

1. Stability Test: Rev.011

1.1 CPU Function Test:

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| 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 | 44 °C | Pass |
| 2 | Intel / 1.6GHz | Celeron N3060 (Braswell/D1-QK0J) / 6W / FCBGA1170 | 36 °C | Pass |
| 3 | Intel / 1.6GHz | Celeron N3160 (Braswell/D1-QK0K) / 6W / FCBGA1170 | 40 °C | Pass |
| 4 | Intel / 1.04GHz | Atom x5 E8000 (Braswell/D1/QKFT) / 5W / FCBGA1170 | 35 °C | Pass |



1.2 Memory Function Test:

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| 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 | 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: BW551-NB-N3160 Rev.2 (023) (BSF411000011) & EIO-EVT Rev.1 (011) (BSF300700031) M/B BIOS: Insyde 12/28/2015 M/B Driver: Demo ver.0.2.1511.0 CPU: Intel / Celeron N3160 (Braswell/D1-QK0K) / 1.6GHz DDR3: 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 SSD: Intel / SSDSC2BW120A401 SATA3 120GB/2.5" Display: On Board (using D-Sub) DVD-ROM: Pioneer / DVD-XD01-B USB2.0 Power: Jagier / KY-580ATX 480W 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 | ADATA | Micron | 8GB | PC3L-12800 (DDR3L-1600) | 3KE77D9QBJ | ADDS1600W8G11-BMIE 1.35V/1.5V [512Mx8b-x16/1GBx64b,CL=11-11-11] | Pass |
| 4 | INNODISK | Micron | 4GB | PC3L-12800 (DDR3L-1600) | 1XM77-D9PFJ | M3SP-4GMJDLOC-M 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=9] | Pass |
| 5 | 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 |
| 6 | Transcend | SEC | 4GB | PC3L-12800 (DDR3L-1600) | K4B4G0846D | TS512MSK64W6H 1.35V/1.5V [512Mx8b-x8/512Mx64b,CL=11-11-11] | Pass |
| 7 | INNODISK | SEC | 4GB | PC3L-12800 (DDR3L-1600) | K4B4G0846E | M3SW-4GSSCLOC-E 1.35V [512Mx8,CL=11] | Pass |
| 8 | Apacer | ELPIDA | 4GB | PC3-10600 (DDR3L-1333) | J2108ECSE-DJ-F | 78.B2GCL4210C 1.35V [256Mx8b-x16/512Mx64b,CL=9] | Pass |
| 9 | Transcend | Hynix | 4GB | PC3-10600 (DDR3L-1333) | H5TQ2G83BFR-H9C | TS512MSK64W3N 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=9] | Pass |
| 10 | Transcend | Hynix | 2GB | PC3-10600 (DDR3L-1333) | H5TQ2G83BFR-H9C | TS256MSK64W3N 1.35V/1.5V [256Mx8b-x8/256Mx64b,CL=9] | Pass |
| 11 | Crucial | Micron | 2GB | PC3L-10600 (DDR3L-1333) | 2EM77D9PFJ | CT25664BF1339.8FMR (MT8KTF25664HZ-1G4M1) 1.35V/1.5V [56Mx8b-x8/256Mx64b,CL=9] | Pass |



1.2.4 DDR3 SO-DIMM Test Procedures:

| No. | DDR3 Module | Test Environment | Result |
|-----|--|--|--------|
| 1 | Apacer (75.C93DL.G000C 1.35V/1.5V) [512Mx8b-x16/1024Mx64b,CL=11] / Micron (2ED27-D9PCP) / PC3L-12800 (DDR3L-1600) / 8GB *1 | M/B: BW551-NB-E8000 Rev.2 (023) (BSF411000003) 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: WD / WD800AAJS-00PSA0 SATA2 80GB Display: On Board (using D-Sub) DVD-RW: Asus / SDRW-08D2S-U/BLK/G/AS USB2.0 Power: Delta / GPS-500BB 500W O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:23.4°C CPU Temp.:45.0°C CPU Temp. after 3DMark:44.0°C 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:7738 MB/s WRITE:6797 MB/s COPY:7070 MB/s 2.PassMark PerformanceTest 8.0 build 1053 CPU Mark:374.2 Memory Mark:240.4 3.3DMark for Windows Ver.1.5.915 Cloud Gate:871 Ice Storm:7298 Sky Diver:606 Strike Test:63 | Pass |

