

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 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 correct for each test step

No.	CPU	Type	Idle CPU Temp.	Full Loading CPU Temp.	Result
1	Intel / 4.20GHz	Core i7-7700K (KabyLake / SR33A) / 91W / LGA1151	52.0°C	58.0°C	Pass
2	Intel / 3.60GHz	Core i7-7700 (KabyLake / SR338) / 65W / LGA1151	50.5°C	57.5°C	Pass
3	Intel / 3.50GHz	Core i5-7600 (KabyLake / SR334) / 65W / LGA1151	45.5°C	50.0°C	Pass
4	Intel / 3.70GHz	Core i3-6100(Skylake-S/S0-SR2HG) / 51W / LGA1151	48.0°C	55.5°C	Pass
5	Intel / 3.30GHz	Pentium-G4400 (Skylake-S/R0-SR2DC) / 54W / LGA1151	36.5°C	40.5°C	Pass
6	Intel / 2.80GHz	Celeron G3900(Skylake-S/S0-SR2HV) / 51W / LGA1151	35.0°C	35.0°C	Pass

1.1.1 Application Test:

No.	Software	Test Keypoint	Result
1	CPU-Z	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 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.2.4.4264 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.6.2.0	1. Stress test 22 hours.	M/B: SD106-Q170DRM Rev.3 (03 1) (BSG250700021) M/B BIOS: Insyde 07/22/2016 M/B Driver: Demo ver.0.1.1607.1 (SD1 06) CPU: Intel / Co e i7-6700 (Skylake-S/R0-SR2BT) / 3.40GHz DDR4: ADATA (AD4S2133316G15- BSSB 1.2V) [512Mx8/1024Mx8,CL=15,t RCD=15,tRP=15] / SEC (K4A8G085WB-BCPB) / PC4-17000 (DDR4-2133) / 16GB *2 SSD: Intel / SSDSC2BW120A401 SATA 120GB MLC/2.5" Display: On Board DVD-ROM: Asus / DVD-E818A9T b/BLK /G/AS SATA2.0 Power: Lepa / N500-SB NU (500W) O.S.: DOS	Pass

1.2.3 DDR4 Approved List:

No.	Brand	Chip	Size	Type	Chip Model No.	Vendor Part No.	Result
1	Innodisk	SEC	16GB	PC4-17000 (DDR4-2133)	K4A8G085WB-BCPB	M4SR-AGS1 C0G-B 1.2V [1Gx8b- x16/ 2048Mx64b 1066MHz@C L=15,tRCD=15,tRP =15]	Pass
2	ADATA	SEC	16GB	PC4-17000 (DDR4-2133)	K4A8G085WB-BCPB	AD4S213331 6G15-BSSB 1.2V [512Mx8/1024Mx8,CL=15,tRCD= 15,tRP=15]	Pass
3	ATLA	SEC	8GB	PC4-17000 (DDR4-2133)	K4A4G085WE-BCPB	AD4SST8GT1 WB-EOGE 1.2V	Pass
4	Kingston	Micron	4GB	PC4-17000 (DDR4-2133)	9905664-E01.A01G	CBD21D4S5S 1MB-4 1.2V [512Mx64-Bi t CL=15,1Rx16]	Pass

