

1. Stability Test:

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 drivers 3. Check CPU temperature in BIOS setup menu 4. Run 3DMark for Windows Ver.2.4.4264 BenchMark 3 times and check CPU Temp. 5. Using CPU-Z check CPU info
Test Criteria	It should be no problem for all tests

No.	CPU	Type	CPU Temp.	Result
1	Intel / 2.8GHz	Core i7-7600U (KabyLake/SR33Z) / 15W / FCBGA1356	27.0 °C	Pass
2	Intel / 2.6GHZ	Core i5-7300U (KabyLake/SR340) / 15W / FCBGA1356	26.5 °C	Pass
3	Intel / 2.4GHz	Core-i3-7100U (KabyLake/SR343) / 15W / FCBGA1356	25.0 °C	Pass
4	Intel / 2.2GHz	Celeron 3965U (KabyLake/SR34A) / 15W / FCBGA1356	23.5 °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 drivers 3. Run AIDA64 Cache and Memory Benchmark Ver.5.95.4500 - 1 time 4. Run PassMark Performance Test 9.0 Build1023 - 1 time 5. Run 3DMark for Windows Ver.2.4.4180 BenchMark - 3 times 6. Run PassMark Memtest86 Stress Test 12 hours 7. S3(Sleep)/S4(Hibernate)/S5(Shutdown) test - 3 times
Test Criteria	It should be no problem for the test

1.2.1 DDR3:

No.	Function	Result
1	Dual Channel mode	Pass
2	Single Channel mode	Pass

1.2.2 Application Test:

No.	Software	Test Keypoint	Result
1	PassMark Memtest86 V7.4 Pro	1. Stress test 12 hours.	Pass

1.2.3 DDR3 SO-DIMM Approved List:

No.	Brand	Chip	Size	Type	Chip Model No.	Vendor Part No.	Result
1	Kingston	Micron	16GB	DDR4-2400	7UE75-D9VPP	CBD24S7D8ME-16	Pass
2	TLA	SEC	16GB	DDR4-2400	K4A8G085WB-BCRC	AD4SSX10T1WB-FQGB	Pass
3	TLA	SEC	8GB	DDR4-2400	K4A8G165WB-BCRC	AD4SSZ8GT6WB-FQGB	Pass
4	Transcend	SEC	8GB	PC4-19200 (DDR4-2400)	K4A4G085WE-BCRC	TS1GSH64V4H	Pass
5	Kingston	Micron	8GB	DDR4-2400	7TE77-D9VPP	CBD24D4S7S8ME-8	Pass
6	TLA	SEC	8GB	DDR4-2400	K4A4G085WE-BCRC	AD4SST8GT1WB-FQGE	Pass
7	Transcend	SEC	4GB	DDR4-2400	K4A4G085WD-BCPB	TS512MSH64VH	Pass
8	Kingston	Micron	4GB	DDR4-2400	7VE75-D9WFH	CBD24D4S7S1ME-4	Pass
9	TLA	SEC	4GB	DDR4-2400	K4A8G1665WB-BCRC	AD4SSZ4GT2WB-FQGB	Pass
10	TLA	SEC	4GB	DDR4-2400	K4A4G085WE-BCRC	AD4SST4GT5WB-FQGE	Pass
11	Transcend	SEC	4GB	DDR4-2400	K4A4G085WD-BCPB	TS512MSH64V1H	Pass



