

Report



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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	FAN	Pass
6	PS2	Pass
7	LAN1	Pass
8	DDRII	Pass
9	SATA	Pass
10	USB1	Pass
11	USB2	Pass
12	LVDS	Pass
13	INV	Pass
14	CF	Pass
15	DC_OUT	Pass
16	Audio	Pass
17	COM1/2	Pass
18	DC_IN	Pass
19	LPC	Pass
20	MINI_CRAD	Pass

Jumper

Item	Description	Result
1	JRTC	Pass
2	JAT	Pass
3	JVLCD	Pass

1.2 BIOS function

Item	Description	Result	Remark
1	Press 'Del' to run Setup Utility	Pass	
2	Ctrl-Alt-Del – Soft-Reboot	Pass	
3	Save & Exit Setup	Pass	
4	Date & Time Setting	Pass	
5	Halt On	Pass	
6	Quick Power On Self Test	Pass	
7	Boot Device Setting	Pass	
8	Boot Up Num Lock Status	Pass	
9	VGA Setting	Pass	
10	Onboard Serial Port	Pass	
11	USB Device Setting	Pass	
12	Soft-Off by PWRBTN	Pass	
13	Power On Function	Pass	
14	Wake-up by PCI Card	Pass	
15	Resume by Alarm	Pass	
16	Power On by Ring	Pass	
17	Shutdown Temperature	Pass	
18	CPU Warning Temperature	Pass	
19	Watch Dog Timer	Pass	
20	Set Supervisor Password	Pass	
21	Set User Password	Pass	

1.3 Driver

CD dition : IPCI3-1.0

1. Windows XP SP2 Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1019
2	VGA Driver	Pass	6.14.10.5134
3	Audio Driver	Pass	5.10.0.6083
4	LAN Driver	Pass	11.4.7.0

2. Windows XP 64 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1019
2	VGA Driver	Pass	6.14.10.5134
3	Audio Driver	Pass	5.10.0.6083
4	LAN Driver	Pass	11.4.7.0

3. Windows Server 2003 Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1019
2	VGA Driver	Pass	6.14.10.5134
3	Audio Driver	Pass	5.10.0.6083
4	LAN Driver	Pass	11.4.7.0

4. Windows Vista 32 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1019
2	VGA Driver	Pass	6.14.10.5134
3	Audio Driver	Pass	6.0.1.6083
4	LAN Driver	Pass	11.4.7.0

5. Windows Vista 64 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1019
2	VGA Driver	Pass	8.14.10.2023
3	Audio Driver	Pass	6.0.1.6083
4	LAN Driver	Pass	11.4.7.0

6. Windows 7 32 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1019
2	VGA Driver	Pass	8.14.10.1972
3	Audio Driver	Pass	6.0.1.6083
4	LAN Driver	Pass	11.4.7.0

7. Windows 7 64 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	Pass	9.1.1.1019
2	VGA Driver	Pass	8.14.10.2023
3	Audio Driver	Pass	6.0.1.6083
4	LAN Driver	Pass	11.4.7.0

8. Windows 2008 32 bit Driver Test

Item	Description	Result	Version
1	Chipset Driver	Pass	9.1.1.1019
2	VGA Driver	Pass	8.14.10.1972
3	Audio Driver	Pass	6.0.1.6083
4	LAN Driver		

9. Windows 2008 64 bit Driver Test

Item	Description	Result	Version
1	Chipset Driver	Pass	9.1.1.1019
2	VGA Driver	Pass	8.14.10.2023
3	Audio Driver	Pass	6.0.1.6083
4	LAN Driver		

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
SLBMG	1.66 GHz	Atom™	N450	N/A	512KB	Pass
SLBMH	1.66 GHz	Atom™	D410	N/A	512KB	Pass
SLBLA	1.66 GHz	Atom™	D510	N/A	1MB	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
Transcend	E1108A CBG	DDRII 667	2GB	Pass
Lead free	0743A90 8Y	DDRII 667	1GB	Pass
PQI	7QE22D 9HNL	DDRII 667	2GB	Pass
Transcend	A3R1GE 3CFF	DDRII 800	2GB	Pass

2.3 VGA Graphic Quality Test

Test environment:

OS Windows XP professional SP2

Driver version : 6.14.10.5134

Resolution	Color	Result	Remark
640 x 480	16 /32bit	Pass	
800 x 600	16 /32bit	Pass	
1024 x 768	16 /32bit	Pass	
1152 x 864	16 /32bit	Pass	
1280 x 600	16 /32bit	Pass	
1280 x 720	16 /32bit	Pass	
1280 x 768	16 /32bit	Pass	
1280 x 960	16 /32bit	Pass	
1280 x 1024	16 /32bit	Pass	
1400 x 1050	16 /32bit	Pass	
1600 x 900	16 /32bit	Pass	
1680 x 1050	16 /32bit	Pass	
1920 x 1080	16 /32bit	Pass	

2.4 Audio

Test envirement:

OS Windows XP professional SP2

Driver version : 5.10.0.6083

Item	Description	Result	Remark
1	2 CH	Pass	
2	Microphone	Pass	

OS Windows XP professional x64 Edition

Driver version : 5.10.0.6083

Item	Description	Result	Remark
1	2 CH	Pass	
2	Microphone	Pass	

OS Windows SERVER 2003

Driver version : 5.10.0.6083

Item	Description	Result	Remark
1	2 CH	Pass	
2	Microphone	Pass	

OS Windows Vista 32 bit

Driver version : 6.0.1.6083

Item	Description	Result	Remark
1	2 CH	Pass	
2	Microphone	Pass	

OS Windows Vista 64 bit

Driver version : 6.0.1.6083

Item	Description	Result	Remark
1	2 CH	Pass	
2	Microphone	Pass	

OS Windows 7 32 bit

Driver version : 6.0.1.6083

Item	Description	Result	Remark
1	2 CH	Pass	
2	Microphone	Pass	

OS Windows 7 64 bit

Driver version : 6.0.1.6083

Item	Description	Result	Remark
1	2 CH	Pass	
2	Microphone	Pass	

OS Windows 2008 32 bit

Driver version : 6.0.1.6083

Item	Description	Result	Remark
1	2 CH	Pass	
2	Microphone	Pass	

OS Windows 2008 64 bit

Driver version : 6.0.1.6083

Item	Description	Result	Remark
1	2 CH	Pass	
2	Microphone	Pass	

2.5 HDD Test

Test envirement:

OS Windows XP professional SP2

HDD MODEL	INTERFACE	capacity	HDD Size Detect	HDD Data Transfer	HDD LED Check
Western Digital WD1600BEVS-00RST0	SATA	160GB	Pass	Pass	Pass
Western Digital WD1600AAJS-00B4A0		160GB	Pass	Pass	Pass
Western Digital WD2500KS-00MJB0		250GB	Pass	Pass	Pass
HITACHI HDT722525DLA380		250GB	Pass	Pass	Pass
Western Digital WD10EADS-00L5B1		1.0TB	Pass	Pass	Pass
Fudia Compact Flash Card PRO	CF Card	4GB	Pass	Pass	Pass
PQI Compact Flash Card Industrial	CF Card	4GB	Pass	Pass	Pass

HDD MODEL	INTERFACE	capacity	HDD Size Detect	HDD Data Transfer	HDD LED Check
PQI Compact Flash Card Wide Temp		2GB	Pass	Pass	Pass
Transcend Compact Flash Card 133x		2GB	Pass	Pass	Pass
Transcend Compact Flash Card Industrial		1GB	Pass	Pass	Pass
SanDisk Compact Flash Card Ultra II		1GB	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
LITEON DVD SOSW-833XS	USB	Pass	Pass	Pass
MATSHITA DVD EBC100	USB	Pass	Pass	Pass

2.7 USB Test

1. Windows XP SP2

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

2. Windows XP 64 bit

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

3. Windows Server 2003

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

4. Windows Vista 32 bit

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

5. Windows Vista 64 bit

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

6. Windows 7 32 bit

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

7. Windows 7 64 bit

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

8. Windows 2008 32 bit

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

9. Windows 2008 64 bit

Item	Result	Remark
USB Keyboard Test	Pass	
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	PC Check	Pass	
3	TS	Pass	

