

1. Stability Test: Rev.021/0A1

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	29 °C	Pass
3	Intel / 2.3GHz	Core i7-4770TE (Haswell/C0-SR183) / 45W / LGA1150	29 °C	Pass
4	Intel / 2.0GHz	Core i7-4765T (Haswell/C0-SR14Q) / 35W / LGA1150	43 °C	Pass
5	Intel / 2.3GHz	Core i5-4670T (Haswell/C0-SR14P) / 45W / LGA1150	42 °C	Pass
6	Intel / 3.1GHz	Core i5-4670S (Haswell/C0-SR14K) / 65W / LGA1150	44 °C	Pass
7	Intel / 3.4GHz	Core i5-4670K (Haswell/C0-SR14A) / 84W / LGA1150	28 °C	Pass
8	Intel / 2.7GHz	Core i5-4570TE (Haswell/C0-SR17Z) / 35W / LGA1150	33 °C	Pass
9	Intel / 2.9GHz	Core i5-4570S (Haswell/C0-SR14J) / 65W / LGA1150	43 °C	Pass
10	Intel / 3.5GHz	Core i3-4330 (Haswell/C0-SR1NM) / 54W / LGA1150	37 °C	Pass
11	Intel / 3.2GHz	Pentium-G3420 (Haswell/C0-SR1NB) / 54W / LGA1150	33 °C	Pass
12	Intel / 2.3GHz	Xeon Processor E3-1268L V3 (Haswell/C0-SR17Y) / 45W / LGA1150	42 °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) Run S3/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

No.	Brand	Chip	Size	Type	Chip Model No.	Vendor Part No.	Result
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)	H5TQ2G83CFR PBC	76.B171G.C900C 1.5V [256Mx8b-x16/512Mx64b,CL=11]	Pass
7	Apacer	Micron	4GB	PC3-12800 (DDR3-1600)	2WE22-D9QBJ	76.B171G.C3K0C 1.5V [512Mx8b-x8/512Mx64b,CL=11]	Pass
8	INNODISK	Micron	4GB	PC3-12800 (DDR3L-1600)	1WM77-D9PFJ	M3UP-4GMJAL0C-M 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=9]	Pass
9	Apacer	Micron	4GB	PC3-12800 (DDR3L-1600)	2DM77-D9PFJ	75.B83DK.G000C 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=11]	Pass
10	ACPIgroup	Hynix(SK)	4GB	PC3L-12800 (DDR3L-1600)	H5TC4G83AFR PBA	CMA5-4FA01AAL01A00 1.35V/1.5V [512Mx8b-x8/512Mx64b,CL=9]	Pass
11	Hynix	Hynix	2GB	PC3-12800 (DDR3-1600)	H5TQ2G83BFR PBC	HMT325U6BFR8C-PBNO 1.5V [256Mx8b-x8/256Mx64b,CL=11]	Pass
12	Apacer	Hynix	2GB	PC3-12800 (DDR3-1600)	H5TQ2G83CFR PBC	76.A171G.C890C 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	CMA5-4E801AAL01E00 1.35V/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	DSL	Hynix	4GB	PC3-10600 (DDR3-1333)	H5TQ2G83BFR H9C	D3UH56082XH15AA 1.5V [256Mx8b-x16/512Mx64b,CL=9]	Pass
17	Apacer	ELPIDA	4GB	PC3-10600 (DDR3L-1333)	J2108ECSE-DJ-F	78.B1GEG.4210C 1.35V [256Mx8b-x16/512Mx64b,CL=9]	Pass
18	ADATA	ADATA	2GB	PC3-10600 (DDR3-1333)	AD30908C8D-151G	AD31333002GOU(AD63I1B16) 1.5V±0.75 [2GX16,CL=9]	Pass
19	Elixir	Elixir	2GB	PC3-10600 (DDR3-1333)	M2Y2G64CB8HA9N-CG 1.5V	M2Y2G64CB8HA9N-CG 1.5V [256Mx64b,CL=9-9-9-25]	Pass
20	INNODISK	Hynix	2GB	PC3-10600 (DDR3-1333)	H5TQ1G83BFR H9C	M3UN-2GHFAC09-B 1.5V [128Mx8b/256Mx64b]	Pass
21	DSL	Hynix	2GB	PC3-10600 (DDR3-1333)	H5TQ2G83BFR H9C	D3UH56081XH15AA 1.5V [256Mx8b-x8/256Mx64b,CL=9]	Pass

