

1. Stability Test: Rev.021

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 - 5 minutes.
- (4) Run 3DMark for Windows Ver.1.2.362 BenchMark - 3 times.
- (5) Check CPU temperature in the BIOS after running 3DMark.
- (6) Run S1/S3/S4/S5 - 3 times.

No.	CPU	Type	CPU Temp.	Result
1	Intel / 1.7GHz	Core i7-4650U (Haswell-ULT/C0-SR16H) / 15W / FCBGA1168	47 °C	Pass
2	Intel / 1.9GHz	Core i5-4300U (Haswell-ULT/C0-SR1ED) / 15W / FCBGA1168	46 °C	Pass
3	Intel / 1.7GHz	Core i3-4010U (Haswell-ULT/C0-SR16Q) / 15W / FCBGA1168	31 °C	Pass
4	Intel / 1.6GHz	Celeron 2980U (Haswell-ULT/D0-SR1DM) / 15W / FCBGA1168	43 °C	Pass

1.2 DDR3 SO-DIMM Test:

Procedure:

- (1) Install O.S.
- (2) Check CPU information & specification with CPU-Z.
- (3) Run Passmark Performance Test 8.0 Build1027 - 5 minutes.
- (4) Run AIDA64 Cache and Memory Benchmark Ver.4.30.2900 - 1 time.
- (5) Run 3DMark for Windows Ver.1.2.362 BenchMark - 3 times.
- (6) Run S1/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	INNODISK	Micron	4GB	PC3-12800 (DDR3L-1600)	1XM77-D9PFJ	M3SP-4GMJDL0C-M 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=9]	Pass
4	Apacer	Micron	4GB	PC3-12800 (DDR3L-1600)	2DM77-D9PFJ	75.B83DL.G000C 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=11]	Pass



5	Crucial	Micron	4GB	PC3-12800 (DDR3L-1600)	2RM77D9PFJ	CT51264BF160B.16FMR (MT16KTF51264HZ-1G6M1) 1.35V/1.35V [256Mx8b-x16/512Mx64b,CL=11-11-11-30]	Pass
6	ADATA	Micron	4GB	PC3L-12800 (DDR3L-1600)	3DE77D9Q8J	ADD51600W4G11-BMIE (10281820) 1.35V/1.5V [512Mx8b-x8/512Mx64b,CL=11-11-11]	Pass
7	INNODISK	Micron	2GB	PC3-12800 (DDR3L-1600)	1WM77-D9PFJ	M3SP-2GMJCL0C-M 1.35V/1.5V [256Mx8b-x8/256Mx64b,CL=9]	Pass



No.	Brand	Chip	Size	Type	Chip Model No.	Vendor Part No.	Result
8	ADATA	Hynix(SK)	2GB	PC3L-12800 (DDR3L-1600)	H5TC2G83EFR PBA	ADDS1600C2G11-BHYE (10281881) 1.35V/1.5V [256Mx8b-x8/256Mx64b,CL=11-11-11]	Pass
9	Apacer	ELPIDA	4GB	PC3-10600 (DDR3L-1333)	J2108ECSE-DJ-F	78.B2GCL4210C 1.35V [256Mx8b-x16/512Mx64b,CL=9]	Pass
10	Transcend	Hynix	4GB	PC3-10600 (DDR3L-1333)	H5TQ2G83BFR-H9C	TS512MSK64W3N 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=9]	Pass
11	Apacer	ELPIDA	2GB	PC3-10600 (DDR3L-1333)	J2108ECSE-DJ-F	78.A2GCL4200C 1.35V [256Mx8b-x8/256Mx64b,CL=9]	Pass
12	Transcend	Hynix	2GB	PC3-10600 (DDR3L-1333)	H5TQ2G83BFR-H9C	TS256MSK64W3N 1.35V/1.5V [256Mx8b-x8/256Mx64b,CL=9]	Pass
13	Crucial	Micron	2GB	PC3L-10600 (DDR3L-1333)	ZEM77D9PFJ	CT25664BF1339.8FMR (MT8KTF25664HZ-1G4M1) 1.35V/1.5V [56Mx8b-x8/256Mx64b,CL=9]	Pass

