

# 1. Stability Test: Rev.011

## 1.1 CPU Test:

### Procedure:

- (1) Install O.S.
- (2) Check CPU information & specification with CPU-Z.
- (3) Run Passmark Performance Test 8.0 Build1027 - 1 time.
- (4) Run AIDA64 Cache and Memory Benchmark Ver.4.50.3000 - 1 time.
- (5) Run 3DMark for Windows Ver.1.3.708 BenchMark - 3 times.
- (6) Check CPU temperature in the BIOS after running 3DMark.
- (7) Run S3/S4/S5 - 3 times.

No.	CPU	Type	CPU Temp.	Result
1	Intel / 1.7GHz	Core i7-4650U (Haswell-ULT/C0-SR16H) / 15W / FCBGA1168	39 °C	Pass
2	Intel / 1.9GHz	Core i5-4300U (Haswell-ULT/C0-SR1ED) / 15W / FCBGA1168	31 °C	Pass
3	Intel / 1.7GHz	Core i3-4010U (Haswell-ULT/C0-SR16Q) / 15W / FCBGA1168	32 °C	Pass
4	Intel / 1.6GHz	Celeron 2980U (Haswell-ULT/D0-SR1DM) / 15W / FCBGA1168	24 °C	<b>ID 24377</b>

## 1.2 DDR3 SO-DIMM Test:

### Procedure:

- (1) Install O.S.
- (2) Check Memory information & specification with CPU-Z.
- (3) Run Passmark Performance Test 8.0 Build1027 - 1 time.
- (4) Run AIDA64 Cache and Memory Benchmark Ver.4.50.3000 - 1 time.
- (5) Run 3DMark for Windows Ver.1.3.708 BenchMark - 3 times.
- (6) 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.C93DL.G000C 1.35V/1.5V [512Mx8b-x16/1024Mx64b,CL=11]	Pass
2	Crucial	Micron	8GB	PC3-12800 (DDR3L-1600)	2RD27D9PCP	CT102464BF160B.16FDD (MT16KTF1G64HZ-1G6D1) 1.35/1.5V [512Mx8b-x16/1024Mx64b,CL=11-11-11-30]	Pass
3	Transcend	SEC	8GB	PC3L-12800 (DDR3L-1600)	K4B4G0846D	TS1GSK64W6H 1.35V/1.5V [512Mx8b-x16/1Gx64b,CL=11-11-11]	Pass
4	INNODISK	Micron	4GB	PC3-12800 (DDR3L-1600)	1XM77-D9PFJ	M3SP-4GMJDL0C-M 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=9]	Pass
5	Apacer	Micron	4GB	PC3-12800 (DDR3L-1600)	2DM77-D9PFJ	75.B83DL.G000C 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=11]	Pass

<b>6</b>	Crucial	Micron	4GB	PC3-12800 (DDR3L-1600)	2RM77D9PFJ	CT51264BF160B.16FMR (MT16KTF51264HZ-1G6M1) 1.35V/1.35V [256Mx8b-x16/512Mx64b,CL=11-11-11-30]	<b>Pass</b>
<b>7</b>	ADATA	Micron	4GB	PC3L-12800 (DDR3L-1600)	3DE77D9Q8J	ADDS1600W4G11-BMIE (10281820) 1.35V/1.5V [512Mx8b-x8/512Mx64b,CL=11-11-11]	<b>Pass</b>

No.	Brand	Chip	Size	Type	Chip Model No.	Vendor Part No.	Result
<b>8</b>	Transcend	SEC	4GB	PC3L-12800 (DDR3L-1600)	K4B4G0846D	TS512MSK64W6H 1.35V/1.5V [512Mx8b-x8/512Mx64b,CL=11-11-11]	<b>Pass</b>
<b>9</b>	INNODISK	Micron	2GB	PC3-12800 (DDR3L-1600)	1WM77-D9PFJ	M3SP-2GMJCL0C-M 1.35V/1.5V [256Mx8b-x8/256Mx64b,CL=9]	<b>Pass</b>
<b>10</b>	ADATA	Hynix(SK)	2GB	PC3L-12800 (DDR3L-1600)	H5TC2G83EFR PBA	ADDS1600C2G11-BHYE (10281881) 1.35V/1.5V [256Mx8b-x8/256Mx64b,CL=11-11-11]	<b>Pass</b>
<b>11</b>	Transcend	SEC	2GB	PC3L-12800 (DDR3L-1600)	K4B2G0846Q	TS256MSK64W6N 1.35V/1.5V [256Mx8b-x8/256Mx64b,CL=11-11-11]	<b>Pass</b>
<b>12</b>	Apacer	ELPIDA	4GB	PC3-10600 (DDR3L-1333)	J2108ECSE-DJ-F	78.B2GCL4210C 1.35V [256Mx8b-x16/512Mx64b,CL=9]	<b>Pass</b>
<b>13</b>	Transcend	Hynix	4GB	PC3-10600 (DDR3L-1333)	H5TQ2G83BFR-H9C	TS512MSK64W3N 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=9]	<b>Pass</b>
<b>14</b>	Apacer	ELPIDA	2GB	PC3-10600 (DDR3L-1333)	J2108ECSE-DJ-F	78.A2GCL4200C 1.35V [256Mx8b-x8/256Mx64b,CL=9]	<b>Pass</b>
<b>15</b>	Transcend	Hynix	2GB	PC3-10600 (DDR3L-1333)	H5TQ2G83BFR-H9C	TS256MSK64W3N 1.35V/1.5V [256Mx8b-x8/256Mx64b,CL=9]	<b>Pass</b>
<b>16</b>	Crucial	Micron	2GB	PC3L-10600 (DDR3L-1333)	2EM77D9PFJ	CT25664BF1339.8FMR (MT8KTF25664HZ-1G4M1) 1.35V/1.5V [56Mx8b-x8/256Mx64b,CL=9]	<b>Pass</b>
<b>17</b>	Transcend	SEC	2GB	PC3L-10600 (DDR3L-1333)	K4B2G0846Q	TS256MSK64W3N 1.35V/1.5V [256Mx8b-x8/256Mx64b,CL=9]	<b>Pass</b>

