

1. Stability Test: Rev.023/0A1

1.1 CPU Function Test:

Test Purpose	Test CPU functions work normally under Windows Operating System
Test Procedure	<ol style="list-style-type: none"> 1. Install Windows Operating System 2. Install M/B Device Driver 3. CPU-Z check CPU info 4. Run AIDA64 Cache and Memory Benchmark Ver.5.60.3700 1 time 5. Run Passmark Performance Test 8.0 Build1053 1 time 6. Run 3DMark for Windows Ver.1.5.915 BenchMark 3 times 7. S3/Hibernate Test 3 times
Test Criteria	It should be no problem for all tests

No.	CPU	Type	CPU Temp.	Result
1	Intel / 1.6GHz	Pentium-N3710 (Braswell/D1-QK0G) / 6W / FCBGA1170	42.0 °C	Pass
2	Intel / 1.6GHz	Celeron N3060 (Braswell/D1-QK0J) / 6W / FCBGA1170	40.0 °C	Pass
3	Intel / 1.04GHz	Atom x5 E8000 (Braswell/QKFT) / 5W / FCBGA1170	32.5 °C	Pass

1.2 Memory Function Test:

Test Purpose	Test Memory functions work normally under Windows Operating System
Test Procedure	<ol style="list-style-type: none"> 1. Install Windows Operating System 2. Install M/B Device Driver 3. Run AIDA64 Cache and Memory Benchmark Ver.5.60.3700 1 time 4. Run Passmark Performance Test 8.0 Build1053 1 time 5. Run 3DMark for Windows Ver.1.5.915 BenchMark 3 times 6. S3/Hibernate Test 3 times
Test Criteria	It should be no problem for the test

1.2.1 DDRIII:

No.	Function	Result
1	Single Channel mode	Pass
2	Dual channel mode	Pass
3	DIMM Slot1	Pass

1.2.2 Application Test:

No.	Software	Test Keypoint	Test Environment	Result
1	MemTest86 Ver.6.0.0	1. Burn-In test 12 hours.	M/B: BW171-NB-N3060 Rev.2 (023) (BSF510500002) M/B BIOS: Insyde 12/28/2015 M/B Driver: Demo ver.0.2.1511.0 CPU: Intel / Celeron N3060 (Braswell/D1-QK0J) / 1.6GHz DDR3: Apacer (75.C93DL.G000C 1.35V/1.5V) [512Mx8b-x16/1024Mx64b,CL=11] / Micron (2ED27-D9PCP) / PC3L-12800 (DDR3L-1600) / 8GB *1 SATA HDD: Hitachi / HDP725025GLA380 SATA2 NCQ 250GB/7200RPM Display: On Board (using D-Sub) DVD-ROM: Asus / DVD-E818A9T 18X SATA Power: EDAC / EA10521C-120 O.S.: DOS	Pass

1.2.3 DDR3 SO-DIMM Approved List:

No.	Brand	Chip	Size	Type	Chip Model No.	Vendor Part No.	Result
1	Apacer	Micron	8GB	PC3L-12800 (DDR3L-1600)	2ED27-D9PCP	75.C93DL.G000C 1.35V/1.5V [512Mx8b-x16/1024Mx64b,CL=11]	Pass
2	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
3	Apacer	Micron	4GB	PC3L-12800 (DDR3L-1600)	2DM77-D9PFJ	75.B83DL.G000C 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=11]	Pass
4	Crucial	Micron	4GB	PC3L-12800 (DDR3L-1600)	2RM77D9PFJ	CT51264BF160B.16FMR (MT16KTF51264HZ-1G6M1) 1.35V/1.35V [256Mx8b-x16/512Mx64b,CL=11-11-11-30]	Pass (was: ID3633)
5	Transcend	SEC	4GB	PC3L-12800 (DDR3L-1600)	K4B4G0846D	TS512MSK64W6H 1.35V/1.5V [512Mx8b-x8/512Mx64b,CL=11-11-11]	Pass
6	Apacer	ELPIDA	4GB	PC3-10600 (DDR3L-1333)	J2108ECSE-DJ-F	78.B2GCL4210C 1.35V [256Mx8b-x16/512Mx64b,CL=9]	Pass
7	Transcend	Hynix	2GB	PC3-10600 (DDR3L-1333)	H5TQ2G83BFR-H9C	TS256MSK64W3N 1.35V/1.5V [256Mx8b-x8/256Mx64b,CL=9]	Pass
8	Crucial	Micron	2GB	PC3L-10600 (DDR3L-1333)	2EM77D9PFJ	CT25664BF1339.8FMR (MT8KTF25664HZ-1G4M1) 1.35V/1.5V [56Mx8b-x8/256Mx64b,CL=9]	Pass (was: ID2148)