1.3 DDR3 SO-DIMM Test Procedures:

Procedure:

- (1) Install O.S.
- (2) Check CPU information & specification with CPU-Z.
- (3) Run Passmark Performance Test 8.0 Build1027 - 5 minutes.
- (4) Run AIDA64 Cache and Memory Benchmark Ver.4.30.2900 - 1 time.
- (5) Run 3DMark for Windows Ver.1.2.362 BenchMark - 3 times.
- (6) Run S1/S3/S4/S5 - 3 times.

No.	DDR3 Module	Test Environment	Result
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<p style="text-align: center;">1</p>	<p>Apacer (75.C93DL.G000C 1.35V/1.5V) [512Mx8b-x16/1024Mx64b,CL=11] / Micron (2ED27-D9PCP) / PC3-12800 (DDR3L-1600) / 8GB *1</p>	<p>M/B: HU103-C4010U Rev.2 (021) (BSE131700009) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: WD / WD6400AAKS SATA2 NCQ 640GB/7200RPM Display: On-board DVD-RW: Archgon / MD-3107-U3 USB3.0 Blu-Ray Power: EDAC / EA11001F-190 O.S.: Windows 8.1 Enterprise 64Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1344 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:11656MB/s WRITE:11640MB/s COPY:11117MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:233 Fire Strike:515 Cloud Gate:3630 Ice Storm Unlimited:36531 Ice Storm Extreme:23402 Ice Storm:32370</p>	<p style="text-align: center;">Pass</p>
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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 *2	M/B: HU103-C4010U Rev.2 (021) (BSE131700009) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: WD / WD6400AAKS SATA2 NCQ 640GB/7200RPM Display: On-board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: EDAC / EA11001F-190 O.S.: Windows 7 Ultimate 64Bit (English) & SP1 Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:2639 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:18702MB/s WRITE:19710MB/s COPY:20562MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:279 Fire Strike:594 Cloud Gate:4047 Ice Storm Unlimited:39142 Ice Storm Extreme:27717 Ice Storm:440585	Pass



3	<p>INNODISK (M3SP-4GMJDLOC-M 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=9] / Micron (1XM77-D9PFJ) / PC3-12800 (DDR3L-1600) / 4GB *2</p>	<p>M/B: HU103-C4650U Rev.2 (021) (BSE131700004) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i7-4650U (Haswell-ULT/C0-SR16H) / 1.7GHz DIMM Slot: DIMM-1/2 (Dual channel) SSD: Crucial / CT120M500SSD1 SATA3 120GB/2.5" Display: On-board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: EDAC / EA11001F-190 O.S.: Windows 7 Ultimate 64Bit (English) & SP1 Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:2152 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:22107MB/s WRITE:24974MB/s COPY:23360MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:292 Fire Strike:630 Cloud Gate:4700 Ice Storm Unlimited:49773 Ice Storm Extreme:29773 Ice Storm:44497 Overnight looping under 11 hours</p>	Pass
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No.	DDR3 Module	Test Environment	Result
4	Apacer (75.B83DL.G000C 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=11] / Micron (2DM77-D9PFJ) / PC3-12800 (DDR3L-1600) / 4GB *1	M/B: HU103-C2980U Rev.2 (021) (BSE131700001) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Celeron 2980U (Haswell-ULT/D0-SR1DM) / 1.6GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: WD / WD6400AAKS SATA2 NCQ 640GB/7200RPM Display: On-board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: EDAC / EA11001F-190 O.S.: Windows 7 Ultimate 32Bit (English) & SP1 Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:958 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:12188MB/s WRITE:12045MB/s COPY:10940MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:155 Fire Strike:326 Cloud Gate:4445 Ice Storm Unlimited:26642 Ice Storm Extreme:16636 Ice Storm:24349 Overnight looping under 10 hours	Pass

