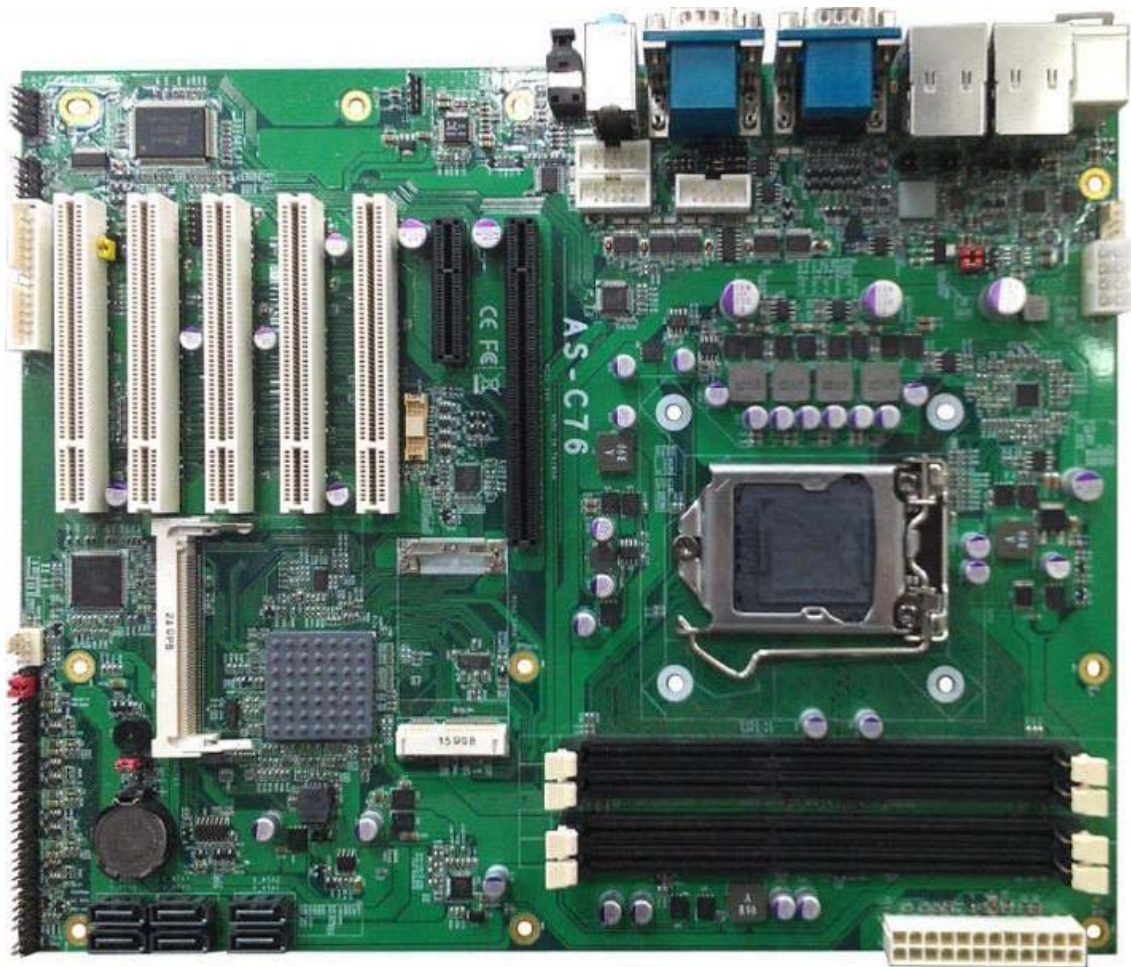


Product Test Report



Product Name	AS-C76
Product Version	A
Issued Date	2013.05.06
Report Edition	1.0
BIOS Version	1.1
Testing Engineer	PERRY
Check Engineer	Gary

