MINERVA

AD962FB/AD962FE Converter Card

Performance & Burn In Test Rev. 1.0

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AD962FB/AD962FE Converter Card

1. Overview

AD962FB/FE series adapter, supports micro SATA 7+9pin connector, converts micro SATA SSD into SATA 7+15pin standard interface.

2. Tools and Results of Performance Measurement

2.1 Test Platform

M/B : ASUS **P8P67**
CPU : Intel **i5-2500,** 3.3MHz/ 6G Cache/ 5GT
Memory : Kingston **KVR1333D3N9K2/4G,** DDR3-1333MHz,4G(2GB DIMM*2)
ATX Power : TC START W500, **500W ATX**,12V V2.2 Power Supplier
Graphic : MSI **, R6700** / AMD HD 6700 Series
OS : Microsoft **Windows 7 64bit OS**

2.2 Test target: (962Fx series adapter) and micro SATA SSD

AD962FB

AD962FE

Micron C300 1.8"SSD

2.3 Install Hardware

Inserts micro SATA SSD (Micron 64GB/MTFFDDAA064MAG-1G1) into 962Fx series Micro SATA 7+9pin connector. Uses top cover, coppers, and screws to fix SSDs. (Please refer to the Installation Notes). Then, connects 962Fx series converter to SATA Port of ASUS P8P67 motherboard.

2.4 BIOS & Windows 7 OS environment setup

2.4.1 In BIOS(Basic Input/Output Setup) – Change IDE Mode into AHCI Mode
2.4.2 In Windows 7, format SSD to NTFS Mode. Don't install any program.

2.5 SSD I/O Performance impact factors

2.5.1 Micro SATA SSD I/O performance -- depending on the Controller IC

2.5.2 Micro SATA SSD I/O performance - -depending on the NAND Flash IC.

2.5.2.1 Toggle DDR mode or ONFI synchronous NAND Flash IC, will show good performance

2.5.2.2 Traditional Asynchronous or SDR NAND Flash IC, will show poor performance

Suggestion:

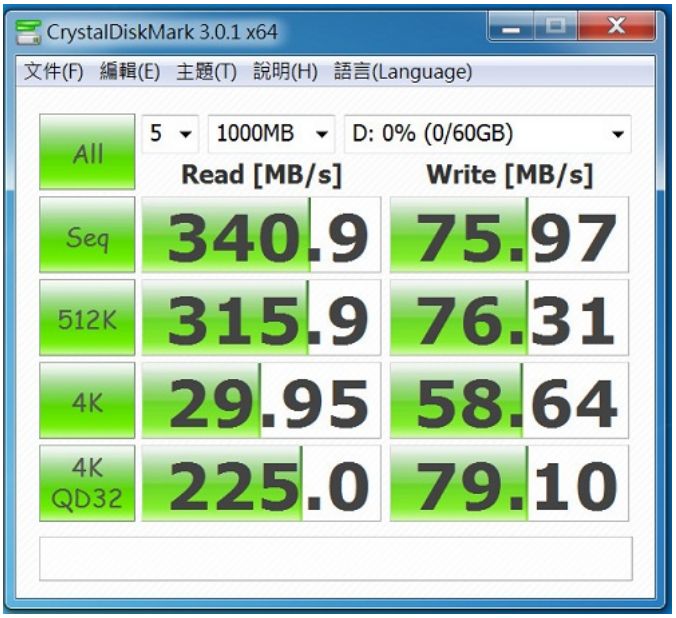
Please use the motherboard native SATA 6Gb/s Port to test which can provide more correct I/O performance. (for example: Intel 6 Series chipsets or AMD 9 Series Chipsets).

If you uses a motherboard plus SATA III host bus adapter, non-native 6Gb/s Port or SATA to PCI-e adapter, the I/O performance testing will get very much lower result than the native ones.