### 1.3 DDR3 SO-DIMM Test Procedures:

#### Procedure:

- (1) Install O.S.
- (2) Check Memory information & specification with CPU-Z.
- (3) Run Passmark Performance Test 8.0 Build1027 - 1 time.
- (4) Run AIDA64 Cache and Memory Benchmark Ver.4.50.3000 - 1 time.
- (5) Run 3DMark for Windows Ver.1.3.708 BenchMark - 3 times.
- (6) Run S3/S4/S5 - 3 times.

No.	DDR3 Module	Test Environment	Result
1	Apacer (75.C93DL.G000C 1.35V/1.5V) [512Mx8b-x16/1024Mx64b,CL=11] / Micron (2ED27-D9PCP) / PC3-12800 (DDR3L-1600) / 8GB *1	M/B: HU553-N-2980U Rev.1 (011) (BSE261100012) M/B BIOS: AMI-Aptio 07/09/2014 M/B Driver: Demo Jul/18/2014 CPU: Intel / Celeron 2980U (Haswell-ULT/D0-SR1DM) / 1.6GHz DIMM Slot: DIMM-1 (Single channel) SSD: Silicon Power / SP120GBSS3V60S25 SATA3 120GB/2.5" Display: On Board DVD-RW: Pioneer / DVR-XT11T USB2.0 Power: EDAC / EA11001F-190 Seasonic / SS-400ET 400W O.S.: Windows 7 Ultimate 64Bit (English) & SP1 Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1368 2.AIDA64 Cache and Memory Benchmark Ver.4.50.3000 READ:12097MB/s WRITE:12275MB/s COPY:10867MB/s 3.3DMark for Windows Ver.1.3.708 Cloud Gate:2377 Ice Storm:17046 Skydiver:1461 Strike Test:324	Pass

No.	DDR3 Module	Test Environment	Result
2	Crucial (CT102464BF160B.16FDD (MT16KTF1G64HZ-1G6D1) 1.35V/1.5V) [512Mx8b-x16/1024Mx64b,CL=11-11-11-30] / Micron (2RD27D9PCP) / PC3-12800 (DDR3L-1600) / 8GB *1	M/B: HU551-N-4010U Rev.1 (011) (BSE260900008) M/B BIOS: AMI-Aptio 07/09/2014 M/B Driver: Demo Jul/18/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM Display: On Board DVD-ROM: Pioneer / DVD-230DW 18X Power: FSP / FSP060-DBAB1 Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 64Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1435 2.AIDA64 Cache and Memory Benchmark Ver.4.50.3000 READ:12163MB/s WRITE:12329MB/s COPY:11838MB/s 3.3DMark for Windows Ver.1.3.708 Cloud Gate:3588 Ice Storm:24638 Skydiver:2239 Strike Test:535	Pass

<p style="text-align: center; font-weight: bold;">3</p>	<p>Transcend (TS1GSK64W6H 1.35V/1.5V) [512Mx8b-x16/1Gx64b,CL=11-11-11] / SEC (K4B4G0846D) / PC3L-12800 (DDR3L-1600) / 8GB *1</p>	<p>M/B: HU551-N-4650U Rev.1 (011) (BSE260900011) M/B BIOS: AMI-Aptio 07/09/2014 M/B Driver: Demo Jul/18/2014 CPU: Intel / Core i7-4650U (Haswell-ULT/C0-SR16H) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SSD: Crucial / CT120M500SSD1 SATA3 120GB/2.5" Display: On Board DVD-RW: Archgon / MD-3107-U3 USB3.0 Blu-Ray Power: FSP / FSP060-DBAB1 Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 64Bit (English) &amp; SP1 Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1759 2.AIDA64 Cache and Memory Benchmark Ver.4.50.3000 READ:12206MB/s WRITE:12431MB/s COPY:12440MB/s 3.3DMark for Windows Ver.1.3.708 Cloud Gate:4336 Ice Storm:25328 Skydiver:2596 Strike Test:601</p>	<p style="text-align: center; font-weight: bold;">Pass</p>
<p style="text-align: center; font-weight: bold;">4</p>	<p>INNOdisk (M3SP-4GMJDLOC-M 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=9] / Micron (1XM77-D9PFJ) / PC3-12800 (DDR3L-1600) / 4GB *1</p>	<p>M/B: HU553-N-4300U Rev.1 (011) (BSE261100007) M/B BIOS: AMI-Aptio 07/09/2014 M/B Driver: Demo Jul/18/2014 CPU: Intel / Core i5-4300U (Haswell-ULT/C0-SR1ED) / 1.9GHz DIMM Slot: DIMM-1 (Single channel) SSD: Crucial / CT120M500SSD1 SATA3 120GB/2.5" Display: On Board DVD-ROM: Pioneer / DVD-231DW 18X SATA Power: EDAC / EA11001F-190 Seasonic / SS-400ET 400W O.S.: Windows 7 Ultimate 64Bit (English) &amp; SP1 Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1473 2.AIDA64 Cache and Memory Benchmark Ver.4.50.3000 READ:12285MB/s WRITE:12490MB/s COPY:12343MB/s 3.3DMark for Windows Ver.1.3.708 Cloud Gate:4173 Ice Storm:23220 Skydiver:2244 Strike Test:526</p>	<p style="text-align: center; font-weight: bold;">Pass</p>