REVISION HISTORY

DATE	REVISION NO.	PAGE	DESCRIPTONS
2013.05.06	Ver. 1.1	80	Initial Release

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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	USB3.0 1/2/3/4	PASS	USB3.0 x4 : 平均 282MB/S (HD Tune 5.0)(DDTHX64G)
7	CN_USB 1/2/3/4	PASS	
8	DDRIII A1/A2/B1/B2	PASS	
9	COM 1/2/3	PASS	(B&B mouse)
10	CN_COM 4/5/6	PASS	(B&B mouse)
11	VGA Port	PASS	
12	PS2	PASS	
13	AUDIO	PASS	
14	CN_AUDIO	PASS	
15	CD_IN	PASS	
16	CN_DIO	PASS	(DOS)
17	CPUFAN	PASS	
18	SYSFAN	PASS	
19	MINICard	PASS	(MPX-574D)
20	MINIPCI	PASS	(MP-541D2)
21	CN_DVI	PASS	

22	LAN1/2	PASS	
23	IrDA	PASS	
24	DC_IN	PASS	
25	ATX	PASS	
26	RS422-485	PASS	
27	SPDIF	PASS	
28	PCIE_16X	PASS	PCIEx16:PX9500GT √ PCIEx4:PX9500GT+轉接卡 x4 √ PCIEx1:MPX-574+轉接卡 x1 √
29	PCIE_4X	PASS	PCIEx4: RAID 卡 x8+轉接卡 x4 √ PCIEx1: MPX-574+轉接卡 x1 √
30	PCI 1/2/3/4/5	PASS	PCI VGA x5 √ PCI LAN x5 √
31	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 √
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 √ AHCI √ RAID √)
17	Max TOLUD	PASS	
18	DVMT Total Gfx Mem	PASS	
19	Boot Type	PASS	(CRT √ DVI √)
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 √ Sleep(Stand by) √

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

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
<u>SR0PK</u>	3.40 GHz	Core	i7-3770	5 GT/s	8 MB	PASS
<u>SR0P3</u>	3.0 GHz	Core	i5-3550S	5 GT/s	6 MB	PASS
<u>SR02K</u>	2.90 GHz	Core	i5-2310	5 GT/s	6 MB	PASS
<u>SR05Q</u>	2.90 GHz	Pentium	G850	5 GT/s	3 MB	PASS
<u>SR05J</u>	2.50 GHz	Celeron	G540	5 GT/s	2 MB	PASS
<u>SR0UF</u>	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 D1288JPPD9U	DDR3 1333	2GB	PASS
Transcend	SEC 849 HCH9 K4B1G0846D	DDR3 1333	2GB	PASS
ADATA	ADATA AD30908C8D-15HG	DDR3 1333	1GB	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	LINE-IN	PASS	
4	CDIN	PASS	
5	SPDIF	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	LINE-IN	PASS	
4	CDIN	PASS	
5	SPDIF	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	LINE-IN	PASS	
4	CDIN	PASS	
5	SPDIF	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	LINE-IN	PASS	
4	CDIN	PASS	
5	SPDIF	PASS	

OS Windows Vista 32 bit

Driver version : 6.0.1.6662

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
3	LINE-IN	PASS	
4	CDIN	PASS	
5	SPDIF	PASS	

OS Windows Vista 64 bit

Driver version : 6.0.1.6662

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
3	LINE-IN	PASS	
4	CDIN	PASS	
5	SPDIF	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	LINE-IN	PASS	
4	CDIN	PASS	
5	SPDIF	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	LINE-IN	PASS	
4	CDIN	PASS	
5	SPDIF	PASS	

OS Windows 7 32-bit

Driver version : 6.0.1.6662

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
3	LINE-IN	PASS	
4	CDIN	PASS	
5	SPDIF	PASS	

OS Windows 7 64-bit

Driver version : 6.0.1.6662

Item	Description	Result	Remark
1	2 CH	PASS	
2	Microphone	PASS	
3	LINE-IN	PASS	
4	CDIN	PASS	
5	SPDIF	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
AS-C76	MPX-574D	PASS	XP & Win7
	MPX-885	PASS	XP
	MPX-3132	PASS	Win7
	MPX-9125	PASS	Win7
	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
	MPX-TP4R	PASS	XP
	MPX-954	PASS	XP & Win7
	MPX-954E	PASS	XP & Win7

