

1. Stability Test:

1.1 CPU Function Test:

Test Purpose	Test CPU functions work normally under Windows Operating System
Test Procedure	1. Install Windows operating system 2. Install M/B device drivers 3. Check CPU temperature in BIOS setup menu 4. Run BurnIn test and check CPU Temp. 5. Using CPU-Z check CPU info
Test Criteria	It should be correct for each test step

No.	CPU	Type	Idle CPU Temp.	Full Loading CPU Temp.	Result
1	Intel / 1.6GHz	Atom E3950 (ApolloLake/SR33P) / 12W / BGA1296	33°C	42°C	Pass
2	Intel / 1.6GHz	Atom E3940 (ApolloLake/SR33M) / 9.5W / BGA1296	28°C	36°C	Pass
3	Intel / 1.3GHz	Atom E3930 (ApolloLake/SR33Q) / 6.5W / BGA1296	34°C	44°C	Pass
4	Intel / 1.1GHz	Celeron N3350 (ApolloLake/SR2Z7) / 6.5W / BGA1296	31°C	39°C	Pass
5	Intel / 1.1GHz	Pentium N4200 (ApolloLake/SR2Z5) / 6W / BGA1296	35°C	40°C	Pass

1.1.1 Application Test:

No.	Software	Test Keypoint	Result
1	CPU-Z	1. Check all information.	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.5.97.4600 1 time 4. Run Passmark Performance Test 9.0 Build1023 1 time 5. Run 3DMark for Windows Ver.2.5.5029 BenchMark 3 times 6. S3/Hibernate Test 3 times
Test Criteria	It should be no problem for the test

1.2.1 DDR3:

No.	Function	Result
1	DDR3 DIMM Slot Examine	Pass
2	Single Channel mode	Pass
3	Warning beep sound when no memory install	Pass

1.2.2 Application Test:

No.	Software	Test Keypoint	Test Environment	Result
1	MemTest86 Ver.7.5.0	1. Stress test 24 hours.	DDR3: ADATA (ADDS160 W8G11-BMIE(10281788) 1.35V/1.5V) [512Mx8b-x16/1GBx64b,CL=11-11-11] / Micron (3DE 77D9Q8J) / PC3L-12800 (DDR3L-1600) / 8GB O.S.: DOS	Pass

1.2.3 DDR3 Approved List:

No.	Brand	Chip	Size	Type	Chip Model No.	Vendor Part No.	Result
1	ADATA	Micron	8GB	PC3L-12800 (DDR3L-1600)	3DE77D9Q8J	ADDS1600W8 G11-BMIE (10281788)1.35V/1.5V[512Mx8b-x16/1GBx64b, CL=11-11-11]	Pass
2	Crucial	Micron	8GB	PC3L-12800 (DDR3L-1600)	2RD27D9PCP	CT102464BF1 60B.16FDD (MT16KTF1G6 4HZ-1G6D1) 1.35/1.5V[512 Mx8b-x16/1024Mx64b,C L=11-11-11-30]	Pass
3	TLA	SEC	8GB	PC3L-12800 (DDR3L-1600)	K4B4G0846E-BYMA	AD3SST8GSAWB-DKGCEL	Pass
4	Apacer	Micron	8GB	PC3L-12800 (DDR3L-1600)	2ED27-D9PCP	75.C93DL.G00 0C 1.35V/1.5V [512Mx8b-x16 /1024Mx64b, CL=11]	Pass
5	Crucial	Micron	4GB	PC3L-12800 (DDR3L-1600)	2RM77D9PFJ	CT51264BF16 0B.16FMR (MT16KTF512 64HZ-1G6M1) 1.35V/1.35V[2 56Mx8b-x16/512Mx64b,CL=11-11-11-30]	Pass
6	Transcend	SEC	4GB	PC3L-12800 (DDR3L-1600)	K4B4G0846D	TS512MSK64 W6H 1.35V/1.5V [512Mx8b-x8/ 512Mx64b,CL=11-11-11]	Pass
7	TLA	SEC	4GB	PC3L-12800 (DDR3L-1600)	K4B4G1646E-BYMA	AD3SSW4GB1 WB-CKLGCEL	Pass
8	ADATA	Hynix(SK)	2GB	PC3L-12800 (DDR3L-1600)	H5TC2G83EFR PBA	ADDS1600C2 G11-BHYE (10281881) 1..35V/1.5V [256Mx8b-x8/ 256Mx64b,CL=11-11-11]	Pass
9	Crucial	Micron	2GB	PC3L-10600 (DDR3L-1333)	2EM77D9PFJ	CT25664BF13 39.8FMR (MT8KTF25664HZ-1G4M1) 1.35V/1.5V[56Mx8b-x8/256Mx64b,CL=9]	Pass