5	<p>Crucial (CT51264BF160B.16FMR (MT16KTF51264HZ-1G6M1) 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=11-11-11-30] / Micron (2RM77D9PFJ) / PC3-12800 (DDR3L-1600) / 4GB *2</p>	<p>M/B: HU101-C4650U Rev.2 (021) (BSE131600037) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i7-4650U (Haswell-ULT/C0-SR16H) / 1.7GHz DIMM Slot: DIMM-1/2 (Dual channel) SSD: Silicon Power / SP120GBSS3V60S25 SATA3 120GB/2.5" Display: On-board DVD-ROM: Asus / DVD-E818A6T/BLK/G/AS 18X SATA Power: FSP / FSP060-DBAB1 O.S.: Windows 8 Enterprise 64Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:2041 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:18893MB/s WRITE:19716MB/s COPY:21036MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:293 Fire Strike:616 Cloud Gate:4558 Ice Storm Unlimited:50377 Ice Storm Extreme:31737 Ice Storm:45536</p>	Pass
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No.	DDR3 Module	Test Environment	Result
6	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: HU101-C2980U Rev.2 (021) (BSE131600046) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Celeron 2980U (Haswell-ULT/D0-SR1DM) / 1.6GHz DIMM Slot: DIMM-2 (Single channel) SATA HDD: Seagate / ST500DM002 SATA3 NCQ 500GB/7200RPM Display: On-board DVD-ROM: Pioneer / DVD-XD01 8X USB2.0 Slim Power: FSP / FSP060-DBAB1 O.S.: Windows 7 Ultimate 64Bit (English) & SP1 Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1171 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:11642MB/s WRITE:11743MB/s COPY:10069MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:150 Fire Strike:315 Cloud Gate:2347 Ice Storm Unlimited:25916 Ice Storm Extreme:15704 Ice Storm:423078 Overnight looping under 11 hours	Pass



7	<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: HU101-C4010U Rev.2 (021) (BSE131600008) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-2 (Single channel) SATA HDD: Seagate / ST500DM002 SATA3 NCQ 500GB/7200RPM Display: On-board DVD-ROM: Pioneer / DVD-XD01 8X USB2.0 Slim Power: FSP / FSP060-DBAB1 O.S.: Windows 8.1 Enterprise 32Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:869 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:11895MB/s WRITE:11967MB/s COPY:11422MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:210 Fire Strike:490 Cloud Gate:3435 Ice Storm Unlimited:36232 Ice Storm Extreme:22693 Ice Storm:31083</p>	Pass
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No.	DDR3 Module	Test Environment	Result
8	ADATA (ADDS1600C2G11-BHYE (10281881) 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=11-11-11] / Hynix(SK) (H5TC2G83EFR PBA) / PC3L-12800(DDR3L-1600) / 2GB *2	M/B: HU103-C4300U Rev.2 (021) (BSE131700005) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i5-4300U (Haswell-ULT/C0-SR1ED) / 1.9GHz DIMM Slot: DIMM-1/2 (Dual channel) SSD: Crucial / CT120M500SSD1 SATA3 120GB/2.5" Display: On-board DVD-ROM: Asus / DVD-E818A6T/BLK/G/AS 18X SATA Power: EDAC / EA11001F-190 O.S.: Windows 7 Ultimate 32Bit (English) & SP1 Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1450 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:21201MB/s WRITE:22970MB/s COPY:20279MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:268 Fire Strike:567 Cloud Gate:4708 Ice Storm Unlimited:47541 Ice Storm Extreme:29306 Ice Storm:24612	Pass