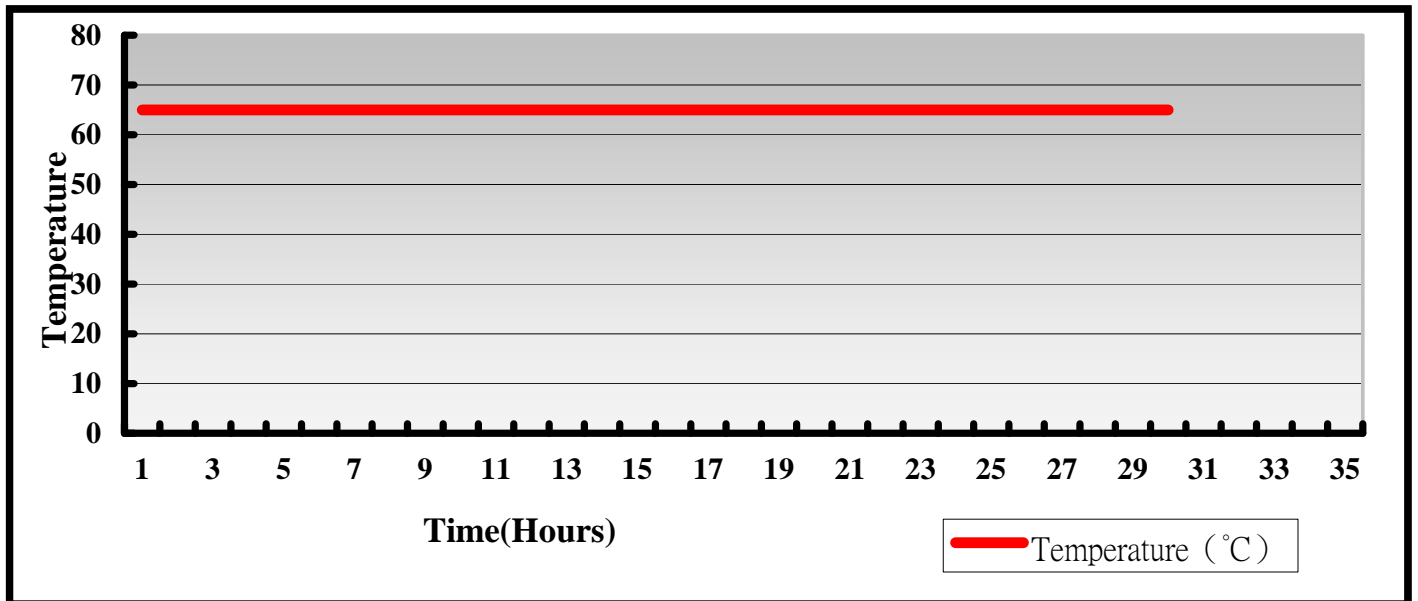
2.14 Mini PCI card

Motherboard	Mini PCI card	Remark	Remark
AS-C76	MP-6816D4	PASS	XP
	MP-6421	PASS	Win7
	MP-954	PASS	XP
	MP-6100	PASS	XP
	MP-840	PASS	XP
	MP-60102	PASS	XP
	MP-541D2	PASS	XP & Win7
	MP-878D	PASS	XP
	MP-6802	PASS	XP
	MP-323	PASS	XP