2. 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	

3. Windows XP 64 bit

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

4. 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	

5. Windows Vista 32 bit

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

6. Windows Vista 64 bit

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

7. Windows 7 32 bit

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

8. Windows 7 64 bit

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

9. Windows 2008 32 bit

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

10. Windows 2008 64 bit

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 XP 64 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 Vista 32 bit

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

6. Windows Vista 64 bit

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

7. Windows 7 32 bit

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

8. Windows 7 64 bit

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

9. Windows 2008 32 bit

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

10. Windows 2008 64 bit

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 envirement:

-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 XP 64 bit

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

3. Windows Server 2003

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

4. Windows Vista 32 bit

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

5. Windows Vista 64 bit

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

6. Windows 7 32 bit

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

7. Windows 7 64 bit

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

8. Windows 2008 32 bit

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

9. Windows 2008 64 bit

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

2.11 Power Supply Test

Item	TYPE	Description	Result	Remark
1	ADAPTER	LS 0219B1280(80W)	Pass	
2	ADAPTER	EDAC EA11001C-120(80W)	Pass	

2.12 Os Install

Item	Description	Result	Remark
1	Windows Vista 32 bit	Pass	
2	Windows Vista 64 bit	Pass	
3	Windows XP SP2	Pass	
4	Windows XP 64 bit	Pass	
5	Windows Server 2003	Pass	
6	Windows 2000 SP4	Pass	
7	Windows7 32 bit	Pass	
8	Windows7 64 bit	Pass	
9	Windows2008 32 bit	Pass	
10	Windows2008 64 bit	Pass	
11	Ubuntu 9.10	Pass	
12	Fedora 12	Pass	

2.13 PCI Express Mini Card Test

Motherboard	PCI Express mini card	Result
LP-170	MPX-954	Pass
LP-170	MPX-643	Pass
LP-170	MPX-1040	Pass
LP-170	MPX-574D	Pass
LP-170	MPX-827	Pass
LP-170	MPX-7767	Pass
LP-170	MPX-2503	Pass
LP-170	MPX-3132	Pass
LP-170	MPX-7202	Pass
LP-170	MPX-TP4R	Pass
LP-170	MPX-885	Pass

3. Environmental test

3.1 Temperature Test

Hardware Device list:

System Board	LP-170G/H/A
CPU	Intel® Atom™ Processor N450/D410/D510 1.66GHZ
Memory	Transcend DDRII 667 2GB (E1108ACBG)
HDD	Western Digital WD10EADS-00L5B1 1.0TB
Operating OS	Windows XP
Test Equipment	THERMOTRON 2800 Programmer/Controller
Test Program	3DMark 2003

Test Result:

Hardware Device list:

System Board	LP-170G/H/A
CPU	Intel® Atom™ Processor N450/D410/D510 1.66GHZ
Memory	Transcend DDRII 667 2GB (E1108ACBG)
HDD	Western Digital WD10EADS-00L5B1 1.0TB
Operating OS	Windows XP
Test Equipment	THERMOTRON 2800 Programmer/Controller
Test Program	3DMark 2003

Test Result:

Boot Up Test:

Hardware Device list:

System Board	LP-170G/H/A
CPU	Intel® Atom™ Processor N450/D410/D510 1.66GHZ
Memory	Transcend DDRII 667 2GB (E1108ACBG)
HDD	Western Digital WD10EADS-00L5B1 1.0TB

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

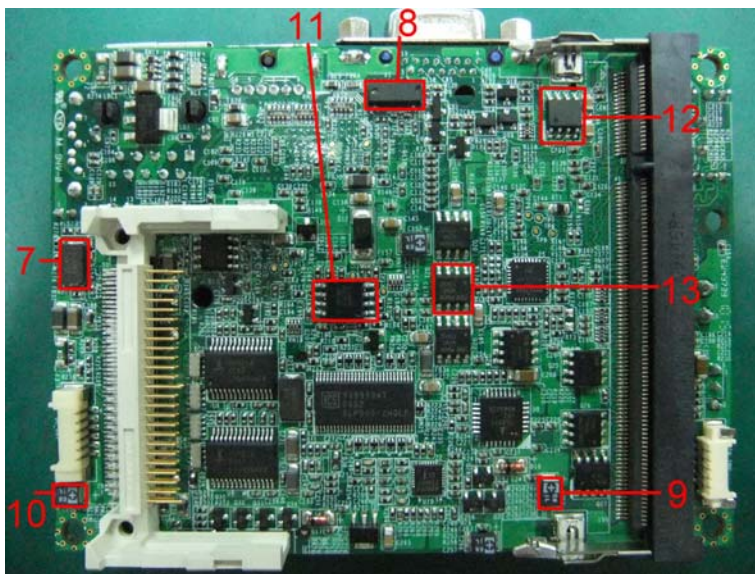
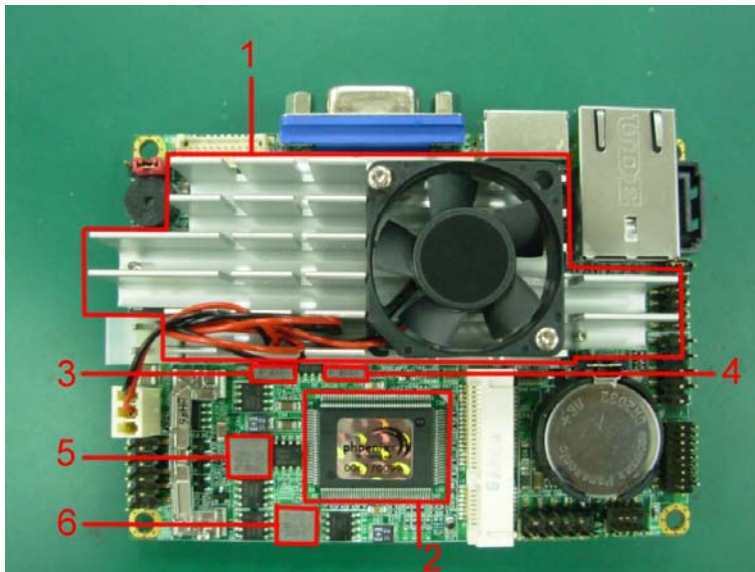
3.2 Thermal measurements at various points on the board

Test Environment :

CPU	Intel® Atom™ Processor N450 1.66GHZ
Memory	Transcend DDRII 667 2GB (E1108ACBG)
HDD	Western Digital WD10EADS-00L5B1 1.0TB
Power	LS 0219B1280(80W)
Operating System	Windows XP
Test Program	3DMARK2003,Prime95

Test Result:

Item	Environmental temperature	26°C
1	Heat Sink	40.8°C
2	Super I/O	60.9°C
3	LC1	59.4°C
4	L1	55.2°C
5	LC2	54.7°C
6	LC3	64.6°C
7	X2	40.7°C
8	X1	49.8°C
9	C253	71.4°C
10	C256	43.5°C
11	U5	53.6°C
12	Q17	67.3°C
13	Q21	73.2°C



4. Reliability Test

4.1 Power Consumption Test

1. Test Environment:

Motherboard	LP-170G
CPU	Intel® Atom N450 processor
Memory	Transcend DDRII 667 2GB (0811A905D)
HDD	Western Digital WD10EADS 1.0TB

(A) Power Supply: LS 0219B1280(80W)

Voltage	MS-DOS Boot up		Windows XP SP2 Prime95-255a + 3DMarks2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.25	27	1.91	22.92

1.a. Test Environment:

The same as above but with LCD panel

Display Panel	AUO G084SN03V0 8.4" LCD
----------------------	--------------------------------

(A) Power Supply: LS 0219B1280(80W)

Voltage	MS-DOS Boot up		Windows XP SP2 Prime95-255a + 3DMarks2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.65	31.8	2.31	27.72

2.Test Environment:

Motherboard	LP-170G
CPU	Intel® Atom N450 processor
Memory	InnoDisk DDRII 667 1GB (HY5PS1G1631C)
HDD	Western Digital WD10EADS 1.0TB

(A) Power Supply: LS 0219B1280(80W)

Voltage	MS-DOS Boot up		Windows XP SP2 Prime95-255a + 3DMarks2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.14	25.68	2.04	24.48

2.a.Test Environment:

The same as above but with LCD panel

Display Panel	AUO G084SN03V0 8.4” LCD
----------------------	--------------------------------

(A) Power Supply: LS 0219B1280(80W)

Voltage	MS-DOS Boot up		Windows XP SP2 Prime95-255a + 3DMarks2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.52	30.24	2.27	27.24

3.Test Environment:

Motherboard	LP-170G
CPU	Intel® Atom N450 processor
Memory	Transcend DDRII 667 2GB (0811A905D)
CF	Fudia CompactFlash Card PRO 4GB

(A) Power Supply: LS 0219B1280(80W)

Voltage	MS-DOS Boot up		Windows XP SP2 Prime95-255a + 3DMarks2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	1.26	15.12	1.46	17.52

3.a.Test Environment:

The same as above but with LCD panel

Display Panel	AUO G084SN03V0 8.4" LCD
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(A) Power Supply: LS 0219B1280(80W)

Voltage	MS-DOS Boot up		Windows XP SP2 Prime95-255a + 3DMarks2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	1.66	19.92	1.94	23.28

4. Test Environment:

Motherboard	LP-170G
CPU	Intel® Atom N450 processor
Memory	InnoDisk DDRII 667 1GB (HY5PS1G1631C)
CF	Fudia CompactFlash Card PRO 4GB

(A) Power Supply: LS 0219B1280(80W)

Voltage	MS-DOS Boot up		Windows XP SP2 Prime95-255a + 3DMarks2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	1.18	14.16	1.44	17.28

4.a. Test Environment:

The same as above but with LCD panel

Display Panel	AUO G084SN03V0 8.4" LCD
----------------------	--------------------------------

(A) Power Supply: LS 0219B1280(80W)

Voltage	MS-DOS Boot up		Windows XP SP2 Prime95-255a + 3DMarks2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	1.59	19.08	1.83	21.96

5. Performance Test

5.1 Business Win Stone 2002

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
<p align="center">Business Win stone2002</p>	<p align="center">Intel® Atom N450 processor PQI DDRII 667 2GB (7QE22D9HNL) Western Digital WD10EADS 1.0TB</p>	<p align="center">Pass</p>	<p align="center">17.8 17.5 17.3 17.8</p>
<p align="center">Business Win stone2002</p>	<p align="center">Intel® Atom N450 processor Transcend DDRII 667 2GB (E1108ACBG) Western Digital WD10EADS 1.0TB</p>	<p align="center">Pass</p>	<p align="center">24.8 24.8 24.9 24.6</p>
<p align="center">Business Win stone2002</p>	<p align="center">Intel® Atom N450 processor Lead Free DDRII 667 1GB (E5108AGBG) Western Digital WD10EADS 1.0TB</p>	<p align="center">Pass</p>	<p align="center">24.7 25.2 24.5 24.8</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 N450 processor PQI DDRII 667 2GB (7QE22D9HNL) Western Digital WD10EADS 1.0TB</p>	<p align="center">Pass</p>	<p align="center">9.2 12.5 11.9 11.8</p>
<p align="center">Business Win stone2004</p>	<p align="center">Intel® Atom N450 processor Transcend DDRII 667 2GB (E1108ACBG) Western Digital WD10EADS 1.0TB</p>	<p align="center">Pass</p>	<p align="center">10.1 10.6 12.2 13.9</p>
<p align="center">Business Win stone2004</p>	<p align="center">Intel® Atom N450 processor Lead Free DDRII 667 1GB (E5108AGBG) Western Digital WD10EADS 1.0TB</p>	<p align="center">Pass</p>	<p align="center">12.4 12.4 11.1 10.9</p>

5.3 Content Creation Winstone 2001

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
<p align="center">Content Creation Winstone 2001</p>	<p align="center">Intel® Atom N450 processor PQI DDRII 667 2GB (7QE22D9HNL) Western Digital WD10EADS 1.0TB</p>	<p align="center">Pass</p>	<p align="center">44.5 44.9 44.6 44.5 44.6</p>
<p align="center">Content Creation Winstone 2001</p>	<p align="center">Intel® Atom N450 processor Transcend DDRII 667 2GB (E1108ACBG) Western Digital WD10EADS 1.0TB</p>	<p align="center">Pass</p>	<p align="center">45.0 45.0 44.8 45.1 44.7</p>
<p align="center">Content Creation Winstone 2001</p>	<p align="center">Intel® Atom N450 processor Lead Free DDRII 667 1GB (E5108AGBG) Western Digital WD10EADS 1.0TB</p>	<p align="center">Pass</p>	<p align="center">45.0 45.0 44.9 44.9 45.1</p>

5.4 Content Creation Winstone 2004

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
<p align="center">Content Creation Winstone 2004</p>	<p align="center">Intel® Atom N450 processor PQI DDRII 667 2GB (7QE22D9HNL) Western Digital WD10EADS 1.0TB</p>	<p align="center">Pass</p>	<p align="center">15.0 15.0 14.9 15.0</p>
<p align="center">Content Creation Winstone 2004</p>	<p align="center">Intel® Atom N450 processor Transcend DDRII 667 2GB (E1108ACBG) Western Digital WD10EADS 1.0TB</p>	<p align="center">Pass</p>	<p align="center">15.0 14.9 14.9 14.7</p>
<p align="center">Content Creation Winstone 2004</p>	<p align="center">Intel® Atom N450 processor Lead Free DDRII 667 1GB (E5108AGBG) Western Digital WD10EADS 1.0TB</p>	<p align="center">Pass</p>	<p align="center">8.8 8.8 8.9 8.7</p>

5.5 3D MARK(2001、2003、2005)

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel® Atom N450 processor Lead Free DDRII 667 1GB (E5108AGBG) Western Digital WD10EADS 1.0TB	Pass	3178
3DMARK2003 Scores		Pass	839
3DMARK2005 Scores		Pass	273

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel® Atom N450 processor Transcend DDRII 667 2GB (E1108ACBG) Western Digital WD10EADS 1.0TB	Pass	3206
3DMARK2003 Scores		Pass	854
3DMARK2005 Scores		Pass	271

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel® Atom N450 processor PQI DDRII 667 2GB (7QE22D9HNL) Western Digital WD10EADS 1.0TB	Pass	3137
3DMARK2003 Scores		Pass	820
3DMARK2005 Scores		Pass	242

5.6 3D MARK2006

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel® Atom N450 processor Lead Free DDRII 667 1GB (E5108AGBG) Western Digital WD10EADS 1.0TB	Pass	114
2	SM2.0 Source		Pass	52
3	HDR/SM3.0 Source		Pass	N/A
4	CPU Source		Pass	515

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel® Atom N450 processor Transcend DDRII 667 2GB (E1108ACBG) Western Digital WD10EADS 1.0TB	Pass	101
2	SM2.0 Source		Pass	47
3	HDR/SM3.0 Source		Pass	N/A
4	CPU Source		Pass	386

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Source	Intel® Atom N450 processor PQI DDRII 667 2GB (7QE22D9HNL) Western Digital WD10EADS 1.0TB	Pass	90
2	SM2.0 Source		Pass	41
3	HDR/SM3.0 Source		Pass	N/A
4	CPU Source		Pass	337

5.7 PC MARK2002

Test Environment
Intel® Atom N450 processor PQI DDRII 667 2GB (7QE22D9HNL) Western Digital WD10EADS 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	2793
2	Memory test Source	Pass	7498
3	HDD test Source	Pass	2020

Test Environment
Intel® Atom N450 processor Transcend DDRII 667 2GB (E1108ACBG) Western Digital WD10EADS 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	2791
2	Memory test Source	Pass	7485
3	HDD test Source	Pass	1976