9	<p>Apacer (78.B2GCL4210C 1.35V) [256Mx8b-x16/512Mx64b,CL=9] / ELPIDA (J2108ECSE-DJ-F) / PC3-10600 (DDR3L-1333) / 4GB *2</p>	<p>M/B: HU103-C4010U Rev.2 (021) (BSE131700009) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-1/2 (Dual channel) SSD: Crucial / CT120M500SSD1 SATA3 120GB/2.5" Display: On-board DVD-RW: Archgon / MD-3107-U3 USB3.0 Blu-Ray Power: EDAC / EA11001F-190 O.S.: Windows 8.1 Enterprise 64Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1492 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:17472MB/s WRITE:19687MB/s COPY:18666MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:272 Fire Strike:4603 Cloud Gate:4003 Ice Storm Unlimited:39143 Ice Storm Extreme:28664 Ice Storm:40217</p>	Pass
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No.	DDR3 Module	Test Environment	Result
10	Transcend (TS512MSK64W3N 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=9] / Hynix (H5TQ2G83BFR-H9C) / PC3-10600 (DDR3L-1333) / 4GB *1	M/B: HU101-C4010U Rev.2 (021) (BSE131600008) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: Seagate / ST500DM002 SATA3 NCQ 500GB/7200RPM Display: On-board DVD-ROM: Pioneer / DVD-XD01 8X USB2.0 Slim Power: FSP / FSP060-DBAB1 O.S.: Windows 8 Enterprise 64Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1223 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:10296MB/s WRITE:10447MB/s COPY:10218MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:213 Fire Strike:468 Cloud Gate:3367 Ice Storm Unlimited:34891 Ice Storm Extreme:21992 Ice Storm:29697	Pass

11	<p>Apacer (78.A2GCL4200C 1.35V) [256Mx8b-x8/256Mx64b,CL=9] / ELPIDA (J2108ECSE-DJ-F) / PC3-10600 (DDR3L-1333) / 2GB *2</p>	<p>M/B: HU101-C4300U Rev.2 (021) (BSE131600015) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i5-4300U (Haswell-ULT/C0-SR1ED) / 1.9GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Seagate / ST500DM002 SATA3 NCQ 500GB/7200RPM Display: On-board DVD-ROM: Pioneer / DVD-XD01 8X USB2.0 Slim Power: FSP / FSP060-DBAB1 O.S.: Windows 8.1 Enterprise 32Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1416 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:18875MB/s WRITE:19865MB/s COPY:17849MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:247 Fire Strike:535 Cloud Gate:4309 Ice Storm Unlimited:46326 Ice Storm Extreme:27574 Ice Storm:41100</p>	Pass
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No.	DDR3 Module	Test Environment	Result
12	Transcend (TS256MSK64W3N 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Hynix (H5TQ2G83BFR-H9C) / PC3-10600 (DDR3L-1333) / 2GB *1	M/B: HU103-C4010U Rev.2 (021) (BSE131700009) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-2 (Single channel) SATA HDD: WD / WD3200YS SATA2 NCQ 320GB/7200RPM Display: On-board DVD-ROM: Asus / DVD-E818A6T/BLK/G/AS 18X SATA Power: EDAC / EA11001F-190 O.S.: Windows 8 Enterprise 32Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:904 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:9596MB/s WRITE:9352MB/s COPY:9179MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:180 Fire Strike:447 Cloud Gate:3289 Ice Storm Unlimited:35060 Ice Storm Extreme:21036 Ice Storm:29056	Pass

13	<p>Crucial (CT25664BF1339.8FMR (MT8KTF25664HZ-1G4M1) 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Micron (2EM77D9PFJ) / PC3L-10600 (DDR3L-1333) / 2GB *2</p>	<p>M/B: HU101-C4010U Rev.2 (021) (BSE131600008) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-1/2 (Dual channel) SSD: Silicon Power / SP120GBSS3V60S25 SATA3 120GB/2.5" Display: On-board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: FSP / FSP060-DBAB1 O.S.: Windows 8 Enterprise 32Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1057 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:16555MB/s WRITE:18575MB/s COPY:16377MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:258 Fire Strike:572 Cloud Gate:3872 Ice Storm Unlimited:38822 Ice Storm Extreme:29652 Ice Storm:41106</p>	Pass
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2. Stability Test: Rev.021/022/0A1

2.1 CPU Test:

Procedure:

- (1) Install O.S.
- (2) Check CPU information & specification with CPU-Z.
- (3) Run Passmark Performance Test 8.0 Build1027 - 5minutes.
- (4) Run 3DMark for WindowsVer.1.2.362Benchmark - 3 times.
- (5) Check CPU temperature in the BIOS after running 3DMark.
- (6) Run S1/S3/S4/S5 - 3 times.

