

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 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 / 1.80GHz	Core i7-9700TE (QSJN/CoffeeLake) / 35W / LGA1151	36.0°C	59.0°C	Pass
2	Intel / 3.00GHz	Core i5-9500E (CoffeeLake/QT8L) / 65W / LGA1151	34.0°C	58.0°C	Pass
3	Intel / 2.20GHz	Core i5-9500TE (CoffeeLake/QT8N) / 35W / LGA1151	36.0°C	56.0°C	Pass
4	Intel / 3.10GHz	Core i3-9100E (QSKA/CoffeeLake) / 65W / LGA1151	35.0°C	58.0°C	Pass
5	Intel / 2.20GHz	Core i3-9100TE (CoffeeLake/QT8P) / 35W / LGA1151	35.0°C	57.0°C	Pass
6	Intel / 3.20GHz	Core i7-8700 (Coffeelake / QNML) / 65W / LGA1151	35.0°C	59.0°C	Pass
7	Intel / 3.00GHz	Core i5-8500 (Coffeelake / QP5J) / 65W / LGA1151	34.0°C	58.0°C	Pass
8	Intel / 3.70GHz	Pentium G5400 (Coffeelake /SR3X9) / 58W / LGA1151	35.0°C	58.0°C	Pass
9	Intel / 3.10GHz	Celeron G4900(Coffeelake /SR3W4) / 54W / LGA1151	34.0°C	56.0°C	Pass

1.1.1 Application Test:

No.	Software	Test Keypoint	Result
1	CPU-Z Ver.1.94.8	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 drivers 3. Run AIDA64 Cache and Memory Benchmark Ver.6.32.5600 - 1 time 4. Run PassMark Performance Test 10.0 Build1010 - 1 time 5. Run 3DMark for Windows Ver.2.15.7088 BenchMark - 3 times 6. S3(Sleep)/S4(Hibernate)/S5(Shutdown) 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.9.0 Pro	1. Burn-In test 12 hours.	DUT: DUT#1 DDR4: DDR4-2666/Transcend-TS4GSH64V6E/SEC-K4AAG085WM-BCTD/32GB*2/1090504B-1/2 (DIMM-1/2) DUAL CHANNEL O.S.: UEFI Shell	Pass

1.2.3 DDR4 Approved List:

No.	Brand	Chip	Size	Type	Chip Model No.	Vendor Part No.	Result
1	Transcend	SEC	32GB	DDR4-2666	K4AAG085WM-BCTD	TS4GSH64V6E	Pass
2	Kingston	Micron	16GB	DDR4-2666	8PE75-D9VPP	CBD26D4S9D8ME-16	Pass
3	Innodisk	SEC	8GB	DDR4-2666	K4A4G085WE-BCTD	M4S0-8GSSOCIK	Pass
4	Transcend	SEC	8GB	DDR4-2666	K4A8G085WC-BCTD	TS1GSH64V6B	Pass
5	Kingston	Micron	4GB	DDR4-2666	8KE77 D9WFH	CBD26D4S9S1ME	Pass
6	Innodisk	SEC	4GB	DDR4-2666	K4A4G085WE-BCTD	M4S0-4GSSNCIK	Pass
7	Transcend	SEC	4GB	DDR4-2400	K4A4G085WE-BCRC	TS512MSH644H	Pass
8	Transcend	SEC	4GB	DDR4-2133	K4A4G085WD-BCPB	TS512MSH64V1H	Pass

1.2.4 DDR4 Module Test Procedures:

No.	DDR4 Module	Test Procedures	Result
1	DDR4-2666/Transcend-TS4GSH64V6E/ SEC-K4A4G085WM-BCTD/32GB*2	DUT: DUT#1 CPU: Intel (R) Core (TM) i7-9700TE CPU 1.80GHz(QSJN) DIMM Slot: DIMM-1/2 Dual Channel Test Summary: AIDA64 Cache and Memory Benchmark(V6.32.5600) DUAL CHANNEL(DIMM-1/2) READ:36324 MB/s WRITE:38484 MB/s COPY:35210 MB/s PassMark PerformanceTest 10.0 Build 1010 CPU Mark:6294.9 Memory Mark:1934.2 3DMark for Windows(V 2.15.7088)3times Cloud Gate:9377 Ice Storm:46036 Sky diver:5196 Fire Strike:1312	Pass
2	DDR4-2666/Innodisk- M4S0-8GSSOCIK/ SEC-K4A4G085WE-BCTD/8GB*2	DUT: DUT#2 CPU: Intel Core i5-9500TE CPU @ 2.20GHz (QT8N) DIMM Slot: DIMM-1/2 Dual Channel S4/S5: Pass	Pass
3	DDR4-2666/Kingston-CBD26D4S9S1ME/ Micron-8KE77 D9WFH/4GB*	DUT: DUT#2 CPU: Intel Core i3-9100E CPU @ 3.00GHz (QSKA) DIMM Slot: DIMM-1 Single Channel S4/S5: Pass	Pass
4	DDR4-2666/Kingston-CBD26D4S9D8ME- 16/ Micron-8PE75-D9VPP/16GB*	DUT: DUT#1 CPU: Intel Core i5-9500E CPU @ 3.00GHz (QT8L) DIMM Slot: DIMM-2 Single Channel S4/S5: Pass	Pass
5	DDR4-2666/Innodisk- M4S0-4GSSNCIK/ SEC-K4A4G085WE-BCTD/4GB* 2	DUT: DUT#1 CPU: Intel Core i5-8500 CPU @ 3.00GHz (QP5J) DIMM Slot: DIMM-1/2 Dual Channel S4/S5: Pass	Pass
6	DDR4-2400/Transcend-TS512MSH644H/ SEC-K4A4G085WE-BCRC/4GB*2	DUT: DUT#1 CPU: Intel Core i7-8700 CPU @ 3.20GHz (QNML) DIMM Slot: DIMM-1/2 Dual Channel S4/S5: Pass	Pass
7	DDR4-2133/Transcend-TS512MSH64V1H/ SEC-K4A4G085WD-BCPB/4GB*2	DUT: DUT#1 CPU: Intel Core i3-9100TE CPU @ 2.20GHz (QT8P) DIMM Slot: DIMM-1/2 Dual Channel S4/S5: Pass	Pass
8	DDR4-2666/Transcend-TS1GSH64V6B/ SEC-K4A8G085WC-BCTD/8GB*	DUT: DUT#1 CPU: Intel Pentium Gold G5400 CPU @ 3.70GHz (SR3X9) DIMM Slot: DIMM-1 Single Channel S4/S5: Pass	Pass
9	DDR4-2133/Transcend-TS512MSH64V1H/ SEC-K4A4G085WD-BCPB/4GB*2	DUT: DUT#1 CPU: Intel Celeron G4900 CPU @ 3.10GHz (SR3W4) DIMM Slot: DIMM-1/2 Dual Channel S4/S5: Pass	Pass