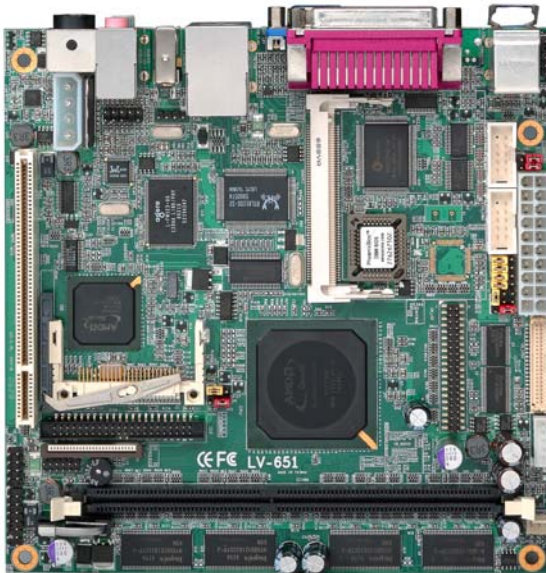


LV-651
Test Report
Edition 1.02
2006/09/26



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1. Function test

1.1 Hardware function

Base Function Test

1	Power Button	PASS
2	Reset	PASS
3	Power LED	PASS
4	HDD LED	PASS
5	IDE Primary Master	PASS
6	IDE Primary Slave	PASS
7	FIRE WIRE	PASS
8	Floppy	PASS
9	Compact Flash	PASS
10	DIMM	PASS
11	VGA Port	PASS
12	Keyboard	PASS
13	Mouse	PASS
14	AUDIO Port	PASS
15	LAN Port	PASS
16	USB Port	PASS
17	Printer Port	PASS
18	COM Port 422&485	PASS
19	SYSFAN	PASS
20	GPIO	PASS
21	IRDA	PASS
22	MINI PCI	PASS
23	PCI	PASS

2.0 PITCH (DIP)

1	JRTC	PASS
2	JAT	PASS
3	JVLCD	PASS
4	JCFSEL 1/2	PASS
5	JV 1/2	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 NumLock Status	PASS	
10	IDE Primary Master	PASS	
11	ACPI Function	PASS	
12	AC97 Audio	PASS	
13	LAN	PASS	
14	USB Controller	PASS	
15	Wake-Up On LAN / Ring	PASS	
16	USB Keyboard Support	PASS	
17	USB Mouse Support	PASS	
18	Onboard FDC Controller	PASS	
19	Soft-Off by PWRBTN	PASS	
20	OUT DISPLAY	PASS	
21	Onboard Lan Boot Rom	PASS	
22	Onboard Parallel Port	PASS	
23	USB Emulation	PASS	
24	UART Mode Select	PASS	
25	Watch Dog Timer Select	PASS	

26	LCD Type	PASS	
27	Resume by Alarm	PASS	

1.3 Driver

1.. Windows XP Driver Test

Item	Description	Result	Remark
1	Chip set Driver	PASS	
2	VGA Driver	PASS	
3	Audio Driver	PASS	
4	LAN Driver	PASS	

2. Linux SUSE10.1

Item	Description	Result	Remark
1	Chip set Driver	PASS	
2	VGA Driver	PASS	
3	Audio Driver	PASS	
4	LAN Driver	PASS	

2. Compatibility test

2.1 VGA Graphic Test

1. Windows XP

Item	Description	Result	Remark
1	Resolution/Color Change	PASS	
2	CRT Display Test	PASS	
3	CRT Display Quality Test	PASS	
4	LVDS Display Test	PASS	

2. Linux SUSE10.1

Item	Description	Result	Remark
1	Resolution/Color Change	PASS	
2	CRT Display Test	PASS	
3	CRT Display Quality Test	PASS	
4	LVDS Display Test	PASS	

2.2 Audio Test

1. Windows XP

Item	Description	Result	Remark
1	Sound Effect	PASS	
2	Equalizer	PASS	
3	Microphone	PASS	
4	5.1 channel test	PASS	

2. Linux SUSE10.1

Item	Description	Result	Remark
1	Sound Effect	PASS	
2	5.1 channel test	PASS	

2.3 HDD Test

HDD Type	Operating System	HDD Size Detect	HDD Data Transfer	HDD LED Check
Seagate ST340014A 80GB	MS-DOS	PASS	PASS	PASS
Maxtor 6E040L0 160GB	Linux WinXP	PASS	PASS	PASS

