



MINERVA

BU281F / Rev1.0 Converter Card

Performance & Burn In Test Rev. 1.0

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4. Summary

BU281F/Rev1.0 Converter Card

1. Overview

BU281F adapter, support Mini PCIe 2 ports connector to convert mSATA SSD into SATA SATA III standard interface.

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 8.1 64bit OS**

2.2 Test target: BU281F adapter and SSD(LITE-ON S930/256GB)



BU281F Adapter



BU281F + LITE-ON S930 SSD



LITE-ON S930 mSATA SSD x2

2.3 Install Hardware

Insert mASTA SSD into BU2821 converter's Mini PCIe connector, and then with coppers, and screws to fix SSDs. (Please refer to the Installation Notes). Connect BU281F converter to **SATA Express of ASRock Z170 Extreme 7+**.

2.4 BIOS & Windows 8.1 OS environment setup

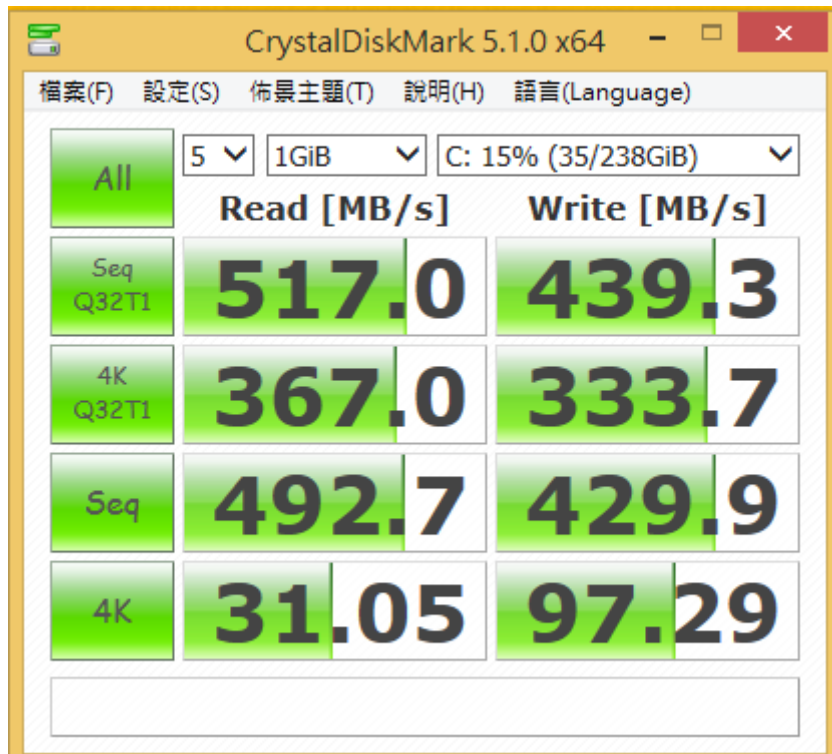
- 2.4.1 One port installs win8.1 64bit OS
- 2.4.2 Another port formatted SSD to NTFS Mode. Don't install any program.

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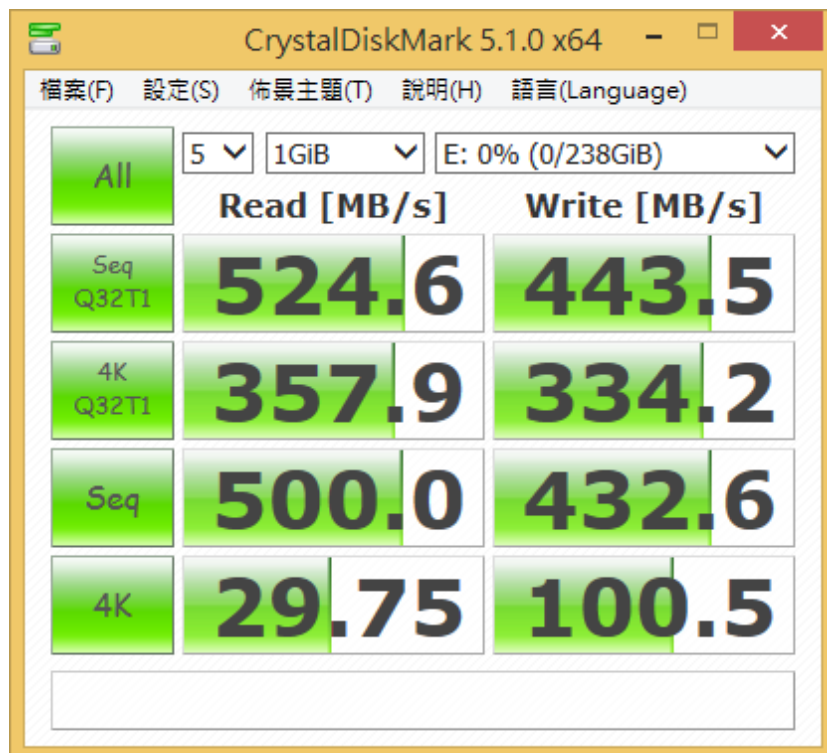
2.5 CrystalDiskMark 5.1.0 x64 performance test

