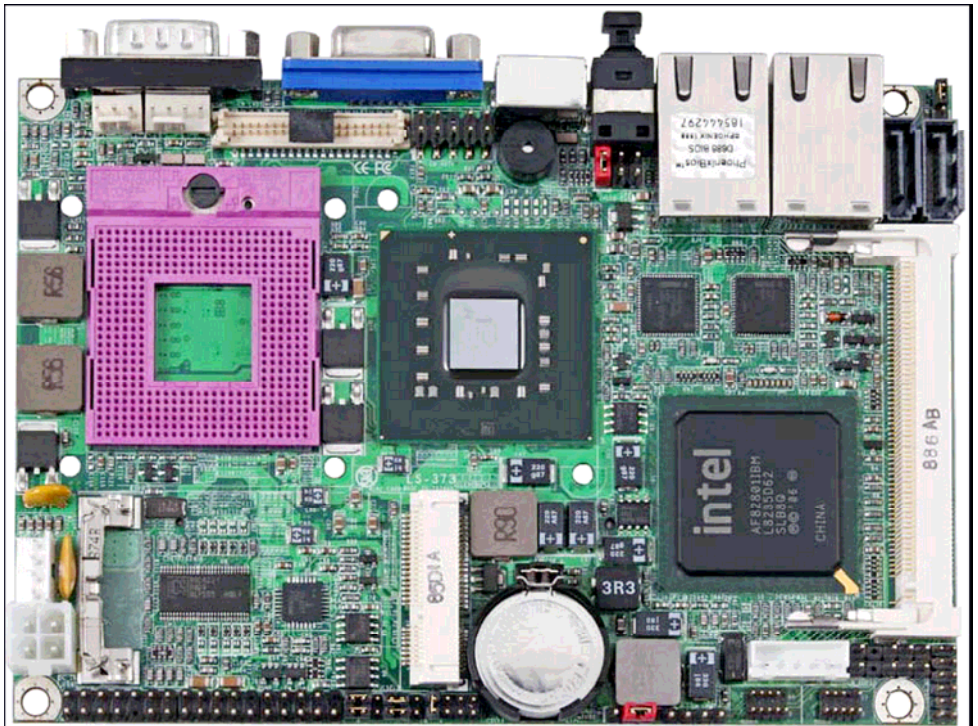


Product Test Report



Product Name	LS-373
Product Version	C
Issued Date	21.Oct.2008
Report Edition	1.1
BIOS Version	1.1
Testing Engineer	RICK
Check Engineer	GARY

REVISION HISTORY

DATE	REVISION NO.	PAGE	DESCRIPTONS
1.Dec.2008	Ver. 1.0	58	Initial Release.
21.Oct.2008	Ver 1.1	69	1.Support to 4GB memory. 2.Humidity and low temperature test. 3.Increase new OS test.

Index

1. Function test	5
1.1 Hardware function.....	5
1.2 BIOS function	7
1.3 Driver	8
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	20
2.9 PS2 Keyboard 、 Mouse Test.....	22
2.10 LAN Test.....	24
2.11 Power Supply Test.....	25
2.12 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	39
5.1 Business Win Stone 2002.....	39
5.2 Business Win Stone 2004.....	41
5.3 Content Creation Winstone 2004.....	43
5.4 3D MARK(2001 、 2003 、 2005).....	45
5.5 3D MARK2006	49
5.6 PC MARK2002.....	53

5.7 PC MARK2004..... 57
5.8 PC MARK2005..... 61
5.9 SATA Performance 66
5.10 USB Performance..... 68
5.11 Vibration Test..... 69

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	DDRIII	PASS
12	COM1	PASS
13	COM2	PASS
14	VGA Port	PASS
15	PS2	PASS
16	AUDIO	PASS
17	CD_IN	PASS
18	SPDIF	PASS
19	Mini PCIE	PASS
20	DIO	PASS
21	CPUFAN	PASS
22	SYSFAN	PASS
23	DVI	PASS
24	LVDS	PASS

25	LAN	PASS
26	IrDA	PASS
27	HDTV	PASS

Jumper

Item	Description	Result
1	JRTC	PASS
2	JCSEL1	PASS
3	JCSEL2	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	Quick Power On Self Test	PASS	
6	Boot Device Setting	PASS	
7	Boot Up Num Lock Status	PASS	
8	ACPI Suspend Type	PASS	
9	Halt On	PASS	
10	Onboard Serial Port	PASS	
11	USB Controller	PASS	
12	USB Keyboard Support	PASS	
13	Onboard FDC Controller	PASS	
14	Soft-Off by PWRBTN	PASS	
15	ACPI Function	PASS	
16	Resume by Alarm	PASS	
17	Watch Dog Timer Select	PASS	
18	PWRON After PWR-Fail	PASS	
19	Power On by Ring	PASS	Only COM2
20	Set Supervisor Password	PASS	
21	Set User Password	PASS	
22	UART Mode Select	PASS	
23	RxD , Txd Active	PASS	
24	IR Transmission Delay	PASS	
25	UR2 duplex Mode	PASS	
26	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	6.14.10.4694
3	Audio Driver	PASS	5.10.0.5464
4	LAN Driver	PASS	13.3.46.0

