

Product Test Report



Product Name	LV-67D
Product Version	B
Issued Date	23.Nov.2008
Report Edition	1.1
BIOS Version	1.0
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REVISION HISTORY

DATE	REVISION NO.	PAGE	DESCRIPTONS
1.Feb.2008	Ver. 1.0	41	New release
23.Nov.2008	Ver 1.1	51	1. Humidity and boot up test. 2. Increase new OS / HDD / memory / CD-ROM.

Index

1. Function test	5
1.1 Hardware function.....	5
1.2 BIOS function	7
1.3 Driver	9
2. Compatibility test	10
2.1 CPU Test.....	10
2.2 Memory Test	11
2.3 VGA Graphic Quality Test.....	12
2.4 Audio	13
2.5 HDD Test	15
2.6 CD-ROM Test	16
2.7 USB Test.....	17
2.8 Serial Port Test	19
2.9 PS2 Keyboard 、 Mouse Test.....	21
2.10 LAN Test.....	23
2.11 Power Supply Test.....	24
2.12 Floppy Drive Test	24
2.13 Os Install	25
3. Environmental test	26
3.1 Temperature Test.....	26
3.2 Thermal measurements at various points on the board	29
4. Reliability Test	31
4.1 Power Consumption Test	31
5. Performance Test	34
5.1 Business Win Stone 2002.....	34
5.2 Business Win Stone 2004.....	35
5.3 Content Creation Winstone 2003.....	36
5.4 Content Creation Winstone 2004.....	37
5.5 3D MARK(2001 、 2003 、 2005)	38

5.6 3D MARK2006.....	40
5.7 PC MARK2002.....	42
5.8 PC MARK2004.....	44
5.9 PC MARK2005.....	46
5.10 Storage Performance.....	48
5.11 Vibration Test.....	51

1. Function test

1.1 Hardware function

Base Function Test

Item	Description	Result
1	Power Button	PASS
2	Reset	PASS
3	Power LED	PASS
4	HDD LED	PASS
5	SATA1	PASS
6	SATA2	PASS
7	USB1	PASS
8	USB2	PASS
9	USB3	PASS
10	USB4	PASS
11	USB5	PASS
12	USB6	PASS
13	USB7	PASS
14	USB8	PASS
15	DDRII	PASS
16	Floppy	PASS
17	COM1	PASS
18	COM2	PASS
19	COM3	PASS
20	COM4	PASS
21	COM5	PASS
22	COM6	PASS
23	VGA Port	PASS
24	KB/MS	PASS

25	AUDIO	PASS
26	CD_IN	PASS
27	SPDIF	PASS
28	Mini PCI	PASS
29	PCIE MINI CARD	PASS
30	DIO	PASS
31	CPUFAN	PASS
32	SYSFAN	PASS
33	PCI	PASS
34	IDE	PASS
35	LVDS 1	PASS
36	LAN 1	PASS
37	LAN 2	PASS
38	IrDA	PASS
39	HDTV	PASS
40	CF	PASS
41	LVDS 2(67DX)	PASS
42	DVI (67DD)	PASS

Jumper

Item	Description	Result
1	JRTC	PASS
2	JCSEL1	PASS
3	JCSEL2	PASS
4	JAT	PASS
5	JVINV	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	Drive A	PASS	
6	Quick Power On Self Test	PASS	
7	Boot Device Setting	PASS	
8	Boot Up Floppy Seek	PASS	
9	Boot Up Num Lock Status	PASS	
10	ACPI Suspend Type	PASS	
11	Halt On	PASS	
12	Onboard Serial Port	PASS	
13	USB Controller	PASS	
14	USB Keyboard Support	PASS	
15	Onboard FDC Controller	PASS	
16	Soft-Off by PWRBTN	PASS	
17	Power On Function	PASS	
18	ACPI Function	PASS	
19	Hot Key Password	PASS	
20	Wake-up by PCI card	PASS	
21	Resume by Alarm	PASS	
22	Watch Dog Timer Select	PASS	
23	Init Display First	PASS	
24	PWRON After PWR-Fail	PASS	
25	Power On by Ring	PASS	
26	Set Supervisor Password	PASS	
27	Set User Password	PASS	

28	UART Mode Select	PASS	
29	RxD , Txd Active	PASS	
30	IR Transmission Delay	PASS	
31	UR2 duplex Mode	PASS	
32	Use IR Pins	PASS	