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

2.5.1 LITE-ON **S930/256GB** **with** WIN 8.1 OS performance as below:



2.5.2 LITE-ON **S930/256GB** **without** WIN 8.1 OS performance as below:

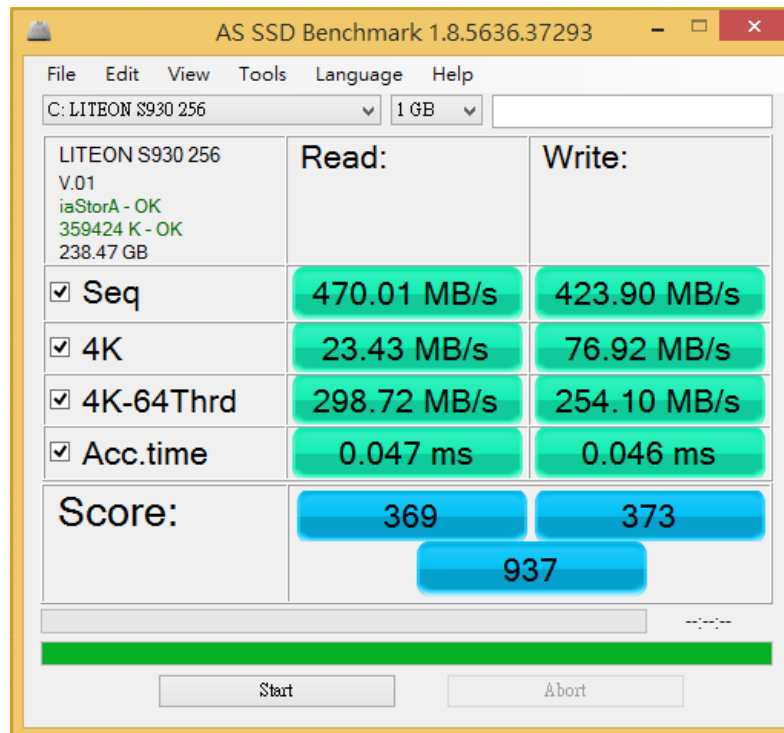


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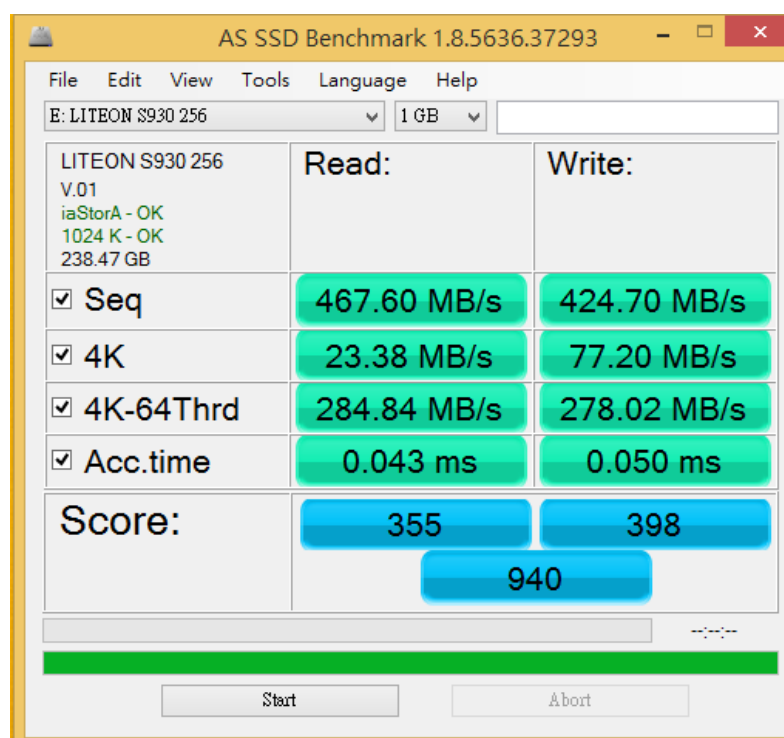
2.6 AS SSD Benchmark 1.8 performance test