2. Windows Server 2003 Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	9.0.0.1008
2	VGA Driver	PASS	6.14.10.4694
3	Audio Driver	PASS	5.10.0.5464
4	LAN Driver	PASS	13.3.46.0

3. Windows 2000 SP4

Item	Description	Result	version
1	Chipset Driver	PASS	9.0.0.1008
2	VGA Driver	PASS	6.14.10.4694
3	Audio Driver	PASS	5.10.0.5464
4	LAN Driver	PASS	13.3.46.0

4. Windows Vista 32 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	9.0.0.1008
2	VGA Driver	PASS	15.9.8.1518
3	Audio Driver	PASS	6.0.1.5473
4	LAN Driver	PASS	13.3.46.0

5. Windows Vista 64 bit Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	9.0.0.1008
2	VGA Driver	PASS	15.9.8.64.1518
3	Audio Driver	PASS	6.0.1.5473
4	LAN Driver	PASS	13.3.46.0

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>SLAF8</u>	2.20 GHz	Core2Duo	T7500	800 MHz	4 MB	PASS
<u>SLB3R</u>	2.26 GHz	Core2Duo	P8400	1066 MHz	3MB	PASS
<u>SLB47</u>	2.80 GHz	Core2Duo	T9600	1066 MHz	6 MB	PASS
<u>SLA43</u>	2.40 GHz	Core2Duo	T7700	800 MHz	4 MB	PASS
<u>SLAYQ</u>	2.40 GHz	Core2Duo	T8300	800 MHz	3 MB	PASS
<u>SLB6M</u>	2 GHz	Celeron	575	667 MHz	1 MB	PASS

2.2 Memory Test

Test environment:

OS Windows XP professional SP2

Test program : PC MARK 2005

Manufacturer	Chip	DDRIII frequency	Capacity Mbytes	Memory test Score
A-DATA	K4B1G0846D	DDRIII 1066	1GB	PASS
A-DATA	K4B1G0846D	DDRIII 1066	2GB	PASS
Transcend	KN81G0846D	DDRIII 1066	1GB	PASS
Transcend	KN81G0846D	DDRIII 1066	2GB	PASS
Kingston	K4B2G0846B-HCFB	DDRIII 1066	4GB	PASS

2.3 VGA Graphic Quality Test

Test environment:

OS Windows XP professional SP2

Driver version : 5.10.0.5464

Resolution	Color	Result	
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	
1680*1050	16 /32bit	PASS	
1792*1344	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	
1	2 CH	PASS	
2	Microphone	PASS	
3	SPDIF OUT	PASS	
4	CDIN	PASS	

OS Windows Server 2003

Driver version : 5.10.0.5464

Item	Description	Result	
1	2 CH	PASS	
2	Microphone	PASS	
3	SPDIF OUT	PASS	
4	CDIN	PASS	

OS Windows 2000 SP4

Driver version : 5.10.0.5464

Item	Description	Result	
1	2 CH	PASS	
2	Microphone	PASS	
3	SPDIF OUT	PASS	
4	CDIN	PASS	

OS Windows Vista 32 bit

Driver version : 6.0.1.5473

Item	Description	Result	
1	2 CH	PASS	
2	Microphone	PASS	
3	SPDIF OUT	PASS	
4	CDIN	PASS	

OS Windows Vista 64 bit

Driver version : 6.0.1.5473

Item	Description	Result	
1	2 CH	PASS	
2	Microphone	PASS	
3	SPDIF OUT	PASS	
4	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
Western Digital WD800JD-75MSA3	SATA	80 GB	PASS	PASS	PASS
Western Digital WD1600AAJS-22PSAA0		160 GB	PASS	PASS	PASS
Western Digital WD2500KS-00MJB0		250GB	PASS	PASS	PASS
Hitachi HDS721616PLA38		164GB	PASS	PASS	PASS
Hitachi HDT22525DLA380		250GB	PASS	PASS	PASS
Western Digital WD6400H1Q-00	USB	640 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
LG DVD GSA-H62L	SATA	PASS	PASS	PASS
LG DVD GGW-H20L		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 Vista 64 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	

6. 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	

7. 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 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 Server 2003

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

4. Windows Server 2000 SP4

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 Server 2008

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

8. 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 Server 2003

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

4. Windows 2000 SP4

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 Server 2008

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

8. 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 2000 SP4

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	

2.11 Power Supply Test

Item	Description	Verification	
		Result	Remark
1	DC Power Supply	PASS	GWINSTEK SPS-3610
2	ATX Power	PASS	COOLER MASTER RS-390-PMSR-A3 390W
3	ATX Power	PASS	Seventeam ST-300WAP 300W
4	AC Adapter	PASS	Li Shin 0219B1280

2.12 Os Install

	Description	Result	Remark
1	Windows 7	PASS	
2	Windows Server 2008	PASS	
3	Windows Vista 64 bit	PASS	
4	Windows Vista 32 bit	PASS	
5	Windows XP SP2	PASS	
6	Windows Server 2003	PASS	
7	Windows 2000 SP4	PASS	
8	Suse 11	PASS	

