

# 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>	<ol style="list-style-type: none"> <li>1. Install Windows operating system</li> <li>2. Install M/B device drivers</li> <li>3. Check CPU temperature in BIOS setup menu</li> <li>4. Run PassMark BurnInTest and check CPU Temp.</li> <li>5. Using CPU-Z check CPU info</li> </ol>
<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 / 3.70GHz	Core i7-8700K (Coffee Lake / SR3QR)	45.0°C	61.0 °C	Pass
2	Intel / 3.20GHz	Core i7-8700 (Coffee Lake / QNML)	43.0°C	60.0 °C	Pass
3	Intel / 3.00GHz	Core i5-8500 (Coffee Lake / QP5J)	36.0°C	57.0 °C	Pass
4	Intel / 2.10GHz	Core i5-8500T (Coffee Lake / QP5H)	34.0°C	55.0 °C	Pass
5	Intel / 2.40GHz	Core i7-8700T (Coffee Lake / QP4P)	33.0°C	56.0 °C	Pass
6	Intel / 3.10GHz	Core i3-8100T (Coffee Lake / QP5Q)	37.0°C	57.0 °C	Pass
7	Intel / 3.60GHz	Core i3-8100 (Coffee Lake / QP5K)	37.0°C	58.0 °C	Pass
8	Intel / 3.10GHz	Celeron G4900 (Coffee Lake / SR3W4)	34.0°C	56.0 °C	Pass

### 1.1.1 Application Test:

No.	Software	Test Keypoint	Result
1	CPU-Z ver1.85	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 Driver</li> <li>3. Run AIDA64 Cache and Memory Benchmark Ver.5.97.4600 1 time</li> <li>4. Run Passmark Performance Test 9.0 Build1023 1 time</li> <li>5. Run 3DMark for Windows Ver.2.5.5029 BenchMark 3 times</li> <li>6. S3/Hibernate Test 3 times</li> </ol>
<b>Test Criteria</b>	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
5	DIMM Slot1	Pass
6	DIMM Slot2	Pass
7	DIMM Slot3	Pass
8	DIMM Slot4	Pass

### 1.2.2 Application Test:

No.	Software	Test Keypoint	Test Environment	Result
1	MemTest86 Ver.7.5 Pro	1. Burn-In test 24 hours.	DDR4: DDR4-2666(16GB) CL17 / Apacer/ Samsung SEC 801 K4A8G085WB BCTD (DR050-1/2/3/4) (DIMM-1/2/3/4) 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	Apacer	Samsung	16GB	DDR4-2666	K4A8G085WB BCTD	CL17	Pass
2	Innodisk	Samsung	4GB	DDR4-2666	K4A4G085WE BCTD	M4U0-4GSSJCIK	Pass
3	Apacer	Samsung	4GB	DDR4-2666	K4A4G085WE BCTD	CL19	Pass
4	Transcend	Samsung	8GB	DDR4-2666	K4A8G085WC BCTD	TS1GLH64V6B	Pass
5	Innodisk	Samsung	8GB	DDR4-2666	K4A4G085WE BCTD	M4U0-8GSSKCIK	Pass
6	Apacer	Samsung	8GB	DDR4-2666	K4A8G085WB BCTD	CL19	Pass
7	Transcend	Samsung	16GB	DDR4-2666	K4A8G085WC BCTD	TS2GLH64V6B	Pass