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

2.6.1 LITE-ON S930/256GB with WIN 8.1 OS performance as below:



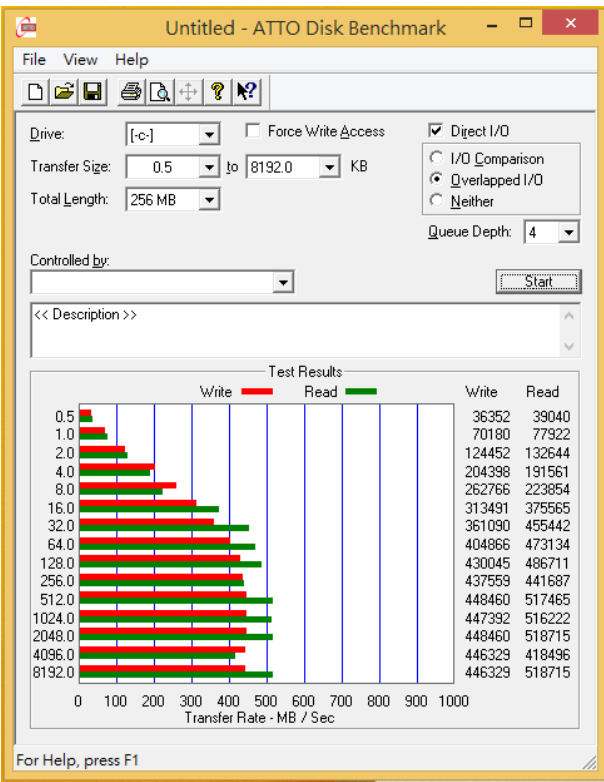
2.6.2 LITE-ON S930/256GB without WIN 8.1 OS performance as below:



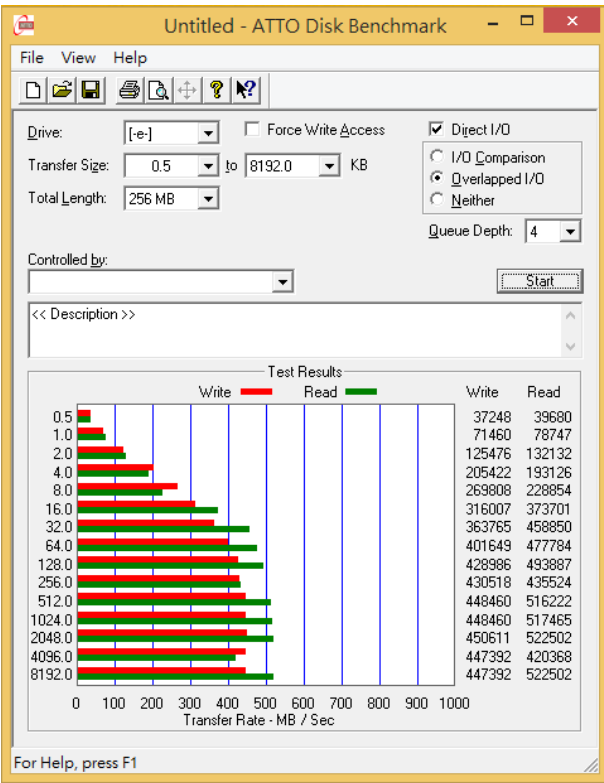
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2.7 ATTO Disk Benchamrk 2.47 performance test