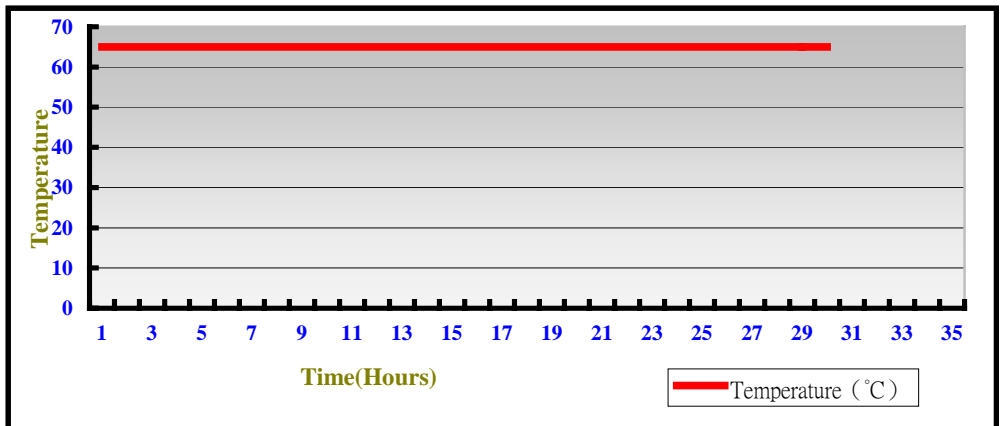
3. Environmental test

3.1 Temperature Test

Hardware Device list:

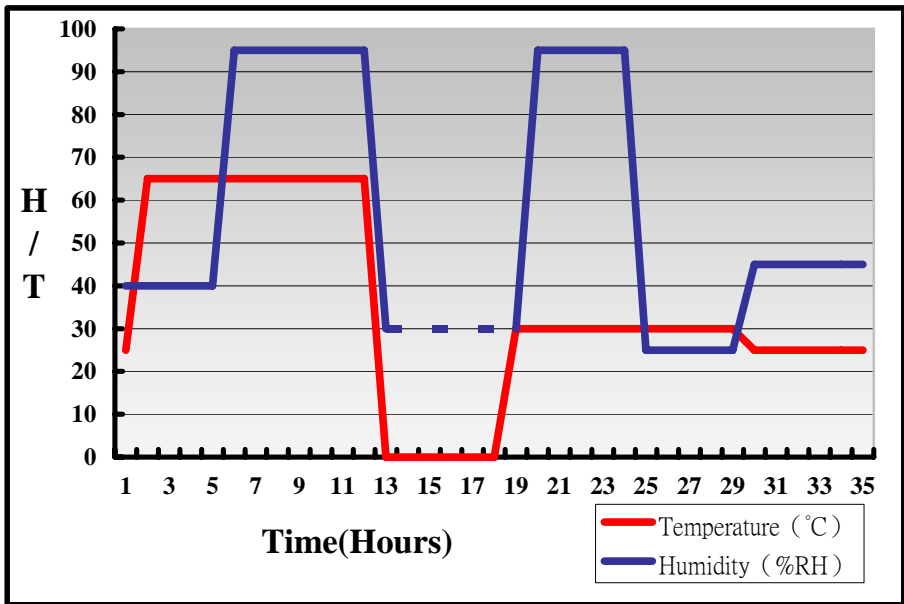
System Board	LS-373
CPU	T9600 1066 2.80GB
Memory	A-DATA AD31066002GMS DDRIII 1066 2GB
HDD	Western Digital WD2500KS 250GB
Operating OS	Windows XP
Test Equipment	THERMOTRON 2800 Programmer/Controller
Test Program	3DMark 2003

Test Result:



Hardware Device list:

System Board	LS-373
CPU	Intel Celeron Processor 575 2GHz
Memory	Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB
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	LS-373
CPU	Intel(R) Core(TM)2 Duo CPU T7500 2.20GHz
Memory	Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB
HDD	Western Digital WD800JD-75MSA3 80GB

Temperature	Result	Remark
85°C	PASS	50 Times
-30°C	PASS	50 Times

3.2 Thermal measurements at various points on the board

Test Environment :

CPU	Intel(R) Core(TM)2 Duo CPU T9600 2.80GHz
Memory	A-DATA DDRIII 1066 (K4B1G0846D) 2GB
HDD	Western Digital WD1600AAJS-22PSAA0 160GB
Power	GWINSTEK SPS-3610
Operating System	Windows XP
Test Program	3D WinMark2003

Test Result:

Item	Environmental temperature	25°C
1	CPU	40°C
2	Northbridge (GM45)	51.8°C
3	Southbridge (ICH9-M)	61.3°C
4	LPCIO ((ICH83627DHG)	53°C
5	U8(ICS9LP505)	56.8°C
6	U11(ICHALC888)	68.4°C
7	U23(ICADM213ECA-T)	55.7°C
8	LC1(LLC3.3UH/0445)	58.2°C
9	LC2(LLC3.3UH/0640)	72.3°C
10	LC3(LLC0.9UH/0445)	55.4°C