Test Environment
Intel® Atom N450 processor Lead Free DDRII 667 1GB (E5108AGBG) Western Digital WD10EADS 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	Pass	2802
2	Memory test Source	Pass	7489
3	HDD test Source	Pass	2013

5.8 PC MARK2004

Test Environment
Intel® Atom N450 processor PQI DDRII 667 2GB (7QE22D9HNL) Western Digital WD10EADS 1.0TB

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	2124
2	CPU test Source	Pass	2208
3	Memory test Source	Pass	3357
4	Graphic test Source	Pass	767
5	HDD test Source	Pass	6373

Test Environment
Intel® Atom N450 processor Transcend DDRII 667 2GB (E1108ACBG) Western Digital WD10EADS 1.0TB

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	2120
2	CPU test Source	Pass	2210
3	Memory test Source	Pass	3354
4	Graphic test Source	Pass	768
5	HDD test Source	Pass	6366

Test Environment
Intel® Atom N450 processor Lead Free DDRII 667 1GB (E5108AGBG) Western Digital WD10EADS 1.0TB

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Source	Pass	2116
2	CPU test Source	Pass	2211
3	Memory test Source	Pass	3352
4	Graphic test Source	Pass	750
5	HDD test Source	Pass	6356

5.9 PC MARK2005

Test Environment
Intel® Atom N450 processor PQI DDRII 667 2GB (7QE22D9HNL) Western Digital WD10EADS 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	System test Source	Pass	1808
2	CPU test Source	Pass	1566
3	Memory test Source	Pass	2582
4	Graphic test Source	Pass	640
5	HDD test Source	Pass	6558

Test Environment
Intel® Atom N450 processor Transcend DDRII 667 2GB (E1108ACBG) Western Digital WD10EADS 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	System test Source	Pass	1799
2	CPU test Source	Pass	1567
3	Memory test Source	Pass	2582
4	Graphic test Source	Pass	639
5	HDD test Source	Pass	6569

Test Environment
Intel® Atom N450 processor Lead Free DDRII 667 1GB (E5108AGBG) Western Digital WD10EADS 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	System test Source	Pass	1808
2	CPU test Source	Pass	1565
3	Memory test Source	Pass	2596
4	Graphic test Source	Pass	635
5	HDD test Source	Pass	6568

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 WD1600BEVS-00RST0	SATA	160GB	38.6 MB/sec	83.7 MB/sec	17.4ms
Western Digital WD1600AAJS-00B4A0		160GB	96.7 MB/sec	128.1 MB/sec	15.9ms
Western Digital WD2500KS-00MJB0		250GB	53.1 MB/sec	109.4 MB/sec	13.5ms
HITACHI HDT722525DLA380		250GB	53.2 MB/sec	100.7 MB/sec	13.2ms
Western Digital WD10EADS-00L5B1		1.0TB	69.8 MB/sec	128.4 MB/sec	14.8ms
Fudia Compact Flash Card PRO	CF Card	4GB	2.8 MB/sec	2.9 MB/sec	0.8ms

HDD MODEL	INTERFACE	capacity	Average	Burst Rate	Access Time
PQI Compact Flash Card Industrial	CF Card	4GB	3.0 MB/sec	3.0 MB/sec	0.4ms
PQI Compact Flash Card Wide Temp		2GB	1.6 MB/sec	1.7 MB/sec	0.8ms
Transcend Compact Flash Card 133x		2GB	3.1 MB/sec	3.1 MB/sec	0.4ms
Transcend Compact Flash Card Industrial		1GB	1.7 MB/sec	1.7 MB/sec	0.9ms
SanDisk Compact Flash Card Ultra II		1GB	3.0 MB/sec	3.0 MB/sec	0.7ms

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
LITEON DVD SOSW-833XS	USB	15.62x	214ms	19 MB/s	52X CD-R
MATSHITA DVD EBC100	USB	18.19x	275ms	19 MB/s	52X CD-R

5.11 Vibration Test

Motherboard	LP-170		
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