

Product Test Report



Product Name	LV-67F
Product Version	C
Issued Date	31. January.2011
Report Edition	1.0
BIOS Version	1.0
Testing Engineer	Jamin

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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	CPUFAN	Pass
6	SYSFAN	Pass
7	CN_PS2	Pass
8	LAN1	Pass
9	LAN2	Pass
10	DDRIII	Pass
11	SATA1/2/3/4/5/6	Pass
12	USB1/2/3/4/5/6/7/8/9/10	Pass
13	SPDIF	Pass
14	LVDS	Pass
15	INV	Pass
16	DC_IN	Pass
17	Audio	Pass
18	CN_DIO	Pass
19	CN_IR	Pass
20	CN_SMBUS	Pass
21	COM1/2	Pass
22	CD_IN	Pass

23	MINI_CRAD	Pass
24	MINIPCI	Pass
25	PCIE	Pass

Jumper

Item	Description	Result
1	JRTC	Pass
2	JAT	Pass
3	JVLCD	Pass
4	JP1	Pass
5	JP2	Pass
6	JCSEL1	Pass
7	JCSEL2	Pass

1.2 BIOS function

Item	Description	Result	Remark
1	Press 'Del' to run Setup Utility	Pass	Pass
2	Ctrl-Alt-Del – Soft-Reboot	Pass	Pass
3	Save & Exit Setup	Pass	Pass
4	Date & Time Setting	Pass	Pass
5	Halt On	Pass	Pass
6	Boot priority order	Pass	Pass
7	Keyboard Features NumLock	Pass	Pass
8	VGA Setting	Pass	Pass
9	Core Multi-Processing	Pass	Pass
10	Hyper Threading Technology	Pass	Pass
11	Intel (R) SpeedStep(tm)	Pass	Pass
12	Onboard Serial Port	Pass	Pass
13	PCH Usb Control Sub-Menu	Pass	Pass
14	Console Redirection	Pass	Pass
15	Wake-up on LAN(Onboard)	Pass	Pass
16	Smart Fan	Pass	Pass
17	Shutdown Temperature	Pass	Pass
18	CPU Warning Temperature	Pass	Pass
18	Serial port 2(IR)	Pass	Pass
19	Watch Dog Timer	Pass	Pass
20	Total Graphics Memory	Pass	Pass
21	Set Supervisor Password	Pass	Pass
22	Set User Password	Pass	Pass
23	ACPI Control Sub-Menu	Pass	Pass
24	AHCI (SATA Mode)	Pass	Pass
25	PWRON After PWR-Fail	Pass	Pass

Item	Description	Result	Remark
26	Full screen Logo	Pass	Pass

1.3 Driver

CDdition : IPCI3-1.0

1. Windows XP SP3 Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1025
2	VGA Driver	Pass	6.14.10.5268
3	Audio Driver	Pass	5.10.0.5464
4	LAN Driver	Pass	10.3.49.0

2. Windows XP 64 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1025
2	VGA Driver	Pass	6.14.10.5189
3	Audio Driver	Pass	6.1.7600.16385
4	LAN Driver	Pass	10.3.49.0

3. Windows Server 2003 Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1025
2	VGA Driver	Pass	
3	Audio Driver	Pass	5.10.0.5464
4	LAN Driver	Pass	10.3.49.0

4. Windows Vista 32 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1025
2	VGA Driver	Pass	
3	Audio Driver	Pass	6.0.1.6257
4	LAN Driver	Pass	11.7.32.0

5. Windows Vista 64 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1025
2	VGA Driver	Pass	8.15.10.2226
3	Audio Driver	Pass	6.0.1.6257
4	LAN Driver	Pass	11.7.32.0

6. Windows 7 32 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1025
2	VGA Driver	Pass	8.15.10.2226
3	Audio Driver	Pass	6.0.1.6257
4	LAN Driver	Pass	11.7.32.0

7. Windows 7 64 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1025
2	VGA Driver	Pass	8.15.10.2226
3	Audio Driver	Pass	6.0.1.6257
4	LAN Driver	Pass	11.0.5.22

8. Windows 2008 32 bit Driver Test

Item	Description	Result	Version
1	Chipset Driver	Pass	9.1.1.1025
2	VGA Driver		
3	Audio Driver	Pass	6.0.1.6257
4	LAN Driver	Pass	11.7.32.0

9. Windows 2008 64 bit Driver Test

Item	Description	Result	Version
1	Chipset Driver	Pass	9.1.1.1025
2	VGA Driver		
3	Audio Driver	Pass	6.0.1.6235
4	LAN Driver	Pass	11.7.32.0

2. Compatibility test

2.1 CPU Test

Test environment:

OS :Windows XP professional SP3

Test program : PC MARK 2005

Spec	Clock Speed	Family	Processor	DMI	Cache Size	Result
<u>SLBNL</u>	1.86 GHz	Celeron	P4500	2.5 GT/s	2M	Pass
<u>SLBJJ</u>	1.73 GHz	Core	i7-820QM	2.5 GT/s	8M	Pass
<u>SLBLC</u>	2.4 GHz	Core	I5-520M	2.5 GT/s	3M	Pass
<u>SLBMQ</u>	2.26 GHz	Core	i3-350M	2.5 GT/s	3M	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	K4B2G0 846B	DDRIII 1066	4GB	Pass
PQI	H5TQ2G 83AFR	DDRIII 1333	4GB	Pass
PQI	H5TQ2G 83AFR	DDRIII 1333	2GB	Pass
Transcend	K4B1G 0846D	DDRIII 1066	2GB	Pass
Transcend	K4B1G 03450	DDRIII 1066	1GB	Pass
TLA	H5TQ2G 83BFR	DDRIII 1333	4G	Pass
TLA	H5TQ2G 83BFR	DDRIII 1066	4G	Pass

VGA Graphic Quality Test

Test environment:

OS Windows XP professional SP3

Driver version : 6.14.10.5268

Resolution	Color	Result	Remark
800 x 600	16 /32bit	Pass	Pass
1024 x 768	16 /32bit	Pass	Pass
1280 x 600	16 /32bit	Pass	Pass
1280 x 720	16 /32bit	Pass	Pass
1280 x 768	16 /32bit	Pass	Pass
1280 x 960	16 /32bit	Pass	Pass
1280 x 1024	16 /32bit	Pass	Pass
1680 x 1200	16 /32bit	Pass	Pass
1920 x 1080	16 /32bit	Pass	Pass
1920 x 1200	16 /32bit	Pass	Pass

2.4 Audio

Test envirement:

OS Windows XP professional SP3

Driver version : 5.10.0.5464

Item	Description	Result	Remark
1	7.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

OS Windows XP professional x64 Edition

Driver version : 6.1.7600.16385

Item	Description	Result	Remark
1	7.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

OS Windows SERVER 2003

Driver version : 5.10.0.5464

Item	Description	Result	Remark
1	7.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

OS Windows Vista 32 bit

Driver version : 6.0.1.6257

Item	Description	Result	Remark
1	7.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

OS Windows Vista 64 bit

Driver version : 6.0.1.6257

Item	Description	Result	Remark
1	7.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

OS Windows 7 32 bit

Driver version : 6.0.1.6257

Item	Description	Result	Remark
1	7.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

OS Windows 7 64 bit

Driver version : 6.0.1.6257

Item	Description	Result	Remark
1	7.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

OS Windows 2008 32 bit

Driver version : 6.0.1.6257

Item	Description	Result	Remark
1	7.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

OS Windows 2008 64 bit

Driver version : 6.0.1.6235

Item	Description	Result	Remark
1	7.1CH	Pass	Pass
2	Microphone	Pass	Pass
3	LINE	Pass	Pass
4	CDIN	Pass	Pass
5	SPDIF	Pass	Pass

2.5 HDD Test

Test envirimnt:

OS Windows XP professional SP3

HDD MODEL	INTERFACE	capacity	HDD Size Detect	HDD Data Transfer	HDD LED Check
Western Digital WD1600AAJS	3.5 SATA	160GB	Pass	Pass	Pass
Western Digital WD2500AAJS		250GB	Pass	Pass	Pass
Western Digital WD5000AAKS		500GB	Pass	Pass	Pass
Western Digital WD2500BEVT	2.5 SATA	250GB	Pass	Pass	Pass
Western Digital WD3200BEKT		320GB	Pass	Pass	Pass

2.6 CD-ROM Test

Test envirement:

OS Windows XP professional SP2

CD-ROM MODEL	INTERFACE	CD-ROM Detect	CD-ROM Data Transfer	PLAY DVD
BENQ DVD DW200S	SATA	Pass	Pass	Pass
LG DVD GSA-H62L	SATA	Pass	Pass	Pass
SONY AD7240S	SATA	Pass	Pass	Pass
LITEON DVD SOSW-833XS	USB	Pass	Pass	Pass
LITEON DVD SOSC-2485KX	USB	Pass	Pass	Pass
LITEON DVD ETAU108	USB	Pass	Pass	Pass
MATSHITA DVD EBC100	USB	Pass	Pass	Pass

2.7 USB Test

1. Windows XP SP3

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

2. Windows XP 64 bit

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

3. Windows Server 2003

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

4. Windows Vista 32 bit

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

5. Windows Vista 64 bit

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

6. Windows 7 32 bit

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

7. Windows 7 64 bit

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

8. Windows 2008 32 bit

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

9. Windows 2008 64 bit

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

2.8 Serial Port Test

1. MS-DOS

Item	Description	Result	Remark
1	RS-422 & RS-485	Pass	Pass
2	PC Check	Pass	Pass
	TS		

2. Windows XP SP3

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

3. Windows XP 64 bit

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

4. Windows Server 2003

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

5. Windows Vista 32 bit

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

6. Windows Vista 64 bit

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

7. Windows 7 32 bit

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

8. Windows 7 64 bit

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

9. Windows 2008 32 bit

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

10. Windows 2008 64 bit

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

2.9 PS2 Keyboard 、 Mouse Test

1. MS-DOS

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

2. Windows XP SP3

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

3. Windows XP 64 bit

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

4. Windows Server 2003

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

5. Windows Vista 32 bit

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

6. Windows Vista 64 bit

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

7. Windows 7 32 bit

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

8. Windows 7 64 bit

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

9. Windows 2008 32 bit

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

10. Windows 2008 64 bit

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

2.10 LAN Test

Data Transfer Test envirement:

-CAT 6 UTP 100M

-8 HR. continuous

1. Windows XP SP3

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

2. Windows XP 64 bit

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

3. Windows Server 2003

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

5. Windows Vista 32 bit

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

6. Windows Vista 64 bit

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

7. Windows 7 32 bit

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

8. Windows 7 64 bit

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

9. Windows 2008 32 bit

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

10. Windows 2008 64 bit

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

2.11 Power Supply Test

Item	TYPE	Description	Result	Remark
1	COOLER MASTER	RS-390-PMSR-A3	Pass	Pass
2	AcBel	ATX-350P-DNSS	Pass	Pass
3	CWT	CWT-300BS	Pass	Pass
4	CWT	CWT-300ATX12	Pass	Pass
5	Seventeam	ST-400EAG-05F	Pass	Pass
6	Snake	PT-300W	Pass	Pass
7	Snake	PK-350W	Pass	Pass

2.12 Os Install

Item	Description	Result	Remark
1	Windows Server 2003	Pass	Pass
2	Windows XP SP3	Pass	Pass
3	Windows XP 64 bit	Pass	Pass
4	Windows Vista 32 bit	Pass	Pass
5	Windows Vista 64 bit	Pass	Pass
6	Windows 7 32 bit	Pass	Pass
7	Windows 7 64 bit	Pass	Pass
8	Windows 2008 32 bit	Pass	Pass
9	Windows 2008 64 bit	Pass	Pass
10	Ubuntu 9.04	Pass	Pass

2.13 PCI Express Mini Card

Motherboard	PCI Express mini card	Remark
LV-67F	MPX-954	Pass
LV-67F	MPX-954E	Pass
LV-67F	MPX-643	Pass
LV-67F	MPX-1040	Pass
LV-67F	MPX-574D	Pass
LV-67F	MPX-574D2	Pass
LV-67F	MPX-827	Pass
LV-67F	MPX-7767	Pass
LV-67F	MPX-3132	Pass
LV-67F	MPX-7202	Pass
LV-67F	MPX-SDVOD	Pass(VER:D)
LV-67F	MPX-TP4R	Pass

2.14 Minipci Card

Motherboard	PCI Express mini card	Remark
LV-67F	MP-954	Pass
LV-67F	MP-840	Pass
LV-67F	MP-323	Pass
LV-67F	MP-541	Pass
LV-67F	MP-541D2	Pass
LV-67F	MP-878	Pass
LV-67F	MP-878D	Pass
LV-67F	MP-878D2	Pass
LV-67F	MP-954GPS	Pass
LV-67F	MP-2501	Pass
LV-67F	MP-60102	Pass
LV-67F	MP-6421	Pass
LV-67F	MP-6802	Pass
LV-67F	MP-9200	Pass

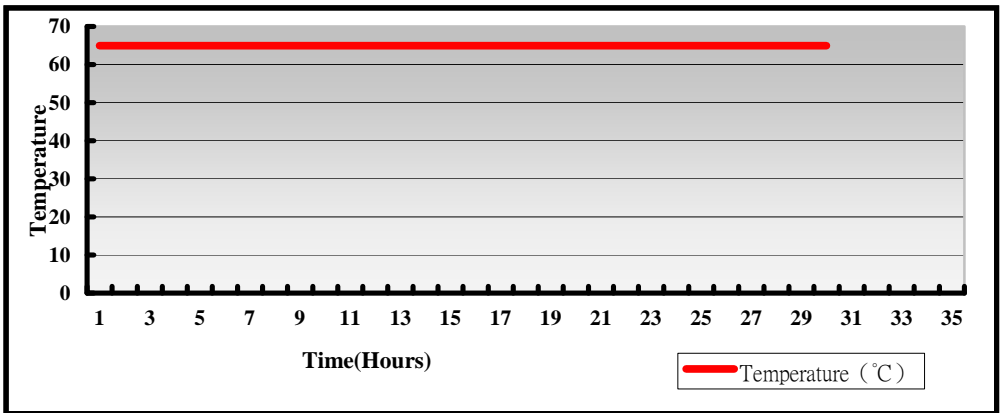
3. Environmental test

3.1 Temperature Test

Hardware Device list:

System Board	LV-67F
CPU	Intel(R) Core(TM) CPU i3- 350M 2.27GHz
Memory	Transcend DDRIII 1066 (K481G0846D)2G
HDD	Western Digital 160GB (WD1600AAJS)
Operating OS	Windows XP
Test Equipment	THERMOTRON 2800 Programmer/Controller
Test Program	3DMark 2003 + Prime95

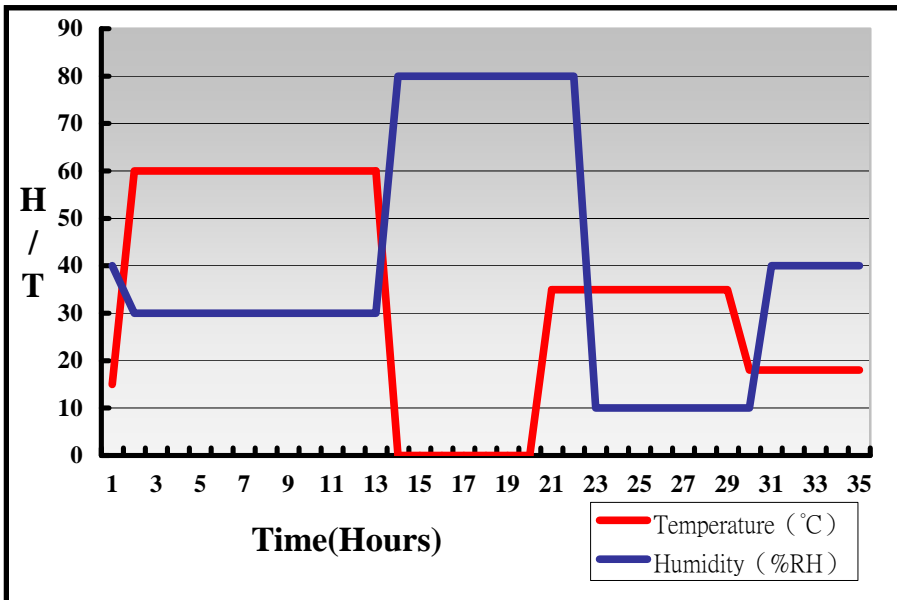
Test Result:



Hardware Device list:

System Board	LV-67F
CPU	Intel(R) Core(TM) CPU i3- 350M 2.27GHz
Memory	Transcend DDRIII 1066 (K481G0846D)2G
HDD	Western Digital 160GB (WD1600AAJS)
Operating OS	Windows XP
Test Equipment	THERMOTRON 2800 Programmer/Controller
Test Program	3DMark 2003

Test Result:



Boot Up Test:

Hardware Device list:

System Board	LV-67F
CPU	Intel(R) Core(TM) CPU i3- 350M 2.27GHz
Memory	Transcend DDRIII 1066 (K481G0846D)2G
HDD	Western Digital 160GB (WD1600AAJS)

Temperature	Result	Remark
0°C	Pass	50 Times.
65°C	Pass	50 Times

3.2 Thermal measurements at various points on the board

Test Environment :

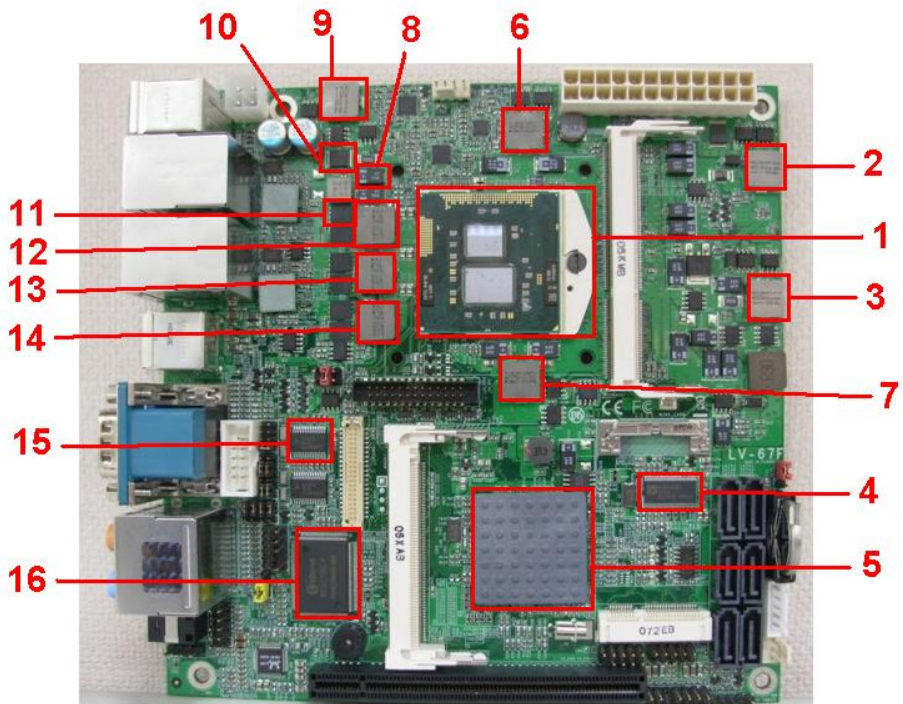
CPU	Intel(R) Core(TM) CPU i5- 520M 2.40GHz
Memory	Transcend DDRIII 1066 (K481G0846D)2G
HDD	Western Digital 160GB (W D1600AAJS)
Power	SNAKE 350W (PK-350)
Operating System	Windows XP
Test Program	3DMARK2003,Prime95

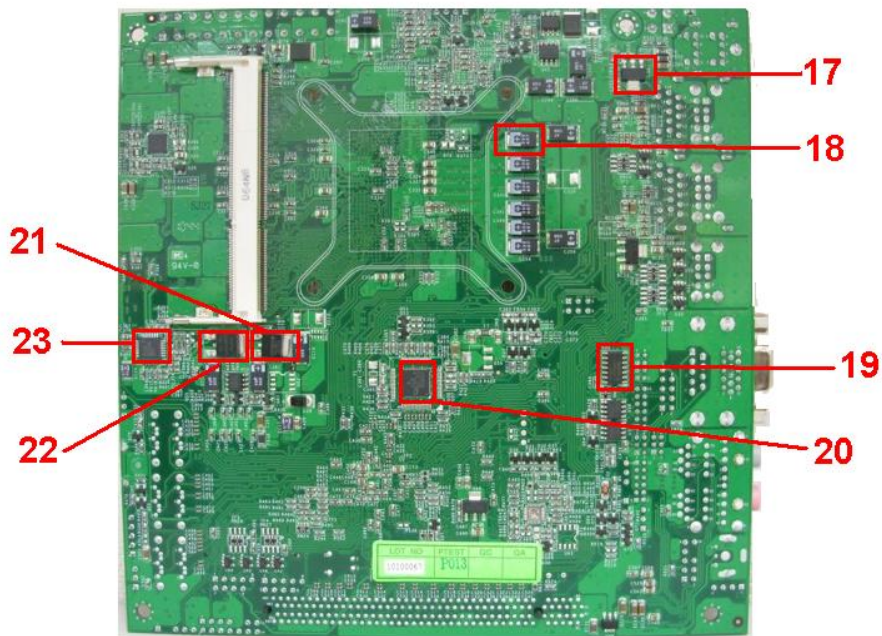
Test Result:

Environmental temperature	26.9
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Item	name	temperature
1	CPU	30.4
2	LC2(LLC12UH)	43.4
3	LC4(LLC12UH)	60.3
4	U22(ICS9LP505)	65.6
5	PCH(ICHQM57)	54.5
6	GL1	36.5
7	L6(LLC0.45UH)	45.4
8	C47	44.1
9	LC1	31.2
10	D3(TMSFM1040T)	41.7
11	Q11(TMSIRFH7914PBF)	49.5
12	L2(LLCO36UH/0445)	46.9
13	L3	48.7

14	L4	47.2
15	U19(ICADM213ECA-T)	43.9
16	LPCIO(ICBCP69)	42.0
17	Lq1	47.3
18	C305	55.5
19	U35(ITS74F125)	41.2
20	U36(ICH7318)	49.3
21	Q34(TRE1085)	58.2
22	Q74	68.0
23	U34(ISL6537ACR)	62.7
24	Heat Sink	24.5







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4. Reliability Test

4.1 Power Consumption Test

1. Test Environment:

Motherboard	LV-67F
CPU	Intel(R) Celeron (R) CPU P4500 1.87 GHz
Memory	PQI DDR3 1333 4G (H5TQ2G83AFR)
	Kingston DDR3 1066 4G (K4B2G0846B)
HDD	Western Digital 250GB (WD2500AAJS)

(A) Power Supply: SNAKE PK-350W

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	0.76	9.12	1.14	13.68
5V	4.45	22.25	4.74	23.7
3.3V	1.02	3.366	1.1	3.63
5VSB	0.152	0.76	0.148	0.74

1.a.Test Environment:

The same as above but with LCD panel

Display Panel	AUO M170EG01 17" LCD
----------------------	-----------------------------

(A) Power Supply: SNAKE PK-350W

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	1.72	20.64	3.08	36.96
5V	6.26	31.3	7.77	38.85
3.3V	0.66	2.178	1.01	3.333
5VSB	0.399	1.995	0.12	0.6

1.b.Test Environment:

The same as above but with PCI-E Graphics card

Graphics card	GIGABYTE GV-NX76G256D-RH
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(A) Power Supply: SNAKE PK-350W

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	1.88	22.56	3.25	39
5V	5.02	25.1	4.78	23.9
3.3V	1.45	4.785	2.07	6.831
5VSB	0.239	1.195	0.032	0.16

2.Test Environment:

Motherboard	LV-67F
CPU	Intel(R) Core(TM) CPU i7- 820QM 1.73GHz
Memory	PQI DDR3 1333 4G (H5TQ2G83AFR)
	Kingston DDR3 1066 4G (K4B2G0846B)
HDD	Western Digital 250GB (WD2500AAJS)
Graphics card	GIGABYTE GV-NX76G256D-RH

(A) Power Supply: SNAKE PK-350W

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.09	37.08	5.17	62.04
5V	6.48	32.4	5.23	26.15
3.3V	3.03	9.999	4	13.2
5VSB	0.281	1.405	0.004	0.02

Power Consumption Test

3.Test Environment:

Motherboard	LV-67F
CPU	Intel(R) Celeron (R) CPU P4500 1.87 GHz
Memory	PQI DDR3 1333 4G (H5TQ2G83AFR)
	Kingston DDR3 1066 4G (K4B2G0846B)
HDD	Western Digital 250GB (WD2500AAJS)

(A) Power Supply: SNAKE PK-350W

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	0.81	9.72	1.1	13.2
5V	4.22	21.1	5.95	29.75
3.3V	0.54	1.782	1.19	3.927
5VSB	0.352	1.76	0.072	0.36

(B)DC Power Supply: GWINSTEK SPS-3610

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.67	44.04	4.75	57
24V	1.81	43.44	2.61	62.64

3.a.Test Environment:

The same as above but with LCD panel

Display Panel	AUO M170EG01 17" LCD
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(A) Power Supply: SNAKE PK-350W

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.1	25.2	2.65	31.8
5V	5.39	26.95	7.4	37
3.3V	0.57	1.881	0.97	3.201
5VSB	0.25	1.25	0.094	0.47

(B)DC Power Supply: GWINSTEK SPS-3610

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	5.09	61.08	7.11	85.32
24V	2.56	61.44	3.46	83.04

3.b.Test Environment:

The same as above but with PCI-E Graphics card

Graphics card	GIGABYTE GV-NX76G256D-RH
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(A) Power Supply: SNAKE PK-350W

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	1.8	21.6	3.21	38.52
5V	5.74	28.7	3.95	19.75
3.3V	1.19	3.927	2.55	8.415
5VSB	0.35	1.75	0.021	0.105

4. Test Environment:

Motherboard	LV-67F
CPU	Intel(R) Core(TM) CPU i7- 820QM 1.73GHz
Memory	PQI DDR3 1333 4G (H5TQ2G83AFR)
	Kingston DDR3 1066 4G (K4B2G0846B)
HDD	Western Digital 250GB (WD2500AAJS)
Graphics card	GIGABYTE GV-NX76G256D-RH

(A) Power Supply: SNAKE PK-350W

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.53	30.36	5.12	61.44
5V	6.99	34.95	4.83	24.15
3.3V	2.05	6.765	5.18	17.094
5VSB	0.344	1.72	0.144	0.72

5. Test Environment:

Motherboard	LV-67F
CPU	Intel(R) Core(TM) CPU i3- 350M 2.27GHz
Memory	PQI DDR3 1333 4G (H5TQ2G83AFR)
	Kingston DDR3 1066 4G (K4B2G0846B)
HDD	Western Digital 250GB (WD2500AAJS)

(A) Power Supply: SNAKE PK-350W

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	1.12	13.44	1.65	19.8
5V	4.15	20.75	6.46	77.52
3.3V	0.7	2.31	1.65	5.445
5VSB	0.348	1.74	0.106	0.53

(B) DC Power Supply: SNAKE PK-350W

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	4.95	59.4	6.14	73.68
24v	2.45	58.8	3.03	72.72

5.a.Test Environment:

The same as above but with LCD panel

Display Panel	LTM150XH-L01 15" LCD
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(A) Power Supply: SNAKE PK-350W

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	1.83	21.96	3.58	42.96
5V	5.7	28.5	7.53	37.65
3.3V	0.89	2.937	1.14	3.762
5VSB	0.328	1.64	0.113	0.565

(B) DC Power Supply: SNAKE PK-350W

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	6.96	83.52	9.23	110.76
24v	3.08	73.92	4.44	106.56

5.b.Test Environment:

The same as above but with PCI-E Graphics card

Graphics card	GIGABYTE GV-NX76G256D-RH
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(A) Power Supply: SNAKE PK-350W

Voltage	MS-DOS Boot up		Windows XP SP2 3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.38	28.56	2.39	28.68
5V	5.06	25.3	4.7	23.5
3.3V	1.67	5.511	2.06	6.798
5VSB	0.265	1.325	0.012	0.06

5. Performance Test

5.1 Business Win Stone 2002

Windows XP SP3

WEIGHTED SUITE	Test Environment	Result	Remark
<p align="center">Business Win stone2002</p>	<p align="center">Intel(R) Celeron (R) CPU P4500 1.87 GHz TLA DDRIII 1066 (H5TQ2G83BFR)4G Western Digital 160GB (W D1600AAJS)</p>	<p align="center">Pass</p>	<p align="center">40.9 41 40.7 40.8</p>
<p align="center">Business Win stone2002</p>	<p align="center">Intel(R) Core(TM) CPU i3- 350M 2.27GHz TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital 160GB (WD1600AAJS)</p>	<p align="center">Pass</p>	<p align="center">44 43.2 44 42.7</p>
<p align="center">Business Win stone2002</p>	<p align="center">Intel(R) Core(TM) CPU I5-520M 2.40GHZ TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital 160GB (WD1600AAJS)</p>	<p align="center">Pass</p>	<p align="center">46.3 46.2 45 43.8</p>

WEIGHTED SUITE	Test Environment	Result	Remark
<p align="center">Business Win stone2002</p>	<p align="center">Intel(R) Celeron (R) CPU P4500 1.87 GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital 160GB (WD1600AAJS)</p>	<p align="center">Pass</p>	<p align="center">44 45 40.1 40.5</p>
<p align="center">Business Win stone2002</p>	<p align="center">Intel(R) Core(TM) CPU i3- 350M 2.27GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital 160GB (WD1600AAJS)</p>	<p align="center">Pass</p>	<p align="center">46.4 47 46.3 45.7</p>
<p align="center">Business Win stone2002</p>	<p align="center">Intel(R) Core(TM) CPU I5-520M 2.40GHZ Transcend DDRIII 1066 (K481G0846D)2G Western Digital 160GB (WD1600AAJS)</p>	<p align="center">Pass</p>	<p align="center">47.4 47.5 46 47.1</p>

5.2 Business Win Stone 2004

Windows XP SP3

WEIGHTED SUITE	Test Environment	Result	Remark
<p align="center">Business Win stone2004</p>	<p align="center">Intel(R) Celeron (R) CPU P4500 1.87 GHz TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital 160GB (W D1600AAJS)</p>	<p align="center">Pass</p>	<p align="center">17.6 23.8 25.8 25.2</p>
<p align="center">Business Win stone2004</p>	<p align="center">Intel(R) Core(TM) CPU i3- 350M 2.27GHz TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital 160GB (WD1600AAJS)</p>	<p align="center">Pass</p>	<p align="center">23.8 22.5 24.3 22</p>
<p align="center">Business Win stone2004</p>	<p align="center">Intel(R) Core(TM) CPU i5- 520M 2.40GHz TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital160GB (WD1600AAJS)</p>	<p align="center">Pass</p>	<p align="center">25.5 24.1 27.4 26.7</p>

WEIGHTED SUITE	Test Environment	Result	Remark
Business Win stone2004	P4500 1.87 GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital160GB (WD1600AAJS)	Pass	21.2 21.4 23.9 25.5
Business Win stone2004	Intel(R) Core(TM) CPU i3- 350M 2.27GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital160GB (WD1600AAJS)	Pass	25.7 26.1 25.3 25.4
Business Win stone2004	Intel(R) Core(TM) CPU i5- 520M 2.40GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital160GB (WD1600AAJS)	Pass	26.3 26.3 26.3 27.4

5.3 Content Creation Winstone 2001

Windows XP SP3

WEIGHTED SUITE	Test Environment	Result	Remark
<p align="center">Content Creation Winstone 2001</p>	<p align="center">Intel(R) Celeron (R) CPU P4500 1.87 GHz TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital 160GB (W D1600AAJS)</p>	<p align="center">Pass</p>	<p align="center">129.1 128.3 124.3 123.7 125.2</p>
<p align="center">Content Creation Winstone 2001</p>	<p align="center">Intel(R) Core(TM) CPU i3- 350M 2.27GHz TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital160GB (WD1600AAJS)</p>	<p align="center">Pass</p>	<p align="center">137.5 135.2 137.3 137.3 134.9</p>
<p align="center">Content Creation Winstone 2001</p>	<p align="center">Intel(R) Core(TM) CPU i5- 520M 2.40GHz TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital160GB (WD1600AAJS)</p>	<p align="center">Pass</p>	<p align="center">156.3 157.1 157.5 158.3 157.2</p>

WEIGHTED SUITE	Test Environment	Result	Remark
Content Creation Winstone 2001	P4500 1.87 GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital160GB (WD1600AAJS)	Pass	121.8 126.4 125.4 122.2 123.6
Content Creation Winstone 2001	Intel(R) Core(TM) CPU i3- 350M 2.27GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital160GB (WD1600AAJS)	Pass	135.5 134 135.1 135.4 136.4
Content Creation Winstone 2001	Intel(R) Core(TM) CPU i5- 520M 2.40GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital160GB (WD1600AAJS)	Pass	155.9 155.9 157.1 156.8 157.5

5.4 Content Creation Winstone 2004

Windows XP SP3

WEIGHTED SUITE	Test Environment	Result	Remark
<p align="center">Content Creation Winstone 2004</p>	<p align="center">Intel(R) Celeron (R) CPU P4500 1.87 GHz TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital 160GB (W D1600AAJS)</p>	<p align="center">Pass</p>	<p align="center">38.5 39.6 39.6 39.6</p>
<p align="center">Content Creation Winstone 2004</p>	<p align="center">Intel(R) Core(TM) CPU i3- 350M 2.27GHz TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital160GB (WD1600AAJS)</p>	<p align="center">Pass</p>	<p align="center">43.9 43.8 43.8 43.6</p>
<p align="center">Content Creation Winstone 2004</p>	<p align="center">Intel(R) Core(TM) CPU i5- 520M 2.40GHz TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital160GB (WD1600AAJS)</p>	<p align="center">Pass</p>	<p align="center">45.3 45.5 44.6 44.4</p>

