MINERVA

U4355F USB 3.1 for M.2, mSATA,CFast Card Enclosure

Performance & Burn In Test Rev. 1. 0

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U4355F USB 3.1 Gen2 10Gbps Enclosusre

1. Overview

U4355F Enclosure , providing M.2 B-key, Mini PCI-e connector and CFast connector can be M.2 SATA SSD, mSATA SSD, or CFast Card converted into USB 3.1 GEN 2.

2. Tools and Results of Performance Measurement

2.1 Test Platform

M/B : GIGABYTE **Z170X UD5 TH**
CPU : Intel **i5-6500,** 3.2GHz/ 6M Cache/ LGA1150
Memory : Kingston **KVR21N15D8/8, DDR4-2133MHz, 16GB**(8GB DIMM*2)
ATX Power : COOLER MASTER G750M, **750W ATX**, 12V V2.2 Power Supply
Graphic : Z170 Chipsets built-in **HD Graphics 530**
Cable: type-C to Micro-B USB 3.1 Cable
OS : Microsoft **Windows 10 64bit OS**

2.2 Test target: U4355F Enclosure with CFast 128GB

U4355F Adapter

type C to micro B Cable

Transcend CFast Card

2.3 Install Hardware

Insert M.2 SATA SSD, or mSATA , or CFast Card into U4355F converter's M.2 B-key, or mini PCIe, or CFast connector, and then with coppers, and screws to fix SSDs. (Please refer to the Installation Notes). Then connect U4355F Enclosure to **type-C** port of GIGABYTE **Z170X UD5 TH**

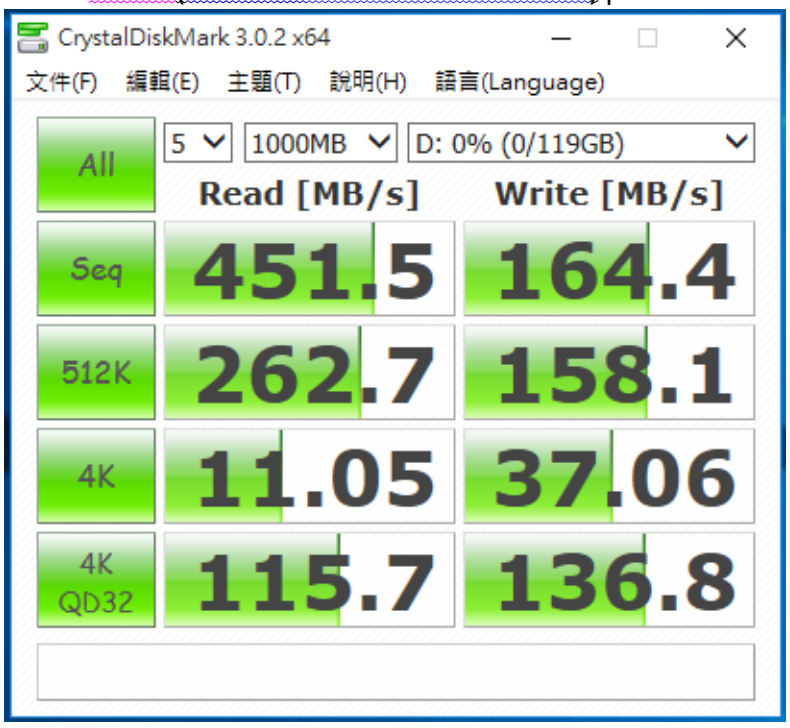
2.4 BIOS & Windows 10 OS environment setup

2.4.1 Primary SSD Drive installs win10 64bit OS
2.4.2 U4355F Enclosure formatted to NTFS Mode. Don't install any program.

