

# 1. Stability Test:

## 1.1 CPU Function Test:

<b>Test Purpose</b>	Test CPU functions work normally under Windows Operating System
<b>Test Procedure</b>	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
<b>Test Criteria</b>	It should be correct for each test step

No.	CPU	Type	Idle CPU Temp.	Full Loading CPU Temp.	Result
1	Intel / 1.7GHz	Core i7-8665UE (WhiskeyLake/SRFDS) / 15W / BGA1528	35.0°C	56.0°C	Pass
2	Intel / 1.6GHz	Core i5-8365UE (WhiskeyLake/SRFDU) / 15W / BGA1528	33.0°C	55.0°C	Pass
3	Intel / 2.2GHz	Core i3-8145UE (WhiskeyLake/SRFDT) / 15W / BGA1528	33.0°C	52.0°C	Pass
4	Intel / 2.0GHz	Celeron 4305UE (WhiskeyLake/SRFDZ) / 15W / BGA1528	32.0°C	51.0°C	Pass

### 1.1.1 Application Test:

No.	Software	Test Keypoint	Result
1	CPU-Z ver1.93.0	1. Check all information.	Pass

## 1.2 Memory Function Test:

<b>Test Purpose</b>	Test Memory functions work normally under Windows Operating System
<b>Test Procedure</b>	<ol style="list-style-type: none"> <li>1. Install Windows operating system</li> <li>2. Install M/B device drivers</li> <li>3. Run AIDA64 Cache and Memory Benchmark Ver.6.25.5400 - 1 time</li> <li>4. Run PassMark Performance Test 10.0 Build1008 - 1 time</li> <li>5. Run 3DMark for Windows Ver.2.12.6964 BenchMark - 3 times</li> <li>6. S3(Sleep)/S4(Hibernate)/S5(Shutdown) test - 3 times</li> </ol>
<b>Test Criteria</b>	It should be no problem for the test

### 1.2.1 DDR4:

No.	Function	Result
<b>1</b>	DDR4 DIMM Slot Examine	<b>Pass</b>
<b>2</b>	Single Channel mode	<b>Pass</b>

### 1.2.2 Application Test:

No.	Software	Test Keypoint	Test Environment	Result
<b>1</b>	MemTest86 Ver.8.4 Pro	1. Burn-In test 24 hours	DUT: DUT#1 DDR4: DDR4-2666/Transcend-TS4GSH64V6E/SEC- K4AAG085WM-BCTD/32GB*/1090504B-1 (DIMM-1) SINGLE CHANNEL O.S.: UEFI Shell	<b>Pass</b>

### 1.2.3 DDR4 Approved List:

No.	Brand	Chip	Size	Type	Chip Model No.	Vendor Part No.	Result
<b>1</b>	Transcend	SEC	32GB	DDR4-2666	K4AAG085WM-BCTD	TS4GSH64V6E	<b>Pass</b>
<b>2</b>	Apacer	SEC	32GB	DDR4-2666	K4AAG085WM-BCTD	D22.23308S.001	<b>Pass</b>
<b>3</b>	ATP	Micron	32GB	DDR4-2666	0CB45 D9XPF	X4G32Q28BVTDME-7-DR1	<b>Pass</b>
<b>4</b>	ADATA	SEC	32GB	DDR4-2666	K4AAG085WA-BCTD	ADAS2666732G19-BSSA	<b>Pass</b>
<b>5</b>	Kingston	Micron	16GB	DDR4-2666	8PE75-D9VPP	CBD26D4S9D8ME-16	<b>Pass</b>
<b>6</b>	Innodisk	SEC	8GB	DDR4-2666	K4A4G085WE-BCTD	M450-8GSSOIK	<b>Pass</b>
<b>7</b>	Transcend	SEC	8GB	DDR4-2666	K4A8G085WC-BCTD	TS1GSH64V6B	<b>Pass</b>
<b>8</b>	Transcend	SEC	4GB	DDR4-2133	K4A4G085WD-BCPB	TS512MSH64V1H	<b>Pass</b>
<b>9</b>	Transcend	SEC	4GB	DDR4-2400	K4A4G085WE-BCRC	TS512MSH644H	<b>Pass</b>
<b>10</b>	Kingston	Micron	4GB	DDR4-2666	8KE77 D9WFH	CBD26D4S9S1ME	<b>Pass</b>