2.4 CD-ROM Test

CD-ROM Type	Operating System	CD-ROM Detect	CD-ROM Data Transfer	PLAY DVD
ASUS CD-S400/A	MS-DOS	PASS	PASS	
ONY DDU1621	Linux	PASS	PASS	PASS
BENQ COMBO	WinXP	PASS	PASS	PASS

2.5 USB Test

1. Linux SUSE10.1

Item	Description	Result	Remark
1	Device Manager Check	PASS	
2	External USB Keyboard Test	PASS	
3	External USB Mouse Test	PASS	
4	Hot plugging test	PASS	

2. Windows XP

Item	Description	Result	Remark
1	Device Manager Check	PASS	
2	External USB Keyboard Test	PASS	
3	External USB Mouse Test	PASS	
4	Hot plugging test	PASS	

2.6 Serial Port Test

1. MS-DOS

Item	Description	Result	Remark
1	MS-DOS PCCheck TEST	PASS	
2	MS-DOS QuickTech Pro TEST	PASS	

2. Linux SUSE10.1

Item	Description	Result	Remark
1	Device Manager Check	PASS	

3. Windows XP

Item	Description	Result	Remark
1	Device Manager Check	PASS	
2	RS-232 Mouse Test	PASS	
3	RS-232 Modem Test	PASS	
4	Drive install	PASS	

2.7 Keyboard 、 Mouse Test

1. MS-DOS

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

2. Linux SUSE10.1

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

3. Windows XP

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

2.8 LAN Test

1. Linux SUSE10.1

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

2. Windows XP

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

2.9 Power Supply Test

1. MS-DOS 6.22

Item	Description	Verification	
		Result	Remark
1	ATX Power On/Off	Pass	Seventeam ST-300BLV
2	ATX Power On/Off	Pass	AOpen FSP300-60ATV

2. Linux SUSE10.1

Item	Description	Verification	
		Result	Remark
1	ATX Power On/Off	Pass	Seventeam ST-300BLV
2	ATX Power On/Off	Pass	AOpen FSP300-60ATV

3. Windows XP

Item	Description	Verification	
		Result	Remark
1	ATX Power On/Off	Pass	Seventeam ST-300BLV
2	ATX Power On/Off	Pass	AOpen FSP300-60ATV

2.10 Floppy Drive Test

Model: SAMSUNG SFD321S

1. MS-DOS 6.22

Item	Description	Result	Remark
1	Floppy Drive Detect	PASS	
2	Boot from Floppy	PASS	
3	Floppy Data Transfer	PASS	

2. Linux SUSE10.1

Item	Description	Result	Remark
1	Floppy Drive Detect	PASS	
2	Floppy Data Transfer	PASS	

3. Windows XP

Item	Description	Result	Remark
1	Floppy Drive Detect	PASS	
2	Floppy Data Transfer	PASS	

2.11 Boot Up Test

Item	Description	Result	Remark
1	Boot from HDD	PASS	Times
2	Boot from CD-ROM	PASS	Times
3	Boot from Floppy	PASS	Times
4	Reboot test with Linux	PASS	Times
5	Reboot test with Win XP	PASS	Times

2.12 Memory TEST

DDR DRAM	DDR Freq	Capacity Mbytes	Operating System	Result
SAMSUNG K4H560838D	DDR333	512MB	WinXP、Linux suse10.1	PASS
HYNIX	DDR 400	1GB	WinXP、Linux suse10.1	PASS
Kingston	DDR 333	512MB	WinXP、Linux suse10.1	PASS
MT	DDR 266	128MB	WinXP、Linux suse10.1	PASS
SAMSUNG K4H560438D	DDR333	1G	WinXP、Linux suse10.1	PASS
NANYA NTSDS16M8A	DDR266	128	WinXP、Linux suse10.1	PASS

