

1. Stability Test: Rev.031

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 / 2.40GHz | Core i7-6700TE (Skylake-S/R0-SR2LP) / 35W / LGA1151 | 31.5 °C | Pass |
| 2 | Intel / 3.40GHz | Core i7-6700 (Skylake-S/R0-SR2BT) / 65W / LGA1151 | 40.5 °C | Pass |
| 3 | Intel / 3.20GHz | Core i5-6500 (Skylake-S/R0-SR2BX) / 65W / LGA1151 | 44.5 °C | Pass |
| 4 | Intel / 2.70GHz | Core i3-6100TE (Skylake-S/R0-SR2LS) / 35W / LGA1151 | 37.5 °C | Pass |
| 5 | Intel / 3.70GHz | Core i3-6100 (Skylake-S/S0-SR2HG) / 51W / LGA1151 | 55.5 °C | Pass |
| 6 | Intel / 3.30GHz | Pentium-G4400 (Skylake-S/R0-SR2DC) / 54W / LGA1151 | 34.5 °C | Pass |
| 7 | Intel / 2.40GHz | Pentium-G4400TE (Skylake-S/R0-SR2LT) / 35W / LGA1151 | 29.5 °C | Pass |
| 8 | Intel / 2.30GHz | Celeron G3900TE (Skylake-S/R0-SR2LU) / 35W / LGA1151 | 30.5 °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 DDR4:

| No. | Function | Result |
|-----|------------------------|--------|
| 1 | DDR4 DIMM Slot Examine | Pass |
| 2 | Single Channel mode | Pass |
| 3 | Dual channel mode | Pass |
| 4 | DIMM Slot1 | Pass |
| 5 | DIMM Slot2 | Pass |
| 6 | DIMM Slot3 | Pass |

1.2.2 Application Test:

| No. | Software | Test Keypoint | Test Environment | Result |
|-----|------------------------|---------------------------|---|--------|
| 1 | MemTest86 Ver.4.3.7 | 1. Burn-In test 24 hours. | M/B: SD330-Q170CRM Rev.4 (041) (BSG141000010) M/B BIOS: Insyde 04/22/2016 M/B Driver: Demo ver.0.2.1604.0 CPU: Intel / Core i7-6700 (Skylake-S/R0-SR2BT) / 3.40GHz DDR4: Innodisk (M4UR-AGS1KCOG-B 1.2V) [1Gx8b-x16/2048Mx64b 1066MHz,CL=15] / SEC (K4A8G085WB-BCPB) / PC4-17000 (DDR4-2133) / 16GB *2 SSD: Intel / SSDSC2BW120A401 2.5" SATA 120GB Display: On Board DVD-ROM: Lite-On / It iHAS324-07 24X Power: SeaSonic / SS-400ET (400W) O.S.: DOS | Pass |

1.2.3 DDR4 Approved List:

| No. | Brand | Chip | Size | Type | Chip Model No. | Vendor Part No. | Result |
|-----|-----------|---------|------|------------------------------|-----------------|--|--------|
| 1 | Innodisk | SEC | 16GB | PC4-17000 (DDR4-2133) | K4A8G085WB-BCPB | M4UR-AGS1KC0G-B 1.2V [1Gx8b-x16/2048Mx64b 1066MHz,CL=15,tRCD=15,tRP=15] | Pass |
| 2 | Transcend | SEC | 8GB | PC4-17000 (DDR4-2133) | K4A4G085WD-BCPB | TS1GLH64V1H 1.2V [512Mx8b 1066MHz,CL=15 tRCD=15,tRP=15] | Pass |
| 3 | ADATA | SKhynix | 8GB | PC4-17000 (DDR4-2133) | H5AN4G8NAFR-TFC | AD4U2133W8G15-BHYA 1.2V [512Mx8/1024Mx8,CL=15 tRCD=15,tRP=15] | Pass |
| 4 | Transcend | SEC | 4GB | PC4-17000 (DDR4-2133) | K4A4G085WD-BCPB | TS512MLH64V1H 1.2V [512Mx8b 1066MHz,CL=15 tRCD=15,tRP=15] | Pass |
| 5 | Transcend | SEC | 16GB | PC4-17000 (DDR4-2133)/ECC | K4A8G0B | TS2GLH64V1B 1.2V [1024Mx8,CL=15,tRCD=15,tRP=15] | Pass |
| 6 | Kingston | SKhynix | 8GB | PC4-17000 (DDR4-2133) | H5AN4G8NAFR-TFC | CBD21D4U15HAG 1.2V [512Mx8-bit-x8/1Gx64-bit, 1066MHz@CL=15,tRCD=15 tRP=15] | Pass |
| 7 | Kingston | SKhynix | 4GB | PC4-17000 (DDR4-2133) | H5AN4G8NAFR-TFC | CBD21D4U15HAG 1.2V [512Mx8-bit-x8/512Mx64-bit,1066MH z@CL=15, tRCD=15 tRP=15,Non-ECC] | Pass |

