

Product Test Report



Product Name	FS-A75
Product Version	A
Issued Date	2016.07.20
Report Edition	1.3
BIOS Version	1.0
Testing Engineer	RICK
Check Engineer	JEFF

REVISION HISTORY			
DATE	REVISION NO.	PAGE	DESCRIPTONS
2012.04.26	Ver. 1.0	82	Initial Release
2012.07.19	Ver. 1.1	82	Delete MPX-574D2 (Because only support LAN 1)
2012.09.18	Ver. 1.2	82	Add MPX-3132
2016.07.20	Ver. 1.3	82	Add Back Plane

Index

1. Function test.....	5
1.1 Hardware function.....	5
1.2 BIOS function	7
1.3 Driver	9
2. Compatibility test	12
2.1 CPU Test.....	12
2.2 Operation System Test	13
2.3 Memory Test	14
2.4 VGA Graphic Quality Test.....	15
2.5 Audio	16
2.6 HDD Test	19
2.7 DVD-ROM Test	20
2.8 USB device Test	21
2.9 Serial Port Test	23
2.10 PS2 Keyboard 、 Mouse Test.....	26
2.11 Print Port Test	28
2.12 LAN Test.....	29
2.13 Power Supply Test	31
2.14 PCI Express mini card	32
2.15 Back plane	33
3. Environmental test	34
3.1 Temperature Test.....	34
3.2 Thermal measurements at various points on the board	37
4. Reliability Test	40
4.1 Power Consumption Test	40
5. Performance Test	58

5.1 Business Win Stone 2002.....	58
5.2 Business Win Stone 2004.....	59
5.3 Content Creation Winstone 2004.....	60
5.4 3D MARK(2001、2003、2005).....	61
5.5 3D MARK2006.....	65
5.6 PC MARK2002.....	69
5.7 PC MARK2004.....	71
5.8 PC MARK2005.....	74
5.9 Storage Performance.....	80
5.10 Vibration Test.....	82

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	VGA	PASS
6	CN_CRT	PASS
7	PS2	PASS
8	SATA 1 / 2 / 3 / 4 / 5 / 6	PASS
9	LAN 1 / 2	PASS
10	DDR3 1 / 2	PASS
11	USB 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8	PASS
12	COM port 1 / 2 / 3 / 4 / 5 / 6	PASS
13	CPU FAN	PASS
14	SYS FAN	PASS
15	DVI	PASS
16	LVDS	PASS
17	CN_AUDIO	PASS
18	CD_IN	PASS
19	MINI_CARD	PASS
20	Printer	PASS
21	IrDA	PASS
22	PCI 1 / 2 / 3 / 4	PASS

23	PCIE 16x	PASS
24	PCIE 4x (Only A75F10ME.bin)	PASS
25	PCIE 1x (Only A7510ME.bin) 1 / 2 / 3 / 4	PASS

Jumper

Item	Description	Result
1	JRTC	PASS
2	JCSEL1	PASS
3	JCSEL2	PASS
4	JVLCD	PASS
5	JAT	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	NumLock	PASS	
6	Select Language	PASS	
7	Quick Boot	PASS	
8	Console Redirection	PASS	Only DOS Mode
9	Active Processor Cores	PASS	
10	Interface Combination	PASS	
11	DVMT Total Gfx Mem	PASS	
12	IGD-Boot Type (No include MPX-SDVOD / SDVOX)	PASS	
13	IGD-LCD Panel type	PASS	
14	Panel Color Depth	PASS	
15	USB Per-Port Disabled Control	PASS	
16	SB Azalia Config	PASS	
17	LAN OPROM Selection	PASS	
18	Serial Port	PASS	
19	IR Func.	PASS	
20	Paraller Port	PASS	
21	Watch Dog Timer Select	PASS	
22	CPU Fan Control(40-4~80-5)	PASS	
23	Power Control	PASS	
24	Power On By RTC Alarm	PASS	

25	Set Supervisor Password	PASS	
26	Set User Password	PASS	

1.3 Driver

CD Edition : IPCi4-1.0

3. Windows XP SP2 32-bit driver test

Item	Description	Result	Version
1	Chipset Driver	PASS	9.2.0.1025
2	VGA Driver	PASS	6.14.10.5337
3	Audio Driver	PASS	5.10.0.6101
4	LAN Driver	PASS	10.3.49.0

2. Windows XP SP2 64-bit driver test

Item	Description	Result	Version
1	Chipset Driver	PASS	9.2.0.1025
2	VGA Driver	PASS	6.14.10.5337
3	Audio Driver (Need UAA bus driver)	PASS	5.10.0.6101
4	LAN Driver	PASS	11.11.43.0

3. Windows Server 2003 32-bit Driver Test

Item	Description	Result	Version
1	Chipset Driver	PASS	9.2.0.1025
2	Audio Driver	PASS	5.10.0.6101
3	LAN Driver	PASS	10.3.49.0

4. Windows Server 2003 64-bit driver test

Item	Description	Result	Version
1	Chipset Driver	PASS	9.2.0.1025
2	Audio Driver	PASS	5.10.0.6101
3	LAN Driver	PASS	11.11.43.0

5. Windows Vista 32-bit driver test

Item	Description	Result	Version
1	Chipset Driver	PASS	9.2.0.1025
2	VGA Driver	PASS	8.15.10.2321
3	Audio Driver	PASS	6.0.1.6101
4	LAN Driver	PASS	10.3.49.0

6. Windows Vista 64-bit driver test

Item	Description	Result	Version
1	Chipset Driver	PASS	9.2.0.1025
2	VGA Driver	PASS	8.15.10.2321
3	Audio Driver	PASS	6.0.1.6101
4	LAN Driver	PASS	10.3.49.0

7. Windows Server 2008 32-bit driver test

Item	Description	Result	Version
1	Chipset Driver	PASS	9.2.0.1025
2	Audio Driver	PASS	6.0.1.6101
3	LAN Driver	PASS	10.3.49.0

8. Windows Server 2008 64-bit driver test

Item	Description	Result	Version
1	Chipset Driver	PASS	9.2.0.1025
2	Audio Driver	PASS	6.0.1.6101
3	LAN Driver	PASS	10.3.49.0

9. Windows 7 32-bit Driver Test

Item	Description	Result	Version
1	Chipset Driver	PASS	9.2.0.1025
2	VGA Driver	PASS	8.15.10.2321
3	Audio Driver	PASS	6.0.1.6101

