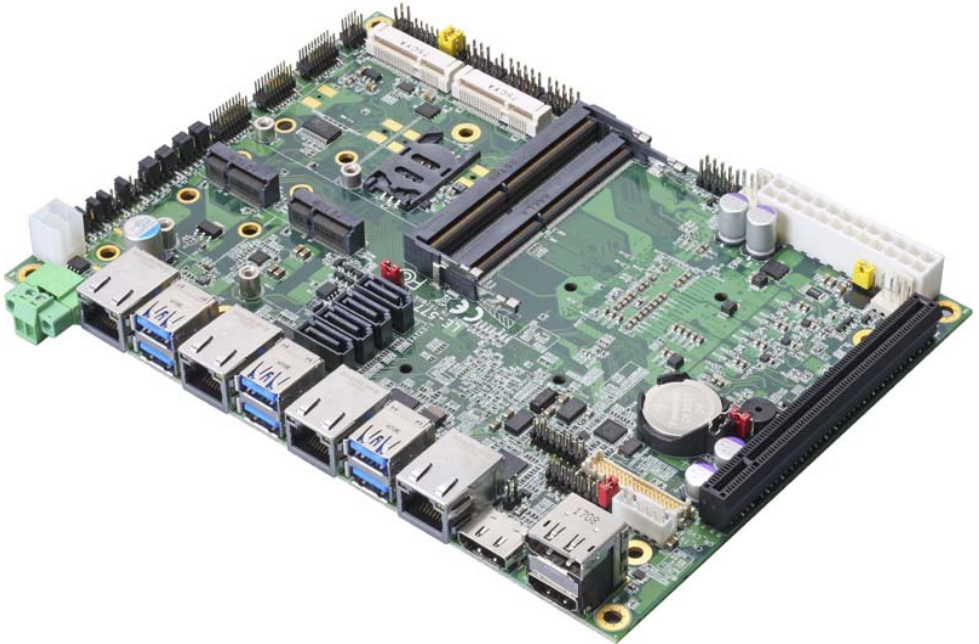


Product Test Report



Product Name	LE-577
Product Version	A
Issued Date	2018.12.19
Report Edition	1.0
BIOS Version	3.0
Testing Engineer	Rick
Check Engineer	Daniel

REVISION HISTORY

DATE	REVISION NO.	PAGE	DESCRIPTONS
2018.12.19	Ver. 1.0	82	Initial Release

Index

1. Function test	4
1.1 Hardware functions.....	4
1.2 BIOS function	5
1.3 Driver	6
2. Compatibility test	7
2.1 CPU Test.....	7
2.2 Memory Test	7
2.3 Display Port Graphic Quality Test	8
2.4 HDMI Graphic Quality Test	9
2.5 Audio	10
2.6 HDD Test	11
2.7 DVD-ROM Test	12
2.8 USB Test.....	12
2.9 Serial Port Test	13
2.10 PS2 Keyboard 、 Mouse Test.....	13
2.11 LAN Test	14
2.12 Power Supply & Adapter Test	14
2.13 OS Install	14
2.14 PCI Express Mini Card.....	15
3. Environmental test	16
3.1 Temperature Test.....	16
3.2 Thermal measurements at various points on the board	19
4. Reliability Test	21
4.1 Power Consumption Test	21
5. Performance Test	24
5.1 3D MARK VANTAGE.....	24
5.2 3D MARK (Fire Strike).....	38

5.3 3D MARK (TIME SPY)..... 41
5.4 x264 FHD Benchmark 54
5.5 GeekBench4.3 Compute..... 60
5.6 CINEBENCH R15 70
5.7 Storage Performance..... 80

1. Function test

1.1 Hardware functions

Base Function Test

Item	Description	Result
1	Power Button	PASS
2	Reset	PASS
3	Power LED	PASS
4	HDD LED	PASS
5	CPUFAN	PASS
6	SYSFAN	PASS
7	PS2	PASS
8	CN_AUDIO	PASS
9	LAN 1/2/3/4	PASS
10	DDR4 1/2	PASS
11	SATA 1/2/3/4	PASS
12	USB2.0 1/2/3/4	PASS
13	USB3.0 1/2/3/4	PASS
14	COM 1/2/3/4/5/6	PASS
15	DVI	PASS
16	HDMI	PASS
17	Display Port	PASS
18	LVDS	PASS
19	MINI_CRAD 1/2	PASS
20	M2-1/M2-2 (M.2 Key E)	PASS
21	M2-3/M2-4 (M.2 Key M)	PASS

Jumper

Item	Description	Result
1	JRTC	PASS
2	JAT	PASS
4	JP1	PASS
5	JP2	PASS
6	JCSEL1	PASS
7	JCSEL2	PASS
8	JUSBS	PASS
9	JMSATA	PASS
10	JVLCD	PASS

1.2 BIOS function

Item	Description	Result	Remark
1	Press 'Del' to run Setup Utility	PASS	
2	Ctrl-Alt-Del – Soft-Reboot	PASS	
3	Save & Exit Setup	PASS	
4	Date & Time Setting	PASS	
5	NumLock	PASS	
6	Quick Boot	PASS	
7	Diagnostic Splash Screen	PASS	
8	Diagnostic Summary Screen	PASS	
9	Selection Language	PASS	
10	Watch Dog Timer Selection	PASS	
11	Serial Port	PASS	

Item	Description	Result	Remark
12	PS2 Keyboard and Mouse	PASS	
13	HD Audio	PASS	
14	SATA Controller(s)	PASS	
15	Set Supervisor Password	PASS	
16	Set User Password	PASS	
17	HDD Password	PASS	
18	Power Control	PASS	
19	Boot Priority Order	PASS	

1.3 Driver

DVD edition : IPCi1-1.8

1. Windows 10 64-bit Driver Test

Item	Description	Result	Version
1	Chipset Driver	PASS	10.1.1
2	VGA Driver	PASS	21.20.16.4627
3	Audio Driver	PASS	6.0.1.8036
4	LAN Driver	PASS	12.13.17.4

