

1. Stability Test: Rev.011/0A1

1.1 CPU Test:

Procedure:

- (1) Install O.S.
- (2) Check CPU information & specification with CPU-Z.
- (3) Run 3DMark11 Demo Edition Ver.1.0.5 Benchmark - 3 times.
- (4) Check CPU temperature in the BIOS after running 3DMark.
- (5) Run S3/S4/S5 - 3 times.

No.	CPU	Type	CPU Temp.	Result
1	Intel / 3.5GHz	Core i7-4770K (Haswell/C0-SR147) / 84W / LGA1150	31 °C	Pass
2	Intel / 3.1GHz	Core i7-4770S (Haswell/C0-SR14H) / 65W / LGA1150	39 °C	Pass
3	Intel / 3.1GHz	Core i7-4770S (Haswell/H3-QE73) / 65W / LGA1150	43 °C	Pass
4	Intel / 2.3GHz	Core i7-4770TE (Haswell/C0-SR183) / 45W / LGA1150	31 °C	Pass
5	Intel / 2.0GHz	Core i7-4765T (Haswell/C0-SR14Q) / 35W / LGA1150	52 °C	Pass
6	Intel / 2.3GHz	Core i5-4670T (Haswell/C0-SR14P) / 45W / LGA1150	45 °C	Pass
7	Intel / 3.1GHz	Core i5-4670S (Haswell/C0-SR14K) / 65W / LGA1150	43 °C	Pass
8	Intel / 3.1GHz	Core i5-4670S (Haswell/H3-QE75) / 65W / LGA1150	47 °C	Pass
9	Intel / 3.4GHz	Core i5-4670K (Haswell/C0-SR14A) / 84W / LGA1150	36 °C	Pass
10	Intel / 2.7GHz	Core i5-4570TE (Haswell/C0-SR17Z) / 35W / LGA1150	33 °C	Pass
11	Intel / 2.7GHz	Core i5-4570TE (Haswell/C0-QEEH) / 35W / LGA1150	31 °C	Pass
12	Intel / 2.9GHz	Core i5-4570S (Haswell/C0-SR14J) / 65W / LGA1150	43 °C	Pass
13	Intel / 2.9GHz	Core i5-4570S (Haswell/H3-QE74) / 65W / LGA1150	43 °C	Pass
14	Intel / 2.3GHz	Xeon Processor E3-1268L V3 (Haswell/H3-QEEG) / 45W / LGA1150	34 °C	Pass

1.2 DDR3 Module Test:

Procedure:

- (1) Install O.S.
- (2) Check CPU information & specification with CPU-Z.
- (3) Run 3DMark11 Demo Edition Ver.1.0.5 BenchMark - 3 times.
- (4) RunS3/S4/S5 - 3 times.

No.	Brand	Chip	Size	Type	Chip Model No.	Vendor Part No.	Result
1	Apacer	Micron	8GB	PC3-12800 (DDR3L-1600)	2ED27-D9PCP	75.C93DK.G000C 1.35V/1.5V [512Mx8b-x16/1024Mx64b,CL=11]	Pass
2	Crucial	Micron	8GB	PC3-12800 (DDR3L-1600)	2REI7D9QBJ	CT102464BD160B.16FED(MT16KTF1G64AZ-1G6E1) 1.35V/1.5V [512Mx8b-x16/1024Mx64b,CL=11-11-11-30]	Pass
3	ACPIgroup	Hynix(SK)	8GB	PC3L-12800 (DDR3L-1600)	H5TC4G83AFR PBA	CMA5-4GA01AAL01A00 1.35V/1.5V [512Mx8b-x16/1Gx64b,CL=9]	Pass
4	Apacer	Hynix	4GB	PC3-12800 (DDR3-1600)	H5TQ2G83BFR PBC	78.B1GE3.AF10C 1.5V [256Mx8b-x16/512Mx64b,CL=11]	Pass
5	Hynix	Hynix	4GB	PC3-12800 (DDR3-1600)	H5TQ2G83BFR PBC	HMT351U6BFR8C-PBNO 1.5V [256Mx8b-x16/512Mx64b,CL=11]	Pass
6	Apacer	Hynix	4GB	PC3-12800 (DDR3-1600)	H5TC2G83EFR PBA	75.B83DE.G030C 1.5V [256Mx8b-x16/512Mx64b,CL=11]	Pass
7	INNODISK	Micron	4GB	PC3-12800 (DDR3L-1600)	1WM77-D9PFJ	M3UP-4GMJAL0C-M 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=9]	Pass
8	Apacer	Micron	4GB	PC3-12800 (DDR3L-1600)	2DM77-D9PFJ	75.B83DK.G000C 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=11]	Pass
9	ACPIgroup	Hynix(SK)	4GB	PC3L-12800 (DDR3L-1600)	H5TC4G83AFR PBA	CMA5-4FA01AAL01A00 1.35V/1.5V [512Mx8b-x8/512Mx64b,CL=9]	Pass
10	Hynix	Hynix	2GB	PC3-12800 (DDR3-1600)	H5TQ2G83BFR PBC	HMT325U6BFR8C-PBNO 1.5V [256Mx8b-x8/256Mx64b,CL=11]	Pass
11	Apacer	Hynix	2GB	PC3-12800 (DDR3-1600)	H5TC2G83EFR PBA	75.A83DE.G020C 1.5V [256Mx8b-x8/256Mx64b,CL=11]	Pass
12	ACPIgroup	Hynix	2GB	PC3-12800 (DDR3-1600)	H5TQ2G83EFR PBC	CMA4-4E801AAR01E00 1.5V [256Mx8b-x8/256Mx64b,CL=11]	Pass
13	INNODISK	Micron	2GB	PC3-12800 (DDR3L-1600)	1WM77-D9PFJ	M3UP-2GMJBL0C-M 1.35V/1.5V [256Mx8b-x8/256Mx64b,CL=9]	Pass
14	ACPIgroup	Hynix(SK)	2GB	PC3L-12800 (DDR3L-1600)	H5TC2G83EFR PBA	CMA5-4E801AAL01E001.35V/1.5V [256Mx8b-x8/256Mx64b,CL=9]	Pass