10. Windows 7 64-bit Driver Test

Item	Description	Result	Version
1	Chipset Driver	PASS	9.2.0.1025
2	VGA Driver	PASS	8.15.10.2321
3	Audio Driver	PASS	6.0.1.6101

2. Compatibility test

2.1 CPU Test

Test environment:

OS Windows XP professional SP2

Test program : PC MARK 2005

Spec	CPU Speed	Family	Processor	DMI	Smart Cache	Result
SR02T	2.10 GHz	Core	i7-2710QE	5 GT/s	6 MB	PASS
SR02U	2.50 GHz	Core	i5-2510E	5 GT/s	3 MB	PASS
SR02V	2.20 GHz	Core	i3-2330E	5 GT/s	3 MB	PASS
SR088	1.60 GHz	Celeron	B810	5 GT/s	2 MB	PASS

2.2 Operation System Test

Item	Description	Result	Remark
1	Windows 7 64-bit	PASS	
2	Windows 7 32-bit	PASS	
3	Windows Server 2008 64-bit	PASS	
4	Windows Server 2008 32-bit	PASS	
5	Windows Vista 64-bit	PASS	
6	Windows Vista 32-bit	PASS	
7	Windows XP SP2 64-bit	PASS	
8	Windows XP SP2 32-bit	PASS	
9	Windows Server 2003 64-bit	PASS	
10	Windows Server 2003 32-bit	PASS	
11	RED HAT 6 (2.6.32.el6.x86_64)	PASS	

2.3 Memory Test

Test environment:

OS Windows XP professional SP2

Test program : PC MARK 2005

Manufacturer	Chip	Frequency	Capacity Mbytes	Result
Kingston	J4208BASE-DJ-F	DDR3 1333	8 GB	PASS
Kingston	K4B2G0846B-HCFB	DDR3 1066	4 GB	PASS
Kingston	D2568JENCPGD9U	DDR3 1333	4 GB	PASS
A-DATA	J2108BCSE-GN-F	DDR3 1600	4 GB	PASS
A-DATA	K4B1G0846D	DDR3 1066	2 GB	PASS
A-DATA	K4B1G0846D	DDR3 1066	1 GB	PASS
Transcend	K4B1G0846D	DDR3 1066	2 GB	PASS
Transcend	K4B1G0846D	DDR3 1066	1 GB	PASS
INNODISK	H5TQ2G83CFR	DDR3 1333	4 GB	PASS
INNODISK	H5TQ2G83CFR	DDR3 1333	2 GB	PASS

2.4 VGA Graphic Quality Test

Test environment:

OS Windows XP professional SP2 32/64-bit

Driver version : 6.14.10.5337

Resolution	Color	Result	Remark
800*600	16 / 32bit	PASS	
1024*768	16 / 32bit	PASS	
1152*864	16 / 32bit	PASS	
1280*600	16 / 32bit	PASS	
1280*720	16 / 32bit	PASS	
1280*768	16 / 32bit	PASS	
1280*800	16 / 32bit	PASS	
1280*960	16 / 32bit	PASS	
1280*1024	16 / 32bit	PASS	
1360*768	16 / 32bit	PASS	
1366*768	16 / 32bit	PASS	
1400*1050	16 / 32bit	PASS	
1440*900	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	
1920*1200	16 / 32bit	PASS	

2.5 Audio

Test environment:

OS Windows XP professional SP2 32-bit

Driver version : 5.10.0.6101

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
3	CDIN	PASS	

OS Windows XP professional SP2 64-bit

Driver version : 5.10.0.6101

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
3	CDIN	PASS	

OS Windows Server 2003 32-bit

Driver version : 5.10.0.6101

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
3	CDIN	PASS	

OS Windows Server 2003 64-bit

Driver version : 5.10.0.6101

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
3	CDIN	PASS	

OS Windows Vista 32 bit
Driver version : 6.0.1.6101

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
3	CDIN	PASS	

OS Windows Vista 64 bit
Driver version : 6.0.1.6101

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
3	CDIN	PASS	

OS Windows Server 2008 32-bit
Driver version : 6.0.1.6101

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
3	CDIN	PASS	

OS Windows Server 2008 64-bit
Driver version : 6.0.1.6101

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
3	CDIN	PASS	

OS Windows 7 32-bit
Driver version : 6.0.1.6101

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
3	CDIN	PASS	

OS Windows 7 64-bit
Driver version : 6.0.1.6101

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
3	CDIN	PASS	

OS RED HAT 6

Item	Description	Result	Remark
1	2 CH	PASS	

2.6 HDD Test

Test environment:

OS Windows XP professional SP2

Model	Interface	Capacity	Size Detect	Data Transfer
Western Digital WD10EALX-009BA0	SATA	1.0 TB	PASS	PASS
Western Digital WD3200AAKS-00B3A0	SATA	320 GB	PASS	PASS
Western Digital WD3200AAJS-00YZCA0	SATA	320 GB	PASS	PASS
Western Digital WD1600AAJS-00B4A0	SATA	160 GB	PASS	PASS
Hitachi HTS543216L9A300	SATA	160 GB	PASS	PASS

2.7 DVD-ROM Test

Test environment:

OS Windows XP professional SP2

Model	Interface	Detect	Data Transfer	Play CD
LG DVD GH20NS15	SATA	PASS	PASS	PASS
PIONEER DVD DVR-S19LBK	SATA	PASS	PASS	PASS
PIONEER DVD DVR-212BK	SATA	PASS	PASS	PASS
LITEON DVD eTAU108	USB	PASS	PASS	PASS