2. Compatibility test

2.1 CPU Test

Test environment:

OS: Windows 10 64-bit

Test program : 3D MARK VANTAGE

Link	CPU Speed	Family	Processor	MAX TDP	Smart Cache	Result
1	2.90 GHz	Core	i3-7100E	35 W	3 MB	PASS
2	3.60 GHz	Core	i5-7440EQ	45 W	6 MB	PASS
3	3.70 GHz	Core	i7-7820EQ	45 W	8 MB	PASS

2.2 Memory Test

Test environment:

OS: Windows 10 64-bit

Test program : 3D MARK Vantage

Manufacturer	Chip	Frequency	Capacity Mbytes	Result
Kingston KVR21SE15D8/16	Micro 6PA77 D9SRJ	DDR4 2133	16 GB	PASS
ACPI CMA6-3FA01BAR01M00	SK hynix H5AN4GBNMFR	DDR4 2133	4 GB	PASS
ACPI CMA6-3HD01BAR01A00	DTCKKN408H1	DDR4 2133	16 GB	PASS
Kingston KVR21SE15D8/16	Micro 7WE75 D9VPP	DDR4 2400	4 GB	PASS
Kingston KVR21SE15D8/16	Micro 7WE75 D9VPP	DDR4 2400	8 GB	PASS
Kingston KVR21SE15D8/16	SKhynix H5AN8GNCJR VKC 830V	DDR4 2400	16 GB	PASS

2.3 Display Port Graphic Quality Test

Test environment:

OS Windows 10 64-bit

Driver version : 21.20.16.4627

Resolution	Refresh Rate	Result	Remark
800 x 600	29p / 30p / 60p / 75p Hz	PASS	
1024 x 768	29p / 30p / 59p / 60p / 75p Hz	PASS	
1152 x 864	29p / 30p Hz	PASS	
1280 x 600	29p / 30p Hz	PASS	
1280 x 720	29p / 30p / 50p / 59p / 60p Hz	PASS	
1280 x 768	29p / 30p Hz	PASS	
1280 x 800	29p / 30p Hz	PASS	
1280 x 960	29p / 30p / 59p / 60p Hz	PASS	
1280 x 1024	29p / 30p / 59p / 60p / 75p Hz	PASS	
1360 x 768	29p / 30p Hz	PASS	
1366 x 768	29p / 30p Hz	PASS	
1400 x 1050	29p / 30p Hz	PASS	
1440 x 900	29p / 30p / 60p / 75p Hz	PASS	
1600 x 900	29p / 30p Hz	PASS	
1600 x 1200	29p / 30p Hz	PASS	
1680 x 1050	29p / 30p / 59p / 60p Hz	PASS	
1792 x 1344	29p / 30p Hz	PASS	
1856 x 1392	29p / 30p Hz	PASS	
1920 x 1080	29p / 30p / 50p / 50i / 59p / 60p / 60i Hz	PASS	
1920 x 1200	29p / 30p Hz	PASS	

1920 x 1440	29p / 30p Hz	PASS	
2048 x 1152	29p / 30p Hz	PASS	
2048 x 1536	29p / 30p Hz	PASS	
2560 x 1600	29p / 30p Hz	PASS	
2560 x 1920	29p / 30p Hz	PASS	
2560 x 2048	29p / 30p Hz	PASS	
3840 x 2160	29p / 30p Hz	PASS	

2.4 HDMI Graphic Quality Test

Test environment:

OS Windows 10 64-bit

Driver version : 21.20.16.4627

Resolution	Refresh Rate	Result	Remark
800 x 600	23p / 24p / 25p / 29p / 30p Hz	PASS	
1024 x 768	23p / 24p / 25p / 29p / 30p Hz	PASS	
1152 x 864	23p / 24p / 25p / 29p / 30p Hz	PASS	
1280 x 600	23p / 24p / 25p / 29p / 30p Hz	PASS	
1280 x 720	23p / 24p / 25p / 29p / 30p Hz	PASS	
1280 x 768	23p / 24p / 25p / 29p / 30p Hz	PASS	
1280 x 800	23p / 24p / 25p / 29p / 30p Hz	PASS	
1280 x 960	23p / 24p / 25p / 29p / 30p Hz	PASS	
1280 x 1024	23p / 24p / 25p / 29p / 30p Hz	PASS	
1360 x 768	23p / 24p / 25p / 29p / 30p Hz	PASS	
1366 x 768	23p / 24p / 25p / 29p / 30p Hz	PASS	
1400 x 1050	23p / 24p / 25p / 29p / 30p Hz	PASS	
1440 x 900	23p / 24p / 25p / 29p / 30p Hz	PASS	

1600 x 900	23p / 24p / 25p / 29p / 30p Hz	PASS	
1600 x 1200	23p / 24p / 25p / 29p / 30p Hz	PASS	
1680 x 1050	23p / 24p / 25p / 29p / 30p Hz	PASS	
1792 x 1344	23p / 24p / 25p / 29p / 30p Hz	PASS	
1856 x 1392	23p / 24p / 25p / 29p / 30p Hz	PASS	
1920 x 1080	23p / 24p / 25p / 29p / 30p Hz	PASS	
1920 x 1200	23p / 24p / 25p / 29p / 30p Hz	PASS	
1920 x 1440	23p / 24p / 25p / 29p / 30p Hz	PASS	
2048 x 1152	23p / 24p / 25p / 29p / 30p Hz	PASS	
2048 x 1536	23p / 24p / 25p / 29p / 30p Hz	PASS	
2560 x 1440	23p / 24p / 25p / 29p / 30p Hz	PASS	
2560 x 1600	23p / 24p / 25p / 29p / 30p Hz	PASS	
2560 x 1920	23p / 24p / 25p / 29p / 30p Hz	PASS	
2560 x 2048	23p / 24p / 25p / 29p / 30p Hz	PASS	
3840 x 2160	23p / 24p / 25p / 29p / 30p Hz	PASS	

2.5 Audio

Test environment:

OS Windows 10 64-bit

Driver version : 6.0.1.8036

Item	Description	Result	Remark
1	2.1 CH	PASS	
2	Microphone	PASS	

2.6 HDD Test

Test environment:

OS Windows 10 64-bit

HDD Model	Interface	Capacity	HDD Size Detect	HDD Data Transfer	HDD LED Check
Western Digital WD800BEVS-00RST0	SATA	80 GB	PASS	PASS	PASS
Seagate ST3160815AS	SATA	160 GB	PASS	PASS	PASS
Western Digital WD3200BVPT00JJ50	SATA	320 GB	PASS	PASS	PASS
Western Digital WD3200BEKT-00F3T0	SATA	320 GB	PASS	PASS	PASS
Western Digital WD5000LPCX-22VHAT0	SATA	500 GB	PASS	PASS	PASS
Western Digital WD5000BPKT-00PK40	SATA	500 GB	PASS	PASS	PASS
TOSHIBA DT01ACA200	SATA	2.0 TB	PASS	PASS	PASS
MemoRight MRSAJ6C064GC125C00	SSD	64 GB	PASS	PASS	PASS
INTEL SSDSC2BW240A4	SSD	240 GB	PASS	PASS	PASS

2.7 DVD-ROM Test

Test environment:

OS Windows 10 64-bit

DVD-ROM Model	Interface	DVD-ROM Detect	DVD-ROM Data Transfer	Play DVD
ASUS DRW-1814BLT	SATA	PASS	PASS	PASS
PIONEER DVR-S19LBK	SATA	PASS	PASS	PASS
LITE-ON iHES312	SATA	PASS	PASS	PASS
LITEON DVD eTAU108	USB	PASS	PASS	PASS
ZYNET GT32N A201	USB	PASS	PASS	PASS

2.8 USB Test

1. Windows 10 64-bit

Item	Result	Remark
External USB Keyboard Test	PASS	
External USB Mouse Test	PASS	
Hot plugging test	PASS	
DVD-ROM	PASS	
USB Mass storage	PASS	

2. Ubuntu 16.04

Item	Result	Remark
External USB Keyboard Test	PASS	
External USB Mouse Test	PASS	
Hot plugging test	PASS	
DVD-ROM	PASS	
USB Mass storage	PASS	

2.9 Serial Port Test

1. Windows 10 64-bit

Item	Description	Result	Remark
1	Device Manager Check	PASS	
2	RS-232 Mouse Test	PASS	

2.10 PS2 Keyboard 、 Mouse Test

1. Windows 10 64-bit

Item	Description	Result	Remark
1	Device Manager Check	PASS	
2	Keyboard Typing Test	PASS	
3	Mouse Detect Test	PASS	

2. Ubuntu 16.04

Item	Description	Result	Remark
1	Device Manager Check	PASS	
2	Keyboard Typing Test	PASS	
3	Mouse Detect Test	PASS	

2.11 LAN Test

Data Transfer Test environment:

-CAT 6 UTP 100M

-8 HR. continuous

1. Windows 10 64-bit

Item	Description	Result	Remark
1	Device Manager Check	PASS	(IPERF)
2	Data Transfer Test	PASS	(IPERF)

2. Ubuntu 16.04

Item	Description	Result	Remark
1	Device Manager Check	PASS	

2.12 Power Supply & Adapter Test

Item	Type	Description	Result	Remark
1	ATX Power	SEED BS400 400W	PASS	
2	ATX Power	ANTEC EA350 GREEN 350W	PASS	
3	ATX Power	COOLER MASTER RS-390-PMSR-A3 390W	PASS	

2.13 OS Install

Item	Description	Result	Remark
1	Windows 10 64 bit	PASS	
2	Ubuntu 16.04 (4.8.0-36-generic)	PASS	

2.14 PCI Express Mini Card

Motherboard	PCI Express mini card	Remark
LE-577	MPX-210D	PASS
	MPX-210D2	PASS
	MPX-350	PASS
	MPX-574D	PASS
	MPX-574D2	PASS
	MPX-827	PASS
	MPX-8188	PASS
	MPX-M2EG	PASS (Include M2-210)

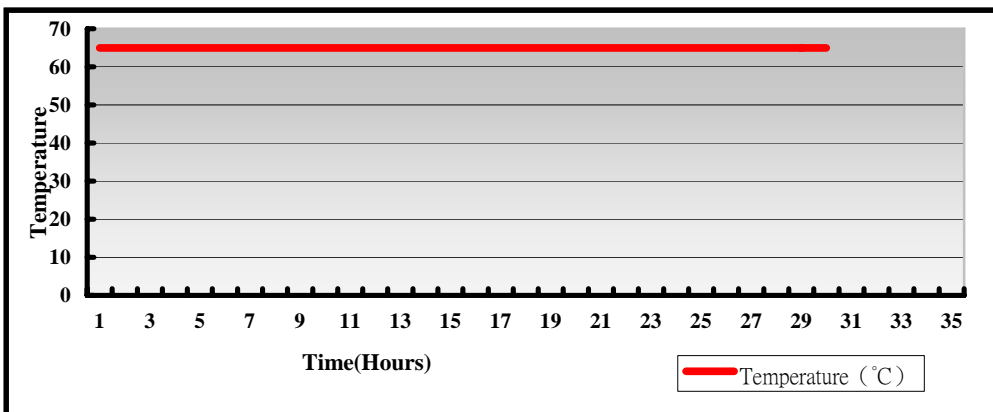
3. Environmental test

3.1 Temperature Test

Hardware Device list:

System Board	LE-577K7_A
CPU	Intel(R) Core(R) i7-7820EQ 3.70GHz
Memory	Kingston DDR4 2133 16GB*2 (Micro 6PA77 9SRJ)
HDD	Western Digital WD10EALX-0D9BA0 1TB
Operating OS	Windows 10 64-bit
Test Equipment	THERMOTRON 2800 Programmer/Controller
Test Program	BurnIn 8.1 Pro + Prime95