No.	DDR3 Module	Test Environment	Result
5	Apacer (75.B83DL.G000C 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=11] / Micron (2DM77-D9PFJ) / PC3-12800 (DDR3L-1600) / 4GB *1	M/B: HU551-N-4650U Rev.1 (011) (BSE260900011) M/B BIOS: AMI-Aptio 07/09/2014 M/B Driver: Demo Jul/18/2014 CPU: Intel / Core i7-4650U (Haswell-ULT/C0-SR16H) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SSD: Crucial / CT120M500SSD1 SATA3 120GB/2.5" Display: On Board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: FSP / FSP060-DBAB1 Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 32Bit (English) & SP1 Test Summary: Environment Temp.:26°C CPU Temp.:37°C CPU Temp. after 3DMark:39°C 1.Passmark Performance Test 8.0 Build1027 CPU Mark:3204 Memory Mark:1333 2.AIDA64 Cache and Memory Benchmark Ver.4.50.3000 READ:12262MB/s WRITE:12469MB/s COPY:12109MB/s 3.3DMark for Windows Ver.1.3.708 Cloud Gate:4313 Ice Storm:25538 Skydiver:2591 Strike Test:601 Overnight looping under 18 hours	Pass
6	Crucial (CT51264BF160B.16FMR (MT16KTF51264HZ-1G6M1) 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=11-11-11-30] / Micron (2RM77D9PFJ) / PC3-12800 (DDR3L-1600) / 4GB *1	M/B: HU551-N-4010U Rev.1 (011) (BSE260900008) M/B BIOS: AMI-Aptio 07/09/2014 M/B Driver: Demo Jul/18/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SSD: Crucial / CT120M500SSD1 SATA3 120GB/2.5" Display: On Board DVD-ROM: Pioneer / DVD-230DW 18X Power: FSP / FSP060-DBAB1 Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 64Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1320 2.AIDA64 Cache and Memory Benchmark Ver.4.50.3000 READ:12227MB/s WRITE:12518MB/s COPY:12246MB/s 3.3DMark for Windows Ver.1.3.708 Cloud Gate:3604 Ice Storm:24803 Skydiver:2255 Strike Test:539	Pass

No.	DDR3 Module	Test Environment	Result
7	ADATA (ADDS1600W4G11-BMIE (10281820) 1.35V/1.5V) [512Mx8b-x8/512Mx64b,CL=11-11-11] / Micron (3DE77D9Q8J) / PC3L-12800 (DDR3L-1600) / 4GB *1	M/B: HU551-N-4650U Rev.1 (011) (BSE260900011) M/B BIOS: AMI-Aptio 07/09/2014 M/B Driver: Demo Jul/18/2014 CPU: Intel / Core i7-4650U (Haswell-ULT/C0-SR16H) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM Display: On Board DVD-ROM: Pioneer / DVD-230DW 18X Power: FSP / FSP060-DBAB1 Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 64Bit (English) & SP1 Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1482 2.AIDA64 Cache and Memory Benchmark Ver.4.50.3000 READ:12019MB/s WRITE:11908MB/s COPY:11531MB/s 3.3DMark for Windows Ver.1.3.708 Cloud Gate:4180 Ice Storm:23140 Skydiver:2488 Strike Test:554	Pass
8	Transcend (TS512MSK64W6H 1.35V/1.5V) [512Mx8b-x8/512Mx64b,CL=11-11-11] / SEC (K4B4G0846D) / PC3L-12800(DDR3L-1600) / 4GB *1	M/B: HU553-N-2980U Rev.1 (011) (BSE261100012) M/B BIOS: AMI-Aptio 07/09/2014 M/B Driver: Demo Jul/18/2014 CPU: Intel / Celeron 2980U (Haswell-ULT/D0-SR1DM) / 1.6GHz DIMM Slot: DIMM-1 (Single channel) SSD: Silicon Power / SP120GBSS3V60S25 SATA3 120GB/2.5" Display: On Board DVD-RW: Pioneer / DVR-XT11T USB2.0 Power: EDAC / EA11001F-190 Seasonic / SS-400ET 400W O.S.: Windows 7 Ultimate 64Bit (English) & SP1 Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1180 2.AIDA64 Cache and Memory Benchmark Ver.4.50.3000 READ:11793MB/s WRITE:11723MB/s COPY:10067MB/s 3.3DMark for Windows Ver.1.3.708 Cloud Gate:2353 Ice Storm:16382 Skydiver:1429 Strike Test:316	Pass

