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UP BOARD WITH GOODRAM
mini mSATA 120GB BICS 3D NAND FLASH
mSATA 128GB MLC NAND FLASH
mSATA 256GB MLC NAND FLASH

Revision	Description	Date
01	First release	03/08/2017
02	Report updated with mSATA 128GB & 256GB MLC	14/09/2017

	Position	Name	Date	Signature
Prepared:	Laboratory Engineer	Grzegorz Linke	14/09/2017	
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1. Test purpose

Target of the test is to verify compatibility of AAEON UP board with GOODRAM:

- mini mSATA 120GB BICS 3D NAND FLASH
- mSATA 128GB MLC NAND FLASH
- mSATA 256GB MLC NAND FLASH


2. Test means

UP board (P/N: UP-CHT01-A10-0116), 1GB RAM, 16GB eMMC:




Power supply 5V, 400mA:



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UP USB2.0 to mSATA Converter Board



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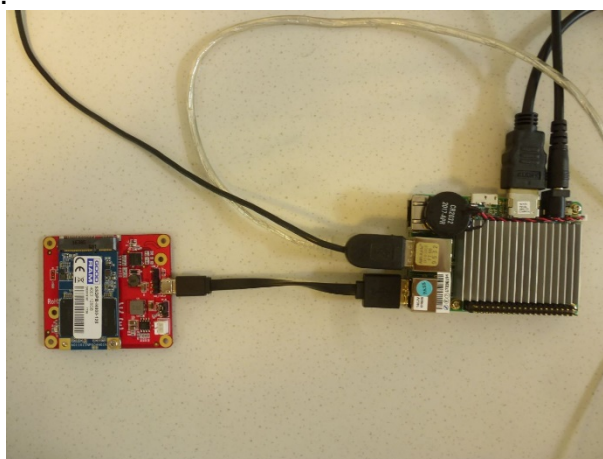
3. Test description

On customer device operating system Windows 8.1 64bit was installed. Due to device configuration (1GB RAM and 64bit BIOS) was no possible to check Windows 10 32/64 bits). SSD was installed into provided adapter and connected through USB port to device. Basic verification test was performed:

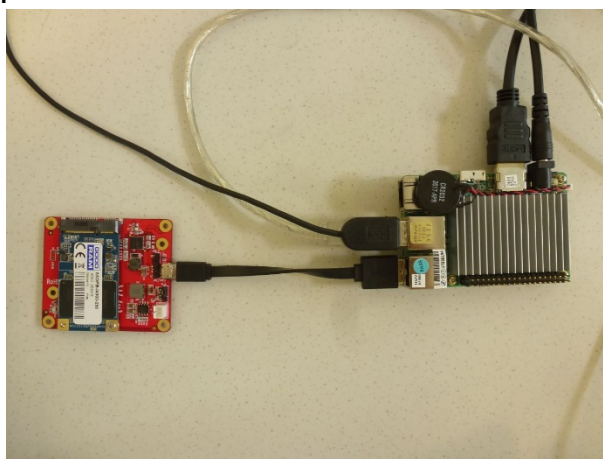
- SSD proper detection by system
- Write/Read functionality
- Transfer verification with benchmark programs.


4. Test setup (example photo)

mSATA 128GB MLC:



mSATA 256GB MLC:



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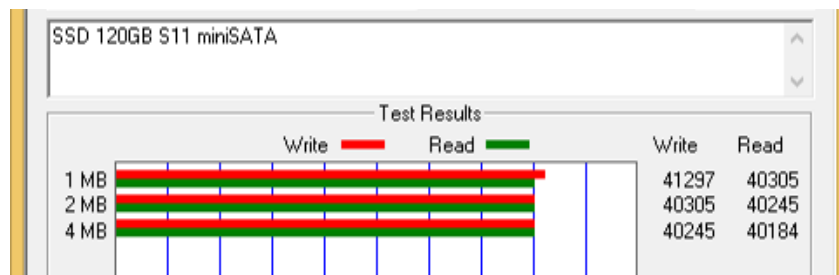
5. Test results

SSD was detected correctly by operating system (Windows 8.1 64bit) and works correctly (write/read files).

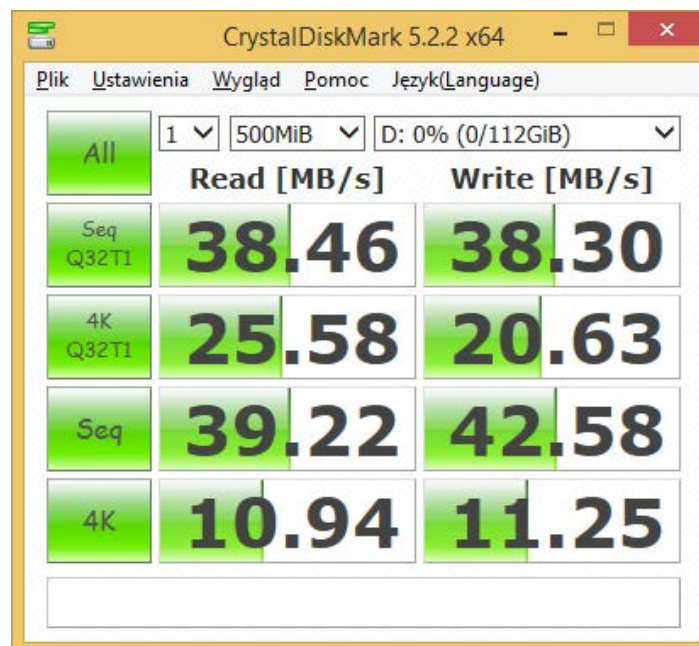
mini mSATA 120GB BICS 3D NAND FLASH


Maximum data transfer was limited by SATA adapter which works only in USB 2.0 standard.