WEIGHTED SUITE	Test Environment	Result	Remark
Content Creation Winstone 2004	P4500 1.87 GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital160GB (WD1600AAJS)	Pass	39.6 39.3 39.7 39.3
Content Creation Winstone 2004	Intel(R) Core(TM) CPU i3- 350M 2.27GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital160GB (WD1600AAJS)-	Pass	39.2 37.1 36.6 37.2
Content Creation Winstone 2004	Intel(R) Core(TM) CPU i5- 520M 2.40GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital160GB (WD1600AAJS)-	Pass	44.2 43.8 44 44.4

5.5 3D MARK(2001 、 2003 、 2005)

Windows XP SP3

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Celeron (R) CPU P4500 1.87 GHz TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital 160GB (W D1600AAJS)	Pass	8189
3DMARK2003 Scores		Pass	3198
3DMARK2005 Scores		Pass	2186

3DMARK2001 Scores	Intel(R) Celeron (R) CPU P4500 1.87 GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital 160GB (WD1600AAJS)	Pass	8199
3DMARK2003 Scores		Pass	3200
3DMARK2005 Scores		Pass	2191

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Core(TM) CPU i3- 350M 2.27GHz TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital 160GB (WD1600AAJS)	Pass	9080
3DMARK2003 Scores		Pass	3235
3DMARK2005 Scores		Pass	2189

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Core(TM) CPU i3- 350M 2.27GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital 160GB (WD1600AAJS)	Pass	8189
3DMARK2003 Scores		Pass	3209
3DMARK2005 Scores		Pass	2182

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Core(TM) CPU i5- 520M 2.40GHz TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital 160GB (WD1600AAJS)	Pass	9205
3DMARK2003 Scores		Pass	3239
3DMARK2005 Scores		Pass	2192

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Core(TM) CPU i5- 520M 2.40GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital 160GB (WD1600AAJS)	Pass	9501
3DMARK2003 Scores		Pass	3223
3DMARK2005 Scores		Pass	2179

5.6 3D MARK2006

Windows XP SP3

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel(R) Celeron (R) CPU P4500 1.87 GHz Kingston DDR3 1066 4G (K4B2G0846B) Western Digital 160GB (W D1600AAJS)	Pass	1385
2	SM2.0 Source		Pass	425
3	HDR/SM3.0 Source		Pass	568
4	CPU Source		Pass	1603

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel(R) Celeron (R) CPU P4500 1.87 GHz TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital 160GB (W D1600AAJS)	Pass	1318
2	SM2.0 Source		Pass	430
3	HDR/SM3.0 Source		Pass	512
4	CPU Source		Pass	1605

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	P4500 1.87 GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital 160GB (WD1600AAJS)	Pass	1323
2	SM2.0 Source		Pass	432
3	HDR/SM3.0 Source		Pass	514
4	CPU Source		Pass	1608

Windows XP SP3

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel(R) Core(TM) CPU i3- 350M 2.27GHz TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital 160GB (WD1600AAJS)	Pass	1344
2	SM2.0 Source		Pass	433
3	HDR/SM3.0 Source		Pass	514
4	CPU Source		Pass	2352

Windows XP SP3

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel(R) Core(TM) i3 CPU M350 2.27GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital 160GB (WD1600AAJS)	Pass	1411
2	SM2.0 Source		Pass	432
3	HDR/SM3.0 Source		Pass	574
4	CPU Source		Pass	1824

Windows XP SP3

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel(R) Core(TM) CPU i5- 520M 2.40GHz TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital 160GB (WD1600AAJS)	Pass	1355
2	SM2.0 Source		Pass	432
3	HDR/SM3.0 Source		Pass	513
4	CPU Source		Pass	2045

Windows XP SP3

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel(R) Core(TM) CPU i5- 520M 2.40GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital 160GB (WD1600AAJS)	Pass	1438
2	SM2.0 Source		Pass	431
3	HDR/SM3.0 Source		Pass	581
4	CPU Source		Pass	2540

5.7 PC MARK2002

Test Environment
Intel(R) Celeron (R) CPU P4500 1.87 GHz TLA DDRIII 1333 4G (H5TQ2G83BFR) Western Digital 160GB (W D1600AAJS)

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	6965
2	Memory test Source	Pass	19057
3	HDD test Source	Pass	1833

Test Environment
Intel(R) Celeron (R) CPU P4500 1.87 GHz Transcend DDRIII 1066(K481G0846D)2G Western Digital 160GB (WD1600AAJS)

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	6963
2	Memory test Source	Pass	19133
3	HDD test Source	Pass	1768

Test Environment
Intel(R) Core(TM) CPU i3- 350M 2.27GHz TLA DDRIII 1333(H5TQ2G83BFR)4G Western Digital 160GB (WD1600AAJS)

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	8517
2	Memory test Source	Pass	29952
3	HDD test Source	Pass	1495

Test Environment
Intel(R) Core(TM) CPU i3- 350M 2.27GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital 160GB (WD1600AAJS)

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	7707
2	Memory test Source	Pass	37726
3	HDD test Source	Pass	1651

Test Environment
Intel(R) Core(TM) CPU i5- 520M 2.40GHz TLA DDRIII 1333(H5TQ2G83BFR)4G Western Digital160GB (WD1600AAJS)

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	8881
2	Memory test Source	Pass	31872
3	HDD test Source	Pass	1366

Test Environment
Intel(R) Core(TM) i5 CPU 520M 2.40GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital 160GB (WD1600AAJS)

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	8618
2	Memory test Source	Pass	37655
3	HDD test Source	Pass	1890

5.8 PC MARK2004

Test Environment
Intel(R) Celeron (R) CPU P4500 1.87 GHz TLA DDRIII 1333 4G(H5TQ2G83BFR) Western Digital 160GB (W D1600AAJS)

