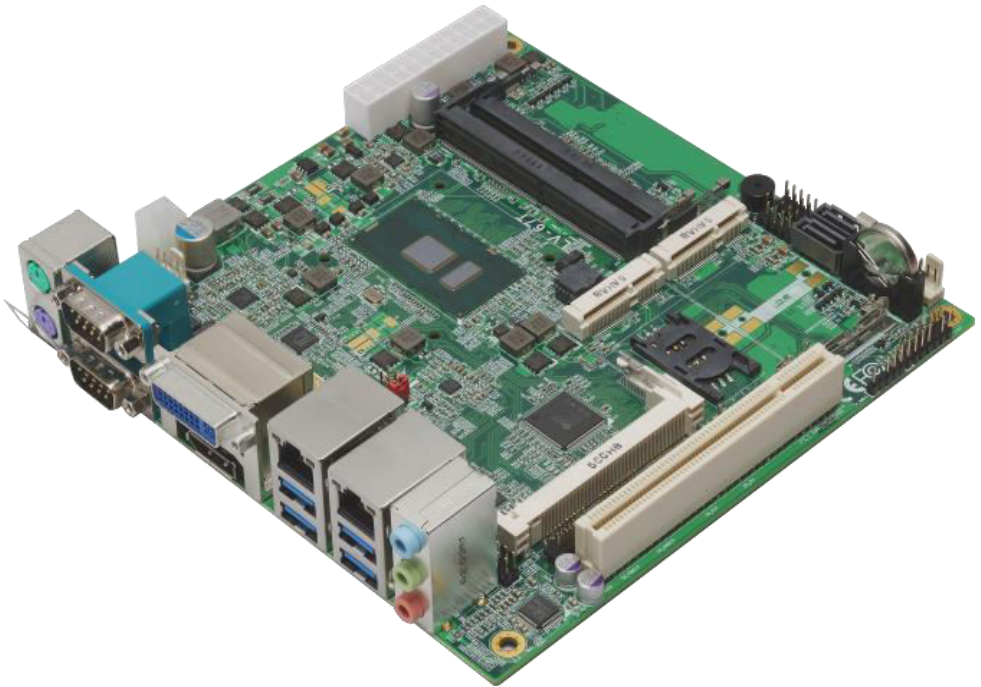


# Product Test Report



<b>Product Name</b>	LV-67T
<b>Product Version</b>	A
<b>Issued Date</b>	2016.10.17
<b>Report Edition</b>	1.0
<b>BIOS Version</b>	1.1
<b>Testing Engineer</b>	PERRY
<b>Check Engineer</b>	PERRY

<b>REVISION HISTORY</b>			
<b>DATE</b>	<b>REVISION NO.</b>	<b>PAGE</b>	<b>DESCRIPTONS</b>
<b>2016.10.17</b>	<b>Ver. 1.0</b>	<b>49</b>	<b>Initial Release</b>

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# 1. Function test

## 1.1 Hardware function

### Base Function Test(OS:Win7/64)

Item	Description	Result	Remark
1	Power Button	PASS	
2	Reset	PASS	
3	Power LED	PASS	
4	HDD LED	PASS	
5	SATA 1/2	PASS	SATAIII : 1 ~ 2 ~
6	CN_USB1	PASS	USB1-1 ~ USB1-2 ~
7	CN_USB2	PASS	USB2-1 ~ USB2-2 ~
8	USB3.0 1/2/3/4	PASS	
9	DDR4 1/2	PASS	DDR4 1 ~ DDR4 2 ~
10	COM 1/2	PASS	Mouse ~ FTDI ~
11	CN_COM 3/4	PASS	Mouse ~ FTDI ~
12	CN_COM 5/6	PASS	Mouse ~ FTDI ~
13	PS2	PASS	
14	AUDIO	PASS	OS: Line in ~ Line out ~ Mic in ~
15	CN_AUDIO	PASS	Line out ~ Mic in ~
16	CN_DIO	PASS	測試軟體&Demo 卡
17	CN_LPC	PASS	
18	CPUFAN	PASS	
19	SYSFAN	PASS	
20	MINI_CARD 1	PASS	MPX-210D2 ~
21	MINI_CARD 2	PASS	MPX-210D2 ~ / mSATA ~

22	CN_CRT	PASS	
23	DVI	PASS	
24	Display port	PASS	
25	CN_LVDS	PASS	
26	CN_INV	PASS	
27	LAN 1/2	PASS	I219-LM ~ I210 ~
28	DC_IN	PASS	
29	ATX	PASS	
30	PCI	PASS	PCI LAN Cardx1 ~ PCI LAN Cardx2 ~ (use two PCI Card)
31	MiniPCI	PASS	
32	RS422&485	PASS	COM422 ~ COM485 ~

## Jumper

Item	Description	Result
1	JRTC	PASS
2	JCSEL1	PASS
3	JCSEL2	PASS
4	JVLCD	PASS
5	JAT	PASS
6	JMSATA	PASS

## 1.2 BIOS function : (2016/09/19 Ver:1.1)

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	Console Redirection	PASS	
10	UEFI Boot	PASS	
11	Select Language	PASS	
12	Wake system from S5	PASS	
13	Active Processor Cores	PASS	
14	Hyper-Threading	PASS	
15	Maxium Memory Frequency	PASS	
16	Primary IGFX Boot Display	PASS	
17	SATA Configuration	PASS	SATA Controller ^ SATA Mode Selection ^
18	USB Configuration	PASS	USB Port Disable Override ^
19	HD Audio Configuration	PASS	HD Audio ^
20	PCH LAN Controller	PASS	I219-LM(Disabled) ^
21	Wake on LAN Enable	PASS	
22	Super IO Chip	PASS	
23	Watch Dog Timer Select	PASS	
24	Smart Fan Feature	PASS	CPU Smart Fan Mode ^ SYS Smart Fan Mode ^
25	Hardware Monitor	PASS	Temp ^ 12V ^ Fan Speed ^ 5V ^ VBAT ^ 3.3V ^ CPU VCORE ^
26	S3(Sleep)	PASS	

## 1.3 Driver

### CD Edition :

#### 1. Windows 7 32-bit Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	10.1.1.13
2	Graphic Driver	PASS	20.19.15.4352
3	Audio Driver	PASS	6.0.1.7541
4	LAN Driver	PASS	I219LM: 12.13.17.4 I210: 12.13.27.0
5	USB 3.0 Driver	PASS	4.0.4.51

#### 2. Windows 7 64-bit Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	10.1.1.13
2	Graphic Driver	PASS	20.19.15.4352
3	Audio Driver	PASS	6.0.1.7541
4	LAN Driver	PASS	I219LM: 12.13.17.4 I210:12.13.27.0
5	USB 3.0 Driver	PASS	4.0.4.51

#### 3. Windows 8.1 32-bit driver test

Item	Description	Result	version
1	Chipset Driver	PASS	10.1.1.13
2	Graphic Driver	PASS	20.19.15.4352
3	Audio Driver	PASS	6.0.1.7541
4	LAN Driver	PASS	I219LM: 12.13.17.4 I210: 12.14.7.0

#### 4. Windows 8.1 64-bit driver test

Item	Description	Result	version
1	Chipset Driver	PASS	10.1.1.13
2	Graphic Driver	PASS	20.19.15.4352
3	Audio Driver	PASS	6.0.1.7541
4	LAN Driver	PASS	I219LM: 12.13.17.4 I210: 12.14.7.0

#### 5. Windows 10 64-bit driver test

Item	Description	Result	version
1	Chipset Driver	PASS	10.1.1.13
2	Graphic Driver	PASS	20.19.15.4352
3	Audio Driver	PASS	6.0.1.7541
4	LAN Driver	PASS	I219LM: 12.13.17.4 I210: 12.12.226.0

## 2. Compatibility test

### 2.1 CPU Test

Test environment:

OS Windows 7 professional SP1

Test program : PC MARK 2005

Spec Code	CPU Speed	Max Turbo Frequency	Family	Processor	MAX TDP	Smart Cache	Result
<a href="#">SR2F1</a>	2.6GHz	3.4GHz	Core	i7-6600U	25W	4MB	
<a href="#">SR2F0</a>	2.4GHz	3GHz	Core	i5-6300U	25W	3MB	
<a href="#">SR2EU</a>	2.3GHz		Core	i3-6100U	15W	3MB	



## 2.2 Operation System Test

Item	Description	Result	Remark
1	Windows 7 32-bit	PASS	
2	Windows 7 64-bit	PASS	
3	Windows 8.1 32-bit	PASS	
4	Windows 8.1 64-bit	PASS	
5	Windows 10 64-bit	PASS	
6	CentOS-6.7-i386	PASS	

## 2.3 Memory Test

Test environment:

OS Windows 7 Professional SP1

Test program : PC MARK 2005 & AIDA64

Manufacturer/ Model No.	Chip	Frequency	Capacity Mbytes	Result
MEMPHIS D4SO512M644G-A58HA	SKhynix H5AN4G8NMFR	DDR4 2400	4GB	PASS
MEMPHIS D4SO512M644G-A58HA	SKhynix H5AN4G8NMFR	DDR4 2400	4GBx2	PASS
MEMPHIS D4SO1G644G-A58HA	SKhynix H5AN4G8NMFR	DDR4 2400	8GB	PASS
MEMPHIS D4SO1G644G-A58HA	SKhynix H5AN4G8NMFR	DDR4 2400	8GBx2	PASS
MEMPHIS D4SO2G644G-A58HA	SKhynix H5AN4G8NMFR	DDR4 2400	16GB	PASS
MEMPHIS D4SO2G644G-A58HA	SKhynix H5AN4G8NMFR	DDR4 2400	16GBx2	PASS
Kingston KVR21S15D8/8	SKhynix H5AN4G8NMFR	DDR4 2133	8GB	PASS
Transcend TS1GSH64V1H	SEC 604 BCPB K4A4G085WE	DDR4 2133	8GB	PASS

