



MINERVA

BU284F SATA Express for M.2 2-port SSD

RAID 0 Mode Performance & Burn In Test Rev. 1.0

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4. Summary

BU284F SATA Express for M.2(SATA)2-port SSD

1. Overview

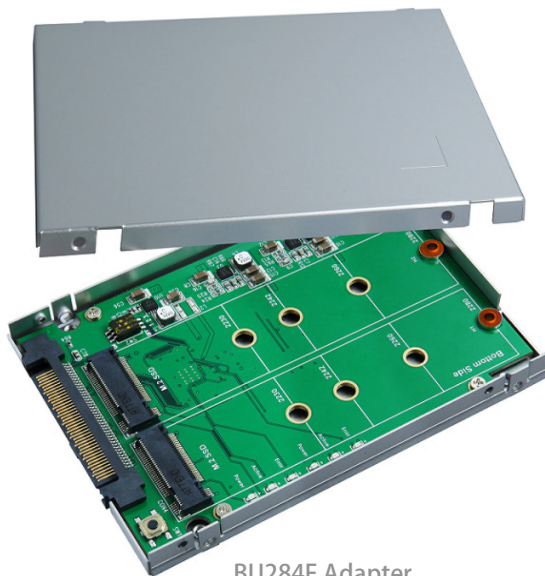
BU284F offers PCIe Gen 2 / two lanes interface for SATA Express, built-in 2-port M.2(SATA) SSD.

2. Tools and Results of Performance Measurement

2.1 Test Platform:

M/B : ASRock **Z170 Extreme 7+**
CPU : Intel **i5-6400**, 2.7GHz/ 6M Cache/ LGA1151
Memory : Kingston **KVR21N15D8/8**, DDR4-2133MHz, 16G(8GB DIMM*2)
ATX Power : FSP RAIDER 550, **550W ATX**, 12V V2.2 Power Supply
Graphic : Z170 Chipsets built-in **HD Graphics 530**
Cable: SATA Express cable
OS : Microsoft **Windows 10 64bit OS**

2.2 Test target: BU284F SATA Express Card & M.2 SATA SSD([Samsung CM871a M.2](#) / [256Bx2](#))



BU284F Adapter



Samsung CM871a M.2 SSD x2

2.3 Install Hardware

2.3.1 Insert M.2 SSDx2 into BU284F's M.2 B-key connector, and then with coppers, and screws to fix SSDs. (Please refer to the Installation Notes). Connect BU284F to **SATA Express port** of ASRock **Z170 Extreme 7+**.

2.4 BIOS & Windows 10 OS environment setup

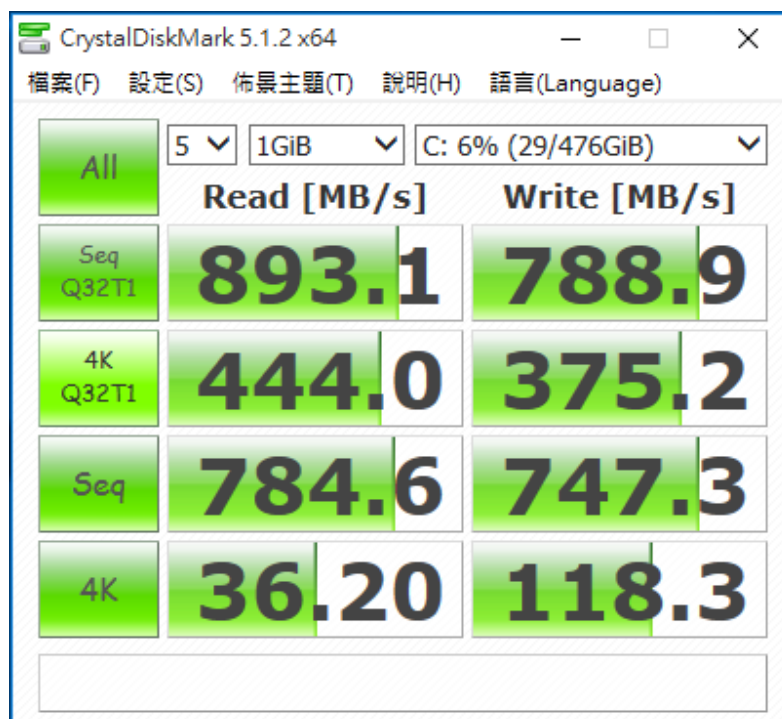
2.4.1 Install Windows 10 x64 OS.