No.	CPU	Type	CPU Temp.	Result
1	Intel / 1.7GHz	Core i7-4650U (Haswell-ULT/C0-SR16H) / 15W / FCBGA1168	47 °C	Pass
2	Intel / 1.9GHz	Core i5-4300U (Haswell-ULT/C0-SR1ED) / 15W / FCBGA1168	46 °C	Pass
3	Intel / 1.7GHz	Core i3-4010U (Haswell-ULT/C0-SR16Q) / 15W / FCBGA1168	31 °C	Pass
4	Intel / 1.6GHz	Celeron 2980U (Haswell-ULT/D0-SR1DM) / 15W / FCBGA1168	43 °C	Pass

2.2 DDR3 SO-DIMM Test:

Procedure:

- (1) Install O.S.
- (2) Check CPU information & specification with CPU-Z.
- (3) Run Passmark Performance Test 8.0 Build1027 - 5 minutes.
- (4) Run AIDA64 Cache and Memory Benchmark Ver.4.30.2900 - 1 time.
- (5) Run 3DMark for WindowsVer.1.2.362Benchmark - 3 times.
- (6) Run S1/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	INNODISK	Micron	4GB	PC3-12800 (DDR3L-1600)	1XM77-D9PFJ	M3SP-4GMJDL0C-M 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=9]	Pass
4	Apacer	Micron	4GB	PC3-12800 (DDR3L-1600)	2DM77-D9PFJ	75.B83DL.G000C 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=11]	Pass

5	Crucial	Micron	4GB	PC3-12800 (DDR3L-1600)	2RM77D9PFJ	CT51264BF160B.16FMR (MT16KTF51264HZ-1G6M1) 1.35V/1.35V [256Mx8b-x16/512Mx64b,CL=11-11-11-30]	Pass
6	ADATA	Micron	4GB	PC3L-12800 (DDR3L-1600)	3DE77D9Q8J	ADD51600W4G11-BMIE (10281820) 1.35V/1.5V [512Mx8b-x8/512Mx64b,CL=11-11-11]	Pass
7	INNODISK	Micron	2GB	PC3-12800 (DDR3L-1600)	1WM77-D9PFJ	M3SP-2GMJCL0C-M 1.35V/1.5V [256Mx8b-x8/256Mx64b,CL=9]	Pass



No.	Brand	Chip	Size	Type	Chip Model No.	Vendor Part No.	Result
8	ADATA	Hynix(SK)	2GB	PC3L-12800 (DDR3L-1600)	H5TC2G83EFR PBA	ADDS1600C2G11-BHYE (10281881) 1.35V/1.5V [256Mx8b-x8/256Mx64b,CL=11-11-11]	Pass
9	Apacer	ELPIDA	4GB	PC3-10600 (DDR3L-1333)	J2108ECSE-DJ-F	78.B2GCL4210C 1.35V [256Mx8b-x16/512Mx64b,CL=9]	Pass
10	Transcend	Hynix	4GB	PC3-10600 (DDR3L-1333)	H5TQ2G83BFR-H9C	TS512MSK64W3N 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=9]	Pass
11	Apacer	ELPIDA	2GB	PC3-10600 (DDR3L-1333)	J2108ECSE-DJ-F	78.A2GCL4200C 1.35V [256Mx8b-x8/256Mx64b,CL=9]	Pass
12	Transcend	Hynix	2GB	PC3-10600 (DDR3L-1333)	H5TQ2G83BFR-H9C	TS256MSK64W3N 1.35V/1.5V [256Mx8b-x8/256Mx64b,CL=9]	Pass
13	Crucial	Micron	2GB	PC3L-10600 (DDR3L-1333)	ZEM77D9PFJ	CT25664BF1339.8FMR (MT8KTF25664HZ-1G4M1) 1.35V/1.5V [56Mx8b-x8/256Mx64b,CL=9]	Pass

2.3 DDR3 SO-DIMM Test Procedures:

Procedure:

- (1) Install O.S.
- (2) Check CPU information & specification with CPU-Z.
- (3) Run Passmark Performance Test 8.0 Build1027 - 5 minutes.
- (4) Run AIDA64 Cache and Memory Benchmark Ver.4.30.2900 - 1 time.
- (5) Run 3DMark for Windows Ver.1.2.362 Benchmark - 3 times.
- (6) Run S1/S3/S4/S5 - 3 times.