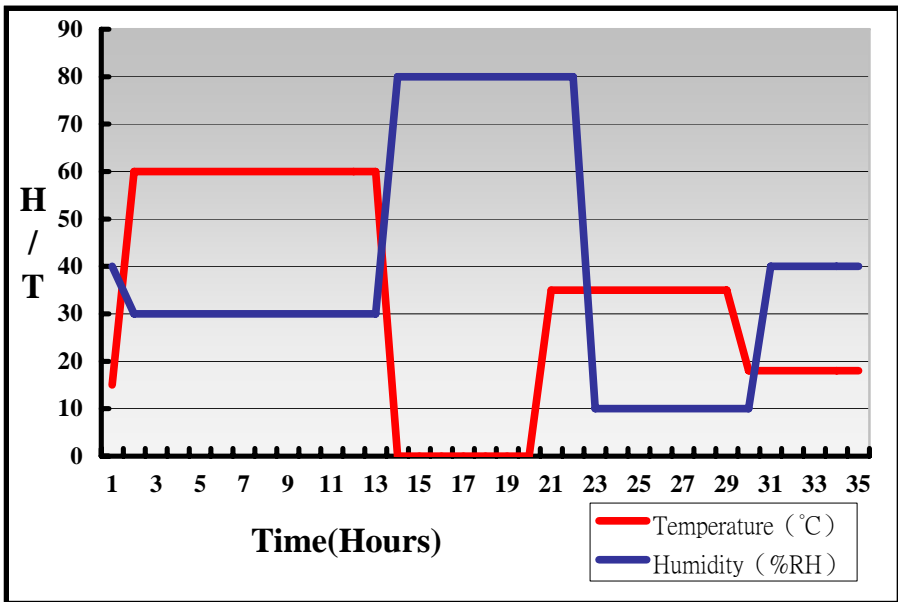
Test Result:



Hardware Device list:

System Board	LE-577K7_A
CPU	Intel(R) Core(R) i7-7820EQ 3.70GHz
Memory	Kingston DDR4 2133 16GB*2 (Micro 6PA77 9SRJ)
HDD	Western Digital WD10EALX-0D9BA0 1TB
Operating OS	Windows 10 64-bit
Test Equipment	THERMOTRON 2800 Programmer/Controller
Test Program	BurnIn 8.1 Pro + Prime95

Test Result:



Boot up Test:

Hardware Device list:

System Board	LE-577K7_A
CPU	Intel(R) Core(R) i7-7820EQ 3.70GHz
Memory	Kingston DDR4 2133 16GB*2 (Micro 6PA77 9SRJ)
HDD	Western Digital WD10EALX-0D9BA0 1TB

Temperature	Result	Remark
-40°C	PASS	50 Times
80°C	PASS	50 Times

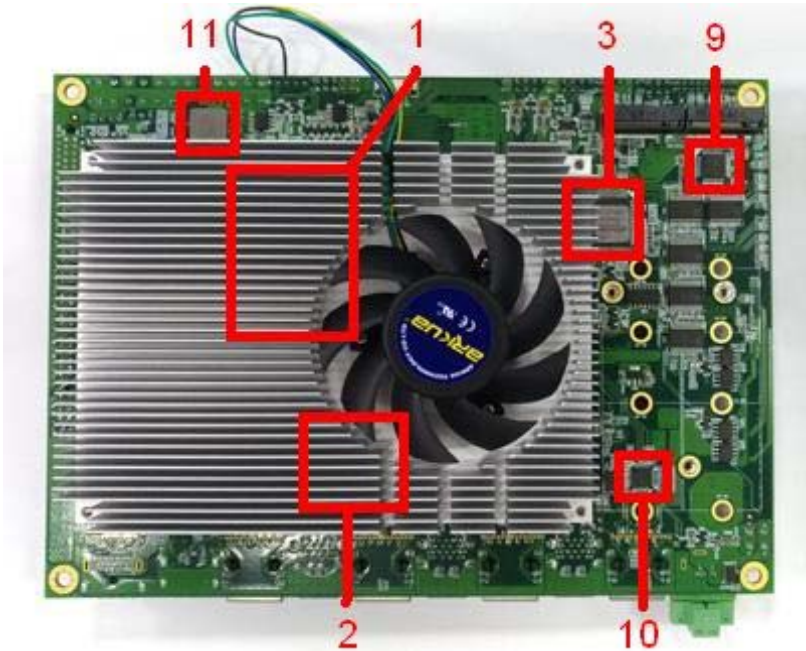
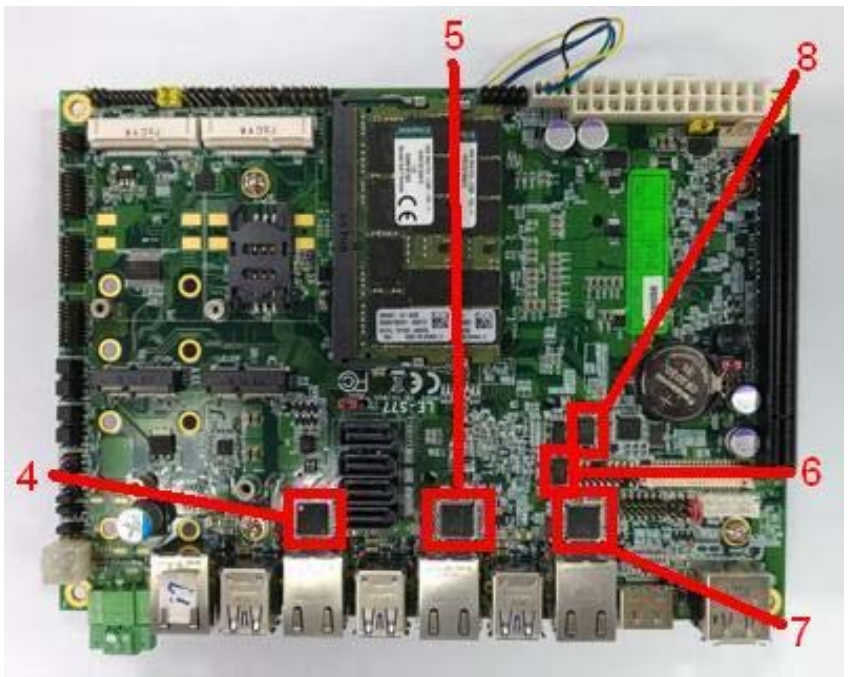
3.2 Thermal measurements at various points on the board