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2.5 CrystalDiskMark 5.1.2 x64 performance test

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

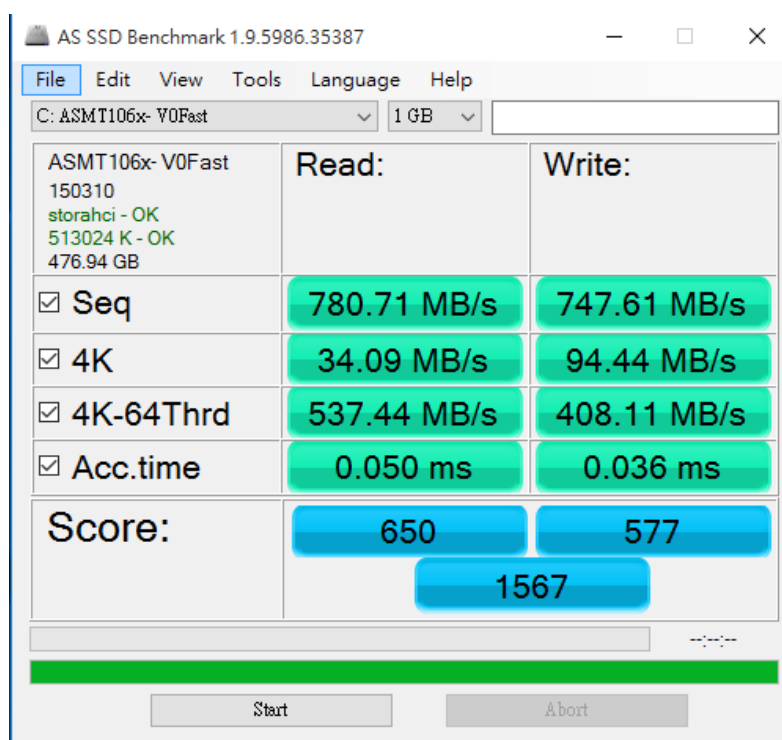
2.5.1 show [Samsung CM871a M.2 / 256Bx2](#) in **RAID 0** performance as below:



2.6 AS SSD Benchmark 1.9 performance test

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

2.6.1 show [Samsung CM871a M.2 / 256Bx2](#) in **RAID 0** performance as below:

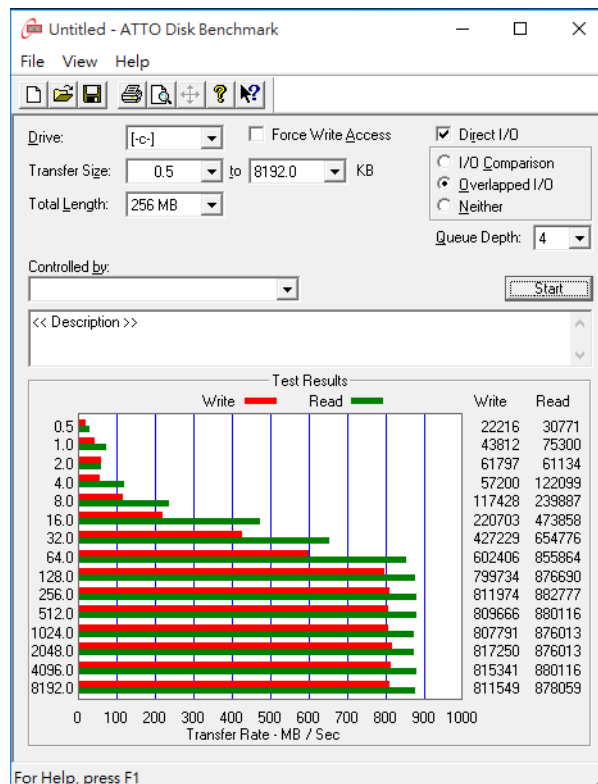


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2.7 ATTO Disk Benchmark performance test