1.2.4 DDR3 Module Test Procedures:

No.	DDR3 Module	Test Procedures	Result
1	ADATA (ADDS1600W8G11-BMIE (10281788) 1.35V/1.5V) [512Mx8b-x16/1GBx64b,CL=11-11-11] / Micron (3DE77D9Q8J) / PC3L-12800 (DDR3L-1600) / 8GB	DUT: DUT#1 Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.460 0) SINGLE CHANNEL(DIMM-1) READ:10957 MB/s WRITE:10721 MB/s COPY:10279 M /s Passmark Performance Test 9.0 Build 1023 CPU Mark:1978.1 Memory Mark:967.4 3DMark for Windows(V 2.5.5029)3times Cloud Gate:1794 Ice Storm:12446 Sky diver:1498 Fire Strike:374	Pass
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	DUT: DUT#5 M/B: AL053-BC-N3350 Rev.2 (022) (B I222010001) Test Summary: Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.460 0) SINGLE CHANNEL(DIMM-1) READ:10476 MB/s WRITE:10421 MB/s COPY:10483 MB/s Passmark Performance Test 9.0 Build 1023 CPU Mark:1252.7 Memory Mark:1017.2 3DMark for Windows(V 2.5.5029)3times Cloud Gate:2147 Ice Storm:14121 Sky diver:1115 Fire Strike:311	Pass
3	DDR3-1600 / TLA-AD3SST8GSAWB- DKGCEL / SEC-K4B4G0846E-BYMA / 8GB	DUT: DUT#3 M/B: AL053-BC-E3930 Rev.2 (022) (BSI221710001) Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.460 0) SINGLE CHANNEL(DIMM-1) READ:10146 MB/s WRITE:9840 MB/s COPY:10402 M /s Passmark Performance Test 9.0 Build 1023 CPU Mark:1016 Memory Mark:899.9 3DMark for Windows(V 2.5.5029)3times Cloud Gate:1738 Ice Storm:10254 Sky diver:957 Fire Strike:273	Pass
4	Apacer (75.C93DL.G000C 1.35V/1.5V) [512Mx8bx16/1024Mx64b,CL=11] / Micron (2ED27-D9PCP) / PC3L-12800 (DDR3L- 1600) / 8GB	DUT: DUT#1 Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.460 0) SINGLE CHANNEL(DIMM-1) READ:10950 MB/s WRITE:10687 MB/s COPY:10297 MB/s Passmark Performance Test 9.0 Build 1023 CPU Mark:2016 Memory Mark:983.2 3DMark for Windows(V 2.5.5029)3times Cloud Gate:2628 Ice Storm:15254 Sky diver:1635 Fire Strike:392	Pass

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	DUT: DUT#3 M/B: AL053-BC-E3930 Rev.2 (022) (BSI221710001) Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.460 0) SINGLE CHANNEL(DIMM-1) READ:10175 MB/s WRITE:9838 MB/s COPY:10323 MB/s Passmark Performance Test 9.0 Build 1023 CPU Mark:460.1 Memory Mark:466.7 3DMark for Windows(V 2.5.5029)3times Cloud Gate:926 Ice Storm:6743 Sky diver:840 Fire Strike:258	Pass
6	Transcend (TS512MSK64W6H 1.35V/1.5V) [512Mx8b-x8/512Mx64b,CL=11-11-11] / SEC (K4B4G0846D) / PC3L-12800(DDR3L-1600) / 4GB	DUT: DUT#4 M/B: AL053-BC-N4200 Rev.2 (022) (B I222110002) Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.460 0) SINGLE CHANNEL(DIMM-1) READ:10354 MB/s WRITE:9038 MB/s COPY:9167 MB/s Passmark Performance Test 9.0 Build 1023 CPU Mark:2198.3 Memory Mark:937.3 3DMark for Windows(V 2.5.5029)3times Cloud Gate:2849 Ice Storm:20304 Sky diver:1753 Fire Strike:377	Pass
7	DDR3-1600 / TLA-AD3SSW4GB1WB- DKGCEL / SEC-K4B4G1646E-BYMA / 4GB	DUT: DUT#1 Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.460 0) SINGLE CHANNEL(DIMM-1) READ:11006 MB/s WRITE:10806 MB/s COPY:10387 MB/s Passmark Performance Test 9.0 Build 1023 CPU Mark:1992.3 Memory Mark:914.9 3DMark for Windows(V 2.5.5029)3times Cloud Gate:2657 Ice Storm:15246 Sky diver:1631 Fire Strike:390	Pass
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	DUT: DUT#2 M/B: AL053-BC-E3940 Rev.2 (022) (BSI221810001) Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.460 0) SINGLE CHANNEL(DIMM-1) READ:10801 MB/s WRITE:10059 MB/s COPY:9421 MB/s Passmark Performance Test 9.0 Build 1023 CPU Mark:1793.9 Memory Mark:765 3DMark for Windows(V 2.5.5029)3times Cloud Gate:2314 Ice Storm:14049 Sky diver:1047 Fire Strike:286	Pass

<p>9</p>	<p>Crucial (CT25664BF1339.8FMR (MT8KTF25664HZ-1G4M1) 1.35V/1.5V) [256Mx8b-x8/256Mx64b,CL=9] / Micron (2EM77D9PFJ) / PC3L-10600 (DDR3L-1333) / 2GB</p>	<p>DUT: DUT#1 Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.460 0) SINGLE CHANNEL(DIMM-1) READ:8896 MB/s WRITE:8433 MB/s COPY:8207 MB/s</p> <p>Passmark Performance Test 9.0 Build 1023 CPU Mark:1904.9 Memory Mark:747.1</p> <p>3DMark for Windows(V 2.5.5029)3times Cloud Gate:2314 Ice Storm:12259 Sky diver:1415 Fire Strike:320</p>	<p>Pass</p>
-----------------	---	--	--------------------