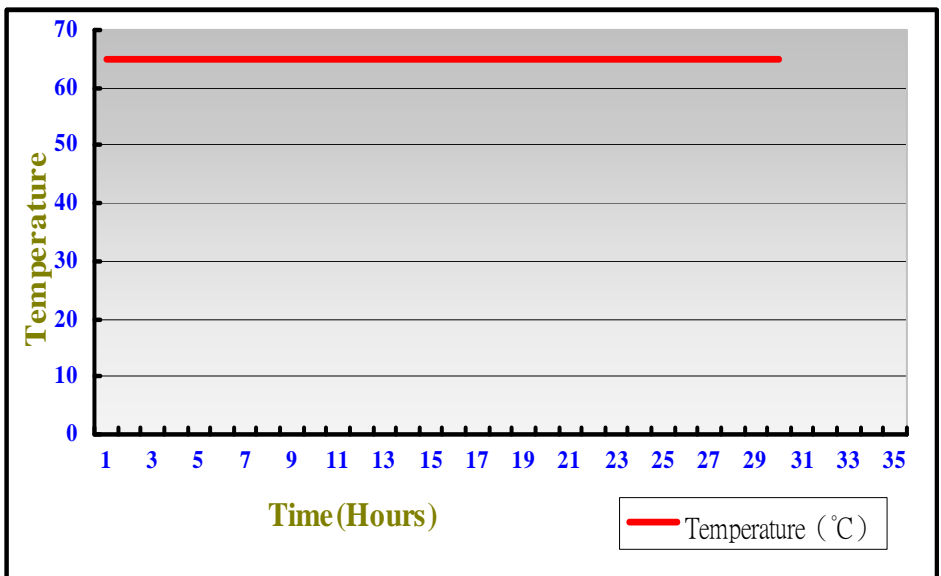
3. Environmental test

3.1 Temperature & Humidity Test

Hardware Device list:

System Board	LV-651
CPU	AMD Geode LX800 500MHZ
Memory	SAMSUNG 184PIN 512MB/333MHZ
HDD	Seagate 80G
Test Program	Burning 26

Test Result:



3.2 Difficult Environment Boot Up Test

Temperature	Result	Remark
-20°C	PASS	Times
70°C	PASS	Times

4. Reliability Test

4.1 Power Consumption Test

1.DC Test Environment:

Motherboard	LV651
CPU	AMD Geode LX800 500MHZ
Memory	SAMSUNG 184PIN 512MB/333MHZ
Power Supply	GW INSTEK PSP-2010

Voltae	Max Current (A)	Power (W)	Remark
8V	1.16	9.30	

Voltae	Max Current (A)	Power (W)	Remark
12V	0.78	9.36	

Voltae	Max Current (A)	Power (W)	Remark
19V	0.498	9.462	

2. Test Environment:

CPU	AMD Geode LX800 500MHZ
Memory	SAMSUNG 512MB/333MHZ
HDD	Seagate 80G
CDROM	SONY DVD
Operating System	Windows XP
Test Program	Content Creation Winstone

Voltae	Current (A)	Power (W)	Remark
3.3V	2.01	6.633	
5V	1.20	6	
12V	0.30	3.6	

3. Test Environment:

CPU	AMD Geode LX800 500MHZ
Memory	SAMSUNG 512MB/333MHZ
HDD	Seagate 80G
CDROM	SONY DVD
Mini AGP Card	MA-ATI
POWER	Aopen FSP300-60A
Operating System	Windows XP
Test Program	Content Creation Winstone

Voltae	Current (A)	Power (W)	Remark
3.3V	2.12	6.996	
5V	1.47	7.35	
12V	0.34	4.08	

4.2 Thermal measurements at various points on the board

Test Environment A:

CPU	AMD Geode LX800 500MHZ
Memory	SAMSUNG 184PIN 512MB/333MHZ
HDD	Seagate 80G
CDROM	SONY DVD
Test Program	Content Creation Winstone

Test Result:

NB (CS5536)	44°C
SB (AMD LX800)	46°C
U4	36°C
U2	43°C
CPU	46°C

5. Performance Test

5.1 Business Win Stone

Operating System : Windows XP

WEIGHTED SUITE	Test Environment	Result	Remark
Business Win stone2004	SAMSUNG DDR333 512MB Seagate ST340014A 40GB Aopen DVD1648/LKY	17.3	
		17.1	
		17.2	
		16.8	
		17.3	

5.2 Content Creation Winstone

Operating System : Windows XP

WEIGHTED SUITE	Test Environment	Result	Remark
Winstone Content Creation2001	SAMSUNG DDR333 512MB Seagate ST340014A 40GB Aopen DVD1648/LKY	21.6	
		21.6	
		21.7	
		21.6	
		21.6	