3. Environmental test

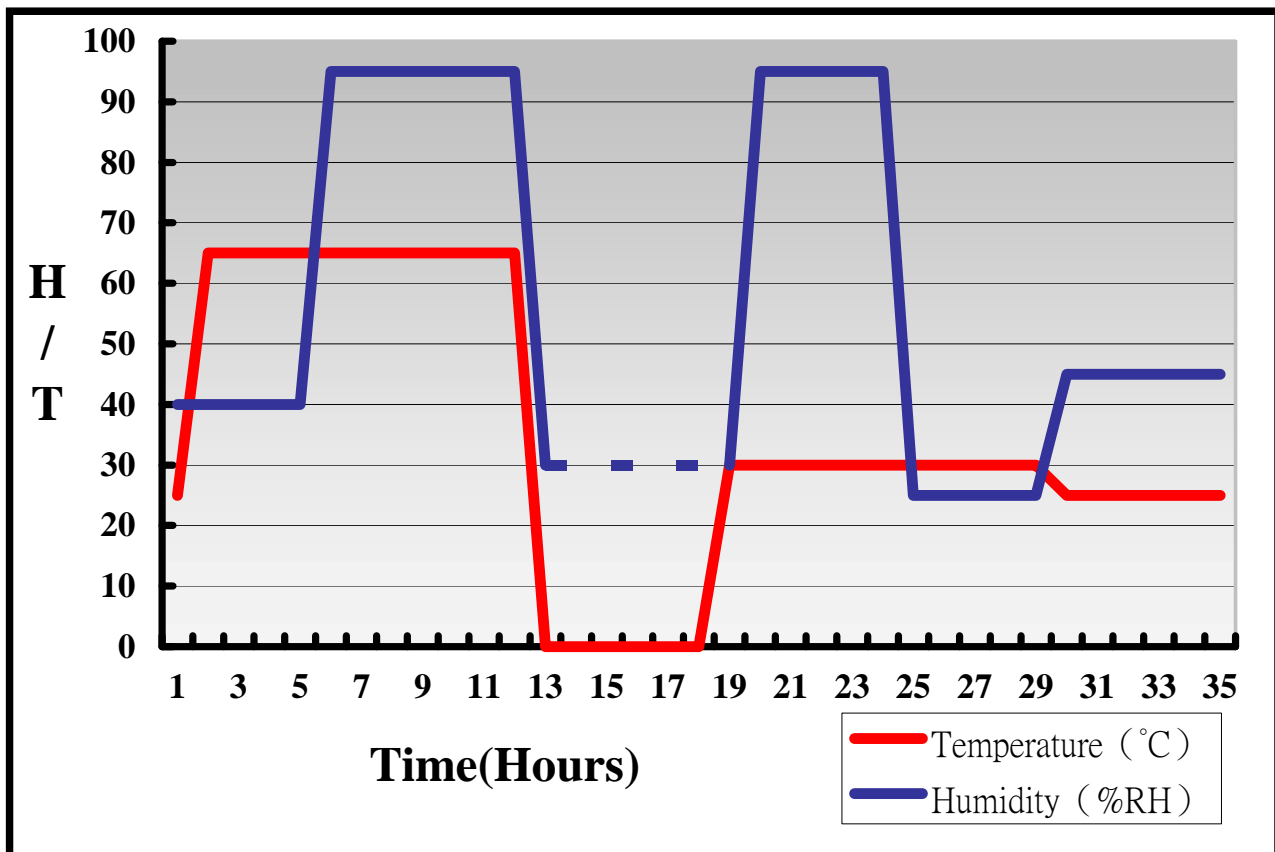
3.1 Temperature Test

System Board	AS-C76
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	AS-C76
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	AS-C76
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