<b>9</b>	<p>INNODISK (M3SP-2GMJCL0C-M 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Micron (1WM77-D9PFJ) / PC3-12800 (DDR3L-1600) / 2GB *1</p>	<p>M/B: HU553-N-2980U Rev.1 (011) (BSE261100012) M/B BIOS: AMI-Aptio 07/09/2014 M/B Driver: Demo Jul/18/2014 CPU: Intel / Celeron 2980U (Haswell-ULT/D0-SR1DM) / 1.6GHz DIMM Slot: DIMM-1 (Single channel) SSD: Silicon Power / SP120GBSS3V60S25 SATA3 120GB/2.5" Display: On Board DVD-RW: Pioneer / DVR-XT11T USB2.0 Power: EDAC / EA11001F-190 Seasonic / SS-400ET 400W O.S.: Windows 8 Enterprise 64Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1098 2.AIDA64 Cache and Memory Benchmark Ver.4.50.3000 READ:11874MB/s WRITE:12495MB/s COPY:9916MB/s 3.3DMark for Windows Ver.1.3.708 Cloud Gate:2358 Ice Storm:17479 Skydiver:1437 Strike Test:317</p>	<b>Pass</b>
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No.	DDR3 Module	Test Environment	Result
<b>10</b>	<p>ADATA (ADDS1600C2G11-BHYE (10281881) 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=11-11-11] / Hynix(SK) (H5TC2G83EFR PBA) / PC3L-12800(DDR3L-1600) / 2GB *1</p>	<p>M/B: HU553-N-4300U Rev.1 (011) (BSE261100007) M/B BIOS: AMI-Aptio 07/09/2014 M/B Driver: Demo Jul/18/2014 CPU: Intel / Core i5-4300U (Haswell-ULT/C0-SR1ED) / 1.9GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: Seagate / ST31000333AS SATA2 NCQ 1TB/7200RPM Display: On Board DVD-ROM: Pioneer / DVD-231DW 18X SATA Power: EDAC / EA11001F-190 Seasonic / SS-400ET 400W O.S.: Windows 8 Enterprise 32Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:827 2.AIDA64 Cache and Memory Benchmark Ver.4.50.3000 READ:12020MB/s WRITE:12128MB/s COPY:11540MB/s 3.3DMark for Windows Ver.1.3.708 Cloud Gate:3903 Ice Storm:25193 Skydiver:2151 Strike Test:493 Overnight looping under 11 hours</p>	<b>Pass</b>

<b>11</b>	<p>Transcend (TS256MSK64W6N 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=11-11-11] / SEC (K4B2G0846Q) / PC3L-12800 (DDR3L-1600) / 2GB *1</p>	<p>M/B: HU551-N-4650U Rev.1 (011) (BSE260900011) M/B BIOS: AMI-Aptio 07/09/2014 M/B Driver: Demo Jul/18/2014 CPU: Intel / Core i7-4650U (Haswell-ULT/C0-SR16H) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SSD: Crucial / CT120M500SSD1 SATA3 120GB/2.5" Display: On Board DVD-RW: Archgon / MD-3107-U3 USB3.0 Blu-Ray Power: FSP / FSP060-DBAB1 Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 32Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1236 2.AIDA64 Cache and Memory Benchmark Ver.4.50.3000 READ:12117MB/s WRITE:12062MB/s COPY:11477MB/s 3.3DMark for Windows Ver.1.3.708 Cloud Gate:4149 Ice Storm:23706 Skydiver:2497 Strike Test:560</p>	<b>Pass</b>
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No.	DDR3 Module	Test Environment	Result
<b>12</b>	<p>Apacer (78.B2GCL4210C 1.35V) [256Mx8b-x16/512Mx64b,CL=9] / ELPIDA (J2108ECSE-DJ-F) / PC3-10600 (DDR3L-1333) / 4GB *1</p>	<p>M/B: HU551-N-4010U Rev.1 (011) (BSE260900008) M/B BIOS: AMI-Aptio 07/09/2014 M/B Driver: Demo Jul/18/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SSD: Crucial / CT120M500SSD1 SATA3 120GB/2.5" Display: On Board DVD-ROM: Pioneer / DVD-230DW 18X Power: FSP / FSP060-DBAB1 Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 64Bit (English) &amp; SP1 Test Summary: Environment Temp:28℃ CPU Temp.:29℃ CPU Temp. after 3DMark:32℃ 1.Passmark Performance Test 8.0 Build1027 CPU Mark:2652 Memory Mark:1155 2.AIDA64 Cache and Memory Benchmark Ver.4.50.3000 READ:10235MB/s WRITE:10316MB/s COPY:10141MB/s 3.3DMark for Windows Ver.1.3.708 Cloud Gate:3413 Ice Storm:20264 Skydiver:2154 Strike Test:493</p>	<b>Pass</b>