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| 2 | <p>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</p> | <p>M/B: BW551-NB-N3160 Rev.2 (023) (BSF411000011) & EIO-EVT Rev.1 (011) (BSF300700031) M/B BIOS: Insyde 12/28/2015 M/B Driver: Demo ver.0.2.1511.0 CPU: Intel / Celeron N3160 (Braswell/D1-QK0K) / 1.6GHz DIMM Slot: DIMM-1 (Single channel) SSD: Intel / SSDSC2BW120A401 SATA3 120GB/2.5" Display: On Board (using D-Sub) DVD-ROM: Pioneer / DVD-XD01-B USB2.0 Power: Jagier / KY-580ATX 480W O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:23.6℃ CPU Temp.:41.0℃ CPU Temp. after 3DMark:40.0℃ 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:8158 MB/s WRITE:9176 MB/s COPY:8068 MB/s 2.PassMark PerformanceTest 8.0 build 1053 CPU Mark:1295 Memory Mark:569 3.3DMark for Windows Ver.1.5.915 Cloud Gate:1872 Ice Storm:10304 Sky Diver:947 Strike Test:199</p> | Pass |
|---|--|---|------|

| No. | DDR3 Module | Test Environment | Result |
|-----|--|---|--------|
| 3 | ADATA (ADDS1600W8G11-BMIE 1.35V/1.5V) [512Mx8b-x16/1GBx64b,CL=11-11-11] / Micron (3KE77D9QBJ) / PC3L-12800 (DDR3L-1600) / 8GB *1 | M/B: BW551-NB-N3710 Rev.2 (023) (BSF411000013) M/B BIOS: Insyde 12/28/2015 M/B Driver: Demo ver.0.2.1511.0 CPU: Intel / Pentium-N3700 (Braswell/D1-QK0G) / 1.6GHz DIMM Slot: DIMM-1 (Single channel) SSD: Intel / SSDSC2BW120A401 SATA3 120GB/2.5" Display: On Board (using D-Sub) DVD-ROM: Pioneer / DVD-XD01-B USB2.0 Power: Delta / GPS-500BB 500W O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:22.9°C CPU Temp.:45.0°C CPU Temp. after 3DMark:44.0°C 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:7861 MB/s WRITE:9396 MB/s COPY:8365 MB/s 2.PassMark PerformanceTest 8.0 build 1053 CPU Mark:718 Memory Mark:501 3.3DMark for Windows Ver.1.5.915 Cloud Gate:1742 Ice Storm:14284 Sky Diver:1032 Strike Test:225 | Pass |

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| <p>4</p> | <p>INNODISK (M3SP-4GMJDLOC-M 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=9] / Micron (1XM77-D9PFJ) / PC3L-12800 (DDR3L-1600) / 4GB *1</p> | <p>M/B: BW551-NB-N3060 Rev.2 (023) (BSF411000004) 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 (Single channel) SSD: Intel / SSDSC2BW120A401 SATA3 120GB/2.5" Display: On Board (using D-Sub) DVD-ROM: Pioneer / DVD-XD01-B USB2.0 Power: Delta / GPS-500BB 500W O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:24.4℃ CPU Temp.:37.0℃ CPU Temp. after 3DMark:36.0℃ 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:5455 MB/s WRITE:5302 MB/s COPY:6340 MB/s 2.PassMark PerformanceTest 8.0 build 1053 CPU Mark:737 Memory Mark:4797 3.3DMark for Windows Ver.1.5.915 Cloud Gate:1742 Ice Storm:13320 Sky Diver:1027 Strike Test:219</p> | <p>Pass</p> |
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| No. | DDR3 Module | Test Environment | Result |
|-----|---|--|--------|
| 5 | Crucial (CT51264BF160B.16FMR (MT16KTF51264HZ-1G6M1) 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=11-11-11-30] / Micron (2RM77D9PFJ) / PC3L-12800 (DDR3L-1600) / 4GB *1 | M/B: BW551-NB-N3060 Rev.2 (023) (BSF411000004) 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 (Single channel) SSD: Intel / SSDSC2BW120A401 SATA3 120GB/2.5" Display: On Board (using DP) DVD-ROM: Pioneer / DVD-XD01-B USB2.0 Power: FSP / RAIDER RA450 450W O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:24.7°C CPU Temp.:37.0°C CPU Temp. after 3DMark:36.0°C 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:7322 MB/s WRITE:8716 MB/s COPY:7843 MB/s 2.PassMark PerformanceTest 8.0 build 1053 CPU Mark:746 Memory Mark:466.3 3.3DMark for Windows Ver.1.5.915 Cloud Gate:1609 Ice Storm:10699 Sky Diver:961 Strike Test:207 | Pass |

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| <p>6</p> | <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: BW551-NB-E8000 Rev.2 (023) (BSF411000003) 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-RW: Asus / SDRW-08D2S-U/BLK/G/AS USB2.0 Power: Jagier / KY-580ATX 480W O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:22.9℃ CPU Temp.:36.0℃ CPU Temp. after 3DMark:35.0℃ 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:7659 MB/s WRITE:6792 MB/s COPY:6374 MB/s 2.PassMark PerformanceTest 8.0 build 1053 CPU Mark:466.4 Memory Mark:225.5 3.3DMark for Windows Ver.1.5.915 Cloud Gate:816 Ice Storm:6505 Sky Diver:577 Strike Test:67</p> | <p>Pass</p> |
|-----------------|--|---|--------------------|