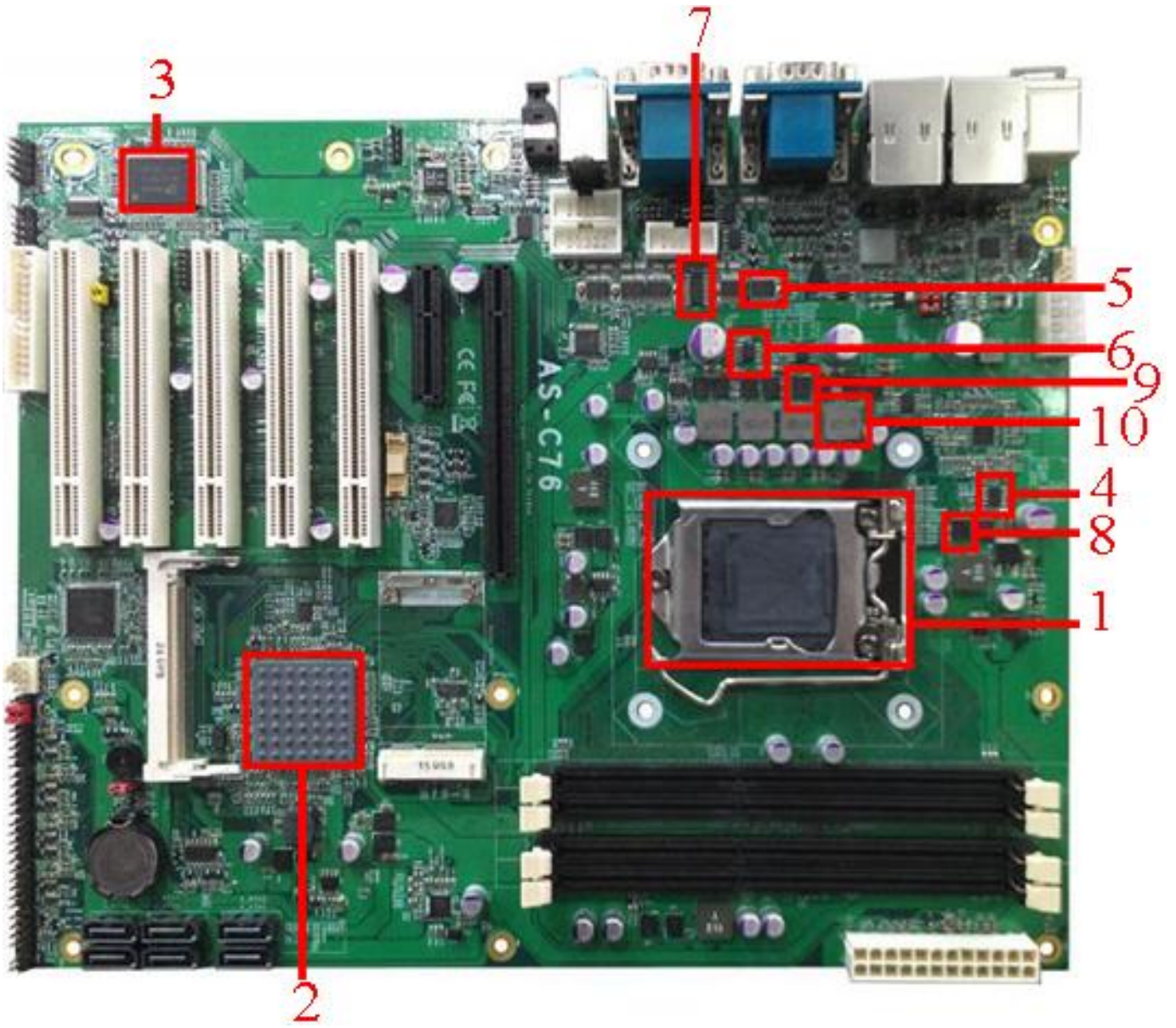
3.2 Thermal measurements at various points on the board

Test Environment :

CPU	Intel® Core™ i7-3770 3.40GHz
Memory	Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F)
HDD	Western Digital WD10EALX-009BA0 1.0TB
Power	snake 350W
Operating System	Windows XP SP2 32-bit
Test Program	3DMark 2003 + Prime 95-266

Test Result:

Item	Environmental temperature	28°C
1	CPU	52°C
2	PCH(Q77)	43.5°C
3	LPCIO	29.3°C
4	U1	53.7°C
5	U18	56.9°C
6	U19	57.4°C
7	U23	50.7°C
8	Q7	46.5°C
9	Q16	66.7°C
10	L6	46°C



4. Reliability Test

4.1 Power Consumption Test

1. Test Environment:

Motherboard	AS-C76
CPU	Intel® Core™ i7-3770 3.40GHz
Memory	Kingston DDR3 1600 8GBx3 (J4208BBBG-GN-F) Kingston DDR3 1333 4GBx1 (J2108BCSE-DJ-F)
HDD	Western Digital 1.0TB (WD10EALX-009BA0)

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	4.32	51.84	6.84	82.08
5V	2.02	10.1	4.31	21.55
3.3V	3.19	10.527	3.24	10.692
5VSB	0.55	2.75	0.55	2.75

1. 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	6.73	80.76	11.93	143.12
5V	2.02	10.1	4.19	20.95
3.3V	4.23	13.959	4.65	15.279
5VSB	0.58	2.9	0.62	3.1

2. Test Environment:

Motherboard	AS-C76
CPU	Intel® Core™ i5-3550S 3.0GHz
Memory	Kingston DDR3 1600 8GBx3 (J4208BBBG-GN-F) Kingston DDR3 1333 4GBx1 (J2108BCSE-DJ-F)
HDD	Western Digital 1.0TB (WD10EALX-009BA0)