2.5 CrystalDiskMark 3.0.2 x64 performance test

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

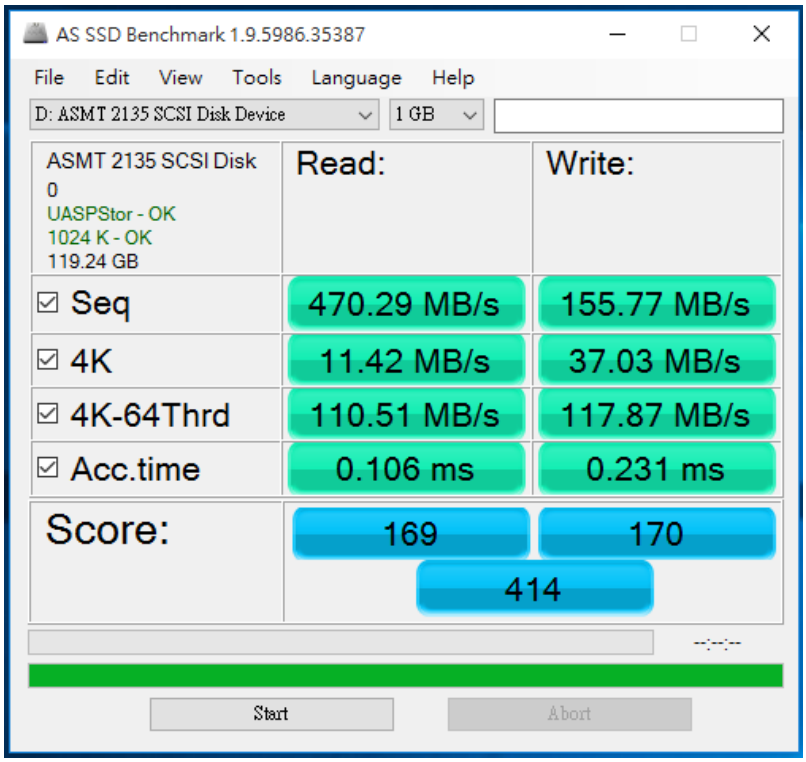
2.5.1 show 128GB(Trancend TS128GCFX600 CFast) performance as below:



2.6 AS SSD Benchmark 1.9 performance test

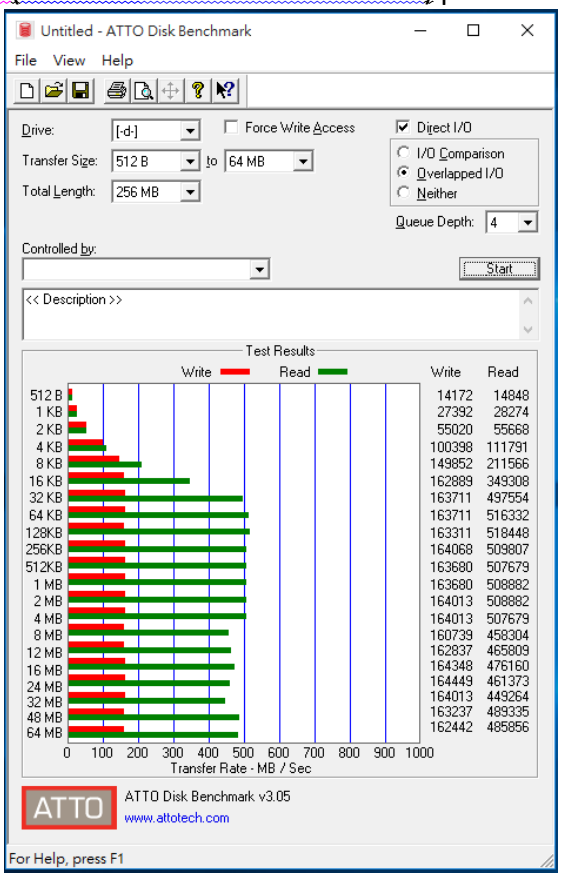
※Benchmark (Read & Write by MB/s, default block size = 16MB)

2.6.1 show 128GB(Trancend TS128GCFX600 CFast) performance as below:



2.7 ATTO Disk Benchamrk 3.05 performance test

2.7.1 show 128GB(Trancend TS128GCFX600 CFast) performance as below:



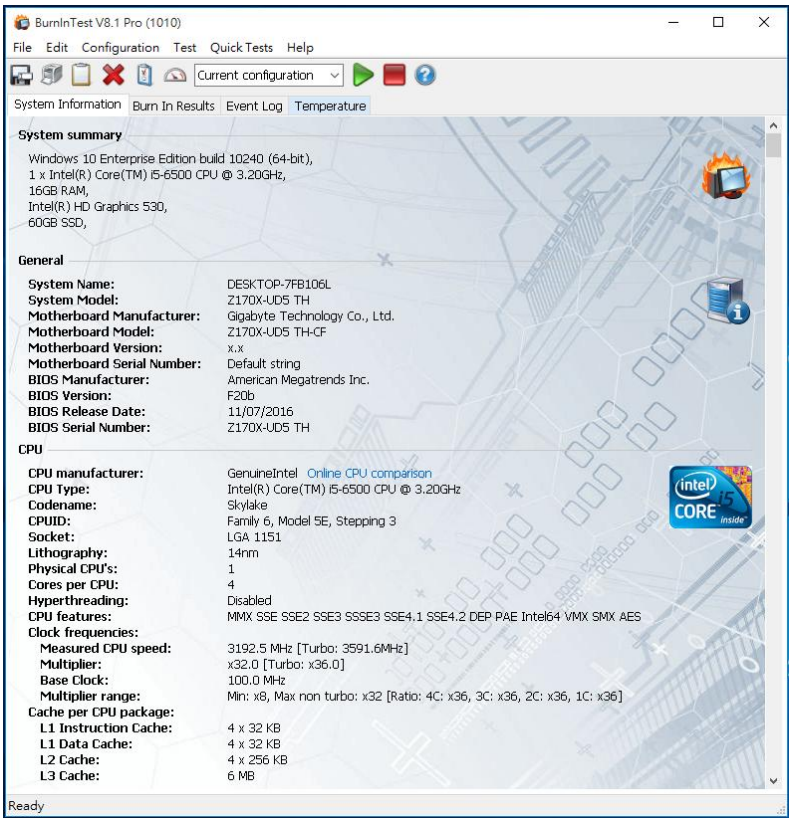
2.8 AnvilBenchmark_V110_B337

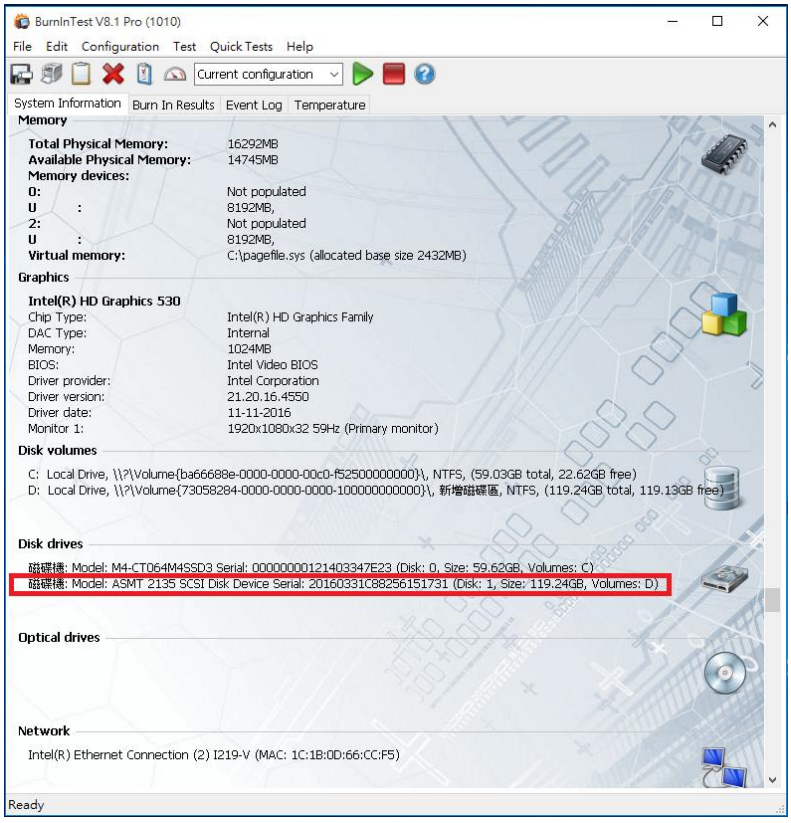
2.8.1 show 128GB(Trancend TS128GCFX600 CFast) performance as below:

3. Burn In Tests and Results

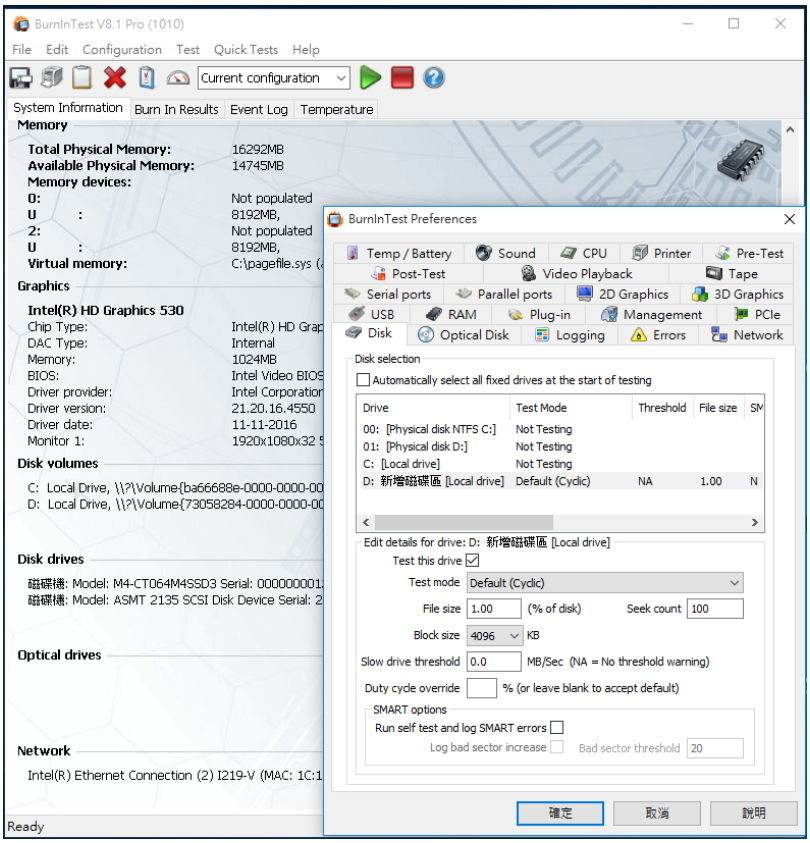
3.1 BurnInTest v8.1 Pro

3.1.1 system information for **CFast 128GB** as below:

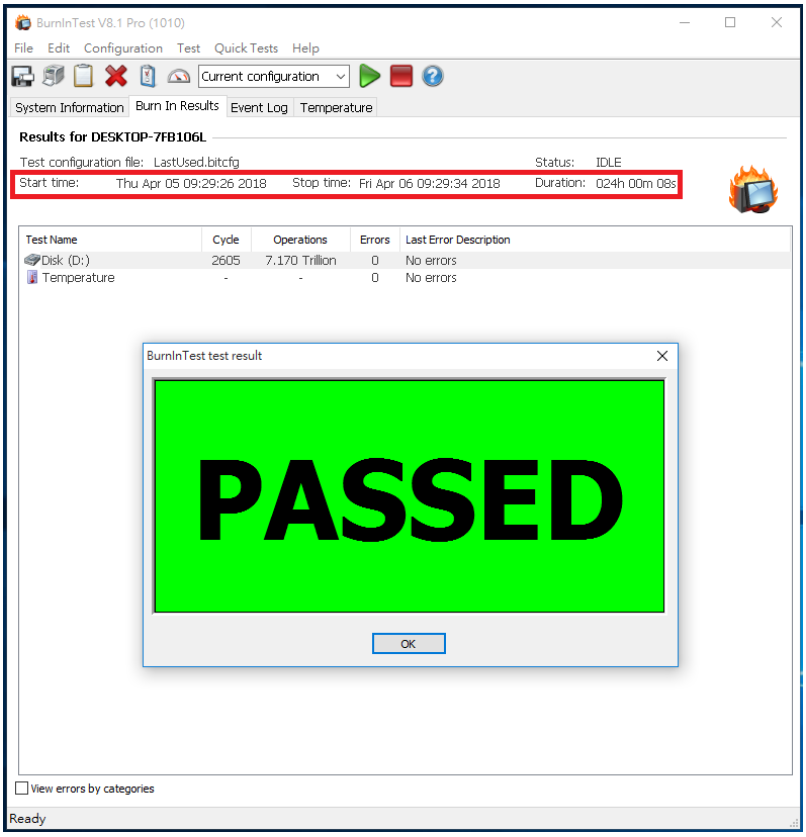




3.1.2 show Disk test mode(10 ways cycle test)



3.1.3 show 24-hour Burn-in test PASSED



4. Summary

4.1 CFast Card is SATA 3 Interface, I/O speed, max. to 6Gbps.

4.2 USB3.1 GEN2 is 10Gbps

4.3 U4355F Enclosure I/O performance is based on CFast Card.