15	Transcend	Micron	8GB	PC3-10600 (DDR3-1333)	1ZD27-D9PBC/2CD27-DP9BC	TS1GLK64V3H 1.5V [512Mx8b-x16/1Gx64b,CL=9]	Pass
16	Kingston	Hynix	4GB	PC3-10600 (DDR3-1333)	H5TQ2G83BFR H9C	KVR1333D3N9/4G 1.5V [256Mx8b-x16/512Mx64b,CL=9]	Pass
17	Transcend	SEC	4GB	PC3-10600 (DDR3-1333)	K4B2G0846D	TS512MLK64V3N 1.5V [256Mx8b-x16/512Mx64b,CL=9]	Pass
18	Transcend	Hynix	4GB	PC3-10600 (DDR3-1333)	H5TQ2G83CFR PBC	TS512MLK64V3N 1.5V [256Mx8b-x16/512Mx64b,CL=9]	Pass
19	Apacer	ELPIDA	4GB	PC3-10600 (DDR3L-1333)	J2108ECSE-DJ-F	78.B1GEG.4210C 1.35V [256Mx8b-x16/512Mx64b,CL=9]	Pass



No.	Brand	Chip	Size	Type	Chip Model No.	Vendor Part No.	Result
20	Transcend	SEC	2GB	PC3-10600 (DDR3-1333)	K4B1G0846D	TS256MLK64V3U 1.5V [128Mx8b/256Mx64b,CL=7]	Pass
21	ADATA	ADATA	2GB	PC3-10600 (DDR3-1333)	AD30908C8D-151G	AD31333002GOU(AD63I1B16) 1.5V±0.75 [2GX16,CL=9]	Pass
22	Elixir	Elixir	2GB	PC3-10600 (DDR3-1333)	M2Y2G64CB8HA9N-CG 1.5V	M2Y2G64CB8HA9N-CG 1.5V [256Mx64b,CL=9-9-9-25]	Pass
23	INNODISK	Hynix	2GB	PC3-10600 (DDR3-1333)	H5TQ1G83BFR H9C	M3UN-2GHFAC09-B 1.5V [128Mx8b/256Mx64b]	Pass
24	Apacer	Hynix	2GB	PC3-10600 (DDR3-1333)	H5TQ2G83BFR H9C	78.A1GDE.AF00C 1.5V [256Mx8b-x8/256Mx64b,CL=9]	Pass
25	DSL	Hynix	2GB	PC3-10600 (DDR3-1333)	H5TQ2G83BFR H9C	D3UH56081XH15AA 1.5V [256Mx8b-x8/256Mx64b,CL=9]	Pass
26	Transcend	ELPIDA	2GB	PC3-10600 (DDR3-1333)	J1108BDBG-DJ-F	TS256MLK64V3U 1.5V [128Mx8b-x16/256Mx64b,CL=9]	Pass
27	Crucial	Micron	2GB	PC3-10600 (DDR3-1333)	MT8JTF25664AZ-1G4D1	CT25664BA1339.8FD 1.5V [256Mx8b-x8/256Mx64b,CL=9]	Pass
28	Apacer	ELPIDA	1GB	PC3-10600 (DDR3-1333)	J1108BABG-DJ-E	AP1024UT1K2N 1.5V	Pass
29	Transcend	ELPIDA	1GB	PC3-10600 (DDR3-1333)	J1108BASE-DJ-E	TS128MLK64V3U 1.5V [128Mx8b/128Mx64b,CL=9]	Pass
30	Kingston	ELPIDA	1GB	PC3-10600 (DDR3-1333)	J1108BABG-DJ-E	KVR1333D3N9/1G 1.5V	Pass
31	ADATA	ADATA	1GB	PC3-10600 (DDR3-1333)	AD30908C8D-151G	AD313330021OU(AD63I1A08) 1.5V±0.75 [1GX8,CL=9]	Pass
32	DSL	Hynix	1GB	PC3-10600 (DDR3-1333)	H5TQ1G83BFR H9C	D3UH28081XH15AA 1.5V [128Mx8b-*8/128Mx64b,CL=9]	Pass
