



MINERVA

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

Performance & Burn In Test Rev. 1. 0

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4. Summary

U4355F USB 3.1 Gen2 10Gbps Enclosure

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 mSATA **512GB**



U4355F Adapter



type C to micro B Cable



Micron M550 mSATA SSD

2.3 Install Hardware

Insert M.2 SATA SSD, or mSATA , or CFast Card into S301F 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 port of GIGABYTE **Z170X UD5 TH**

2.4 BIOS & Windows 10 OS environment setup

2.4.1 Primary SSD Drive installs win10 64bit OS

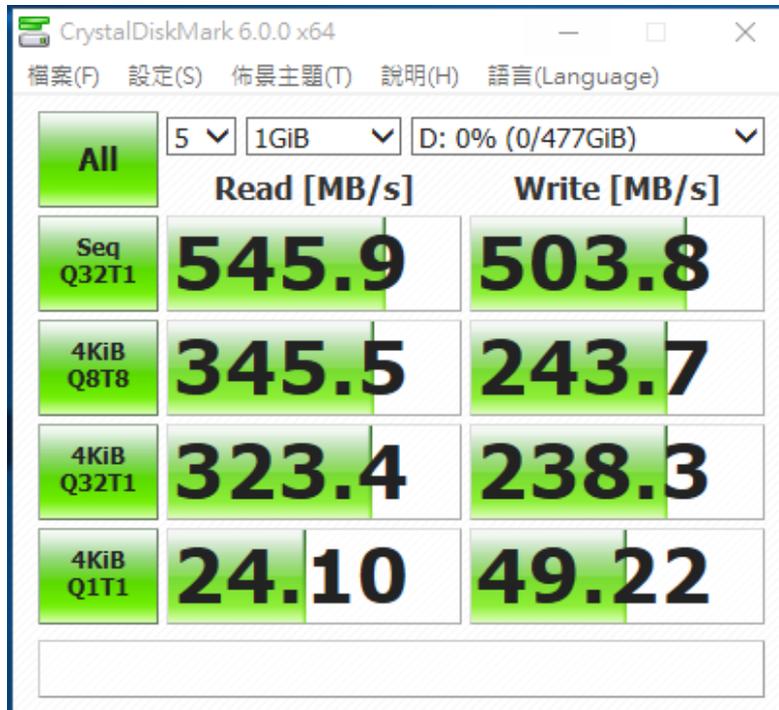
2.4.2 U4355F Enclosure is formatted to NTFS Mode. Don't install any program.

U4355F USB 3.1 Gen2 10Gbps Enclosure

2.5 CrystalDiskMark 6.0 x64 performance test

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

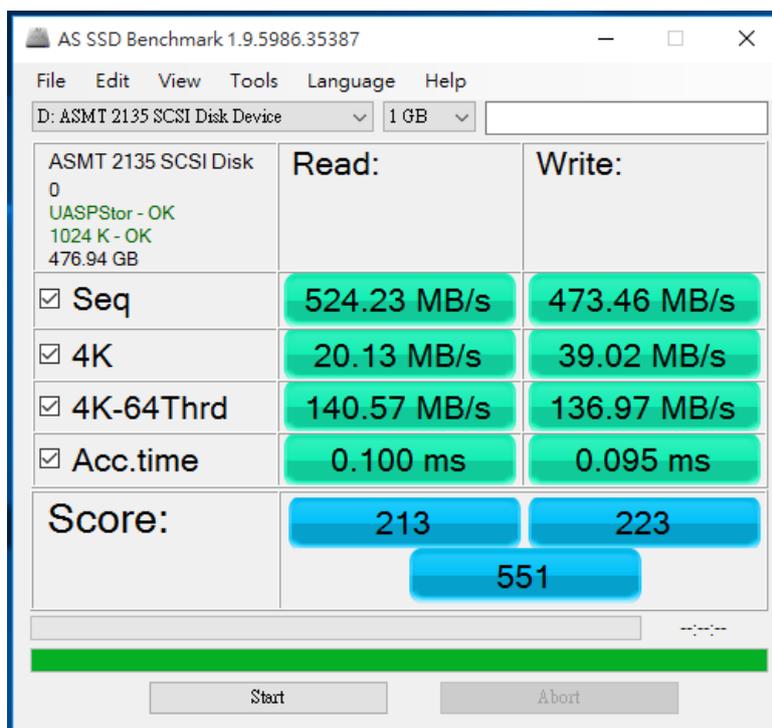
2.5.1 show [Micron 512GB \(MTFDDAT512MAY mSATA SSD\)](#) performance as below:



2.6 AS SSD Benchmark 1.9 performance test

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

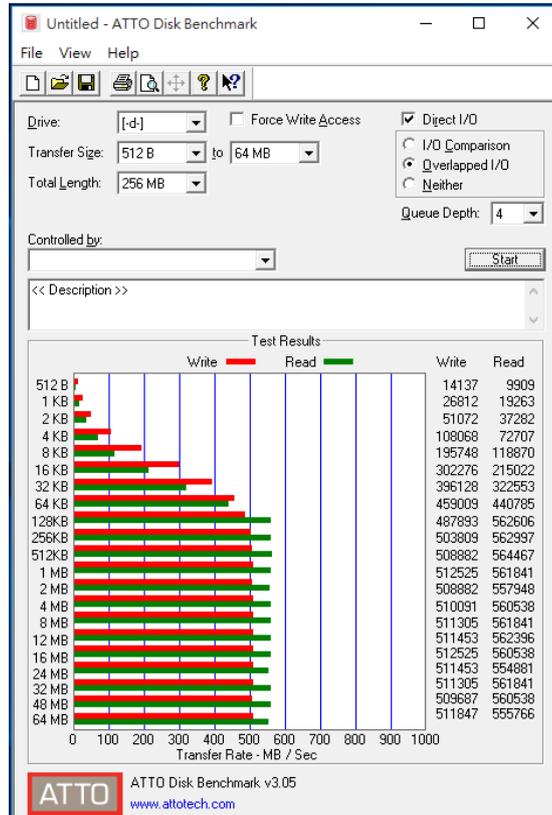
2.6.1 show [Micron 512GB \(MTFDDAT512MAY mSATA SSD\)](#) performance as below:



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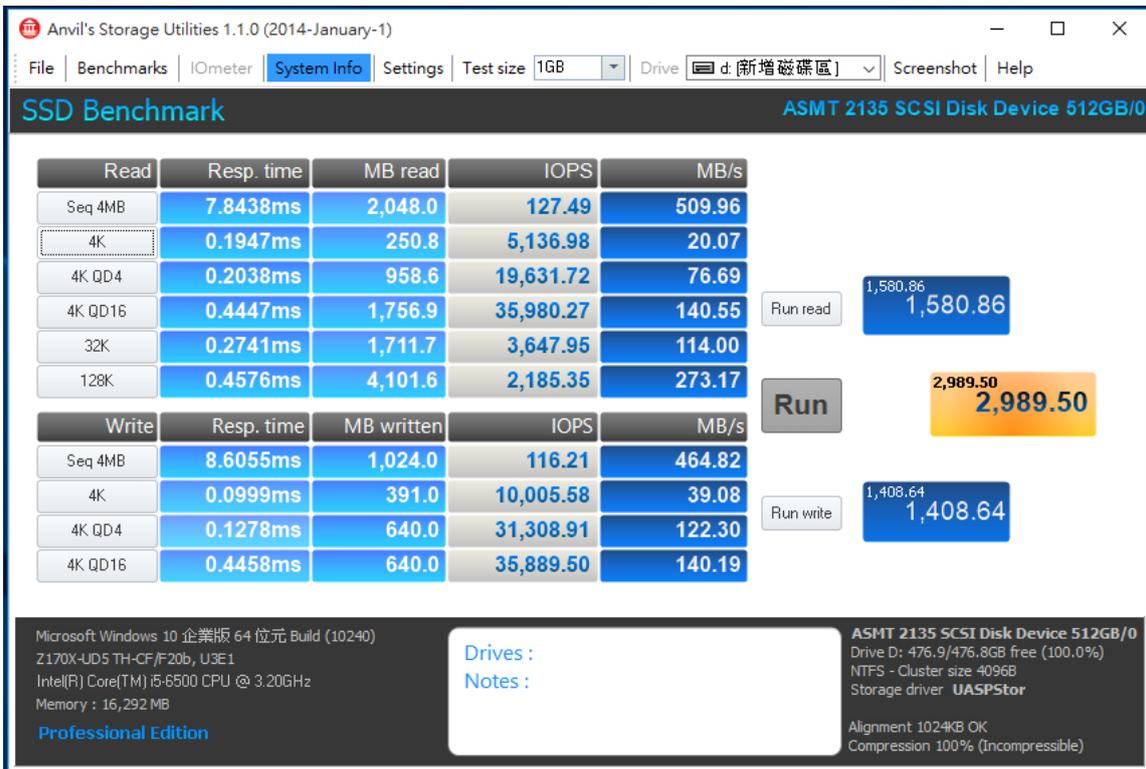
2.7 ATTO Disk Benchmark 3.05 performance test

2.7.1 show [Micron 512GB \(MTFDDAT512MAY mSATA SSD\)](#) performance as below:



2.8 AnvilBenchmark_V110_B337

2.8.1 show [Micron 512GB \(MTFDDAT512MAY mSATA SSD\)](#) performance as below:

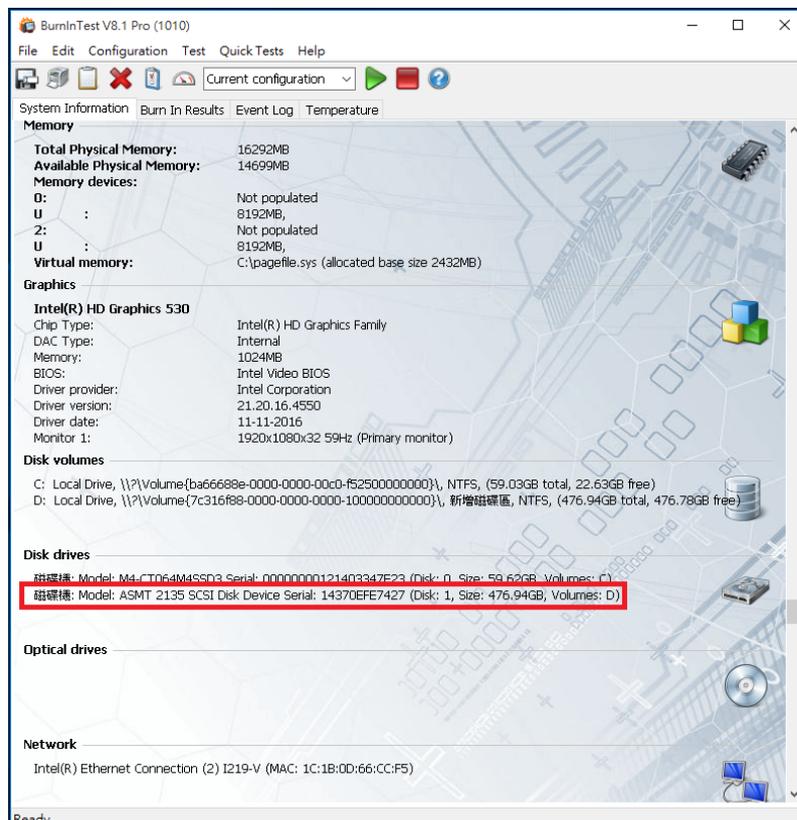
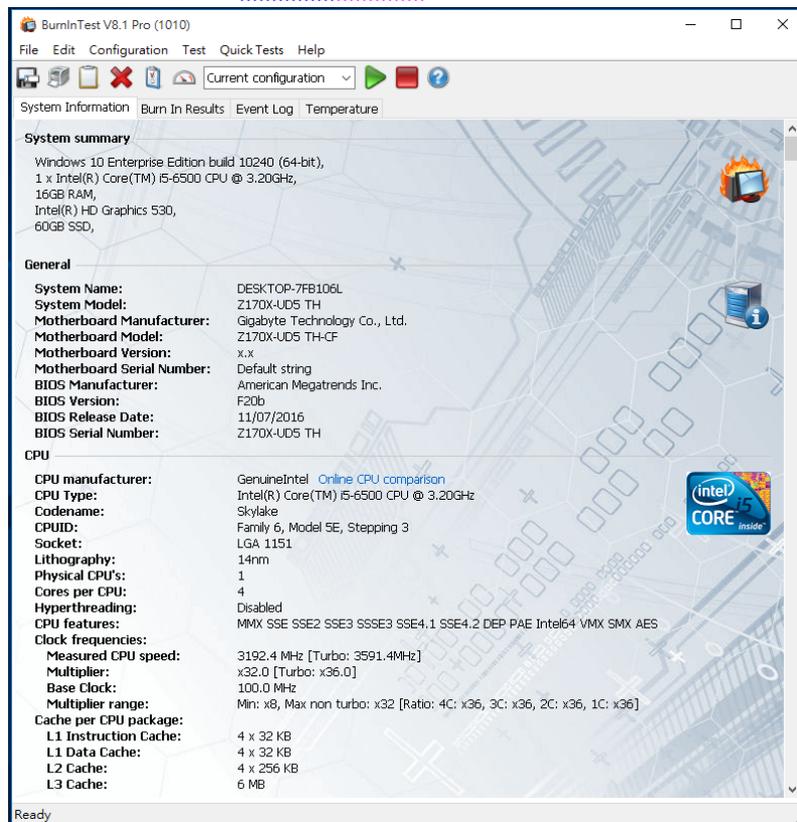


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3. Burn In Tests and Results

