MINERVA

BU282F / Rev1.0   Converter Card

Performance & Burn In Test   Rev. 1.0

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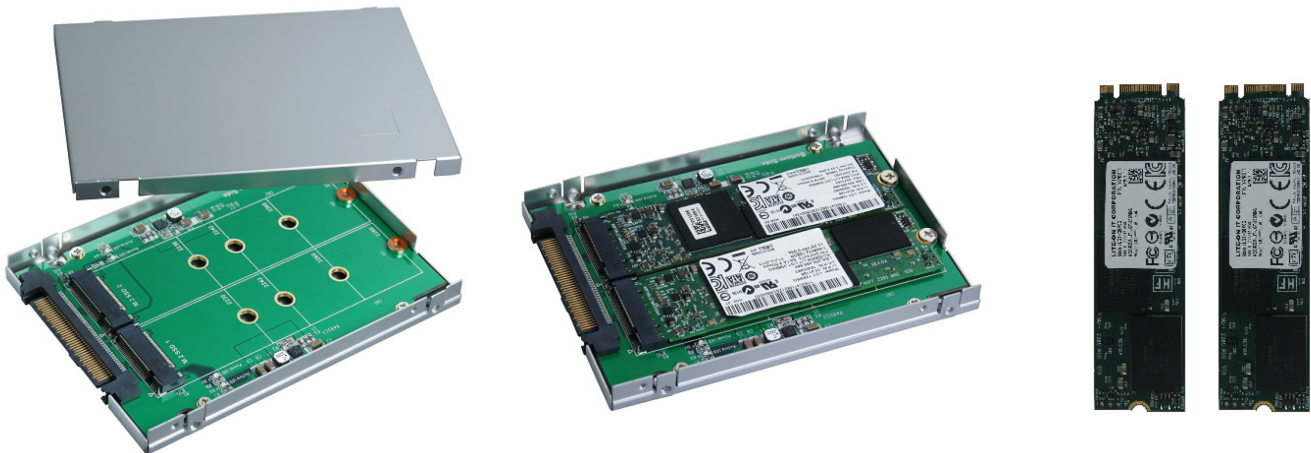# BU282F/Rev1.0   Converter Card

1. Overview

BU282F adapter, support M.2 B-key 2 ports connector to convert M.2 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: BU282F adapter and SSD(M.2 LITE-ON LGT-128M6G/128GB)

BU282F Adapter	BU282F + LGT-128M6G M.2 SSD x2	LGT-128M6G x2

2.3   Install Hardware

Insert M.2 SSD into BU282F converter's M.2 B-key , and then with coppers, and screws to fix SSDs. (Please refer to the Installation Notes). Connect BU282F converter to **SATA Express of ASRock Z170 Extreme 7+**.

2.4   BIOS & Windows 8.1 OS environment setup

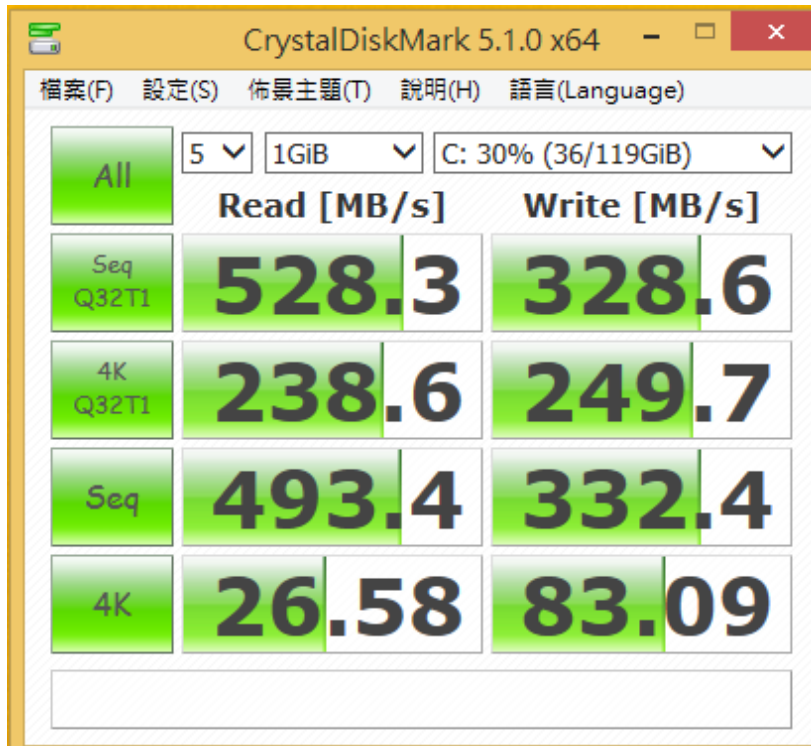2.4.1   One port installs win8.1 64bit OS