Acpi DDRIV-2133 SO-DIMM 1.2V	SKhynix H5AN4G8NMFR	DDR4 2133	8GB	PASS
Acpi DDRIV-2400 SO-DIMM 1.2V	SEC K4A8G085WB	DDR4 2400	16GB	PASS
Acpi DDRIV-2400 SO-DIMM 1.2V	SEC K4A8G085WB	DDR4 2400	16GBx2	PASS
Crucial CT4G4SFS8213	5RA77D9RGQ	DDR4 2133	4GB	PASS
Crucial CT4G4SFS8213	5RA77D9RGQ	DDR4 2133	4GBx2	PASS
Transcend TS2GSH64V1B	SEC 622 BCRC K4A8G085WB	DDR4 2133	16GB	PASS
Transcend TS2GSH64V1B	SEC 622 BCRC K4A8G085WB	DDR4 2133	16GBx2	PASS
Kingston KVR21S15D8/16	Micron 6JB47D9TBH	DDR4 2133	16GB	PASS
Kingston KVR21S15D8/16	Micron 6JB47D9TBH	DDR4 2133	16GBx2	PASS

## 2.4 Graphic Quality Test

### 2.4.1 Test environment OS : Windows 7 professional SP1 64-bit

Driver version : 20.19.15.4352

Resolution	Color	DVI	Display Port	Remark
800*600	16 / 32bit	PASS	PASS	Single
1024*768	16 / 32bit	PASS	PASS	Single
1152*864	16 / 32bit	PASS	PASS	Single
1280*600	16 / 32bit	PASS	PASS	Single
1280*720	16 / 32bit	PASS	PASS	Single
1280*768	16 / 32bit	PASS	PASS	Single
1280*800	16 / 32bit	PASS	PASS	Single
1280*960	16 / 32bit	PASS	PASS	Single
1280*1024	16 / 32bit	PASS	PASS	Single

<b>1360*768</b>	<b>16 / 32bit</b>	PASS	PASS	<b>Single</b>
<b>1366*768</b>	<b>16 / 32bit</b>	PASS	PASS	<b>Single</b>
<b>1400*1050</b>	<b>16 / 32bit</b>	PASS	PASS	<b>Single</b>
<b>1440*900</b>	<b>16 / 32bit</b>	PASS	PASS	<b>Single</b>
<b>1600*900</b>	<b>16 / 32bit</b>	PASS	PASS	<b>Single</b>
<b>1680*1050</b>	<b>16 / 32bit</b>	PASS	PASS	<b>Single</b>
<b>1920*1080</b>	<b>16 / 32bit</b>	PASS	PASS	<b>Single</b>
<b>1920*1200</b>	<b>16 / 32bit</b>	N/C	PASS	<b>Single</b>
<b>1920*1440</b>	<b>16 / 32bit</b>	N/C	PASS	<b>Single</b>
<b>2048*1152</b>	<b>16 / 32bit</b>	N/C	PASS	<b>Single</b>
<b>2560*1440</b>	<b>16 / 32bit</b>	N/C	PASS	<b>Single</b>

## 2.5 Audio

**Test environment:**

**OS Windows 7 32-bit**

**Driver version : 6.0.1.7541**

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
3	Line in	PASS	

**OS Windows 7 64-bit**

**Driver version : 6.0.1.7541**

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	

3	Line in	PASS	
---	---------	------	--

## OS Windows 8.1 32 bit

Driver version : 6.0.1.7541

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
3	Line in	PASS	

## OS Windows 8.1 64 bit

Driver version : 6.0.1.7541

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
4	Line in	PASS	

## OS Windows 10 64-bit

Driver version : 6.0.1.7541

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
3	Line in	PASS	

## 2.6 HDD Test

Test environment:

OS Windows 7 professional SP1

Model	Interface	Capacity	Size Detect	Data Transfer
EBST EC3MSM-064GCADBA1	mSATAIII	64GB	PASS	PASS
Crucial M500 mSATA CT120M500SSD3	mSATA	120GB	PASS	PASS
EBST 2.5" SSD	SATAIII	64GB	PASS	PASS
Intel SSD 530 Series	SATAIII	240GB	PASS	PASS
WD10EALX	SATAIII	1.0TB	PASS	PASS
WD5000BPKT	SATAII	500GB	PASS	PASS

## 2.7 DVD/CD-ROM Test

Test environment:

OS Windows

Model	Interface	Detect	Data Transfer	Play CD
Transcend DVD TS8XDVDS-K	USB	PASS	PASS	PASS
LITEON eTAU108	USB	PASS	PASS	PASS
Pioneer DDVR-S19LBK-24X	SATA	PASS	PASS	PASS
LITEON iHES312	SATA	PASS	PASS	PASS
AUSU DRW-1814BLT	SATA	PASS	PASS	PASS

## 2.8 USB device Test

1. Windows 7 32/64-bit

Item	Result	Remark
External USB Keyboard Test	PASS	

<b>External USB Mouse Test</b>	PASS	
<b>Hot plugging test</b>	PASS	
<b>DVD/CD ROM</b>	PASS	
<b>USB Mass storage</b>	PASS	
<b>USB 3.0</b>	PASS	

\*use USB device need first install driver.

## 2. Windows 8.1 32/64-bit

<b>Item</b>	<b>Result</b>	<b>Remark</b>
<b>External USB Keyboard Test</b>	PASS	
<b>External USB Mouse Test</b>	PASS	
<b>Hot plugging test</b>	PASS	
<b>DVD/CD ROM</b>	PASS	
<b>USB Mass storage</b>	PASS	

## 3. Windows 10 64-bit

<b>Item</b>	<b>Result</b>	<b>Remark</b>
<b>External USB Keyboard Test</b>	PASS	
<b>External USB Mouse Test</b>	PASS	
<b>Hot plugging test</b>	PASS	
<b>DVD/CD ROM</b>	PASS	
<b>USB Mass storage</b>	PASS	

## 2.9 Serial Port Test

### 1. Windows 7 32-bit

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

## 2. Windows 7 64-bit

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

## 3. Windows 8.1 32-bit

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

## 4. Windows 8.1 64-bit

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

## 5. 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. MS-DOS

Item	Description	Result	Remark
1	Keyboard LED Status Test	PASS	
2	Keyboard Typing Test	PASS	
3	Mouse Detect Test	PASS	

## 2. Windows 7 32/64-bit

Item	Description	Result	Remark
1	Keyboard LED Status Test	PASS	
2	Keyboard Typing Test	PASS	
3	Mouse Detect Test	PASS	

## 3. Windows 8.1 32/64-bit

Item	Description	Result	Remark
1	Keyboard LED Status Test	PASS	
2	Keyboard Typing Test	PASS	
3	Mouse Detect Test	PASS	

## 5. Windows 10 64-bit

Item	Description	Result	Remark
1	Keyboard LED Status Test	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 7 32/64-bit (I219-LM)**

**driver version : 12.13.17.4**

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

### **2. Windows 8.1 32/64-bit (I219-LM)**

**driver version : 12.13.17.4**

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

### **3. Windows 10 32/64-bit (I219-LM)**

**driver version : 12.13.17.4**

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

### **4. Windows 7 32/64-bit (I210)**

**64-bit driver version : 12.13.27.0**

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

### **6. Windows 8.1 32/64-bit (I210)**

**driver version : 12.14.7.0**

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

## 7. Windows 10 64-bit (I210)

64-bit driver version : 12.12.226.0

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

## EtherCAT :

Windows 7 64-bit (I210)

Item	Description	Result	Remark
1	EtherCAT Workbench	PASS	
2	EtherCAT Master	PASS	

## 2.12 Power Supply Test

Item	TYPE	Description	Result	Remark
1	ATX Power (12V or ATX)	V12 POWER BS400W	PASS	
2	ATX Power (12V or ATX)	Thermaltake TR2-450AH2NCB	PASS	
3	Adapter(12V)	0219B1280	PASS	
4	Adapter(19V)	FSP120-AAA	PASS	

## 2.13 PCI Express mini card

Motherboard	PCI Express mini card	Result	Card1	Card2	Remark
LV-67T	MPX-24794G2	PASS	~	~	Win7(32bit)&8.1(32bit)
	MPX-25858	PASS	~	~	Win7(32bit) User Driver A
	MPX-9125	PASS	~	~	Win8.1&10 RAID(當擴充 HDD)
	MPX-643	PASS	~	X	Win7&8.1&10 *Card2 卡機構
	MPX-954	PASS	~	~	Win7&8.1&10
	MPX-6864	PASS	~	~	Win7(32bit)
	MPX-2213	PASS	~	X	Win7&8.1&10 *Card2 卡機構
	MPX-4232	PASS	~	~	Win7&8.1&10
	MPX-885	PASS	~	~	Only Win7(32bit)
	MPX7202	PASS	~	~	Win7
	MPX-574D	PASS	~	~	Win7&8.1&10
	MPX-574D2	PASS	~	~	Win7&8.1&10
	MPX-210D	PASS	~	~	Win7&8.1&10
	MPX-210D2	PASS	~	~	Win7&8.1&10
	MPX-350	PASS	~	~	Win7&8.1&10
	WiFi Card	PASS	~	~	Win7&8.1&10
	mSATA (Crucial M500 120G)	PASS	N/C	~	Win10&8.1

\*MPX-643&MPX-2213 are same features to IEEE1394

## 2.14 PCI mini card

Motherboard	PCI mini card	Result	Card	Remark
-------------	---------------	--------	------	--------

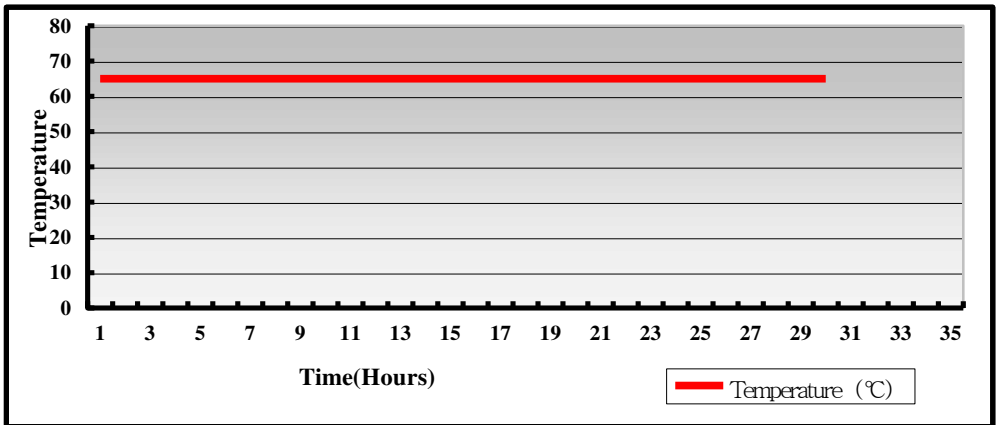
<b>LV-67T</b>	<b>MP-323</b>	~	~	Win7
	<b>MP-878D</b>	X	X	NO Win7~10 Driver
	<b>MP-6816</b>	~	~	Win7(32bit)
	<b>MP-954</b>	~	~	Win7 485&422 ~

**\*MPX-954 Win7 Driver need to Internet download self**

### 3. Environmental test

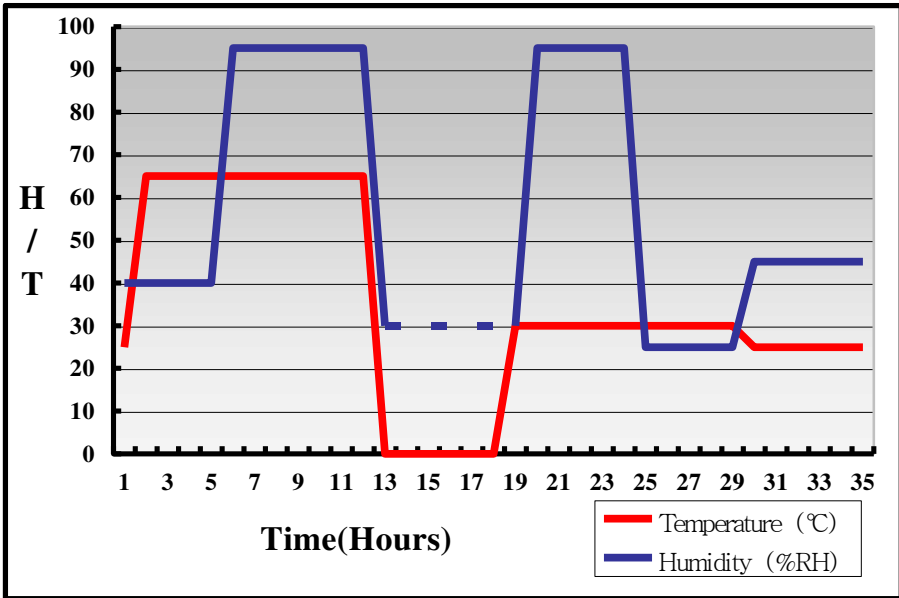
#### 3.1 Temperature Test

System Board	LV-67T
CPU	Intel® Core™ i7-6600U 2.6GHz
Memory	Acpi DDR4 2400 16GBx2 (SEC K4A8G085WB)
HDD	Intel SSD 530 Series 240GB
Operating OS	Windows 10 64bit
Test Equipment	GIANT FORCE (GTH-150-60-CP-AR)
Test Program	3DMark +Prime95-266



### Hardware Device list:

System Board	LV-67T
CPU	Intel® Core™ i7-6600U 2.6GHz
Memory	Acpi DDR4 2400 16GBx2 (SEC K4A8G085WB)
HDD	Intel SSD 530 Series 240GB
Operating OS	Windows 10 64bit
Test Equipment	GIANT FORCE (GTH-150-60-CP-AR)
Test Program	3DMark +Prime95-266



**Definition :** When the temperature is 30 degrees below arrive, humidity measurements have not, so by the dashed line express.

## Boot Up Test:

### Hardware Device list:

<b>System Board</b>	<b>LV-67T</b>
<b>CPU</b>	<b>Intel® Core™ i7-6600U 2.6GHz</b>
<b>Memory</b>	<b>Acpi DDR4 2400 16GBx2 (SEC K4A8G085WB)</b>
<b>HDD</b>	<b>Intel SSD 530 Series 240GB</b>

<b>Temperature</b>	<b>Result</b>	<b>Remark</b>
<b>65°C</b>	<b>PASS</b>	<b>50 Times</b>
<b>-0°C</b>	<b>PASS</b>	<b>50 Times</b>

\*Have try boot up at -40°C

## 3.2 Thermal measurements at various points on the board

### Test Environment :

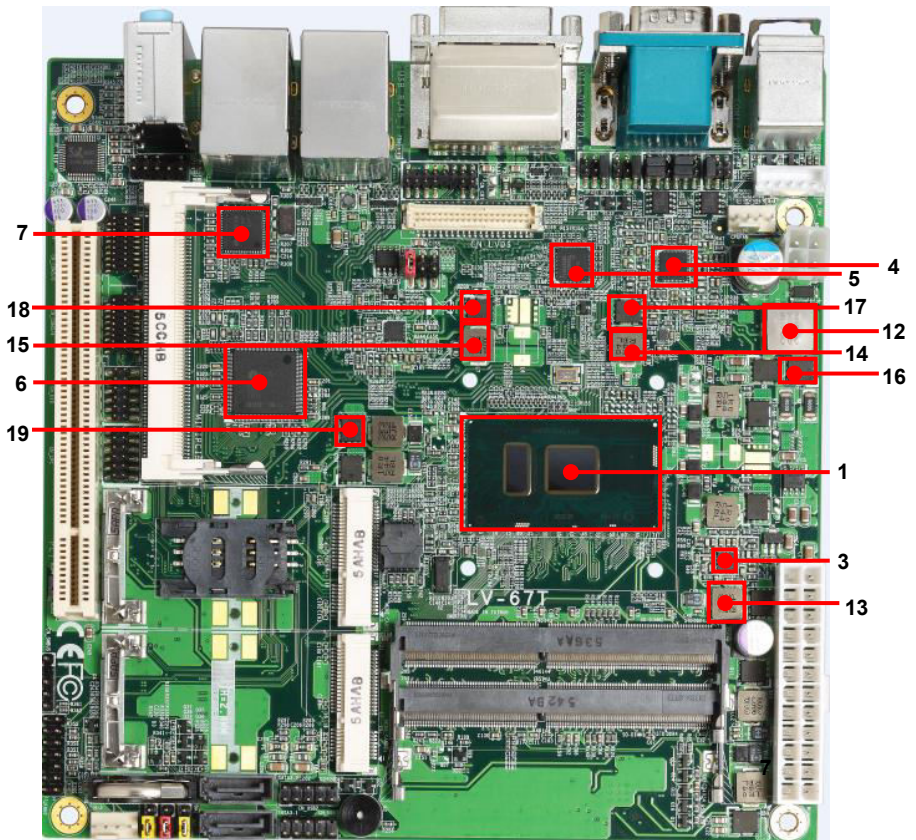
<b>CPU</b>	<b>Intel® Core™ i7-6820EQ 2.80GHz</b>
<b>Memory</b>	<b>Acpi DDR4 2400 16GBx2 (SEC K4A8G085WB)</b>
<b>HDD</b>	<b>Intel SSD 530 Series 240GB</b>
<b>Power</b>	<b>Thermaltake TR2-450AH2NCB 450W</b>
<b>Operating System</b>	<b>Windows 10 64-bit</b>
<b>Test Program</b>	<b>3DMark 2006 + Prime 95-266</b>

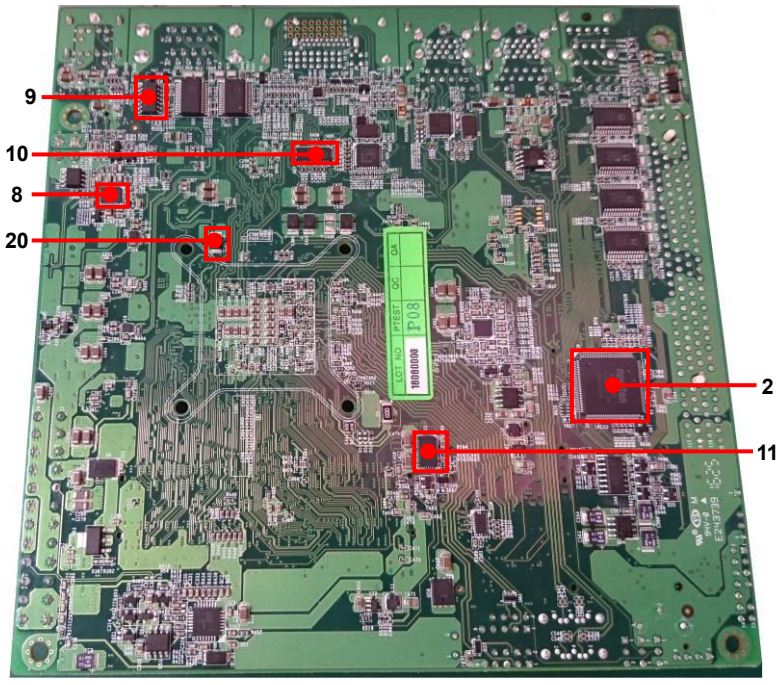
### Test Result:

<b>Item</b>	<b>Environmental temperature</b>	<b>26°C</b>
<b>1</b>	<b>CPU (SOC)</b>	<b>80°C</b>
<b>2</b>	<b>LPCIO</b>	<b>44.5°C</b>
<b>3</b>	<b>U1</b>	<b>65.9°C</b>
<b>4</b>	<b>U3</b>	<b>56.8°C</b>
<b>5</b>	<b>U6</b>	<b>52°C</b>
<b>6</b>	<b>U14</b>	<b>53.2°C</b>
<b>7</b>	<b>U15</b>	<b>48.2°C</b>
<b>8</b>	<b>U17</b>	<b>61.8°C</b>
<b>9</b>	<b>U21</b>	<b>53.7°C</b>
<b>10</b>	<b>U27</b>	<b>52°C</b>
<b>11</b>	<b>U35</b>	<b>53.5°C</b>
<b>12</b>	<b>LC1</b>	<b>63°C</b>



13	LC3	62.9°C
14	L5	67°C
15	L7	62.8°C
16	Q1	68.1°C
17	Q18	65.8°C
18	Q25	60.4°C
19	Q33	58°C
20	C341	64.1°C





9

10

8

20

2

11

## 4. Reliability Test

### 4.1 Power Consumption Test

#### 1. Test Environment:

Motherboard	LV-67T
CPU	Intel® Core™ i7-6600U 2.6GHz
Memory	MEMPHIS DDR4 2400 16GBx2 (H5AN4G8NAFR)
HDD	Intel SSD 530 Series 240GB

12V => Adapter : 0219B1280

19V => Adapter : FSP120-AAA

Voltage	MS-DOS Boot up		Win7(64Bit) 3DMARK 11(once) + PRIME 95	
	Current ( A )	Power ( W )	Current ( A )	Power ( W )
12V	1.31	15.72	3.58	42.96
19V	0.95	18.05	2.4	45.6

#### 1. a. Test Environment:

The same as above but with LCD panel

Graphics card	AUO M170EG01 17"LCD
---------------	---------------------

12V => Adapter : 0219B1280

19V => Adapter : FSP120-AAA

Voltage	MS-DOS Boot up		Win7(64Bit) 3DMARK 11(once) + PRIME 95	
	Current ( A )	Power ( W )	Current ( A )	Power ( W )
12V	3.37	40.44	5.87	70.44
19V	2.17	41.23	3.59	68.21

## 2. Test Environment:

<b>Motherboard</b>	<b>LV-67T</b>
<b>CPU</b>	<b>Intel® Core™ i5-6300U 2.4GHz</b>
<b>Memory</b>	<b>MEMPHIS DDR4 2400 16GBx2 (H5AN4G8NAFR)</b>
<b>HDD</b>	<b>Intel SSD 530 Series 240GB</b>

12V => Adapter : 0219B1280

19V => Adapter : FSP120-AAA

Voltage	MS-DOS Boot up		Win7(64Bit) 3DMARK 11(once) + PRIME 95	
	Current ( A )	Power ( W )	Current ( A )	Power ( W )
<b>12V</b>	1.42	17.04	3.55	42.6
<b>19V</b>	0.94	17.86	2.37	45.03

## 2. a. Test Environment:

The same as above but with LCD panel

<b>Graphics card</b>	<b>AUO M170EG01 17"LCD</b>
----------------------	----------------------------

12V => Adapter : 0219B1280

19V => Adapter : FSP120-AAA

Voltage	MS-DOS Boot up		Win7(64Bit) 3DMARK 11(once) + PRIME 95	
	Current ( A )	Power ( W )	Current ( A )	Power ( W )
<b>12V</b>	3.17	38.04	5.89	70.68
<b>19V</b>	2.08	39.52	3.62	68.78

### 3. Test Environment:

<b>Motherboard</b>	<b>LV-67T</b>
<b>CPU</b>	<b>Intel® Core™ i3-6100U 2.3GHz</b>
<b>Memory</b>	<b>MEMPHIS DDR4 2400 16GBx2 (H5AN4G8NAFR)</b>
<b>HDD</b>	<b>Intel SSD 530 Series 240GB</b>

12V => Adapter : 0219B1280

19V => Adapter : FSP120-AAA

Voltage	MS-DOS Boot up		Win7(64Bit) 3DMARK 11(once) + PRIME 95	
	Current ( A )	Power ( W )	Current ( A )	Power ( W )
<b>12V</b>	1.21	14.52	3.05	36.6
<b>19V</b>	0.92	17.48	2.14	40.66

### 3. a. Test Environment:

The same as above but with LCD panel

<b>Graphics card</b>	<b>AUO M170EG01 17"LCD</b>
----------------------	----------------------------

12V => Adapter : 0219B1280

19V => Adapter : FSP120-AAA

Voltage	MS-DOS Boot up		Win7(64Bit) 3DMARK 11(once) + PRIME 95	
	Current ( A )	Power ( W )	Current ( A )	Power ( W )
<b>12V</b>	3.16	37.92	5.24	62.88
<b>19V</b>	2.17	41.23	3.42	64.98

## 5. Performance Test

### 5.1 Performance Test 8.0

Windows 7 x64

WEIGHTED SUITE	Test Environment	Result	Remark
Performance Test 8.0	<p>Intel® Core™ i7-6600U 2.6GHz MEMPHIS DDR4 2400 16GBx2 (H5AN4G8NAFR) Intel SSD 530 Series 240GB</p>	PASS	<p>Summary 3064.9 CPU Mark 5143 2D Graphics Mark 772 3D Graphics Mark 1003 Memory Mark 2787 Disk Mark 4451</p>

Windows 7 x64

WEIGHTED SUITE	Test Environment	Result	Remark
Performance Test 8.0	<p>Intel® Core™ i5-6300U 2.40GHz MEMPHIS DDR4 2400 16GBx2 (H5AN4G8NAFR) Intel SSD 530 Series 240GB</p>	PASS	<p>Summary 2849.1 CPU Mark 4648 2D Graphics Mark 712 3D Graphics Mark 944 Memory Mark 2604 Disk Mark 4518</p>

## Windows 7 x64

WEIGHTED SUITE	Test Environment	Result	Remark
Performance Test 8.0	<p>Intel® Core™ i3-6100U 2.3GHz MEMPHIS DDR4 2400 16GBx2 (H5AN4G8NAFR) Intel SSD 530 Series 240GB</p>	PASS	<p>Summary 2489.9 CPU Mark 3746 2D Graphics Mark 606 3D Graphics Mark 926 Memory Mark 2287 Disk Mark 4307</p>

## Windows 8.1 x64

WEIGHTED SUITE	Test Environment	Result	Remark
Performance Test 8.0	<p>Intel® Core™ i7-6600U 2.6GHz ACPI DDR4 2400 16GB (SEC 625 K4A8G085WB BCRC) WD 500GB</p>	PASS	<p>Summary 1690.1 CPU Mark 4970 2D Graphics Mark 735 3D Graphics Mark 631 Memory Mark 2159 Disk Mark 530</p>

**Windows 10 x64**

<b>WEIGHTED SUITE</b>	<b>Test Environment</b>	<b>Result</b>	<b>Remark</b>
<b>Performance Test 8.0</b>	<b>Intel® Core™ i7-6600U 2.6GHz ACPI DDR4 2400 16GB (SEC 625 K4A8G085WB BCRC) Intel SSD 530 Series 240GB</b>	<b>PASS</b>	Summary 2381.9 CPU Mark 4794 2D Graphics Mark 618 3D Graphics Mark 631 Memory Mark 2031 Disk Mark 3843



## 5.2 3D MARK

Windows 7 64-bit

<b>CPU</b>	Intel® Core™ i7-6600U 2.6GHz			
<b>Memory</b>	MEMPHIS DDR4 2400 16GBx2 (H5AN4G8NAFR)			
<b>HDD</b>	Intel SSD 530 Series 240GB			
WEIGHTED SUITE		Result	Score	Remark
3DMARK2003		PASS	12974	
3DMARK2005		PASS	11235	
3DMARK2006	3DMARK Score	PASS	7748	
	SM2.0 Score	PASS	2772	
	HDR/SM3.0 Score	PASS	3116	
	CPU Score	PASS	4416	
3DMARK11	3DMARK Score	PASS	P1385	
	Graphics Score	PASS	1239	
	Physics Score	PASS	3381	
	Combined Score	PASS	1386	
3DMARK Vantage	3DMARK Score	PASS	P5755	
	GPU Score	PASS	4897	
	CPU Score	PASS	12139	

Windows 7 64-bit

<b>CPU</b>	Intel® Core™ i5-6300U 2.4GHz			
<b>Memory</b>	MEMPHIS DDR4 2400 16GBx2 (H5AN4G8NAFR)			
<b>HDD</b>	Intel SSD 530 Series 240GB			
<b>WEIGHTED SUITE</b>		<b>Result</b>	<b>Score</b>	<b>Remark</b>
<b>3DMARK2003</b>		PASS	12774	
<b>3DMARK2005</b>		PASS	11129	
<b>3DMARK2006</b>	<b>3DMARK Score</b>	PASS	7632	
	<b>SM2.0 Score</b>	PASS	2735	
	<b>HDR/SM3.0 Score</b>	PASS	3126	
	<b>CPU Score</b>	PASS	3999	
<b>3DMARK11</b>	<b>3DMARK Score</b>	PASS	P1374	
	<b>Graphics Score</b>	PASS	1227	
	<b>Physics Score</b>	PASS	3275	
	<b>Combined Score</b>	PASS	1418	
<b>3DMARK Vantage</b>	<b>3DMARK Score</b>	PASS	P5624	
	<b>GPU Score</b>	PASS	4804	
	<b>CPU Score</b>	PASS	11517	

Windows 7 64-bit

<b>CPU</b>	Intel® Core™ i3-6100U 2.3GHz			
<b>Memory</b>	MEMPHIS DDR4 2400 16GBx2 (H5AN4G8NAFR)			
<b>HDD</b>	Intel SSD 530 Series 240GB			
<b>WEIGHTED SUITE</b>		<b>Result</b>	<b>Score</b>	<b>Remark</b>
<b>3DMARK2003</b>		PASS	12503	
<b>3DMARK2005</b>		PASS	10705	
<b>3DMARK2006</b>	<b>3DMARK Score</b>	PASS	7204	
	<b>SM2.0 Score</b>	PASS	2657	
	<b>HDR/SM3.0 Score</b>	PASS	3009	
	<b>CPU Score</b>	PASS	3190	
<b>3DMARK11</b>	<b>3DMARK Score</b>	PASS	P1344	
	<b>Graphics Score</b>	PASS	1209	
	<b>Physics Score</b>	PASS	3001	
	<b>Combined Score</b>	PASS	1363	
<b>3DMARK Vantage</b>	<b>3DMARK Score</b>	PASS	P5337	
	<b>GPU Score</b>	PASS	4679	
	<b>CPU Score</b>	PASS	9234	

## 5.4 PC MARK

Windows 7 64-bit

<b>CPU</b>	<b>Intel® Core™ i7-6600U 2.6GHz</b>			
<b>Memory</b>	<b>MEMPHIS DDR4 2400 16GBx2 (H5AN4G8NAFR)</b>			
<b>HDD</b>	<b>Intel SSD 530 Series 240GB</b>			
<b>WEIGHTED SUITE</b>		<b>Result</b>	<b>Score</b>	<b>Remark</b>
<b>PCMARK2002</b>	<b>CPU Score</b>	PASS	N/A	
	<b>Memory Score</b>	PASS	60375	
	<b>HDD Score</b>	PASS	12898	
<b>PCMARK2004</b>	<b>PCMark Score</b>	PASS	N/A	
	<b>CPU Score</b>	PASS	N/A	
	<b>Memory Score</b>	PASS	16037	
	<b>Graphic Score</b>	PASS	14439	
	<b>HDD Score</b>	PASS	57815	
<b>PCMARK2005</b>	<b>PCMark Score</b>	PASS	N/A	
	<b>CPU Score</b>	PASS	12062	
	<b>Memory Score</b>	PASS	13713	
	<b>Graphic Score</b>	PASS	N/A	
	<b>HDD Score</b>	PASS	40994	

Windows 7 64-bit

<b>CPU</b>	Intel® Core™ i5-6300U 2.4GHz			
<b>Memory</b>	MEMPHIS DDR4 2400 16GBx2 (H5AN4G8NAFR)			
<b>HDD</b>	Intel SSD 530 Series 240GB			
WEIGHTED SUITE		Result	Score	Remark
<b>PCMARK2002</b>	<b>CPU Score</b>	PASS	N/A	
	<b>Memory Score</b>	PASS	51378	
	<b>HDD Score</b>	PASS	15771	
<b>PCMARK2004</b>	<b>PCMark Score</b>	PASS	N/A	
	<b>CPU Score</b>	PASS	N/A	
	<b>Memory Score</b>	PASS	14047	
	<b>Graphic Score</b>	PASS	12159	
	<b>HDD Score</b>	PASS	59000	
<b>PCMARK2005</b>	<b>PCMark Score</b>	PASS	N/A	
	<b>CPU Score</b>	PASS	10798	
	<b>Memory Score</b>	PASS	12560	
	<b>Graphic Score</b>	PASS	N/A	
	<b>HDD Score</b>	PASS	42606	

Windows 7 64-bit

<b>CPU</b>	<b>Intel® Core™ i3-6100U 2.3GHz</b>			
<b>Memory</b>	<b>MEMPHIS DDR4 2400 16GBx2 (H5AN4G8NAFR)</b>			
<b>HDD</b>	<b>Intel SSD 530 Series 240GB</b>			
<b>WEIGHTED SUITE</b>		<b>Result</b>	<b>Score</b>	<b>Remark</b>
<b>PCMARK2002</b>	<b>CPU Score</b>	PASS	N/A	
	<b>Memory Score</b>	PASS	40202	
	<b>HDD Score</b>	PASS	13261	
<b>PCMARK2004</b>	<b>PCMark Score</b>	PASS	N/A	
	<b>CPU Score</b>	PASS	N/A	
	<b>Memory Score</b>	PASS	11373	
	<b>Graphic Score</b>	PASS	13341	
	<b>HDD Score</b>	PASS	56702	
<b>PCMARK2005</b>	<b>PCMark Score</b>	PASS	N/A	
	<b>CPU Score</b>	PASS	8398	
	<b>Memory Score</b>	PASS	10671	
	<b>Graphic Score</b>	PASS	N/A	
	<b>HDD Score</b>	PASS	42549	

# 5.5 AIDA64

## Windows 7 64-bit

<b>CPU</b>	<b>Intel® Core™ i7-6600U 2.6GHz</b>
<b>Memory</b>	<b>MEMPHIS DDR4 2400 16GBx2 (H5AN4G8NAFR)</b>
<b>HDD</b>	<b>Intel SSD 530 Series 240GB</b>

### Summary :

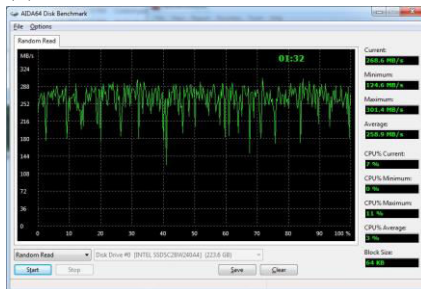
#### Summary

<b>Computer:</b>		<b>Partitions:</b>	
Computer Type	ACPI x64-based PC	C: (NTFS)	223.3 GB (180.8 GB free)
Operating System	Microsoft Windows 7 Ultimate	Total Size	223.3 GB (180.8 GB free)
OS Service Pack	Service Pack 1	<b>Input:</b>	
Internet Explorer	8.0.7601.17514 (IE 8.0 - Windows 7 SP1)	Keyboard	HD Keyboard Device
DirectX	DirectX 11.0	Keyboard	HD Keyboard Device
Computer Name	USER-PC	Mouse	HD-compliant mouse
User Name	user	Mouse	Microsoft PS/2 Mouse
Logon Domain	user-PC	<b>Network:</b>	
Date / Time	2016-08-08 / 16:43	Primary IP Address	127.0.0.1
<b>Motherboard:</b>		Primary MAC Address	00-A0-C9-00-00-00
CPU Type	DualCore Intel Core i7-6600U, 3200 MHz (32 x 100)	Network Adapter	Intel(R) I210 Gigabit Network Connection
Motherboard Name	COMPELL LV-67T	<b>Peripherals:</b>	
Motherboard Chipset	Intel Sunrise Point-LP, Intel Skylake-U	Printer	Fax
System Memory	32656 MB (DDR4 SDRAM)	Printer	Microsoft XPS Document Writer
BIOS Type	Phoenix (08/01/2016)	USB3 Controller	Intel Sunrise Point-LP PCH - USB 3.0 xHCI Controller
Communication Port	Communications Port (COM1)	USB Device	USB Composite Device
Communication Port	Communications Port (COM2)	USB Device	USB Composite Device
Communication Port	Communications Port (COM3)	USB Device	USB Input Device
Communication Port	Communications Port (COM4)	USB Device	USB Input Device
Communication Port	Communications Port (COM5)	USB Device	USB Input Device
Communication Port	Communications Port (COM6)	USB Device	USB Input Device
<b>Display:</b>		<b>DMI:</b>	
Video Adapter	Intel(R) HD Graphics 520 (1 GB)	DMI BIOS Vendor	Phoenix Technologies Ltd.
Video Adapter	Intel(R) HD Graphics 520 (1 GB)	DMI BIOS Version	SKLU_4.0.0.362
Video Adapter	Intel(R) HD Graphics 520 (1 GB)	DMI System Manufacturer	
3D Accelerator	Intel HD Graphics 520	DMI System Product	
Monitor	Asus PB278 [27" LCD] (C8LMTF096773)	DMI System Version	
<b>Multimedia:</b>		DMI System Serial Number	
Audio Adapter	Intel Skylake HDMI @ Intel Sunrise Point-LP PCH - High Definition Audio Controller	DMI Motherboard Manufacturer	COMPELL
Audio Adapter	Realtek ALC262 @ Intel Sunrise Point-LP PCH - High Definition Audio Controller	DMI Motherboard Product	LV-67T
<b>Storage:</b>		DMI Motherboard Version	
IDE Controller	Standard AHCI 1.0 Serial ATA Controller	DMI Motherboard Serial Number	
Disk Drive	INTEL SSD5C2BW240A4 ATA Device (240 GB, SATA-III)	DMI Chassis Manufacturer	
SMART Hard Disks Status	OK	DMI Chassis Version	
		DMI Chassis Serial Number	
		DMI Chassis Asset Tag	
		DMI Chassis Type	LapTop

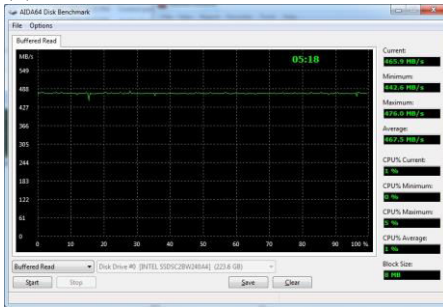
### Tools:

#### 1. Disk Benchmark :

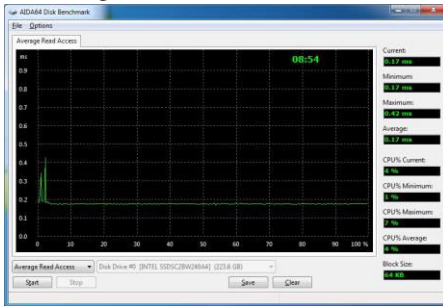
##### (1)Random Read :



## (2)Buffered Read :



## (3)Average Read Access :



## 2. Cache & Memory Benchmark :

**AIDA64 Cache & Memory Benchmark**

	Read	Write	Copy	Latency
Memory	29928 MB/s	32468 MB/s	30340 MB/s	67.5 ns
L1 Cache	371.46 GB/s	186.70 GB/s	372.58 GB/s	1.2 ns
L2 Cache	173.80 GB/s	107.39 GB/s	144.63 GB/s	3.5 ns
L3 Cache	111.37 GB/s	71971 MB/s	97955 MB/s	12.5 ns
L4 Cache				

CPU Type: DualCore Intel Core i7-6600U (Skylake-U, BG1A1356)  
 CPU Stepping: D0/X0/K1  
 CPU Clock: 3192.2 MHz (original: 2600 MHz, overclock: 23%)  
 CPU FSB: 99.8 MHz (original: 100 MHz)  
 CPU Multiplier: 32x North Bridge Clock: 2593.7 MHz

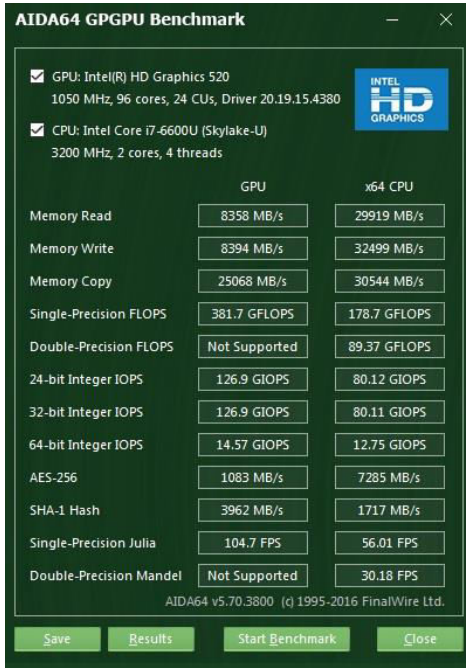
Memory Bus: 1064.1 MHz DRAM:FSB Ratio: 32:3  
 Memory Type: Dual Channel DDR4-2133 SDRAM (9-9-9-28 CR1)  
 Chipset: Intel Sunrise Point-LP, Intel Skylake-U  
 Motherboard: COMPELL LV-67T

AIDA64 v5.70.3800 / BenchDLL 4.2.671-x64 (c) 1995-2016 FinalWire Ltd.

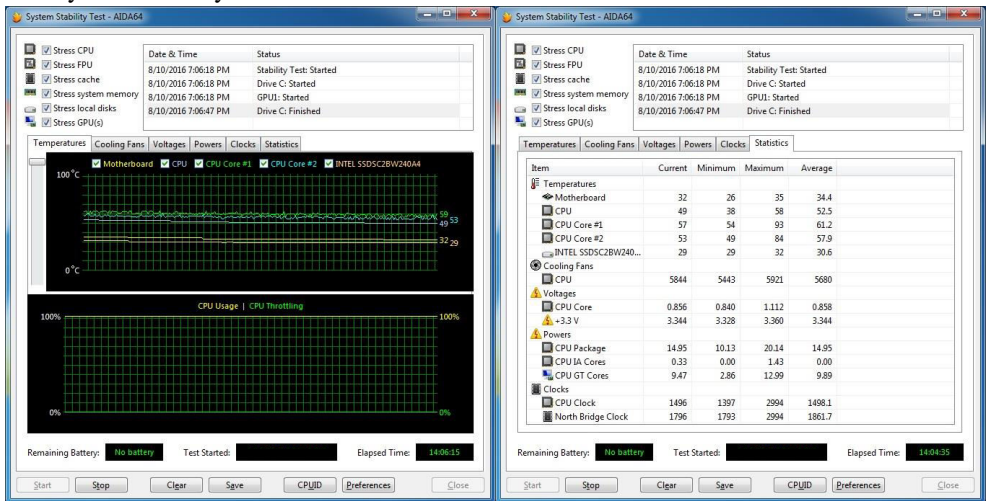
Buttons: Save, Start Benchmark, Close



### 3. GPGPU Benchmark :



### 4. System Stability Test



## 5. AIDA64 CPUID

The screenshot shows the AIDA64 CPUID window with the following details:

- Processor:** DualCore Intel Core i7-6600U, Skylake-U, Platform: BG1356, Stepping: D0/K0/K1, CPUID Vendor: GenuineIntel, CPUID Name: Intel(R) Core(TM) i7-6600U CPU @ 2.60GHz
- Cache:** L1/L1D Cache: 32 KB / 32 KB, L2 Cache: 256 KB, L3 Cache: 4 MB, L4 Cache: (empty)
- Clock:** CPU Clock: 598.5 MHz, Multiplier: 6x, Bus Clock: 99.8 MHz, Bus Speed: (empty)
- Voltage:** Core Voltage: 0.392 V
- Instruction Set:** x86, x86-64, MMX, SSE, SSE2, SSE3, SSSE3, SSE4.1, SSE4.2, AVX, AVX2, FMA, AES
- Motherboard:** COMPELL LV-67T, BIOS Version: SKLU\_4.0.0.362, Chipset: Intel Sunrise Point-LP, Intel Skylake-U, Integr. Video: Active (Intel HD Graphics 520), Memory Type: Dual Channel DDR4-2133 SDRAM (9-9-9-28 CR1), Memory Clock: 1064.1 MHz, DRAM:FSB Ratio: 32:3

## Windows 7 64-bit

<b>CPU</b>	<b>Intel® Core™ i5-6300U 2.4GHz</b>
<b>Memory</b>	<b>MEMPHIS DDR4 2400 16GBx2 (H5AN4G8NAFR)</b>
<b>HDD</b>	<b>Intel SSD 530 Series 240GB</b>

## Summary :

### Summary

#### Computer:

Computer Type: ACPI x64-based PC  
 Operating System: Microsoft Windows 7 Ultimate  
 OS Service Pack: Service Pack 1  
 Internet Explorer: 8.0.7601.17514 (IE 8.0 - Windows 7 SP1)  
 DirectX: DirectX 11.0  
 Computer Name: USER-PC  
 User Name: user  
 Logon Domain: user-PC  
 Date / Time: 2016-08-08 / 16:15

#### Motherboard:

CPU Type: DualCore Intel Core i5-6300U, 2900 MHz (29 x 100)  
 Motherboard Name: COMPELL LV-67T  
 Motherboard Chipset: Intel Sunrise Point-LP, Intel Skylake-U  
 System Memory: 32656 MB (DDR4 SDRAM)  
 BIOS Type: Phoenix (08/01/2016)  
 Communication Port: Communications Port (COM1)  
 Communication Port: Communications Port (COM2)  
 Communication Port: Communications Port (COM3)  
 Communication Port: Communications Port (COM4)  
 Communication Port: Communications Port (COM5)  
 Communication Port: Communications Port (COM6)

#### Display:

Video Adapter: Intel(R) HD Graphics 520 (1 GB)  
 Video Adapter: Intel(R) HD Graphics 520 (1 GB)  
 Video Adapter: Intel(R) HD Graphics 520 (1 GB)  
 3D Accelerator: Intel HD Graphics 520  
 Monitor: Asus PB278 (27" LCD) (CBLMTF096773)

#### Multimedia:

Audio Adapter: Intel Skylake HDMI @ Intel Sunrise Point-LP PCH - High Definition Audio Controller  
 Audio Adapter: Realtek ALC262 @ Intel Sunrise Point-LP PCH - High Definition Audio Controller

#### Storage:

IDE Controller: Standard AHCI 1.0 Serial ATA Controller  
 Disk Drive: INTEL SSD5C2BW240A4 ATA Device (240 GB, SATA-III)  
 SMART Hard Disks Status: OK

#### Partitions:

C: (NTFS) 223.3 GB (180.7 GB free)  
 Total Size 223.3 GB (180.7 GB free)

#### Input:

Keyboard: HID Keyboard Device  
 Keyboard: HID Keyboard Device  
 Keyboard: Standard PS/2 Keyboard  
 Mouse: HID-compliant mouse  
 Mouse: Microsoft PS/2 Mouse

#### Network:

Primary IP Address: 127.0.0.1  
 Primary MAC Address: 00-A0-C9-00-00-00  
 Network Adapter: Intel(R) I210 Gigabit Network Connection

#### Peripherals:

Printer: Fax  
 Printer: Microsoft XPS Document Writer  
 USB3 Controller: Intel Sunrise Point-LP PCH - USB 3.0 xHCI Controller  
 USB Device: USB Composite Device  
 USB Device: USB Composite Device  
 USB Device: USB Input Device  
 USB Device: USB Input Device  
 USB Device: USB Input Device  
 USB Device: USB Input Device

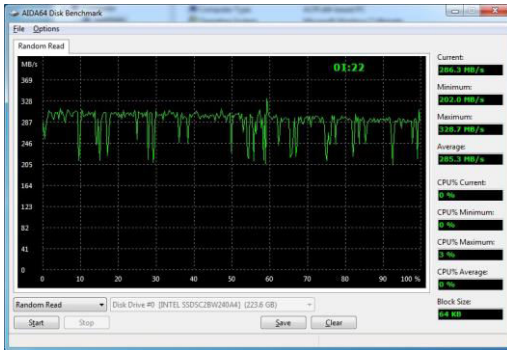
#### DMI:

DMI BIOS Vendor: Phoenix Technologies Ltd.  
 DMI BIOS Version: SKLU\_4.0.0.362  
 DMI System Manufacturer: (empty)  
 DMI System Product: (empty)  
 DMI System Version: (empty)  
 DMI System Serial Number: (empty)  
 DMI Motherboard Manufacturer: (empty)  
 DMI Motherboard Product: COMPELL  
 DMI Motherboard Version: LV-67T  
 DMI Motherboard Serial Number: (empty)  
 DMI Chassis Manufacturer: (empty)  
 DMI Chassis Version: (empty)  
 DMI Chassis Serial Number: (empty)  
 DMI Chassis Asset Tag: (empty)  
 DMI Chassis Type: Laptop

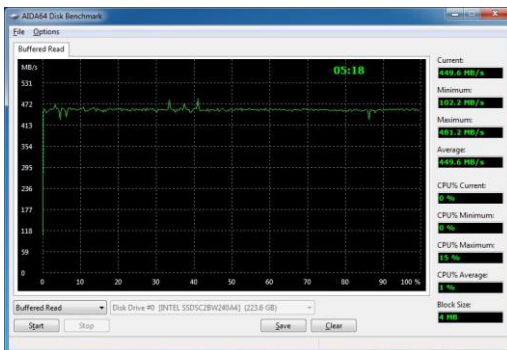
Tools:

1. Disk Benchmark :

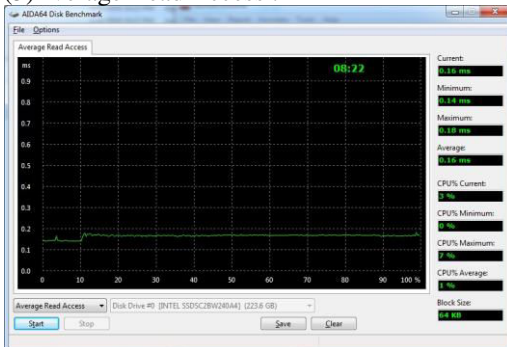
(1)Random Read :



(2)Buffered Read :



(3)Average Read Access :



## 2. Cache & Memory Benchmark :

**AIDA64 Cache & Memory Benchmark**

	Read	Write	Copy	Latency
Memory	30197 MB/s	32631 MB/s	30250 MB/s	72.8 ns
L1 Cache	358.55 GB/s	180.46 GB/s	360.12 GB/s	1.3 ns
L2 Cache	166.69 GB/s	100.91 GB/s	143.04 GB/s	4.0 ns
L3 Cache	106.71 GB/s	69541 MB/s	97996 MB/s	13.9 ns
L4 Cache				

CPU Type: DualCore Intel Core i5-6300U (Skylake-U, BGA1356)  
 CPU Stepping: D0/K0/K1  
 CPU Clock: 2892.2 MHz (original: 2400 MHz, overclock: 21%)  
 CPU FSB: 99.7 MHz (original: 100 MHz)  
 CPU Multiplier: 29x North Bridge Clock: 2393.5 MHz

Memory Bus: 1063.8 MHz DRAM:FSB Ratio: 32:3  
 Memory Type: Dual Channel DDR4-2133 SDRAM (9-9-9-28 CR1)  
 Chipset: Intel Sunrise Point-LP, Intel Skylake-U  
 Motherboard: COMPELL LV-6TT

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Save Start Benchmark Close

## 3. GPGPU Benchmark :

**AIDA64 GPGPU Benchmark**

GPU: Intel(R) HD Graphics 520  
 1000 MHz, 96 cores, 24 CUs, Driver 20.19.15.4380

CPU: Intel Core i5-6300U (Skylake-U)  
 2900 MHz, 2 cores, 4 threads

	GPU	x64 CPU
Memory Read	8278 MB/s	30175 MB/s
Memory Write	7726 MB/s	32586 MB/s
Memory Copy	25167 MB/s	30269 MB/s
Single-Precision FLOPS	362.5 GFLOPS	172.3 GFLOPS
Double-Precision FLOPS	Not Supported	86.19 GFLOPS
24-bit Integer IOPS	120.6 GIOPS	77.23 GIOPS
32-bit Integer IOPS	120.6 GIOPS	77.25 GIOPS
64-bit Integer IOPS	13.84 GIOPS	11.57 GIOPS
AES-256	1029 MB/s	6603 MB/s
SHA-1 Hash	3764 MB/s	1658 MB/s
Single-Precision Julia	95.18 FPS	57.84 FPS
Double-Precision Mandel	Not Supported	30.97 FPS

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Save Results Start Benchmark Close

## 4. AIDA64 CPUID

**AIDA64 CPUID**

Processor: DualCore Intel Core i5-6300U  
 Code Name: Skylake-U  
 Platform: BGAL356  
 Stepping: D0/K0/K1  
 CPUID Vendor: GenuineIntel  
 CPUID Name: Intel(R) Core(TM) i5-6300U CPU @ 2.40GHz

CPUID Rev: 6 4E 3 Core Voltage: 0.376 V

CPU Clock: 498.8 MHz L1I / L1D Cache: 32 KB / 32 KB  
 Multiplier: 5x L2 Cache: 256 KB  
 Bus Clock: 99.8 MHz L3 Cache: 3 MB  
 Bus Speed: L4 Cache:

Instruction Set: x86, x86-64, MMX, SSE, SSE2, SSE3, SSSE3, SSE4.1, SSE4.2, AVX, AVX2, FMA, AES

Motherboard: COMMELL LV-67T  
 BIOS Version: SKLU\_4.0.0.362  
 Chipset: Intel Sunrise Point-LP, Intel Skylake-U  
 Integr. Video: Active (Intel HD Graphics 520)  
 Memory Type: Dual Channel DDR4-2133 SDRAM 9-9-9-28 CR1  
 Memory Clock: 1064.1 MHz DRAM:FSB Ratio: 32:3

CPU #1 / Core #1 / HTT Unit #1 AIDA64 v5.70.3800 Save Close

### Windows 7 64-bit

<b>CPU</b>	<b>Intel® Core™ i3-6100U 2.3GHz</b>
<b>Memory</b>	<b>MEMPHIS DDR4 2400 16GBx2 (H5AN4G8NAFR)</b>
<b>HDD</b>	<b>Intel SSD 530 Series 240GB</b>

### Summary :

#### Summary

<b>Computer:</b>	ACPI x64-based PC Operating System: Microsoft Windows 7 Ultimate OS Service Pack: Service Pack 1 Internet Explorer: 8.0.7601.17514 (IE 8.0 - Windows 7 SP1) DirectX: DirectX 11.0 Computer Name: USER-PC User Name: user Logon Domain: user-PC Date / Time: 2016-08-08 / 15:29
<b>Motherboard:</b>	DualCore Intel Core i3-6100U, 2300 MHz (23 x 100) COMMELL LV-67T Motherboard Name: Intel Sunrise Point-LP, Intel Skylake-U Motherboard Chipset: Intel Sunrise Point-LP, Intel Skylake-U System Memory: 32656 MB (DDR4 SDRAM) BIOS Type: Phoenix (08/01/2016) Communication Port: Communications Port (COM1) Communication Port: Communications Port (COM2) Communication Port: Communications Port (COM3) Communication Port: Communications Port (COM4) Communication Port: Communications Port (COM5) Communication Port: Communications Port (COM6)
<b>Display:</b>	Intel(R) HD Graphics 520 (1 GB) Intel(R) HD Graphics 520 (1 GB) Intel(R) HD Graphics 520 (1 GB) Intel HD Graphics 520 Asus PB278 [27" LCD] [CBLMTF098773]
<b>Multimedia:</b>	Intel Skylake HDMI @ Intel Sunrise Point-LP PCH - High Definition Audio Controller Realtek ALC262 @ Intel Sunrise Point-LP PCH - High Definition Audio Controller
<b>Storage:</b>	Standard AHCI 1.0 Serial ATA Controller INTEL SSDSC2BW240A4 ATA Device (240 GB, SATA-III) SMART Hard Disks Status: OK

#### Partitions:

C: (NTFS)	223.3 GB (180.7 GB free)
Total Size	223.3 GB (180.7 GB free)

#### Input:

Keyboard	HID Keyboard Device
Keyboard	HID Keyboard Device
Keyboard	Standard PS/2 Keyboard
Mouse	HID-compliant mouse
Mouse	Microsoft PS/2 Mouse

#### Network:

Primary IP Address	127.0.0.1
Primary MAC Address	00-A0-C9-00-00-00
Network Adapter	Intel(R) I210 Gigabit Network Connection

#### Peripherals:

Printer	Fax
Printer	Microsoft XPS Document Writer
USB3 Controller	Intel Sunrise Point-LP PCH - USB 3.0 xHCI Controller
USB Device	USB Composite Device
USB Device	USB Composite Device
USB Device	USB Input Device
USB Device	USB Input Device
USB Device	USB Input Device
USB Device	USB Input Device

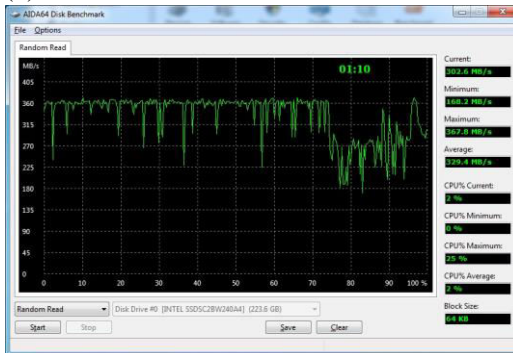
#### DMI:

DMI BIOS Vendor	Phoenix Technologies Ltd.
DMI BIOS Version	SKLU_4.0.0.362
DMI System Manufacturer	
DMI System Product	
DMI System Version	
DMI System Serial Number	
DMI Motherboard Manufacturer	COMMELL
DMI Motherboard Product	LV-67T
DMI Motherboard Version	
DMI Motherboard Serial Number	
DMI Chassis Manufacturer	
DMI Chassis Version	
DMI Chassis Serial Number	
DMI Chassis Asset Tag	
DMI Chassis Type	LapTop

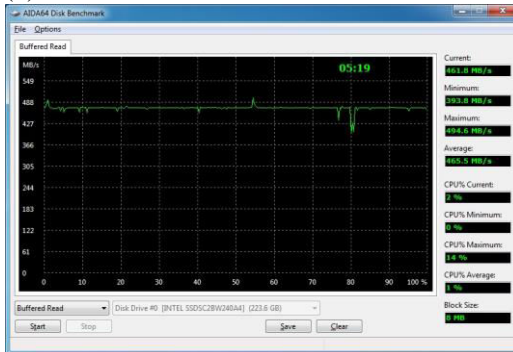
Tools:

1. Disk Benchmark :

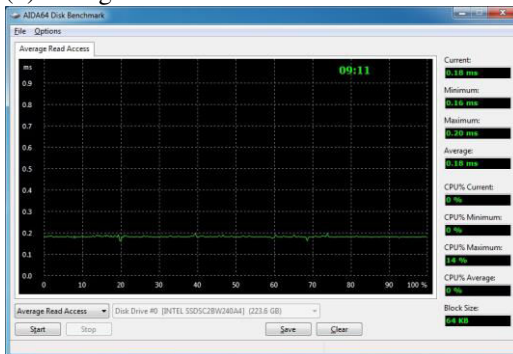
(1)Random Read :



(2)Buffered Read :



(3)Average Read Access :



## 2. Cache & Memory Benchmark :

**AIDA64 Cache & Memory Benchmark**

	Read	Write	Copy	Latency
Memory	29467 MB/s	31804 MB/s	30433 MB/s	74.5 ns
L1 Cache	284.56 GB/s	143.13 GB/s	285.67 GB/s	1.7 ns
L2 Cache	131.29 GB/s	84127 MB/s	110.96 GB/s	5.2 ns
L3 Cache	86657 MB/s	55193 MB/s	78939 MB/s	18.0 ns
L4 Cache				

CPU Type: DualCore Intel Core i3-6100U (Skylake-U, BGA1356)  
 CPU Stepping: D0/K0/K1  
 CPU Clock: 2294.9 MHz (original: 2300 MHz)  
 CPU FSB: 99.8 MHz (original: 100 MHz)  
 CPU Multiplier: 23x North Bridge Clock: 2294.9 MHz

Memory Bus: 1064.3 MHz DRAM:FSB Ratio: 32:3  
 Memory Type: Dual Channel DDR4-2133 SDRAM (9-9-9-28 CR1)  
 Chipset: Intel Sunrise Point-LP, Intel Skylake-U  
 Motherboard: COMPELL LV-67T

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Save Start Benchmark Close

## 3. GPGPU Benchmark :

**AIDA64 GPGPU Benchmark**

GPU: Intel(R) HD Graphics 520  
 1000 MHz, 92 cores, 23 CUs, Driver 20.19.15.4380

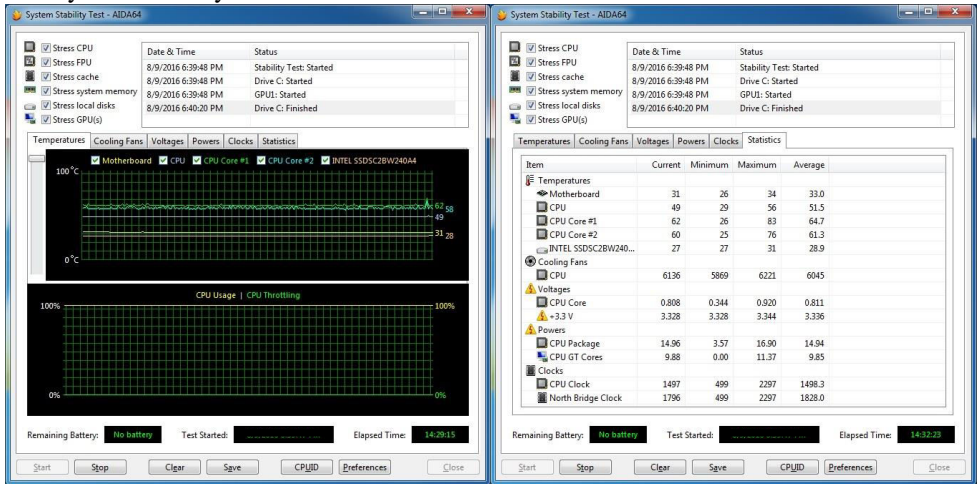
CPU: Intel Core i3-6100U (Skylake-U)  
 2300 MHz, 2 cores, 4 threads

	GPU	x64 CPU
Memory Read	8384 MB/s	29419 MB/s
Memory Write	8172 MB/s	32172 MB/s
Memory Copy	25425 MB/s	30284 MB/s
Single-Precision FLOPS	347.6 GFLOPS	146.8 GFLOPS
Double-Precision FLOPS	Not Supported	73.42 GFLOPS
24-bit Integer IOPS	115.2 GIOPS	65.82 GIOPS
32-bit Integer IOPS	115.3 GIOPS	65.82 GIOPS
64-bit Integer IOPS	13.21 GIOPS	9.18 GIOPS
AES-256	1029 MB/s	5237 MB/s
SHA-1 Hash	3667 MB/s	1329 MB/s
Single-Precision Julia	95.33 FPS	48.80 FPS
Double-Precision Mandel	Not Supported	26.32 FPS

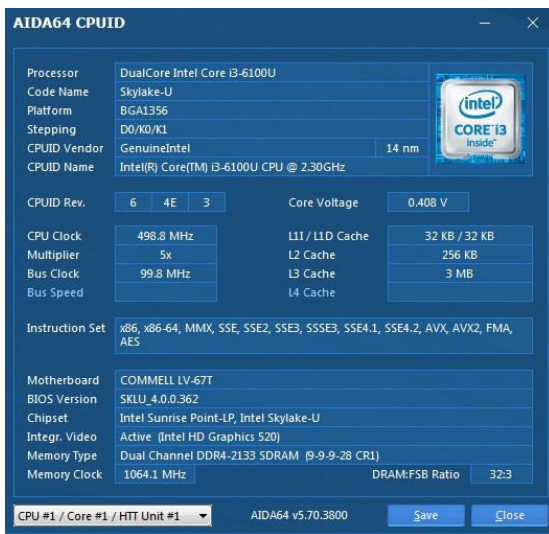
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Save Results Start Benchmark Close

## 4. System Stability Test



## 5. AIDA64 CPUID



## 5.6 Storage Performance

### 5.6.1 HDD

Test environment:

OS Windows 7 (64Bit)

Program (HD Tune)



HDD Model	Interface	Capacity	Average	Burst Rate	Access time
Intel SSD 530 Series	SATA	240GB	261.1 MB/sec	273.4 MB/sec	0.2 ms
WD5000BPKT	SATA	500GB	84.5 MB/sec	154.8 MB/sec	19 ms
WD10EALX	SATA	1.0TB	101.9 MB/sec	211.5 MB/sec	13.6 ms
Transcend	USB	16GB	27.2 MB/sec	26.9 MB/sec	1.02 ms
ADATA	USB3.0	16GB	61.5 MB/sec	41 MB/sec	1.34 ms

## 5.6.2 CD/DVD-ROM

Test environment:

OS Windows 7 (64Bit)

Program (NERO)

CD/DVD-ROM Model	Interface	Average Speed	Full Read	Burst Rate	DVD
Transcend DVD TS8XDVDS-K	USB	5.52x	256 ms	15 MB/s	4X -16 X DVD+R
LITEON eTAU108	USB	5.52x	175 ms	18 MB/s	4X -16 X DVD+R
Pioneer DDVR-S19LBK-24X	SATA	11.00x	178 ms	33 MB/s	4X -16 X DVD+R
AUSU DRW-1814BLT	SATA	8.12x	182 ms	39 MB/s	4X -16 X DVD+R
AUSU DRW-24D1ST a	SATA	10.88x	201 ms	58 MB/s	4X -16 X DVD+R