1.3 Driver

CD Edition : IPCi 2– 1.3

1. Windows XP SP2 Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	9.0.0.1008
2	VGA Driver	PASS	6.14.10.4906
3	LAN Driver	PASS	10.3.49.0
4	Audio Driver	PASS	5.10.0.5464

2. Windows Server 2003 Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	9.0.0.1008
2	LAN Driver	PASS	10.3.49.0
3	Audio Driver	PASS	5.10.0.5464

3. Windows 2000 SP4

Item	Description	Result	version
1	Chipset Driver	PASS	9.0.0.1008
2	VGA Driver	PASS	6.14.10.4906
3	LAN Driver	PASS	10.3.49.0
4	Audio Driver	PASS	5.10.0.5464

4. Windows Vista 32 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	9.0.0.1008
2	VGA Driver	PASS	7.14.10.1409
3	LAN Driver	PASS	10.3.49.0
4	Audio Driver	PASS	6.0.1.5473

2. Compatibility test

2.1 CPU Test

Test environment:

OS Windows XP professional SP2

Test program : PC MARK 2005

Spec	CPU Speed	Family	Processor	FSB	L2 Size	Result
<u>SLB73</u>	1.60 GHz	Atom	N270	533 MHz	512 KB	PASS

2.2 Memory Test

Test environment:

OS Windows XP professional SP2

Test program : PC MARK 2005

Manufacturer	Chip	DDRII frequency	Capacity Mbytes	Memory test Source
Kingston	D6408TEBGWL	DDRII 533	1GB	PASS
A-DATA	HY5PS1G831C	DDRII 667	2GB	PASS
Transcend	7PEIID9HNL	DDRII 667	2GB	PASS
Transcend	7QE22D9HNL	DDRII 667	2GB	PASS
Kingston	HYB18T512	DDRII 533	1GB	PASS
PQI	7QE22D9HNL	DDRII 667	2GB	PASS

2.3 VGA Graphic Quality Test

Test environment:

OS Windows XP professional SP2

Driver version : 6.14.10.4906

Resolution	Color	Result	Remark
800*600	16 /32bit	PASS	
1024*768	16 /32bit	PASS	
1152*864	16 /32bit	PASS	
1280*600	16 /32bit	PASS	
1280*720	16 /32bit	PASS	
1280*768	16 /32bit	PASS	
1280*960	16 /32bit	PASS	
1280*1024	16 /32bit	PASS	
1400*1050	16 /32bit	PASS	
1600*900	16 /32bit	PASS	
1600*1200	16 /32bit	PASS	
1856*1392	16 /32bit	PASS	
1920*1080	16 /32bit	PASS	

2.4 Audio

Test environment:

OS Windows XP professional SP2

Driver version : 5.10.0.5464

Item	Description	Result	Remark
1	2 CH	PASS	
2	4 CH	PASS	
3	5.1 CH	PASS	
4	7.1 CH	PASS	
5	Microphone	PASS	
6	LINE	PASS	
7	SPDIF OUT	PASS	
8	CDIN	PASS	

OS Windows 2000 SP4

Driver version : 5.10.0.5464

Item	Description	Result	Remark
1	2 CH	PASS	
2	4 CH	PASS	
3	5.1 CH	PASS	
4	7.1 CH	PASS	
5	Microphone	PASS	
6	LINE	PASS	
7	SPDIF OUT	PASS	
8	CDIN	PASS	

OS Windows Server 2003

Driver version : 5.10.0.5464

Item	Description	Result	Remark
1	2 CH	PASS	
2	4 CH	PASS	
3	5.1 CH	PASS	
4	7.1 CH	PASS	
5	Microphone	PASS	
6	LINE	PASS	
7	SPDIF OUT	PASS	
8	CDIN	PASS	

OS Windows Vista 32 bit

Driver version : 6.0.1.5473

Item	Description	Result	Remark
1	2 CH	PASS	
2	4 CH	PASS	
3	5.1 CH	PASS	
4	7.1 CH	PASS	
5	Microphone	PASS	
6	LINE	PASS	
7	SPDIF OUT	PASS	
8	CDIN	PASS	

2.5 HDD Test

Test environment:

OS Windows XP professional SP2

HDD MODEL	INTERFACE	Capacity	HDD Size Detect	HDD Data Transfer	HDD LED Check
IBM DTTA-351010	IDE	10.2 GB	PASS	PASS	PASS
Seagate ST320413A		20 GB	PASS	PASS	PASS
Western Digital WD800BB-22JHC0		80 GB	PASS	PASS	PASS
Western Digital WD800BB-00JKC0		80 GB	PASS	PASS	PASS
Western Digital WD2500JB-00REA0		250GB	PASS	PASS	PASS
Western Digital WD800JD-00LSA0	SATA	80 GB	PASS	PASS	PASS
Western Digital WD800JD-75MSA3		80 GB	PASS	PASS	PASS
HITACHI HDS721616PLA380		160 GB	PASS	PASS	PASS
HITACHI HDS721616PLA380		164 GB	PASS	PASS	PASS
Western Digital WD2500JB-00REA0		250 GB	PASS	PASS	PASS

2.6 CD-ROM Test

Test environment:

OS Windows XP professional SP2

CD-ROM MODEL	INTERFACE	CD-ROM Detect	CD-ROM Data Transfer	PLAY DVD
BenQ 652A-6N2	IDE	PASS	PASS	PASS
ATAPI 16X 5810		PASS	PASS	PASS
ASUS CD-SS520/A		PASS	PASS	PASS
PIONEER DVD-127P		PASS	PASS	PASS
SONY CDU4811		PASS	PASS	PASS
NEC ND-3520A		PASS	PASS	PASS
LG DVD GSA-H62L	SATA	PASS	PASS	PASS
PIONEER DVD PVR-212B		PASS	PASS	PASS
ASUS DVD DRW-1814BLT		PASS	PASS	PASS

2.7 USB Test

1. Windows XP SP2

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

2. Windows Server 2003

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

3. Windows 2000 SP4

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

4. Windows Vista 32 bit

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

5. Windows Server 2008

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

6. Windows 7

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

2.8 Serial Port Test

1. MS-DOS

Item	Description	Result	Remark
1	RS-232 Mouse Test	PASS	
2	RS-422 & RS-485	PASS	
3	PC Check	PASS	
4	TS	PASS	

2. Windows Server 2003

Item	Description	Result	Remark
1	Device Manager Check	PASS	
2	RS-232 Mouse Test	PASS	
3	b&b com port test	PASS	

3. Windows XP SP2

Item	Description	Result	Remark
1	Device Manager Check	PASS	
2	RS-232 Mouse Test	PASS	
3	b&b com port test	PASS	

4. Windows Vista 32 bit

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

5. Windows Server 2008

Item	Description	Result	Remark
1	Device Manager Check	PASS	
2	RS-232 Mouse Test	PASS	
3	b&b com port test	PASS	

6. Windows 7

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

2.9 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 XP SP2

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

3. Windows Vista 32 bit

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

4. Windows Server 2003

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

5. Windows 2000 SP4

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

6. Windows Server 2008

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

7. Windows 7

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

2.10 LAN Test

Data Transfer Test environment:

-CAT 6 UTP 100M

-8 HR. continuous

1. Windows XP SP2

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

2. Windows Server 2003

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

3. Windows Vista 32bit

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

4. Windows 2000 SP4

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

5. Windows Vista 32 bit

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

2.11 Power Supply Test

Item	TYPE	Description	Result	Remark
1	ATX Power	Seventeam ST-300WAP 300W	PASS	
2	ATX Power	HEC WINDMILL PRO 315W	PASS	
3	ATX Power	Seasonic SS-430-HB 430W	PASS	
4	ATX Power	Seventeam ST-300BKV 300W	PASS	
5	ATX Power	COOLER MASTER RS-390-PMSR-A3 390W	PASS	

2.12 Floppy Drive Test

Floppy	Floppy Drive Detect	Floppy Data Transfer
TEAC FD-05HG	PASS	PASS
MITSUMI D353FUE	PASS	PASS
MITSUMI D353GUE	PASS	PASS

2.13 Os Install

Item	Description	Result	Remark
1	Windows 7	PASS	
2	Window Server 2008	PASS	
3	Windows Vista 32 bit	PASS	
4	Windows XP SP2	PASS	
5	Windows Server 2003	PASS	
5	Windows 2000 SP4	PASS	
6	Cent 5	PASS	
7	Fedora 7 i386	PASS	
8	Ubuntu 8.04	PASS	
9	Ubuntu 9.04 (desktop 2.6.28-4-generic)	PASS	