33	Apacer	Hynix	1GB	PC3-10600 (DDR3-1333)	H5TQ1G83BFR H9C	78.01GC6.AF0 1.5V [128Mx8b-x8/128Mx64b,CL=9]	Pass
34	Transcend	SEC	1GB	PC3-10600 (DDR3-1333)	K4B1G0846G	TS128MLK64V3U 1.5V [128Mx8b-x8/128Mx64b,CL=9]	Pass
35	ACPIgroup	Hynix	1GB	PC3-10600 (DDR3-1333)	H5TQ1G83DFR H9C	CMA4-3D501AAR01D001.5V [128Mx8b-x8/128Mx64b,CL=9]	Pass
36	Transcend	SEC	2GB	PC3-8500 (DDR3-1066)	K4B1G0846D	TS256MLK64V1U 1.5V [128Mx8b/256Mx64b,CL=7-7-7]	Pass



37	INNODISK	Hynix	2GB	PC3-8500 (DDR3-1066)	H5TQ1G83BFR H9C	M3UN-2GHFACM7-B 1.5V [128Mx8b/256Mx64b]	Pass
38	Hynix	Hynix	2GB	PC3-8500 (DDR3-1066)	H5TQ2G83BFR-G7C	HMT325U6BFR8C-G7 1.5V [256Mx8b-8/256Mx64b,CL=7]	Pass
39	ADATA	ELPIDA	1GB	PC3-8500 (DDR3-1066)	J1108BABG-DJ-E	SU3U1066B1G7-B 1.5V [1Gx8,CL=7]	Pass



1.3 DDR3 Module Test Procedures:

Procedure:

- (1) Install O.S.**
- (2) Check CPU information & specification with CPU-Z.**
- (3) Run 3DMark11 Demo Edition Ver.1.0.5 BenchMark - 3 times.**
- (4) RunS3/S4/S5 - 3 times.**

No.	DDR3 Module	Test Environment	3DMark Score	Result
1	Apacer (75.C93DK.G000C 1.35V/1.5V) [512Mx8b-x16/1024Mx64b,CL=11] / Micron (2ED27-D9PCP) / PC3-12800 (DDR3L-1600) / 8GB *4	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C2/BSD240200010) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i7-4770S (Haswell/C0-SR14H) / 3.1GHz DIMM Slot: DIMM-1/2/3/4 (Dual channel) SATA HDD: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 64Bit (English) & SP1	P1422	Pass
2	Crucial (CT102464BD160B.16FED (MT16KTF1G64AZ-1G6E1) 1.35V/1.5V) [512Mx8b-x16/1024Mx64b, CL=11-11-11-30] / Micron (2REI7D9QBJ) / PC3-12800 (DDR3L-1600) / 8GB *2	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i5-4570S (Haswell/C0-SR14J) / 2.9GHz DIMM Slot: DIMM-2/4 (Dual channel) SATA HDD: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM Display: On Board DVD-ROM: Pioneer / DVD-231DW 18X SATA Power: Jagier / KY-580ATX 480W O.S.: Windows 7 Ultimate 64Bit (English) & SP1	P1260	Pass