2.8 USB device Test

1. Windows XP SP2 32/64-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	

2. Windows Server 2003 32/64-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	

3. Windows Vista 32/64-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	

4. Windows Server 2008 32/64-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	

5. Windows 7 32/64-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. RED HAT 6

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

2.9 Serial Port Test

1. MS-DOS

Item	Description	Result	Remark
1	RS-422 & RS-485	PASS	
2	CHKIT	PASS	

2. Windows XP SP2 32-bit

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

3. Windows XP SP2 64-bit

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

4. Windows Server 2003 32-bit

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

5. Windows Server 2003 64-bit

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

6. Windows Vista 32-bit

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

7. Windows Vista 64-bit

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

8. Windows Server 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	

9. Windows Server 2008 64-bit

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

10. Windows 7 32-bit

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

11. Windows 7 64-bit

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

2.10 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 32/64-bit

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

3. Windows Server 2003 32/64-bit

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

4. Windows Vista 32/64-bit

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

5. Windows Server 2008 32/64-bit

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

6. Windows 7 32/64-bit

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

7. RED HAT 6

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

2.11 Print Port Test

1. Windows Server 2003 32/64-bit

Item	Description	Result	Remark
1	ECP/EPP PRINT TEST	PASS	

2. Windows XP SP2 32/64-bit

Item	Description	Result	Remark
1	ECP/EPP PRINT TEST	PASS	

3. Windows Vista 32/64-bit

Item	Description	Result	Remark
1	ECP/EPP PRINT TEST	PASS	

4. Windows Server 2008 32/64-bit

Item	Description	Result	Remark
1	ECP/EPP PRINT TEST	PASS	

5. Windows 7 32/64-bit

Item	Description	Result	Remark
1	ECP/EPP PRINT TEST	PASS	

2.12 LAN Test

Data Transfer Test environment:

-CAT 6 UTP 100M

-8 HR. continuous

1. Windows XP SP2 32/64-bit

Item	Description	Result	Remark
1	Device Manager Check	PASS	

2. Windows Server 2003 32/64-bit

32-bit driver version : 10.3.49.0 ; 64-bit driver version : 11.11.43.0

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

3. Windows Vista 32/64-bit

Item	Description	Result	Remark
1	Device Manager Check	PASS	

4. Windows Server 2008 32/64-bit

32-bit driver version : 10.3.49.0

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

5. Windows Server 7 32/64-bit

Item	Description	Result	Remark
1	Device Manager Check	PASS	

6. RED HAT 6

Tem	Description	Result	Remark
1	Device Manager Check	PASS	

2.13 Power Supply Test

Item	TYPE	Description	Result	Remark
1	ATX Power	CHANNEL WELL TECHNOLOGY CWT-300ATX12 300W	PASS	
2	ATX Power	CHANNEL WELL TECHNOLOGY SFX-200CPS3C-TL 200W	PASS	
3	ATX Power	HIGH POWER HPC-250-101 A/OEM 250W	PASS	
4	ATX Power	Enhance ENP-2120A 200W	PASS	
5	ATX Power	Enhance ENH-0630A 300W	PASS	
6	ATX Power	Seasonic SS-380HB 380W	PASS	
7	ATX Power	Seventeam ST-300BKV 280W	PASS	
8	ATX Power	AcBel ATX350P-DNSS 350W	PASS	

2.14 PCI Express mini card

Motherboard	PCI Express mini card	Remark
FS-A75	MPX-954	PASS
	MPX-954E	PASS
	MPX-827	PASS
	MPX-574D	PASS
	MPX-5201	PASS
	MPX-643	PASS
	MPX-885	PASS
	MPX-7202	PASS
	MPX-TP4R	PASS
	MPX-1040	PASS
	MPX-6864	PASS
	MPX-3132	PASS (Version 1.2)

Attention: Use MPX-3132 install win XP

needs to into BIOS setting

=> Advanced => South Bridge Configuration

=> SB PCI Express Config

=> PCI Express Root Port 4

=> PCIe Speed [Gen1]

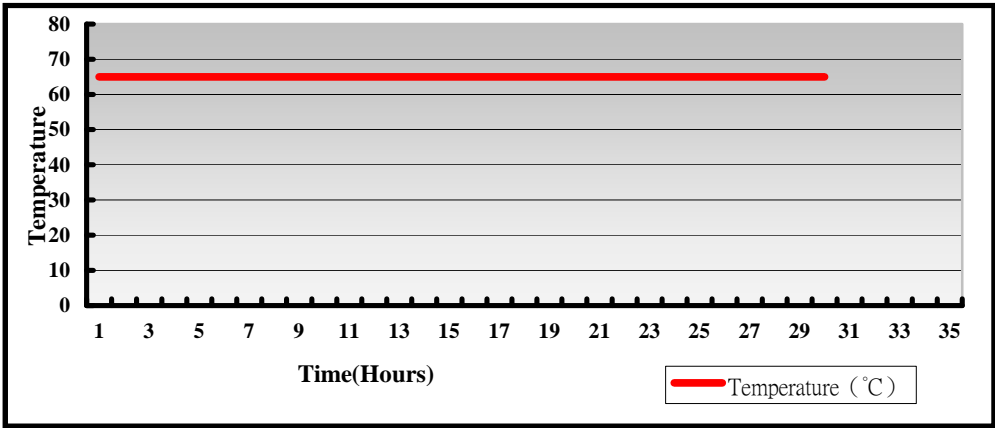
2.15 Back plane

Item	Brand	Model	Result	Remark
1	IEI	PE-6S2-R20	PASS	Rev:2.0
2	IEI	PE-10S-R20	PASS	Rev:2.0
3	AXIOMTEK	FAB113-13A7P4	PASS	Rev:A0-RC

3. Environmental test

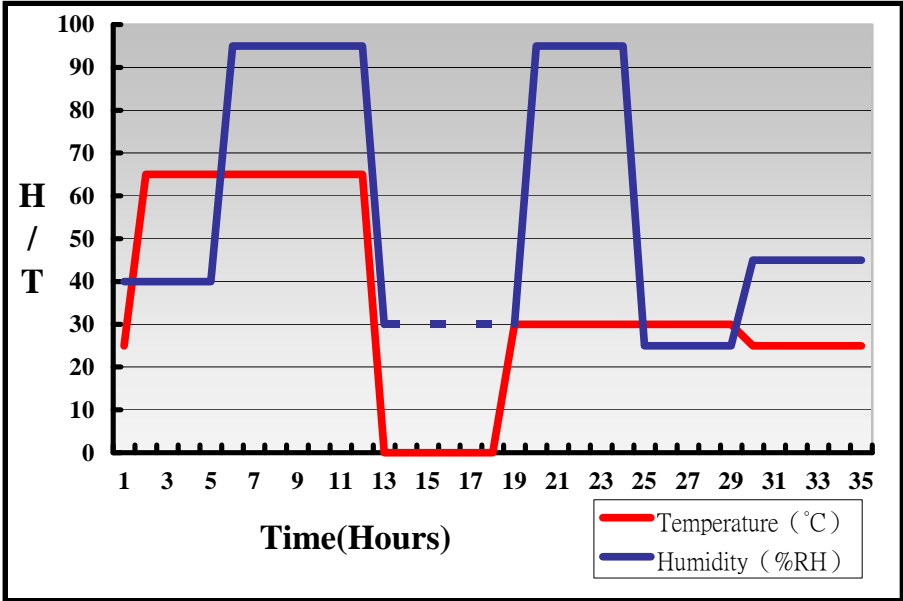
3.1 Temperature Test

System Board	FS-A75
CPU	Intel® Core™ i5-2510E 2.50GHz
Memory	Kingston DDR3 1066 4GB (K4B2G0846B-HCFB)
HDD	Western Digital WD10EALX-089BA0 1.0TB
Operating OS	Windows XP
Test Equipment	GIANT FORCE (GTH-150-60-CP-AR)
Test Program	3DMark 2003