4. Reliability Test

4.1 Power Consumption Test

1. Test Environment:

Motherboard	LS-373
CPU	Intel(R) Core(TM)2 Duo CPU T7500 2.20GHz
Memory	Transcend DDRIII 1066 (KNB1G0846D) 2GB
HDD	Western Digital WD1600AAJS-22PSAA0 160GB
Test OS	Windows XP

DC Power Supply: GWINSTEK SPS-3610

Voltage	Boot up		3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.68	44.16	4.4	52.8

1.a. Test Environment:

The same as above but with LCD panel

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

DC Power Supply: GWINSTEK SPS-3610

Voltage	Boot up		3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	6.17	74.04	6.79	81.48

2.Test Environment:

Motherboard	LS-373
CPU	Intel(R) Core(TM)2 Duo CPU T9600 2.80GHz
Memory	A-DATA DDRIII 1066 (K4B1G0846D) 2GB
HDD	Western Digital WD1600AAJS-22PSAA0 160GB
Test OS	Windows XP

DC Power Supply: GWINSTEK SPS-3610

Voltage	Boot up		3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.75	45	4.08	48.96

2.a.Test Environment:

The same as above but with LCD panel

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

DC Power Supply: GWINSTEK SPS-3610

Voltage	Boot up		3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	6.47	77.64	6.76	81.12

3.Test Environment:

Motherboard	LS-373
CPU	Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz
Memory	A-DATA DDRIII 1066 (K4B1G0846D) 2GB
HDD	Western Digital WD1600AAJS-22PSAA0 160GB
Test OS	Windows XP

DC Power Supply: GWINSTEK SPS-3610

Voltage	Boot up		3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.01	36.12	3.31	39.72

3.a.Test Environment:

The same as above but with LCD panel

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

DC Power Supply: GWINSTEK SPS-3610

Voltage	Boot up		3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	5.53	66.36	5.93	71.16

4. Test Environment:

Motherboard	LS-373
CPU	Intel(R) Core(TM)2 Duo CPU T8300 2.40GHz
Memory	A-DATA DDRIII 1066 (K4B1G0846D) 2GB
HDD	Western Digital WD1600AAJS-22PSAA0 160GB
Test OS	Windows XP

DC Power Supply: GWINSTEK SPS-3610

Voltage	Boot up		3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.67	44.04	4.22	50.64

4.a. Test Environment:

The same as above but with LCD panel

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

DC Power Supply: GWINSTEK SPS-3610

Voltage	Boot up		3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	6.42	77.04	7.04	84.48

5.Test Environment:

Motherboard	LS-373
CPU	Intel(R) Core(TM)2 Duo CPU T7700 2.40GHz
Memory	A-DATA DDRIII 1066 (K4B1G0846D) 2GB
HDD	Western Digital WD1600AAJS-22PSAA0 160GB
Test OS	Windows XP

DC Power Supply: GWINSTEK SPS-3610

Voltage	Boot up		3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	4.02	48.24	4.35	52.2

5.a.Test Environment:

The same as above but with LCD panel

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

DC Power Supply: GWINSTEK SPS-3610

Voltage	Boot up		3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	6.46	77.52	7.18	86.16

6.Test Environment:

Motherboard	LS-373
CPU	Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz
Memory	Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB
HDD	Western Digital WD800JD-75MSA3 80GB
Test OS	Windows XP

DC Power Supply: GWINSTEK SPS-3610

Voltage	Boot up		3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.12	37.44	3.43	41.16

6.a.Test Environment:

The same as above but with LCD panel

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

DC Power Supply: GWINSTEK SPS-3610

Voltage	Boot up		3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	5.8	69.6	6	72

7.Test Environment:

Motherboard	LS-373
CPU	Intel(R) Core(TM)2 Duo CPU T8300 2.4GHz
Memory	Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB
HDD	Western Digital WD800JD-75MSA3 80GB
Test OS	Windows XP

DC Power Supply: GWINSTEK SPS-3610

Voltage	Boot up		3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.65	43.8	4.4	52.8

7.a.Test Environment:

The same as above but with LCD panel

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

DC Power Supply: GWINSTEK SPS-3610

Voltage	Boot up		3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	6.37	76.44	7.13	85.56

8. Test Environment:

Motherboard	LS-373
CPU	Intel Celeron Processor 575 2GHz
Memory	Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB
HDD	Western Digital WD800JD-75MSA3 80GB
Test OS	Windows XP

DC Power Supply: GWINSTEK SPS-3610

Voltage	Boot up		3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.97	35.64	3.29	39.48

8.a. Test Environment:

The same as above but with LCD panel

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

DC Power Supply: GWINSTEK SPS-3610

Voltage	Boot up		3DMARK 2003	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	5.36	64.32	5.8	69.6