1.2.4 DDR3 SO-DIMM Test Procedures:

No.	DDR3 Module	Test Environment	Result
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<p style="text-align: center; font-weight: bold;">1</p>	<p>Apacer (75.C93DL.G000C 1.35V/1.5V) [512Mx8b-x16/1024Mx64b,CL=11] / Micron (2ED27-D9PCP) / PC3L-12800 (DDR3L-1600) / 8GB *1</p>	<p>M/B: BW171-NB-N3060 Rev.2 (023) (BSF510500002)</p> <p>M/B BIOS: Insyde 12/28/2015</p> <p>M/B Driver: Demo ver.0.2.1511.0</p> <p>CPU: Intel / Celeron N3060 (Braswell/D1-QK0J) / 1.6GHz</p> <p>DIMM Slot: DIMM-1 (Single channel)</p> <p>SATA HDD: Hitachi / HDP725025GLA380 SATA2 NCQ 250GB/7200RPM</p> <p>Display: On Board (using D-Sub)</p> <p>DVD-ROM: Asus / DVD-E818A9T 18X SATA</p> <p>Power: EDAC / EA10521C-120</p> <p>O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English)</p> <p>Test Summary: Environment Temp.:23.1℃</p> <p>CPU Temp.:41.0℃</p> <p>CPU Temp. after 3DMark:40.0℃</p> <p>1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700</p> <p style="padding-left: 20px;">READ:8731 MB/s</p> <p style="padding-left: 20px;">WRITE:10171 MB/s</p> <p style="padding-left: 20px;">COPY:11164 MB/s</p> <p>2.PassMark Performance Test 8.0 build 1053</p> <p style="padding-left: 20px;">CPU Mark:723</p> <p style="padding-left: 20px;">Memory Mark:498.5</p> <p>3.3DMark for Windows Ver.1.5.915</p> <p style="padding-left: 20px;">Cloud Gate:1425</p> <p style="padding-left: 20px;">Ice Storm:10369</p> <p style="padding-left: 20px;">Sky Diver:1025</p> <p style="padding-left: 20px;">Strike Test:242</p>	<p style="text-align: center; font-weight: bold;">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) / PC3L-12800 (DDR3L-1600) / 8GB *1	M/B: BW173-NB-E8000 Rev.2 (023) (BSF511100002) M/B BIOS: Insyde 12/28/2015 M/B Driver: Demo ver.0.2.1511.0 CPU: Intel / Atom x5 E8000 (Braswell/D1-QKFT) / 1.04GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: Seagate / ST3320620SV SATA2 NCQ 320GB/7200RPM Display: On Board (using DP) DVD-ROM: Asus / DVD-E818A9T 18X SATA Power: EDAC / EA10521F-190 O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:23.8°C CPU Temp.:33.0°C CPU Temp. after 3DMark:32.5°C 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:8845 MB/s WRITE:6824 MB/s COPY:8821 MB/s 2.PassMark Performance Test 8.0 build 1053 CPU Mark:468.8 Memory Mark:245.8 3.3DMark for Windows Ver.1.5.915 Cloud Gate:846 Ice Storm:6612 Sky Diver:591 Strike Test:70	Pass

<p>3</p>	<p>Apacer (75.B83DL.G000C 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=11] / Micron (2DM77-D9PFJ) / PC3L-12800 (DDR3L-1600) / 4GB *2</p>	<p>M/B: BW171-NB-N3060 Rev.2 (023) (BSF510500002) M/B BIOS: Insyde 12/28/2015 M/B Driver: Demo ver.0.2.1511.0 CPU: Intel / Celeron N3060 (Braswell/D1-QK0J) / 1.6GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Hitachi / HDP725025GLA380 SATA2 NCQ 250GB/7200RPM Display: On Board (using D-Sub) DVD-ROM: Asus / DVD-E818A9T 18X SATA Power: EDAC / EA10521C-120 O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:22.9℃ CPU Temp.:37.0℃ CPU Temp. after 3DMark:36.0℃ 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:8895 MB/s WRITE:10158 MB/s COPY:11440 MB/s 2.PassMark Performance Test 8.0 build 1053 CPU Mark:709 Memory Mark:513 3.3DMark for Windows Ver.1.5.915 Cloud Gate:1934 Ice Storm:16449 Sky Diver:1135 Strike Test:271</p>	<p>Pass</p>
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No.	DDR3 Module	Test Environment	Result
4	Crucial (CT51264BF160B.16FMR (MT16KTF51264HZ-1G6M1) 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=11-11-11-30] / Micron (2RM77D9PFJ) / PC3L-12800 (DDR3L-1600) / 4GB *2	M/B: BW173-NB-N3710 Rev.2 (023) (BSF511000009) M/B BIOS: Insyde 12/28/2015 M/B Driver: Demo ver.0.2.1511.0 CPU: Intel / Pentium-N3710 (Braswell/D1-QK0G) / 1.6GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Hitachi / HDP725025GLA380 SATA2 NCQ 250GB/7200RPM Display: On Board (using D-Sub) DVD-ROM: Asus / DVD-E818A9T 18X SATA Power: EDAC / EA10521C-120 O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:23.1°C CPU Temp.:43.0°C CPU Temp. after 3DMark:42.0°C 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:11797 MB/s WRITE:10246 MB/s COPY:12944 MB/s 2.PassMark Performance Test 8.0 build 1053 CPU Mark:1451 Memory Mark:507 3.3DMark for Windows Ver.1.5.915 Cloud Gate:2714 Ice Storm:21138 Sky Diver:1457 Strike Test:344	<p style="text-align: center;">Pass</p> (was: ID3633)