Hardware Device list:

System Board	FS-A75
CPU	Intel® Core™ i5-2510E 2.50GHz
Memory	Kingston DDR3 1066 4GB (K4B2G0846B-HCFB)
HDD	Western Digital WD10EALX-089BA0 1.0TB
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	FS-A75
CPU	Intel® Core™ i3-2330E 2.20GHz
Memory	A-DATA DDR3 1066 2GB (K4B1G0846D)
HDD	Hitachi HTS543216L9A300 160GB

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

3.2 Thermal measurements at various points on the board

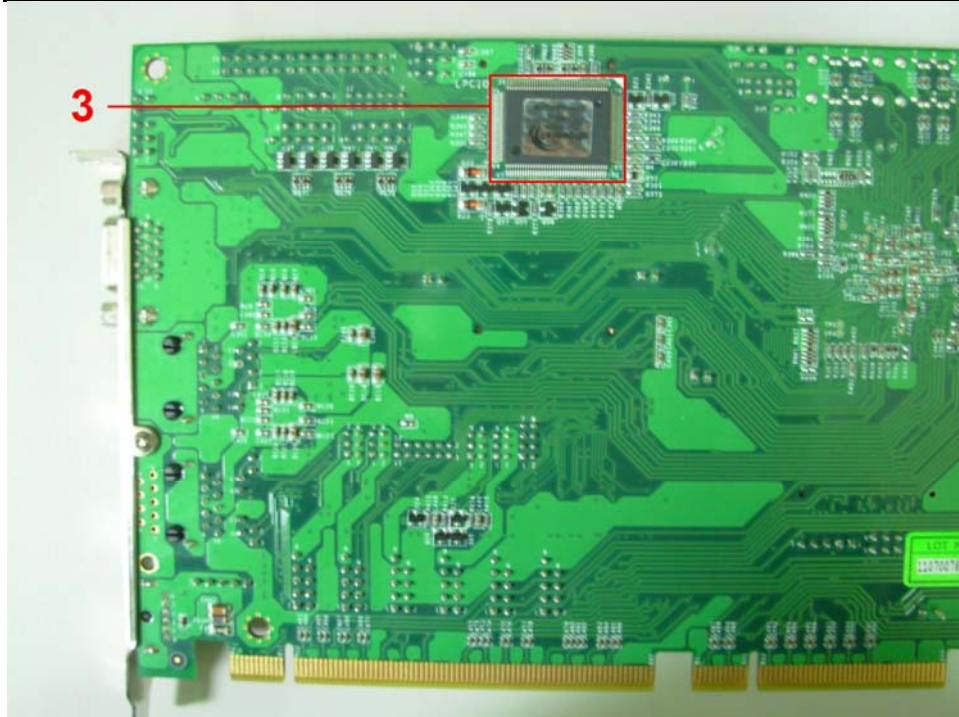
Test Environment :

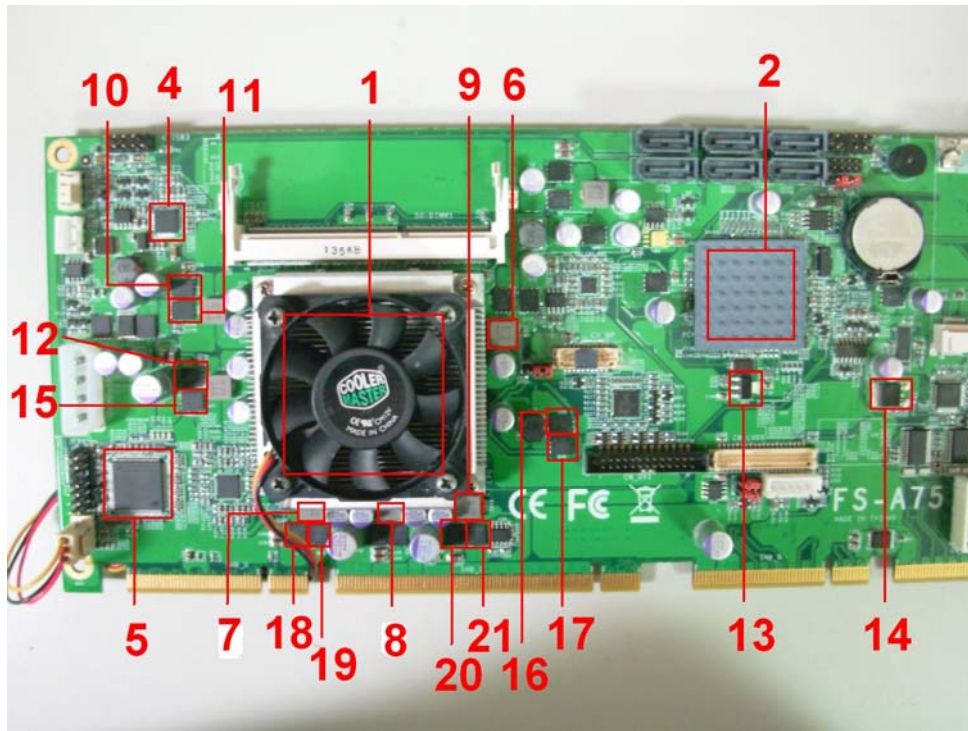
CPU	Intel® Core™ i5-2410M 2.30 GHz
Memory	Kingston DDR3 1333 4GB (D2568JENC PGD9U)
HDD	Western Digital WD10EALX-009BA0 1.0TB
Power	HIGH POWER HPC-250-101 A/OEM
Operating System	Windows XP
Test Program	Burnin 6.0

Test Result:

Item	Environmental temperature	26°C
1	CPU	70°C
2	PCH(QM67)	49.3°C
3	LPCIO(ICH83627DHG-P)	36.3°C
4	U3(ISL6537ACR)	40.9°C
5	U32(IST383)	43.3°C
6	L4(LLC0.47UH)	43.5°C
7	L8(LLC0.47UH)	45°C
8	L9(LLC0.47UH)	48.4°C
9	L10(LLC0.47UH)	44°C
10	Q15(TMSIRFH7914PBF)	41.9°C
11	Q20(TMSIRFH7914PBF)	42.4°C

12	Q29(TMSIRFH7914PBF)	43.5°C
13	Q33(TREL1117LG)	43.5°C
14	Q36(TRE1085)	51.8°C
15	Q37(TMSIRFH7914PBF)	45.3°C
16	Q38(TMSIRFH7914PBF)	40.9°C
17	Q39(TMSIRFH7914PBF)	40°C
18	Q44(TMSIRFH7914PBF)	49.1°C
19	Q45(TMSIRFH7914PBF)	55.8°C
20	Q48(TMSIRFH7914PBF)	51.6°C
21	Q49(TMSIRFH7914PBF)	53.6°C





4. Reliability Test

4.1 Power Consumption Test

1. Test Environment:

Motherboard	FS-A75+ PE-6S2-R20
CPU	Intel® Core™ i5-2510E 2.50GHz
Memory	Kingston DDR3 1333 4GB*2 (D2568JENC PGD9U)
HDD	Western Digital WD10EALX-009BA0 1.0TB

Power Supply : Seasonic SS-380HB

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.66	31.92	4.18	50.16
5V	3.21	16.05	4.39	21.95
3.3V	0.01	0.033	0.01	0.033
5VSB	0.35	1.75	0.034	0.17

1.a.Test Environment:

The same as above but with LCD panel

Display Panel	AUO M170EG01 17”LCD
---------------	---------------------

Power Supply : Seasonic SS-380HB

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.53	42.36	5.8	69.6
5V	3.71	18.55	4.99	24.95
3.3V	0.01	0.033	0.01	0.033
5VSB	0.303	1.515	0.035	0.175

2.Test Environment:

Motherboard	FS-A75+ PE-6S2-R20
CPU	Intel® Core™ i3-2330E 2.20GHz
Memory	Kingston DDR3 1333 4GB*2 (D2568JENC PGD9U)
HDD	Western Digital WD10EALX-009BA0 1.0TB

Power Supply : Seasonic SS-380HB

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.73	44.76	4.08	48.96
5V	3.23	16.15	4.44	22.2
3.3V	0.01	0.033	0.01	0.033
5VSB	0.313	1.565	0.044	0.22

2.a.Test Environment:

The same as above but with LCD panel

Display Panel	AUO M170EG01 17"LCD
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Power Supply : Seasonic SS-380HB

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.91	46.92	5.61	28.05
5V	3.85	17.25	5.12	25.6
3.3V	0.01	0.033	0.01	0.033
5VSB	0.308	1.54	0.032	0.16

3.Test Environment:

Motherboard	FS-A75+ PE-6S2-R20
CPU	Intel® Core™ i5-2510E 2.50GHz
Memory	A-DATA DDR3 1600 4GB*2 (J2108BCSE-GN-F)
HDD	Western Digital WD10EALX-009BA0 1.0TB

Power Supply : Seasonic SS-380HB

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.7	32.4	4.24	50.88
5V	3.21	16.05	4.24	21.2
3.3V	0.01	0.033	0.01	0.033
5VSB	0.34	1.7	0.037	0.185

3.a.Test Environment:

The same as above but with LCD panel

Display Panel	AUO M170EG01 17"LCD
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Power Supply : Seasonic SS-380HB

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Current (A)
12V	3.45	41.4	5.84	70.08
5V	3.65	18.25	4.85	24.25
3.3V	0.01	0.033	0.01	0.033
5VSB	0.312	1.56	0.041	0.205

4.Test Environment:

Motherboard	FS-A75+ PE-6S2-R20
CPU	Intel® Core™ i3-2330E 2.20GHz
Memory	A-DATA DDR3 1600 4GB*2 (J2108BCSE-GN-F)
HDD	Western Digital WD10EALX-009BA0 1.0TB

Power Supply : Seasonic SS-380HB

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.68	44.16	3.42	41.04
5V	3.27	16.35	4.29	21.45
3.3V	0.01	0.033	0.01	0.033
5VSB	0.307	1.535	0.033	0.165

4.a.Test Environment:

The same as above but with LCD panel

Display Panel	AUO M170EG01 17"LCD
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Power Supply : Seasonic SS-380HB

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.9	46.8	5.08	60.96
5V	3.87	19.35	5.09	25.45
3.3V	0.01	0.033	0.01	0.033
5VSB	0.331	1.655	0.04	0.2

5.Test Environment:

Motherboard	FS-A75+ PE-6S2-R20
CPU	Intel® Core™ i7-2710QE 2.10GHz
Memory	A-DATA DDR3 1600 4GB*2 (J2108BCSE-GN-F)
HDD	Western Digital WD10EALX-009BA0 1.0TB

Power Supply : Seasonic SS-380HB

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.54	42.48	6	72
5V	3.15	15.75	4.68	23.4
3.3V	0.01	0.033	0.01	0.033
5VSB	0.316	1.58	0.023	0.115

5.a.Test Environment:

The same as above but with LCD panel

Display Panel	AUO M170EG01 17”LCD
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Power Supply : Seasonic SS-380HB

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	4.17	50.04	7.89	94.68
5V	3.9	19.5	5.17	25.85
3.3V	0.01	0.033	0.01	0.033
5VSB	0.325	1.625	0.028	0.14

6.Test Environment:

Motherboard	FS-A75+ PE-6S2-R20
CPU	Intel® Core™ i7-2710QE 2.10GHz
Memory	Kingston DDR3 1333 4GB*2 (D2568JENC PGD9U)
HDD	Western Digital WD10EALX-009BA0 1.0TB

Power Supply : Seasonic SS-380HB

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.27	39.24	6.08	72.96
5V	3.33	16.5	4.44	22.2
3.3V	0.01	0.033	0.01	0.033
5VSB	0.309	1.545	0.03	0.15

6.a.Test Environment:

The same as above but with LCD panel

Display Panel	AUO M170EG01 17"LCD
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Power Supply : Seasonic SS-380HB

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.9	46.8	7.86	94.32
5V	3.82	19.1	5.11	25.55
3.3V	0.01	0.033	0.01	0.033
5VSB	0.32	1.6	0.032	0.16

7.Test Environment:

Motherboard	FS-A75+ PE-6S2-R20
CPU	Intel® Celeron™ B810 1.60GHz
Memory	A-DATA DDR3 1600 4GB*2 (J2108BCSE-GN-F)
HDD	Western Digital WD10EALX-009BA0 1.0TB

Power Supply : Seasonic SS-380HB

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.64	31.68	2.51	30.12
5V	3.12	15.6	3.96	19.8
3.3V	0.01	0.033	0.01	0.033
5VSB	0.315	1.575	0.024	0.12

7.a.Test Environment:

The same as above but with LCD panel

Display Panel	AUO M170EG01 17”LCD
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Power Supply : Seasonic SS-380HB

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3	36	4.02	48.24
5V	3.76	18.8	4.65	23.25
3.3V	0.01	0.033	0.01	0.033
5VSB	0.31	1.55	0.023	0.115

8.Test Environment:

Motherboard	FS-A75+ PE-6S2-R20
CPU	Intel® Celeron™ B810 1.60GHz
Memory	Kingston DDR3 1333 4GB*2 (D2568JENC PGD9U)
HDD	Western Digital WD10EALX-009BA0 1.0TB

Power Supply : Seasonic SS-380HB

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.68	32.16	2.42	29.04
5V	3.01	15.05	3.94	19.7
3.3V	0.01	0.033	0.01	0.033
5VSB	0.311	1.555	0.021	0.105

8.a.Test Environment:

The same as above but with LCD panel

Display Panel	AUO M170EG01 17"LCD
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Power Supply : Seasonic SS-380HB

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.79	33.48	4.02	48.24
5V	3.7	18.5	4.64	23.2
3.3V	0.01	0.033	0.01	0.033
5VSB	0.312	1.56	0.023	0.115

9.Test Environment:

Motherboard	FS-A75+ PE-6S2-R20
CPU	Intel® Core™ i7-2710QE 2.10GHz
Memory	Kingston DDR3 1333 8GB*2 (J4208BASE-DJ-F)
HDD	Western Digital WD1600AAJS-00B4A0 160GB

Power Supply : AcBel ATX350P-DNSS

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	2.5	30	5.97	71.64
5V	3.21	16.05	4.54	18.16
3.3V	0.02	0.066	0.02	0.066
5VSB	0.331	1.655	0.037	0.185

9.a.Test Environment:

The same as above but with LCD panel

Display Panel	AUO M170EG01 17”LCD
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Power Supply : AcBel ATX350P-DNSS

Voltage	MS-DOS Boot up		Windows XP SP2 64-bit 3DMARK 2003 +PRIME95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	4.06	48.72	7.88	94.56
5V	4.01	20.05	5.19	25.95
3.3V	0.02	0.066	0.02	0.066
5VSB	0.357	1.785	0.032	0.16

5. Performance Test

5.1 Business Win Stone 2002

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
Business Win stone2002	Intel® Core™ i7-2710QE 2.10GHz ADATA DDR3 1600 4GB (J2108BCSE-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	53.4 52.5 45.6 53.2
Business Win stone2002	Intel® Core™ i5-2510E 2.50GHz Kingston DDR3 1333 4GB (D2568JENC PGD9U) Western Digital WD10EALX-009BA0 1.0TB	PASS	54.2 52.7 55.5 53.8

5.2 Business Win Stone 2004

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
Business Win stone2004	Intel® Core™ i7-2710QE 2.10GHz ADATA DDR3 1600 4GB (J2108BCSE-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	29.6 25.1 29.7 24.1
Business Win stone2004	Intel® Core™ i5-2510E 2.50GHz Kingston DDR3 1333 4GB (D2568JENC PGD9U) Western Digital WD10EALX-009BA0 1.0TB	PASS	27.9 28.9 30.2 28.2

5.3 Content Creation Winstone 2004

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
Content Creation Winstone 2004	Intel® Core™ i7-2710QE 2.10GHz ADATA DDR3 1600 4GB (J2108BCSE-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	60.2 58.2 62 60.8
Content Creation Winstone 2004	Intel® Core™ i3-2330E 2.20GHz A-DATA DDR3 1066 2GB (K4B1G0846D) Transcend DDR3 1066 2GB (K4B1G0846D) Western Digital WD10EALX-009BA0 1.0TB	PASS	49 48.9 49 49
Content Creation Winstone 2004	Intel® Core™ i5-2510E 2.50GHz Kingston DDR3 1333 4GB (D2568JENC PGD9U) Western Digital WD10EALX-009BA0 1.0TB	PASS	62.4 62.4 62 61.9

5.4 3D MARK(2001、2003、2005)

Windows XP SP2 32-bit

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel® Celeron™ B810 1.60GHz A-DATA DDR3 1066 2GB (K4B1G0846D) Western Digital WD10EALX-009BA0 1.0 TB	PASS	9032
3DMARK2003 Score		PASS	5197
3DMARK2005 Score		PASS	3498

Windows XP SP2 64-bit

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel® Celeron™ B810 1.60GHz A-DATA DDR3 1066 2GB (K4B1G0846D) Western Digital WD10EALX-009BA0 1.0 TB	NO SUPPLY	N/A
3DMARK2003 Score		PASS	5205
3DMARK2005 Score		PASS	3477

Windows XP SP2 32-bit

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel® Core™ i7-2710QE 2.10GHz ADATA DDR3 1600 4GB (J2108BCSE-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	16008
3DMARK2003 Score		PASS	8488
3DMARK2005 Score		PASS	5998

Windows XP SP2 64-bit

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel® Core™ i7-2710QE 2.10 GHz ADATA DDR3 1600 4GB (J2108BCSE-GN-F) Western Digital WD10EALX-009BA0 1.0TB	NO SUPPLY	N/A
3DMARK2003 Score		PASS	8199
3DMARK2005 Score		PASS	5750