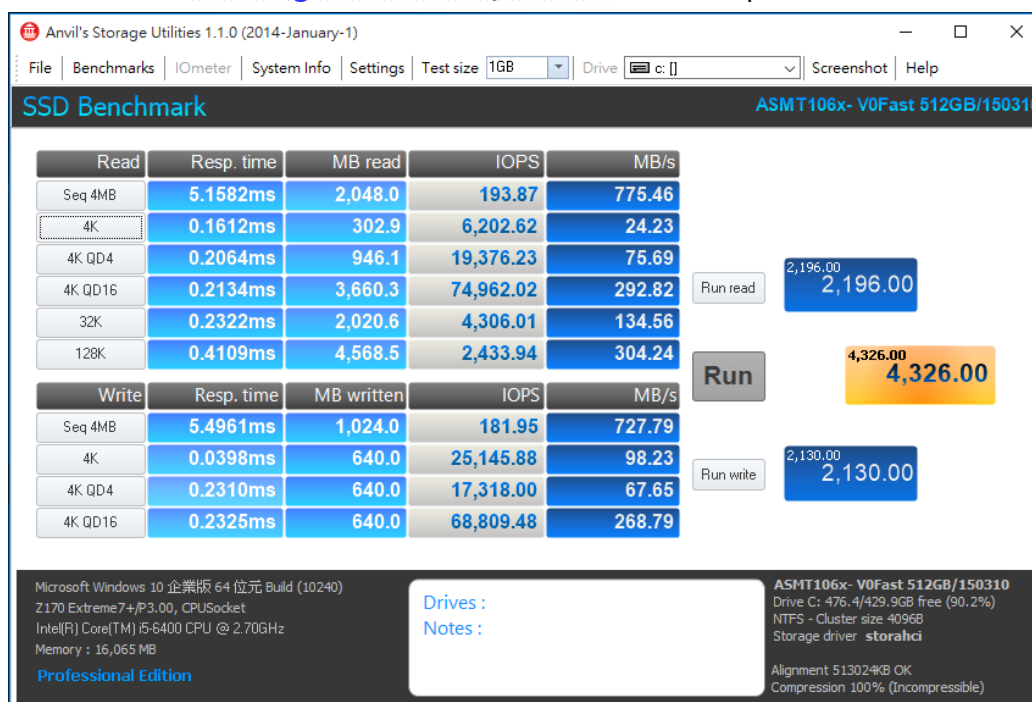
※Benchmark (Sequential Read / default block size = 8MB)

2.7.1 show [Samsung CM871a M.2 / 256Bx2](#) in **RAID 0** performance as below:



2.8 AnvilBenchmark_V110_B337

2.8.1 show [Samsung CM871a M.2 / 256Bx2](#) in **RAID 0** performance as below:

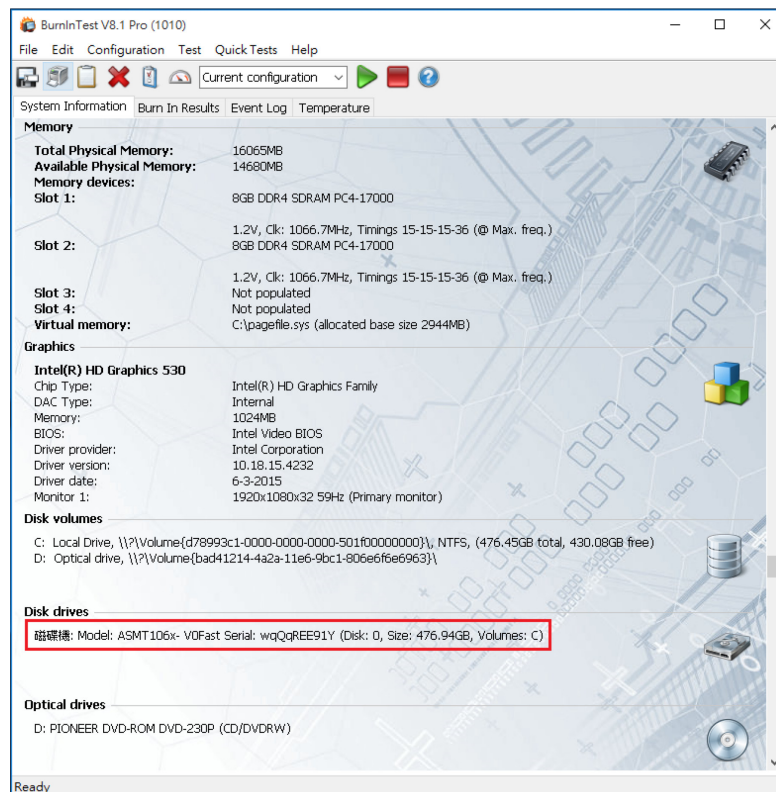
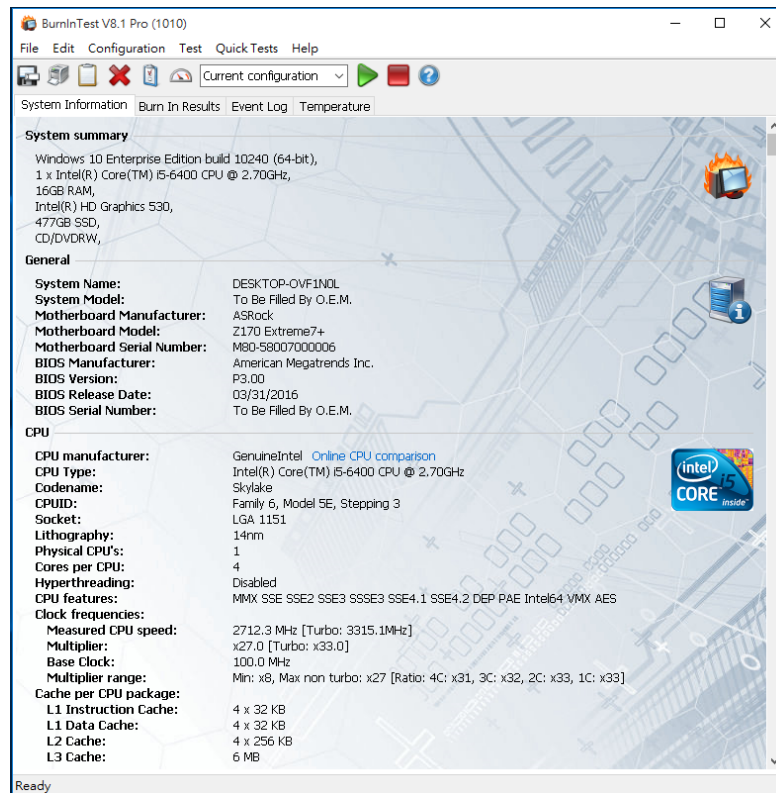


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3. Burn In Tests and Results