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	4.27	51.24	5.61	67.32
5V	2.38	11.9	4.05	20.25
3.3V	3.23	10.659	3.44	11.352
5VSB	0.57	2.85	0.60	3

2. 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	6.52	78.24	10.38	124.56
5V	2.36	11.8	3.71	18.55
3.3V	4.15	13.695	4.39	14.487
5VSB	0.57	2.85	0.57	2.85

3. Test Environment:

Motherboard	AS-C76
CPU	Intel® Core™ i5-2310 2.90GHz
Memory	Kingston DDR3 1600 8GBx3 (J4208BBBG-GN-F) Kingston DDR3 1333 4GBx1 (J2108BCSE-DJ-F)
HDD	Western Digital 1.0TB (WD10EALX-009BA0)

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	3.68	44.16	7.21	86.52
5V	2.27	11.35	4.18	20.9
3.3V	3.16	10.428	3.32	10.956
5VSB	0.61	3.05	0.63	3.15

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	6.41	76.92	11.76	141.12
5V	2.28	11.4	3.67	18.35
3.3V	3.93	12.969	3.95	13.035
5VSB	0.58	2.9	0.60	3

4. Test Environment:

Motherboard	AS-C76
CPU	Intel® Pentium® Processor G850 2.90GHz
Memory	Kingston DDR3 1600 8GBx3 (J4208BBBG-GN-F) Kingston DDR3 1333 4GBx1 (J2108BCSE-DJ-F)
HDD	Western Digital 1.0TB (WD10EALX-009BA0)

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	3.69	44.28	3.78	45.36
5V	2.36	11.8	3.73	18.65
3.3V	3.01	9.933	3.05	10.065
5VSB	0.54	2.7	0.55	2.75

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	4.75	57	8.21	98.52
5V	2.26	11.3	3.17	15.85
3.3V	3.9	12.87	4.0	13.2
5VSB	0.56	2.8	0.56	2.8

5. Test Environment:

Motherboard	AS-C76
CPU	Intel® Celeron® Processor G540 2.50GHz
Memory	Kingston DDR3 1600 8GBx3 (J4208BBBG-GN-F) Kingston DDR3 1333 4GBx1 (J2108BCSE-DJ-F)
HDD	Western Digital 1.0TB (WD10EALX-009BA0)

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	3.28	39.36	3.31	39.72
5V	2.27	11.35	3.69	18.45
3.3V	2.95	9.735	3.01	9.933
5VSB	0.58	2.9	0.60	3

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	4.25	51	7.26	87.12
5V	2.36	11.8	3.14	15.7
3.3V	3.72	12.276	3.73	12.309
5VSB	0.58	2.9	0.59	2.95

6. Test Environment:

Motherboard	AS-C76
CPU	Intel® Pentium® Processor G2120 3.10GHz
Memory	Kingston DDR3 1600 8GBx3 (J4208BBBG-GN-F) Kingston DDR3 1333 4GBx1 (J2108BCSE-DJ-F)
HDD	Western Digital 1.0TB (WD10EALX-009BA0)

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	3.29	39.48	3.57	42.84
5V	2.18	10.9	3.90	19.5
3.3V	2.89	9.537	3.04	10.032
5VSB	0.61	3.05	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	6.03	72.36	7.92	95.04
5V	2.44	12.2	3.07	15.35
3.3V	3.91	12.903	4.02	13.266
5VSB	0.62	3.1	0.60	3

7. Test Environment:

Motherboard	AS-C76
CPU	Intel® Xeon® Processor E3-1275 3.40GHz
Memory	Kingston DDR3 1600 8GBx3 (J4208BBBG-GN-F) Kingston DDR3 1333 4GBx1 (J2108BCSE-DJ-F)
HDD	Western Digital 1.0TB (WD10EALX-009BA0)

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	4.74	56.88	9.24	110.88
5V	2.35	11.75	4.16	20.8
3.3V	3.19	10.527	3.42	11.286
5VSB	0.59	2.95	0.59	2.95

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	6.47	77.64	11.22	134.64
5V	2.23	11.15	3.87	19.35
3.3V	4.21	13.893	4.34	14.322
5VSB	0.60	3	0.64	3.2

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 1798.7 CPU Mark 7057 2D Graphics Mark 615 3D Graphics Mark 458.5 Memory Mark 1452 Disk Mark 915

Windows 7 x32

WEIGHTED SUITE	Test Environment	Result	Remark
<p>Performance Test 8.0</p>	<p>Intel® Core™ i5-3550S 3.0GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB</p>	<p>PASS</p>	<p>Summary 1477.4 CPU Mark 5127 2D Graphics Mark 581 3D Graphics Mark 307.9 Memory Mark 1452 Disk Mark 890</p>

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 1161.1 CPU Mark 4349 2D Graphics Mark 490.9 3D Graphics Mark 204.4 Memory Mark 1243 Disk Mark 871</p>

Windows 7 x32

WEIGHTED SUITE	Test Environment	Result	Remark
<p>Performance Test 8.0</p>	<p>Intel® Pentium® Processor G850 2.90GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB</p>	<p>PASS</p>	<p>Summary 1027.5 CPU Mark 2198 2D Graphics Mark 458.2 3D Graphics Mark 205.4 Memory Mark 1233 Disk Mark 932</p>

Windows 7 x32

WEIGHTED SUITE	Test Environment	Result	Remark
<p>Performance Test 8.0</p>	<p>Intel® Celeron® Processor G540 2.50GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB</p>	<p>PASS</p>	<p>Summary 887.5 CPU Mark 1833 2D Graphics Mark 398.4 3D Graphics Mark 176.5 Memory Mark 1020 Disk Mark 899</p>

Windows 7 x32

WEIGHTED SUITE	Test Environment	Result	Remark
<p>Performance Test 8.0</p>	<p>Intel® Pentium® Processor G2120 3.10GHz Kingston DDR3 1600 8GBx2 (ELPIDA J4208BBBG-GN-F) Western Digital WD10EALX-009BA0 1.0TB</p>	<p>PASS</p>	<p>Summary 1177.1 CPU Mark 2490 2D Graphics Mark 527 3D Graphics Mark 257.3 Memory Mark 1355 Disk Mark 884</p>

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	18701
3DMARK2003 Score		PASS	9094
3DMARK2005 Score		PASS	6861

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	18258
3DMARK2003 Score		PASS	8965
3DMARK2005 Score		PASS	5378

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	14920
3DMARK2003 Score		PASS	6145
3DMARK2005 Score		PASS	4583

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	13514
3DMARK2003 Score		PASS	7353
3DMARK2005 Score		PASS	4492

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	10899
3DMARK2003 Score		PASS	5620
3DMARK2005 Score		PASS	3734

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	15670
3DMARK2003 Score		PASS	7916
3DMARK2005 Score		PASS	4977

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	4926
2	SM2.0 Score		PASS	1410
3	HDR/SM3.0 Score		PASS	2101
4	CPU Score		PASS	6443

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	2905
2	SM2.0 Score		PASS	856
3	HDR/SM3.0 Score		PASS	1181
4	CPU Score		PASS	5828

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	2140
2	SM2.0 Score		PASS	690
3	HDR/SM3.0 Score		PASS	803
4	CPU Score		PASS	5112

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	2219
2	SM2.0 Score		PASS	704
3	HDR/SM3.0 Score		PASS	878
4	CPU Score		PASS	2867

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	1818
2	SM2.0 Score		PASS	566
3	HDR/SM3.0 Score		PASS	727
4	CPU Score		PASS	2448

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	3276
2	SM2.0 Score		PASS	990
3	HDR/SM3.0 Score		PASS	1388
4	CPU Score		PASS	3109

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	16596
2	Memory Score	PASS	65505
3	HDD Score	PASS	1990

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	15644
2	Memory Score	PASS	61854
3	HDD Score	PASS	1760

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	12997
2	Memory Score	PASS	50761
3	HDD Score	PASS	2874

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	11838
2	Memory Score	PASS	40540
3	HDD Score	PASS	1769

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	25686
3	HDD Score	PASS	2966

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	13020
2	Memory Score	PASS	48312
3	HDD Score	PASS	2983

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	19325
4	Graphic Score	PASS	7458
5	HDD Score	PASS	8312

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	16345
4	Graphic Score	PASS	5241
5	HDD Score	PASS	7702

