

AD962FB/AD962FE Converter Card

Performance & Burn In Test Rev. 1.0

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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



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

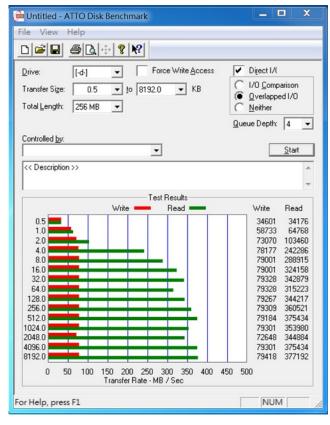
※Benchmark (Read & Write by MB/s, default block size = 16MB)

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

| Language Help | | | | | | |
|---------------|-------------------------------------------------------------|--|--|--|--|--|
| • | | | | | | |
| | D: C300-MTFDDAA064MAG - | | | | | |
| Read: | Write: | | | | | |
| 336.63 MB/s | 72.72 MB/s | | | | | |
| 26.77 MB/s | 52.69 MB/s | | | | | |
| 193.06 MB/s | 65.21 MB/s | | | | | |
| 0.142 ms | 0.791 ms | | | | | |
| 253 | 125 | | | | | |
| 506 | | | | | | |
| | | | | | | |
| Start Abort | | | | | | |
| | 336.63 MB/s 26.77 MB/s 193.06 MB/s 0.142 ms 253 | | | | | |

2.8 ATTO Disk BenchMark

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

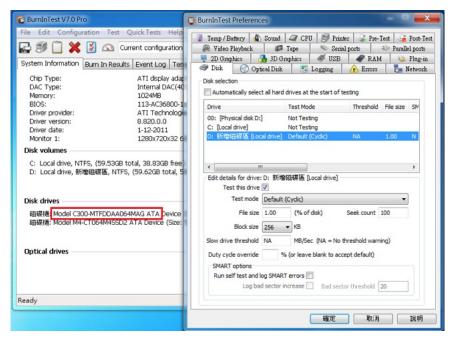


Burn In Tests and Results

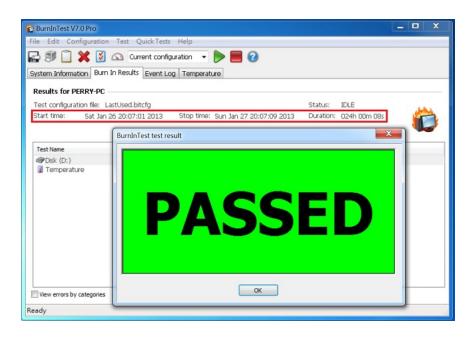
- 3.1 BurnInTest v7.0 Pro
 - 3.1.1 system information for Micron 64GB/MTFFDDAA064MAG-1G1 as below:

| 🔁 BurnInTest V7.0 P | ro | - D - X- |
|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| File Edit Configu | ration Test QuickTests Help | |
| 🕞 🔊 🗋 X | 🛐 🖎 Current configuration 👻 խ 📕 🕜 | |
| System Information | Burn In Results Event Log Temperature | |
| Chip Type: DAC Type: Memory: BIOS: Driver provider: Driver version: Driver date: Monitor 1: | ATI display adapter (0x668A) Internal DAC(400MHz) 1024MB 113-AC36600-103 ATI Technologies Inc. 8.820.0.0 1-12-2011 1280X720x32 60Hz (Primary monitor) | *** |
| Disk volumes | , | |
| D: Local drive, 🕅 | TFS, (59.53GB total, 38.83GB free) 増磁磁區, NTFS, (59.62GB total, 59.53GB free) | |
| Disk drives 磁碟機: Model C3 磁碟機: Model M4 | 4 | |
| Optical drives — | | |
| Ready | | al. |

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