

1. Stability Test

1.1 CPU Function Test:

Test Purpose	Test CPU 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. Check CPU temperature in BIOS setup menu 4. Run PassMark BurnInTest and check CPU temperature 5. Using CPU-Z check CPU info 6. S3(Sleep)/S4(Hibernate)/S5(Shutdown) test - 3 times
Test Criteria	It should be correct for each test step

Test Environment	
DUT:	
M/B:	CMS632-Q470ECRM Rev.A (0A1) [774-CMS6321-100G/KSM382200008]
M/B BIOS:	B22B.03C (AMI-Aptio)
M/B Driver:	Driver_643-CMS632-000G_220520_01.iso
SSD:	Transcend / TS128GSSD420K SATA3 128GB/2.5"
Display:	On Board (using DP1)
USB DVD-RW:	ZHENWEI / GT30N (ECD819-SU3) USB3.0 DVD-RW
Power:	Seasonic / SSP-500ES 500W
Monitor:	BENQ / BL2420-T (BL2420PT) 23.8" LED Screen Monitor (2560*1440,D-sub/DVI/HDMI/Display port v1.2, Headphone Jack,Color:16.7M,HDCP Support)
O.S.:	Windows 10 IOT Enterprise LTSC 64Bit (English) Build17763.2867 (RS5) (UEFI)

1.1.1 CPU Approved List:

No.	CPU	Type	Idle CPU Temp.	Full Loading CPU Temp.	Result
1	Intel / 3.7GHz	Core i9-10900K (Cometlake-S/Q0-SRH91, 10Cores/20Threads, Supported memory:DDR4-2933) / 125W / FCLGA1200	38 °C	46 °C	Pass
2	Intel / 2.8GHz	Core i9-10900E (Cometlake-S/QUK7, 10Cores/20Threads, Supported memory:DDR4-2933) / 65W / FCLGA1200	36 °C	41 °C	Pass
3	Intel / 1.8GHz	Core i9-10900TE (Cometlake-S/Q0-QUK6, 10Cores/20Threads, Supported memory:DDR4-2933) / 35W / FCLGA1200	32 °C	35 °C	Pass
4	Intel / 3.8GHz	Core i7-10700K (Cometlake-S/Q0-QUKR, 8Cores/16Threads, Supported memory:DDR4-2933) / 125W / FCLGA1200	43 °C	53 °C	Pass
5	Intel / 2.9GHz	Core i7-10700E (Cometlake-S/QV20, 8Cores/16Threads, Supported memory:DDR4-2933) / 65W / FCLGA1200	37 °C	46 °C	Pass
6	Intel / 2.0GHz	Core i7-10700TE (Cometlake-S/Q0-QUKC, 8Cores/16Threads, Supported memory:DDR4-2933) / 35W / FCLGA1200	32 °C	32 °C	Pass
7	Intel / 3.1GHz	Core i5-10500E (Cometlake-S/G1-QV22, 6Cores/12Threads, Supported memory:DDR4-2666) / 65W / FCLGA1200	40 °C	45 °C	Pass
8	Intel / 2.3GHz	Core i5-10500TE (Cometlake-S/G1-QTK3, 6Cores/12Threads, Supported memory:DDR4-2666) / 35W / FCLGA1200	32 °C	32 °C	Pass
9	Intel / 3.2GHz	Core i3-10100E (Cometlake-S/G1-QTK4, 4Cores/8Threads, Supported memory:DDR4-2666) / 65W / FCLGA1200	35 °C	38 °C	Pass
10	Intel / 2.3GHz	Core i3-10100TE (Cometlake-S/G1-QTK5, 4Cores/8Threads, Supported memory:DDR4-2666) / 35W / FCLGA1200	29 °C	33 °C	Pass
11	Intel / 3.8GHz	Pentium-G6400E (Cometlake-S/G1-QUVA, 2Cores/4Threads, Supported memory:DDR4-2400) / 58W / FCLGA1200	38 °C	39 °C	Pass
12	Intel / 3.2GHz	Pentium-G6400TE (Cometlake-S/G1-SRH6H, 2Cores/4Threads, Supported memory:DDR4-2400) / 35W / FCLGA1200	35 °C	36 °C	Pass
13	Intel / 3.2GHz	Pentium-G5900E (Cometlake-S/G1-QUVB, 2Cores/2Threads, Supported memory:DDR4-2400) / 58W / FCLGA1200	34 °C	36 °C	Pass
14	Intel / 3.0GHz	Pentium-G5900TE (Cometlake-S/G1-QTK8, 2Cores/2Threads, Supported memory:DDR4-2400) / 35W / FCLGA1200	35 °C	36 °C	Pass