<p>3</p>	<p>ACPIgroup (CMA5-4GA01AAL01A00 1.35V/1.5V) [512Mx8b-x16/1Gx64b,CL=9] / Hynix(SK) (H5TC4G83AFR PBA) / PC3L-12800 (DDR3L-1600) / 8GB *4</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C2/BSD240200010) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i5-4570TE (Haswell/C0-SR17Z) / 2.7GHz DIMM Slot: DIMM-1/2/3/4 (Dual channel) SATA HDD: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 64Bit (English) & SP1 Test Summary: Overnight looping under 24 hours</p>	<p>P776</p>	<p>Pass</p>
<p>4</p>	<p>Apacer (78.B1GE3.AF10C 1.5V) [256Mx8b-x16/512Mx64b,CL=11] / Hynix (H5TQ2G83BFR PBC) / PC3-12800 (DDR3-1600) / 4GB *1</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i5-4670S (Haswell/C0-SR14K) / 3.1GHz CPU: DIMM-2 (Single channel) DIMM Slot: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM SATA HDD: On Board Display: Pioneer / DVD-231DW 18X SATA DVD-ROM: Delta / GPS-500BB 500W Power: Windows 8 Enterprise 32Bit (English) O.S.:</p>	<p>P1153</p>	<p>Pass</p>



No.	DDR3 Module	Test Environment	3DMark Score	Result
5	Hynix (HMT351U6BFR8C-PBNO 1.5V) [256Mx8b-x16/512Mx64b,CL=11] / Hynix (H5TQ2G83BFR PBC) / PC3-12800 (DDR3-1600) / 4GB *1	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i5-4570S (Haswell/H3-QE74) / 2.9GHz DIMM Slot: DIMM-3 (Single channel) SATA HDD: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM Display: On Board DVD-ROM: Pioneer / DVD-231DW 18X SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 64Bit (English)	P1127	Pass
6	INNODISK (M3UP-4GMJAL0C-M 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=9] / Micron (1WM77-D9PFJ) / PC3-12800 (DDR3L-1600) / 4GB *2	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C2/BSD240200010) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i7-4770TE (Haswell/C0-SR183) / 2.3GHz CPU: DIMM-2/4 (Dual channel) DIMM Slot: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM SATA HDD: On Board Display: Lite-On / iHAS324-U32D SATA DVD-RW: Delta / GPS-500BB 500W Power: Windows 7 Ultimate 64Bit (English) & SP1 O.S.:	P1146	Pass
7	Apacer (75.B83DK.G000C 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=11] / Micron (2DM77-D9PFJ) / PC3-12800 (DDR3L-1600) / 4GB *4	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C2/BSD240200010) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i7-4770S (Haswell/C0-SR14H) / 3.1GHz CPU: DIMM-1/2/3/4 (Dual channel) DIMM Slot: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM SATA HDD: On Board Display: Lite-On / iHAS324-U32D SATA DVD-RW: Delta / GPS-500BB 500W Power: Windows 8 Enterprise 64Bit (English) O.S.:	P1427	Pass

<p>8</p>	<p>ACPIgroup (CMA5-4FA01AAL01A00 1.35V/1.5V) [512Mx8b-x8/512Mx64b,CL=] / Hynix(SK) (H5TC4G83AFR PBA) / PC3L-12800(DDR3L-1600) / 4GB*4</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C2/BSD240200010) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i7-4770TE (Haswell/C0-SR183) / 2.3GHz DIMM Slot: DIMM-1/2/3/4 (Dual channel) SATA HDD: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 64Bit (English)</p>	<p>P1134</p>	<p>Pass</p>
<p>9</p>	<p>Hynix (HMT325U6BFR8C-PBNO 1.5V) [256Mx8b-x8/256Mx64b,CL=11] / Hynix (H5TQ2G83BFR PBC) / PC3-12800 (DDR3-1600) / 2GB *4</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i5-4670S (Haswell/H3-QE75) / 3.1GHz CPU: DIMM-1/2/3/4 (Dual channel) DIMM Slot: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM SATA HDD: On Board Display: Pioneer / DVD-231DW 18X SATA DVD-ROM: Delta / GPS-500BB 500W Power: Windows 8 Enterprise 64Bit (English) O.S.:</p>	<p>P1354</p>	<p>Pass</p>