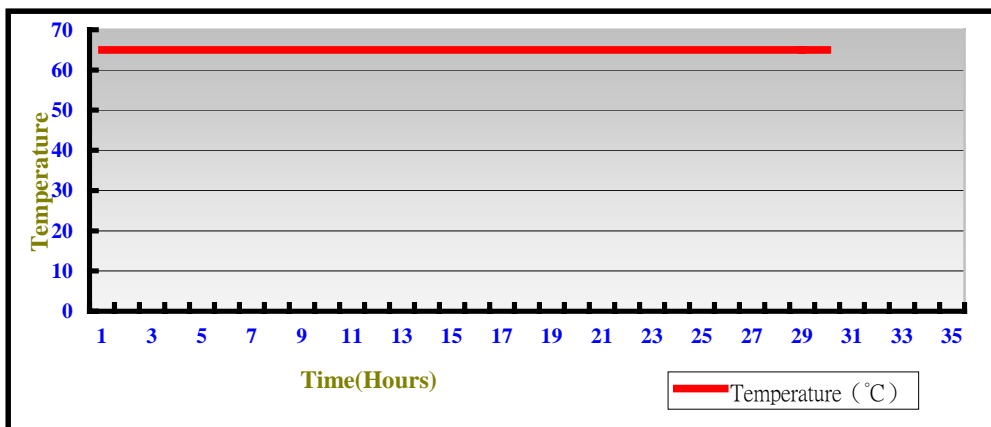
3. Environmental test

3.1 Temperature Test

Hardware Device list:

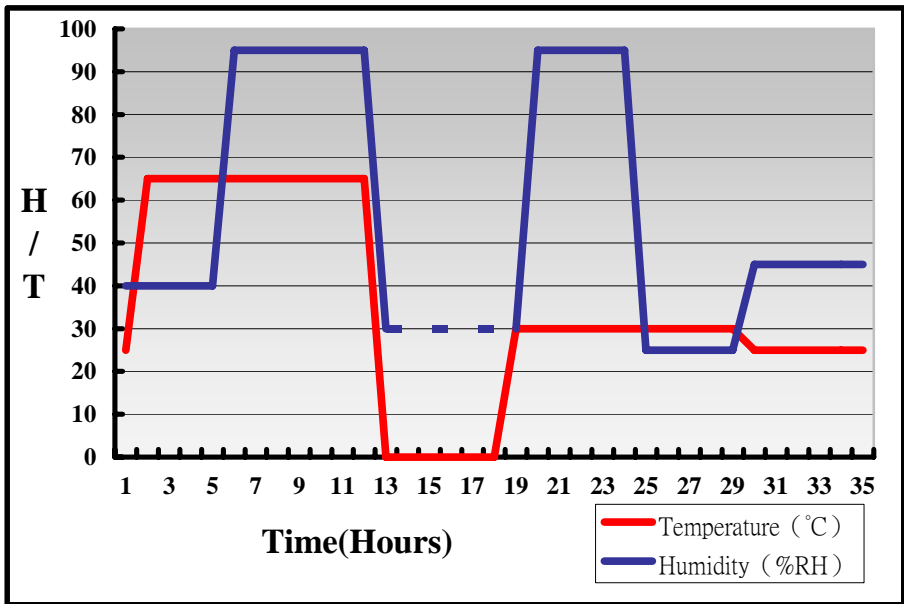
System Board	LV-67D
CPU	Intel Atom N270 1.6GHZ
Memory	Transcend DDRII 800 2GB (A3R1GE3CFF)
HDD	Western Digital WD800JD-75MSA3 80GB
Operating OS	Windows XP
Test Equipment	THERMOTRON 2800 Programmer/Controller
Test Program	3DMark 2003

Test Result:



Hardware Device list:

System Board	LV-67D
CPU	Intel Atom N270 1.6GHZ
Memory	PQI DDRII 667 2GB (7QE22D9HNL)
Operating OS	Windows XP
Test Equipment	GIANT FORCE (GTH-150-60-CP-AR)
Test Program	3DMark 2003



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:

System Board	LV-67D
CPU	Intel Atom N270 1.6GHZ
Memory	PQI DDRII 667 2GB (7QE22D9HNL)
HDD	Western Digital WD800JD-75MSA3 80GB