1.2.4 DDR3 SO-DIMM Test Procedures:

No.	DDR3 Module	Test Environment	Result
1	DDR4-2400/ Kingston-CBD24S7D8ME-16/ Micron-7UE75-D9VPP/16GB*2	DIMM Slot: Dimm-1/2 Dual Channel Test Summary: Environment Temp.:23.1°C CPU Temp.:27.5°C CPU Temp. after 3DMark:32.0°C AIDA64 Cache and Memory Benchmark(V5.95.4500) DUAL CHANNEL(Dimm-1/2) READ:32385 MB/s WRITE:29806 MB/s COPY:16564 MB/s Passmark PerformanceTest 9.0 Build 1023 CPU Mark:6073.1 Memory Mark:2878 3DMark for Windows(V 2.4.4180)3times Cloud Gate:7345 Ice Storm:51988 Sky diver:4375 Fire Strike:1060	Pass
2	DDR4-2400/ AD4SSX10T1WB-FQGB / SEC- K4A8G085WB-BCRC/ K4A8G085WB-BCRC/16GB*2	DIMM Slot: Dimm-1/2 Dual Channel Test Summary: Environment Temp.:19.7°C CPU Temp.:24.5°C CPU Temp. after 3DMark:26.0°C AIDA64 Cache and Memory Benchmark(V5.95.4500) DUAL CHANNEL(Dimm-1/2) READ:28268 MB/s WRITE:30452 MB/s COPY:27864 MB/s Passmark PerformanceTest 9.0 Build 1023 CPU Mark:6071 Memory Mark:2830.8 3DMark for Windows(V 2.4.4180)3times Cloud Gate:6360 Ice Storm:33.052 Sky diver:3934 Fire Strike:933	Pass
3	DDR4-2400/TLA-AD4SSZ8GT6WB-FQGB/SEC-K4A8G165WB-BCRC/8GB*2	DIMM Slot: Dimm-1/2 Dual Channel Test Summary: Environment Temp.:21.8°C CPU Temp.:32.0°C CPU Temp. after 3DMark:32.5°C AIDA64 Cache and Memory Benchmark(V5.95.4500) DUAL CHANNEL(Dimm-1/2) READ:29173 MB/s WRITE:32075 MB/s COPY:28763 MB/s Passmark PerformanceTest 9.0 Build 1023 CPU Mark:4745.9 Memory Mark:2374.8 3DMark for Windows(V 2.4.4180)3times Cloud Gate:6792 Ice Storm:49472 Sky diver:4409 Fire Strike:1075	Pass

<p>4</p>	<p>DDR4-2133/Transcend-TS1GSH64V4H/K4A4G085WE-BCRC /8GB*2</p>	<p>CPU: Intel Core i5-7300U CPU @ 2.60GHz (SR340) DIMM Slot: Dimm-1/2 Dual Channel Test Summary: Environment Temp.:16.9°C CPU Temp.:26.5°C CPU Temp. after 3DMark:39.5.0°C</p> <p>AIDA64 Cache and Memory Benchmark(V5.95.4500) DUAL CHANNEL(Dimm-1/2) READ:29723 MB/s WRITE:32384 MB/s COPY:29454 MB/s</p> <p>Passmark PerformanceTest 9.0 Build 1023 CPU Mark:5764.6 Memory Mark:2678</p> <p>3DMark for Windows(V 2.4.4180)3times Cloud Gate:6607 Ice Storm:49779 Sky diver:4378 Fire Strike:1078</p>	<p>Pass</p>
<p>5</p>	<p>DDR4-2400/Kingston-CBD24D4S7S8ME-8/Micron-7TE77-D9VPP/8GB*2</p>	<p>CPU: Intel Core i3-7100U CPU @ 2.40GHz (SR343) DIMM Slot: Dimm-1/2 Dual Channel Test Summary: Environment Temp.:21.9°C CPU Temp.:25.0°C CPU Temp. after 3DMark:26.5°C</p> <p>AIDA64 Cache and Memory Benchmark(V5.95.4500) DUAL CHANNEL(Dimm-1/2) READ:26502 MB/s WRITE:27492 MB/s COPY:23396 MB/s</p> <p>Passmark PerformanceTest 9.0 Build 1023 CPU Mark:4002.6 Memory Mark:2040.9</p> <p>3DMark for Windows(V 2.4.4180)3times Cloud Gate:5634 Ice Storm:37991 Sky diver:3668 Fire Strike:898</p>	<p>Pass</p>
<p>6</p>	<p>DDR4-2400/TLA-AD4SST8GT1WB-FQGE/SEC-K4A4G085WE-BCRC /8GB*2</p>	<p>CPU: Intel Celeron CPU 3965U @ 2.20GHz (SR34A) DIMM Slot: Dimm-1/2 Dual Channel Test Summary: Environment Temp.:23.1°C CPU Temp.:27.5°C CPU Temp. after 3DMark:32.0°C</p> <p>AIDA64 Cache and Memory Benchmark(V5.95.4500) DUAL CHANNEL(Dimm-1/2) READ:32385 MB/s WRITE:29806 MB/s COPY:16564 MB/s</p> <p>Passmark PerformanceTest 9.0 Build 1023 CPU Mark:6073.1 Memory Mark:2878</p> <p>3DMark for Windows(V 2.4.4180)3times Cloud Gate:7345 Ice Storm:51988 Sky diver:4375 Fire Strike:1060</p>	<p>Pass</p>