1.2 Memory Function Test:

Test Purpose	Test Memory functions work normally under Windows Operating System
Test Procedure	1. Install Windows Operating System 2. Install M/B Device Driver 3. Run Passmark Performance Test 10.0 Build1010 1 time 4. Run 3DMark for Windows Ver.2.15.7088 BenchMark 3 times 5. 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	Dual Channel mode	Pass
2	Single Channel mode	Pass

1.2.2 Application Test:

No.	Software	Test Keypoint	Test Environment	Result
1	PassMark MemTest86 V8.4 Pro	1. Burn-In test 12 hours.	DDR4: DDR4-3200/ATP-X4D32QB8BVWEME-7-DR1/Micron-0CB45 D9XPF/32GB*4 (DIMM-1/2/3/4) DUAL CHANNEL DDR4: DDR4-3200(ECC)/ADATA-AD4E3200732G22-BSSA/ SEC-K4AAG085WA-BCRWE/32GB*4 (DIMM-1/2/3/4) DUAL CHANNEL O.S.: UEFI Shell Memtest86 V8.4	Pass

1.2.3 DDR4 Approved List:

No.	Brand	Chip	Size	Type	Chip Model No.	Vendor Part No.	Result
1	ATP	DDR4-3200	32GB	Micron	9KB45 D9XPF	X4D32QB8BVWEME-7-DR1	Pass
2	ADATA	DDR4-2666	32GB	SEC	K4AAG085WA-BCTD	AD4U2666732G19-BSSA	Pass
3	Transcend	DDR4-2666	8GB	SEC	K4A8G085WC BCTD	TS1GLH64V6B	Pass
4	Transcend	DDR4-2666	16GB	SEC	K4A8G085WC-BCTD	TS2GLH64V6B	Pass
5	Apacer	DDR4-2666	8GB	SEC	K4A8G085WB-BCTD	78.C1GS7.40F0B	Pass
6	Apacer	DDR4-2666	16GB	SEC	K4A8G085WB-BCTD	78.D1GS7.4010B	Pass
7	Apacer	DDR4-2666	4GB	SEC	K4A4G085WE-BCTD	78.B1GS6.40F0B	Pass
8	Transcend	DDR4-2666	8GB	SEC	K4A8G085WC BCTD	TS1GLH64V6B	Pass
9	Innodisk	DDR4-2666	4GB	SEC	K4A4G085WE-BTCD	M4U0-4GSSJCIK	Pass
10	Transcend	DDR4-2666	8GB	SEC	K4A8G085WC BCTD	TS1GLH64V6B	Pass
11	Transcend	DDR4-2400	8GB	SEC	K4A4G085WE-BCRC	TS1GLH64V4H	Pass
12	Transcend	DDR4-2400	16GB	SEC	K4A8G085WB-BCRC	TS2GLH64V4B	Pass
13	ADATA	DDR4-3200 (ECC)	32	SEC	K4AAG085WA-BCRWE	AD4E3200732G22-BSSA	Pass
14	Transcend	DDR4-2666 (ECC)	32GB	SEC	K4AAG085WM-BCTD	TS4GLH72V6E	Pass
15	ADATA	DDR4-2666 (ECC)	16GB	SEC	K4A8G085WC BCTD	AD4E2666316G19-BSSC	Pass
16	Transcend	DDR4-2666 (ECC)	32GB	SEC	K4AAG085WM-BCTD	TS4GLH72V6E-001	Pass
17	ADATA	DDR4-2400 (ECC)	16GB	SK Hynix	H5AN8G8NAFR-UHC	AD4E240031617-BHYA	Pass
18	Transcend	DDR4-2666 (ECC)	8GB	SEC	K4A8G085WC BCTD	TS1GLH72V6B	Pass
19	Innodisk	DDR4-2666 (ECC)	4GB	SEC	K4A4G085WE BCTD	M4C0-4GSSLCIK	Pass