## 1.2.4 DDR4 Module Test Procedures:

No.	DDR4 Module	Test Environment	Result
1	DDR4-2666(16GB) CL17 / Apacer/ Samsung SEC 801 K4A8G085WB BCTD	M/B: CS330-Q370CRM Rev.A (0A1) (BMI370310019) M/B BIOS: B18A.18A (AMI-Aptio) CPU: Intel Core i7-8700K 3.70GHz DIMM Slot: DIMM-1/2/3/4 Dual Channel Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.4600) DUAL CHANNEL(DIMM-1/2/3/4) READ:38222 MB/s WRITE:41443 MB/s COPY:38622 MB/s Passmark PerformanceTest 9.0 Build 1023 CPU Mark:16706.2 Memory Mark:3441.0 3DMark for Windows(V 2.5.5029)3times Cloud Gate:11688 Ice Storm Extreme:65623 Skydiver: 5344 Fire Strike:1350	Pass
2	DDR4-2666(4GB) Innodisk M4U0-4GSSJCIK/ Samsung SEC 807 K4A4G085WE BCTD	M/B: CS330-Q370CRM Rev.A (0A1) (BMI370310019) M/B BIOS: B18A.18A (AMI-Aptio) CPU: Intel Core i5-8500 3.00GHz DIMM Slot: DIMM-2/4 Dual Channel Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.4600) DUAL CHANNEL(DIMM-2/4) READ:38738 MB/s WRITE:39039 MB/s COPY:33870 MB/s Passmark PerformanceTest 9.0 Build 1023 CPU Mark:12858 Memory Mark:2847.2 3DMark for Windows(V 2.5.5029)3times Cloud Gate:9977 Ice Storm Extreme:66394 Skydiver: 4932 Fire Strike:1233	Pass
3	DDR4-2666(4GB) CL19 / Apacer/ Samsung SEC 737 K4A4G085WE BCTD	M/B: CS330-Q370CRM Rev.A (0A1) (BMI370310019) M/B BIOS: B18A.18A (AMI-Aptio) CPU: Intel Core i3-8100T 3.10GHz DIMM Slot: DIMM-1/2 Single Channel Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.4600) SINGLE CHANNEL(DIMM-1/2) READ:18234 MB/s WRITE:18459 MB/s COPY:18702 MB/s Passmark PerformanceTest 9.0 Build 1023 CPU Mark:7300.6 Memory Mark:2141.9 3DMark for Windows(V 2.5.5029)3times Cloud Gate:7454 Ice Storm Extreme:49363 Skydiver: 4306 Fire Strike:1019	Pass
4	DDR4-2666(8GB) Transcend TS1GLH64V6B/ Samsung SEC 740 K4A8G085WC BCTD	M/B: CS330-Q370CRM Rev.A (0A1) (BMI370310019) M/B BIOS: B18A.18A (AMI-Aptio) CPU: Intel(R) Celeron(R) G4900 CPU @ 3.10GHz (SR3W4) DIMM Slot: DIMM-3/4 Single Channel Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.4600) SINGLE CHANNEL(DIMM-3/4) READ:17663 MB/s WRITE:18422 MB/s COPY:17938 MB/s Passmark PerformanceTest 9.0 Build 1023 CPU Mark:3386.9 Memory Mark:2179.5 3DMark for Windows(V 2.5.5029)3times Cloud Gate:4532 Ice Storm Extreme:27587 Skydiver: 2541 Fire Strike:645	Pass

5	DDR4-2666(16GB) CL17 / Apacer/ Samsung SEC 801 K4A8G085WB BCTD	M/B: CS330-H310C Rev.A (0A1) (BMI370410004) M/B BIOS: B18A.18B (AMI-Aptio) CPU: Intel Core i7-8700 3.20GHz DIMM Slot: DIMM-1/3 Dual Channel Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.4600) DUAL CHANNEL(DIMM-1/3) READ:39460 MB/s WRITE:40661 MB/s COPY:37850 MB/s Passmark PerformanceTest 9.0 Build 1023 CPU Mark:15863.4 Memory Mark:3341.3 3DMark for Windows(V 2.5.5029)3times Cloud Gate:11509 Ice Storm Extreme:65834 Skydiver: 5353 Fire Strike:1356	Pass
6	DDR4-2666(8GB) Innodisk M4U0-8GSSKCIK/ Samsung SEC 825 K4A4G085WE BCTD	M/B: CS330-H310C Rev.A (0A1) (BMI370410004) M/B BIOS: B18A.18B (AMI-Aptio) CPU: Intel Core i7-8700T 2.40GHz DIMM Slot: DIMM-1 Single Channel Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.4600) SINGLE CHANNEL(DIMM-1) READ:21574 MB/s WRITE:20099 MB/s COPY:20914 MB/s Passmark PerformanceTest 9.0 Build 1023 CPU Mark:12277.6 Memory Mark:2444.2 3DMark for Windows(V 2.5.5029)3times Cloud Gate:10245 Ice Storm Extreme:58652 Skydiver: 4982 Fire Strike:1196	Pass
7	DDR4-2666(8GB) CL19 / Apacer/ Samsung SEC 813 K4A8G085WB BCTD	M/B: CS330-H310C Rev.A (0A1) (BMI370410004) M/B BIOS: B18A.18B (AMI-Aptio) CPU: Intel Core i5-8500T 2.10GHz DIMM Slot: DIMM-2 Single Channel Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.4600) SINGLE CHANNEL(DIMM-2) READ:19904 MB/s WRITE:19513 MB/s COPY:18797 MB/s Passmark PerformanceTest 9.0 Build 1023 CPU Mark:9923.3 Memory Mark:2218.6 3DMark for Windows(V 2.5.5029)3times Cloud Gate:7945 Ice Storm Extreme:51196 Skydiver: 4353 Fire Strike:1018	Pass
8	DDR4-2666(16GB) Transcend TS2GLH64V6B/ Samsung SEC 822 K4A8G085WC BCTD	M/B: CS330-H310C Rev.A (0A1) (BMI370410004) M/B BIOS: B18A.18B (AMI-Aptio) CPU: Intel Core i3-8100 3.60GHz DIMM Slot: DIMM-1/3 Dual Channel Test Summary: AIDA64 Cache and Memory Benchmark(V5.97.4600) DUAL CHANNEL(DIMM-1/3) READ:35465 MB/s WRITE:37310 MB/s COPY:33537 MB/s Passmark PerformanceTest 9.0 Build 1023 CPU Mark:8817.8 Memory Mark:2932.3 3DMark for Windows(V 2.5.5029)3times Cloud Gate:8577 Ice Storm Extreme:61330 Skydiver: 4539 Fire Strike:1142	Pass