

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 BurnIn Test 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 / 3.7GHz	Core i9-10900K (Cometlake-S/QUTF) / 125W / LGA1200	36.0°C	88.0°C	Pass
2	Intel / 2.8GHz	Core i9-10900E (Cometlake-S/QUK7) / 65W / LGA1200	35.0°C	56.0°C	Pass
3	Intel / 1.8GHz	Core i9-10900TE (Cometlake-S/QUK6) / 35W / LGA1200	34.5°C	55.0°C	Pass
4	Intel / 3.8GHz	Core i7-10700K (Cometlake-S/QUKR) / 125W / LGA1200	36.5°C	80.5°C	Pass
5	Intel / 2.9GHz	Core i7-10700E (Cometlake-S/QV20) / 65W / LGA1200	36.5°C	58.0°C	Pass
6	Intel / 2.0GHz	Core i7-10700TE (Cometlake-S/QUKC) / 35W / LGA1200	35.0°C	57.0°C	Pass
7	Intel / 3.1GHz	Core i5-10500E (Cometlake-S/QV22) / 65W / LGA1200	35.0°C	56.0°C	Pass
8	Intel / 2.3GHz	Core i5-10500TE (Cometlake-S/QTK3) / 35W / LGA1200	33.0°C	55.0°C	Pass
9	Intel / 3.2GHz	Core i3-10100E (Cometlake-S/QTK4) / 65W / LGA1200	35.0°C	56.0°C	Pass
10	Intel / 2.3GHz	Core i3-10100TE (Cometlake-S/QTK5) / 35W / LGA1200	34.5°C	56.0°C	Pass
11	Intel / 3.8GHz	Core Pentium G6400E (Cometlake-S/QUVA) / 58W / LGA1200	34.0°C	55.0°C	Pass
12	Intel / 3.2GHz	Core Pentium G6400TE (Cometlake-S/QTK7) / 35W / LGA1200	0°C	0°C	Note ID40434
13	Intel / 3.2GHz	Core Celeron G5900E (Cometlake-S/QUVB) / 58W / LGA1200	35.0°C	57.0°C	Pass
14	Intel / 3.0GHz	Core Celeron G5900TE (Cometlake-S/QTK8) / 35W / LGA1200	35.0°C	58.0°C	Pass

1.1.1 Application Test:

No.	Software	Test Keypoint	Result
1	CPU-Z ver.1.93.0	1. Check all information.	Pass

1.1.2 Notes:

Item	ID	Note Description
1	40434	The Processor Type shows "Not Detected" when using CPU Pentium G6400TE

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.6.25.5400 1 time 4. Run Passmark Performance Test 10.0 Build1008 1 time 5. Run 3DMark for Windows Ver.2.15.7088 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	Dual Channel mode	Pass
2	Single Channel mode	Pass

1.2.2 Application Test:

No.	Software	Test Keypoint	Test Environment	Result
1	PassMark MemTest86V8.4 Pro	1. Burn-In test 12 hours.	DDR4: DDR4-3200/ATP-X4D32QB8BVWE-7-DR1/Micron-9KB45 D9XPF/32GB*4 (DIMM-1/2/3/4) DUAL CHANNEL O.S.: UEFI Shell Memtest86 V8.4	Pass

1.2.3 DDR4 Approved List:

No.	Vendor	Type	Size	Chip	Chip Model No.	Vendor Part No.	Result
1	ATP	DDR4-3200	32GB	Micron	9KB45 D9XPF	X4D32QB8BVWE-7-DR1	Pass
2	ADATA	DDR4-2666	32GB	SEC	K4AAG085WA-BCTD	AD4U2666732G19-BSSA	Pass
3	ADATA	DDR4-2666	32GB	SEC	K4AAG085WA-BCTD	AD4U2666732G19-BSSA/	Pass
4	Apacer	DDR4-2666	16GB	SEC	K4A8G085WB-BCTD	78.D1GS7.4010B	Pass
5	Transcend	DDR4-2666	16GB	SEC	K4A8G085WC-BCTD	TS2GLH64V6B	Pass
6	Apacer	DDR4-2666	8GB	SEC	K4A8G085WB-BCTD	78.C1GS7.40F0B	Pass
7	Transcend	DDR4-2666	8GB	SEC	K4A8G085WC-BCTD	TS1GLH64V6B	Pass
8	Transcend	DDR4-2666	8GB	SEC	K4A8G085WC BCTD	TS1GLH64V6B	Pass
9	Innodisk	DDR4-2666	8GB	SEC	K4A4G085WE-BCTD	M4U0-8GSSKCIK	Pass
10	Transcend	DDR4-2666	8GB	SEC	K4A8G085WC-BCTD	TS1GLH64V6B	Pass
11	Innodisk	DDR4-2666	8GB	SEC	K4A8G085WC-BCTD	M4U0-8GS1JCIK	Pass
12	Innodisk	DDR4-2666	4GB	SEC	K4A4G085WE-BTCD	M4U0-4GSSJCIK	Pass
13	Apacer	DDR4-2666	4GB	SEC	K4A4G085WE-BCTD	78.B1GS6.40F0B	Pass