<b>13</b>	<p>Transcend (TS512MSK64W3N 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=9] / Hynix (H5TQ2G83BFR-H9C) / PC3-10600 (DDR3L-1333) / 4GB *1</p>	<p>M/B: HU553-N-2980U Rev.1 (011) (BSE261100012) M/B BIOS: AMI-Aptio 07/09/2014 M/B Driver: Demo Jul/18/2014 CPU: Intel / Celeron 2980U (Haswell-ULT/D0-SR1DM) / 1.6GHz DIMM Slot: DIMM-1 (Single channel) SSD: Silicon Power / SP120GBSS3V60S25 SATA3 120GB/2.5" Display: On Board DVD-ROM: Pioneer / DVD-231DW 18X SATA Power: EDAC / EA11001F-190 Seasonic / SS-400ET 400W O.S.: Windows 8 Enterprise 32Bit (English) Test Summary: Environment Temp:26°C CPU Temp.:22°C CPU Temp. after 3DMark:24°C 1.Passmark Performance Test 8.0 Build1027 CPU Mark:1381 Memory Mark:966 2.AIDA64 Cache and Memory Benchmark Ver.4.50.3000 READ:10179MB/s WRITE:10375MB/s COPY:9493MB/s 3.3DMark for Windows Ver.1.3.708 Cloud Gate:2312 Ice Storm:17832 Skydiver:1423 Strike Test:319 Overnight looping under 18 hours</p>	<b>Pass</b>
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No.	DDR3 Module	Test Environment	Result
<b>14</b>	<p>Apacer (78.A2GCL4200C 1.35V) [256Mx8b-x8/256Mx64b,CL=9] / ELPIDA (J2108ECSE-DJ-F) / PC3-10600 (DDR3L-1333) / 2GB *1</p>	<p>M/B: HU553-N-4300U Rev.1 (011) (BSE261100007) M/B BIOS: AMI-Aptio 07/09/2014 M/B Driver: Demo Jul/18/2014 CPU: Intel / Core i5-4300U (Haswell-ULT/C0-SR1ED) / 1.9GHz DIMM Slot: DIMM-1 (Single channel) SSD: Silicon Power / SP120GBSS3V60S25 SATA3 120GB/2.5" Display: On Board DVD-ROM: Pioneer / DVD-231DW 18X SATA Power: EDAC / EA11001F-190 Seasonic / SS-400ET 400W O.S.: Windows 8 Enterprise 32Bit (English) Test Summary: Environment Temp:26°C CPU Temp.:29°C CPU Temp. after 3DMark:31°C 1.Passmark Performance Test 8.0 Build1027 CPU Mark:3718 Memory Mark:1107 2.AIDA64 Cache and Memory Benchmark Ver.4.50.3000 READ:10099MB/s WRITE:10108MB/s COPY:9912MB/s 3.3DMark for Windows Ver.1.3.708 Cloud Gate:3712 Ice Storm:23157 Skydiver:2041 Strike Test:441</p>	<b>Pass</b>



<b>15</b>	<p>Transcend (TS256MSK64W3N 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Hynix (H5TQ2G83BFR-H9C) / PC3-10600 (DDR3L-1333) / 2GB *1</p>	<p>M/B: HU553-N-2980U Rev.1 (011) (BSE261100012) M/B BIOS: AMI-Aptio 07/09/2014 M/B Driver: Demo Jul/18/2014 CPU: Intel / Celeron 2980U (Haswell-ULT/D0-SR1DM) / 1.6GHz DIMM Slot: DIMM-1 (Single channel) SSD: Crucial / CT120M500SSD1 SATA3 120GB/2.5" Display: On Board DVD-ROM: Pioneer / DVD-231DW 18X SATA Power: EDAC / EA11001F-190 Seasonic / SS-400ET 400W O.S.: Windows 7 Ultimate 64Bit (English) &amp; SP1 Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:961 2.AIDA64 Cache and Memory Benchmark Ver.4.50.3000 READ:9985MB/s WRITE:9885MB/s COPY:8635MB/s 3.3DMark for Windows Ver.1.3.708 Cloud Gate:2290 Ice Storm:15418 Skydiver:1387 Strike Test:313</p>	<b>Pass</b>
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No.	DDR3 Module	Test Environment	Result
<b>16</b>	<p>Crucial (CT25664BF1339.8FMR (MT8KTF25664HZ-1G4M1) 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Micron (2EM77D9PFJ) / PC3L-10600 (DDR3L-1333) / 2GB *1</p>	<p>M/B: HU551-N-4650U Rev.1 (011) (BSE260900011) M/B BIOS: AMI-Aptio 07/09/2014 M/B Driver: Demo Jul/18/2014 CPU: Intel / Core i7-4650U (Haswell-ULT/C0-SR16H) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SSD: Crucial / CT120M500SSD1 SATA3 120GB/2.5" Display: On Board DVD-RW: Archgon / MD-3107-U3 USB3.0 Blu-Ray Power: FSP / FSP060-DBAB1 Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 32Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:118 2.AIDA64 Cache and Memory Benchmark Ver.4.50.3000 READ:10114MB/s WRITE:10129MB/s COPY:9849MB/s 3.3DMark for Windows Ver.1.3.708 Cloud Gate:3938 Ice Storm:26478 Skydiver:2396 Strike Test:517</p>	<b>Pass</b>