No.	DDR3 Module	Test Environment	3DMark Score	Result
10	Apacer (75.A83DE.G020C 1.5V) [256Mx8b-x8/256Mx64b,CL=11] / Hynix (H5TC2G83EFR PBA) / PC3-12800 (DDR3-1600) / 2GB *4	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i5-4570S (Haswell/C0-SR14J) / 2.9GHz CPU: DIMM-1/2/3/4 (Dual channel) DIMM Slot: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM SATA HDD: On Board Display: Pioneer / DVD-231DW 18X SATA DVD-ROM: Delta / GPS-500BB 500W Power: Windows 8 Enterprise 64Bit (English) O.S.:	P1304	Pass
11	ACPIgroup (CMA4-4E801AAR01E00 1.5V) [256Mx8b-x8/256Mx64b,CL=11] / Hynix (H5TQ2G83EFR PBC) / PC3-12800 (DDR3-1600) / 2GB *4	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C2/BSD240200010) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Xeon Processor E3-1268L V3 (Haswell/H3-QEEG) / 2.3GHz DIMM Slot: DIMM-1/2/3/4 (Dual channel) SATA HDD: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 64Bit (English) & SP1	P1067	Pass
12	INNODISK (M3UP-2GMJBL0C-M 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Micron (1WM77-D9PFJ) / PC3-12800 (DDR3L-1600) / 2GB *2	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i5-4570S (Haswell/C0-SR14J) / 2.9GHz DIMM Slot: DIMM-1/3 (Dual channel) SATA HDD: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM Display: On Board DVD-ROM: Pioneer / DVD-231DW 18X SATA Power: Jagier / KY-580ATX 480W O.S.: Windows 7 Ultimate 32Bit (English) & SP1	P1234	Pass

<p>13</p>	<p>ACPIgroup (CMA5-4E801AAL01E001.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Hynix(SK) (H5TC2G83EFR PBA) / PC3L-12800(DDR3L-1600) / 2GB*4</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i5-4570S (Haswell/C0-SR14J) / 2.9GHz CPU: DIMM-1/2/3/4 (Dual channel) DIMM Slot: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM SATA HDD: On Board Display: Pioneer / DVD-231DW 18X SATA DVD-ROM: Jagier / KY-580ATX 480W Power: Windows 7 Ultimate 64Bit (English) & SP1 O.S.:</p>	<p>P1261</p>	<p>Pass</p>
<p>14</p>	<p>Transcend (TS1GLK64V3H 1.5V) [512Mx8b-x16/1Gx64b,CL=9] / Micron (1ZD27-D9PBC/2CD27-DP9BC) / PC3-10600 (DDR3-1333) / 8GB *1</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i5-4670K (Haswell/C0-SR14A) / 3.4GHz CPU: DIMM-2 (Single channel) DIMM Slot: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM SATA HDD: On Board Display: Pioneer / DVD-231DW 18X SATA DVD-ROM: Delta / GPS-500BB 500W Power: Windows 7 Ultimate 64Bit (English) & SP1 O.S.: Test Overnight looping under 24 hours Summary:</p>	<p>P1080</p>	<p>Pass</p>



No.	DDR3 Module	Test Environment	3DMark Score	Result
15	Kingston (KVR1333D3N9/4G 1.5V) [256Mx8b-x16/512Mx64b,CL=9] / Hynix (H5TQ2G83BFR H9C) / PC3-10600 (DDR3-1333) / 4GB *4	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i5-4570S (Haswell/C0-SR14J) / 2.9GHz CPU: DIMM-1/2/3/4 (Dual channel) DIMM Slot: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM SATA HDD: On Board Display: Pioneer / DVD-231DW 18X SATA DVD-ROM: Jagier / KY-580ATX 480W Power: Windows 7 Ultimate 64Bit (English) & SP1 O.S.:	P1284	Pass
16	Apacer (75.B83DE.G030C 1.5V) [256Mx8b-x16/512Mx64b,CL=11] / Hynix (H5TC2G83EFR PBA) / PC3-12800 (DDR3-1600) / 4GB *2	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i5-4570S (Haswell/C0-SR14J) / 2.9GHz DIMM Slot: DIMM-1/3 (Dual channel) SATA HDD: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM Display: On Board DVD-ROM: Pioneer / DVD-231DW 18X SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 64Bit (English) & SP1 Test Summary: Overnight looping under 11 hours	P1266	Pass