Test Environment:

CPU	Intel(R) Core(R) i7-7820EQ 3.70GHz
Memory	Kingston DDR4 2133 16GB*2 (Micro 6PA77 9SRJ)
HDD	Western Digital WD10EALX-0D9BA0 1TB
Power Supply	COOLER MASTER RS-390-PMSR-A3
Operating System	Windows 10 64-bit
Test Program	Burnin 8.1 Pro + Prime95

Test Result:

Item	Environmental temperature	23.8°C
1	CPU	59°C
2	PCH (CM238)	51.6°C
3	SIO (NCT6106D)	33.6°C
4	U6 (ICH210AT)	36.3°C
5	U8 (ICH210AT)	38.7°C
6	U11 (ICEN5337QI)	51.3°C
7	U12 (ICH210AT)	37.7°C
8	U13 (ICEN5337QI)	53.7°C
9	U30 (ICJALC262)	26.4°C
10	U35 (ICH219-LM)	29.8°C
11	L7 (LLC3.3UH/0445)	48.6°C



4. Reliability Test

4.1 Power Consumption Test

1. Test Environment:

Motherboard	LE-577K3_A
CPU	Intel(R) Core(R) i3-7100E 2.90GHz
Memory	Kingston DDR4 2133 16GB*2 (Micro 6PA77 9SRJ)
HDD	Western Digital WD10EALX-0D9BA0 1TB

Power Supply : COOLER MASTER RS-390-PMSR-A3

Voltage	MS-DOS Boot up		Windows 10 64-bit 3D MARK VANTAGE + PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	0.77	9.24	2.55	30.6
5V	1.93	9.65	2.74	13.7
3.3V	0.41	1.353	0.36	1.188
5VSB	0.306	1.53	0.007	0.035

1. a. Test Environment:

The same as above but with LCD

Display Panel	LG LM190WX1 17”LCD
----------------------	---------------------------

Power Supply : COOLER MASTER RS-390-PMSR-A3

Voltage	MS-DOS Boot up		Windows 10 64-bit 3D MARK VANTAGE + PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	1.43	17.16	3.4	40.8
5V	1.98	9.9	3.38	16.9
3.3V	0.55	1.815	0.52	1.716
5VSB	0.308	1.54	0.008	0.04

2. Test Environment:

Motherboard	LE-577K5_A
CPU	Intel(R) Core(R) i5-7440EQ 3.60GHz
Memory	Kingston DDR4 2133 16GB*2 (Micro 6PA77 9SRJ)
HDD	Western Digital WD10EALX-0D9BA0 1TB

Power Supply : COOLER MASTER RS-390-PMSR-A3

Voltage	MS-DOS Boot up		Windows 10 64-bit 3D MARK VANTAGE + PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	1.53	18.36	3.85	46.2
5V	1.22	6.1	2.65	13.25
3.3V	0.41	1.353	0.36	1.188
5VSB	0.31	1.55	0.009	0.045

2. a. Test Environment:

The same as above but with LCD

Display Panel	LG LM190WX1 17"LCD
----------------------	---------------------------

Power Supply : COOLER MASTER RS-390-PMSR-A3

Voltage	MS-DOS Boot up		Windows 10 64-bit 3D MARK VANTAGE + PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.88	34.56	4.44	53.28
5V	2.64	13.2	3.21	16.05
3.3V	0.55	1.815	0.52	1.716
5VSB	0.308	1.54	0.005	0.025

3. Test Environment:

Motherboard	LE-577K7_A
CPU	Intel(R) Core(R) i7-7820EQ 3.70GHz
Memory	Kingston DDR4 2133 16GB*2 (Micro 6PA77 9SRJ)
HDD	Western Digital WD10EALX-0D9BA0 1TB

Power Supply : COOLER MASTER RS-390-PMSR-A3

Voltage	MS-DOS Boot up		Windows 10 64-bit 3D MARK VANTAGE + PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	1.42	17.04	4.02	48.24
5V	1.17	5.85	2.84	14.2
3.3V	0.43	1.419	0.37	1.221
5VSB	0.318	1.59	0.013	0.065

3. a. Test Environment:

The same as above but with LCD

Display Panel	LG LM190WX1 17"LCD
----------------------	---------------------------

Power Supply : COOLER MASTER RS-390-PMSR-A3

Voltage	MS-DOS Boot up		Windows 10 64-bit 3D MARK VANTAGE + PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.02	24.24	4.64	55.68
5V	2.03	10.15	3.64	18.2
3.3V	0.59	1.947	0.54	1.782
5VSB	0.311	1.555	0.008	0.04

5. Performance Test

5.1 3D MARK VANTAGE

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i3-7100E 2.90GHz Kingston DDR4 2133 16GB (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	P4958
2	GPU SCORE		PASS	4187
3	CPU SCORE		PASS	11077

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i3-7100E 2.90GHz Kingston DDR4 2133 16GB*2 (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	P5894
2	GPU SCORE		PASS	5082
3	CPU SCORE		PASS	11317

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i3-7100E 2.90GHz ACPI DDR4 2133 4GB (SK hynix H5AN4GBNMFR) Western Digital WD10EALX-0D9BA0 1TB	PASS	P4791
2	GPU SCORE		PASS	4032
3	CPU SCORE		PASS	11004

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i3-7100E 2.90GHz ACPI DDR4 2133 4GB (SK hynix H5AN4GBNMFR) Kingston DDR4 2133 16GB (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	P5685
2	GPU SCORE		PASS	4880
3	CPU SCORE		PASS	11268