5. Performance Test

5.1 Business Win Stone 2002

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
Business Win stone2002	Intel(R) Core(TM) 2 Duo Mobile T9600 2.80GHZ Transcend DDRIII 1066 (KN81G0846D) 2GB HITACHI HDS728080PLA 380 82GB	PASS	41.2 41.3 40.6 40.1
Business Win stone2002	Intel(R) Core(TM)2 Duo CPU T7700 2.40GHz A-DATA DDRIII 1066 (K4B1G0846D) 2GB Western Digital WD1600AAJS-22PSAA0 160GB	PASS	32.7 32.6 33.4 33.6
Business Win stone2002	Intel(R) Core(TM)2 Duo CPU T8300 2.40GHz A-DATA DDRIII 1066 (K4B1G0846D) 2GB Western Digital WD1600AAJS-22PSAA0 160GB	PASS	33.8 31.2 32.8 31.8
Business Win stone2002	Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz A-DATA DDRIII 1066 (K4B1G0846D) 2GB Western Digital WD1600AAJS-22PSAA0 160GB	PASS	31.9 32.2 32.2 27.9

<p align="center">Business Win stone2002</p>	<p align="center">Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">PASS</p>	<p align="center">42.2 42 41.6 41</p>
<p align="center">Business Win stone2002</p>	<p align="center">Intel(R) Core(TM)2 Duo CPU T8300 2.4GHz Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">PASS</p>	<p align="center">38.3 38.3 41.6 38.8</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(R) Core(TM)2 Duo CPU T7700 2.40GHz A-DATA DDRIII 1066 (K4B1G0846D) 2GB Western Digital WD1600AAJS-22PSAA0 160GB</p>	<p align="center">PASS</p>	<p align="center">22.9 23.4 16 16.1</p>
<p align="center">Business Win stone2004</p>	<p align="center">Intel(R) Core(TM)2 Duo CPU T8300 2.40GHz A-DATA DDRIII 1066 (K4B1G0846D) 2GB Western Digital WD1600AAJS-22PSAA0 160GB</p>	<p align="center">PASS</p>	<p align="center">24.2 24.7 24 23.9</p>
<p align="center">Business Win stone2004</p>	<p align="center">Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz A-DATA DDRIII 1066 (K4B1G0846D) 2GB Western Digital WD1600AAJS-22PSAA0 160GB</p>	<p align="center">PASS</p>	<p align="center">20.6 23.5 21.6 21.1</p>
<p align="center">Business Win stone2004</p>	<p align="center">Intel(R) Core(TM)2 Duo CPU T9600 2.80GHz A-DATA DDRIII 1066 (K4B1G0846D) 2GB Western Digital WD1600AAJS-22PSAA0 160GB</p>	<p align="center">PASS</p>	<p align="center">23.6 23.3 23.9 25.1</p>

<p align="center">Business Win stone2004</p>	<p align="center">Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">PASS</p>	<p align="center">24.7 23.7 23.9 23.9</p>
<p align="center">Business Win stone2004</p>	<p align="center">Intel(R) Core(TM)2 Duo CPU T8300 2.4GHz Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">PASS</p>	<p align="center">26.3 26.1 24.8 26.3</p>

5.3 Content Creation Winstone 2004

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
Content Creation Winstone 2004	Intel(R) Core(TM)2 Duo CPU T7700 2.40GHz A-DATA DDRIII 1066 (K4B1G0846D) 1GB Western Digital WD1600AAJS-22PSAA0 160GB	PASS	31.8 31.9 31.2 32
Content Creation Winstone 2004	Intel(R) Core(TM)2 Duo CPU T8300 2.40GHz A-DATA DDRIII 1066 (K4B1G0846D) 2GB Western Digital WD1600AAJS-22PSAA0 160GB	PASS	20.8 31.2 30.5 31.1
Content Creation Winstone 2004	Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz A-DATA DDRIII 1066 (K4B1G0846D) 2GB Western Digital WD1600AAJS-22PSAA0 160GB	PASS	31.1 30.1 31.2 30.3
Content Creation Winstone 2004	Intel(R) Core(TM)2 Duo CPU T9600 2.80GHz A-DATA DDRIII 1066 (K4B1G0846D) 2GB Western Digital WD1600AAJS-22PSAA0 160GB	PASS	34.9 34.4 34.9 34.7

<p align="center">Content Creation Winstone 2004</p>	<p align="center">Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">PASS</p>	<p align="center">40.1 40 40 40.4</p>
<p align="center">Content Creation Winstone 2004</p>	<p align="center">Intel(R) Core(TM)2 Duo CPU T8300 2.4GHz Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB Western Digital WD800JD-75MSA3 80GB</p>	<p align="center">PASS</p>	<p align="center">41.5 42.6 42.3 41.7</p>

5.4 3D MARK(2001、2003、2005)

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Core(TM) 2 Duo Mobile T9600 2.80GHZ Transcend DDRIII 1066 (KN81G0846D) 2GB HITACHI HDS728080PLA 380 82GB	PASS	6821
3DMARK2003 Scores		PASS	2715
3DMARK2005 Scores		PASS	1472

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Core(TM)2 Duo CPU T7500 2.20GHz A-DATA DDRIII 1066 (K4B1G0846D) 1GB Western Digital WD1600AAJS-22PSAA0 160GB	PASS	5350
3DMARK2003 Scores		PASS	1863
3DMARK2005 Scores		PASS	1108

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Core(TM)2 Duo CPU T7700 2.40GHz A-DATA DDRIII 1066 (K4B1G0846D) 2GB Western Digital WD1600AAJS-22PSAA0 160GB	PASS	5506
3DMARK2003 Scores		PASS	1908
3DMARK2005 Scores		PASS	1157

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Core(TM)2 Duo CPU T8300 2.40GHz A-DATA DDRIII 1066 (K4B1G0846D) 2GB Western Digital WD1600AAJS-22PSAA0 160GB	PASS	5390
3DMARK2003 Scores		PASS	1883
3DMARK2005 Scores		PASS	1121

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz A-DATA DDRIII 1066 (K4B1G0846D) 2GB Western Digital WD1600AAJS-22PSAA0 160GB	PASS	6453
3DMARK2003 Scores		PASS	2169
3DMARK2005 Scores		PASS	1283

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB Western Digital WD800JD-75MSA3 80GB	PASS	6416
3DMARK2003 Scores		PASS	2125
3DMARK2005 Scores		PASS	1227

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel(R) Core(TM)2 Duo CPU T8300 2.4GHz Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB Western Digital WD800JD-75MSA3 80GB	PASS	5400
3DMARK2003 Scores		PASS	1348
3DMARK2005 Scores		PASS	1418

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Scores	Intel Celeron Processor 575 2GHz Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB Western Digital WD800JD-75MSA3 80GB	PASS	4279
3DMARK2003 Scores		PASS	1659
3DMARK2005 Scores		PASS	1284

5.5 3D MARK2006

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel(R) Core(TM) 2 Duo Mobile T9600 2.80GHZ Transcend DDRIII 1066 (KN81G0846D) 2GB HITACHI HDS728080PLA 380 82GB	PASS	290
2	SM2.0 Score		PASS	93
3	HDR/SM3.0 Score		PASS	106
4	CPU Score		PASS	2511

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel(R) Core(TM)2 Duo CPU T7500 2.20GHz A-DATA DDRIII 1066 (K4B1G0846D) 1GB Western Digital WD1600AAJS-22PSAA0 160GB	PASS	228
2	SM2.0 Score		PASS	72
3	HDR/SM3.0 Score		PASS	84
4	CPU Score		PASS	1893

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz A-DATA DDRIII 1066 (K4B1G0846D) 2GB Western Digital WD1600AAJS-22PSAA0 160GB	PASS	267
2	SM2.0 Score		PASS	84
3	HDR/SM3.0 Score		PASS	99
4	CPU Score		PASS	2028

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel(R) Core(TM)2 Duo CPU T7700 2.40GHz A-DATA DDRIII 1066 (K4B1G0846D) 2GB Western Digital WD1600AAJS-22PSAA0 160GB	PASS	223
2	SM2.0 Score		PASS	56
3	HDR/SM3.0 Score		PASS	97
4	CPU Score		PASS	1942

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel(R) Core(TM)2 Duo CPU T8300 2.40GHz A-DATA DDRIII 1066 (K4B1G0846D) 2GB Western Digital WD1600AAJS-22PSAA0 160GB	PASS	230
2	SM2.0 Score		PASS	73
3	HDR/SM3.0 Score		PASS	84
4	CPU Score		PASS	1627

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB Western Digital WD800JD-75MSA3 80GB	PASS	871
2	SM2.0 Score		PASS	247
3	HDR/SM3.0 Score		PASS	362
4	CPU Score		PASS	1939

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel(R) Core(TM)2 Duo CPU T8300 2.4GHz Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB Western Digital WD800JD-75MSA3 80GB	PASS	620
2	SM2.0 Score		PASS	181
3	HDR/SM3.0 Score		PASS	248
4	CPU Score		PASS	2024

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel Celeron Processor 575 2GHz Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB Western Digital WD800JD-75MSA3 80GB	PASS	541
2	SM2.0 Score		PASS	161
3	HDR/SM3.0 Score		PASS	221
4	CPU Score		PASS	884

5.6 PC MARK2002

Test Environment
Intel(R) Core(TM) 2 Duo Mobile T9600 2.80GHZ Transcend DDRIII 1066 (KN81G0846D) 2GB HITACHI HDS728080PLA 380 82GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Source	PASS	9489
2	Memory test Source	PASS	N/A
3	HDD test Source	PASS	578

Test Environment
Intel(R) Core(TM)2 Duo CPU T7500 2.20GHz A-DATA DDRIII 1066 (K4B1G0846D) 1GB Western Digital WD1600AAJS-22PSAA0 160GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU Score	PASS	8662
2	Memory Score	PASS	27610
3	HDD Score	PASS	604

Test Environment

**Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz
A-DATA DDRIII 1066 (K4B1G0846D) 2GB
Western Digital WD1600AAJS-22PSAA0 160GB**

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU Score	PASS	8884
2	Memory Score	PASS	27306
3	HDD Score	PASS	608

Test Environment

**Intel(R) Core(TM)2 Duo CPU T7700 2.40GHz
A-DATA DDRIII 1066 (K4B1G0846D) 2GB
Western Digital WD1600AAJS-22PSAA0 160GB**

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU Score	PASS	9523
2	Memory Score	PASS	30011
3	HDD Score	PASS	600

Test Environment

**Intel(R) Core(TM)2 Duo CPU T8300 2.40GHz
A-DATA DDRIII 1066 (K4B1G0846D) 2GB
Western Digital WD1600AAJS-22PSAA0 160GB**

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU Score	PASS	9455
2	Memory Score	PASS	28389
3	HDD Score	PASS	594

Test Environment

**Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz
Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB
Western Digital WD800JD-75MSA3 80GB**

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU Score	PASS	8929
2	Memory Score	PASS	26865
3	HDD Score	PASS	1358

Test Environment

**Intel(R) Core(TM)2 Duo CPU T8300 2.4GHz
Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB
Western Digital WD800JD-75MSA3 80GB**

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU Score	PASS	9396
2	Memory Score	PASS	28283
3	HDD Score	PASS	1407

Test Environment

**Intel Celeron Processor 575 2GHz
Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB
Western Digital WD800JD-75MSA3 80GB**

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU Score	PASS	7830
2	Memory Score	PASS	9589
3	HDD Score	PASS	1313

5.7 PC MARK2004

Test Environment
Intel(R) Core(TM) 2 Duo Mobile T9600 2.80GHZ Transcend DDRIII 1066 (KN81G0846D) 2GB HITACHI HDS728080PLA 380 82GB

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	N/A
2	CPU Score	PASS	N/A
3	Memory Score	PASS	10254
4	Graphic Score	PASS	1505
5	HDD Score	PASS	4756

Test Environment
Intel(R) Core(TM)2 Duo CPU T7500 2.20GHz A-DATA DDRIII 1066 (K4B1G0846D) 1GB Western Digital WD1600AAJS-22PSAA0 160GB

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	6693
2	CPU Score	PASS	N/A
3	Memory Score	PASS	7345
4	Graphic Score	PASS	1501
5	HDD Score	PASS	2060

Test Environment

Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz

A-DATA DDRIII 1066 (K4B1G0846D) 2GB

Western Digital WD1600AAJS-22PSAA0 160GB

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	N/A
2	CPU Score	PASS	N/A
3	Memory Score	PASS	7007
4	Graphic Score	PASS	1432
5	HDD Score	PASS	2091

Test Environment

Intel(R) Core(TM)2 Duo CPU T7700 2.40GHz

A-DATA DDRIII 1066 (K4B1G0846D) 2GB

Western Digital WD1600AAJS-22PSAA0 160GB

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	N/A
2	CPU Score	PASS	N/A
3	Memory Score	PASS	7503
4	Graphic Score	PASS	1531
5	HDD Score	PASS	N/A

Test Environment

**Intel(R) Core(TM)2 Duo CPU T8300 2.40GHz
A-DATA DDRIII 1066 (K4B1G0846D) 2GB
Western Digital WD1600AAJS-22PSAA0 160GB**

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	N/A
2	CPU Score	PASS	N/A
3	Memory Score	PASS	6337
4	Graphic Score	PASS	1334
5	HDD Score	PASS	2060

Test Environment

**Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz
Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB
Western Digital WD800JD-75MSA3 80GB**

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	N/A
2	CPU Score	PASS	N/A
3	Memory Score	PASS	6863
4	Graphic Score	PASS	1595
5	HDD Score	PASS	4671

Test Environment

**Intel(R) Core(TM)2 Duo CPU T8300 2.4GHz
Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB
Western Digital WD800JD-75MSA3 80GB**

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	N/A
2	CPU Score	PASS	N/A
3	Memory Score	PASS	6225
4	Graphic Score	PASS	1515
5	HDD Score	PASS	4623

Test Environment

**Intel Celeron Processor 575 2GHz
Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB
Western Digital WD800JD-75MSA3 80GB**

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	4156
2	CPU Score	PASS	4450
3	Memory Score	PASS	4575
4	Graphic Score	PASS	1316
5	HDD Score	PASS	4779

5.8 PC MARK2005

Test Environment
Intel(R) Core(TM) 2 Duo Mobile T9600 2.80GHZ Transcend DDRIII 1066 (KNB1G0846D) 2GB HITACHI HDS728080PLA 380 82GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	5296
2	CPU Score	PASS	7153
3	Memory Score	PASS	5830
4	Graphics Score	PASS	1847
5	HDD Score	PASS	5099

Test Environment
Intel(R) Core(TM)2 Duo CPU T7500 2.20GHz A-DATA DDRIII 1066 (K4B1G0846D) 1GB Western Digital WD1600AAJS-22PSAA0 160GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	4036
2	CPU Score	PASS	5631
3	Memory Score	PASS	4520
4	Graphics Score	PASS	1478
5	HDD Score	PASS	2498

Test Environment

Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz

A-DATA DDRIII 1066 (K4B1G0846D) 2GB

Western Digital WD1600AAJS-22PSAA0 160GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	N/A
2	CPU Score	PASS	5804
3	Memory Score	PASS	4995
4	Graphics Score	PASS	N/A
5	HDD Score	PASS	2540