1.2.4 DDR4 Module Test Procedures:

No.	DDR4 Module	Test Procedures	Result
1	Innodisk (M4SR-AGS1OC0G-B 1.2V) [1Gx8b-x16/2048Mx64b 1066MHz@CL=15,tRCD=15,tRP=15] / SEC (K4A8G085WB-BCPB) / PC4-17000 (DDR4-2133) / 16GB *2	M/B: SD106-Q170DRM Rev.3 (031) (BMG250100016) M/B BIOS: Insyde 07/22/2016 M/B Driver: Dem ver.0.1.1607.1 (SD106) CPU: Intel / Core i3-6100 (Skylake-S/S0-SR2H G) / 3.70GHz DIMM Slot: DIMM-1/2 (Dual channel) SSD: Intel / SSDSC2BW120A401 SATA 120GB MLC/2.5" Display: DVD- On Board ROM: DVD-ROM: LITE ON / iHAS324 SATA (24X) Power: Power: Delta / GPS-500BB (500W) O.S.: O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English)(UEFI) Test Summary: Test Summary: Environment Temp.:24.8°C CPU Temp.:54.5°C CPU Temp. after 3DMark:54.5°C 1. AIDA64 Cache and Memory Benchmark Ver.5.75.3900 READ:28445 MB/s WRITE:30865 MB/s COPY:28710 MB/s 2. Passmark PerformanceTest 8.0 Build 1054 CPU Mark:5733 Memory Mark:2863 3.3DMark for Windows Ver.2.0.2809 Cloud Gate:6649 Ice Storm Extreme:41126 Skydiver:3833 Fire Strike:898	Pass
2	ADATA (AD4S2133316G15-BSSB 1.2V) [512Mx8/1024Mx8,CL=15,tRCD=15,tRP=15] / SEC (K4A8G085WB-BCPB) / PC4-17000 (DDR4-2133) / 16GB *2	M/B: SD106-Q170DRM Rev.3 (031) (BSG250700021) M/B BIOS: Insyde 07/22/2016 M/B Driver: Dem ver.0.1.1607.1 (SD106) CPU: Intel / Core i7-6700 (Skylake-S/R0-SR2B T) / 3.40GHz DIMM Slot: DIMM-1/2 (Dual channel) SSD: Intel / SSDSC2BW120A401 SATA 120GB MLC/2.5" Display: On Board DVD-ROM: Asus / DVD-E818A9T b/BLK/G/AS SATA2 .0 Power: Lepa / N500-SB NU (500W) O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English)(UEFI) Test Summary: Environment Temp.:25.0°C CPU Temp.:45.5°C CPU Temp. after 3DMark:42.5°C 1. AIDA64 Cache and Memory Benchmark Ver.5.75.3900 READ:29045 MB/s WRITE:30647 MB/s COPY:29075 MB/s 2. Passmark PerformanceTest 8.0 Build 1054 CPU Mark:10360 Memory Mark:2838 3. 3DMark for Windows Ver.2.0.2809 Cloud Gate:8602 Ice Storm Extreme:45405 Skydiver:4387 Fire Strike:1001	Pass

3	<p>ADATA (AD4S2133316G15-BSSB 1.2V) [512Mx8/1024Mx8,CL=15,tRCD=15,tRP=15] / SEC (K4A8G085WB-BCPB) / PC4-17000 (DDR4-2133) / 16GB *2</p>	<p>M/B: SD106-Q170DRM Rev.3 (031) (BMG250100016) M/B BIOS: Insyde 07/22/2016 M/B Driver: Dem ver.0.1.1607.1 (SD106) CPU: Intel / Core i5-6500 (Skylake-S/R0-SR2B X) / 3.20GHz DIMM Slot: DIMM-1 (Single channel) SSD: Intel / SSDSC2BW120A401 SATA 120GB MLC/2.5" Display: On Board DVD-ROM: LITE ON / iHAS324 SATA (24X) Power: Delta / GPS-500BB (500W) O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English)(UEFI) Test Summary: Environment Temp.:24.4°C CPU Temp.:40.5°C CPU Temp. after 3DMark:38.5°C 1. AIDA64 Cache and Memory Benchmark Ver.5.75.3900 READ:14721 MB/s WRITE:14370 MB/s COPY:14486 MB/s 2. Passmark PerformanceTest 8.0 Build 1054 CPU Mark:6911 Memory Mark:1926 3. 3DMark for Windows Ver.2.0.2809 Cloud Gate - - - :6087 Ice Storm Extreme:34768 Skydiver:3537 Fire Strike:732</p>	Pass
4	<p>Kingston/ CBD21D4S5S1MB-4 1.2V [512Mx64-Bit CL=15,1Rx16] / Micron (9905664-E01.A01G) / PC4-17000(DDR4-2133) / 4GB *2</p>	<p>M/B: SD106-Q170DRM Rev.3 (031) (BMG250100002) M/B BIOS: Insyde 07/22/2016 M/B Driver: Dem ver.0.1.1607.1 (SD106) CPU: Intel / Core i7-6700TE (Skylake-S/R0-SR 2LP) / 2.40GHz DIMM Slot: DIMM-1/2 (Dual channel) SSD: Intel / SSDSC2BW120A401 SATA 120GB MLC/2.5" Display: DVD- On Board ROM: LITE ON / iHAS324 SATA (24X) Power: Delta / GPS-500BB (500W) O.S.: Windows 8.1 Embedded Pro 64Bit (with update 1) (English)(UEFI) Test Summary: Environment Temp.:30.5°C CPU Temp.:35.5°C CPU Temp. after 3DMark:36.0°C 1. AIDA64 Cache and Memory Benchmark Ver.5.75.3900 READ:26778 MB/s WRITE:25332 MB/s COPY:23227 MB/s 2. Passmark PerformanceTest 8.0 Build 1054 CPU Mark:8477 Memory Mark:2238 3. 3DMark for Windows Ver.2.0.2809 Cloud Gate:7053 Ice Storm Extreme:37896 Skydiver:3683 Fire Strike:794</p>	Pass