1.2.4 DDR4 Module Test Procedures:

| No. | DDR4 Module | Test Environment | Result |
|-----|---|---|--------|
| 1 | Innodisk (M4UR-AGS1KCOG-B 1.2V) [1Gx8b-x16/2048Mx64b 1066MHz,CL=15] / SEC (K4A8G085WB-BCPB) / PC4-17000 (DDR4-2133) / 16GB *2 | M/B: SD330-Q170CRM Rev.4 (041) (BSG141000010) M/B BIOS: Insyde 04/22/2016 M/B Driver: Demo ver.0.2.1604.0 CPU: Intel / Core i7-6700 (Skylake-S/R0-SR2BT) / 3.40GHz DIMM Slot: DIMM-1/2 (Dual channel) SSD: Intel / SSDSC2BW120A401 2.5" SATA 120GB Display: On Board DVD-ROM: Lite-On / It iHAS324-07 24X Power: SeaSonic / SS-400ET (400W) O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:24.9°C CPU Temp.:40.5°C CPU Temp. after 3DMark:40.5°C 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:29491 MB/s WRITE:32203 MB/s COPY:30983 MB/s 2.Passmark PerformanceTest 8.0 Build 1053 CPU Mark:10540 Memory Mark:2830 3.3DMark for Windows Ver.1.5.915 Cloud Gate:8450 Ice Storm Extreme:47221 Skydiver:4216 Fire Strike:1021 | Pass |

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|-----------------|--|---|--------------------|
| <p>2</p> | <p>Innodisk (M4UR-AGS1KCOG-B 1.2V) [1Gx8b-x16/2048Mx64b 1066MHz,CL=15] / SEC (K4A8G085WB-BCPB) / PC4-17000 (DDR4-2133) / 16GB *1</p> | <p>M/B: SD330-Q170CRM Rev.4 (041) (BSG141000010) M/B BIOS: Insyde 04/22/2016 M/B Driver: Demo ver.0.2.1604.0 CPU: Intel / Pentium-G4400TE (Skylake-S/R0-SR2LT) / 2.40GHz DIMM Slot: DIMM-1 (Single channel) SSD: Intel / SSDSC2BW120A401 SATA 2.5" 120GB Display: On Board DVD-ROM: Lite-On / It iHAS324-07 24X Power: SeaSonic / SS-400ET (400W) O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:28.4℃ CPU Temp.:29.5℃ CPU Temp. after 3DMark:29.5℃ 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:15944 MB/s WRITE:15751 MB/s COPY:15513 MB/s 2.Passmark PerformanceTest 8.0 Build 1053 CPU Mark:2856 Memory Mark:1796 3.3DMark for Windows Ver.1.5.915 Cloud Gate:3314 ce Storm Extreme:18970 Skydiver:1905 Fire Strike:486</p> | <p>Pass</p> |
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| No. | DDR4 Module | Test Environment | Result |
|-----|---|---|--------|
| 3 | Innodisk (M4UR-AGS1KCOG-B 1.2V) [1Gx8b-x16/2048Mx64b 1066MHz,CL=15] / SEC (K4A8G085WB-BCPB) / PC4-17000 (DDR4-2133) / 16GB *1 | M/B: SD330-Q170CRM.(PCB Version:04).(BOM Rev. M/B BIOS: 041){Sample#BSG141000010} M/B Driver: BIOS:64.22Q.(Insyde). CPU: Driver:Demo ver.0.2.1604.0 (SD-Series) DIMM Slot: Intel / Celeron G3900TE (Skylake-S/R0-SR2LU) / 2.30GHz SSD: DIMM-1 (Single channel) Display: Intel / SSDSC2BW120A401 SATA 2.5" 120GB DVD-ROM: On Board Power: Lite-On / It iHAS324-07 24X O.S.: SeaSonic / SS-400ET (400W) Test Summary: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Environment Temp.:28.4°C CPU Temp.:30.5°C CPU Temp. after 3DMark:30.5°C 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:15783MB/s WRITE:15737 MB/s COPY:15389 MB/s 2.Passmark PerformanceTest 8.0 Build 1053 CPU Mark:2683 Memory Mark:1747 3.3DMark for Windows Ver.1.5.915 Cloud Gate:3212 Ice Storm Extreme:18546 Skydiver:1898 Fire Strike:474 | Pass |

