

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 PassMark BurnInTest 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 / 3.20GHz	Core i7-8700 (Coffee Lake / QNML) / 65W / LGA1151	44.5°C	78.0°C	Pass
2	Intel / 3.00GHz	Core i5-8500 (Coffee Lake / QP5J) / 65W / LGA1151	43.0°C	65.0°C	Pass
3	Intel / 2.10GHz	Core i5-8500T (Coffee Lake / QP5H) / 35W / LGA1151	38.0°C	60.0°C	Pass
4	Intel / 2.40GHz	Core i7-8700T (Coffee Lake / QP4P) / 35W / LGA1151	39.0°C	62.0°C	Pass
5	Intel / 3.10GHz	Core i3-8100T (Coffee Lake / QP5Q) / 35W / LGA1151	43.0°C	55.0°C	Pass
6	Intel / 3.60GHz	Core i3-8100 (Coffee Lake / QP5K) / 65W / LGA1151	41.0°C	63.0°C	Pass
7	Intel / 3.10GHz	Celeron G4900 (Coffee Lake / SR3W4) / 54W / LGA1151	41.0°C	47.0°C	Pass
8	Intel / 3.40GHz	Xeon E-2124G (Coffee Lake / SR3WL) / 71W / LGA1151	36.0°C	59.0°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.5.97.4600 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 DDR4:

No.	Function	Result
1	DDR4 DIMM Slot Examine	Pass
2	Single Channel mode	Pass
3	Dual channel mode	Pass
4	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 Free	1. Stress test 24 hours.	DDR4: DDR4-2400(16GB) Kingston CBD24D4S7D8ME-16 / 7UE75-D9VPP (1070108F-2/3) (DIMM-1/2) Dual Channel O.S.: DOS	Pass



1.2.3 DDR4 Approved List:

No.	Brand	Chip	Size	Type	Chip Model No.	Vendor Part No.	Result
1	Kingston	Micron	16GB	PC4-19200 (DDR4-2400)	7UE75-D9VPP	CBD24D4S7D8ME-16	Pass
2	Transcend	Samsung	4GB	PC4-19200 (DDR4-2133)	K4A4G085WD	TS512MSH64V1H	Pass
3	Kingston	Micron	8GB	PC4-19200 (DDR4-2400)	7TE77-D9VPP	CBD24D4S7S8ME-8	Pass
4	Kingston	Micron	4GB	PC4-19200 (DDR4-2400)	7VE75-D9WFH	CBD24D4S7S1ME-4	Pass
5	TLA	Samsung	8GB	PC4-19200 (DDR4-2400)	K4A8G165WB BCRC	AD4SSZ4GT2WB-FQGB	Pass
6	TLA	Samsung	8GB	PC4-19200 (DDR4-2400)	K4A8G165WB BCRC	AD4SSZ8GT6WB-FQGB	Pass
7	Transcend	Samsung	8GB	PC4-19200 (DDR4-2133)	K4A4G085WE BCRC	TS1GSH72V1H (ECC)	Pass



1.2.4 DDR4 Test Procedures:

No.	DDR4 Module	Test Environment	Result
1	DDR4-2400(16GB) Kingston CBD24D4S7D8ME-16 / 7UE75-D9VPP	<p>DUT: DUT#1 CPU: Intel(R) Core(TM) i7-8700 CPU @ 3.20GHz (QNML) (CP0124) DIMM Slot: (DIMM-1/2) Dual Channel Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.4600) DUAL CHANNEL READ:34966 MB/s WRITE:36795 MB/s COPY:34314 MB/s</p> <p>Passmark PerformanceTest 9.0 Build 1023 CPU Mark:16088.8 Memory Mark:3173.7</p> <p>3DMark for Windows(V 2.5.5029)3times Cloud Gate:11641 Ice Storm Extreme:51673 Skydiver: 5421 Fire Strike:1360</p>	Pass
2	DDR4-2133(4GB) Transcend TS512MSH64V1H / SEC 446 BCPB K4A4G085WD	<p>DUT: DUT#1 CPU: Intel(R) Celeron(R) G4900 CPU @ 3.10GHz (SR3W4) (CP0142) DIMM Slot: (DIMM-1/2) Dual Channel Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.4600) DUAL CHANNEL READ:28614 MB/s WRITE:31155 MB/s COPY:26751 MB/s</p> <p>Passmark PerformanceTest 9.0 Build 1023 CPU Mark:3418.7 Memory Mark:2331.6</p> <p>3DMark for Windows(V 2.5.5029)3times Cloud Gate:4749 Ice Storm Extreme:29525 Skydiver: 2687 Fire Strike:692</p>	Pass
3	DDR4-2400(16GB) Kingston CBD24D4S7D8ME-16 / 7UE75-D9VPP	<p>DUT: DUT#3 CPU: Intel(R) Core(TM) i7-8700T CPU @ 2.40GHz (QP4P) (CP0131) DIMM Slot: (DIMM-1/2) Dual Channel Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.4600) DUAL CHANNEL READ:35762 MB/s WRITE:36305 MB/s COPY:34292 MB/s</p> <p>Passmark PerformanceTest 9.0 Build 1023 CPU Mark:14176.3 Memory Mark:3071.0</p> <p>3DMark for Windows(V 2.5.5029)3times Cloud Gate:11306 Ice Storm Extreme:64204 Skydiver: 5320 Fire Strike:1351</p>	Pass