<b>17</b>	Transcend (TS256MSK64W3N 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / SEC (K4B2G0846Q) / PC3-10600 (DDR3L-1333) / 2GB *1	M/B: HU551-N-4010U Rev.1 (011) (BSE260900008) M/B BIOS: AMI-Aptio 07/09/2014 M/B Driver: Demo Jul/18/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM Display: On Board DVD-ROM: Pioneer / DVD-230DW 18X Power: FSP / FSP060-DBAB1 Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 32Bit (English) & SP1 Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1171 2.AIDA64 Cache and Memory Benchmark Ver.4.50.3000 READ:10033MB/s WRITE:10011MB/s COPY:9501MB/s 3.3DMark for Windows Ver.1.3.708 Cloud Gate:3244 Ice Storm:18853 Skydiver:2112 Strike Test:453 Overnight looping under 11 hours	<b>Pass</b>
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## 2. Stability Test: Rev.022

### 2.1 CPU Test:

#### Procedure:

- (1) Install O.S.
- (2) Check CPU information & specification with CPU-Z.
- (3) Run AIDA64 Cache and Memory Benchmark Ver.5.00.3300 - 1 time.
- (4) Run Passmark Performance Test 8.0 Build1040 - 1 time.
- (5) Run 3DMark for Windows Ver.1.4.828 BenchMark - 3 times.
- (6) Check CPU temperature in the BIOS after running 3DMark.
- (7) Run S3/S4/S5 - 3 times.

No.	CPU	Type	CPU Temp.	Result
1	Intel / 1.7GHz	Core i7-4650U (Haswell-ULT/C0-SR16H) / 15W / FCBGA1168	29.5 °C	Pass
2	Intel / 1.9GHz	Core i5-4300U (Haswell-ULT/D0-SR1ED) / 15W / FCBGA1168	31.5 °C	Pass
3	Intel / 1.7GHz	Core i3-4010U (Haswell-ULT/C0-SR16Q) / 15W / FCBGA1168	32.0 °C	Pass
4	Intel / 1.6GHz	Celeron 2980U (Haswell-ULT/D0-SR1DM) / 15W / FCBGA1168	36.5 °C	Pass (was:ID24377)

### 2.2 DDR3 SO-DIMM Approved List:



**Procedure:**

- (1) Install O.S.**
- (2) Check Memory information & specification with CPU-Z.**
- (3) Run AIDA64 Cache and Memory Benchmark Ver.5.00.3300 - 1 time.**
- (4) Run Passmark Performance Test 8.0 Build1040 - 1 time.**
- (5) Run 3DMark for Windows Ver.1.4.828 BenchMark - 3 times.**
- (6) Run S3/S4/S5 - 3 times.**

No.	Brand	Chip	Size	Type	Chip Model No.	Vendor Part No.	Result
1	Crucial	Micron	8GB	PC3L-12800 (DDR3L-1600)	2RD27D9PCP	CT102464BF160B.16FDD (MT16KTF1G64HZ-1G6D1) 1.35/1.5V [512Mx8b-x16/1024Mx64b,CL=11-11-11-30]	Pass
2	ADATA	Micron	8GB	PC3L-12800 (DDR3L-1600)	3DE77D9Q8J	ADDS1600W8G11-BMIE (10281788) 1.35V/1.5V [512Mx8b-x16/1GBx64b,CL=11-11-11]	Pass
3	INNODISK	Micron	4GB	PC3L-12800 (DDR3L-1600)	1XM77-D9PFJ	M3SP-4GMJDL0C-M 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=9]	Pass
4	Apacer	Micron	4GB	PC3L-12800 (DDR3L-1600)	2DM77-D9PFJ	75.B83DL.G000C 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=11]	Pass
5	INNODISK	Micron	2GB	PC3L-12800 (DDR3L-1600)	1WM77-D9PFJ	M3SP-2GMJCL0C-M 1.35V/1.5V [256Mx8b-x8/256Mx64b,CL=9]	Pass
6	Transcend	Hynix	4GB	PC3-10600 (DDR3L-1333)	H5TQ2G83BFR-H9C	TS512MSK64W3N 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=9]	Pass
7	Apacer	ELPIDA	2GB	PC3-10600 (DDR3L-1333)	J2108ECSE-DJ-F	78.A2GCL4200C 1.35V [256Mx8b-x8/256Mx64b,CL=9]	Pass
8	Transcend	Hynix	2GB	PC3-10600 (DDR3L-1333)	H5TQ2G83BFR-H9C	TS256MSK64W3N 1.35V/1.5V [256Mx8b-x8/256Mx64b,CL=9]	Pass

## 2.3 DDR3 SO-DIMM Test Procedures:

### Procedure:

- (1) Install O.S.**
- (2) Check Memory information & specification with CPU-Z.**
- (3) Run AIDA64 Cache and Memory Benchmark Ver.5.00.3300 - 1 time.**
- (4) Run Passmark Performance Test 8.0 Build1040 - 1 time.**
- (5) Run 3DMark for Windows Ver.1.4.828 BenchMark - 3 times.**
- (6) Run S3/S4/S5 - 3 times.**