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	5837
2	CPU test Source	Pass	5233
3	Memory test Source	Pass	4922
4	Graphic test Source	Pass	2091
5	HDD test Source	Pass	4958

Test Environment
P4500 1.87 GHz Transcend DDRIII 1066(K481G0846D)2G Western Digital 160GB (WD1600AAJS)

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	5610
2	CPU test Source	Pass	5182
3	Memory test Source	Pass	4926
4	Graphic test Source	Pass	2092
5	HDD test Source	Pass	4962

Test Environment
Intel(R) Core(TM) CPU i3- 350M 2.27GHz TLA DDRIII 1333(H5TQ2G83BFR)4G Western Digital 160GB (WD1600AAJS)

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	5966
2	CPU test Source	Pass	5342
3	Memory test Source	Pass	5634
4	Graphic test Source	Pass	2103
5	HDD test Source	Pass	4854

Test Environment
Intel(R) Core(TM) CPU i3- 350M 2.27GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital 160GB (WD1600AAJS)

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	5946
2	CPU test Source	Pass	5288
3	Memory test Source	Pass	4713
4	Graphic test Source	Pass	2050
5	HDD test Source	Pass	5387

Test Environment
Intel(R) Core(TM) CPU i5- 520M 2.40GHz TLA DDRIII 1333(H5TQ2G83BFR)4G Western Digital160GB (WD1600AAJS)

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	6382
2	CPU test Source	Pass	5364
3	Memory test Source	Pass	6484
4	Graphic test Source	Pass	2034
5	HDD test Source	Pass	5448

Test Environment
Intel(R) Core(TM) i5 CPU 520M 2.40GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital 160GB (WD1600AAJS)

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	6213
2	CPU test Source	Pass	5311
3	Memory test Source	Pass	6388
4	Graphic test Source	Pass	2132
5	HDD test Source	Pass	5362

5.9 PC MARK2005

Test Environment
Intel(R) Celeron (R) CPU P4500 1.87 GHz TLA DDRIII 1333 (H5TQ2G83BFR)4G Western Digital 160GB (W D1600AAJS)

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	System test Source	Pass	3836
2	CPU test Source	Pass	4644
3	Memory test Source	Pass	4623
4	Graphic test Source	Pass	2062
5	HDD test Source	Pass	5699

Test Environment
Intel(R) Celeron (R) CPU P4500 1.87 GHz Transcend DDRIII 1066 2GB(K4B1G0846D) Western Digital 160GB (W D1600AAJS)

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	System test Source	Pass	3712
2	CPU test Source	Pass	4719
3	Memory test Source	Pass	4678
4	Graphic test Source	Pass	2046
5	HDD test Source	Pass	5955

Test Environment
Intel(R) Core(TM) CPU i3- 350M 2.27GHz TLA DDRIII 1333(H5TQ2G83BFR)4G Western Digital 160GB (WD1600AAJS)

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	System test Source	Pass	4527
2	CPU test Source	Pass	5828
3	Memory test Source	Pass	5181
4	Graphic test Source	Pass	2107
5	HDD test Source	Pass	6122

Test Environment
Intel(R) Core(TM) CPU i3- 350M 2.27GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital 160GB (WD1600AAJS)

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	System test Source	Pass	4317
2	CPU test Source	Pass	4592
3	Memory test Source	Pass	5382
4	Graphic test Source	Pass	2072
5	HDD test Source	Pass	6078

Test Environment
Intel(R) Core(TM) CPU i5- 520M 2.40GHz TLA DDRIII 1333(H5TQ2G83BFR)4G Western Digital160GB (WD1600AAJS)

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	System test Source	Pass	4997
2	CPU test Source	Pass	7059
3	Memory test Source	Pass	6169
4	Graphic test Source	Pass	2118
5	HDD test Source	Pass	5841

Test Environment
Intel(R) Core(TM) i5 CPU 520M 2.40GHz Transcend DDRIII 1066 (K481G0846D)2G Western Digital 160GB (WD1600AAJS)

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	System test Source	Pass	4882
2	CPU test Source	Pass	7080
3	Memory test Source	Pass	6127
4	Graphic test Source	Pass	2105
5	HDD test Source	Pass	6153

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
Western Digital WD1600AAJS	SATA	160GB	96.3MB/sec	107.2MB/sec	15.8ms
Western Digital WD2500 AAJS	SATA	250GB	76.2MB/sec	109.7MB/sec	16.1ms
Western Digital WD5000AAKS	SATA	500GB	73.4MB/sec	104.5MB/sec	12.7ms
Western Digital WD2500BEVT	SATA	250GB	74.3MB/sec	106.9MB/sec	14.8ms

5.10.2 CD-ROM

Test environment:

OS Windows XP professional SP3

Program (NERO)

CD-ROM MODEL	INTERFACE	Average speed	Full READ	Burst Rate	CD
LG GSA-H62L	SATA	10.62x	158ms	49 MB/s	16X DVD-R
SONY AD7240S	SATA	27.64x	162ms	35 MB/s	52X CD-R
LITEON DVD SOSC-2485KX	USB	14.19x	150ms	19 MB/s	52X CD-R
LITEON DVD ETAU108	USB	14.12x	144ms	16 MB/s	52X CD-R

5.11 Vibration Test

Motherboard	LV-67F			
Test Equipment	VS-5060L			
Amplitude	Degree	Frequency	Time (1min/1Time)	Result
0.75mm	40	5 → 55 → 5 Hz	10	Pass
1.00mm	55	5 → 55 → 5 Hz	10	Pass
1.25mm	70	5 → 55 → 5 Hz	10	Pass
1.5mm	90	5 → 55 → 5 Hz	10	Pass
1.5mm	90	5 → 55 → 5 Hz	120	Pass