Windows XP SP2 32-bit

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel® Core™ i3-2330E 2.20GHz A-DATA DDR3 1066 2GB (K4B1G0846D) Transcend DDR3 1066 2GB (K4B1G0846D) Western Digital WD10EALX-009BA0 1.0TB	PASS	14386
3DMARK2003 Score		PASS	7454
3DMARK2005 Score		PASS	5525

Windows XP SP2 64-bit

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel® Core™ i3-2330E 2.20GHz A-DATA DDR3 1066 2GB (K4B1G0846D) Transcend DDR3 1066 2GB (K4B1G0846D) Western Digital WD10EALX-009BA0 1.0TB	NO SUPPLY	N/A
3DMARK2003 Score		PASS	7496
3DMARK2005 Score		PASS	5423

Windows XP SP2 32-bit

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel® Core™ i5-2510E 2.50GHz Kingston DDR3 1333 4GB (D2568JENC PGD9U) Western Digital WD10EALX-009BA0 1.0TB	PASS	11382
3DMARK2003 Score		PASS	7451
3DMARK2005 Score		PASS	5187

Windows XP SP2 64-bit

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel® Core™ i5-2510E 2.50GHz A-DATA DDR3 1066 2GB (K4B1G0846D) Western Digital WD10EALX-009BA0 1.0TB	NO SUPPLY	N/A
3DMARK2003 Score		PASS	2873
3DMARK2005 Score		PASS	1555

5.5 3D MARK2006

Windows XP SP2 32-bit

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel® Celeron™ B810 1.60GHz A-DATA DDR3 1066 2GB (K4B1G0846D) Western Digital WD10EALX-009BA0 1.0 TB	PASS	2153
2	SM2.0 Score		PASS	787
3	HDR/SM3.0 Score		PASS	807
4	CPU Score		PASS	1580

Windows XP SP2 64-bit

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel® Celeron™ B810 1.60GHz A-DATA DDR3 1066 2GB (K4B1G0846D) Western Digital WD10EALX-009BA0 1.0 TB	PASS	2107
2	SM2.0 Score		PASS	781
3	HDR/SM3.0 Score		PASS	781
4	CPU Score		PASS	1529

Windows XP SP2 32-bit

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel® Core™ i7-2710QE 2.10GHz ADATA DDR3 1600 4GB (J2108BCSE-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	3813
2	SM2.0 Score		PASS	1383
3	HDR/SM3.0 Score		PASS	1334
4	CPU Score		PASS	5010

Windows XP SP2 64-bit

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel® Core™ i7-2710QE 2.10GHz ADATA DDR3 1600 4GB (J2108BCSE-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	3638
2	SM2.0 Score		PASS	1356
3	HDR/SM3.0 Score		PASS	1251
4	CPU Score		PASS	4287

Windows XP SP2 32-bit

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel® Core™ i3-2330E 2.20GHz	PASS	3257
2	SM2.0 Score	A-DATA DDR3 1066 2GB (K4B1G0846D)	PASS	1227
3	HDR/SM3.0 Score	Transcend DDR3 1066 2GB (K4B1G0846D)	PASS	1170
4	CPU Score	Western Digital WD10EALX-009BA0 1.0TB	PASS	2578

Windows XP SP2 64-bit

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel® Core™ i3-2330E 2.20GHz	PASS	3172
2	SM2.0 Score	A-DATA DDR3 1066 2GB (K4B1G0846D)	PASS	1220
3	HDR/SM3.0 Score	Transcend DDR3 1066 2GB (K4B1G0846D)	PASS	1121
4	CPU Score	Western Digital WD10EALX-009BA0 1.0TB	PASS	2424

Windows XP SP2 32-bit

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel® Core™ i5-2510E 2.50GHz Kingston DDR3 1333 4GB (D2568JENC PGD9U) Western Digital WD10EALX-009BA0 1.0TB	PASS	3222
2	SM2.0 Score		PASS	1178
3	HDR/SM3.0 Score		PASS	1160
4	CPU Score		PASS	3079

5.6 PC MARK2002

Test Environment
Intel® Core™ i7-2710QE 2.10GHz ADATA DDR3 1600 4GB (J2108BCSE-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	CPU Score	PASS	12166
2	Memory Score	PASS	47401
3	HDD Score	PASS	2723

Test Environment
Intel® Core™ i3-2330E 2.20GHz A-DATA DDR3 1066 2GB (K4B1G0846D) Transcend DDR3 1066 2GB (K4B1G0846D) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	CPU Score	PASS	9023
2	Memory Score	PASS	32284
3	HDD Score	PASS	2859

Test Environment
Intel® Core™ i5-2510E 2.50GHz Kingston DDR3 1333 4GB (D2568JENC PGD9U) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	Weighted Suite	Result	Remark
1	CPU Score	PASS	12585
2	Memory Score	PASS	39966
3	HDD Score	PASS	2793

5.7 PC MARK2004

Test Environment
Intel® Core™ i7-2710QE 2.10GHz ADATA DDR3 1600 4GB (J2108BCSE-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP PS2 32-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	N/A
2	CPU Score	PASS	N/A
3	Memory Score	PASS	12134
4	Graphic Score	PASS	4347
5	HDD Score	PASS	7619

Test Environment
Intel® Core™ i7-2710QE 2.10GHz ADATA DDR3 1600 4GB (J2108BCSE-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP PS2 64-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	N/A
2	CPU Score	PASS	N/A
3	Memory Score	PASS	12106
4	Graphic Score	PASS	4543
5	HDD Score	PASS	7465

Test Environment
Intel® Core™ i3-2330E 2.20GHz A-DATA DDR3 1066 2GB (K4B1G0846D) Transcend DDR3 1066 2GB (K4B1G0846D) Western Digital WD10EALX-009BA0 1.0TB

Windows XP PS2 32-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	N/A
2	CPU Score	PASS	N/A
3	Memory Score	PASS	8600
4	Graphic Score	PASS	3819
5	HDD Score	PASS	8011

Test Environment
Intel® Core™ i3-2330E 2.20GHz A-DATA DDR3 1066 2GB (K4B1G0846D) Transcend DDR3 1066 2GB (K4B1G0846D) Western Digital WD10EALX-009BA0 1.0TB

Windows XP PS2 64-bit

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Score	PASS	7511
2	CPU Score	PASS	N/A
3	Memory Score	PASS	8645
4	Graphic Score	PASS	3771
5	HDD Score	PASS	8039