1.2.4 DDR4 Module Test Procedures:

No.	DDR4 Module	Test Procedures	Result
1	DDR4-3200/ATP-X4D32QB8BVWE-7-DR1/Micron-9KB45 D9XPF/32GB*4	M/B: CMS631-Q470ECRM Rev.1 (011) (BSK411100004) CPU: Intel Core i9-10900K 3.70GHz (QUTF) DIMM Slot: DIMM-1/2/3/4 Dual Channel Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400) DUAL CHANNEL(DIMM-1/2/3/4) READ:40500 MB/s WRITE:43551 MB/s COPY:41678 MB/s Passmark PerformanceTest 10.0 Build 1008 CPU Mark:19328 Memory Mark:3222.8 3DMark for Windows(V 2.15.7088)3times Cloud Gate:13071 Ice Storm:56565 Sky diver:5692 Fire Strike:1410	Pass
2	DDR4-2666/ADATA-AD4U2666732G19-BSSA/SEC- K4AAG085WA-BCTD/32GB*	M/B: CMS631-Q470ECRM Rev.1 (011) (BSK411100004) CPU: Intel Core i9-10900E 2.80GHz (QUK7) DIMM Slot: DIMM-1 Single Channel Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400) SINGLE CHANNEL(DIMM-1) READ:22099 MB/s WRITE:19155 MB/s COPY:22662 MB/s Passmark PerformanceTest 10.0 Build 1008 CPU Mark:13456 Memory Mark:2362.3 3DMark for Windows(V 2.15.7088)3times Cloud Gate:11396 Ice Storm:50551 Sky diver:5264 Fire Strike:1248	Pass
3	DDR4-2666/ Transcend-TS1GLH64V6B/ SEC-K4A8G085WC-BCTD/8GB*	M/B: CMS631-Q470ECRM Rev.1 (011) (BSK411100004) CPU: Intel Celeron G5900TE 3.00GHz (QTK8)DIMM-1 Single Channel Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)SINGLE CHANNEL(DIMM-1) READ:17819MB/s WRITE:18190 MB/s COPY:17375 MB/s Passmark PerformanceTest 10.0 Build 1008 CPU Mark:2433.6 Memory Mark:2174.3 3DMark for Windows(V 2.15.7088)3times Cloud Gate:4537 Ice Storm:25897 Sky diver:2618 Fire Strike:647	Pass
4	DDR4-2666/ Innodisk- M4U0-8GSSKCIK- SEC-K4A4G085WE-BCTD/8GB*2	M/B: CMS631-Q470ECRM Rev.1 (011) (BSK411100004) CPU: Intel Pentium Gold G6400E 3.80GHz (QUVA)DIMM-2/4 Dual Channel DIMM Slot: DIMM-2/4 Dual Channel Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)DUAL CHANNEL(DIMM-2/4) READ:33389 MB/s WRITE:27234 MB/s COPY:33104 MB/s Passmark PerformanceTest 10.0 Build 1008 CPU Mark:4055.8 Memory Mark:2952.4 3DMark for Windows(V 2.15.7088)3times Cloud Gate:6291 Ice Storm:32210 Sky diver:3003 Fire Strike:761	Pass

5	DDR4-2666/ Innodisk- M4U0-8GS1JCIK/ SEC-K4A8G085WC-BCTD/8GB*2	M/B: CMS631-Q470ECRM Rev.1 (011) (BSK411100004) CPU: Intel Celeron G5900E 3.20GHz DIMM Slot: (QUVB)DIMM-1/2 Single Channel Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)SINGLE CHANNEL(DIMM-1/2) READ:17662 MB/s WRITE:18215 MB/s MB/sCOPY:17816 MB/s Passmark PerformanceTest 10.0 Build 1008 CPU Mark:2625.6 Memory Mark:2293.7 3DMark for Windows(V 2.15.7088)3times Cloud Gate:4666 Ice Storm:26380 Sky diver:2641 Fire Strike:652	Pass
6	DDR4-2666/ Apacer-78.D1GS7.4010B/SEC-K4A8G085WB-BCTD/16GB*	M/B: CMS631-H4200EC Rev.1 (011) (BSK411000005) CPU: Intel Core i9-10900TE 1.80GHz (QUK6) DIMM Slot: DIMM-3 Single Channel Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)SINGLE CHANNEL(DIMM-3) READ:20631 MB/s WRITE:19697 MB/s MB/sCOPY:21170 MB/s Passmark PerformanceTest 10.0 Build 1008 CPU Mark:9362.8 Memory Mark:1812.2 3DMark for Windows(V 2.15.7088)3times Cloud Gate:10339 Ice Storm:44928 Sky diver:5243 Fire Strike:1260	Pass
7	DDR4-2666/ Innodisk- M4U0-4GSSJCIK/SEC-K4A4G085WE-BTCD/4GB*2	M/B: CMS631-H4200EC Rev.1 (011) (BSK411000005) CPU: Intel Core i5-10500E 3.10GHz (QV22) DIMM Slot: DIMM-1/3 Dual Channel Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)DUAL CHANNEL(DIMM-1/3) READ:38088 MB/s WRITE:38995 MB/s MB/sCOPY:32803 MB/s Passmark PerformanceTest 10.0 Build 1008 CPU Mark:10484.6 Memory Mark:2554.5 3DMark for Windows(V 2.15.7088)3times Cloud Gate:11619 Ice Storm:52220 Sky diver:5346 Fire Strike:1315	Pass
8	DDR4-2666/ ADATA-AD4U2666732G19-BSSA/ SEC-K4AAG085WA-BCTD/32GB*2	M/B: CMS631-H4200EC Rev.1 (011) (BSK411000005) CPU: Intel Core i7-10700K 3.80GHz (QUKR) DIMM Slot: DIMM-1/3 Dual Channel Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)DUAL CHANNEL(DIMM-1/3) READ:38490 MB/s WRITE:39462 MB/s MB/sCOPY:38327 MB/s Passmark PerformanceTest 10.0 Build 1008 CPU Mark:16345.1 Memory Mark:3268.8 3DMark for Windows(V 2.15.7088)3times Cloud Gate:13105 Ice Storm:53493 Sky diver:5570 Fire Strike:1385	Pass