Temperature	Result	Remark
-25°C	PASS	50 Times
85°C	PASS	50 Times

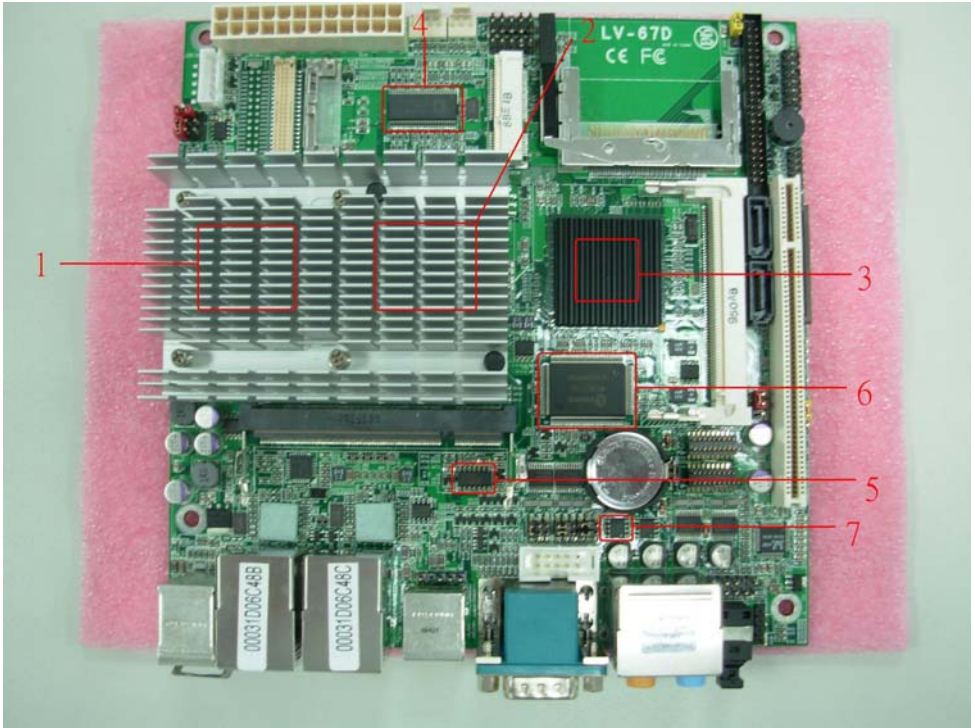
3.2 Thermal measurements at various points on the board

Test Environment :

CPU	Intel Atom N270 1.6GHZ
Memory	Kingston DDRII 533 2GB (D6408TEBGWL37)
HDD	Western Digital WD800JD-75MSA3 80GB
Power	Seventeam ST-300WAP
Operating System	Windows XP
Test Program	3D WinMark2003

Test Result:

Item	Environmental temperature	26°C
1	CPU	47.7°C
2	945GSE(Northbridge)	48.7°C
3	ICH7-M Southbridge)	52.1°C
4	U7(ICS954128)	73.7°C
5	U9(FW323)	50.1°C
6	U14(83627THG)	53.3°C
7	U15(ALC888)	73.7°C



4. Reliability Test

4.1 Power Consumption Test

1. Test Environment:

Motherboard	LV-67D
CPU	Intel Atom N270 1.6GHZ
Memory	Kingston DDRII 533 2GB (D6408TEBGWL37)
HDD	Western Digital WD800JD-75MSA3 80GB

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

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	1.04	12.48	0.62	7.44
5V	2.79	13.95	3.04	15.2
3.3V	0.75	2.475	0.64	2.112
5VSB	0.233	1.165	0.012	0.06

1.a. Test Environment:

The same as above but with LCD panel

Display Panel	CRUUS G084SN03 8.4" LCD
----------------------	-------------------------

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

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	1.04	12.48	0.91	10.92
5V	2.74	13.7	3.07	15.35
3.3V	1.04	3.432	0.92	3.036
5VSB	0.261	1.305	0.015	0.075

2.Test Environment:

Motherboard	LV-67D
CPU	Intel Atom N270 1.6GHZ
Memory	PQI DDRII 667 2GB (7QE22D9HNL)
HDD	Western Digital WD800JD-75MSA3 80GB

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

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	1.08	12.96	0.61	7.32
5V	2.78	13.9	3.05	15.25
3.3V	0.77	2.541	0.64	2.112
5VSB	0.252	1.26	0.01	0.05

2.a.Test Environment:

The same as above but with LCD panel

Display Panel	CRUUS G084SN03 8.4” LCD
----------------------	--------------------------------

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

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	1.05	12.6	0.87	10.44
5V	2.75	13.75	2.54	12.7
3.3V	1.04	3.432	0.94	3.102
5VSB	0.256	1.28	0.01	0.05

3. Test Environment:

Motherboard	LV-67DX
CPU	Intel Atom N270 1.6GHZ
Memory	PQI DDRII 667 2GB (7QE22D9HNL)
HDD	Western Digital WD800JD-75MSA3 80GB

The same as above but with LCD panel

Display Panel	Samaung LTM150XH-L10
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Power Supply: COOLER MASTER RS-390-PMSR-A3

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.13	25.56	2.11	25.32
5V	3.23	16.15	3.58	17.9
3.3V	0.66	2.178	0.68	2.244
5VSB	0.346	1.73	0.018	0.09

5. Performance Test

5.1 Business Win Stone 2002

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
<p>Business Win stone2002</p>	<p>Intel Atom N270 1.6GHz Transcend DDRII 667 2GB (7PE11D9HNL) Western Digital WD800JD-75MSA3 80GB</p>	<p>PASS</p>	<p>23 22.9 22.5 22.5</p>
<p>Business Win stone2002</p>	<p>Intel Atom N270 1.6GHz Kingston DDR 533 2GB (D6408TEBGWL37) Western Digital WD800JD-75MSA3 80GB</p>	<p>PASS</p>	<p>21.2 22.2 20.6 20</p>
<p>Business Win stone2002</p>	<p>Intel Atom N270 1.6GHz PQI DDRII 667 2GB (7QE22D9HNL) Western Digital WD800BB-22JHC0 80GB</p>	<p>PASS</p>	<p>22.8 22.9 22.9 19.3</p>

5.2 Business Win Stone 2004

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
<p align="center">Business Win stone2004</p>	<p align="center">Intel Atom N270 1.6GHz Transcend DDRII 800 2GB (A3R1GE3CFF) Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">PASS</p>	<p align="center">11.2 10.3 11.4 11.3</p>
<p align="center">Business Win stone2004</p>	<p align="center">Intel Atom N270 1.6GHz Transcend DDRII 667 2GB (7PEIID9HNL) Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">PASS</p>	<p align="center">12.3 10.4 11.1 7.6</p>
<p align="center">Business Win stone2004</p>	<p align="center">Intel Atom N270 1.6GHz PQI DDRII 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">PASS</p>	<p align="center">6 12.8 11.8 11.6</p>
<p align="center">Business Win stone2004</p>	<p align="center">Intel Atom N270 1.6GHz PQI DDRII 667 2GB (7QE22D9HNL) Western Digital WD800BB-22JHC0 80GB</p>	<p align="center">PASS</p>	<p align="center">12.8 13.2 13 13</p>

5.3 Content Creation Winstone 2003

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
<p align="center">Content Creation Winstone 2003</p>	<p align="center">Intel Atom N270 1.6GHz PQI DDRII 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">PASS</p>	<p align="center">25 25 24.9 25</p>
<p align="center">Content Creation Winstone 2003</p>	<p align="center">Intel Atom N270 1.6GHz Transcend DDRII 800 2GB (A3R1GE3CFF) Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">PASS</p>	<p align="center">25 25 24.8 25</p>
<p align="center">Content Creation Winstone 2003</p>	<p align="center">Intel Atom N270 1.6GHz Transcend DDRII 667 2GB (7PEIID9HNL) Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">PASS</p>	<p align="center">25.2 25.1 25 25</p>

5.4 Content Creation Winstone 2004

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
Content Creation Winstone 2004	Intel Atom N270 1.6GHz GREENCOM DDRII 667 1GB (E5108AGBG) Western Digital WD800JD-75MSA3 80GB	PASS	14.2 14.1 14.1 14.2
Content Creation Winstone 2004	Intel Atom N270 1.6GHz Transcend DDRII 667 2GB (7PEIID9HNL) Western Digital WD800JD-75MSA3 80GB	PASS	14.2 14.2 14.2 14.1
Content Creation Winstone 2004	Intel Atom N270 1.6GHz GREENCOM DDRII 533 256MB (AET94F370) Western Digital WD800JD-75MSA3 80GB	PASS	13.1 13.1 13.1 13.1
Content Creation Winstone 2004	Intel Atom N270 1.6GHz PQI DDRII 667 2GB (7QE22D9HNL) Western Digital WD800BB-22JHC0 80GB	PASS	13.9 13.8 13.6 13.8