ATTO: Disk Benchmark v3.05:



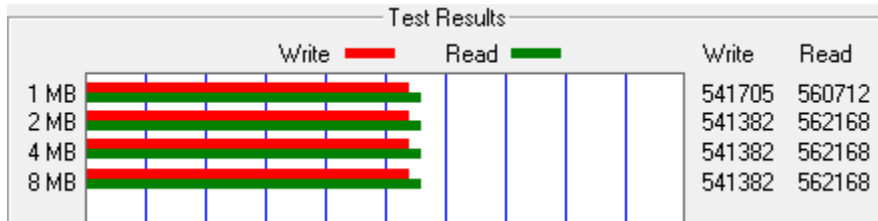
Crystal Disk Mark 5.2.2 x64:



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To compare Goodram preform test of SSD on platform where interface didn't limit transfer. Results are as below:

ATTO: Disk Benchmark v3.05:



Crystal Disk Mark 5.2.2 x64:

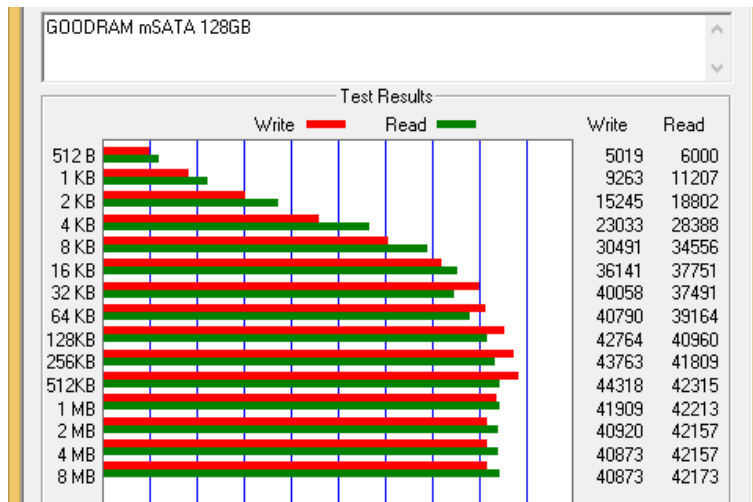
Seq Q32T1	559.0	453.8
4K Q32T1	294.2	333.1
Seq	514.2	453.2
4K	45.83	122.2

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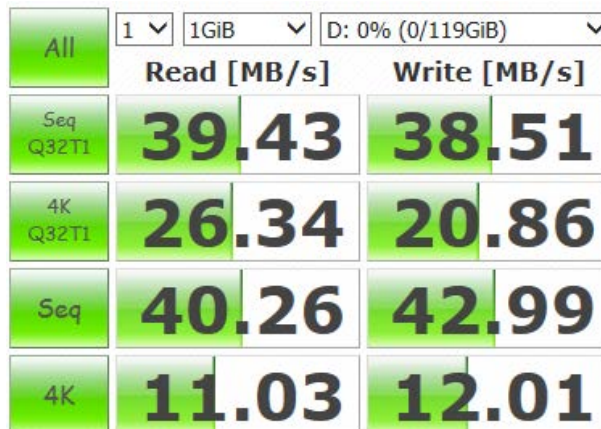
mSATA 128GB MLC NAND FLASH

Maximum data transfer was limited by SATA adapter which works only in USB 2.0 standard.

ATTO: Disk Benchmark v3.05:



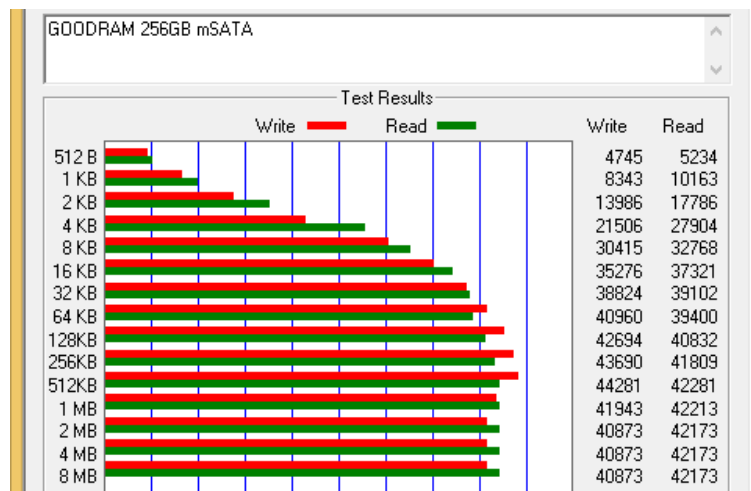
Crystal Disk Mark 5.2.2 x64:



mSATA 256GB MLC NAND FLASH

Maximum data transfer was limited by SATA adapter which works only in USB 2.0 standard.

ATTO: Disk Benchmark v3.05:



Crystal Disk Mark 5.2.2 x64:

