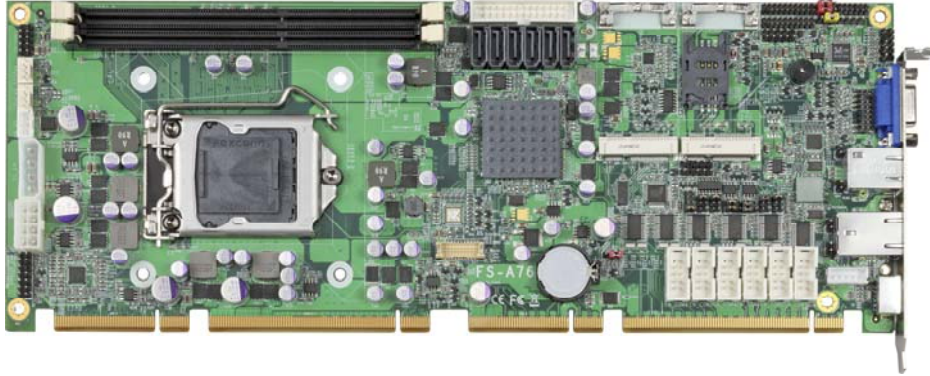


Product Test Report



Product Name	FS-A76
Product Version	A
Issued Date	2016.07.20
Report Edition	1.1
BIOS Version	1.1
Testing Engineer	PERRY
Check Engineer	Gary

REVISION HISTORY			
DATE	REVISION NO.	PAGE	DESCRIPTONS
2013.06.25	Ver. 1.0	78	Initial Release
2016.07.20	Ver. 1.1	78	Add Back Plane

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1. Function test

1.1 Hardware function

Base Function Test

Item	Description	Result	Remark
1	Power Button	PASS	
2	Reset	PASS	
3	Power LED	PASS	
4	HDD LED	PASS	
5	SATA 1/2/3/4/5/6	PASS	
6	CN_USB 1/2	PASS	
7	CN_USB 3.0 1/2	PASS	USB3.0 x4 : 平均 282MB/S (HD Tune 5.0)(DDTHX64G)
8	DDRIII A/B	PASS	
9	CN_COM 1/2/3/4/5/6	PASS	(B&B v mouse v)
10	VGA Port	PASS	
11	PS2	PASS	
12	CN_AUDIO	PASS	
13	CD_IN	PASS	
14	CN_DIO	PASS	(DOS)
15	CPUFAN	PASS	
16	SYSFAN	PASS	
17	MINI_CARD 1/2	PASS	(MPX-574D)
18	CN_DVI	PASS	
19	LAN 1/2	PASS	
20	IrDA	PASS	(MP-541D2)
21	DC_IN	PASS	

22	CN_12V	PASS	
23	PCIE_16X	PASS	A76 : PCIEx16:PX9500GT√ PCIEx4:PX9500GT+轉接卡 x4√ PCIEx1:MPX-574+轉接卡 x1√ A76F : PCIEx16:PX9500GT√ PCIEx4:PX9500GT+轉接卡 x4√ PCIEx1:MPX-574+轉接卡 x1√
24	PCIE_4X	PASS	A76 : PCIEx4: RAID 卡 x8+轉接卡 x4√ PCIEx1: MPX-574+轉接卡 x1√ A76F : PCIEx4: RAID 卡 x8+轉接卡 x4√ PCIEx1: MPX-574+轉接卡 x1√
25	PCIE_1X	PASS	A76 : PCIEx1: MPX-574+轉接卡 x1(x3)√ A76F : PCIEx1: MPX-574+轉接卡 x1(x1)√
26	PCI 1/2/3/4	PASS	A76 : PCI VGA :有 IC√ 無 IC√ PCI LAN :有 IC√ 無 IC√ A76F : PCI VGA : 無 IC√ PCI LAN : 無 IC√
27	RS422-485	PASS	
28	CN_LPT	PASS	

Jumper

Item	Description	Result
1	JRTC	PASS
2	JCSEL1	PASS
3	JCSEL2	PASS
4	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	Quick Boot	PASS	
7	Diagnostic Splash Screen	PASS	
8	Diagnostic Summary Screen	PASS	
9	Console Redirection	PASS	Com1 v
10	UEFI Boot	PASS	
11	View Error Manager Log	PASS	
12	Clear Error Manager Log	PASS	
13	Active Processor Cores	PASS	
14	Intel(R) HT Technology	PASS	
15	SATA Device	PASS	
16	Interface Combination	PASS	(IDE v AHCI v RAID v)
17	Max TOLUD	PASS	
18	DVMT Total Gfx Mem	PASS	
19	Boot Type	PASS	(CRT v DVI v)
20	USB Per-Port Disable Control	PASS	
21	Azalia	PASS	
22	PCH Internal LAN	PASS	
23	LAN OPROM Selection	PASS	
24	Wake on PCH LAN	PASS	82579LM : Shutdown v Sleep(Stand by) v

			Hibernate v S3 wake v
25	Intel(R) AMT	PASS	
26	Serial Port	PASS	
27	IR Func.	PASS	
28	Paraller Port	PASS	
29	Watch Dog Timer	PASS	15s v
30	PowerLoss	PASS	Power on v Power off v
31	CPU Warning Temp	PASS	60°C v
32	CPU Fan Feature	PASS	Target Temp 50°C v Tolerance Temp 1°C v
33	Set Supervisor Password	PASS	
34	Set User password	PASS	
35	TPM	PASS	XP v WIN7 v

1.3 Driver

CD Edition : IPCI5-1.0

1. Windows XP SP2 32-bit driver test

Item	Description	Result	version
1	Chipset Driver	PASS	9.3.0.1011
2	VGA Driver	PASS	6.14.10.5421
3	Audio Driver	PASS	5.10.0.6083
4	LAN Driver	PASS	82579LM : 11.15.12.0 82574L : 11.14.48.0

2. Windows XP SP2 64-bit driver test

Item	Description	Result	version
1	Chipset Driver	PASS	9.3.0.1011
2	VGA Driver	PASS	6.14.10.5421
3	Audio Driver (Need UAA bus driver)	PASS	5.10.0.6083
4	LAN Driver	PASS	82579LM : 11.15.12.0 82574L : 11.14.48.0

3. Windows Server 2003 32-bit Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	9.3.0.1011
2	VGA Driver	PASS	6.14.10.5421
3	Audio Driver	PASS	5.10.0.6083
4	LAN Driver	PASS	82579LM : 11.15.12.0 82574L : 11.14.48.0

4. Windows Server 2003 64-bit driver test

Item	Description	Result	Version
1	Chipset Driver	PASS	9.3.0.1011
2	VGA Driver	PASS	6.14.10.5421
3	Audio Driver	PASS	5.10.0.6083
4	LAN Driver	PASS	82579LM : 11.15.12.0 82574L : 11.14.48.0

5. Windows Vista 32-bit driver test

Item	Description	Result	version
1	Chipset Driver	PASS	9.3.0.1011
2	VGA Driver	PASS	9.17.10.2875
3	Audio Driver	PASS	6.0.1.6662
4	LAN Driver	PASS	82579LM : 12.2.45.0 82574L : 11.17.27.0

6. Windows Vista 64-bit driver test

Item	Description	Result	version
1	Chipset Driver	PASS	9.3.0.1011
2	VGA Driver	PASS	9.17.10.2875
3	Audio Driver	PASS	6.0.1.6662
4	LAN Driver	PASS	82579LM : 12.2.45.0 82574L : 11.17.27.0

7. Windows Server 2008 32-bit driver test

Item	Description	Result	version
1	Chipset Driver	PASS	9.3.0.1011
2	VGA Driver	PASS	9.17.10.2875
3	Audio Driver	PASS	6.0.1.6662
4	LAN Driver	PASS	82579LM : 12.2.45.0 82574L : 11.17.27.0

8. Windows Server 2008 64-bit driver test

Item	Description	Result	version
1	Chipset Driver	PASS	9.3.0.1011
2	VGA Driver	PASS	9.17.10.2875
3	Audio Driver	PASS	6.0.1.6662
4	LAN Driver	PASS	82579LM : 12.2.45.0 82574L : 11.17.27.0

9. Windows 7 32-bit Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	9.3.0.1011
2	VGA Driver	PASS	9.17.10.2875
3	Audio Driver	PASS	6.0.1.6662
4	LAN Driver	PASS	82579LM : 12.2.45.0 82574L : 11.17.27.0
5	USB 3.0 Driver	PASS	1.0.5.235

10. Windows 7 64-bit Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	9.3.0.1011
2	VGA Driver	PASS	9.17.10.2875
3	Audio Driver	PASS	6.0.1.6662
4	LAN Driver	PASS	82579LM : 12.2.45.0 82574L : 11.17.27.0
5	USB 3.0 Driver	PASS	1.0.5.235

2. Compatibility test

2.1 CPU Test

Test environment:

OS Windows XP professional SP2

Test program : PC MARK 2005

Spec Code	CPU Speed	Family	Processor	DMI	Smart Cache	Result
SR0PK	3.40 GHz	Core	i7-3770	5 GT/s	8 MB	PASS
SR0P3	3.0 GHz	Core	i5-3550S	5 GT/s	6 MB	PASS
SR02K	2.90 GHz	Core	i5-2310	5 GT/s	6 MB	PASS
SR05Q	2.90 GHz	Pentium	G850	5 GT/s	3 MB	PASS
SR05J	2.50 GHz	Celeron	G540	5 GT/s	2 MB	PASS
SR0UF	3.10 GHz	Pentium	G2120	5 GT/s	3 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	Ubuntu 12.04	PASS	
12	Debian-6.0.2.1	PASS	Set AHCI

2.3 Memory Test

Test environment:

OS Windows XP professional SP2

Test program : PC MARK 2005

Manufacturer	Chip	Frequency	Capacity Mbytes	Result
Kingston	ELPIDA J4208BBBG-GN-F	DDR3 1600	8 GB	PASS
Kingston	ELPIDA J2108BCSE-DJ-F	DDR3 1333	4 GB	PASS
Kingston	Kingston D1288J MFPGD9U	DDR3 1333	2GB	PASS
Kingston	SAMSUNG K4B2G0846B-HCF8	DDR3 1066	4 GB	PASS
Kingston	Kingston D1288JPPDPGD9U	DDR3 1333	2GB	PASS
Transcend	SEC 849 HCH9 K4B1G0846D	DDR3 1333	2GB	PASS
ADATA	ADATA AD30908C8D-15HG	DDR3 1333	1GB	PASS
ACPI	Hynix H5TQ2G83EFR 301HA	DDR3 1600	2GB	PASS
ACPI	Hynix H5TQ2G83EFR 303EA	DDR3 1600	4GB	PASS
ACPI	Hynix H5TQ4G83AFR 238A	DDR3 1600	8GB	PASS

2.4 VGA Graphic Quality Test

Test environment:

OS Windows XP professional SP2 32/64-bit

Driver version : 6.14.10.5421

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	
1680*1050	16 / 32bit	PASS	
1920*1080	16 / 32bit	PASS	

2.5 Audio

Test environment:

OS Windows XP professional SP2 32-bit

Driver version : 5.10.0.6083

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

OS Windows XP professional SP2 64-bit

Driver version : 5.10.0.6083

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

OS Windows Server 2003 32-bit

Driver version : 5.10.0.6083

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

OS Windows Server 2003 64-bit**Driver version : 5.10.0.6083**

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

OS Windows Vista 32 bit**Driver version : 6.0.1.6662**

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

OS Windows Vista 64 bit**Driver version : 6.0.1.6662**

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

OS Windows Server 2008 32-bit**Driver version : 6.0.1.6662**

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

OS Windows Server 2008 64-bit**Driver version : 6.0.1.6662**

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

OS Windows 7 32-bit**Driver version : 6.0.1.6662**

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

OS Windows 7 64-bit**Driver version : 6.0.1.6662**

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

2.6 HDD Test

Test environment:

OS Windows 7 (x32)

Model	Interface	Capacity	Size Detect	Data Transfer
Western Digital WD10EALX-009BA0	SATA	1.0 TB	PASS	PASS
Western Digital WD3200AAJS-00YZCA0	SATA	320 GB	PASS	PASS
Western Digital WD5000AAKX-001CA0	SATA	500 GB	PASS	PASS
Western Digital WD5000AAKS-00V1A0	SATA	500 GB	PASS	PASS

2.7 CD-ROM Test

Test environment:

OS Windows 7 (x32)

Model	Interface	Detect	Data Transfer	Play CD
ASUS DRW-24D1ST	SATA	PASS	PASS	PASS
BUFFALD DVSM-PC58U2VB	USB	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	
USB 3.0	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	

2.11 LAN Test

Data Transfer Test environment:

-CAT 6 UTP 100M

-8 HR. continuous

1. Windows XP SP2 32/64-bit (82579LM)

32-bit driver version : 11.15.12.0 ; 64-bit driver version : 11.15.12.0

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

2. Windows Server 2003 32/64-bit (82579LM)

32-bit driver version : 11.15.12.0 ; 64-bit driver version : 11.15.12.0

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

3. Windows Vista 32/64-bit (82579LM)

32-bit driver version : 12.2.45.0 ; 64-bit driver version : 12.2.45.0

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

4. Windows Server 2008 32/64-bit (82579LM)

32-bit driver version : 12.2.45.0 ; 64-bit driver version : 12.2.45.0

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

5. Windows Server 7 32/64-bit (82579LM)

32-bit driver version : 12.2.45.0 ; 64-bit driver version : 12.2.45.0

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

2.12 Power Supply Test

Item	TYPE	Description	Result	Remark
1	ATX Power	SWITCHING POWER SUPPLY MC-B350ATX	PASS	
2	ATX Power	snake PK-350W 350W	PASS	
3	ATX Power	AcBel 350W ATX-350P-DNSS(API3PC50)	PASS	

2.13 PCI Express mini card

Motherboard	PCI Express mini card	Result	Remark	MINI CARD1	MINI CARD2
FS-A76	MPX-574D	PASS	XP & Win7	√	√
	MPX-885	PASS	XP	√	√
	MPX-3132	PASS	Win7	√	X
	MPX-9125	PASS	Win7	√	X
	MPX-25858	PASS	XP	√	√
	MPX-643	PASS	XP & Win7	√	√
	MPX-750	PASS	XP	√	√
	MPX-827	PASS	XP & Win7	√	√
	MPX-6864	PASS	XP	√	√
	MPX-7202	PASS	XP & Win7	√	√
	MPX-5201	PASS	XP	√	√
	MPX-SDVOD	PASS	XP & Win7	√	X
	MPX-TP4R	PASS	XP	√	X
	MPX-954	PASS	XP & Win7	√	√
	MPX-954E	PASS	XP & Win7	√	√

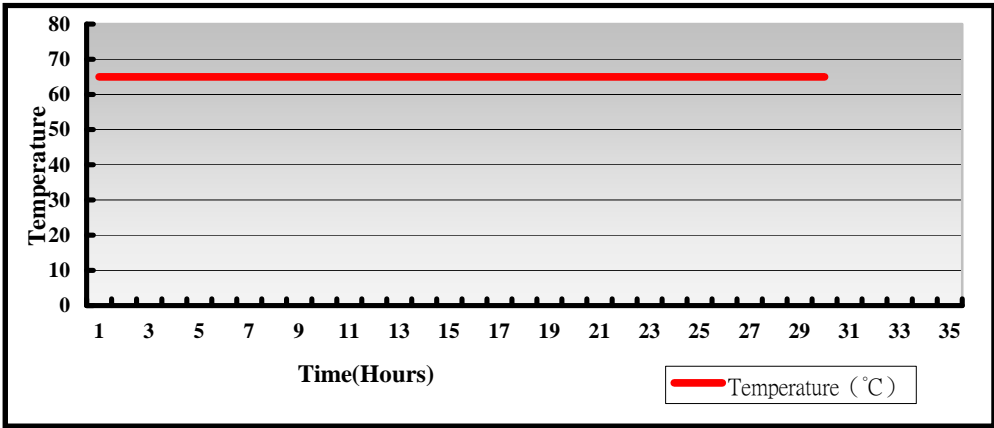
2.14 Back plane

Item	Brand	Model	Result	Remark
1	AXIOMTEK	FAB113-13A7P4	PASS	Rev:A0-RC
2	AXIOMTEK	FAB118-14A5P7	PASS	Rev:A1-RC

3. Environmental test

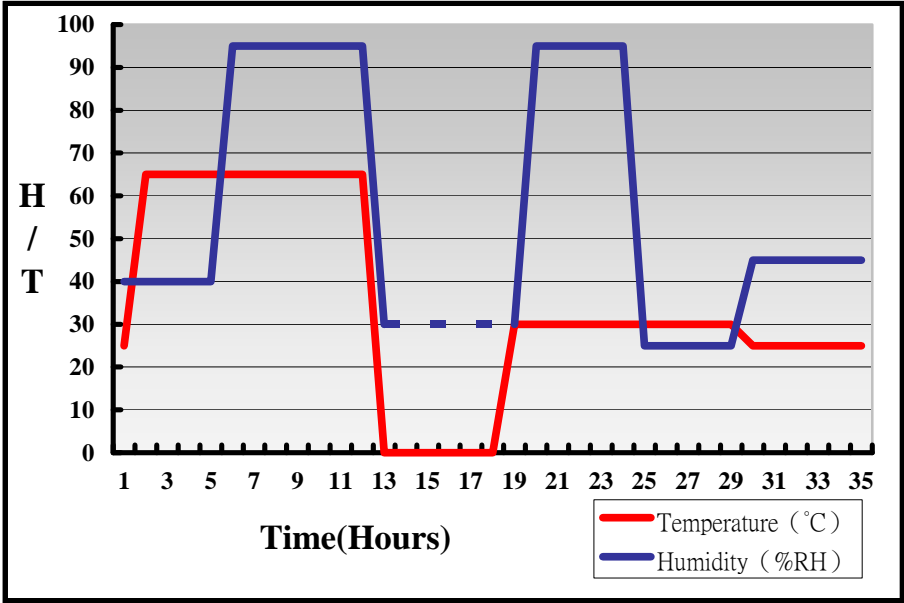
3.1 Temperature Test

System Board	FS-A76
CPU	Intel® Core™ i7-3770 3.40GHz
Memory	Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F)
HDD	Western Digital WD10EALX-009BA0 1.0TB
Operating OS	Windows XP
Test Equipment	GIANT FORCE (GTH-150-60-CP-AR)
Test Program	3DMark 2003+Prime95-266



Hardware Device list:

System Board	FS-A76
CPU	Intel® Core™ i7-3770 3.40GHz
Memory	Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F)
HDD	Western Digital WD10EALX-009BA0 1.0TB
Operating OS	Windows XP
Test Equipment	GIANT FORCE (GTH-150-60-CP-AR)
Test Program	3DMark 2003+Prime95-266



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-A76
CPU	Intel® Core™ i7-3770 3.40GHz
Memory	Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F)
HDD	Western Digital WD10EALX-009BA0 1.0TB
Operating OS	Windows XP

Temperature	Result	Remark
65°C	PASS	50 Times
-30°C	PASS	50 Times

3.2 Thermal measurements at various points on the board

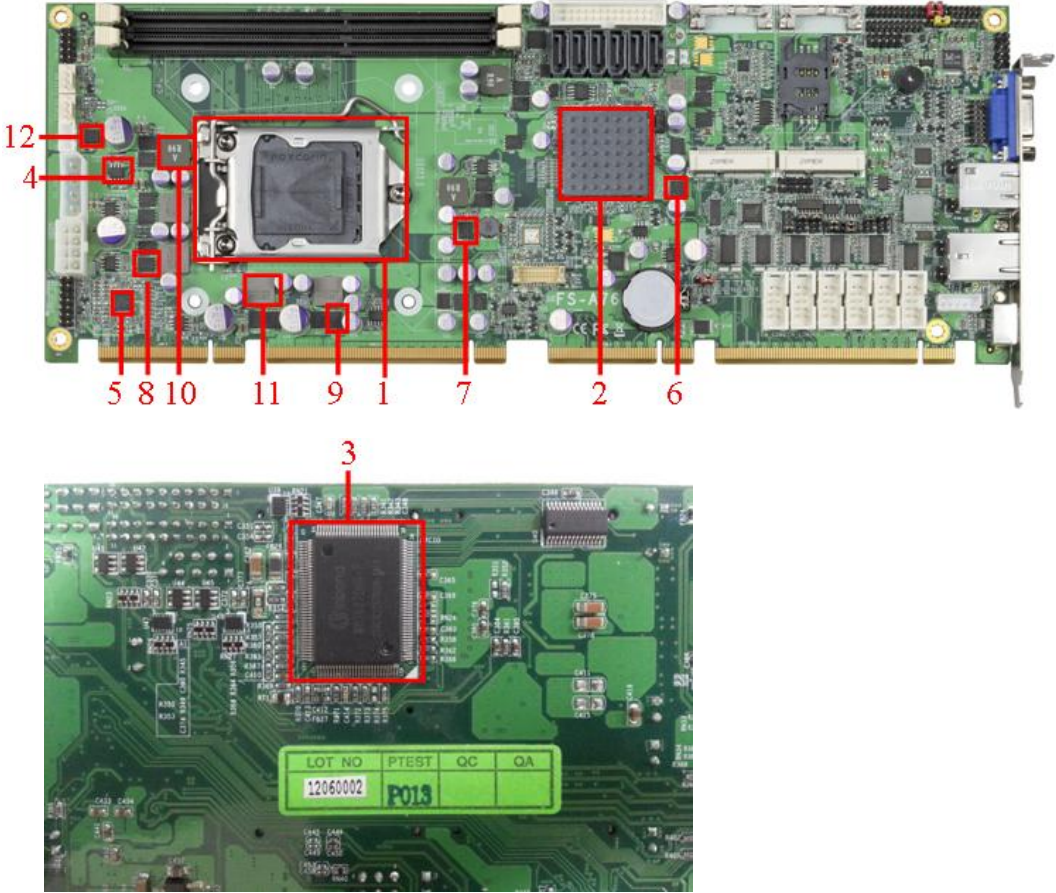
Test Environment :

CPU	Intel® Core™ i7-3770 3.40GHz
Memory	Kingston DDR3 1600 8GBx2 (J4208BBBG-GN-F)
HDD	Western Digital WD10EALX-009BA0 1.0TB
Power	SWITCHING POWER SUPPLY MC-B350ATX
Operating System	Windows XP SP2 32-bit
Test Program	3DMark 2003 + Prime 95-266

Test Result:

Item	Environmental temperature	28°C
1	CPU	57°C
2	PCH(Q77)	44.0°C
3	LPCIO	34.7°C
4	U15	54.7°C
5	U34	48.3°C
6	Q33	49.8°C
7	Q43	43.8°C
8	Q52	62.7°C
9	Q63	54.0°C
10	L5	49.1°C
11	L11	55.6°C

12	D12	46.9°C
----	-----	--------



4. Reliability Test

4.1 Power Consumption Test

1. Test Environment:

Motherboard	FS-A76
CPU	Intel® Core™ i7-3770 3.40GHz
Memory	Kingston DDR3 1600 8GBx2 (J4208BBBG-GN-F)
HDD	Western Digital 1.0TB (WD10EALX-009BA0)
Back Plan	FAB114-13A3P8

Power Supply : snake 350W

Voltage	MS-DOS Boot up		Win7(32Bit) 3DMARK 2003(once) + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	4.36	52.32	7.13	85.56
5V	3.23	16.15	4.87	24.35
3.3V	0.63	2.079	0.63	2.079
5VSB	0.57	2.85	0.60	3

1. a. Test Environment:

The same as above but with PCI-E Graphics card

Graphics card	GeForce 8600GT
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(A) Power Supply: snake 350W

Voltage	MS-DOS Boot up		Win7(32Bit) 3DMARK 2003(once) + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	6.50	78	11.67	140.04
5V	3.68	18.4	5.18	25.9
3.3V	1.12	3.696	1.12	3.696
5VSB	0.61	3.05	0.60	3

2. Test Environment:

Motherboard	FS-A76
CPU	Intel® Core™ i5-3550S 3.0GHz
Memory	Kingston DDR3 1600 8GBx2 (J4208BBBG-GN-F)
HDD	Western Digital 1.0TB (WD10EALX-009BA0)
Back Plan	FAB114-13A3P8

Power Supply : snake 350W

Voltage	MS-DOS Boot up		Win7(32Bit) 3DMARK 2003(once) + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	4.14	49.68	5.99	71.88
5V	3.3	16.5	4.77	23.85
3.3V	0.63	2.079	0.65	2.145
5VSB	0.55	2.75	0.55	2.75

2. a. Test Environment:

The same as above but with PCI-E Graphics card

Graphics card	GeForce 8600GT
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(A) Power Supply: snake 350W

Voltage	MS-DOS Boot up		Win7(32Bit) 3DMARK 2003(once) + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	6.54	77.4	9.50	114
5V	3.65	18.25	4.63	23.15
3.3V	1.12	3.696	1.14	3.762
5VSB	0.60	3	0.61	3.05

3.Test Environment:

Motherboard	FS-A76
CPU	Intel® Core™ i5-2310 2.90GHz
Memory	Kingston DDR3 1600 8GBx2 (J4208BBBG-GN-F)
HDD	Western Digital 1.0TB (WD10EALX-009BA0)
Back Plan	FAB114-13A3P8

Power Supply : snake 350W

Voltage	MS-DOS Boot up		Win7(32Bit) 3DMARK 2003(once) + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	4.83	57.96	7.01	84.12
5V	3.25	16.25	4.50	22.5
3.3V	0.65	2.145	0.66	2.178
5VSB	0.57	2.85	0.58	2.9

3. a. Test Environment:

The same as above but with PCI-E Graphics card

Graphics card	GeForce 8600GT
---------------	----------------

(A) Power Supply: snake 350W

Voltage	MS-DOS Boot up		Win7(32Bit) 3DMARK 2003(once) + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	6.68	80.16	11.36	136.32
5V	3.52	17.6	4.33	21.65
3.3V	1.13	3.729	1.15	3.795
5VSB	0.58	2.9	0.58	2.9

4. Test Environment:

Motherboard	FS-A76
CPU	Intel® Pentium® Processor G850 2.90GHz
Memory	Kingston DDR3 1600 8GBx2 (J4208BBBG-GN-F)
HDD	Western Digital 1.0TB (WD10EALX-009BA0)
Back Plan	FAB114-13A3P8

Power Supply : snake 350W

Voltage	MS-DOS Boot up		Win7(32Bit) 3DMARK 2003(once) + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.61	43.32	3.73	44.76
5V	3.14	15.7	4.16	20.8
3.3V	0.62	2.046	0.64	2.112
5VSB	0.57	2.85	0.58	2.9

4. a. Test Environment:

The same as above but with PCI-E Graphics card

Graphics card	GeForce 8600GT
---------------	----------------

(A) Power Supply: snake 350W

Voltage	MS-DOS Boot up		Win7(32Bit) 3DMARK 2003(once) + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	6.08	72.96	8.15	97.8
5V	3.47	17.35	3.93	19.65
3.3V	1.12	3.696	1.11	3.663
5VSB	0.60	3	0.66	3.3

5. Test Environment:

Motherboard	FS-A76
CPU	Intel® Celeron® Processor G540 2.50GHz
Memory	Kingston DDR3 1600 8GBx2 (J4208BBBG-GN-F)
HDD	Western Digital 1.0TB (WD10EALX-009BA0)
Back Plan	FAB114-13A3P8

Power Supply : snake 350W

Voltage	MS-DOS Boot up		Win7(32Bit) 3DMARK 2003(once) + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.25	39	3.41	40.92
5V	3.09	15.45	3.96	19.8
3.3V	0.63	2.079	0.64	2.112
5VSB	0.62	3.1	0.65	3.25

5. a. Test Environment:

The same as above but with PCI-E Graphics card

Graphics card	GeForce 8600GT
---------------	----------------

(A) Power Supply: snake 350W

Voltage	MS-DOS Boot up		Win7(32Bit) 3DMARK 2003(once) + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	5.50	66	7.36	88.32
5V	3.40	17	3.58	17.9
3.3V	1.12	3.696	1.12	3.696
5VSB	0.61	3.05	0.64	3.2

6. Test Environment:

Motherboard	FS-A76
CPU	Intel® Pentium® Processor G2120 3.10GHz
Memory	Kingston DDR3 1600 8GBx2 (J4208BBBG-GN-F)
HDD	Western Digital 1.0TB (WD10EALX-009BA0)
Back Plan	FAB114-13A3P8

Power Supply : snake 350W

Voltage	MS-DOS Boot up		Win7(32Bit) 3DMARK 2003(once) + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.60	43.2	3.53	42.36
5V	3.18	15.9	4.30	21.5
3.3V	0.64	2.112	0.63	2.079
5VSB	0.62	3.1	0.62	3.1

6. a. Test Environment:

The same as above but with PCI-E Graphics card

Graphics card	GeForce 8600GT
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(A) Power Supply: snake 350W

Voltage	MS-DOS Boot up		Win7(32Bit) 3DMARK 2003(once) + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	5.98	71.76	7.97	95.64
5V	3.58	17.9	3.96	19.8
3.3V	1.12	3.696	1.13	3.729
5VSB	0.63	3.15	0.61	3.05

7. Test Environment:

Motherboard	FS-A76
CPU	Intel® Xeon® Processor E3-1275 3.40GHz
Memory	Kingston DDR3 1600 8GBx2 (J4208BBBG-GN-F)
HDD	Western Digital 1.0TB (WD10EALX-009BA0)
Back Plan	FAB114-13A3P8

Power Supply : snake 350W

Voltage	MS-DOS Boot up		XPsp2(32Bit) 3DMARK 2003(once) + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	5.75	69	9.18	110.16
5V	3.31	16.55	4.86	24.3
3.3V	0.64	2.112	0.62	2.046
5VSB	0.61	3.05	0.60	3

7. a. Test Environment:

The same as above but with PCI-E Graphics card

Graphics card	GeForce 8600GT
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(A) Power Supply: snake 350W

Voltage	MS-DOS Boot up		XPsp2 (32Bit) 3DMARK 2003(once) + PRIME 95	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	6.99	83.88	13.16	157.92
5V	3.51	17.55	4.98	24.9
3.3V	1.12	3.696	1.10	3.663
5VSB	0.62	3.1	0.62	3.1

5. Performance Test

5.1 Performance Test 8.0

Windows 7 x32

WEIGHTED SUITE	Test Environment	Result	Remark
Performance Test 8.0	Intel® Core™ I7-3770 3.40GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	Summary 1828.9 CPU Mark 5849 2D Graphics Mark 624 3D Graphics Mark 508 Memory Mark 1773 Disk Mark 858

Windows 7 x32

WEIGHTED SUITE	Test Environment	Result	Remark
Performance Test 8.0	Intel® Core™ i5-3550S 3.0GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	Summary 1529.3 CPU Mark 5190 2D Graphics Mark 572 3D Graphics Mark 322.5 Memory Mark 1720 Disk Mark 889

Windows 7 x32

WEIGHTED SUITE	Test Environment	Result	Remark
<p>Performance Test 8.0</p>	<p>Intel® Core™ i5-2310 2.90GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB</p>	<p>PASS</p>	<p>Summary 1211.6 CPU Mark 4446 2D Graphics Mark 480.2 3D Graphics Mark 214.0 Memory Mark 1547 Disk Mark 874</p>

Windows 7 x32

WEIGHTED SUITE	Test Environment	Result	Remark
Performance Test 8.0	Intel® Pentium® Processor G850 2.90GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	Summary 1062.7 CPU Mark 2210 2D Graphics Mark 477.6 3D Graphics Mark 218.8 Memory Mark 1449 Disk Mark 853

Windows 7 x32

WEIGHTED SUITE	Test Environment	Result	Remark
Performance Test 8.0	Intel® Celeron® Processor G540 2.50GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	Summary 947.3 CPU Mark 1872 2D Graphics Mark 409.3 3D Graphics Mark 198.3 Memory Mark 1261 Disk Mark 839

Windows 7 x32

WEIGHTED SUITE	Test Environment	Result	Remark
Performance Test 8.0	Intel® Pentium® Processor G2120 3.10GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	Summary 1207.1 CPU Mark 2506 2D Graphics Mark 522 3D Graphics Mark 269.2 Memory Mark 1568 Disk Mark 858

5.2 3D MARK(2001、2003、2005)

Windows XP SP2 32-bit

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel® Core™ i7-3770 3.40GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	25847
3DMARK2003 Score		PASS	13888
3DMARK2005 Score		PASS	8873

Windows XP SP2 32-bit

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel® Core™ i5-3550 3.0GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	22659
3DMARK2003 Score		PASS	10545
3DMARK2005 Score		PASS	6401

Windows XP SP2 32-bit

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel® Core™ i5-2310 2.9GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	17832
3DMARK2003 Score		PASS	7792
3DMARK2005 Score		PASS	5558

Windows XP SP2 32-bit

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel® Pentium® Processor G850 2.90GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	16215
3DMARK2003 Score		PASS	7689
3DMARK2005 Score		PASS	5567

Windows XP SP2 32-bit

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel® Celeron® Processor G540 2.50GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	13888
3DMARK2003 Score		PASS	6808
3DMARK2005 Score		PASS	4924

Windows XP SP2 32-bit

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel® Pentium® Processor G2120 3.10GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	18810
3DMARK2003 Score		PASS	9010
3DMARK2005 Score		PASS	5885

5.3 3D MARK2006

Windows XP SP2 32-bit

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel® Core™ i7-3770 3.40GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	6697
2	SM2.0 Score		PASS	2125
3	HDR/SM3.0 Score		PASS	2728
4	CPU Score		PASS	6520

Windows XP SP2 32-bit

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel® Core™ i5-3550 3.0GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	4538
2	SM2.0 Score		PASS	1354
3	HDR/SM3.0 Score		PASS	1883
4	CPU Score		PASS	5844

Windows XP SP2 32-bit

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel® Core™ i5-2310 2.9GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	3586
2	SM2.0 Score		PASS	1070
3	HDR/SM3.0 Score		PASS	1474
4	CPU Score		PASS	5163

Windows XP SP2 32-bit

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel® Pentium® Processor G850 2.90GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	3458
2	SM2.0 Score		PASS	1080
3	HDR/SM3.0 Score		PASS	1454
4	CPU Score		PASS	2881

Windows XP SP2 32-bit

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel® Celeron® Processor G540 2.50GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	3016
2	SM2.0 Score		PASS	945
3	HDR/SM3.0 Score		PASS	1268
4	CPU Score		PASS	2467

Windows XP SP2 32-bit

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel® Pentium® Processor G2120 3.10GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB	PASS	3986
2	SM2.0 Score		PASS	1230
3	HDR/SM3.0 Score		PASS	1704
4	CPU Score		PASS	3139

5.4 PC MARK2002

Test Environment
Intel® Core™ i7-3770 3.40GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	CPU Score	PASS	16617
2	Memory Score	PASS	65467
3	HDD Score	PASS	2779

Test Environment
Intel® Core™ i5-3550S 3.0GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	CPU Score	PASS	15642
2	Memory Score	PASS	62168
3	HDD Score	PASS	2518

Test Environment
Intel® Core™ i5-2310 2.90GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	CPU Score	PASS	13035
2	Memory Score	PASS	51087
3	HDD Score	PASS	2461

Test Environment
Intel® Pentium® Processor G850 2.90GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	CPU Score	PASS	11832
2	Memory Score	PASS	42043
3	HDD Score	PASS	2861

Test Environment
Intel® Celeron® Processor G540 2.50GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	CPU Score	PASS	10210
2	Memory Score	PASS	31727
3	HDD Score	PASS	2867

Test Environment
Intel® Pentium® Processor G2120 3.10GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	CPU Score	PASS	13220
2	Memory Score	PASS	49363
3	HDD Score	PASS	2554

5.5 PC MARK2004

Test Environment
Intel® Core™ i7-3770 3.40GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-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	19350
4	Graphic Score	PASS	7311
5	HDD Score	PASS	7105

Test Environment
Intel® Core™ i5-3550S 3.0GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-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	17400
4	Graphic Score	PASS	5800
5	HDD Score	PASS	7169

Test Environment
Intel® Core™ i5-2310 2.90GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-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	13898
4	Graphic Score	PASS	3843
5	HDD Score	PASS	7013

Test Environment
Intel® Pentium® Processor G850 2.90GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-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	10846
4	Graphic Score	PASS	3458
5	HDD Score	PASS	8192

Test Environment
Intel® Celeron® Processor G540 2.50GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-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	9027
4	Graphic Score	PASS	3160
5	HDD Score	PASS	8144

Test Environment
Intel® Pentium® Processor G2120 3.10GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-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	13237
4	Graphic Score	PASS	5061
5	HDD Score	PASS	7060

5.6 PC MARK2005

Test Environment
Intel® Core™ i7-3770 3.40GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	9595
2	CPU Score	PASS	14392
3	Memory Score	PASS	14725
4	Graphic Score	PASS	6393
5	HDD Score	PASS	7823

Test Environment
Intel® Core™ i5-3550S 3.0GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	8495
2	CPU Score	PASS	13316
3	Memory Score	PASS	13359
4	Graphic Score	PASS	4463
5	HDD Score	PASS	7916

Test Environment
Intel® Core™ i5-2310 2.90GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	7047
2	CPU Score	PASS	10985
3	Memory Score	PASS	10497
4	Graphic Score	PASS	3135
5	HDD Score	PASS	7808