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| 4 | <p>Transcend (TS1GLH64V1H 1.2V) [512Mx8b-x16/1024Mx64b 1066MHz,CL=15] / SEC (K4A4G085WD-BCPB) / PC4-17000 (DDR4-2133) / 8GB *2</p> | <p>M/B: SD330-H110C Rev.4 (041) (BSG140900025) M/B BIOS: Insyde 04/22/2016 M/B Driver: Demo ver.0.2.1604.0 CPU: Intel / Core i3-6100 (Skylake-S/S0-SR2HG) / 3.70GHz DIMM Slot: DIMM-1/3 (Dual channel) SATA HDD: Seagate / ST250LT012 SATA2 2.5"/5400RPM/250GB Display: On Board DVD-ROM: Pioneer / DVD-230DW (18X) Power: JAGIER / KY-580ATX (480W) O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:24.8°C CPU Temp.:55.5°C CPU Temp. after 3DMark:52.5°C 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:30429 MB/s WRITE:32474 MB/s COPY:30423 MB/s 2.Passmark PerformanceTest 8.0 Build 1053 CPU Mark:5760 Memory Mark:2880 3.3DMark for Windows Ver.1.5.915 Cloud Gate:7066 Ice Storm Extreme:50739 Skydiver:3867 Fire Strike:837</p> | Pass |
|----------|--|--|-------------|



| No. | DDR4 Module | Test Environment | Result |
|-----|--|--|--------|
| 5 | ADATA (AD4U2133W8G15-BHYA 1.2V) [512Mx8/1024Mx8,CL=15 Trcd=15,Trp=15] / Skhynix (H5AN4G8NAFR-TFC) / PC4-17000 (DDR4-2133) / 8GB *2 | M/B: SD330-Q170CRM Rev.4 (041) (BSG141000010) M/B BIOS: Insyde 04/22/2016 M/B Driver: Demo ver.0.2.1604.0 CPU: Intel / Pentium-G4400 (Skylake-S/R0-SR2DC) / 3.30GHz DIMM Slot: DIMM-1/2 (Dual channel) SSD: Intel / SSDSC2BW120A401 2.5" SATA 120GB Display: On Board DVD-ROM: Lite-On / It iHAS324-07 24X Power: SeaSonic / SS-400ET (400W) O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:27.3°C CPU Temp.:34.5°C CPU Temp. after 3DMark:34.5°C 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:28921 MB/s WRITE:31861 MB/s COPY:30514 MB/s 2.Passmark PerformanceTest 8.0 Build 1053 CPU Mark:3911 Memory Mark:2605 3.3DMark for Windows Ver.1.5.915 Cloud Gate:4074 Ice Storm Extreme:22383 Skydiver:2170 Fire Strike:562 | Pass |



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|-----------------|---|--|--------------------|
| <p>6</p> | <p>Transcend (TS512MLH64V1H 1.2V) [512Mx8b 1066MHz,CL=15,Trcd=15,Trp=15] / SEC (K4A4G085WD-BCPB) / PC4-17000 (DDR4-2133) / 4GB *1</p> | <p>M/B: SD330-H110C Rev.4 (041) (BSG140900025) M/B BIOS: Insyde 04/22/2016 M/B Driver: Demo ver.0.2.1604.0 CPU: Intel / Core i3-6100 (Skylake-S/S0-SR2HG) / 3.70GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: Seagate / ST250LT012 SATA2 2.5"/5400RPM/250GB Display: On Board DVD-ROM: Pioneer / DVD-230DW (18X) Power: JAGIER / KY-580ATX (480W) O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:24.8°C CPU Temp.:55.5°C CPU Temp. after 3DMark:52.5°C 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:15860 MB/s WRITE:15813 MB/s COPY:15395 MB/s 2.Passmark PerformanceTest 8.0 Build 1053 CPU Mark:5408 Memory Mark:1871 3.3DMark for Windows Ver.1.5.915 Cloud Gate:5913 Ice Storm Extreme:37122 Skydiver:3344 Fire Strike:727</p> | <p>Pass</p> |
|-----------------|---|--|--------------------|



