP9504 PCle x4 Gen 4 with Redriver to Gen-Z 1C ADD-in Card

Cable: Gen-Z 1C Male to Male with Power Cord Cable, 100cm

Adapter: DP4203 Gen-Z 1C to U.2 adapter OS: Microsoft Windows 10 64bit OS

2.2 Test target: DP9504, DP4203 & Samsung M.2 PM9A1 512GB NVMe SSD



2.3 Install Hardware

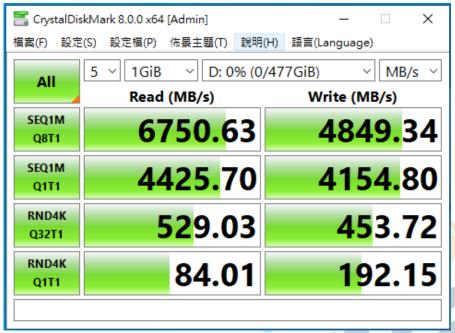
The M.2 NVMe SSD Inserts into Dp4203 adapter and connects DP4203 adapter to the DP9504 AIC, using Gen-Z 1C male to Female with Power Cord cable. The DP9504 plugs into PCIe Slot of GIGABYTE X570 AORUS MASTER

2.4 BIOS & Windows 10 OS environment setup

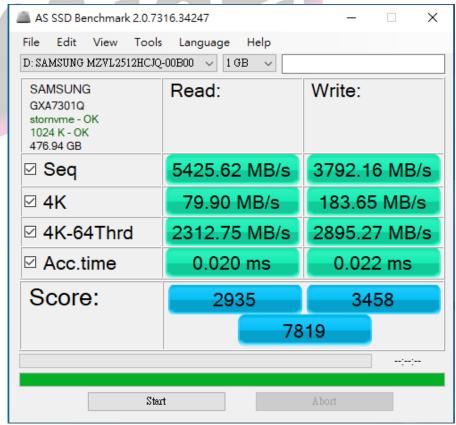
- 2.4.1 Primary SATA SSD installed Windows 10 OS.
- 2.4.2 M.2 NVMe SSD, formatted to NTFS Mode. Don't install any program.



- 2.5 CrystalDiskMark 8.0 x64 performance test
 - Benchmark (Sequential Read & Write / default = 1MB)
 - 2.5.1 Samsung M.2 PM9A1 512GB NVMe 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 M.2 PM9A1 512GB NVMe SSD performance as below:



- 2.7 ATTO Disk Benchamrk 4.01 performance test
 - 2.7.1 Samsung M.2 PM9A1 512GB NVMe SSD performance as below:



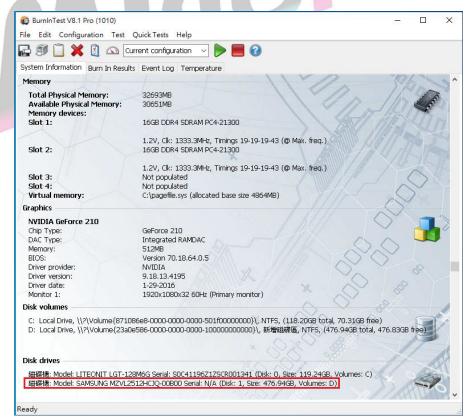
- 2.8 AnvilBenchmark V110 B337
 - 2.8.1 **Samsung M.2 PM9A1 512GB NVMe SSD** performance as below:



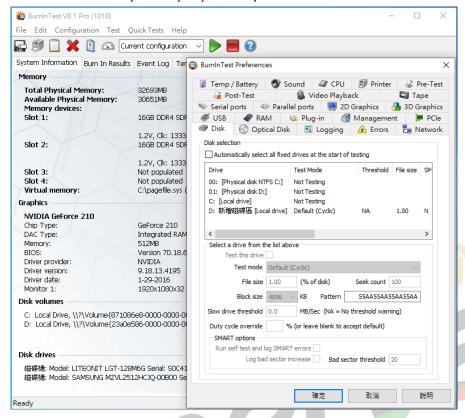
3. Burn In Tests and Results

- 3.1 BurninTest v8.1 Pro for Samsung M.2 PM9A1 512B NVMe SSD
 - 3.1.1 **System Information** as below:

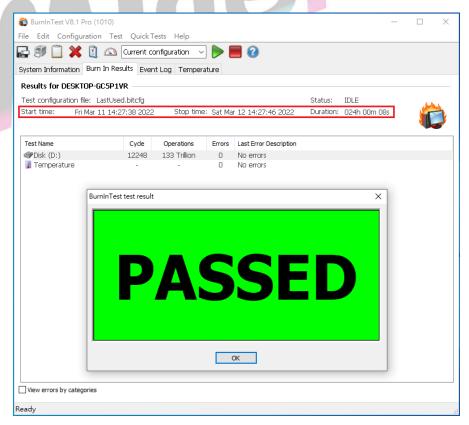




3.1.2 Disk test mode(10 ways cycle test)



3.1.3 24-hour Burn-in test PASSED



4. Summary

- 4.1 M.2 NVMe SSD is PCIe Gen 4, 16GT/s, I/O speed, max. to 64Gbps.
- 4.2 DP9504 Host Bus Adapter I/O performance is based on M.2 NVMe SSD.
- 4.3 DP4203 Adapter I/O performance is based on M.2 NVMe SSD.