<p>17</p>	<p>Transcend (TS512MLK64V3N 1.5V) [256Mx8b-x16/512Mx64b,CL=9] / SEC (K4B2G0846D) / PC3-10600 (DDR3-1333) / 4GB *1</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i5-4570S (Haswell/C0-SR14J) / 2.9GHz CPU: DIMM-4 (Single channel) DIMM Slot: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM SATA HDD: On Board Display: Pioneer / DVD-231DW 18X SATA DVD-ROM: Delta / GPS-500BB 500W Power: Windows 8 Enterprise 64Bit (English) O.S.: Test Overnight looping under 10 hours Summary:</p>	<p>P1042</p>	<p>Pass</p>
<p>18</p>	<p>Transcend (TS512MLK64V3N 1.5V) [256Mx8b-x16/512Mx64b,CL=9] / Hynix (H5TQ2G83CFR PBC) / PC3-10600 (DDR3-1333) / 4GB *2</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i5-4570S (Haswell/C0-SR14J) / 2.9GHz CPU: DIMM-1/3 (Dual channel) DIMM Slot: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM SATA HDD: On Board Display: Pioneer / DVD-231DW 18X SATA DVD-ROM: Jagier / KY-580ATX 480W Power: Windows 8 Enterprise 64Bit (English) O.S.:</p>	<p>P1240</p>	<p>Pass</p>
<p>19</p>	<p>Apacer (78.B1GEG.4210C 1.35V) [256Mx8b-x16/512Mx64b,CL=9] / ELPIDA (J2108ECSE-DJ-F) / PC3-10600 (DDR3L-1333) / 4GB *1</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C2/BSD2402000010) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i5-4570TE (Haswell/C0-QEEH) / 2.7GHz CPU: DIMM-1 (Single channel) DIMM Slot: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM SATA HDD: On Board Display: Lite-On / iHAS324-U32D SATA DVD-RW: Delta / GPS-500BB 500W Power: Windows 7 Ultimate 32Bit (English) & SP1 O.S.:</p>	<p>P725</p>	<p>Pass</p>



No.	DDR3 Module	Test Environment	3DMark Score	Result
20	Transcend (TS256MLK64V3U 1.5V) [128Mx8b/256Mx64b,CL=7] / SEC (K4B1G0846D) / PC3-10600 (DDR3-1333) / 2GB *1	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz CPU: DIMM-1 (Single channel) DIMM Slot: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM SATA HDD: On Board Display: Pioneer / DVD-231DW 18X SATA DVD-ROM: Delta / GPS-500BB 500W Power: Windows 8 Enterprise 32Bit (English) O.S.:	P948	Pass
21	ADATA (AD31333002GOU(AD63I1B16) 1.5V±0.75) [2GX16,CL=9] / ADATA (AD30908C8D-151G) / PC3-10600 (DDR3-1333) / 2GB *1	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C2/BSD240200010) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i7-4770S (Haswell/H3-QE73) / 3.1GHz CPU: DIMM-4 (Single channel) DIMM Slot: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM SATA HDD: On Board Display: Lite-On / iHAS324-U32D SATA DVD-RW: Delta / GPS-500BB 500W Power: Windows 7 Ultimate 32Bit (English) & SP1 O.S.:	P1220	Pass
22	Elixir (M2Y2G64CB8HA9N-CG 1.5V) [256Mx64b,CL=9-9-9-25] / Elixir (M2Y2G64CB8HA9N-CG 1.5V) / PC3-10600 (DDR3-1333) / 2GB *1	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i7-4765T (Haswell/C0-SR14Q) / 2.0GHz CPU: DIMM-3 (Single channel) DIMM Slot: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM SATA HDD: On Board Display: Pioneer / DVD-231DW 18X SATA DVD-ROM: Delta / GPS-500BB 500W Power: Windows 7 Ultimate 32Bit (English) & SP1 O.S.:	P862	Pass

<p>23</p>	<p>INNODISK (M3UN-2GHFAC09-B 1.5V) [128Mx8b/256Mx64b] / Hynix (H5TQ1G83BFR H9C) / PC3-10600 (DDR3-1333) / 2GB *2</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C2/BSD240200010) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i7-4770S (Haswell/C0-SR14H) / 3.1GHz CPU: DIMM-3/4 (Single channel) DIMM Slot: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM SATA HDD: On Board Display: Lite-On / iHAS324-U32D SATA DVD-RW: Delta / GPS-500BB 500W Power: Windows 8 Enterprise 64Bit (English) O.S.:</p>	<p>P1231</p>	<p>Pass</p>
<p>24</p>	<p>Apacer (78.A1GDE.AF00C 1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Hynix (H5TQ2G83BFR H9C) / PC3-10600 (DDR3-1333) / 2GB *2</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i5-4570S (Haswell/C0-SR14J) / 2.9GHz CPU: DIMM-1/4 (Dual channel) DIMM Slot: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM SATA HDD: On Board Display: Pioneer / DVD-231DW 18X SATA DVD-ROM: Jagier / KY-580ATX 480W Power: Windows 8 Enterprise 32Bit (English) O.S.:</p>	<p>P1219</p>	<p>Pass</p>