No.	DDR3 Module	Test Environment	Result
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1	<p>Apacer (75.C93DL.G000C 1.35V/1.5V) [512Mx8b-x16/1024Mx64b,CL=11] / Micron (2ED27-D9PCP) / PC3-12800 (DDR3L-1600) / 8GB *1</p>	<p>M/B: HU103-C4010U Rev.2 (021) (BSE131700009) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: WD / WD6400AAKS SATA2 NCQ 640GB/7200RPM Display: On-board DVD-RW: Archgon / MD-3107-U3 USB3.0 Blu-Ray Power: EDAC / EA11001F-190 O.S.: Windows 8.1 Enterprise 64Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1344 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:11656MB/s WRITE:11640MB/s COPY:11117MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:233 Fire Strike:515 Cloud Gate:3630 Ice Storm Unlimited:36531 Ice Storm Extreme:23402 Ice Storm:32370</p>	Pass
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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 *2	M/B: HU103-C4010U Rev.2 (021) (BSE131700009) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: WD / WD6400AAKS SATA2 NCQ 640GB/7200RPM Display: On-board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: EDAC / EA11001F-190 O.S.: Windows 7 Ultimate 64Bit (English) & SP1 Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:2639 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:18702MB/s WRITE:19710MB/s COPY:20562MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:279 Fire Strike:594 Cloud Gate:4047 Ice Storm Unlimited:39142 Ice Storm Extreme:27717 Ice Storm:440585	Pass



3	<p>INNODISK (M3SP-4GMJDLOC-M 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=9] / Micron (1XM77-D9PFJ) / PC3-12800 (DDR3L-1600) / 4GB *2</p>	<p>M/B: HU103-C4650U Rev.2 (021) (BSE131700004) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i7-4650U (Haswell-ULT/C0-SR16H) / 1.7GHz DIMM Slot: DIMM-1/2 (Dual channel) SSD: Crucial / CT120M500SSD1 SATA3 120GB/2.5" Display: On-board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: EDAC / EA11001F-190 O.S.: Windows 7 Ultimate 64Bit (English) & SP1 Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:2152 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:22107MB/s WRITE:24974MB/s COPY:23360MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:292 Fire Strike:630 Cloud Gate:4700 Ice Storm Unlimited:49773 Ice Storm Extreme:29773 Ice Storm:44497 Overnight looping under 11 hours</p>	Pass
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No.	DDR3 Module	Test Environment	Result
4	Apacer (75.B83DL.G000C 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=11] / Micron (2DM77-D9PFJ) / PC3-12800 (DDR3L-1600) / 4GB *1	M/B: HU103-C2980U Rev.2 (021) (BSE131700001) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Celeron 2980U (Haswell-ULT/D0-SR1DM) / 1.6GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: WD / WD6400AAKS SATA2 NCQ 640GB/7200RPM Display: On-board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: EDAC / EA11001F-190 O.S.: Windows 7 Ultimate 32Bit (English) & SP1 Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:958 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:12188MB/s WRITE:12045MB/s COPY:10940MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:155 Fire Strike:326 Cloud Gate:4445 Ice Storm Unlimited:26642 Ice Storm Extreme:16636 Ice Storm:24349 Overnight looping under 10 hours	Pass