2.7.1 LITE-ON S930/256GB with WIN 8.1 OS performance as below:



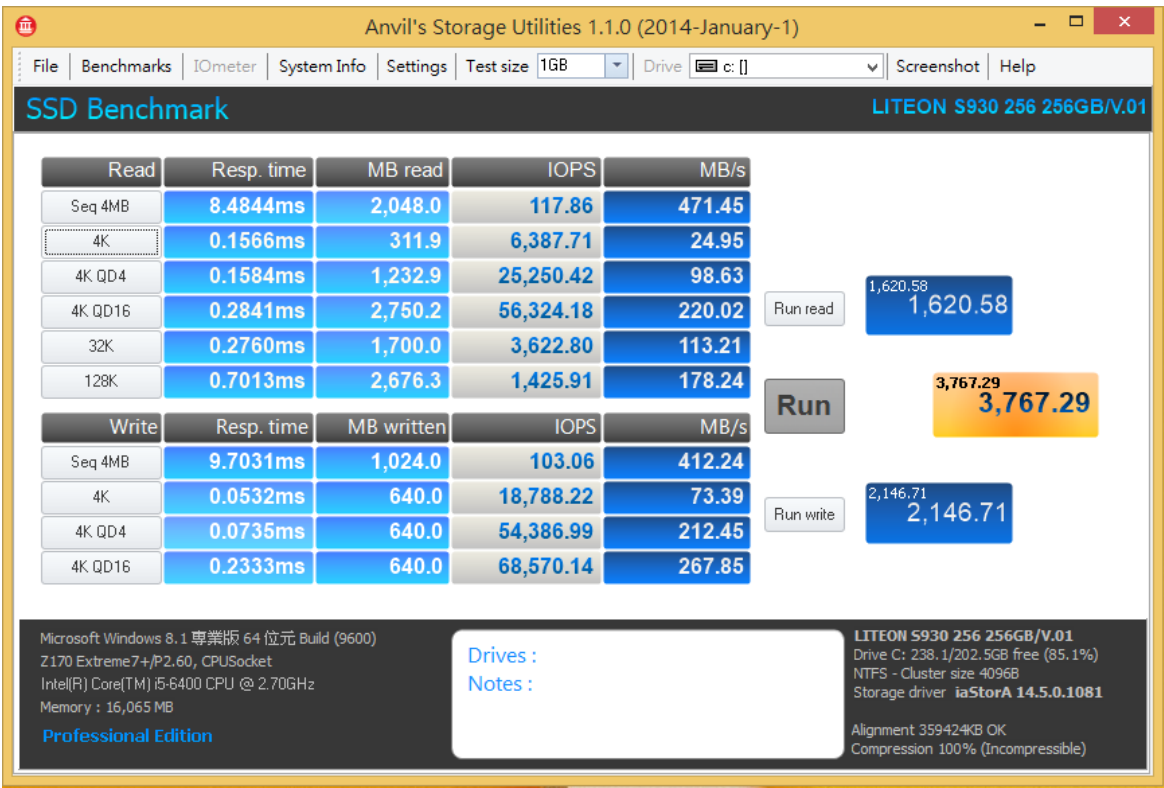
2.7.2 LITE-ON S930/256GB without WIN 8.1 OS performance as below:



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2.8 AnvilBenchmark_V110_B337