<p>7</p>	<p>DDR4-2133/Transcend-TS512MSH64VH/SEC-K4A4G085WD-BCPB/4GB*</p>	<p>DIMM Slot: Dimm-1 Single Channel Test Summary: Environment Temp.:22.1°C CPU Temp.:33.0°C CPU Temp. after 3DMark:35.0°C</p> <p>AIDA64 Cache and Memory Benchmark(V5.95.4500) SINGLE CHANNEL(Dimm-1) READ:15421 MB/s WRITE:15201 MB/s COPY:14575 MB/s</p> <p>Passmark PerformanceTest 9.0 Build 1023 CPU Mark:4515.3 Memory Mark:1647.5</p> <p>3DMark for Windows(V 2.4.4180)3times Cloud Gate:5881 Ice Storm:38282 Sky diver:3884 Fire Strike:809</p>	<p>Pass</p>
<p>8</p>	<p>DDR4-2400/kingston-CBD24D4S7S1ME-4/Micron-7VE75D9WFH/4GB*2</p>	<p>DIMM Slot: Dimm-1/2 Dual Channel Test Summary: Environment Temp.:21.8°C CPU Temp.:32.5°C CPU Temp. after 3DMark:48.0°C</p> <p>AIDA64 Cache and Memory Benchmark(V5.95.4500) DUAL CHANNEL(Dimm-1/2) READ:25155 MB/s WRITE:26820 MB/s COPY:22454 MB/s</p> <p>Passmark PerformanceTest 9.0 Build 1023 CPU Mark:5813.1 Memory Mark:2368.9</p> <p>3DMark for Windows(V 2.4.4180)3times Cloud Gate:5602 Ice Storm:26663 Sky diver:3598 Fire Strike:855</p>	<p>Pass</p>
<p>9</p>	<p>DDR4-2400/TLA-AD4SSZ4GT2WB-FQGB/SEC-K4A8G165WB-BCRC/4GB*2</p>	<p>CPU: Intel Core i3-7100U CPU @ 2.40GHz (SR343) DIMM Slot: Dimm-1/2 Dual Channel Test Summary: Environment Temp.:22.7°C CPU Temp.:27.5°C CPU Temp. after 3DMark:47.0°C</p> <p>AIDA64 Cache and Memory Benchmark(V5.95.4500) DUAL CHANNEL(Dimm-1/2) READ:24811 MB/s WRITE:27014 MB/s COPY:21648 MB/s</p> <p>Passmark PerformanceTest 9.0 Build 1023 CPU Mark:3967.1 Memory Mark:1883.8</p> <p>3DMark for Windows(V 2.4.4180)3times Cloud Gate:5174 Ice Storm:33599 Sky diver:3477 Fire Strike:799</p>	<p>Pass</p>



<p>10</p>	<p>DDR4-2400/TLA-AD4SST4GT5WB-FQGE/SEC-K4A4G085WE-BCRC/4GB*2</p>	<p>DIMM Slot: Intel Core i3-7100U CPU @ 2.40GHz (SR343) Test Summary: Dimm-1/2 Dual Channel Environment Temp.:21.0°C CPU Temp.:26.0°C CPU Temp. after 3DMark:44.5°C</p> <p>AIDA64 Cache and Memory Benchmark(V5.95.4500) DUAL CHANNEL(Dimm-1/2) READ:29314 MB/s WRITE:31284 MB/s COPY:26703 MB/s</p> <p>Passmark PerformanceTest 9.0 Build 1023 CPU Mark:4088.1 Memory Mark:2016.9</p> <p>3DMark for Windows(V 2.4.4180)3times Cloud Gate:5963 Ice Storm:44562 Sky diver:3928 Fire Strike:940</p>	<p>Pass</p>
<p>11</p>	<p>DDR4-2133/Transcend-TS512MSH64V1H/SEC-K4A4G085WD-BCPB/4GB*</p>	<p>CPU: Intel Core i3-7100U CPU @ 2.40GHz (SR343) DIMM Slot: Dimm-2 Single Channel Test Summary: Environment Temp.:19.1°C CPU Temp.:22.5°C CPU Temp. after 3DMark:23.5°C</p> <p>AIDA64 Cache and Memory Benchmark(V5.95.4500) SINGLE CHANNEL(Dimm-2) READ:13174 MB/s WRITE:12553 MB/s COPY:11735 MB/s</p> <p>Passmark PerformanceTest 9.0 Build 1023 CPU Mark:3758.8 Memory Mark:1388.8</p> <p>3DMark for Windows(V 2.4.4180)3times Cloud Gate:4647 Ice Storm:25349 Sky diver:2898 Fire Strike:638</p>	<p>Pass</p>