4	DDR4-2400(8GB) Kingston CBD24D4S7S8ME-8 / 7TE77-D9VPP	<p>DUT: DUT#3 CPU: Intel(R) Core(TM) i7-8700 CPU @ 3.20GHz (QNML) (CP0124) DIMM Slot: (DIMM-1) Single Channel Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.4600) SINGLE CHANNEL READ:18332 MB/s WRITE:16946 MB/s COPY:16598 MB/s</p> <p>Passmark PerformanceTest 9.0 Build 1023 CPU Mark:12401.4 Memory Mark:2284.2</p> <p>3DMark for Windows(V 2.5.5029)3times Cloud Gate:9880 Ice Storm Extreme:55375 Skydiver: 4703 Fire Strike:1062</p>	Pass
5	DDR4-2400-8192(2pcs-4GB)/Kingston- CBD24D4S7S1ME-4/7VE75-D9WFH	<p>DUT: DUT#3 CPU: Intel(R) Core(TM) i5-8500 CPU @ 3.00GHz (QP5J) (CP0115) DIMM Slot: (DIMM-1/2) Dual Channel Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.4600) DUAL CHANNEL READ:23666 MB/s WRITE:32876 MB/s COPY:27332 MB/s</p> <p>Passmark PerformanceTest 9.0 Build 1023 CPU Mark:3015.1 Memory Mark:2493.8</p> <p>3DMark for Windows(V 2.5.5029)3times Cloud Gate:9500 Ice Storm Extreme:64148 Skydiver: 4775 Fire Strike:1139</p>	Pass
6	DDR4-2400(4GB) TLA AD4SSZ4GT2WB- FQGB / SEC 749 K4A8G165WB BCRC	<p>DUT: DUT#3 CPU: Intel(R) Core(TM) i5-8500T CPU @ 2.10GHz (QP5H) (CP0120) DIMM Slot: (DIMM-1/2) Dual Channel Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.4600) DUAL CHANNEL READ:31694 MB/s WRITE:33892 MB/s COPY:28689 MB/s</p> <p>Passmark PerformanceTest 9.0 Build 1023 CPU Mark:10445.7 Memory Mark:2492.9</p> <p>3DMark for Windows(V 2.5.5029)3times Cloud Gate:9012 Ice Storm Extreme:60981 Skydiver: 4724 Fire Strike:1134</p>	Pass
7	DDR4-2400(8GB) TLA AD4SSZ8GT6WB- FQGB / SEC 749 K4A8G165WB BCRC	<p>DUT: DUT#3 CPU: Intel(R) Core(TM) i3-8100T CPU @ 3.10GHz (QP5Q) (CP0105) DIMM Slot: (DIMM-1/2) Dual Channel Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.4600) DUAL CHANNEL READ:32196 MB/s WRITE:36313 MB/s COPY:31664 MB/s</p> <p>Passmark PerformanceTest 9.0 Build 1023 CPU Mark:7528.0 Memory Mark:2555.7</p> <p>3DMark for Windows(V 2.5.5029)3times Cloud Gate:8273 Ice Storm Extreme:58788 Skydiver: 4647 Fire Strike:1168</p>	Pass



<p style="text-align: center; font-size: 24pt;">8</p>	<p>DDR4-2400(16GB) Kingston CBD24D4S7D8ME-16 / 7UE75-D9VPP</p>	<p>DUT: DUT#3 CPU: Intel(R) Core(TM) i3-8100 CPU @ 3.60GHz (QP5K) (CP0108) DIMM Slot: (DIMM-2) Single Channel Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.4600) SINGLE CHANNEL READ:18176 MB/s WRITE:17646 MB/s COPY:17902 MB/s</p> <p>Passmark PerformanceTest 9.0 Build 1023 CPU Mark:8306.1 Memory Mark:2378.9</p> <p>3DMark for Windows(V 2.5.5029)3times Cloud Gate:7785 Ice Storm Extreme:50923 Skydiver: 4303 Fire Strike:1001</p>	<p style="text-align: center; font-size: 18pt;">Pass</p>
<p style="text-align: center; font-size: 24pt;">9</p>	<p>DDR4-2133(8GB) Transcend TS1GSH72V1H / Samsung SEC 704 K4A4G085WE BCRC (ECC)</p>	<p>DUT: DUT#2 CPU: Intel(R) Xeon(R) E-2124G CPU @ 3.40GHz (SR3WL) (CP0137) DIMM Slot: (DIMM-1/2) Dual Channel Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.4600) DUAL CHANNEL READ:32197 MB/s WRITE:32624 MB/s COPY:30606 MB/s</p> <p>Passmark PerformanceTest 9.0 Build 1023 CPU Mark:10148.9 Memory Mark:3018.8</p> <p>3DMark for Windows(V 2.5.5029)3times Cloud Gate:9171 Ice Storm Extreme:56131 Skydiver: 4827 Fire Strike:1210</p>	<p style="text-align: center; font-size: 18pt;">Pass</p>