9	DDR4-2666/Transcend-TS1GLH64V6B/SEC-K4A8G085WC-BCTD/8GB*	M/B: CMS631-H4200EC Rev.1 (011) (BSK411000005) CPU: Intel Core i7-10700E 2.90GHz (QV20) DIMM Slot: DIMM-1 Single Channel Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)Single CHANNEL(DIMM-1) READ:21174 MB/s WRITE:18995 MB/s MB/sCOPY:21170 MB/s Passmark PerformanceTest 10.0 Build 1008 CPU Mark:11528.6 Memory Mark:2192.2 3DMark for Windows(V 2.15.7088)3times Cloud Gate:10956 Ice Storm:49868 Sky diver:5003 Fire Strike:1176	Pass
10	DDR4-2666/ Apacer-78.C1GS7.40F0B/SEC-K4A8G085WB-BCTD/8GB*	M/B: CMS631-Q470ECRM Rev.1 (011) (BSK411100004) CPU: Intel Core i3-10100TE 2.30GHz (QTK5) DIMM Slot: DIMM-1/3 Dual Channel Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)DUAL CHANNEL(DIMM-1/3) READ:36737 MB/s WRITE:39408 MB/s MB/sCOPY:32468 MB/s Passmark PerformanceTest 10.0 Build 1008 CPU Mark:5447 Memory Mark:2275 3DMark for Windows(V 2.15.7088)3times Cloud Gate:8875 Ice Storm:44551 Sky diver:4797 Fire Strike:1203	Pass
11	DDR4-2666/ Transcend-TS1GLH64V6B/SEC-K4A8G085WCBCTD/8GB*	M/B: CMS631-Q470ECRM Rev.1 (011) (BSK411100004) CPU: Intel Core i7-10700TE 2.00GHz (QUKC) DIMM Slot: DIMM-2 Single Channel Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)SINGLE CHANNEL(DIMM-2) READ:20611 MB/s WRITE:19266 MB/s MB/sCOPY:19107 MB/s Passmark PerformanceTest 10.0 Build 1008 CPU Mark:8433.2 Memory Mark:1805.3 3DMark for Windows(V 2.15.7088)3times Cloud Gate:10113 Ice Storm:45853 Sky diver:4916 Fire Strike:1164	Pass
12	DDR4-2666/ Transcend-TS2GLH64V6B/SEC-K4A8G085WCBCTD/16GB*	M/B: CMS631-Q470ECRM Rev.1 (011) (BSK411100004) CPU: Intel Core i5-10500TE 2.30GHz (QTK3) DIMM Slot: DIMM-3 Single Channel Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)SINGLE CHANNEL(DIMM-3) READ:20214 MB/s WRITE:19694 MB/s MB/sCOPY:21371 MB/s Passmark PerformanceTest 10.0 Build 1008 CPU Mark:7610.9 Memory Mark:2157.4 3DMark for Windows(V 2.15.7088)3times Cloud Gate:9579 Ice Storm:46089 Sky diver:4919 Fire Strike:1184	Pass

13	DDR4-2666/Apacer-78.B1GS6.40F0B/SEC-K4A4G085WE-BCTD/4GB*	M/B: CMS631-Q470ECRM Rev.1 (011) (BSK411100004) CPU: Intel Core i3-10100E 3.20GHz (QTK4) DIMM Slot: DIMM-4 Single Channel Test Summary: AIDA64 Cache and Memory Benchmark(V6.25.5400)SINGLE CHANNEL(DIMM-4) READ:20026 MB/s WRITE:20196 MB/s COPY:19286 MB/s Passmark PerformanceTest 10.0 Build 1008 CPU Mark:6768.7 Memory Mark:1872.6 3DMark for Windows(V 2.15.7088)3times Cloud Gate:8681 Ice Storm:41937 Sky diver:4490 Fire Strike:1039	Pass
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