22	Crucial	Micron	2GB	PC3-10600 (DDR3-1333)	MT8JTF25664AZ-1G4D1	CT25664BA1339.8FD 1.5V [256Mx8b-x8/256Mx64b,CL=9]	Pass
23	Transcend	ELPIDA	1GB	PC3-10600 (DDR3-1333)	J1108BASE-DJ-E	TS128MLK64V3U 1.5V [128Mx8b/128Mx64b,CL=9]	Pass
24	DSL	Hynix	1GB	PC3-10600 (DDR3-1333)	H5TQ1G83BFR H9C	D3UH28081XH15AA 1.5V [128Mx8b-*8/128Mx64b,CL=9]	Pass
25	Apacer	Hynix	1GB	PC3-10600 (DDR3-1333)	H5TQ1G83BFR H9C	78.01GC6.AF0 1.5V [128Mx8b-x8/128Mx64b,CL=9]	Pass
26	Kingston	Hynix	4GB	PC3-8500 (DDR3-1066)	H5TQ2G83AFR	KVR1066D3N7/4G 1.5V [512MX64,CL=7]	Pass
27	Transcend	SEC	2GB	PC3-8500 (DDR3-1066)	K4B1G0846D	TS256MLK64V1U 1.5V [128Mx8b/256Mx64b,CL=7-7-7]	Pass
28	INNODISK	Hynix	2GB	PC3-8500 (DDR3-1066)	H5TQ1G83BFR H9C	M3UN-2GHFACM7-B 1.5V [128Mx8b/256Mx64b]	Pass
29	Hynix	Hynix	2GB	PC3-8500 (DDR3-1066)	H5TQ2G83BFR-G7C	HMT325U6BFR8C-G7 1.5V [256Mx8b-8/256Mx64b,CL=7]	Pass
30	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) Run S3/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 *2	M/B: HD632-H81C Rev.2 (021) (BSD390500019) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i7-4770S (Haswell/C0-SR14H) / 3.1GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: WD / WD360ADFD SATA1 NCQ 36GB/10000RPM Display: On Board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 64Bit (English) & SP1	P1421	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 *1	M/B: HD632-H81C Rev.2 (021) (BSD390500019) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4570TE (Haswell/C0-SR17Z) / 2.7GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: WD / WD360ADFD SATA1 NCQ 36GB/10000RPM Display: On Board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 64Bit (English) & SP1	P744	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 *2</p>	<p>M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i7-4770TE (Haswell/C0-SR183) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: WD / WD360ADFD SATA1 NCQ 36GB/10000RPM 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>P1123</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 *2</p>	<p>M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/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>P1149</p>	<p>Pass</p>
<p>5</p>	<p>Hynix (HMT351U6BFR8C-PBNO 1.5V) [256Mx8b-x16/512Mx64b,CL=11] / Hynix (H5TQ2G83BFR PBC) / PC3-12800 (DDR3-1600) / 4GB *1</p>	<p>M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4570TE (Haswell/C0-SR17Z) / 2.7GHz DIMM Slot: DIMM-2 (Single channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 32Bit (English) & SP1 Test Summary: Overnight looping under 24 hours</p>	<p>P742</p>	<p>Pass</p>

No.	DDR3 Module	Test Environment	3DMark Score	Result
6	Apacer (76.B171G.C900C 1.5V) [256Mx8b-x16/512Mx64b,CL=11] / Hynix (H5TQ2G83CFR PBC) / PC3-12800 (DDR3-1600) / 4GB *2	M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 64Bit (English)	P1048	Pass
7	Apacer (76.B171G.C3K0C 1.5V) [512Mx8b-x8/512Mx64b,CL=11] / Micron (2WE22-D9QBJ) / PC3-12800 (DDR3-1600) / 4GB *2	M/B: HD632-H81C Rev.2 (021) (BSD390500021) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i7-4770S (Haswell/C0-SR14H) / 3.1GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3320614AS SATA2 NCQ 320GB/7200RPM Display: On Board DVD-ROM: Pioneer / DVD-XD01 8X USB2.0 Slim Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 64Bit (English)	P1387	Pass
8	INNODISK (M3UP-4GMJAL0C-M 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=9] / Micron (1WM77-D9PFJ) / PC3-12800 (DDR3L-1600) / 4GB *2	M/B: HD632-H81C Rev.2 (021) (BSD390500019) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670S (Haswell/C0-SR14K) / 3.1GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: WD / WD360AFD SATA1 NCQ 36GB/10000RPM Display: On Board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 64Bit (English)	P1365	Pass



<p>9</p>	<p>Apacer (75.B83DK.G000C 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=11] / Micron (2DM77-D9PFJ) / PC3-12800 (DDR3L-1600) / 4GB *1</p>	<p>M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i7-4765T (Haswell/C0-SR14Q) / 2.0GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/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>P903</p>	<p>Pass</p>
<p>10</p>	<p>ACPIgroup (CMA5-4FA01AAL01A00 1.35V/1.5V) [512Mx8b-x8/512Mx64b,CL=] / Hynix(SK) (H5TC4G83AFR PBA) / PC3L-12800 (DDR3L-1600) / 4GB *2</p>	<p>M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 64Bit (English) & SP1</p>	<p>P1125</p>	<p>Pass</p>
<p>11</p>	<p>Hynix (HMT325U6BFR8C-PBNO 1.5V) [256Mx8b-x8/256Mx64b,CL=11] / Hynix (H5TQ2G83BFR PBC) / PC3-12800 (DDR3-1600) / 2GB *2</p>	<p>M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 64Bit (English) & SP1</p>	<p>P1141</p>	<p>Pass</p>



No.	DDR3 Module	Test Environment	3DMark Score	Result
12	Apacer (76.A171G.C890C 1.5V) [256Mx8b-x8/256Mx64b,CL=11] / Hynix (H5TQ2G83CFR PBC) / PC3-12800 (DDR3-1600) / 2GB *2	M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 32Bit (English)	P1107	Pass
13	INNODISK (M3UP-2GMJBL0C-M 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Micron (1WM77-D9PFJ) / PC3-12800 (DDR3L-1600) / 2GB *2	M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 32Bit (English) & SP1	P1130	Pass
14	ACPIgroup (CMA5-4E801AAL01E00 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Hynix(SK) (H5TC2G83EFR PBA) / PC3L-12800 (DDR3L-1600) / 2GB *2	M/B: HD632-H81C Rev.2 (021) (BSD390500019) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Xeon Processor E3-1268L V3 (Haswell/C0-SR17Y) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: WD / WD360ADFD SATA1 NCQ 36GB/10000RPM Display: On Board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 32Bit (English) & SP1	P1091	Pass



<p>15</p>	<p>Transcend (TS1GLK64V3H 1.5V) [512Mx8b-x16/1Gx64b,CL=9] / Micron (1ZD27-D9PBC/2CD27-DP9BC) / PC3-10600 (DDR3-1333) / 8GB *2</p>	<p>M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 64Bit (English) Test Summary: Overnight looping under 11 hours</p>	<p>P1124</p>	<p>Pass</p>
<p>16</p>	<p>DSL (D3UH56082XH15AA 1.5V) [256Mx8b-x16/512Mx64b,CL=9] / Hynix (H5TQ2G83BFR H9C) / PC3-10600 (DDR3-1333) / 4GB *1</p>	<p>M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i7-4770K (Haswell/C0-SR147) / 3.5GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/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>P1252</p>	<p>Pass</p>
<p>17</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: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670K (Haswell/C0-SR14A) / 3.4GHz DIMM Slot: DIMM-2 (Single channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/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>P1076</p>	<p>Pass</p>