2.4.2   Another port formatted SSD to NTFS Mode. Don't install any program.
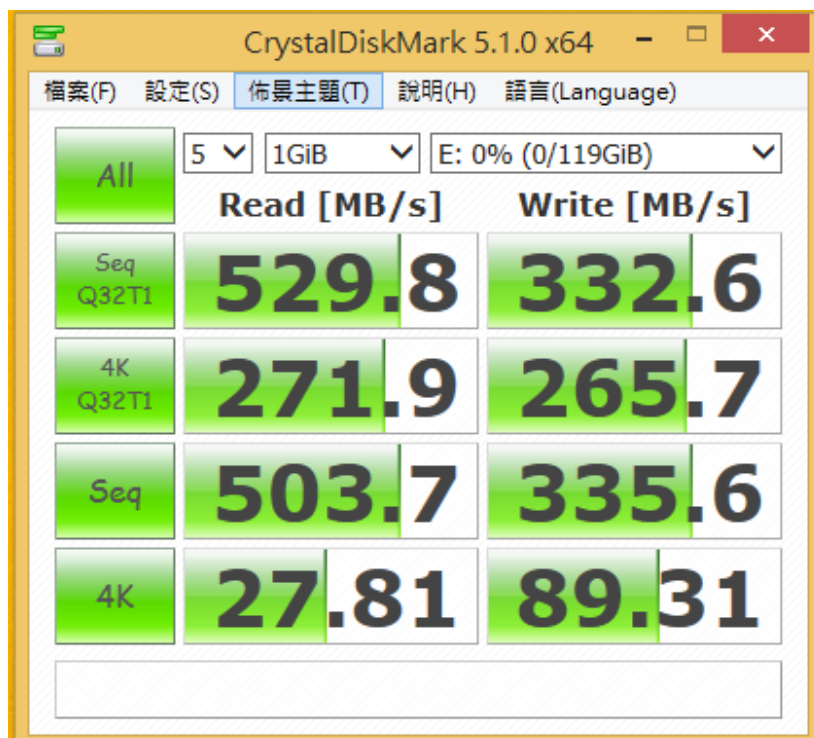
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2.5 CrystalDiskMark 5.1.0 x64 performance test