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2133 16GB (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	P5775
2	GPU SCORE		PASS	4709
3	CPU SCORE		PASS	18003

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2133 16GB*2 (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	P6771
2	GPU SCORE		PASS	5594
3	CPU SCORE		PASS	18344

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 4GB (SK hynix H5AN4GBNMFR) Western Digital WD10EALX-0D9BA0 1TB	PASS	P5479
2	GPU SCORE		PASS	4456
3	CPU SCORE		PASS	17627

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 4GB (SK hynix H5AN4GBNMFR) Kingston DDR4 2133 16GB (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	P6669
2	GPU SCORE		PASS	5513
3	CPU SCORE		PASS	17985

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 4GB (SKhynix H5AN4GBNMFR) TOSHIBA DT01ACA200 2TB	PASS	P6136
2	GPU SCORE		PASS	4918
3	CPU SCORE		PASS	23829

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 16GB (DTCCKN408H1) TOSHIBA DT01ACA200 2TB	PASS	P6357
2	GPU SCORE		PASS	5107
3	CPU SCORE		PASS	23918

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 16GB*2 (DTCCKN408H1) TOSHIBA DT01ACA200 2TB	PASS	P7114
2	GPU SCORE		PASS	5759
3	CPU SCORE		PASS	24185

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB	PASS	P6136
2	GPU SCORE		PASS	4918
3	CPU SCORE		PASS	23829

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB	PASS	P6355
2	GPU SCORE		PASS	5105
3	CPU SCORE		PASS	23960

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	P6491
2	GPU SCORE		PASS	5220
3	CPU SCORE		PASS	24145

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB	PASS	P6961
2	GPU SCORE		PASS	5627
3	CPU SCORE		PASS	24107

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	P6992
2	GPU SCORE		PASS	5653
3	CPU SCORE		PASS	24189

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	P7187
2	GPU SCORE		PASS	5820
3	CPU SCORE		PASS	24318

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 16GB*2 (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	P7114
2	GPU SCORE		PASS	5759
3	CPU SCORE		PASS	24185

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 4GB (SKhynix H5AN4GBNMFR) TOSHIBA DT01ACA200 2TB	PASS	P5761
2	GPU SCORE		PASS	4717
3	CPU SCORE		PASS	17112

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 16GB (DTCCKN408H1) TOSHIBA DT01ACA200 2TB	PASS	P5987
2	GPU SCORE		PASS	4918
3	CPU SCORE		PASS	17226

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 16GB*2 (DTCCKN408H1) TOSHIBA DT01ACA200 2TB	PASS	P6850
2	GPU SCORE		PASS	5694
3	CPU SCORE		PASS	17516

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB	PASS	P5443
2	GPU SCORE		PASS	4438
3	CPU SCORE		PASS	16982

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB	PASS	P5953
2	GPU SCORE		PASS	4886
3	CPU SCORE		PASS	17260

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	P6175
2	GPU SCORE		PASS	5078
3	CPU SCORE		PASS	17534

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB	PASS	P6158
2	GPU SCORE		PASS	5068
3	CPU SCORE		PASS	17377

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	P6670
2	GPU SCORE		PASS	5632
3	CPU SCORE		PASS	14923

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	P6872
2	GPU SCORE		PASS	5705
3	CPU SCORE		PASS	17780

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 16GB*2 (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	P6964
2	GPU SCORE		PASS	5797
3	CPU SCORE		PASS	17604

5.2 3D MARK (Fire Strike)

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3D Mark Score	Intel(R) Core(R) i3-7100E 2.90GHz ACPI DDR4 2133 4GB (SK hynix H5AN4GBNMFR) Kingston DDR4 2133 16GB (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	678
2	Graphics Score		PASS	717
3	Physics Score		PASS	4689
4	Combined Score		PASS	252

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3D Mark Score	Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 4GB (SK hynix H5AN4GBNMFR) Kingston DDR4 2133 16GB (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	749
2	Graphics Score		PASS	793
3	Physics Score		PASS	6588
4	Combined Score		PASS	273

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3D Mark Score	Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 4GB (SK hynix H5AN4GBNMFR) Kingston DDR4 2133 16GB (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	515
2	Graphics Score		PASS	579
3	Physics Score		PASS	4058
4	Combined Score		PASS	165

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3D Mark Score	Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 4GB (SKhynix H5AN4GBNMFR) TOSHIBA DT01ACA200 2TB	PASS	905
2	Graphics Score		PASS	963
3	Physics Score		PASS	9275
4	Combined Score		PASS	323

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3D Mark Score	Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB	PASS	812
2	Graphics Score		PASS	848
3	Physics Score		PASS	9017
4	Combined Score		PASS	303

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3D Mark Score	Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 4GB (SKhynix H5AN4GBNMFR) TOSHIBA DT01ACA200 2TB	PASS	884
2	Graphics Score		PASS	941
3	Physics Score		PASS	6628
4	Combined Score		PASS	321

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3D Mark Score	Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB	PASS	801
2	Graphics Score		PASS	844
3	Physics Score		PASS	6532
4	Combined Score		PASS	297

5.3 3D MARK (TIME SPY)

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i3-7100E 2.90GHz Kingston DDR4 2133 16GB (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	321
2	Graphics SCORE		PASS	281
3	CPU SCORE		PASS	1769

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i3-7100E 2.90GHz ACPI DDR4 2133 4GB (SK hynix H5AN4GBNMFR) Kingston DDR4 2133 16GB (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	345
2	Graphics SCORE		PASS	302
3	CPU SCORE		PASS	1861

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i3-7100E 2.90GHz Kingston DDR4 2133 16GB*2 (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	363
2	Graphics SCORE		PASS	318
3	CPU SCORE		PASS	1879

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2133 16GB (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	346
2	Graphics SCORE		PASS	301
3	CPU SCORE		PASS	2469

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 4GB (SK hynix H5AN4GBNMFR) Kingston DDR4 2133 16GB (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	374
2	Graphics SCORE		PASS	325
3	CPU SCORE		PASS	2684