No.	DDR3 Module	Test Environment	Result
<b>1</b>	Crucial (CT102464BF160B.16FDD (MT16KTF1G64HZ-1G6D1) 1.35V/1.5V) [512Mx8b-x16/1024Mx64b,CL=11-11-11-30] / Micron (2RD27D9PCP) / PC3L-12800 (DDR3L-1600) / 8GB *1	M/B: HU553-N-4650U Rev.2 (022) (BSE461200005) M/B BIOS: AMI-Aptio 01/20/2015 M/B Driver: Demo Nov/28/2014 CPU: Intel / Core i7-4650U (Haswell-ULT/C0-SR16H) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: WD / WD1002FAEX-00Z3A0 SATA3 NCQ 1TB/7200RPM Display: On-board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: FSP / FSP120-1ADE21 O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:25.5°C CPU Temp.:32°C CPU Temp. after 3DMark:29.5°C 1.AIDA64 Cache and Memory Benchmark Ver.5.00.3300 READ:11880 MB/s WRITE:12144 MB/s COPY:12081 MB/s 2.Passmark Performance Test 8.0 Build 1040 CPU Mark:1918 Memory Mark:1556 3.3DMark for Windows Ver.1.4.828 Cloud Gate:4410 Ice Storm Extreme:28719 Skydiver:3003 Fire Strike:647	<b>Pass</b>

<p><b>2</b></p>	<p>ADATA (ADDS1600W8G11-BMIE (10281788) 1.35V/1.5V) [512Mx8b-x16/1GBx64b,CL=11-11-11] / Micron (3DE77D9Q8J) / PC3L-12800 (DDR3L-1600) / 8GB *1</p>	<p>M/B: HU551-N-2980U Rev.2 (022) (BSE461000003) M/B BIOS: AMI-Aptio 01/20/2015 M/B Driver: Demo Nov/28/2014 CPU: Intel / Celeron 2980U (Haswell-ULT/D0-SR1DM) / 1.6GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: Seagate / ST3750640SV SATA2 750GB/7200RPM Display: On-board DVD-RW: Asus / SDRW-08D2S-U/BLK/G/AS USB2.0 Power: EDAC / EA10521C-120 O.S.: Windows 7 Ultimate 64Bit (English) &amp; SP1 Test Summary: Environment Temp.:25.6°C CPU Temp.:30.5°C CPU Temp. after 3DMark:36.5°C 1.AIDA64 Cache and Memory Benchmark Ver.5.00.3300 READ:11786 MB/s WRITE:11832 MB/s COPY:10532 MB/s 2.Passmark Performance Test 8.0 Build 1040 CPU Mark:1844 Memory Mark:1338 3.3DMark for Windows Ver.1.4.828 Cloud Gate:2443 Ice Storm Extreme:17514 Skydiver:1478 Fire Strike:323</p>	<p><b>Pass</b></p>
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No.	DDR3 Module	Test Environment	Result
3	INNODISK (M3SP-4GMJDL0C-M 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=9] / Micron (1XM77-D9PFJ) / PC3L-12800 (DDR3L-1600) / 4GB *1	M/B: HU551-N-4300U Rev.2 (022) (BSE460800005) M/B BIOS: AMI-Aptio 01/20/2015 M/B Driver: Demo Nov/28/2014 CPU: Intel / Core i5-4300U (Haswell-ULT/D0-SR1ED) / 1.9GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: WD / WD6400BEVT-00A0RT0 SATA2 NCQ 640GB/5400RPM/2.5" Display: On-board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: FSP / FSP120-1ADE21 O.S.: Windows 7 Ultimate 64Bit (English) & SP1 Test Summary: Environment Temp.:25.0°C CPU Temp.:29.0°C CPU Temp. after 3DMark:31.5°C 1.AIDA64 Cache and Memory Benchmark Ver.5.00.3300 READ:12250 MB/s WRITE:12477 MB/s COPY:12314 MB/s 2.Passmark Performance Test 8.0 Build 1040 CPU Mark:3800 Memory Mark:1394 3.3DMark for Windows Ver.1.4.828 Cloud Gate:2376 Ice Storm Extreme:16457 Skydiver:1479 Fire Strike:328	Pass