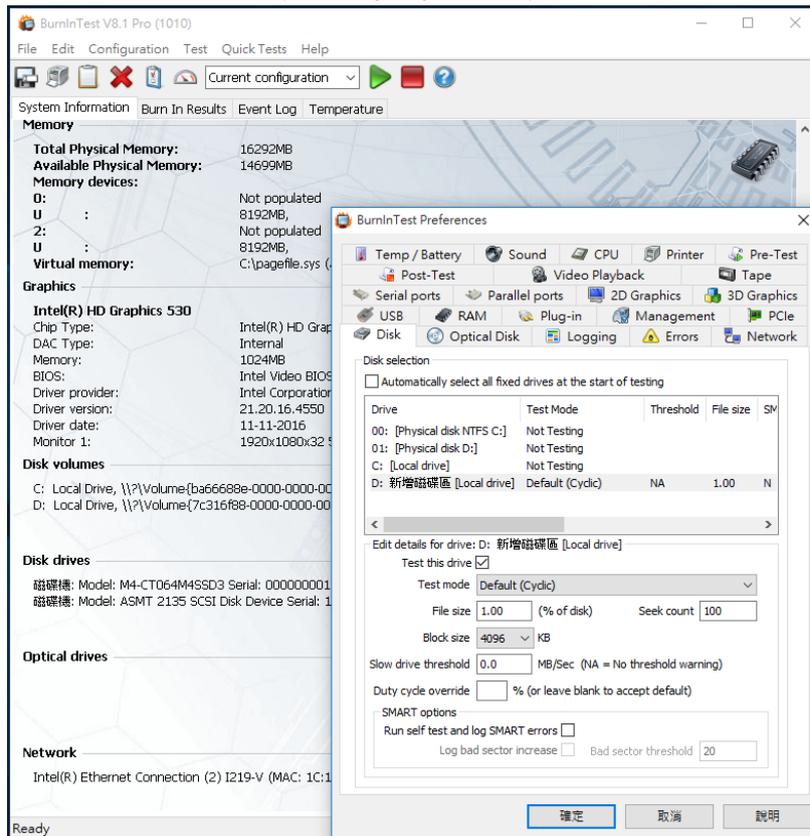
3.1 BurnInTest v8.1 Pro

3.1.1 system information for **mSATA 512GB** as below:

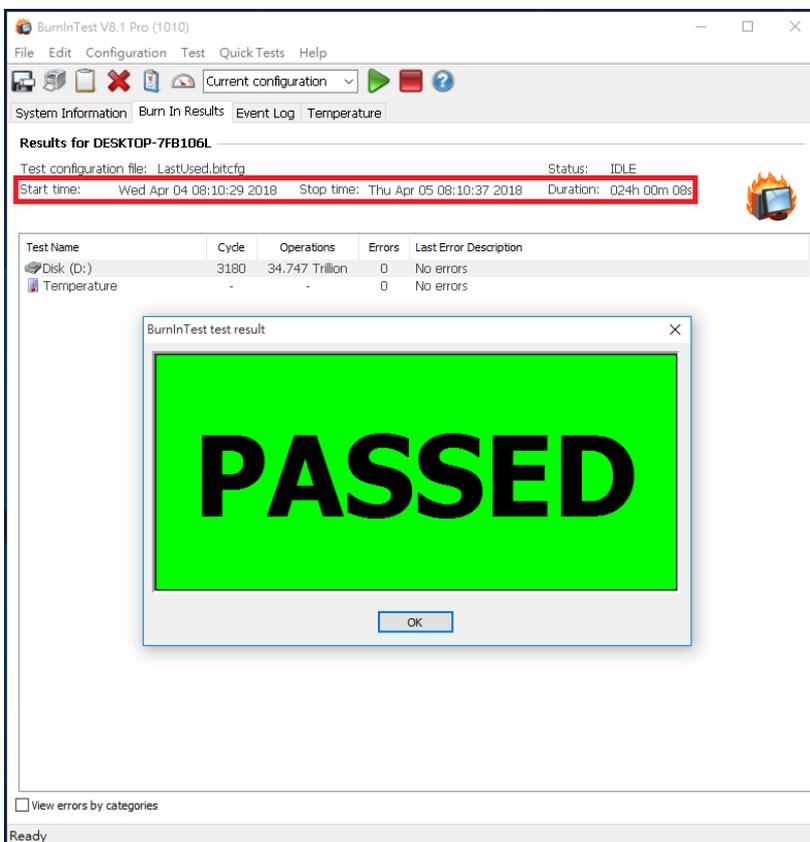


U4355F USB 3.1 Gen2 10Gbps Enclosure

3.1.2 show Disk test mode (10 ways cycle test)



3.1.3 show 24-hour Burn-in test PASSED



U4355F USB 3.1 Gen2 10Gbps Enclosure

4. Summary

- 4.1 mSATA SSD 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 mSATA SSD Card.