2.6 CrystalDiskMark 3.0.1 x64 performance test

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

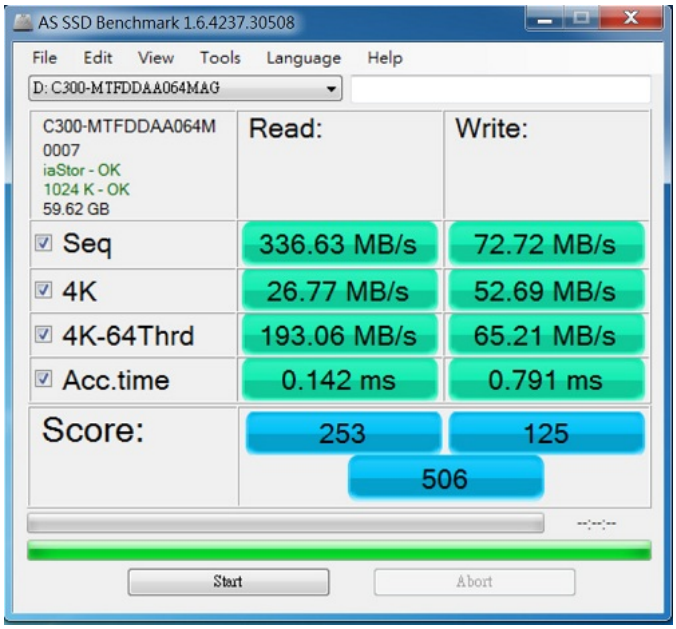
2.6.1 Used Micron 64GB/MTFFDDAA064MAG-1G1 performance as below:



2.7 AS SSD Benchmark 1.6 performance test

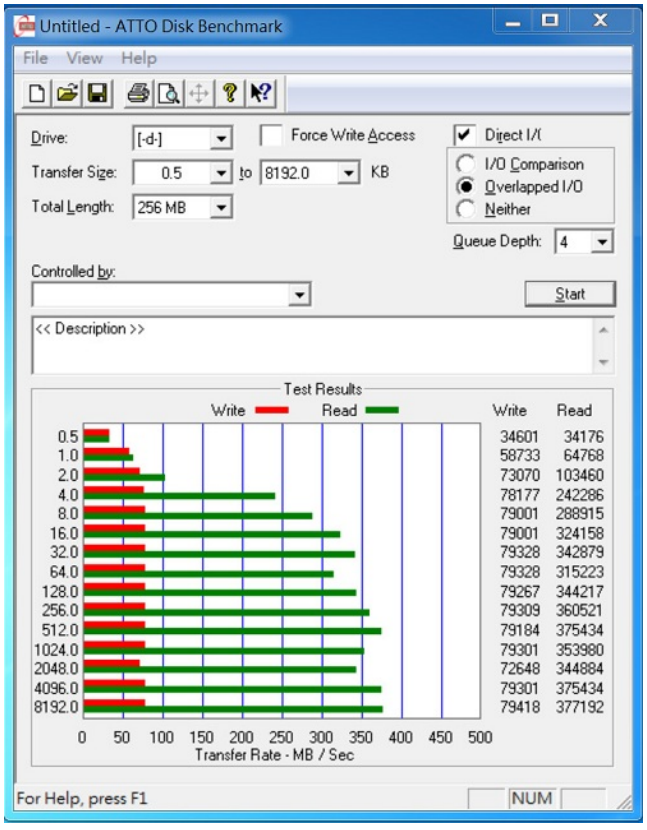
※Benchmark (Read & Write by MB/s, default block size = 16MB)

2.7.1 Uses Micron 64GB/MTFFDDAA064MAG-1G1 performance as below:



2.8 ATTO Disk BenchMark

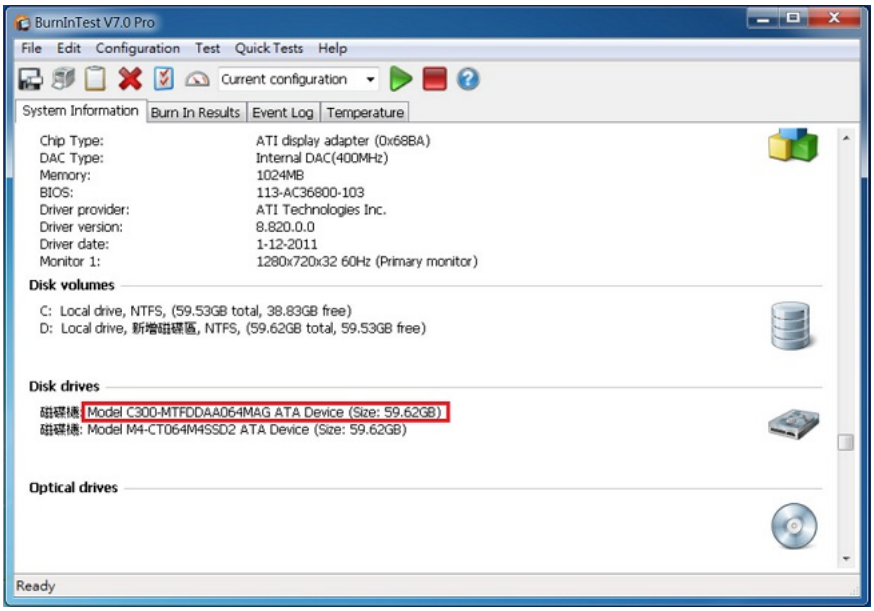
2.8.1 Uses Micron 64GB/MTFFDDAA064MAG-1G1 performance as below:



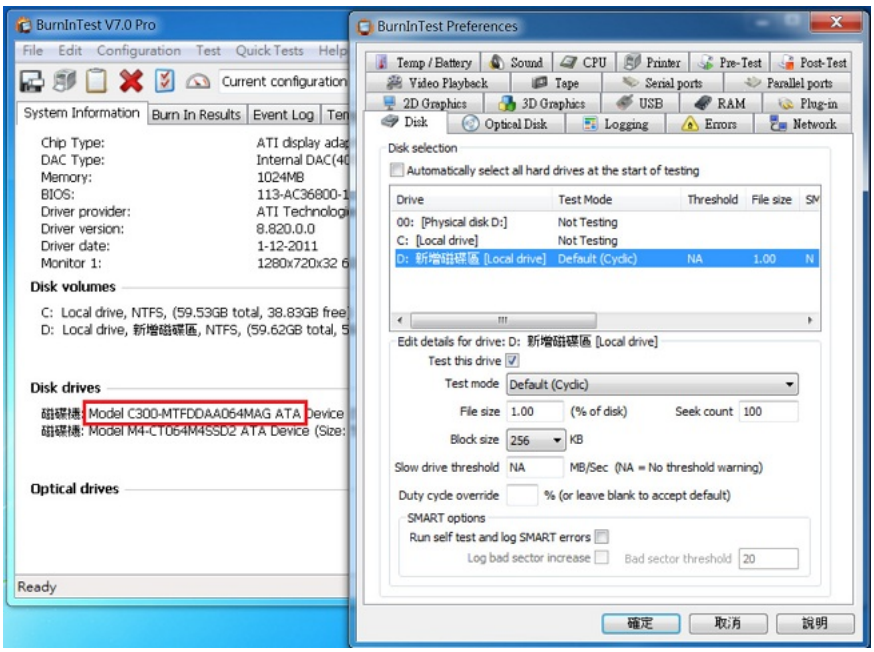
Burn In Tests and Results

3.1 BurnInTest v7.0 Pro

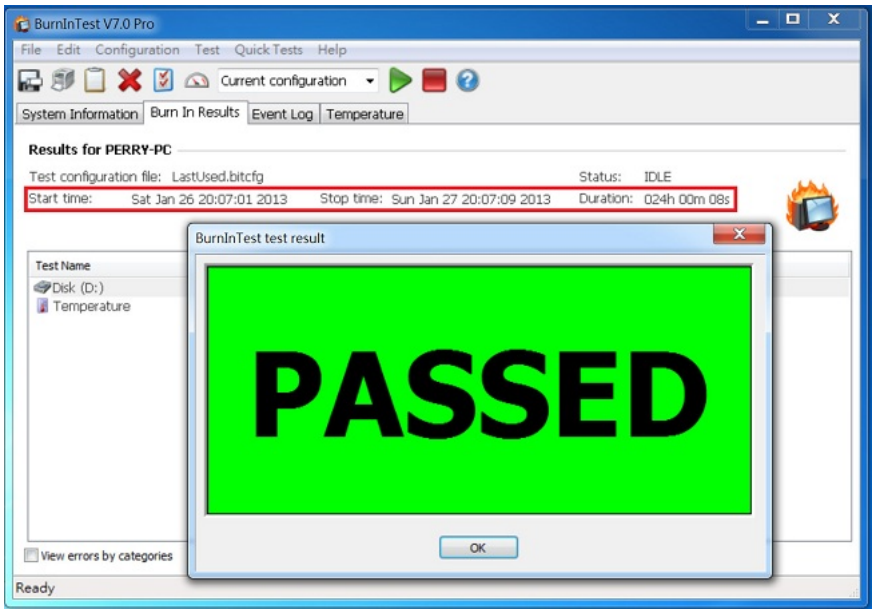
3.1.1 **system information** for Micron 64GB/MTFFDDAA064MAG-1G1 as below:



3.1.2 show Disk test mode(default cyclic -- 10 ways cycle test)



3.1.3 show Micron 64GB/MTFFDDAA064MAG-1G1S 24-hour Burn-in test PASSED



4. Summary

4.1 Micro SATA SSD is SATA III Interface, I/O speed, max. to 600MB/s.

4.2 962Fx Series adapter I/O performance is based on Micro SATA SSD