5	<p>Crucial (CT51264BF160B.16FMR (MT16KTF51264HZ-1G6M1) 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=11-11-11-30] / Micron (2RM77D9PFJ) / PC3-12800 (DDR3L-1600) / 4GB *2</p>	<p>M/B: HU101-C4650U Rev.2 (021) (BSE131600037) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i7-4650U (Haswell-ULT/C0-SR16H) / 1.7GHz DIMM Slot: DIMM-1/2 (Dual channel) SSD: Silicon Power / SP120GBSS3V60S25 SATA3 120GB/2.5" Display: On-board DVD-ROM: Asus / DVD-E818A6T/BLK/G/AS 18X SATA Power: FSP / FSP060-DBAB1 O.S.: Windows 8 Enterprise 64Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:2041 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:18893MB/s WRITE:19716MB/s COPY:21036MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:293 Fire Strike:616 Cloud Gate:4558 Ice Storm Unlimited:50377 Ice Storm Extreme:31737 Ice Storm:45536</p>	Pass
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No.	DDR3 Module	Test Environment	Result
6	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: HU101-C2980U Rev.2 (021) (BSE131600046) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Celeron 2980U (Haswell-ULT/D0-SR1DM) / 1.6GHz DIMM Slot: DIMM-2 (Single channel) SATA HDD: Seagate / ST500DM002 SATA3 NCQ 500GB/7200RPM Display: On-board DVD-ROM: Pioneer / DVD-XD01 8X USB2.0 Slim Power: FSP / FSP060-DBAB1 O.S.: Windows 7 Ultimate 64Bit (English) & SP1 Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1171 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:11642MB/s WRITE:11743MB/s COPY:10069MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:150 Fire Strike:315 Cloud Gate:2347 Ice Storm Unlimited:25916 Ice Storm Extreme:15704 Ice Storm:423078 Overnight looping under 11 hours	Pass



7	<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: HU101-C4010U Rev.2 (021) (BSE131600008) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-2 (Single channel) SATA HDD: Seagate / ST500DM002 SATA3 NCQ 500GB/7200RPM Display: On-board DVD-ROM: Pioneer / DVD-XD01 8X USB2.0 Slim Power: FSP / FSP060-DBAB1 O.S.: Windows 8.1 Enterprise 32Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:869 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:11895MB/s WRITE:11967MB/s COPY:11422MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:210 Fire Strike:490 Cloud Gate:3435 Ice Storm Unlimited:36232 Ice Storm Extreme:22693 Ice Storm:31083</p>	Pass
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No.	DDR3 Module	Test Environment	Result
8	ADATA (ADDS1600C2G11-BHYE (10281881) 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=11-11-11] / Hynix(SK) (H5TC2G83EFR PBA) / PC3L-12800(DDR3L-1600) / 2GB*2	M/B: HU103-C4300U Rev.2 (021) (BSE131700005) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i5-4300U (Haswell-ULT/C0-SR1ED) / 1.9GHz DIMM Slot: DIMM-1/2 (Dual channel) SSD: Crucial / CT120M500SSD1 SATA3 120GB/2.5" Display: On-board DVD-ROM: Asus / DVD-E818A6T/BLK/G/AS 18X SATA Power: EDAC / EA11001F-190 O.S.: Windows 7 Ultimate 32Bit (English) & SP1 Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1450 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:21201MB/s WRITE:22970MB/s COPY:20279MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:268 Fire Strike:567 Cloud Gate:4708 Ice Storm Unlimited:47541 Ice Storm Extreme:29306 Ice Storm:24612	Pass