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2133 16GB*2 (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	392
2	Graphics SCORE		PASS	341
3	CPU SCORE		PASS	2777

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2133 16GB*2 (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	226
2	Graphics SCORE		PASS	198
3	CPU SCORE		PASS	1246

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 4GB (SK hynix H5AN4GBNMFR) Kingston DDR4 2133 16GB (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	208
2	Graphics SCORE		PASS	183
3	CPU SCORE		PASS	1007

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2133 16GB (Micro 6PA77 D9SRJ) Western Digital WD10EALX-0D9BA0 1TB	PASS	208
2	Graphics SCORE		PASS	183
3	CPU SCORE		PASS	1013

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	373
2	Graphics SCORE		PASS	324
3	CPU SCORE		PASS	2849

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 4GB (SK hynix H5AN4GBNMFR) ACPI DDR4 2133 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	393
2	Graphics SCORE		PASS	341
3	CPU SCORE		PASS	3192

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB	PASS	373
2	Graphics SCORE		PASS	324
3	CPU SCORE		PASS	2847

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB	PASS	386
2	Graphics SCORE		PASS	335
3	CPU SCORE		PASS	2985

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 4GB (SKhynix H5AN4GBNMF) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	400
2	Graphics SCORE		PASS	347
3	CPU SCORE		PASS	3261

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 8GB (SKhynix H5AN4GBNMF) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	420
2	Graphics SCORE		PASS	364
3	CPU SCORE		PASS	3443

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 16GB*2 (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	423
2	Graphics SCORE		PASS	367
3	CPU SCORE		PASS	3465

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	370
2	Graphics SCORE		PASS	322
3	CPU SCORE		PASS	2403

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 4GB (SKhynix H5AN4GBNMF) ACPI DDR4 2133 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	387
2	Graphics SCORE		PASS	337
3	CPU SCORE		PASS	2608

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 16GB*2 (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	415
2	Graphics SCORE		PASS	361
3	CPU SCORE		PASS	2785

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB	PASS	371
2	Graphics SCORE		PASS	323
3	CPU SCORE		PASS	2425

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	378
2	Graphics SCORE		PASS	329
3	CPU SCORE		PASS	2532

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB	PASS	389
2	Graphics SCORE		PASS	339
3	CPU SCORE		PASS	2617

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	395
2	Graphics SCORE		PASS	345
3	CPU SCORE		PASS	2289

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	408
2	Graphics SCORE		PASS	355
3	CPU SCORE		PASS	2797

Windows 10 64-bit

Item	Weighted Suite	Test Environment	Result	Remark
1	3DMARK SCORE	Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 16GB*2 (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB	PASS	420
2	Graphics SCORE		PASS	367
3	CPU SCORE		PASS	2399

5.4 x264 FHD Benchmark

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 16GB (SKhynix H5AN8GNCJRVKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Result	Remark
1	PASS	22.6

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 16GB*2 (SKhynix H5AN8GNCJRVKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Result	Remark
1	PASS	22.7

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Result	Remark
1	PASS	22.3

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Result	Remark
1	PASS	22.5

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 16GB*2 (SKhynix H5AN8GNCJRVKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Result	Remark
1	PASS	22.7

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Result	Remark
1	PASS	22.3

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Result	Remark
1	PASS	22.5

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Result	Remark
1	PASS	22.5

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Result	Remark
1	PASS	22.5

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 16GB*2 (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Result	Remark
1	PASS	22.5

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 4GB (SKhynix H5AN4GBNMFR) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Result	Remark
1	PASS	18

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 16GB (DTCKKN408H1) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Result	Remark
1	PASS	18

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 4GB (SKhynix H5AN4GBNMFR) ACPI DDR4 2133 16GB (DTCKKN408H1) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Result	Remark
1	PASS	18.1

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 16GB*2 (DTCKKN408H1) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Result	Remark
1	PASS	18.1

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Result	Remark
1	PASS	17.9

Test Environment			
Intel(R)	Core(R)	i5-7440EQ	3.60GHz
Kingston	DDR4	2400 4GB (Micro	7WE75 D9VPP)
Kingston	DDR4	2400 8GB (Micro	7WE75 D9VPP)
TOSHIBA	DT01ACA200	2TB	

Windows 10 64-bit

Item	Result	Remark
1	PASS	18.2

Test Environment			
Intel(R)	Core(R)	i5-7440EQ	3.60GHz
Kingston	DDR4	2400 4GB (Micro	7WE75 D9VPP)
Kingston	DDR4	2400 16GB (SKhynix	H5AN8GNCJR VKC 830V)
TOSHIBA	DT01ACA200	2TB	

Windows 10 64-bit

Item	Result	Remark
1	PASS	17.7

Test Environment			
Intel(R)	Core(R)	i5-7440EQ	3.60GHz
Kingston	DDR4	2400 8GB (Micro	7WE75 D9VPP)
Kingston	DDR4	2400 16GB (SKhynix	H5AN8GNCJR VKC 830V)
TOSHIBA	DT01ACA200	2TB	

Windows 10 64-bit

Item	Result	Remark
1	PASS	18.1

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 16GB*2 (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Result	Remark
1	PASS	18.2

5.5 GeekBench4.3 Compute

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 4GB (SKhynix H5AN4GBNMFR) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	16566
2	Single-Core Score	PASS	4259
3	Multi-Core Score	PASS	11774

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 16GB (DTCKKN408H1) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	17012
2	Single-Core Score	PASS	4066
3	Multi-Core Score	PASS	11943

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 4GB (SKhynix H5AN4GBNMFR) ACPI DDR4 2133 16GB (DTCKKN408H1) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	19606
2	Single-Core Score	PASS	4502
3	Multi-Core Score	PASS	12922

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	15876
2	Single-Core Score	PASS	4100
3	Multi-Core Score	PASS	12154

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	17013
2	Single-Core Score	PASS	4338
3	Multi-Core Score	PASS	13190

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	17043
2	Single-Core Score	PASS	4403
3	Multi-Core Score	PASS	13635