| No. | DDR3 Module | Test Environment | Result |
|-----|---|---|--------|
| 7 | INNODISK (M3SW-4GSSCLOC-E 1.35V) [512Mx8,CL=11] / SEC (K4B4G0846E) / PC3L-12800 (DDR3L-1600) / 4GB *1 | M/B: BW551-NB-N3060 Rev.2 (023) (BSF411000004) 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 (Single channel) SSD: Intel / SSDSC2BW120A401 SATA3 120GB/2.5" Display: On Board (using D-Sub) DVD-ROM: Pioneer / DVD-XD01-B USB2.0 Power: Delta / GPS-500BB 500W O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:22.8°C CPU Temp.:38.0°C CPU Temp. after 3DMark:38.0°C 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:7020 MB/s WRITE:8296 MB/s COPY:7455 MB/s 2.PassMark PerformanceTest 8.0 build 1053 CPU Mark:746 Memory Mark:448.7 3.3DMark for Windows Ver.1.5.915 Cloud Gate:1561 Ice Storm:9877 Sky Diver:714 Strike Test:187 | Pass |

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| <p>8</p> | <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: BW551-NB-N3060 Rev.2 (023) (BSF411000004)</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>SSD: Intel / SSDSC2BW120A401 SATA3 120GB/2.5"</p> <p>Display: On Board (using D-Sub)</p> <p>DVD-ROM: Pioneer / DVD-XD01-B USB2.0</p> <p>Power: Delta / GPS-500BB 500W</p> <p>O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English)</p> <p>Test Summary: Environment Temp.:23.0°C</p> <p>CPU Temp.:37.0°C</p> <p>CPU Temp. after 3DMark:37°C</p> <p>1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700</p> <p> READ:5868 MB/s</p> <p> WRITE:7490 MB/s</p> <p> COPY:6354 B/s</p> <p>2.PassMark PerformanceTest 8.0 build 1053</p> <p> CPU Mark:730</p> <p> Memory Mark:458.2</p> <p>3.3DMark for Windows Ver.1.5.915</p> <p> Cloud Gate:1524</p> <p> Ice Storm:13598</p> <p> Sky Diver:917</p> <p> Strike Test:183</p> | <p>Pass</p> |
|-----------------|---|--|--------------------|



| No. | DDR3 Module | Test Environment | Result |
|-----|---|--|--------|
| 9 | Transcend (TS512MSK64W3N 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=9] / Hynix (H5TQ2G83BFR-H9C) / PC3-10600 (DDR3L-1333) / 4GB *1 | M/B: BW551-NB-N3060 Rev.2 (023) (BSF411000004) 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 (Single channel) SSD: Intel / SSDSC2BW120A401 SATA3 120GB/2.5" Display: On Board (using DP) DVD-ROM: Pioneer / DVD-XD01-B USB2.0 Power: FSP / RAIDER RA450 450W O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:23.6°C CPU Temp.:41.0°C CPU Temp. after 3DMark:41.0°C 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:5788 MB/s WRITE:6690 MB/s COPY:5935 MB/s 2.PassMark PerformanceTest 8.0 build 1053 CPU Mark:667 Memory Mark:438.3 3.3DMark for Windows Ver.1.5.915 Cloud Gate:1385 Ice Storm:10187 Sky Diver:841 Strike Test:170 | Pass |

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| <p>10</p> | <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: BW551-NB-E8000 Rev.2 (023) (BSF411000003) 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: WD / WD800AAJS-00PSA0 SATA2 80GB Display: On Board (using D-Sub) DVD-RW: Asus / SDRW-08D2S-U/BLK/G/AS USB2.0 Power: Delta / GPS-500BB 500W O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:23.4℃ CPU Temp.:45.0℃ CPU Temp. after 3DMark:44.0℃ 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:5784 MB/s WRITE:6629 MB/s COPY:5400 MB/s 2.PassMark PerformanceTest 8.0 build 1053 CPU Mark:466.9 Memory Mark:216.2 3.3DMark for Windows Ver.1.5.915 Cloud Gate:719 Ice Storm:5807 Sky Diver:561 Strike Test:49</p> | <p>Pass</p> |
|------------------|--|---|--------------------|

| No. | DDR3 Module | Test Environment | Result |
|-----|--|--|--------|
| 11 | Crucial (CT25664BF1339.8FMR (MT8KTF25664HZ-1G4M1) 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Micron (2EM77D9PFJ) / PC3L-10600 (DDR3L-1333) / 2GB *1 | M/B: BW551-NB-N3060 Rev.2 (023) (BSF411000004) 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 (Single channel) SSD: Intel / SSDSC2BW120A401 SATA3 120GB/2.5" Display: On Board (using D-Sub) DVD-ROM: Pioneer / DVD-XD01-B USB2.0 Power: Delta / GPS-500BB 500W O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:24.4°C CPU Temp.:37.0°C CPU Temp. after 3DMark:36.0°C 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:5787 MB/s WRITE:7551 MB/s COPY:6209 B/s 2.PassMark PerformanceTest 8.0 build 1053 CPU Mark:728 Memory Mark:429.3 3.3DMark for Windows Ver.1.5.915 Cloud Gate:1163 Ice Storm:9307 Sky Diver:850 Strike Test:163 | Pass |