5.5 3D MARK(2001、2003、2005)

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel Atom N270 1.6GHz Transcend DDRII 667 2GB (7PE11D9HNL) Western Digital WD800JD-75MSA3 80GB	PASS	2849
3DMARK2003 Scores		PASS	719
3DMARK2005 Scores		PASS	238

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel Atom N270 1.6GHz Kingston DDRII 533 2GB (D6408TEBGWL37) Western Digital WD800JD-75MSA3 80GB	PASS	2796
3DMARK2003 Scores		PASS	710
3DMARK2005 Scores		PASS	237

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel Atom N270 1.6GHz PQI DDRII 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB	PASS	2860
3DMARK2003 Scores		PASS	742
3DMARK2005 Scores		PASS	252

5.6 3D MARK2006

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel Atom N270 1.6GHz Transcend DDRII 667 2GB (7PE11D9HNL) Western Digital WD800JD-75MSA3 80GB	PASS	84
2	SM2.0 Score		PASS	39
3	HDR/SM3.0 Score		PASS	N/A
4	CPU Score		PASS	491

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel Atom N270 1.6GHz Kingston DDRII 533 2GB (D6408TEBGWL37) Western Digital WD800JD-75MSA3 80GB	PASS	80
2	SM2.0 Score		PASS	36
3	HDR/SM3.0 Score		PASS	N/A
4	CPU Score		PASS	487

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel Atom N270 1.6GHz PQI DDRII 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB	PASS	86
2	SM2.0 Score		PASS	39
3	HDR/SM3.0 Score		PASS	N/A
4	CPU Score		PASS	490

5.7 PC MARK2002

Test Environment
Intel Atom N270 1.6GHz Transcend DDRII 667 2GB (7PE11D9HNL) Western Digital WD800JD-75MSA3 80GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Score	PASS	2654
2	Memory test Score	PASS	6269
3	HDD test Score	PASS	1409

Test Environment
Intel Atom N270 1.6GHz Kingston DDR 533 2GB (D6408TEBGWL37) Western Digital WD800JD-75MSA3 80GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Score	PASS	2649
2	Memory test Score	PASS	5691
3	HDD test Score	PASS	1353

Test Environment

Intel Atom N270 1.6GHz

PQI DDRII 667 2GB (7QE22D9HNL)

Western Digital WD800JD-75MSA3 80GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Score	PASS	2652
2	Memory test Score	PASS	6318
3	HDD test Score	PASS	1432

5.8 PC MARK2004

Test Environment
Intel Atom N270 1.6GHz Transcend DDRII 667 2GB (7PE11D9HNL) Western Digital WD800JD-75MSA3 80GB

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	2049
2	CPU test Score	PASS	2112
3	Memory test Score	PASS	2916
4	Graphic test Score	PASS	637
5	HDD test Score	PASS	N/A

Test Environment
Intel Atom N270 1.6GHz Kingston DDR 533 2GB (D6408TEBGWL37) Western Digital WD800JD-75MSA3 80GB

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	N/A
2	CPU test Score	PASS	N/A
3	Memory test Score	PASS	2596
4	Graphic test Score	PASS	642
5	HDD test Score	PASS	N/A

Test Environment

Intel Atom N270 1.6GHz

PQI DDRII 667 2GB (7QE22D9HNL)

Western Digital WD800JD-75MSA3 80GB

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	2052
2	CPU test Score	PASS	2105
3	Memory test Score	PASS	2968
4	Graphic test Score	PASS	748
5	HDD test Score	PASS	N/A

5.9 PC MARK2005

Test Environment
Intel Atom N270 1.6GHz Transcend DDRII 667 2GB (7PE11D9HNL) Western Digital WD800JD-75MSA3 80GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	1503
2	CPU test Score	PASS	1483
3	Memory test Score	PASS	2391
4	Graphics test Score	PASS	461
5	HDD test Score	PASS	4279

Test Environment
Intel Atom N270 1.6GHz Kingston DDR 533 2GB (D6408TEBGWL37) Western Digital WD800JD-75MSA3 80GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	N/A
2	CPU test Score	PASS	1378
3	Memory test Score	PASS	2343
4	Graphics test Score	PASS	488
5	HDD test Score	PASS	N/A