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	21277
2	Single-Core Score	PASS	4645
3	Multi-Core Score	PASS	14708

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	20089
2	Single-Core Score	PASS	4519
3	Multi-Core Score	PASS	14562

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	21504
2	Single-Core Score	PASS	4443
3	Multi-Core Score	PASS	13534

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 16GB*2 (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	21447
2	Single-Core Score	PASS	4604
3	Multi-Core Score	PASS	15373

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 4GB (SKhynix H5AN4GBNMFR) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	16487
2	Single-Core Score	PASS	4168
3	Multi-Core Score	PASS	9746

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 16GB (DTCKKN408H1) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	17257
2	Single-Core Score	PASS	4066
3	Multi-Core Score	PASS	9876

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 4GB (SKhynix H5AN4GBNMFR) ACPI DDR4 2133 16GB (DTCKKN408H1) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	20198
2	Single-Core Score	PASS	4378
3	Multi-Core Score	PASS	10637

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	15854
2	Single-Core Score	PASS	4112
3	Multi-Core Score	PASS	9409

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	17354
2	Single-Core Score	PASS	4180
3	Multi-Core Score	PASS	9982

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	18222
2	Single-Core Score	PASS	4206
3	Multi-Core Score	PASS	10122

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	20856
2	Single-Core Score	PASS	4216
3	Multi-Core Score	PASS	10623

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	20198
2	Single-Core Score	PASS	4435
3	Multi-Core Score	PASS	10446

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	20955
2	Single-Core Score	PASS	4500
3	Multi-Core Score	PASS	12914

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 16GB*2 (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL Score	PASS	21472
2	Single-Core Score	PASS	4532
3	Multi-Core Score	PASS	13100

5.6 CINEBENCH R15

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 4GB (SKhynix H5AN4GBNMFR) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	42.28 fps
2	CPU	PASS	700 cb

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 16GB (DTCKKN408H1) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	43.22 fps
2	CPU	PASS	698 cb

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 4GB (SKhynix H5AN4GBNMFR) ACPI DDR4 2133 16GB (DTCKKN408H1) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	Relative speed	PASS	49.36 fps
2	Kilo nodes per second	PASS	678 cb

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz ACPI DDR4 2133 16GB*2 (DTCCKN408H1) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	54.77 fps
2	CPU	PASS	696 cb

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	39.17 fps
2	CPU	PASS	692 cb

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	44.12 fps
2	CPU	PASS	681 cb

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	43.32 fps
2	CPU	PASS	693 cb

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	51.84 fps
2	CPU	PASS	693 cb

Test Environment
Intel(R) Core(R) i7-7820EQ 3.70GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	55.31 fps
2	CPU	PASS	691 cb

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 4GB (SKhynix H5AN4GBNMFR) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	40.62 fps
2	CPU	PASS	513 cb

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 16GB (DTCKKN408H1) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	40.62 fps
2	CPU	PASS	513 cb

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz ACPI DDR4 2133 4GB (SKhynix H5AN4GBNMFR) ACPI DDR4 2133 16GB (DTCKKN408H1) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	48.81 fps
2	CPU	PASS	514 cb

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	37.28 fps
2	CPU	PASS	512 cb

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	42.28 fps
2	CPU	PASS	516 cb

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	44.35 fps
2	CPU	PASS	513 cb

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	46.10 fps
2	CPU	PASS	513 cb

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 4GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	49.04 fps
2	CPU	PASS	405 cb

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 8GB (Micro 7WE75 D9VPP) Kingston DDR4 2400 16GB (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	53.74 fps
2	CPU	PASS	515 cb

Test Environment
Intel(R) Core(R) i5-7440EQ 3.60GHz Kingston DDR4 2400 16GB*2 (SKhynix H5AN8GNCJR VKC 830V) TOSHIBA DT01ACA200 2TB

Windows 10 64-bit

Item	Weighted Suite	Result	Remark
1	OpenGL	PASS	52.48 fps
2	CPU	PASS	501 cb

5.7 Storage Performance

5.7.1 HDD

Test environment:

OS Windows 10 64-bit

Program (HD Tune)

HDD Model	Interface	Capacity	Average	Burst Rate	Access Time
Western Digital WD5000LPCX-22VHAT0	SATA	500 GB	3.5 MB/sec	8.5 MB/sec	25.3 ms
Western Digital WD10EADS-00P8B0	SATA	1.0 TB	63.4 MB/sec	126 MB/sec	15 ms
TOSHIBA DT01ACA200	SATA	2.0 TB	153.4 MB/sec	304.7 MB/sec	12.8 ms
MemoRight MRSAJ6C064GC125C00	SSD	64 GB	150.8 MB/sec	56.5 MB/sec	0.2 ms
KINGSTON DT HyperX 3.0	USB 3.0	64 GB	172.2 MB/sec	97.1 MB/sec	0.5 ms
SMI USB DISK	USB 2.0	8 GB	12 MB/sec	12.2 MB/sec	1.1 ms
Silicon-Power	USB 2.0	4 GB	1.2 MB/sec	1.1 MB/sec	1.1 ms

5.7.2 DVD-ROM

Test environment:

OS Windows 10 64-bit

Program (NERO)

DVD-ROM Model	Interface	Average Speed	Full Read	Burst Rate	DVD
ASUS DRW-1814BLT	SATA	8.34 x	195 ms	32 MB/s	16 x
ASUS DRW-24D1ST	SATA	11.17 x	179 ms	44 MB/s	16 x
PIONEER DVR-S19LBK	SATA	11.30 x	207 ms	40 MB/s	16 x
LITE-ON iHES312	SATA	11.09 x	158 ms	38 MB/s	16 x
LITEON DVD eTAU108	USB	5.67 x	232 ms	20 MB/s	16 x
ZYNET GT32N A201	USB	5.60 x	264 ms	24 MB/s	16 x
PIONEER DVR-XD11T	USB	5.70 x	185 ms	19 MB/s	16 x
Transcend TS8XDVDS-K	USB	5.67 x	305 ms	13 MB/s	16 x