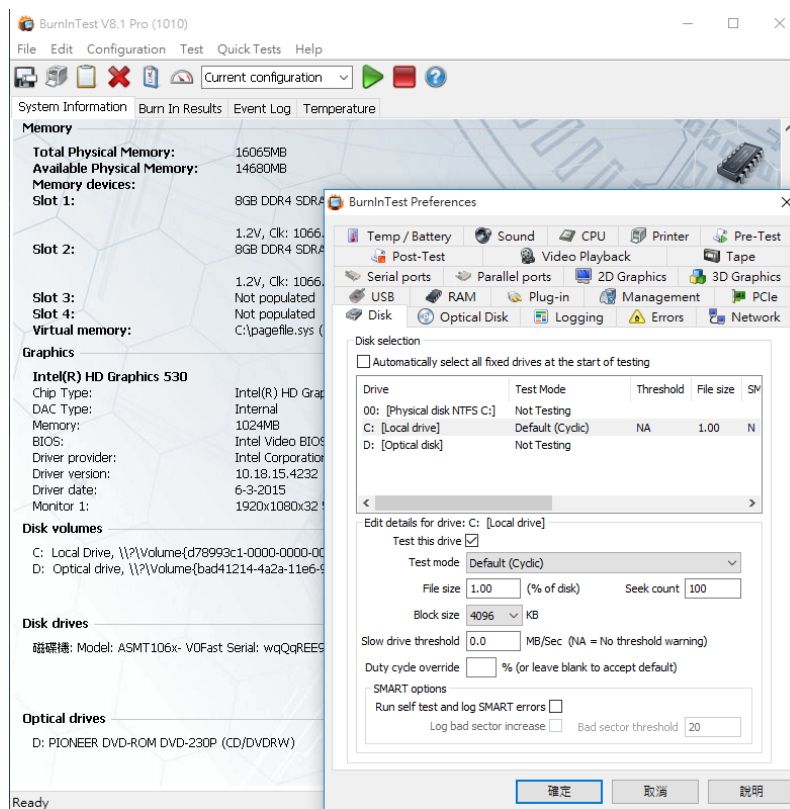
3.1 BurnInTest v8.1 Pro

3.1.1 system information for [Samsung CM871a M.2 / 256Bx2](#) in **RAID 0** as below:

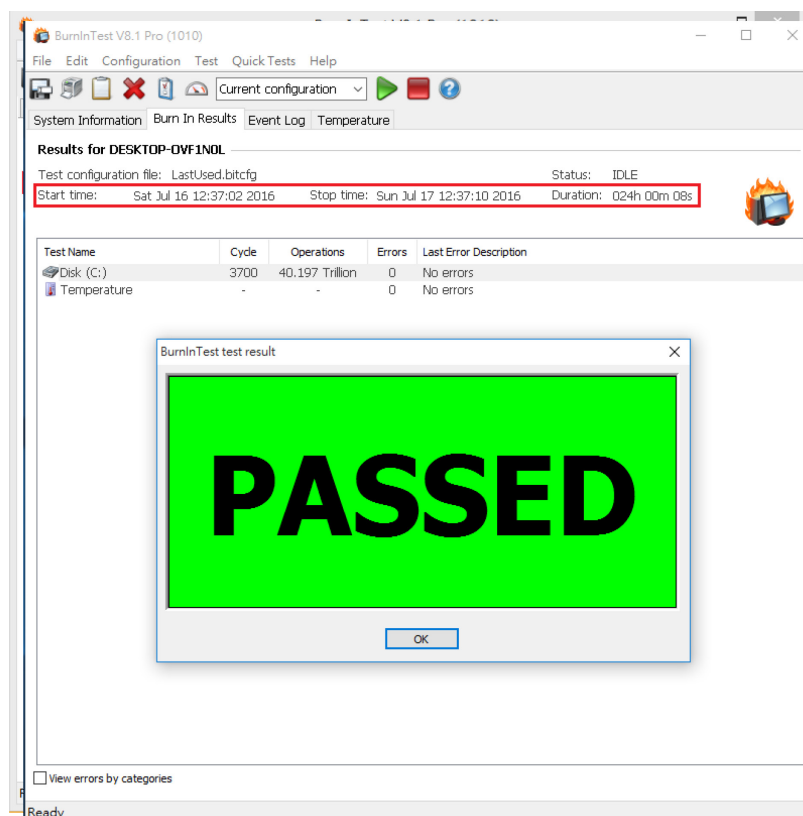


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3.1.2 show RAID 0 SSD test mode(default cyclic -- 10 ways cycle test)



3.1.3 show Samsung CM871a M.2 / 256Bx2 in RAID 0 24-hour Burn-in test PASSED



BU284F SATA Express for M.2(SATA)2-port SSD

4. Summary

- 4.1 BU284F is SATA Express Interface, I/O speed, max. to 10Gbps.
- 4.2 BU284F I/O performance is based on PCIe Gen2 2-Lane.