Test Environment

Intel Atom N270 1.6GHz

PQI DDRII 667 2GB (7QE22D9HNL)

Western Digital WD800JD-75MSA3 80GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	N/A
2	CPU test Score	PASS	1499
3	Memory test Score	PASS	2404
4	Graphics test Score	PASS	525
5	HDD test Score	PASS	4598

5.10 Storage Performance

5.10.1 HDD

Test environment:

OS Windows XP professional SP2

Program (HD Tune)

HDD Model	Interface	Capacity	Average	Burst Rate	Access time
IBM-DTTA-351010 E182115 L2	IDE	10 GB	9.6 MB/sec	28.6 MB/sec	15.7 ms
Seagate ST320413A		20 GB	19.3 MB/sec	25.9 MB/sec	18.6 ms
Western Digital WD800BB-22JHC0		80 GB	26.8 MB/sec	28 MB/sec	14.2 ms
Western Digital WD800BB-00JKC0		80 GB	26.4 MB/sec	28 MB/sec	13.8 ms
Western Digital WD2500JB-00REA0		250 GB	27.3 MB/sec	27.9 MB/sec	13.4 ms
HITACHI HDS721616PLA380	SATA	164 GB	27.9 MB/sec	63 MB/sec	21.8 ms
HITACHI HDS721616PLA380		160 GB	57.7 MB/sec	96.8 MB/sec	14.2 ms
Western Digital WD800JD-75MSA3		80 GB	5.5 MB/sec	5.4 MB/sec	19.9 ms
Western Digital WD2500JB-00REA0		250 GB	27.6 MB/sec	27.7 MB/sec	13.3 ms
Western Digital WD800JD-00LSA0		80 GB	45 MB/sec	92.1 MB/sec	13.8 ms
FUJITSU MHV2080BH PL		80 GB	30.2 MB/sec	75.2 MB/sec	18 ms

ACTIONS USB DISK DEVICE	USB	261MB	0.5 MB/sec	0.5 MB/sec	5.7 ms
Apacer USB FLASH DRIVE		515 MB	8.9 MB/sec	4.6 MB/sec	1.8 ms
USB 2.0 SD/MMC Reader		2GB	13.7 MB/sec	10.9 MB/sec	1.3 ms
TDK LoR Trans-It Drive		4GB	15.1 MB/sec	15.6 MB/sec	1 ms
JetFlash Transcend		8 GB	22 MB/sec	21 MB/sec	0.6 ms
Western Digital WD5000H1Q-00 (My Book)		500 GB	20.8 MB/sec	20.9 MB/sec	14.5ms

5.10.2 CD-ROM

Test environment:

OS Windows XP professional SP2

Program (NERO)

CD-ROM Model	Interface	Average speed	Full READ	Burst Rate	CD
BenQ 652A-6N2	IDE	29.87 x	192 ms	15 MB/s	52 X CD-R
ATAPI 16X 5810		28.14 x	189 ms	21 MB/s	
ASUS CD-SS520/A		11.32 x	120 ms	2 MB/s	
PIONEER DVD-127P		23.68 x	182 ms	18 MB/s	
SONY CDU4811		7.97 x	189 ms	2 MB/s	
NEC ND-3520A		6.11 x	203 ms	19 MB/s	
LG DVD GSA-H62L	SATA	27.31 x	416 ms	35 MB/s	
LG DVD GGW-H20L		7.45 x	294 ms	36 MB/s	
ASUS DVD DRW-1814BLT		28.54 x	169 ms	39 MB/s	
PIONEER DVD DVR-212BK		31.82 x	193 ms	40 MB/s	

LITEON DVD SOSC-2485KX	USB	6.21 x	176 ms	16 MB/s	
LITEON DVD SOSW-833XS		5.49 x	321 ms	16 MB/s	

5.11 Vibration Test

Motherboard	LV-67D		
Test Equipment	VS-5060L		
Amplitude	Frequency	Time (1min/1Time)	Result
0.75mm	5 → 55 → 5 Hz	10	PASS
1.00mm	5 → 55 → 5 Hz	10	PASS
1.25mm	5 → 55 → 5 Hz	10	PASS
1.5mm	5 → 55 → 5 Hz	10	PASS
1.5mm	5 → 55 → 5 Hz	120	PASS