No.	DDR3 Module	Test Environment	3DMark Score	Result
18	ADATA (AD31333002GOU(AD6311B16) 1.5V±0.75) [2GX16,CL=9] / ADATA (AD30908C8D-151G) / PC3-10600 (DDR3-1333) / 2GB *1	M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 32Bit (English) & SP1	P980	Pass
19	Elixir (M2Y2G64CB8HA9N-CG 1.5V) [256Mx64b,CL=9-9-9-25] / Elixir (M2Y2G64CB8HA9N-CG 1.5V) / PC3-10600 (DDR3-1333) / 2GB *2	M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 32Bit (English)	P1131	Pass
20	INNODISK (M3UN-2GHFAC09-B 1.5V) [128Mx8b/256Mx64b] / Hynix (H5TQ1G83BFR H9C) / PC3-10600 (DDR3-1333) / 2GB *2	M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 32Bit (English)	P1128	Pass



<p>21</p>	<p>DSL (D3UH56081XH15AA 1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Hynix (H5TQ2G83BFR H9C) / PC3-10600 (DDR3-1333) / 2GB *2</p>	<p>M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 64Bit (English) & SP1</p>	<p>P1127</p>	<p>Pass</p>
<p>22</p>	<p>Crucial (CT25664BA1339.8FD 1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Micron (MT8JTF25664AZ-1G4D1) / PC3-10600 (DDR3-1333) / 2GB *2</p>	<p>M/B: HD632-H81C Rev.2 (021) (BSD390500019) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SSD: Intel / SSDSC2CW060A3K5 SATA3 60GB/2.5" Display: On Board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 32Bit (English) & SP1 Test Summary: Overnight looping under 11 hours</p>	<p>P1213</p>	<p>Pass</p>
<p>23</p>	<p>Transcend (TS128MLK64V3U 1.5V) [128Mx8b/128Mx64b,CL=9] / ELPIDA (J1108BASE-DJ-E) / PC3-10600 (DDR3-1333) / 1GB *2</p>	<p>M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/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>P1121</p>	<p>Pass</p>

No.	DDR3 Module	Test Environment	3DMark Score	Result
24	DSL (D3UH28081XH15AA 1.5V) [128Mx8b-*8/128Mx64b,CL=9] / Hynix (H5TQ1G83BFR H9C) / PC3-10600 (DDR3-1333) / 1GB *2	M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 32Bit (English) & SP1	P1115	Pass
25	Apacer (78.01GC6.AF0 1.5V) [128Mx8b-x8/128Mx64b,CL=9] / Hynix (H5TQ1G83BFR H9C) / PC3-10600 (DDR3-1333) / 1GB *2	M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 32Bit (English)	P1115	Pass
26	KingSton (KVR1066D3N7/4G 1.5V) [512MX64,CL=7] / Hynix (H5TQ2G83AFR) / PC3-8500 (DDR3-1066) / 4GB *2	M/B: HD632-H81C Rev.2 (021) (BSD390500019) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4570TE (Haswell/C0-SR17Z) / 2.7GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: WD / WD360ADFD SATA1 NCQ 36GB/10000RPM Display: On Board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 64Bit (English) & SP1	P782	Pass



<p>27</p>	<p>Transcend (TS256MLK64V1U 1.5V) [128Mx8b/256Mx64b,CL=7-7-7] / SEC (K4B1G0846D) / PC3-8500 (DDR3-1066) / 2GB *2</p>	<p>M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/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>P1198</p>	<p>Pass</p>
<p>28</p>	<p>INNODISK (M3UN-2GHFACM7-B 1.5V) [128Mx8b/256Mx64b] / Hynix (H5TQ1G83BFR H9C) / PC3-8500 (DDR3-1066) / 2GB *2</p>	<p>M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/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>P1111</p>	<p>Pass</p>
<p>29</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: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3320614AS SATA2 NCQ 320GB/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>P1074</p>	<p>Pass</p>



No.	DDR3 Module	Test Environment	3DMark Score	Result
30	ADATA (SU3U1066B1G7-B 1.5V) [1Gx8,CL=7] / ELPIDA (J1108BABG-DJ-E) / PC3-8500 (DDR3-1066) / 1GB *2	M/B: HD632-H81C Rev.2 (021) (BSD390500025) M/B BIOS: AMI-Aptio 10/03/2013 M/B Driver: Demo Oct/18/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Maxtor / STM3160813AS SATA2 NCQ 160GB/7200RPM Display: On Board DVD-RW: Lite-On / iHAS324-U32D SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 32Bit (English)	P1082	Pass

