
LucidPort USB300Rev2-RDK

(USB3.0 to SATA II)

WDC Cavlar Green (3TB) and Blue (1TB)
Intel Ivy Bridge USB3.0 Host

Evaluation summary

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USB300Rev2-RDK(LucidPort) and Intel Ivy Bridge USB3.0 Host WDC 3TB(green) and 1TB(Blue)

- LucidPort USB3.0 to SATA-II controller chip
 - Board: USB300Rev2-RDK
 - Setup:
 - Systems Manufactures: Giga-Byte, Asus and Dell
 - OS: Windows WinXp, Win7 and Win8
 - USB3.0 Host chipsets:
 - Three (3) desktops with Renesas(NEC) host cards
 - OS: Win Xp, Win7 and Win8
 - Desktop with on board USB3.0 host chip
 - OS: Win7
 - Dell laptop computer with Renesas(NEC) USB3.0 (Express Card)
 - OS: Win8, Win7
 - Asus P8Z77-V with Intel IvyBridge chipset(two Intel USB3.0 ports and other USB3.0 host ports)
 - OS: Win7
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Summary

- Endurance Tests Pass
 - Average run-time is 48 hours, no errors
 - USB hot plug and play Pass
 - SATA-II hot plug and play Pass
 - Functional test Pass
 - In hours USB-IF test Pass
 - Performance results(Attachments)
 - Attachment#1: All Intel chipsets (non Ivy Bridge)
 - Attachment#2: Intel Ivy Bridge chipset computer
 - Ivy Bridge chipset and Intel CPU, Core i5.
 - When USB300Rev2-RDK connects to Ivy Bridge chipset's USB3.0 host ports, the speed of USB300Rev2-RDK is about 10% to 15% faster than USB300Rev2-RDK connecting to USB3.0 host ports which from non Ivy Bridge chipsets
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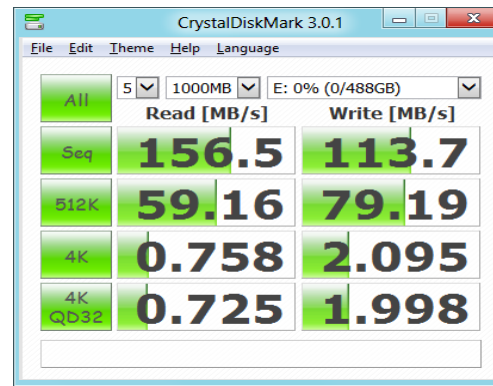
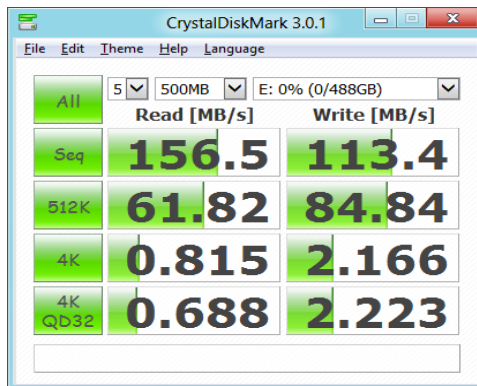
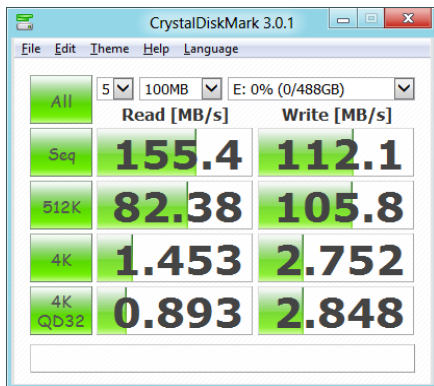
LucidPort USB300Rev2-RDK and Intel Ivy Bridge chip set USB3.0 host

WDC Cavlar
Green (3.0TB) and Blue (1.0TB)

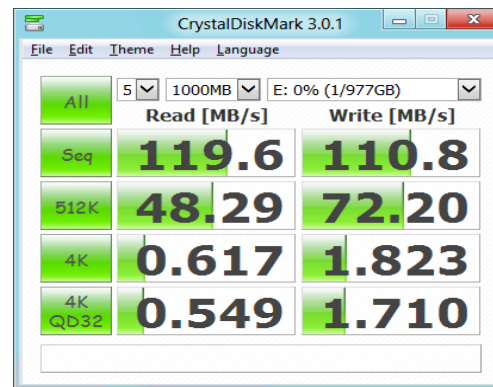
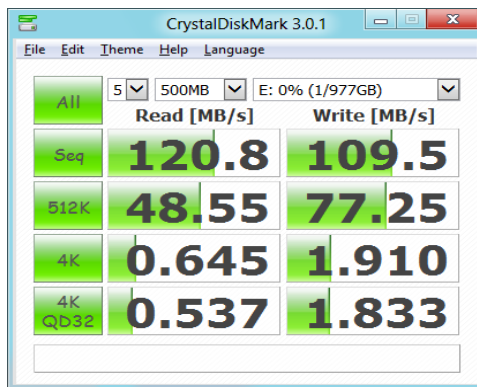
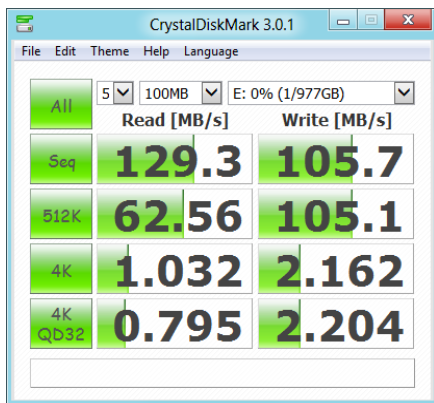
Note: 1. Win8 Customer Preview Release

- 2. Renesas (NEC) USB3.0 host slower CPU
- 3. LucidPort USB300Rev2-RDK, USB3.0 to SATA-II
- 4. Intel Chip set

Blue
(1.0TB)



Green
(3.0TB)



100M
B

500MB

1000MB

USB300Rev2-RDK
with WDC Cavlar (3TB, Green)

USB300Rev2-RDK

Performance results between Ivy Bridge vs other USB3.0 hosts

Intel Ivy
Bridge
USB3.0
software

	Read [MB/s]	Write [MB/s]
Seq	173.2	153.6
512K	74.42	124.4
4K	1.017	2.592
4K Qb32	1.026	2.319

	Read [MB/s]	Write [MB/s]
Seq	164.5	158.3
512K	52.05	95.67
4K	0.546	1.873
4K Qb32	0.611	1.992

	Read [MB/s]	Write [MB/s]
Seq	159.1	156.3
512K	49.00	92.21
4K	0.577	1.724
4K Qb32	0.514	1.694

Other
USB3.0
ports

	Read [MB/s]	Write [MB/s]
Seq	159.7	142.7
512K	69.50	119.7
4K	0.916	2.216
4K Qb32	0.921	2.268

Note: 1. Win7

2. Intel Ivy Bridge chip set with build in USB3.0 host,
plus other USB3.0 host ports (external chip)

3. LucidPort USB300Rev2-RDK, USB3.0 to SATA-II
4. Intel's USB3.0 port shows higher performance, 10%
to 15% higher than other USB3.0 Host

Intel's USB3.0 port shows
higher performance, 10% to
15% higher than other USB3.0
Host

100M
B

500MB

Attachment #2

1000MB