Test Environment
Intel® Pentium® Processor G850 2.90GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	6477
2	CPU Score	PASS	8138
3	Memory Score	PASS	9384
4	Graphic Score	PASS	3042
5	HDD Score	PASS	8523

Test Environment
Intel® Celeron® Processor G540 2.50GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	5755
2	CPU Score	PASS	7019
3	Memory Score	PASS	8057
4	Graphic Score	PASS	2762
5	HDD Score	PASS	8497

Test Environment
Intel® Pentium® Processor G2120 3.10GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2 32-bit

Item	Weighted Suite	Result	Remark
1	PCMark Score	PASS	7320
2	CPU Score	PASS	9268
3	Memory Score	PASS	11017
4	Graphic Score	PASS	4025
5	HDD Score	PASS	7880

5.7 AQUAMARK3

Test Environment
Intel® Core™ i7-3770 3.40GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	GFX	PASS	7188
2	CPU	PASS	24518
3	AquaMark3 TRISCORE	PASS	62687

Test Environment
Intel® Core™ i5-3550S 3.0GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	GFX	PASS	6120
2	CPU	PASS	23500
3	AquaMark3 TRISCORE	PASS	54151

Test Environment
Intel® Core™ i5-2310 2.90GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	GFX	PASS	5466
2	CPU	PASS	19914
3	AquaMark3 TRISCORE	PASS	48059

Test Environment
Intel® Pentium® Processor G850 2.90GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	GFX	PASS	5181
2	CPU	PASS	17415
3	AquaMark3 TRISCORE	PASS	45100

Test Environment
Intel® Celeron® Processor G540 2.50GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	GFX	PASS	4530
2	CPU	PASS	14791
3	AquaMark3 TRISCORE	PASS	39284

Test Environment
Intel® Pentium® Processor G2120 3.10GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	GFX	PASS	5331
2	CPU	PASS	18643
3	AquaMark3 TRISCORE	PASS	46640

5.8 CINEBENCH

Test Environment
Intel® Core™ i7-3770 3.40GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	OpenGL	PASS	12.47 fps
2	CPU	PASS	5.65 pts

Test Environment
Intel® Core™ i5-3550S 3.0GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	OpenGL	PASS	9.17 fps
2	CPU	PASS	5.00 pts

Test Environment
Intel® Core™ i5-2310 2.90GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	OpenGL	PASS	6.24 fps
2	CPU	PASS	4.33 pts

Test Environment
Intel® Pentium® Processor G850 2.90GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	OpenGL	PASS	6.17 fps
2	CPU	PASS	2.07 pts

Test Environment
Intel® Celeron® Processor G540 2.50GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	OpenGL	PASS	5.50 fps
2	CPU	PASS	1.76 pts

Test Environment
Intel® Pentium® Processor G2120 3.10GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	OpenGL	PASS	8.23 fps
2	CPU	PASS	2.34 pts

5.9 ZD CPUMARK

Test Environment
Intel® Core™ i7-3770 3.40GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	SCORE	PASS	610

Test Environment
Intel® Core™ i5-3550S 3.0GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	SCORE	PASS	577

Test Environment
Intel® Core™ i5-2310 2.90GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	SCORE	PASS	490

Test Environment
Intel® Pentium® Processor G850 2.90GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	SCORE	PASS	445

Test Environment
Intel® Celeron® Processor G540 2.50GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	SCORE	PASS	383

Test Environment
Intel® Pentium® Processor G2120 3.10GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	SCORE	PASS	486

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 WD2500AAKS-00VYA0	SATA	250 GB	63.0 MB/sec	149.8 MB/sec	12.6 ms
Western Digital WD10EALX-009BA0	SATA	1.0 TB	103.8 MB/sec	150.3 MB/sec	13.1 ms
Solid State Disk 2.5" SATAII (BIWIN)	SATA	32GB	134.3 MB/sec	101.3 MB/sec	0.126 ms
USB 2.0 Flash Disk	USB	2 GB	15.3 MB/sec	15.6 MB/sec	0.837 ms
JetFlash Transcend	USB	16 GB	22.2 MB/sec	27.8 MB/sec	0.898 ms

OS Windows 7 (32Bit)**Program (HD Tune)**

HDD Model	Interface	Capacity	Average	Burst Rate	Access time
Western Digital WD2500AAKS-00VYA0	SATA	250 GB	63.0 MB/sec	137.8 MB/sec	12.5 ms
Western Digital WD10EALX-009BA0	SATA	1.0 TB	81.2 MB/sec	154.6 MB/sec	13.2 ms
Solid State Disk 2.5" SATAII (BIWIN)	SATA	32 GB	144.1 MB/sec	101.3 MB/sec	0.119 ms
USB 2.0 Flash Disk	USB	2 GB	16.2 MB/sec	16.1 MB/sec	0.616 ms
JetFlash Transcend	USB	16 GB	25.7 MB/sec	29.4 MB/sec	0.807 ms
Kingston DT HyperX3.0(64GB)	USB3.0	64 GB	250.5 MB/sec	151.5 MB/sec	0.802 ms

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
ASUS DRW-24D1ST	SATA	18.58 x	266 ms	16 MB/s	52 X CD-R
BUFFALD DVSM-PC58U2VB	USB	30.78 x	162 ms	38 MB/s	52 X CD-R
LITEON DVD ETAU108	USB	18.52 x	255 ms	16 MB/s	52X CD-R