Test Environment

Intel(R) Core(TM)2 Duo CPU T7700 2.40GHz

A-DATA DDRIII 1066 (K4B1G0846D) 2GB

Western Digital WD1600AAJS-22PSAA0 160GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	4169
2	CPU Score	PASS	6124
3	Memory Score	PASS	4676
4	Graphics Score	PASS	1619
5	HDD Score	PASS	2494

Test Environment

**Intel(R) Core(TM)2 Duo CPU T8300 2.40GHz
A-DATA DDRIII 1066 (K4B1G0846D) 2GB
Western Digital WD1600AAJS-22PSAA0 160GB**

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	4024
2	CPU Score	PASS	5530
3	Memory Score	PASS	4746
4	Graphics Score	PASS	1600
5	HDD Score	PASS	2529

Test Environment

**Intel(R) Core(TM)2 Duo CPU P8400 2.26GHz
Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB
Western Digital WD800JD-75MSA3 80GB**

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	4454
2	CPU Score	PASS	5802
3	Memory Score	PASS	4946
4	Graphics Score	PASS	1738
5	HDD Score	PASS	4966

Test Environment

**Intel(R) Core(TM)2 Duo CPU T8300 2.4GHz
Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB
Western Digital WD800JD-75MSA3 80GB**

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	3821
2	CPU Score	PASS	6119
3	Memory Score	PASS	4682
4	Graphics Score	PASS	1182
5	HDD Score	PASS	4962

Test Environment

**Intel Celeron Processor 575 2GHz
Kingston DDR3 1066 (K4B2G0846B-HCFB) 4GB
Western Digital WD800JD-75MSA3 80GB**

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	2477
2	CPU Score	PASS	3636
3	Memory Score	PASS	3794
4	Graphics Score	PASS	1074
5	HDD Score	PASS	5105

Test Environment

**Intel(R) Core(TM)2 Duo CPU T8300 2.4GHz
Transcend DDRIII 1066 (KNB1G0846D) 1GB
Western Digital WD800JD-75MSA3 80GB**

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	4304
2	CPU Score	PASS	6120
3	Memory Score	PASS	4743
4	Graphics Score	PASS	1502
5	HDD Score	PASS	4930

5.9 SATA Performance

5.9.1 SATA HDD

Test environment:

OS Windows XP professional SP2

Program (HD Tune)

HDD MODEL	INTERFACE	capacity	Average	Burst Rate	Access time
Western Digital WD800JD-75MSA3	SATA	80 GB	47.4 MB/sec	141.3 MB/sec	13.7ms
Western Digital WD1600AAJS-22PSAA0		160 GB	58.1 MB/sec	124.5 MB/sec	13ms
Western Digital WD2500KS-00MJB0		250 GB	51.6 MB/sec	134.6 MB/sec	13.3ms
Hitachi HDS721616PLA38		164 GB	61.5 MB/sec	164.8 MB/sec	13.7ms
Hitachi HDT22525DLA380		250 GB	53.3 MB/sec	110.5 MB/sec	13ms

5.9.2 SATA CD-ROM

Test environment:

OS Windows XP professional SP2

Program (NERO)

CD-ROM MODEL	INTERFACE	Average speed	Full READ	Burst Rate	CD
PIONEER DVD DVR-212BK	SATA	25.15 x	150 ms	46 MB/s	52 X CD-R
LG DVD GSA-H62L		29.12 x	172 ms	38 MB/s	
LG DVD GGW-H20L		29.98 x	203 ms	40 MB/s	
ASUS DVD DRW-1814BLT		24.78 x	123 ms	44 MB/s	

5.10 USB Performance

5.10.1 USB HDD

Test environment:

OS Windows XP professional SP2

Program (HD Tune)

HDD MODEL	INTERFACE	capacity	Average	Burst Rate	Access time
TDK LoR Trans-IT Drive	USB	4GB	16.6 MB/sec	17.9 MB/sec	0.8 ms
SD/MMC Reader		2GB	14.7 MB/sec	11.4 MB/sec	1.1 ms
Apacer USB FLASH DRIVE		515 MB	9.1 MB/sec	4.6 MB/sec	1.8 ms
ACTIONS USB DEVICE		261MB	0.5 MB/sec	0.5 MB/sec	5.9 ms
USB 2.0 Flash Drive		8GB	13.9 MB/sec	13.9 MB/sec	0.7 ms
Western Digital WD6400H1Q-00		640 GB	27.5 MB/sec	27.8 MB/sec	14.9 ms

5.10.2 USB CD-ROM

Test environment:

OS Windows XP professional SP2

Program (NERO)

CD-ROM MODEL	INTERFACE	Average speed	Full READ	Burst Rate	CD
LITEON DVD SOSC-2485KX	USB	14.98 x	144 ms	22 MB/s	52X CD-R
LITEON DVD SOSW-833XS		14.87 x	274 ms	20 MB/s	

5.11 Vibration Test

Motherboard	LS-373		
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