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	12196
4	Graphic Score	PASS	3559
5	HDD Score	PASS	8157

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	8274
4	Graphic Score	PASS	3217
5	HDD Score	PASS	7908

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	6799
4	Graphic Score	PASS	2958
5	HDD Score	PASS	8249

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	11379
4	Graphic Score	PASS	4719
5	HDD Score	PASS	8241

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	9695
2	CPU Score	PASS	14384
3	Memory Score	PASS	13320
4	Graphic Score	PASS	5249
5	HDD Score	PASS	8538

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	8322
2	CPU Score	PASS	13283
3	Memory Score	PASS	11757
4	Graphic Score	PASS	4041
5	HDD Score	PASS	8347

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	6948
2	CPU Score	PASS	10993
3	Memory Score	PASS	9156
4	Graphic Score	PASS	2848
5	HDD Score	PASS	8351

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	6286
2	CPU Score	PASS	8126
3	Memory Score	PASS	8035
4	Graphic Score	PASS	2815
5	HDD Score	PASS	8319

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	5594
2	CPU Score	PASS	7017
3	Memory Score	PASS	6834
4	Graphic Score	PASS	2528
5	HDD Score	PASS	8332

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	7215
2	CPU Score	PASS	9267
3	Memory Score	PASS	9872
4	Graphic Score	PASS	3709
5	HDD Score	PASS	8447

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	6396
2	CPU	PASS	21267
3	AquaMark3 TRISCORE	PASS	55597

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	5739
2	CPU	PASS	20477
3	AquaMark3 TRISCORE	PASS	50322

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	5121
2	CPU	PASS	17288
3	AquaMark3 TRISCORE	PASS	44617

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	4902
2	CPU	PASS	15250
3	AquaMark3 TRISCORE	PASS	42231

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	4176
2	CPU	PASS	12366
3	AquaMark3 TRISCORE	PASS	35721

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	5055
2	CPU	PASS	16445
3	AquaMark3 TRISCORE	PASS	43808

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	12.24 fps
2	CPU	PASS	6.61 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	8.01 fps
2	CPU	PASS	4.99 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	5.84 fps
2	CPU	PASS	4.32 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	5.61 fps
2	CPU	PASS	2.06 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	4.93 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	7.26 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	611

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	578

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	487

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 WD5000AAKS-00V1A0	SATA	500 GB	89.4 MB/sec	178.7 MB/sec	15.2 ms
Western Digital WD10EALX-009BA0	SATA	1.0TB	103 MB/sec	178.4 MB/sec	13.3 ms
Intel SSD 330 Series SSDSC2CT060A3	SATA	60 GB	165.7 MB/sec	113.9 MB/sec	0.202 ms
USB 2.0 Flash Disk	USB	2 GB	15.7 MB/sec	15.8 MB/sec	0.659 ms
JetFlash Transcend	USB	16 GB	23.9 MB/sec	27.7 MB/sec	0.836 ms

OS Windows 7 (32Bit)

Program (HD Tune)

HDD Model	Interface	Capacity	Average	Burst Rate	Access time
Western Digital WD5000AAKS-00V1A0	SATA	500 GB	89.1 MB/sec	157.7 MB/sec	15.5 ms
Western Digital WD10EALX-009BA0	SATA	1.0TB	89.4 MB/sec	156.4 MB/sec	13.1 ms
Intel SSD 330 Series SSDSC2CT060A3	SATA	60 GB	164.8 MB/sec	124 MB/sec	0.220 ms
USB 2.0 Flash Disk	USB	2 GB	16.8 MB/sec	16.9 MB/sec	0.466 ms
JetFlash Transcend	USB	16 GB	24.1 MB/sec	31.3 MB/sec	0.706 ms
Kingston DT HyperX3.0(64GB)	USB3.0	64 GB	273 MB/sec	149.8 MB/sec	0.448 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	30.79 x	163 ms	36 MB/s	52 X CD-R
LITEON iHES312-33 3	SATA	35.81 x	160 ms	48 MB/s	52 X CD-R
BUFFALD DVSM-PC58U2VB	USB	18.59 x	319 ms	17 MB/s	52X CD-R
LITEON DVD ETAU108	USB	18.53 x	256 ms	16 MB/s	52X CD-R