Test Environment
Intel® Core™ i5-2510E 2.50GHz Kingston DDR3 1333 4GB (D2568JENC PGD9U) Western Digital WD10EALX-009BA0 1.0TB

Windows XP PS2 32-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	N/A
2	CPU Score	PASS	N/A
3	Memory Score	PASS	8665
4	Graphic Score	PASS	4039
5	HDD Score	PASS	7460

5.8 PC MARK2005

Test Environment
Intel® Core™ i7-2710QE 2.10GHz A-DATA DDR3 1600 4GB (J2108BCSE-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	6281
2	CPU Score	PASS	10058
3	Memory Score	PASS	9251
4	Graphic Score	PASS	3025
5	HDD Score	PASS	7683

Test Environment
Intel® Core™ i7-2710QE 2.10GHz A-DATA DDR3 1600 4GB (J2108BCSE-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 64-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	7248
2	CPU Score	PASS	9958
3	Memory Score	PASS	9236
4	Graphic Score	PASS	3949
5	HDD Score	PASS	8106

Test Environment
Intel® Core™ i3-2330E 2.20GHz A-DATA DDR3 1066 2GB (K4B1G0846D) Transcend DDR3 1066 2GB (K4B1G0846D) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	6143
2	CPU Score	PASS	6707
3	Memory Score	PASS	7361
4	Graphic Score	PASS	3636
5	HDD Score	PASS	8526

Test Environment
Intel® Core™ i3-2330E 2.20GHz A-DATA DDR3 1066 2GB (K4B1G0846D) Transcend DDR3 1066 2GB (K4B1G0846D) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 64-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	5916
2	CPU Score	PASS	6698
3	Memory Score	PASS	7371
4	Graphic Score	PASS	3490
5	HDD Score	PASS	8729

Test Environment
Intel® Core™ i3-2330E 2.20GHz Transcend DDR3 1066 1GB (K4B1G0846D) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	5952
2	CPU Score	PASS	6692
3	Memory Score	PASS	6333
4	Graphic Score	PASS	3156
5	HDD Score	PASS	8519

Test Environment
Intel® Core™ i3-2330E 2.20GHz Transcend DDR3 1066 1GB (K4B1G0846D) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 64-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	5875
2	CPU Score	PASS	6685
3	Memory Score	PASS	6356
4	Graphic Score	PASS	3137
5	HDD Score	PASS	8731

Test Environment
Intel® Core™ i5-2510E 2.50GHz Kingston DDR3 1333 4GB (D2568JENC PGD9U) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Score	PASS	7100
2	CPU Score	PASS	8551
3	Memory Score	PASS	8363
4	Graphic Score	PASS	3551
5	HDD Score	PASS	8384

Test Environment
Intel® Core™ i3-2330E 2.20GHz A-DATA DDR3 1066 1GB (K4B1G0846D) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	5533
2	CPU Score	PASS	6684
3	Memory Score	PASS	6337
4	Graphic Score	PASS	3338
5	HDD Score	PASS	6316

Test Environment
Intel® Celeron™ B810 2.30GHz Kingston DDR3 1066 4GB (K4B2G0846B-HCFB) HITACHI HTS543216L9A300 160GB

Windows XP SP2 32-bit

Item	WEIGHTED SUITE	Result	Remark
1	PCMark Score	PASS	3921
2	CPU Score	PASS	4502
3	Memory Score	PASS	5320
4	Graphic Score	PASS	2202
5	HDD Score	PASS	4378

Test Environment
Intel® Core™ i7-2710QE 2.10GHz Kingston DDR3 1333 8GB*2 (J4208BASE-DJ-F) Western Digital WD1600AAJS-00B4A0 160GB

Windows XP SP2 64-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	7312
2	CPU Score	PASS	10014
3	Memory Score	PASS	9775
4	Graphic Score	PASS	4556
5	HDD Score	PASS	6407

Test Environment
Intel® Core™ i7-2710QE 2.10GHz INNODISK DDR3 1333 4GB (H5TQ2G83CFR) INNODISK DDR3 1333 2GB (H5TQ2G83CFR) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 64-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	7344
2	CPU Score	PASS	9932
3	Memory Score	PASS	9819
4	Graphic Score	PASS	4548
5	HDD Score	PASS	8083

5.9 Storage Performance

5.9.1 HDD

Test environment:

OS Windows XP professional SP2

Program (HD Tune)

HDD Model	Interface	Capacity	Average	Burst Rate	Access time
Western Digital WD10EALX-009BA0	SATA	1.0 TB	99.1 MB/sec	109.7 MB/sec	12.9 ms
Western Digital WD3200AAKS-00B3A0	SATA	320 GB	93.6 MB/sec	104.7 MB/sec	15.8 ms
Western Digital WD3200AAJS-00YZCA0	SATA	320 GB	88.9 MB/sec	90.1 MB/sec	15.6 ms
Hitachi HTS543216L9A300	SATA	160 GB	34.7 MB/sec	112.9 MB/sec	18.9 ms
TDK LoR Trans-It Drive	USB	4 GB	17.8 MB/sec	15.6 MB/sec	1.0 ms
Apacer USB FLASH DRIVE	USB	515 MB	9.3 MB/sec	8.6 MB/sec	1.9 ms

5.9.2 CD-ROM

Test environment:

OS Windows XP professional SP2

Program (NERO)

CD-ROM Model	Interface	Average Speed	Full Read	Burst Rate	CD
LG DVD GH20NS15	SATA	34.07 x	169 ms	36 MB/s	52 X CD-R
PIONEER DVD DVR-S19LBK	SATA	29.28 x	167 ms	56 MB/s	52 X CD-R
PIONEER DVD DVR-212BK	SATA	30.30 x	192 ms	34 MB/s	52 X CD-R
LITEON DVD eTAU108	USB	17.65 x	262 ms	16 MB/s	52X CD-R

5.10 Vibration Test

Motherboard	FS-A75			
Test Equipment	VS-5060L			
Amplitude	Degree	Frequency	Time (1min/1Time)	Result
0.75mm	40°C	5 → 55 → 5 Hz	10	PASS
1.00mm	55°C	5 → 55 → 5 Hz	10	PASS
1.25mm	70°C	5 → 55 → 5 Hz	10	PASS
1.5mm	90°C	5 → 55 → 5 Hz	10	PASS
1.5mm	90°C	5 → 55 → 5 Hz	120	PASS