No.	DDR3 Module	Test Environment	3DMark Score	Result
25	DSL (D3UH56081XH15AA 1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Hynix (H5TQ2G83BFR H9C) / PC3-10600 (DDR3-1333) / 2GB *4	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i5-4570S (Haswell/C0-SR14J) / 2.9GHz CPU: DIMM-1/2/3/4 (Dual channel) DIMM Slot: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM SATA HDD: On Board Display: Pioneer / DVD-231DW 18X SATA DVD-ROM: Jagier / KY-580ATX 480W Power: Windows 8 Enterprise 64Bit (English) O.S.:	P1220	Pass
26	Transcend (TS256MLK64V3U 1.5V) [128Mx8b-x16/256Mx64b,CL=9] / ELPIDA (J1108BDBG-DJ-F) / PC3-10600 (DDR3-1333) / 2GB *3	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) AMI-Aptio 08/15/2013 M/B BIOS: Demo Jul/15/2013 M/B Driver: Intel / Core i5-4570S (Haswell/C0-SR14J) / 2.9GHz CPU: DIMM-1/2/3 (Dual channel) DIMM Slot: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM SATA HDD: On Board Display: Pioneer / DVD-231DW 18X SATA DVD-ROM: Jagier / KY-580ATX 480W Power: Windows 7 Ultimate 64Bit (English) & SP1 O.S.: Test Overnight looping under 11 hours Summary:	P1202	Pass



<p>27</p>	<p>Crucial (CT25664BA1339.8FD 1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Micron (MT8JTF25664AZ-1G4D1) / PC3-10600 (DDR3-1333) / 2GB *4</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i7-4770TE (Haswell/C0-SR183) / 2.3GHz DIMM Slot: DIMM-1/2/3/4 (Dual channel) SATA HDD: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM Display: On Board DVD-ROM: Pioneer / DVD-231DW 18X SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 64Bit (English) & SP1 Test Summary: Overnight looping under 11 hours</p>	<p>P1075</p>	<p>Pass</p>
<p>28</p>	<p>Apacer (AP1024UT1K2N 1.5V) / ELPIDA (J1108BABG-DJ-E) / PC3-10600 (DDR3-1333) / 1GB *2</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i5-4570S (Haswell/C0-SR14J) / 2.9GHz DIMM Slot: DIMM-2/3 (Dual channel) SATA HDD: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM Display: On Board DVD-ROM: Pioneer / DVD-231DW 18X SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 32Bit (English)</p>	<p>P1215</p>	<p>Pass</p>
<p>29</p>	<p>Transcend (TS128MLK64V3U 1.5V) [128Mx8b/128Mx64b,CL=9] / ELPIDA (J1108BASE-DJ-E) / PC3-10600 (DDR3-1333) / 1GB *2</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i5-4570S (Haswell/C0-SR14J) / 2.9GHz DIMM Slot: DIMM-3/4 (Single channel) SATA HDD: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM Display: On Board DVD-ROM: Pioneer / DVD-231DW 18X SATA Power: Jagier / KY-580ATX 480W O.S.: Windows 8 Enterprise 32Bit (English)</p>	<p>P1035</p>	<p>Pass</p>



No.	DDR3 Module	Test Environment	3DMark Score	Result
30	Kingston (KVR1333D3N9/1G 1.5V) / ELPIDA (J1108BABG-DJ-E) / PC3-10600 (DDR3-1333) / 1GB *4	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C2/BSD240200010) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i7-4770S (Haswell/CO-SR14H) / 3.1GHz DIMM Slot: DIMM-1/2/3/4 (Dual channel) SSD: Intel / SSDSC2CW120A3K5 SATA3 120GB/2.5" Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 32Bit (English) & SP1	P1394	Pass
31	ADATA (AD3133300210U(AD63I1A08) 1.5V±0.75) [1GX8,CL=9] / ADATA (AD30908C8D-151G) / PC3-10600 (DDR3-1333) / 1GB *2	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C2/BSD240200010) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i7-4770S (Haswell/CO-SR14H) / 3.1GHz DIMM Slot: DIMM-2/4 (Dual channel) SATA HDD: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM Display: On Board DVD-ROM: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 32Bit (English)	P1381	Pass
32	DSL (D3UH28081XH15AA 1.5V) [128Mx8b-*8/128Mx64b,CL=9] / Hynix (H5TQ1G83BFR H9C) / PC3-10600 (DDR3-1333) / 1GB *4	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i5-4570S (Haswell/CO-SR14J) / 2.9GHz DIMM Slot: DIMM-1/2/3/4 (Dual channel) SATA HDD: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM Display: On Board DVD-ROM: Pioneer / DVD-231DW 18X SATA Power: Jagier / KY-580ATX 480W O.S.: Windows 7 Ultimate 32Bit (English) & SP1 Test Summary: Overnight looping under 11 hours	P1225	Pass