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

2.5.1 Used LITE-ON LGT-128M6G/128G **with** WIN 8.1 OS performance as below:

2.5.2 Used LITE-ON LGT-128M6G/128G **without** WIN 8.1 OS performance as below:
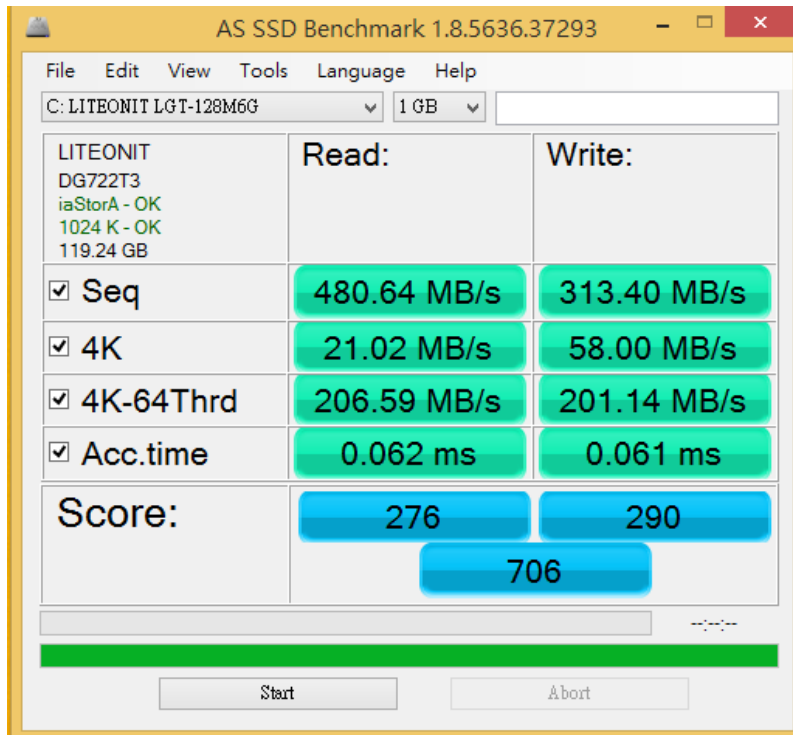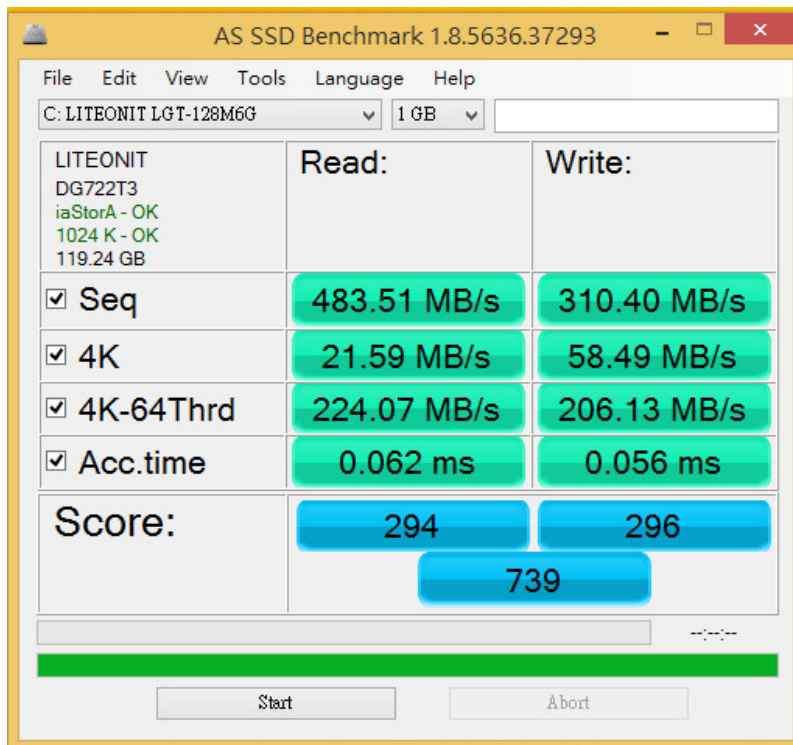
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2.6   AS SSD Benchmark 1.7 performance test

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

2.6.1   Used LITE-ON LGT-128M6G/128G **with** WIN 8.1 OS performance as below:
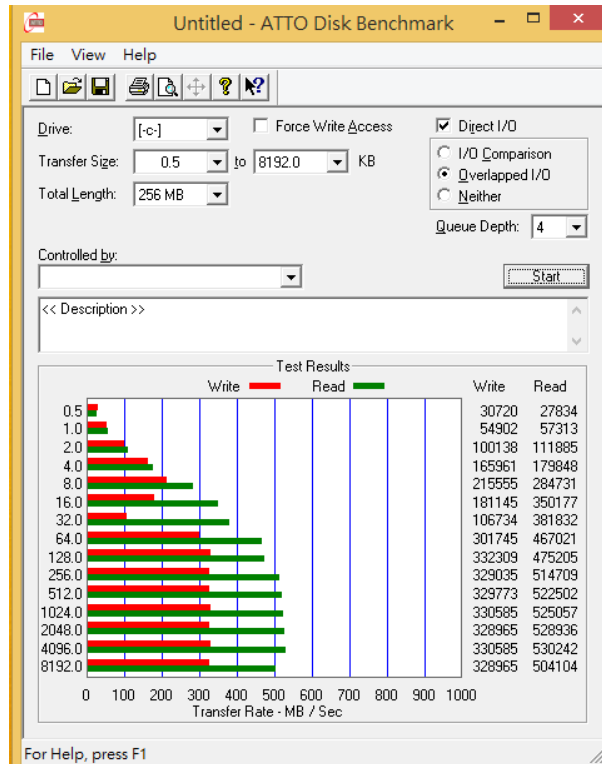

2.6.2   Used LITE-ON LGT-128M6G/128G **without** WIN 8.1 OS performance as below:
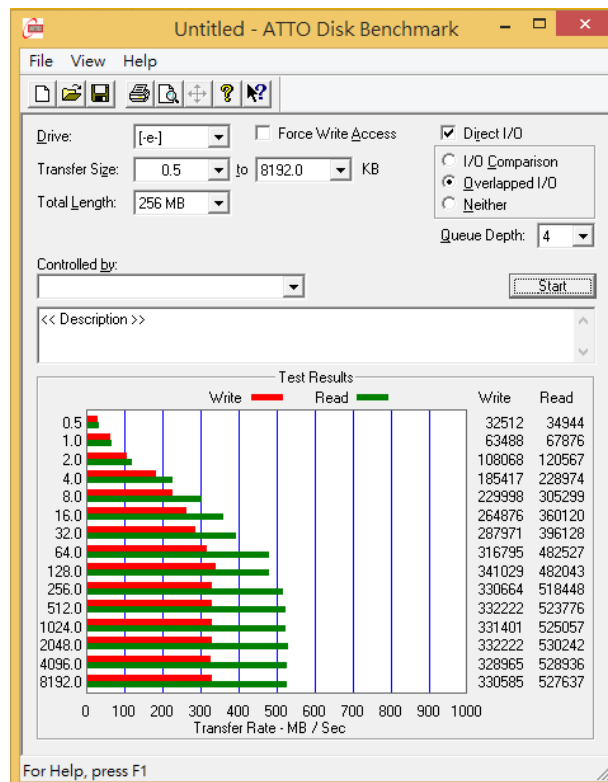
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2.7　ATTO Disk Benchamrk 2.47 performance test