5	<p>Transcend (TS512MSK64W6H 1.35V/1.5V) [512Mx8b-x8/512Mx64b,CL=11-11-11] / SEC (K4B4G0846D) / PC3L-12800(DDR3L-1600) / 4GB *1</p>	<p>M/B: BW173-NB-E8000 Rev.2 (023) (BSF511100002) M/B BIOS: Insyde 12/28/2015 M/B Driver: Demo ver.0.2.1511.0 CPU: Intel / Atom x5 E8000 (Braswell/D1-QKFT) / 1.04GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: Seagate / ST3320620SV SATA2 NCQ 320GB/7200RPM Display: On Board (using DP) DVD-ROM: Asus / DVD-E818A9T 18X SATA Power: EDAC / EA10521F-190 O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:24.0℃ CPU Temp.:38.0℃ CPU Temp. after 3DMark:37.0℃ 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:7213 MB/s WRITE:6785 MB/s COPY:6100 MB/s 2.PassMark Performance Test 8.0 build 1053 CPU Mark:462.7 Memory Mark:230.6 3.3DMark for Windows Ver.1.5.915 Cloud Gate:815 Ice Storm:6502 Sky Diver:576 Strike Test:64</p>	Pass
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No.	DDR3 Module	Test Environment	Result
6	Apacer (78.B2GCL4210C 1.35V) [256Mx8b-x16/512Mx64b,CL=9] / ELPIDA (J2108ECSE-DJ-F) / PC3-10600 (DDR3L-1333) / 4GB *2	M/B: BW173-NB-E8000 Rev.2 (023) (BSF511100002) M/B BIOS: Insyde 12/28/2015 M/B Driver: Demo ver.0.2.1511.0 CPU: Intel / Atom x5 E8000 (Braswell/D1-QKFT) / 1.04GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Seagate / ST3320620SV SATA2 NCQ 320GB/7200RPM Display: On Board (using DP) DVD-ROM: Asus / DVD-E818A9T 18X SATA Power: EDAC / EA10521F-190 O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:24.0°C CPU Temp.:33.0°C CPU Temp. after 3DMark:32.0°C 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:7699 MB/s WRITE:6827 MB/s COPY:8065 MB/s 2.PassMark Performance Test 8.0 build 1053 CPU Mark:467.1 Memory Mark:229.6 3.3DMark for Windows Ver.1.5.915 Cloud Gate:822 Ice Storm:6523 Sky Diver:582 Strike Test:66	Pass

7	<p>Transcend (TS256MSK64W3N 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Hynix (H5TQ2G83BFR-H9C) / PC3-10600 (DDR3L-1333) / 2GB *2</p>	<p>M/B: BW173-NB-N3710 Rev.2 (023) (BSF511000009) M/B BIOS: Insyde 12/28/2015 M/B Driver: Demo ver.0.2.1511.0 CPU: Intel / Pentium-N3710 (Braswell/D1-QK0G) / 1.6GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Hitachi / HDP725025GLA380 SATA2 NCQ 250GB/7200RPM Display: On Board (using D-Sub) DVD-ROM: Asus / DVD-E818A9T 18X SATA Power: EDAC / EA10521C-120 O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:23.3℃ CPU Temp.:32.0℃ CPU Temp. after 3DMark:32.0℃ 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:9026 MB/s WRITE:10229 MB/s COPY:9926 MB/s 2.PassMark Performance Test 8.0 build 1053 CPU Mark:1441 Memory Mark:471.1 3.3DMark for Windows Ver.1.5.915 Cloud Gate:1971 Ice Storm:9579 Sky Diver:1221 Strike Test:256</p>	Pass
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No.	DDR3 Module	Test Environment	Result
8	Crucial (CT25664BF1339.8FMR (MT8KTF25664HZ-1G4M1) 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Micron (2EM77D9PFJ) / PC3L-10600 (DDR3L-1333) / 2GB *2	M/B: BW173-NB-N3710 Rev.2 (023) (BSF511000009) M/B BIOS: Insyde 12/28/2015 M/B Driver: Demo ver.0.2.1511.0 CPU: Intel / Pentium-N3710 (Braswell/D1-QK0G) / 1.6GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Hitachi / HDP725025GLA380 SATA2 NCQ 250GB/7200RPM Display: On Board (using D-Sub) DVD-ROM: Asus / DVD-E818A9T 18X SATA Power: EDAC / EA10521C-120 O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:24.4°C CPU Temp.:35.0°C CPU Temp. after 3DMark:42.0°C 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:8810 MB/s WRITE:10223 MB/s COPY:9473 MB/s 2.PassMark Performance Test 8.0 build 1053 CPU Mark:1177 Memory Mark:507 3.3DMark for Windows Ver.1.5.915 Cloud Gate:1868 Ice Storm:9046 Sky Diver:1157 Strike Test:244	Pass (was: ID2148)