<p>33</p>	<p>Apacer (78.01GC6.AF0 1.5V) [128Mx8b-x8/128Mx64b,CL=9] / Hynix (H5TQ1G83BFR H9C) / PC3-10600 (DDR3-1333) / 1GB *2</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C2/BSD240200010) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i7-4770S (Haswell/C0-SR14H) / 3.1GHz DIMM Slot: DIMM-1/4 (Dual channel) SATA HDD: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 32Bit (English) & SP1</p>	<p>P1380</p>	<p>Pass</p>
<p>34</p>	<p>Transcend (TS128MLK64V3U 1.5V) [128Mx8b-x8/128Mx64b,CL=9] / SEC (K4B1G0846G) / PC3-10600 (DDR3-1333) / 1GB *4</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C2/BSD240200010) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i7-4770K (Haswell/C0-SR147) / 3.5GHz DIMM Slot: DIMM-1/2/3/4 (Dual channel) SATA HDD: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 32Bit (English)</p>	<p>P1435</p>	<p>Pass</p>



No.	DDR3 Module	Test Environment	3DMark Score	Result
35	ACPIgroup (CMA4-3D501AAR01D001.5V) [128Mx8b-x8/128Mx64b,CL=9] / Hynix (H5TQ1G83DFR H9C) / PC3-10600(DDR3-1333) / 1GB*4	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i5-4570S (Haswell/C0-SR14J) / 2.9GHz DIMM Slot: DIMM-1/2/3/4 (Dual channel) SATA HDD: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM Display: On Board DVD-ROM: Pioneer / DVD-231DW 18X SATA Power: Jagier / KY-580ATX 480W O.S.: Windows 7 Ultimate 32Bit (English) & SP1 Test Summary: Overnight looping under 11 hours	P1235	Pass
36	Transcend (TS256MLK64V1U 1.5V) [128Mx8b/256Mx64b,CL=7-7-7] / SEC (K4B1G0846D) / PC3-8500 (DDR3-1066) / 2GB *2	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C2/BSD240200010) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i7-4770TE (Haswell/C0-SR183) / 2.3GHz DIMM Slot: DIMM-1/2 (Single channel) SATA HDD: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 32Bit (English) & SP1	P1006	Pass
37	INNODISK (M3UN-2GHFACM7-B 1.5V) [128Mx8b/256Mx64b] / Hynix (H5TQ1G83BFR H9C) / PC3-8500 (DDR3-1066) / 2GB *2	M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i5-4570S (Haswell/C0-SR14J) / 2.9GHz DIMM Slot: DIMM-2/4 (Dual channel) SATA HDD: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM Display: On Board DVD-ROM: Pioneer / DVD-231DW 18X SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 64Bit (English)	P1208	Pass

<p>38</p>	<p>Hynix (HMT325U6BFR8C-G7 1.5V) [256Mx8b-8/256Mx64b,CL=7] / Hynix (H5TQ2G83BFR-G7C) / PC3-8500 (DDR3-1066) / 2GB *2</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i5-4570S (Haswell/C0-SR14J) / 2.9GHz DIMM Slot: DIMM-1/4 (Dual channel) SATA HDD: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM Display: On Board DVD-ROM: Pioneer / DVD-231DW 18X SATA Power: Jagier / KY-580ATX 480W O.S.: Windows 7 Ultimate 32Bit (English) & SP1</p>	<p>P1174</p>	<p>Pass</p>
<p>39</p>	<p>ADATA (SU3U1066B1G7-B 1.5V) [1Gx8,CL=7] / ELPIDA (J1108BABG-DJ-E) / PC3-8500 (DDR3-1066) / 1GB *2</p>	<p>M/B: HD310-Q87CRM Rev.1 (011) (PCH Rev.C1/BSD240200006) M/B BIOS: AMI-Aptio 08/15/2013 M/B Driver: Demo Jul/15/2013 CPU: Intel / Core i5-4570S (Haswell/C0-SR14J) / 2.9GHz DIMM Slot: DIMM-1/2 (Single channel) SATA HDD: Seagate / ST3750640SV SATA2 NCQ 750GB/7200RPM Display: On Board DVD-ROM: Pioneer / DVD-231DW 18X SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 32Bit (English) & SP1</p>	<p>P943</p>	<p>Pass</p>