9	<p>Apacer (78.B2GCL4210C 1.35V) [256Mx8b-x16/512Mx64b,CL=9] / ELPIDA (J2108ECSE-DJ-F) / PC3-10600 (DDR3L-1333) / 4GB *2</p>	<p>M/B: HU103-C4010U Rev.2 (021) (BSE131700009) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-1/2 (Dual channel) SSD: Crucial / CT120M500SSD1 SATA3 120GB/2.5" Display: On-board DVD-RW: Archgon / MD-3107-U3 USB3.0 Blu-Ray Power: EDAC / EA11001F-190 O.S.: Windows 8.1 Enterprise 64Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1492 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:17472MB/s WRITE:19687MB/s COPY:18666MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:272 Fire Strike:4603 Cloud Gate:4003 Ice Storm Unlimited:39143 Ice Storm Extreme:28664 Ice Storm:40217</p>	Pass
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No.	DDR3 Module	Test Environment	Result
10	Transcend (TS512MSK64W3N 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=9] / Hynix (H5TQ2G83BFR-H9C) / PC3-10600 (DDR3L-1333) / 4GB *1	M/B: HU101-C4010U Rev.2 (021) (BSE131600008) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: Seagate / ST500DM002 SATA3 NCQ 500GB/7200RPM Display: On-board DVD-ROM: Pioneer / DVD-XD01 8X USB2.0 Slim Power: FSP / FSP060-DBAB1 O.S.: Windows 8 Enterprise 64Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1223 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:10296MB/s WRITE:10447MB/s COPY:10218MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:213 Fire Strike:468 Cloud Gate:3367 Ice Storm Unlimited:34891 Ice Storm Extreme:21992 Ice Storm:29697	Pass

11	<p>Apacer (78.A2GCL4200C 1.35V) [256Mx8b-x8/256Mx64b,CL=9] / ELPIDA (J2108ECSE-DJ-F) / PC3-10600 (DDR3L-1333) / 2GB *2</p>	<p>M/B: HU101-C4300U Rev.2 (021) (BSE131600015) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i5-4300U (Haswell-ULT/C0-SR1ED) / 1.9GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Seagate / ST500DM002 SATA3 NCQ 500GB/7200RPM Display: On-board DVD-ROM: Pioneer / DVD-XD01 8X USB2.0 Slim Power: FSP / FSP060-DBAB1 O.S.: Windows 8.1 Enterprise 32Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1416 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:18875MB/s WRITE:19865MB/s COPY:17849MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:247 Fire Strike:535 Cloud Gate:4309 Ice Storm Unlimited:46326 Ice Storm Extreme:27574 Ice Storm:41100</p>	Pass
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No.	DDR3 Module	Test Environment	Result
12	Transcend (TS256MSK64W3N 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Hynix (H5TQ2G83BFR-H9C) / PC3-10600 (DDR3L-1333) / 2GB *1	M/B: HU103-C4010U Rev.2 (021) (BSE131700009) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-2 (Single channel) SATA HDD: WD / WD3200YS SATA2 NCQ 320GB/7200RPM Display: On-board DVD-ROM: Asus / DVD-E818A6T/BLK/G/AS 18X SATA Power: EDAC / EA11001F-190 O.S.: Windows 8 Enterprise 32Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:904 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:9596MB/s WRITE:9352MB/s COPY:9179MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:180 Fire Strike:447 Cloud Gate:3289 Ice Storm Unlimited:35060 Ice Storm Extreme:21036 Ice Storm:29056	Pass

13	<p>Crucial (CT25664BF1339.8FMR (MT8KTF25664HZ-1G4M1) 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Micron (2EM77D9PFJ) / PC3L-10600 (DDR3L-1333) / 2GB *2</p>	<p>M/B: HU101-C4010U Rev.2 (021) (BSE131600008) M/B BIOS: AMI-Aptio 04/22/2014 M/B Driver: Demo Apr/29/2014 CPU: Intel / Core i3-4010U (Haswell-ULT/C0-SR16Q) / 1.7GHz DIMM Slot: DIMM-1/2 (Dual channel) SSD: Silicon Power / SP120GBSS3V60S25 SATA3 120GB/2.5" Display: On-board DVD-ROM: Pioneer / DVD-230DW 18X SATA Power: FSP / FSP060-DBAB1 O.S.: Windows 8 Enterprise 32Bit (English) Test Summary: 1.Passmark Performance Test 8.0 Build1027 Memory Mark:1057 2.AIDA64 Cache and Memory Benchmark Ver.4.30.2900 READ:16555MB/s WRITE:18575MB/s COPY:16377MB/s 3.3DMark for Windows Ver.1.2.362 Fire Strike Extreme:258 Fire Strike:572 Cloud Gate:3872 Ice Storm Unlimited:38822 Ice Storm Extreme:29652 Ice Storm:41106</p>	Pass
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