| No. | DDR4 Module | Test Environment | Result |
|-----|---|---|--------|
| 7 | Transcend (TS2GLH64V1B 1.2V) [1024Mx8,CL=15,Trcd=15,Trp=15] / SEC (K4A8G0B) / PC4-17000 (DDR4-2133)/ECC / 16GB *2 | M/B: SD330-H110C Rev.4 (041) (BSG140900025) M/B BIOS: Insyde 04/22/2016 M/B Driver: Demo ver.0.2.1604.0 CPU: Intel / Core i7-6700TE (Skylake-S/R0-SR2LP) / 2.40GHz DIMM Slot: DIMM-1/3 (Dual channel) SATA HDD: Seagate / ST250LT012 SATA2 2.5"/5400RPM/250GB Display: On Board DVD-ROM: Pioneer / DVD-230DW (18X) Power: JAGIER / KY-580ATX (480W) O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:24.3°C CPU Temp.:31.5°C CPU Temp. after 3DMark:31.5°C 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:30030 MB/s WRITE:32066 MB/s COPY:30410 MB/s 2.Passmark PerformanceTest 8.0 Build 1053 CPU Mark:9103 Memory Mark:2701 3.3DMark for Windows Ver.1.5.915 Cloud Gate:8047 Ice Storm Extreme:50780 Skydiver:3880 Fire Strike:929 | Pass |

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|----------|--|---|-------------|
| 8 | <p>Kingston (CBD21D4U15HAG 1.2V)</p> <p>[512Mx8-bit-x8/1Gx64-bit,1066MHz</p> <p>@CL=15,tRCD=15 tRP=15, Non-ECC]</p> <p>SKhynix (H5AN4G8NAFR-TFC)</p> <p>PC4-17000(DDR4-2133)</p> <p>8GB *1</p> | <p>M/B: SD330-H110C Rev.4 (041) (BSG140900025)</p> <p>M/B BIOS: Insyde 04/22/2016</p> <p>M/B Driver: Demo ver.0.2.1604.0</p> <p>CPU: Intel / Core i5-6500 (Skylake-S/R0-SR2BX) / 3.20GHz</p> <p>DIMM Slot: DIMM-3 (Single channel)</p> <p>SATA HDD: Seagate / ST250LT012 SATA2 2.5"/5400RPM/250GB</p> <p>Display: On Board</p> <p>DVD-ROM: Pioneer / DVD-230DW (18X)</p> <p>Power: JAGIER / KY-580ATX (480W)</p> <p>O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English)</p> <p>Test Summary: Environment Temp.:26.6℃</p> <p>CPU Temp.:44.5℃</p> <p>CPU Temp. after 3DMark:44.0℃</p> <p>1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700</p> <p> READ:16523 MB/s</p> <p> WRITE:16024 MB/s</p> <p> COPY:16281 MB/s</p> <p>2.Passmark PerformanceTest 8.0 Build 1053</p> <p> CPU Mark:7069</p> <p> Memory Mark:2024</p> <p>3.3DMark for Windows Ver.1.5.915</p> <p> Cloud Gate:7171</p> <p> Ice Storm Extreme:44197</p> <p> Skydiver:3634</p> <p> Fire Strike:790</p> | Pass |
|----------|--|---|-------------|

| No. | DDR4 Module | Test Environment | Result |
|-----|---|---|--------|
| 9 | Kingston (CBD21D4U15HAG 1.2V) [512Mx8-bit-x8/512Mx64-bit,1066MHz @CL=15, tRCD=15 tRP=15,Non-ECC] SKhynix/4GB*,H5AN4G8NAFR-TFC, PC4-17000(DDR4-2133) / 4GB *2 | M/B: SD330-H110C Rev.4 (041) (BSG140900025) M/B BIOS: Insyde 04/22/2016 M/B Driver: Demo ver.0.2.1604.0 CPU: Intel / Core i3-6100TE (Skylake-S/R0-SR2LS) / 2.70GHz DIMM Slot: DIMM-1/3 (Dual channel) SATA HDD: Seagate / ST250LT012 SATA2 2.5"/5400RPM/250GB Display: On Board DVD-ROM: Pioneer / DVD-230DW (18X) Power: JAGIER / KY-580ATX (480W) O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English) Test Summary: Environment Temp.:28.0°C CPU Temp.:37.5°C CPU Temp. after 3DMark:37.5°C 1.AIDA64 Cache and Memory Benchmark Ver.5.60.3700 READ:30067 MB/s WRITE:31753 MB/s COPY:26797 MB/s 2.Passmark PerformanceTest 8.0 Build 1053 CPU Mark:4371 Memory Mark:2281 3.3DMark for Windows Ver.1.5.915 Cloud Gate:6006 Ice Storm Extreme:44882 Skydiver:3611 Fire Strike:873 | Pass |