2.8.1 LITE-ON S930/256GB with WIN 8.1 OS performance as below:



2.8.2 LITE-ON S930/256GB without WIN 8.1 OS performance as below:

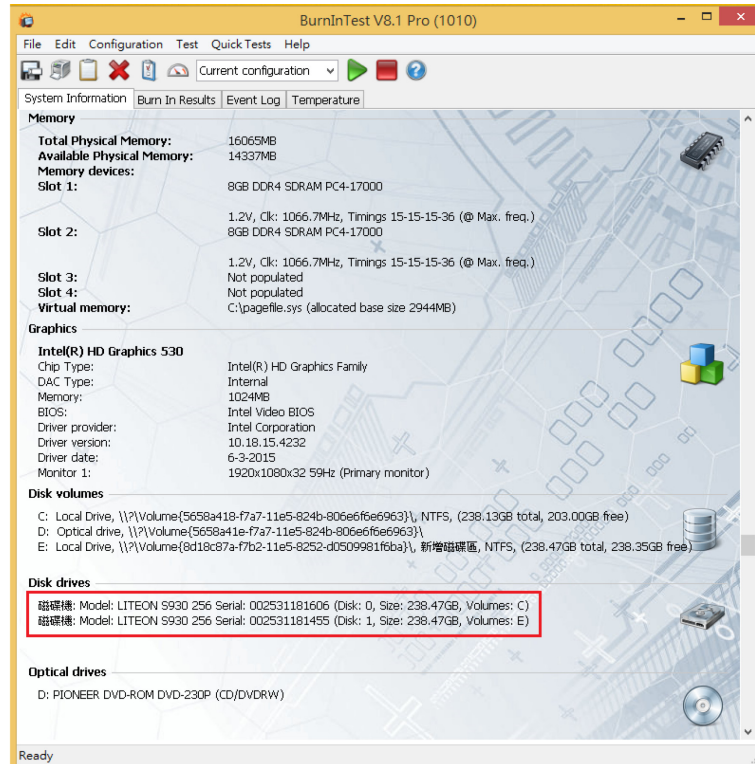


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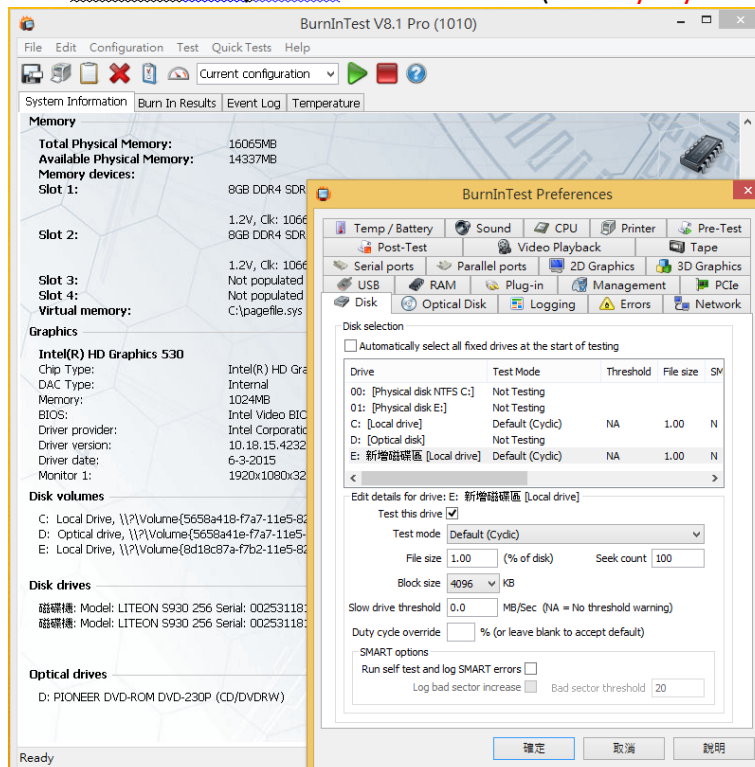
3. Burn In Tests and Results

3.1 BurnInTest v8.1 Pro

3.1.1 system information for LITE-ON S930/256GB as below:

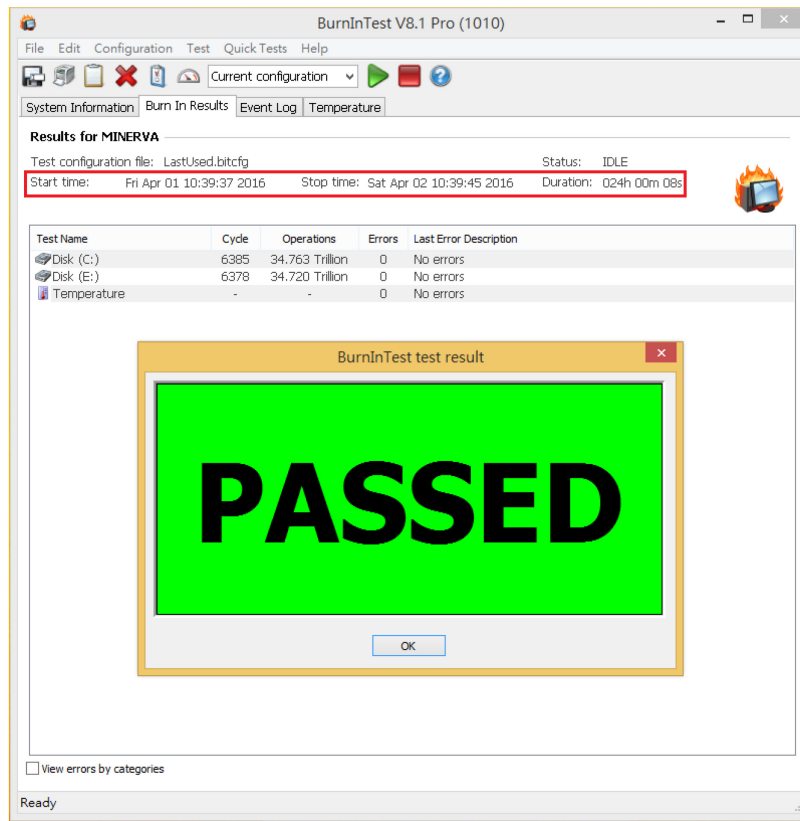


3.1.2 show LITE-ON S930/256GB Disk test mode(10 ways cycle test)



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3.1.3 show LITE-ON [S930/256GB](#) 24-hour Burn-in test PASSED



4. Summary

- 4.1 mSATA SSD is SATA III Interface, I/O speed, max. to 600MB/s.
- 4.2 BU281F adapter I/O performance is based on mSATA SSD.