## 1.2.4 DDR4 Module Test Procedures:

No.	DDR4 Module	Test Procedures	Result
1	DDR4-2666/Transcend-TS4GSH64V6E/SEC-K4AAG085WM-BCTD/32GB	<p>DUT: DUT#1            Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)            SINGLE CHANNEL(DIMM-1)            READ:18192 MB/s            WRITE:16733 MB/s            COPY:16668 MB/s</p> <p>Passmark PerformanceTest 10.0 Build 1008            CPU Mark:3938.5            Memory Mark:1620.6</p> <p>3DMark for Windows(V 2.12.6964)3times            Cloud Gate:7112            Ice Storm:36640            Sky diver:4383            Fire Strike:1049</p>	Pass
2	DR4-2666/Apacer-D22.23308S.001/SEC-K4AAG085WM-BCTD/32GB	<p>DUT: DUT#1            Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)            SINGLE CHANNEL(DIMM-1)            READ:18148 MB/s            WRITE:16661 MB/s            COPY:18722 MB/s</p> <p>Passmark PerformanceTest 10.0 Build 1008            CPU Mark:6490.5            Memory Mark:2523.7</p> <p>3DMark for Windows(V 2.12.6964)3times            Cloud Gate:8161            Ice Storm:42366            Sky diver:4330            Fire Strike:1020</p>	Pass
3	DDR4-2666/ATP-X4G32Q28BVTDM-7-DR1/Micron-OCB45 D9XPF/32GB	<p>DUT: DUT#1            Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)            SINGLE CHANNEL(DIMM-1)            READ:17755 MB/s            WRITE:16267 MB/s            COPY:18468 MB/s</p> <p>Passmark PerformanceTest 10.0 Build 1008            CPU Mark:6336            Memory Mark:2531.2</p> <p>3DMark for Windows(V 2.12.6964)3times            Cloud Gate:8142            Ice Storm:42252            Sky diver:4336            Fire Strike:1026</p>	Pass
4	DDR4-2666/ADATA-ADAS2666732G19-BSSA/SEC-K4AAG085WA-BCTD/32GB	<p>DUT: DUT#1            Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)            SINGLE CHANNEL(DIMM-1)            READ:18021 MB/s            WRITE:16632 MB/s            COPY:18435 MB/s</p> <p>Passmark PerformanceTest 10.0 Build 1008            CPU Mark:6206.4            Memory Mark:2521.7</p> <p>3DMark for Windows(V 2.12.6964)3times            Cloud Gate:8065            Ice Storm:41427            Sky diver:4286            Fire Strike:1021</p>	Pass

5	DDR4-2666/Kingston-CBD26D4S9D8ME-16/Micron-8PE75-D9VPP/16GB	<p>DUT: DUT#1  Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)  SINGLE CHANNEL(DIMM-1)  READ:18350 MB/s  WRITE:17062 MB/s  COPY:18635 MB/s</p> <p>Passmark PerformanceTest 10.0 Build 1008  CPU Mark:6394.7  Memory Mark:2511</p> <p>3DMark for Windows(V 2.12.6964)3times  Cloud Gate:8214  Ice Storm:42390  Sky diver:4373  Fire Strike:1057</p>	Pass
6	DDR4-2666/Innodisk-M4S0-8GSSOCIK/SEC-K4A4G085WE-BCTD/8GB	<p>DUT: DUT#4  Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)  SINGLE CHANNEL(DIMM-1)  READ:14859 MB/s  WRITE:15189 MB/s  COPY:14457 MB/s</p> <p>Passmark PerformanceTest 10.0 Build 1008  CPU Mark:1817.4  Memory Mark:1495.1</p> <p>3DMark for Windows(V 2.12.6964)3times  Cloud Gate:3430  Ice Storm:18436  Sky diver2226  Fire Strike:606</p>	Pass
7	DDR4-2666/Transcend-TS1GSH64V6B/SEC-K4A8G085WC-BCTD/8GB	<p>DUT: DUT#2  Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)  SINGLE CHANNEL(DIMM-1)  READ:16955 MB/s  WRITE:16605 MB/s  COPY:14224 MB/s</p> <p>Passmark PerformanceTest 10.0 Build 1008  CPU Mark:3688.7  Memory Mark:1484.4</p> <p>3DMark for Windows(V 2.12.6964)3times  Cloud Gate:7294  Ice Storm:38343  Sky diver:4132  Fire Strike:965</p>	Pass
8	DDR4-2133/Transcend-TS512MSH64V1H/SEC-K4A4G085WD-BCPB/4G	<p>DUT: DUT#1  Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)  SINGLE CHANNEL(DIMM-1)  READ:15903 MB/s  WRITE:15509 MB/s  COPY:16141 MB/s</p> <p>Passmark PerformanceTest 10.0 Build 1008  CPU Mark:6272.1  Memory Mark:1826.4</p> <p>3DMark for Windows(V 2.12.6964)3times  Cloud Gate:7279  Ice Storm:39851  Sky diver:4218  Fire Strike:989</p>	Pass
9	DDR4-2400/Transcend-TS512MSH644H/SEC-K4A4G085WE-BCRC/4GB	<p>DUT: DUT#1  Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)  SINGLE CHANNEL(DIMM-1)  READ:17813 MB/s  WRITE:21955 MB/s  COPY:17960 MB/s</p> <p>Passmark PerformanceTest 10.0 Build 1008  CPU Mark:6329.6  Memory Mark:1910.5</p> <p>3DMark for Windows(V 2.12.6964)3times  Cloud Gate:7952  Ice Storm:40905  Sky diver:4243  Fire Strike:998</p>	Pass

<b>10</b>	DDR4-2666/Kingston-CBD26D4S9S1ME/Micron-8KE77 D9WFH/4GB	DUT: DUT#3 Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400) SINGLE CHANNEL(DIMM-1) READ:16563 MB/s WRITE:17139 MB/s COPY:15319 MB/s  Passmark PerformanceTest 10.0 Build 1008 CPU Mark:2619.7 Memory Mark:1440.4  3DMark for Windows(V 2.12.6964)3times Cloud Gate:5104 Ice Storm:31964 Sky diver:3439 Fire Strike:792	<b>Pass</b>
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