<p><b>4</b></p>	<p>Apacer (75.B83DL.G000C 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=11] / Micron (2DM77-D9PFJ) / PC3L-12800 (DDR3L-1600) / 4GB *1</p>	<p>M/B: HU553-N-4650U Rev.2 (022) (BSE461200005) M/B BIOS: AMI-Aptio 01/20/2015 M/B Driver: Demo Nov/28/2014 CPU: Intel / Core i7-4650U (Haswell-ULT/C0-SR16H) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: WD / WD1002FAEX-00Z3A0 SATA3 NCQ 1TB/7200RPM Display: On-board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: FSP / FSP120-1ADE21 O.S.: Windows 7 Ultimate 64Bit (English) &amp; SP1 Test Summary: Environment Temp.:25.5°C CPU Temp.:32°C CPU Temp. after 3DMark:29.5°C 1.AIDA64 Cache and Memory Benchmark Ver.5.00.3300 READ:12095 MB/s WRITE:12193 MB/s COPY:12185 MB/s 2.Passmark Performance Test 8.0 Build 1040 CPU Mark:4462 Memory Mark:1543 3.3DMark for Windows Ver.1.4.828 Cloud Gate:4830 Ice Storm Extreme:24988 Skydiver:3076 Fire Strike:640</p>	<p><b>Pass</b></p>
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No.	DDR3 Module	Test Environment	Result
<b>5</b>	INNODISK (M3SP-2GMJCL0C-M 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Micron (1WM77-D9PFJ) / PC3L-12800 (DDR3L-1600) / 2GB *1	M/B: HU551-N-4010U Rev.2 (022) (BSE460900001) M/B BIOS: AMI-Aptio 01/20/2015 M/B Driver: Demo Nov/28/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM Display: On-board DVD-ROM: Asus / SDRW-08D2S-U/BLK/G/AS USB2.0 Power: EDAC / EA10521C-120 O.S.: Windows 7 Ultimate 32Bit (English) & SP1 Test Summary: Environment Temp.:25.1℃ CPU Temp.:30℃ CPU Temp. after 3DMark:32℃ 1.AIDA64 Cache and Memory Benchmark Ver.5.00.3300 READ:11919 MB/s WRITE:11987 MB/s COPY:11522 MB/s 2.Passmark Performance Test 8.0 Build 1040 CPU Mark:1901 Memory Mark:849 3.3DMark for Windows Ver.1.4.828 Cloud Gate:3343 Ice Storm Extreme:19244 Skydiver:2220 Fire Strike:452	<b>Pass</b>



<b>6</b>	<p>Transcend (TS512MSK64W3N 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=9] / Hynix (H5TQ2G83BFR-H9C) / PC3-10600 (DDR3L-1333) / 4GB *1</p>	<p>M/B: HU551-N-4010U Rev.2 (022) (BSE460900001) M/B BIOS: AMI-Aptio 01/20/2015 M/B Driver: Demo Nov/28/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: Seagate / STM3500320AS SATA2 NCQ 500GB/7200RPM Display: On-board DVD-RW: Asus / SDRW-08D2S-U/BLK/G/AS USB2.0 Power: EDAC / EA10521C-120 O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:25.1℃ CPU Temp.:30℃ CPU Temp. after 3DMark:32℃ 1.AIDA64 Cache and Memory Benchmark Ver.5.00.3300 READ:10191 MB/s WRITE:10389 MB/s COPY:10122 MB/s 2.Passmark Performance Test 8.0 Build 1040 CPU Mark:2540 Memory Mark:1165 3.3DMark for Windows Ver.1.4.828 Cloud Gate:3430 Ice Storm Extreme:16283 Skydiver:2200 Fire Strike:482</p>	<b>Pass</b>
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No.	DDR3 Module	Test Environment	Result
7	Apacer (78.A2GCL4200C 1.35V) [256Mx8b-x8/256Mx64b,CL=9] / ELPIDA (J2108ECSE-DJ-F) / PC3-10600 (DDR3L-1333) / 2GB *1	M/B: HU553-N-4650U Rev.2 (022) (BSE461200005) M/B BIOS: AMI-Aptio 01/20/2015 M/B Driver: Demo Nov/28/2014 CPU: Intel / Core i7-4650U (Haswell-ULT/C0-SR16H) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: WD / WD1002FAEX-00Z3A0 SATA3 NCQ 1TB/7200RPM Display: On-board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: FSP / FSP120-1ADE21 O.S.: Windows 8.1 Embedded Pro 32Bit (with update 1) (English) Test Summary: Environment Temp.:25.5°C CPU Temp.:32°C CPU Temp. after 3DMark:29.5°C 1.AIDA64 Cache and Memory Benchmark Ver.5.00.3300 READ:9758 MB/s WRITE:9638 MB/s COPY:9387 MB/s 2.Passmark Performance Test 8.0 Build 1040 CPU Mark:1880 Memory Mark:869 3.3DMark for Windows Ver.1.4.828 Cloud Gate:3948 Ice Storm Extreme:24766 Skydiver:2663 Fire Strike:547	Pass



<b>8</b>	<p>Transcend (TS256MSK64W3N 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Hynix (H5TQ2G83BFR-H9C) / PC3-10600 (DDR3L-1333) / 2GB *1</p>	<p>M/B: HU551-N-2980U Rev.2 (022) (BSE461000003) M/B BIOS: AMI-Aptio 01/20/2015 M/B Driver: Demo Nov/28/2014 CPU: Intel / Celeron 2980U (Haswell-ULT/D0-SR1DM) / 1.6GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: Seagate / ST3750640SV SATA2 750GB/7200RPM Display: On-board DVD-RW: Asus / SDRW-08D2S-U/BLK/G/AS USB2.0 Power: EDAC / EA10521C-120 O.S.: Windows 8.1 Embedded Pro 32Bit (with update 1) (English) Test Summary: Environment Temp.:25.6℃ CPU Temp.:30.5℃ CPU Temp. after 3DMark:36℃ 1.AIDA64 Cache and Memory Benchmark Ver.5.00.3300 READ:9631 MB/s WRITE:9583 MB/s COPY:8301 MB/s 2.Passmark Performance Test 8.0 Build 1040 CPU Mark:1374 Memory Mark:849 3.3DMark for Windows Ver.1.4.828 Cloud Gate:2247 Ice Storm Extreme:16283 Skydiver:1397 Fire Strike:454</p>	<b>Pass</b>
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