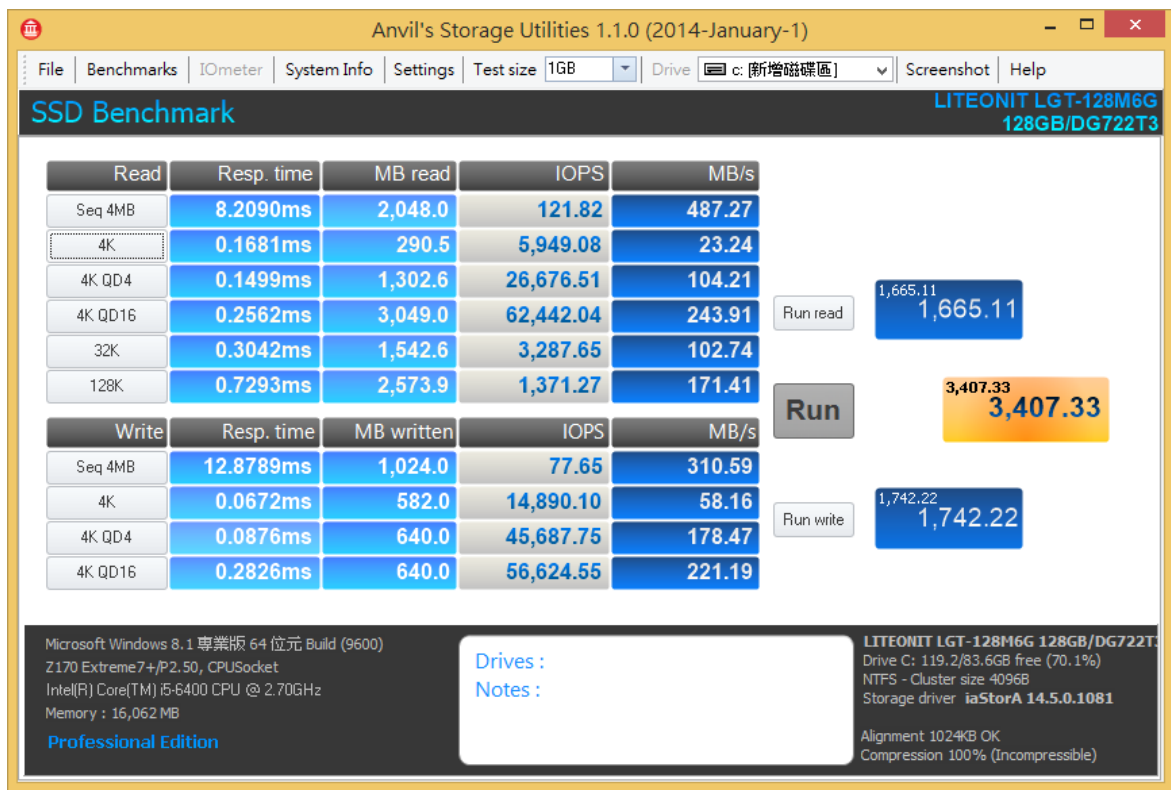　2.7.1　Used LITE-ON LGT-128M6G/128G **with** WIN 8.1 OS performance as below:

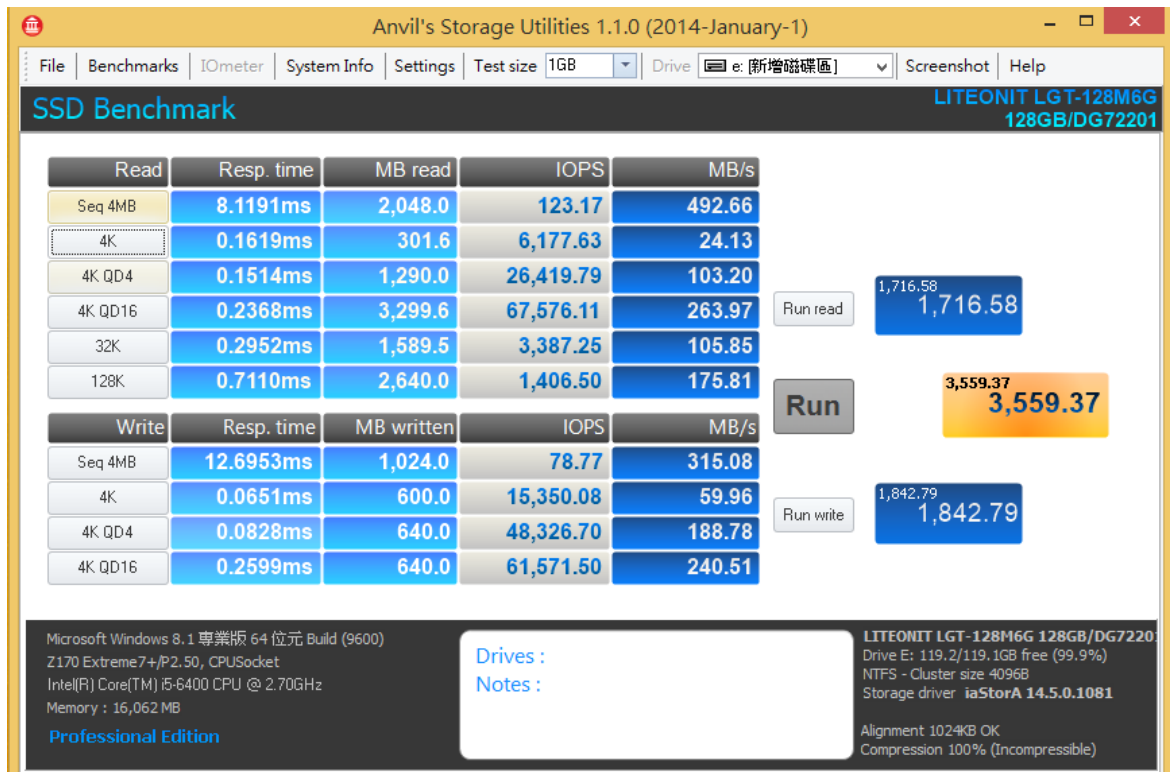　2.7.2　Used LITE-ON LGT-128M6G/128G **without** WIN 8.1 OS performance as below:

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2.8   AnvilBenchmark_V110_B337

2.8.1   Used LITE-ON LGT-128M6G/128G **with** WIN 8.1 OS performance as below:

2.8.2   Used LITE-ON LGT-128M6G/128G **without** WIN 8.1 OS performance as below:
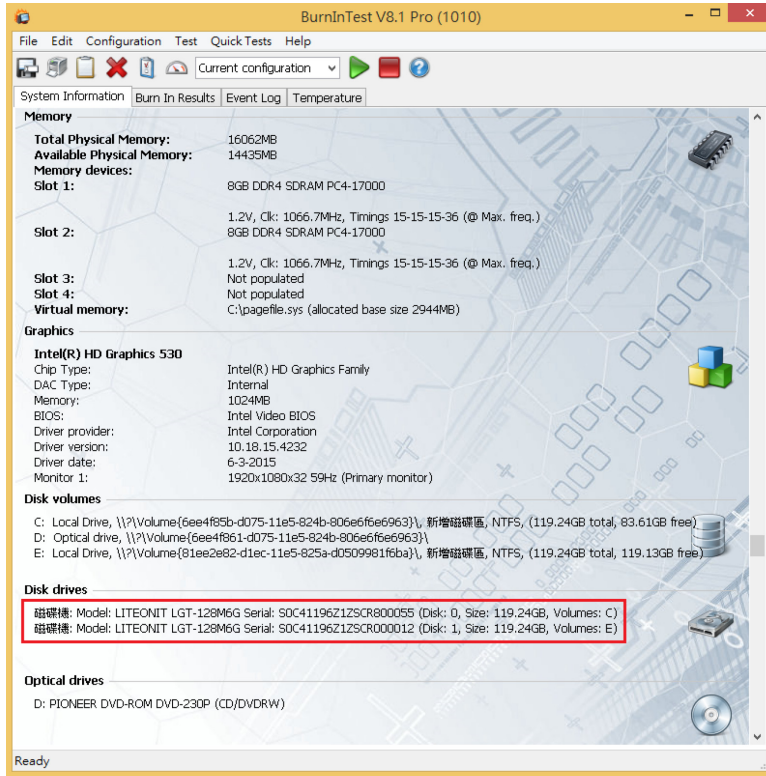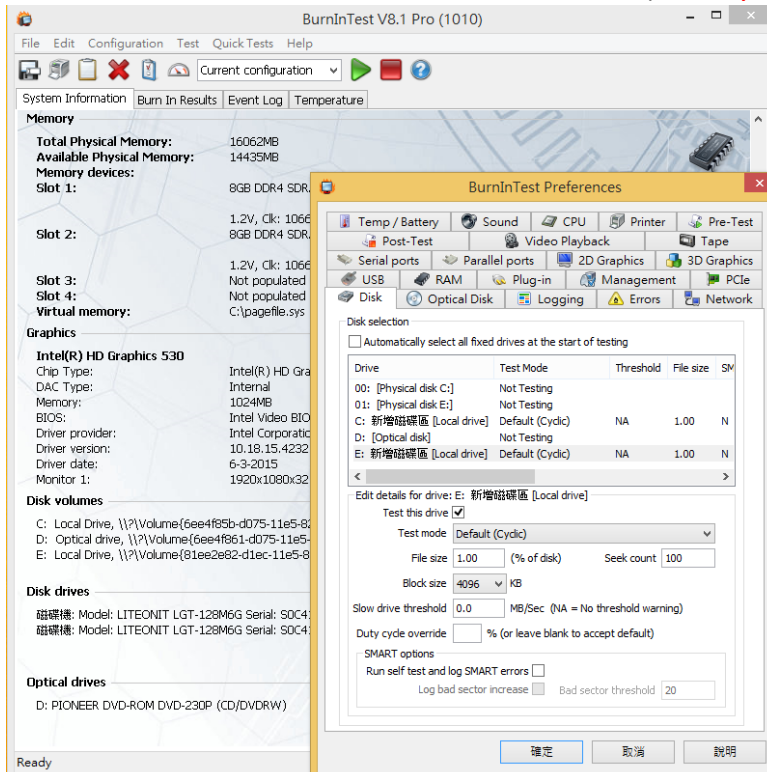
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3. Burn In Tests and Results

3.1   BurnInTest v8.1 Pro

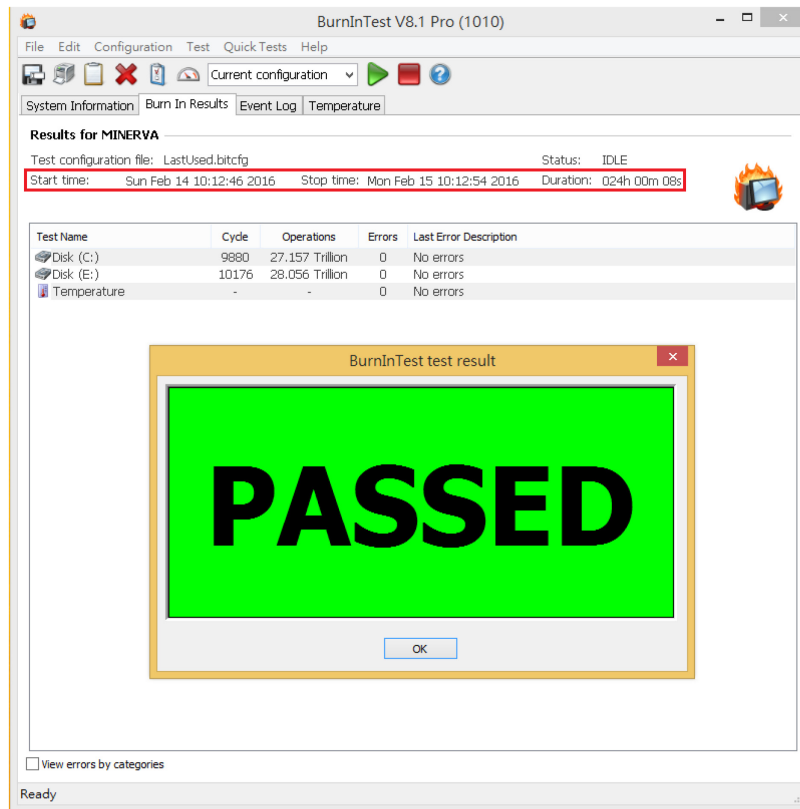#### 3.1.1   **system information** for LITE-ON LGT-128M6G/128G as below:

3.1.2   show LITE-ON LGT-128M6G/128G Disk test mode(10 ways cycle test)

3.1.3   show LITE-ON LGT-128M6G/128G 24-hour Burn-in test PASSED

4. Summary

4.1   M.2 SSD is SATA III Interface, I/O speed, max. to 600MB/s.

4.2   BU282F adapter I/O performance is based on M.2 SSD.